

May 2, 2019

The Honorable Patrick McDonnell
Secretary, Department of Environmental Protection
Chair, Environment Quality Board
Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17101

**Re: F039 Delisting Petition – Treatment Plant Sludge
MAX Environmental Technologies, Inc.**

Dear Mr. McDonnell:

On behalf of MAX Environmental Technologies, Inc. (MAX), Key Environmental Inc. (KEY) is submitting for inclusion on the EQB agenda petitions for the delisting of two waste streams generated as a result of the MAX operations. The waste streams in question are considered listed wastes by the United States Environmental Protection Agency (USEPA). The submittals are for delisting of sludge generated from the treatment of disposal impoundment and landfill leachate and contact stormwater at MAX's Yukon (Westmoreland County) and Bulger (Washington County) facilities.

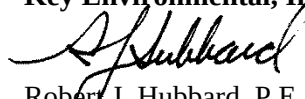
Although MAX's operations for the treatment of these wastewaters have not substantially changed over the years, the USEPA advised MAX and the Pennsylvania Department of Environmental Protection (PADEP) that the waste generated during these operations should no longer be classified as non-hazardous (as had been the case for almost 20 years) but should instead be classified as F039 hazardous waste, defined at 40 CFR 261.31(a) as "Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part." Subsequently, in 2018 MAX entered into Consent Order Agreements (COAs) with the DEP to manage the waste in accordance with this determination. As part of the COAs, MAX is submitting this petition to address the current USEPA and DEP regulatory interpretations.

Prior to entering into the COAs and to date, MAX's wastewater sludge has not exhibited any hazardous characteristic, created any environmental impact, or been managed in a manner inconsistent with any environmental regulations. Additionally, similar waste streams generated at other locations in Pennsylvania have been approved for delisting by the EQB.

We look forward to an approval from the EQB and ultimate regulatory approval of this submission.

Sincerely,

Key Environmental, Incorporated



Robert J. Hubbard, P.E.
Project Manager

cc: C. Spadaro (MAX)
H. Dao (PADEP)
T. Mellott (PADEP)

APPENDIX IXa. WASTES EXCLUDED UNDER 25 Pa. Code § 260a.20 AND 40 CFR 260.20 AND 260.22

Table Ia. Wastes Excluded from Nonspecific Sources

Facility	Address	Waste Description
MAX Environmental Yukon Facility	233 MAX Lane Yukon, PA 15698	Wastewater treatment sludge from former landfill operations (EPA Hazardous Waste No. F039), generated at an expected annual rate of 80 cubic yards, after <i>the effective date of this notice</i> , and disposed in the MAX Yukon Landfill or other approved Subtitle D landfill located in the state of Pennsylvania. MAX must meet the following conditions for the exclusion to be valid:

(1) *Delisting Levels*: All leachable concentrations for the following constituents measured using the SW-846 Method 1311 (the TCLP) must be below the following levels (mg/L):

<u>Constituent:</u>	<u>Maximum Allowable Leachate Concentration⁽¹⁾</u>
Arsenic.....	0.30
Barium.....	100
Cadmium.....	1.0
Chromium.....	5.0
Lead.....	5.0
Mercury.....	0.2
Selenium.....	1.0
Silver.....	5.0

1. The delisting levels are based on precedent for delisted PA F039 waste (arsenic), and Toxicity Criteria per 40 CFR 261.24.

(2) *Verification Testing Schedule*: MAX Environmental must analyze representative samples of the treatment sludge at a frequency of one sample per every 20 cubic yards of material to be disposed/shipped, using methods with appropriate detection levels and quality control procedures. Shipments shall not exceed 20 cubic yards per three month period.

(i) *Sample Collection*: Representative samples of the waste shall be collected. Composite samples shall be collected at a rate of one composite per every 20 cubic yards and shall be generated from four grab samples (one grab sample from each quadrant of the vessel). Sampling shall be completed in accordance with the approved Sampling and Analysis Plan (dated October 2017) used for the purposes of this delisting petition. Each sample collection event shall include all necessary QA/QC samples and a duplicate.

(ii) *Sample Analysis*: Each composite sample will be analyzed for all of the constituents listed in Paragraph (1). If the level of any constituent measured in the sample of the sludge equals or exceeds the levels set forth in Paragraph (1), then the waste is hazardous and must be managed in accordance with Subtitle C of RCRA. The

analytical data will be submitted to the Pennsylvania Department of Environmental Protection, Bureau of Waste Management, Rachel Carson State Office Building, P.O. Box 69170, Harrisburg, PA 17106-9170. All data must be accompanied by a signed copy of the statement set forth in 40 CFR 260.22(i)(12) to certify to the truth and accuracy of the data submitted. Records of operating conditions and analytical data must be compiled, summarized, and maintained on-site for a minimum of three (3) years and must be furnished upon request by any employee or representative of the DEP, and made available for inspection.

(iii) *Management of sludge pending verification analyses:* The treated, dewatered sludge shall be stored in containers that are to remain covered, except when sludge is being added or removed.

(3) *Changes in Operating Conditions:* If MAX significantly changes the treatment process described in the petition, the treatment sludge generated from the new process may not be managed under this exclusion until it has met the following conditions: (a) MAX must demonstrate that the new waste meets the delisting levels set forth in Paragraph (1); (b) MAX must demonstrate that no new hazardous constituents listed in appendix VIII of 40 CFR part 261 have been introduced into the treatment process; (c) MAX must obtain written approval from the DEP to manage the waste under this exclusion.

(4) *Reopener:*

(i) If MAX discovers that a condition at the facility or an assumption related to the disposal of the excluded waste that was modeled or predicted in the petition does not occur as modeled or predicted, then MAX must report any information relevant to that condition, in writing, to the DEP within 10 days of the discovery of that condition.

(ii) Upon receiving information described in subparagraph (i) of this Section, regardless of its source, the DEP will determine whether the reported condition requires further action. Further action may include repealing the exclusion, modifying the exclusion, or other appropriate response necessary to protect human health and the environment.

**COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL QUALITY BOARD**

PETITION FORM

I. PETITIONER INFORMATION

Name: MAX Environmental Technologies, Inc.

Mailing Address: Foster Plaza #5

651 Holiday Drive

Pittsburgh, PA 15220

Telephone Number: 412-343-4900

Date: May 30, 2018

II. PETITION INFORMATION

A. The petitioner requests the Environmental Quality Board to (check one of the following):

☐ Adopt a regulation

☒ Amend a regulation (Citation 25 Pa. Code Ch. 261a)

☐ Repeal a regulation (Citation _____)

Please attach suggested regulatory language if request is to adopt or amend a regulation.

B. Why is the petitioner requesting this action from the Board? (Describe problems encountered under current regulations and the changes being recommended to address the problems. State factual and legal contentions and include supporting documentation that establishes a clear justification for the requested action.)

MAX Environmental Technologies, Inc. (MAX) has prepared and submitted this Delisting Petition pursuant to 25 Pa Code 260a.20 and the provisions of 40 CFR 260.20 and 260.22 (as adopted by cross-reference in the Pennsylvania Hazardous Waste Regulations), to exclude from the lists of hazardous waste in subpart D of 40 CFR Part 261 the sludge generated as a result of treatment of contact stormwater and leachate associated with various land disposal units located at its facility in Yukon, Westmoreland County, Pennsylvania. As demonstrated in the attached petition, the sludge has been subjected to extensive sampling and analysis (in accordance with PADEP-approved Sampling and Analysis and Quality Assurance Project Plans and the concentrations of constituents of interest have been found to be below Universal Treatment Standards promulgated at 40 CFR 261.48 and below limits protective of human health and the environment as determined via simulation using the USEPA Delisting Risk Assessment System software. The sludge does not exhibit the characteristics of a hazardous waste (i.e., corrosivity, ignitability, reactivity, or toxicity) as defined under the Resource Conservation and Recovery Act. As indicated, the sludge does not pose a threat to human health or the environment when disposed in a RCRA Subtitle D/Pennsylvania Class I residual waste landfill. Delisting of the sludge based on its derivation from leachate identified by USEPA as F039 [Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous...] pursuant to the criteria presented in 40 CFR 260.22 is appropriate.

C. Describe the types of persons, businesses and organizations likely to be impacted by this proposal.

MAX will recognize economic benefit as a result of approval of the petition. Local businesses and residents
will recognize benefit via the elimination of the potential need to transport the material on local and regional
roads to another permitted facility. Reductions in energy use and hydrocarbon emissions will be realized (fuel
consumption for offsite transportation).

D. Does the action requested in the petition concern a matter currently in litigation? If yes, please explain.

No.

E. For stream redesignation petitions, the following information must be included for the petition to be considered complete. Attach supporting material as necessary.

1. A clear delineation of the watershed or stream segment to be redesignated, both in narrative form and on a map.
2. The current designated use(s) of the watershed or segment.
3. The requested designated use(s) of the watershed or segment.
4. Available technical data on instream conditions for the following: water chemistry, the aquatic community (benthic macroinvertebrates and/or fishes), or instream habitat. If such data are not included, provide a description of the data sources investigated.
5. A description of existing and proposed point and nonpoint source discharges and their impact on water quality and/or the aquatic community. The names, locations, and permit numbers of point source discharges and a description of the types and locations of nonpoint source discharges should be listed.
6. Information regarding any of the qualifiers for designation as high quality waters (HQ) or exceptional value waters (EV) in §93.4b (relating to qualifying as High Quality or Exceptional Value waters) used as a basis for the requested designation.
7. A general description of land use and development patterns in the watershed. Examples include the amount or percentage of public lands (including ownership) and the amount or percentage of various land use types (such as residential, commercial, industrial, agricultural and the like).
8. The names of all municipalities through which the watershed or segment flows, including an official contact name and address.
9. Locational information relevant to items 4-8 (except for contact names and addresses) displayed on a map or maps, if possible.

All petitions should be submitted to the
Secretary of the Department of Environmental Protection
P.O. Box 2063
Harrisburg, PA 17105-2063

DELISTING PETITION

**LEACHATE TREATMENT SYSTEM SLUDGE
YUKON FACILITY**

**MAX ENVIRONMENTAL TECHNOLOGIES, INC.
YUKON, PENNSYLVANIA**

MAY 2018

EXECUTIVE SUMMARY

This delisting petition has been prepared by Key Environmental, Inc. (KEY) on behalf of MAX Environmental Technologies, Inc. (MAX) and provides information to support a delisting determination for leachate treatment system sludge generated at the Yukon land disposal facility located in southwestern Pennsylvania. The facility is owned and operated by MAX. Sludge is generated as a result of treatment of contact stormwater and leachate and from multiple land disposal units. Approximately 20 cubic yards of sludge are generated per quarter. This executive summary provides a brief overview of facility operations and summarizes data collected to support the delisting petition, including comparison to Universal Treatment Standards and limits developed via multimedia exposure assessment modeling conducted using the USEPA's Delisting Risk Assessment System (DRAS) software. The main body of this petition has been prepared based on USEPA guidance and is formatted based on the outline presented in the guidance. This Executive Summary provides a means of summarizing the delisting petition investigation results in a readily understandable manner that is not readily accommodated by the outline provided in the guidance manual.

The Yukon Facility is located approximately 30 miles southeast of Pittsburgh, Pennsylvania, in Yukon, Westmoreland County, Pennsylvania. Figure 1 (provided in the main body of this petition), depicts the facility location on a United States Geological Survey quadrangle. MAX conducts Resource Conservation and Recovery Act (RCRA) Subtitle C permitted treatment and on-site commercial disposal of residual waste. High-volume stabilization and solidification, chemical treatment of waste dusts and liquids, and crushing and resizing of slag and refractory brick for treatment and disposal are conducted at the facility.

The residual waste landfill at the facility is used for disposal of a wide range of materials from the energy, construction, and manufacturing industries, as well as metal-impacted materials (e.g., soil) from site remediation projects. Historically, the largest volume wastes processed and disposed at the facility were K061 (electric arc furnace dust) and K062 (spent pickle liquor). More recently, the largest volume wastes received at the facility for treatment and disposal consist of metal-impacted soils from remediation projects and drill cuttings from the oil and gas industry.

The facility was formerly known as Mill Service, Inc. (Mill Service) facility and began operations in 1963 in the location of a former strip mine. The facility initially accepted waste pickle liquor from western Pennsylvania steel mills for treatment via neutralization with lime. A series of four unlined impoundments were constructed and filled. The first three impoundments were filled and were out of service prior to 1980. When the RCRA regulations were being proposed in the mid-1970s, a fifth, bentonite-lined impoundment was constructed with a leachate collection system and the fourth impoundment was clean closed into the fifth impoundment. The fifth impoundment reached capacity in 1985 and was closed in 2002 pursuant to RCRA closure requirements. The first three impoundments were subsequently re-closed with a RCRA cap (under a Consent Order with PADEP) in 2013. Mill Service constructed the sixth (#6) land disposal unit (residual waste), which opened in 1988 and is still in service. It is double lined, has a leachate collection system, and is equipped for leak detection.

As indicated, the primary materials received for treatment and disposal at the facility consist of wastes generated in steel-making operations or other metal-related industries, including materials generated as a result of remediation of metal-impacted sites. Predominant managed materials are as follows:

- Waste pickle liquor as spent sulfuric, hydrochloric, and nitric/hydrofluoric acids (K062);
- Emission control dust and sludge generated from electric arc furnace steel production (K061);
- Wastewater treatment plant sludge generated from steelmaking operations;
- Slags, dusts, and sludges from battery and cathode ray tube manufacturing operations;
- Foundry sands, slags, and soils, accepted as both hazardous and non-hazardous wastes;
- Oil and gas industry drill cuttings since approximately 2010.

Perimeter drains collect runoff and leachate from closed impoundments. Any leachate and contact stormwater is piped to the facility's leachate treatment system. Leachate from units 5 and 6 is also piped to the leachate treatment system. Generally, leachate is treated with lime to precipitate metals then with acid to ensure a neutral pH (i.e., between 6.0-9.0 SU) prior to discharge. Treatment of leachate via polymer addition and clarification is conducted for solids removal. Sludge from the clarifier is placed in thickener tanks and the thickened sludge is subsequently transferred to lined roll-off boxes, from which the water gravity drains through geotextile fabric for collection and recycle back into the treatment system.

The treated effluent from the leachate treatment plant is discharged pursuant to a National Pollutant Discharge Elimination System (NPDES) permit (NPDES Permit No. PA027715) and the discharge is regulated under the Clean Water Act and Clean Streams Law. The sludge is dewatered and was land disposed at the Yukon facility (i.e., the sludge was disposed in the #6 unit as residual waste).

As a result of the derived-from rule, the United States Environmental Protection Agency (USEPA) determined in 2012 that the sludge should be classified as a listed waste (F039). Pursuant to 40 CFR 261, F039 is defined as "Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous...". The USEPA considers the sludge generated from the treatment of leachate from Impoundment No. 5 to be F039 notwithstanding the fact that MAX has historically land disposed materials that were either treated or were not considered restricted wastes at the time they were placed.

Sampling and analysis of the sludge indicates that constituent concentrations do not exceed the Universal Treatment Standards (UTS) promulgated at 40 CFR 268.48 and are, in fact, one or more orders of magnitude below chemical-specific UTS. Samples have been obtained and analyzed in accordance with a PADEP-approved Sampling and Analysis Plan (SAP) and PADEP-approved Quality Assurance Project Plan (QAPP). Seven samples and one duplicate have been collected over a period of a year to reflect potential variations in constituent concentrations over time under various seasonal conditions. Samples were generally collected as composites, with the exception of those obtained for volatile organic chemical analysis, which were obtained as grab samples. As expected, metals are the most commonly detected constituents as a result of the types of material accepted at the facility. Sporadic detections of a volatile and semi-volatile organic compounds have also been observed.

Initial sampling and analysis conducted to characterize the leachate treatment system sludge generated at the Yukon facility consisted of four discrete samples (collected by qualified MAX employees and analyzed

by a PADEP-certified laboratory - Fairway Laboratories in Altoona, PA). These samples were collected on February 21, 2017; March 21, 2017; May 3, 2017 and May 14, 2017. The samples were analyzed for a comprehensive suite of parameters consisting of the following:

- Toxicity Characteristic Leaching Procedure (TCLP) metals (1311/6010B/7471B)
- Total Metals (6010B/7471B)
- Volatile Organics (8260B)
- Semi-Volatile Organics (8270D)
- Pesticides (3541/8081B)
- Chlorinated Herbicides (8151A)
- Polychlorinated Biphenyls (8082)
- Total Cyanide (9014)/Amenable Cyanide (4500)
- Fluoride (9056A)
- Sulfide (9030/9034)

Three supplemental rounds of sampling were subsequently conducted by experienced field personnel from Field and Technical Services, Inc. of Carnegie, PA. The three additional samples (plus one duplicate) were collected on October 17, 2017, December 13, 2017 and March 1, 2018. Together with the earlier samples, these samples are representative of potential seasonal variations (spring, summer, fall, and winter). The supplemental samples were also submitted to Fairway Laboratories for analysis. A slightly revised list of analytes was requested for the supplemental samples, as discussed in the PADEP-approved SAP prepared by KEY in October 2017 and the attendant QAPP prepared by KEY in February 2018. The following analyses were performed for the additional samples collected to support this delisting petition:

- TCLP Metals (1311/6010B/7471B)
- Total Metals (6010B/7471B)
- pH (9045D/1311)
- Volatile Organics (8260B)
- Semi-Volatile Organics (8270D)
- TCLP Semi-Volatile Organics (1311/3510C)
- PCBs (8082)
- Pesticides (3541/8081B)
- Chlorinated Herbicides (8151A)
- Total Cyanide (9014)/Amenable Cyanide (4500)
- Fluoride (9056A)
- Sulfide (9030/9034)
- Percent Solids (2540G)

The pH of the sludge samples covered a narrow range, from 8.38 to 8.74 standard units. These pH values are well within the range of 2 to 12.5 standard pH units, outside of which a material is defined as corrosive. These pH results exhibited very little variability over the course of the sampling period. Hence it can be concluded that this sludge is not corrosive. The sludge is also non-reactive and non-ignitable based on the nature of the material and generator knowledge.

To support this delisting petition, the analytical results were evaluated via two mechanisms. The first mechanism is direct comparison of the concentrations to the UTS. As previously indicated, the measured concentrations (on a chemical-specific basis) are an order of magnitude or more below their respective UTS. The second is simulation of potential human health or ecological risks via the use of a conservative multi-media exposure model. Specifically, this petition was prepared using the USEPA's Delisting Risk Assessment System (DRAS) to identify constituents that could pose a threat to human or ecological receptors.

DRAS was run assuming a target cancer risk level of 1×10^{-6} and a target hazard quotient of 1 (non-carcinogenic human health effects and ecological receptors). The output of the DRAS model are acceptable concentrations based on the target risk levels. DRAS also identifies constituents which exceed acceptable concentrations on a pathway-specific basis.

The sludge samples were analyzed for 19 metals, 18 of which may be simulated using DRAS (DRAS does not simulate aluminum as a result of its low toxicity). The analytical results (number of detections/number of samples, maxima, and average) and the corresponding DRAS-generated maximum allowable total concentration (DRAS Limit) for the 18 metals are summarized in the following table.

Measured Total Metal Concentrations - Leachate Treatment System Sludge

Metal	Detects/ No. of Samples	Sludge Total Concentration (mg/kg)		Benchmark Values (mg/kg)	
		Maximum	Average ⁽¹⁾	UTS ⁽²⁾	DRAS Limit ⁽³⁾
Antimony	7/8	73.9	29.6	-	> 1,000,000
Arsenic	8/8	389	122	-	11,700
Barium	8/8	6,680	4,101	-	> 1,000,000
Beryllium	7/8	0.977	0.596	-	142,000
Cadmium	8/8	32.2	16.5	-	189,000
Chromium	8/8	781	385	-	28,300
Cobalt	4/4	32.2	20.0	-	37,800
Copper	4/4	662	434	-	> 1,000,000
Iron	4/4	49,400	32,800	-	> 1,000,000
Lead	8/8	2,410	1,700	-	> 1,000,000
Manganese	4/4	1,360	961	-	> 1,000,000
Mercury ⁽⁴⁾	8/8	1.06	0.636	-	158
Nickel	8/8	412	217	-	> 1,000,000
Selenium	5/8	33.9	14.8	-	> 1,000,000
Silver	7/8	31.0	17.7	-	> 1,000,000
Thallium	2/8	4.92	2.10	-	5,300
Vanadium	8/8	82.9	45.4	-	> 1,000,000
Zinc	8/8	7,490	2,800	-	> 1,000,000

1. To calculate the average, all non-detects were assigned a value of the detection limit divided by 2 and the average was taken of the resulting values. However, if the detection limit divided by 2 was greater than the highest measurement observed, this value was ignored when calculating the average. Duplicate sample results were averaged first before the overall average was determined.
2. Universal Treatment Standards as listed in 40 CFR 268.48. UTS for metals are based on concentrations in the waste extract (TCLP results).
3. The DRAS delisting limit is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/kg this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.
4. The DRAS delisting level for mercury is based on the fish ingestion pathway assuming that the mercury exists as methyl mercury.

As shown in the preceding table, the maximum and average concentrations of total metals in the sludge samples are well below the calculated DRAS limits, typically by multiple orders of magnitude. As expected given the types of materials treated and disposed at the facility, metals were consistently detected in the sludge samples.

TCLP analysis for metals was also completed to support the delisting process. Universal Treatment Standards have been developed for metals based on concentrations in the waste extract and TCLP data are used to determine compliance with the UTS for metals. The DRAS software also relies on TCLP data as inputs to support analysis of potential exposure associated with groundwater pathways. The TCLP results for the 18 metals, as well as the corresponding UTS/DRAS limits are summarized in the following table:

Measured TCLP Metal Concentrations - Leachate Treatment System Sludge

Metal	Detects/ No. of Samples	Sludge TCLP Concentration (mg/L)		Benchmark Values (mg/L)	
		Maximum	Average ⁽¹⁾	UTS ⁽²⁾	DRAS Limit ⁽³⁾
Antimony	6/8	0.0980	0.0595	1.15	9.49
Arsenic	2/8	0.0793	0.0236	5.0	0.0738
Barium	8/8	0.969	0.684	21	3,130
Beryllium	1/8	0.000832	0.000532	1.22	6.47
Cadmium	1/8	0.0229	0.00491	0.11	7.97
Chromium	2/8	0.0175	0.00460	0.60	154
Cobalt	0/4	Not detected	0.0107	-	17.9
Copper	3/4	0.0141	0.0117	-	2,030
Iron	1/4	0.172	0.0948	-	> 1,000,000
Lead	1/8	0.0380	0.0116	0.75	45.3
Manganese	4/4	3.59	2.45	-	1,420
Mercury	0/8	Not detected	0.000206	0.025	5.95
Nickel	6/8	0.246	0.117	11	1,170
Selenium	3/8	0.0224	0.0143	5.7	76.5
Silver	2/8	0.00792	0.00427	0.14	549
Thallium	2/8	0.0363	0.0160	0.20	3.19
Vanadium	3/8	0.0795	0.0193	1.6	286
Zinc	5/8	0.934	0.200	4.3	17,700

1. To calculate the average, all non-detects were assigned a value of one half the detection limit. If one half a sample-specific detection was greater than the maximum concentration, this value was excluded from the average calculation. Duplicate sample results were averaged before the overall average was determined.
2. Universal Treatment Standards as listed in 40 CFR 268.48.
3. The DRAS delisting limit is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/L this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.

As shown in the preceding table, the metals were generally detected less frequently in the TCLP extract than as a result of the total analysis. This is consistent with expectations given that the leachate is treated with lime which tends to bind the metals. Cobalt and mercury were not detected in any sample so the average of one half of the detection limits is presented in the “Average” column for these analytes. The laboratory detection limits for these analytes are several orders of magnitude lower than their respective delisting limits. Consequently, it has been concluded that these metals are not of concern for the groundwater pathway. For the other 16 metals, the maximum and average concentrations detected are well below the UTS and are typically at least an order of magnitude lower than the delisting limit. Only one constituent, arsenic, yielded a result greater than its delisting limit. Specifically, the maximum arsenic TCLP concentration was 0.0793 mg/L, slightly above the delisting level of 0.0738 mg/L. However, of the

8 samples taken over an approximate 12-month period, arsenic was only detected in one other TCLP sample. The concentration in that sample was 0.028 mg/L. The DRAS simulation was based on an annual sludge disposal volume (80 cubic yards). If DRAS is executed using a quarterly disposal volume, which is more consistent with the potential effects of a maximum arsenic detection, the arsenic delisting limit is approximately 3 times higher, and the limit is not exceeded. The average arsenic concentration is approximately 3 times lower than the delisting limit and is orders of magnitude lower than the UTS. In conclusion, it is apparent that 1) the metals in the sludge are not particularly leachable, and 2) do not constitute a threat to any receptors via the potential groundwater pathway.

Two laboratory methods were used to quantitate 119 volatile and semi-volatile organic compound concentrations in the samples (some overlap exists – e.g., naphthalene is quantitated via both 8260B and 8270D). A total of 29 volatile and semi-volatile organic compounds were detected in the samples. The analytical results may be summarized as follows (complete data are provided elsewhere in this petition):

Measured VOC and SVOC Total Concentrations - Leachate Treatment System Sludge

Organic Compound	Detects/ No. of Samples	Total concentration (mg/kg)		Benchmark values (mg/kg)	
		Maximum	Average ⁽¹⁾	UTS ⁽²⁾	DRAS Level ⁽³⁾
Volatile Organic Compounds					
2-Butanone ⁽⁴⁾	5/8	0.245	0.104	36	> 1,000,000
4-Methyl-2-pentanone ⁽⁵⁾	3/6	0.0719	0.0253	33	> 1,000,000
Acetone	1/6	0.480	0.196	160	> 1,000,000
Carbon disulfide	4/8	0.138	0.0420	-	> 1,000,000
Chloroform	1/8	0.00640	0.00189	6.0	56,000
Ethylbenzene	6/7	0.141	0.0324	10	> 1,000,000
Methylene chloride	1/8	0.0206	0.00643	30	> 1,000,000
Styrene	3/4	0.485	0.165	-	> 1,000,000
Toluene	4/8	0.0197	0.00980	10	> 1,000,000
Xylenes (total)	6/8	0.195	0.0571	30	> 1,000,000
Semi-Volatile Organic Compounds					
2-Methylnaphthalene	2/8	0.485	0.215	-	> 1,000,000
Aniline	1/8	0.086	0.0409	14	> 1,000,000
Benzidine	1/8	6.18	1.75	-	1,420
Benzo(a)anthracene	1/8	1.27	0.242	3.4	644
Benzo(a)pyrene	1/8	0.110	0.0556	3.4	47.8
Benzo(b)fluoranthene	3/8	1.40	0.379	6.8	376
Benzyl alcohol	2/8	3.62	0.934	-	> 1,000,000
Bis(2-ethylhexyl)phthalate	6/8	7.91	2.86	28	> 1,000,000
Chrysene	34/8	1.48	0.277	3.4	63,200
Dibenzofuran	1/8	0.430	0.121	-	> 1,000,000
Di-n-butyl phthalate	2/8	2.01	0.739	28	> 1,000,000
Di-n-octyl phthalate	3/8	0.685	0.332	28	> 1,000,000
Fluoranthene	3/8	0.763	0.251	3.4	> 1,000,000
Fluorene	1/8	0.0471	0.0226	3.4	> 1,000,000
Isophorone	2/8	3.43	0.681	-	> 1,000,000
Naphthalene	1/8	0.0707	0.0339	5.6	> 1,000,000
Phenanthrene	4/8	0.890	0.257	5.6	Not applicable
Phenol	1/8	0.471	0.282	6.2	> 1,000,000
Pyrene	3/8	0.573	0.269	8.2	> 1,000,000

1. To calculate the average, all non-detects were assigned a value of one half the detection limit. If one half a sample-specific detection was greater than the maximum concentration, this value was excluded from the average calculation. Duplicate sample results were averaged before the overall average was determined.
2. Universal Treatment Standards as listed in 40 CFR 268.48.
3. The DRAS delisting level is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/kg this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.
4. 2-Butanone – methyl ethyl ketone
5. 4-Methyl-2-pentanone – methyl isobutyl ketone

Several things are noteworthy regarding the detected organic constituents. First, a number of the detected analytes, such as acetone, methyl ethyl ketone (2-butanone), methylene chloride, bis(2-ethylhexyl)phthalate and di-n-butyl phthalate are considered common laboratory artifacts. Second, some of the constituents (i.e., the Polynuclear Aromatic Hydrocarbons) are ubiquitous in the environment and are often found in environmental samples at anthropogenic background levels simply as a result of atmospheric deposition.

Nonetheless, notwithstanding the potential source of the organics, the concentrations of all of the preceding volatile and semi-volatile organic compounds (VOCs and SVOCs) were reported at concentrations several orders of magnitude below the UTS and the maximum allowable concentration determined via the DRAS simulation (i.e., the DRAS Limit). Consequently, it is concluded that organic compounds are not of concern for surface exposure pathways (i.e., pathways other than the groundwater pathway).

In accordance with the PADEP-approved sampling and analysis plan, TCLP SVOC analysis was completed for the four supplemental sludge samples collected by FTS personnel. TCLP SVOC analysis was completed for the 13 SVOCs included on the TCLP list (i.e., Table CCWE in 40 CFR 268.41), although 3- and 4-methylphenol (i.e., m- and p-cresol) were reported together given that they co-elute. Benzidine was also subjected to TCLP extraction and analysis given that an anomalous hit of total benzidine was noted in one of the four original characterization samples obtained by MAX personnel although it was not detected in any of the seven other samples collected in support of the delisting petition.

All organic constituents subjected to TCLP testing yielded non-detect results. However, given the detection of other non-TCLP VOCs and SVOCs, and given that the DRAS requires the entry of TCLP concentrations for any analytes of interest, conservative estimates of TCLP concentrations were calculated for those organic constituents that were detected via totals analysis. A worst-case procedure was used in this respect.

Specifically, the TCLP procedure relies on an extraction fluid mass/sample mass ratio of 20:1. Per Method 1311, “The solid phase is extracted with an amount of extraction fluid equal to 20 times the weight of the solid phase.” As a worst-case estimate, it may therefore be assumed that the extraction efficiency is 100% and that 100% of any constituent present in the solid sample will be present in the extract albeit at a concentration equal to $1/20^{\text{th}}$ of that in the solid phase.

The following tables present summaries of the calculated TCLP VOC and SVOC extract concentrations for analytes detected in at least one of the samples subjected to totals analysis (the average concentrations for the totals analysis were first determined, as summarized in the preceding table, and the theoretical leachate concentration was then determined):

Calculated TCLP VOC and SVOC Concentrations – Leachate Treatment System Sludge

Organic Compound	Average Total Concentration (mg/kg) ⁽¹⁾	Calculated Leachate Concentration (mg/L) ⁽²⁾	Benchmark Value (mg/L)	
			UTS ⁽³⁾	DRAS Limit ⁽⁴⁾
Volatile Organic Compounds				
2-Butanone	0.104	0.00522	-	30,400
4-Methyl-2-pentanone	0.0253	0.00126	-	4,050
Acetone	0.196	0.00980	-	45,500
Carbon disulfide	0.0420	0.00210	4.8	4,940
Chloroform	0.00189	0.0000944	4.8	0.701
Ethylbenzene	0.0324	0.00162	-	949
Methylene chloride	0.00643	0.000321	-	6.91
Styrene	0.165	0.00826	-	132
Toluene	0.00980	0.000490	-	1,320
Xylenes (total)	0.0571	0.00285	-	837
Semi-Volatile Organic Compounds				
2-Methylnaphthalene	0.215	0.0108	-	63.6
Aniline	0.0409	0.00204	-	17.3
Benzidine ⁽⁵⁾	NA	0.00550 ⁽⁵⁾	-	0.000428
Benzo(a)anthracene	0.242	0.0121	-	0.613
Benzo(a)pyrene	0.0556	0.00278	-	230
Benzo(b)fluoranthene	0.379	0.0189	-	1,960
Benzyl alcohol	0.934	0.0467	-	25,300
Bis(2-ethylhexyl)phthalate	2.86	0.143	-	> 1,000,000
Chrysene	0.277	0.0139	-	61.3
Dibenzofuran	0.121	0.00607	-	0.649
Di-n-butyl phthalate	0.739	0.0370	-	2,150
Di-n-octyl phthalate	0.332	0.0166	-	> 1,000,000
Fluoranthene	0.251	0.0125	-	215
Fluorene	0.0226	0.00113	-	429
Isophorone	0.681	0.0340	-	98.5
Naphthalene	0.0339	0.00170	-	0.286
Phenanthrene	0.257	0.0128	-	---
Phenol	0.282	0.0141	-	15,200
Pyrene	0.269	0.0135	-	389

1. To calculate the average, all non-detects were assigned a value of one half the detection limit. If one half a sample-specific detection was greater than the maximum concentration, this value was excluded from the average calculation. Duplicate sample results were averaged before the overall average was determined.
2. To calculate a conservative leachate concentration, the contaminant concentration in the sludge was divided by 20. These were all assumed to be below the detection limit of the TCLP analysis.
3. Universal Treatment Standards as listed in 40 CFR 268.48.
4. The DRAS delisting level is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/kg this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.
5. Unlike the other organic compounds, the benzidine concentration listed here is the average of one half of four 4 benzidine TCLP detection limits. This compound was targeted for TCLP analysis based on its detection in one of the preliminary characterization samples. It was never subsequently detected.

As shown in the preceding table, the hypothetical TCLP concentrations are significantly lower than the DRAS limits. The only constituent that appears to exceed its DRAS limit is the constituent that was specifically targeted for TCLP analysis based on its detection in one of the samples subjected to totals analysis (i.e., benzidine). The delisting limit determined via DRAS simulation (0.000428 mg/L) is extremely low as a result of the carcinogenic potency of this compound (oral cancer slope factor of 230 per

mg/kg/day). Although relatively low detection limits were attained for this compound, the detection limits (0.011 mg/L) are still greater than the delisting limit. This apparent exceedance is considered purely artificial given that benzidine was not in fact detected in any of the TCLP extracts analyzed for this compound. The original detection of benzidine in one sample is considered suspect given that 1) no materials known to contain this compound have ever been managed at the facility, and 2) its presence was not noted in seven subsequent samples submitted for total analysis (nor as a result of TCLP analysis).

In accordance with the PADEP-approved Sampling and Analysis Plan, sludge samples were also analyzed for Polychlorinated Biphenyls (PCBs), pesticides, and chlorinated herbicides. These constituents were not expected to be present based on the nature of the materials treated/disposed at the facility. No PCBs, pesticides, or chlorinated herbicides were detected in any of the sludge samples collected and consequently these results are not summarized in this executive summary. Tabulation of the non-detect results for these classes of organic constituents is provided elsewhere in this delisting petition.

Finally, cyanide (total and amenable), fluoride, and sulfide analyses were completed in accordance with the PADEP-approved sampling and analysis plan. As before, because DRAS requires the entry of extract concentrations, the average extract concentrations were assumed to be equal to the average total concentration divided by 20.

Measured Anion Concentrations - Leachate Treatment System Sludge

Anion	Detects/Number of Samples	Sludge Concentration (mg/kg)		Benchmark value (mg/kg)	
		Maximum	Average ⁽¹⁾	UTS ⁽²⁾	DRAS limit ⁽³⁾
Cyanide (Total)	7/8	23.5	10.6	590	> 1,000,000
Cyanide (Amenable)	4/8	23.5	4.43	30	--
Fluoride	8/8	83.6	54.2	--	> 1,000,000
Sulfide	1/8	13.4	2.90	--	--

1. To calculate the average, all non-detects were assigned a value of the detection limit divided by 2 and the average taken of the resulting values. However, if the detection limit divided by 2 was greater than the highest measurement observed, this value was ignored when calculating the average.
2. Universal Treatment Standards as listed in 40 CFR 268.48.
3. The DRAS delisting level is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/kg this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.

As shown, the anion concentrations are below their respective UTS as well as the limits calculated via DRAS simulation although UTS have not been established for fluoride or sulfide and DRAS does not include dose-response information for sulfide. The sulfide and cyanide concentrations are well below levels that might be considered indicative of reactive conditions (i.e., 500 mg/kg and 250 mg/kg, respectively).

The following table presents the theoretical worst-case extract concentrations for two of the anions of interest (sulfide was not subjected to DRAS extract simulation given that DRAS does not accommodate sulfide).

Calculated Anion Extract Concentrations – Leachate Treatment System Sludge

Anion	Average Total Concentration (mg/kg)	Calculated Leachate Concentration (mg/L)	Benchmark values (mg/L)	
			UTS	DRAS Level
Cyanide (Total)	10.6	0.531	-	270
Cyanide (Amenable)	4.43	0.222	-	--
Fluoride	54.2	2.71	-	3,430

Again, as shown in the preceding table, the theoretical worst-case extract concentrations are well below the DRAS limits. UTS have not been promulgated for anions in extraction fluids.

In conclusion, it is evident that the total concentrations and the extract concentrations for the Yukon leachate treatment system sludge are well below UTS and limits based on the most protective pathway as determined via the DRAS multi-media simulation software. No UTS exceedances were noted for any of the analytes in any of the samples. The only DRAS limit exceedance was for a compound in the TCLP extract that was not actually detected (i.e., the detection limit, although low, exceeded the very protective DRAS limit for benzidine, a limit that cannot be readily measured via routine analytical methods). It is recommended that the sludge be delisted as F039 based on this assessment.

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A. ADMINISTRATIVE INFORMATION AND DATA SUMMARY

This section provides information about the petitioner, the relevant facility and the personnel to contact in the event that additional information is required. It supplies a summary of the proposed delisting action, as well as the petitioner's interest in, need for, and justification of the delisting. This section also contains the signed certification statement indicating that the information in this report is true, accurate, and complete.

A.1 NAME OF PETITIONER

MAX Environmental Technologies, Inc.
Yukon, PA

Mailing Address:

Foster Plaza #5, 651 Holiday Drive
Pittsburgh, PA 15220

A.2 CONTACT

For additional information, contact:

Name	Title	Telephone Number
Carl Spadaro	Environmental General Manager MAX Environmental Technologies, Inc.	412-343-4900

A.3 FACILITY NAME AND LOCATION

Yukon Facility
233 MAX Lane
Yukon, PA 15698
EPA ID Number: PAD004835146

A.4 LOCATION OF PETITIONED WASTE

Yukon Facility
233 MAX Lane
Yukon, PA 15698
EPA ID Number: PAD004835146

A.5 DESCRIPTION OF PROPOSED DELISTING ACTION

MAX Environmental Technologies, Inc. (MAX) has prepared this delisting petition to technically demonstrate that the sludge that is produced by the facility leachate collection and treatment system is not a hazardous waste, and to formally support an exclusion from regulation of the sludge as hazardous waste

under Subpart D of 40 CFR. Part 261. To facilitate the review process, this petition has been structured based on a March 1993 United States Environmental Protection Agency (USEPA) guidance document entitled *Petitions to Delist Hazardous Wastes – A Guidance Manual*. Appendix A of the guidance document is an outline for a delisting petition provided in the form of a checklist. A completed version of the checklist is provided as Appendix A of this petition to further facilitate review.

The particular waste of interest for this proposed delisting action is sludge from the leachate treatment system at the Yukon facility. Leachate is treated with lime for metals removal and is generated via flocculation, coagulation, clarification, thickening, and gravity dewatering. The USEPA made a determination that the sludge is a listed hazardous waste because it is derived from leachate the USEPA believes is classified as a listed waste (specifically, F039). Pursuant to 40 CFR 261, F039 is defined as “Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous...”. . This petition is considered the most expedient method of addressing the status of the sludge and is intended to demonstrate that the sludge is not hazardous.

Existing sludge characterization data indicate that, without exception, constituent concentrations are below their Universal Treatment Standards (UTS) and that concentrations are below acceptable limits developed via simulation with the USEPA Delisting Risk Assessment System software. To support delisting of the sludge, this petition demonstrates that the concentrations of constituents found in the sludge and TCLP extracts are not present at concentrations that could affect human health or the environment if the sludge were not managed under the hazardous waste rules. This petition accomplishes this objective via direct comparison of measured concentrations of constituents of interest for the sludge (total concentrations) and extract (Toxicity Characteristic Leaching Procedure concentrations) to both the UTS and human health- and ecological receptor-based benchmarks produced by the Delisting Risk Assessment System (DRAS) model.

A.6 STATEMENT OF INTEREST IN PROPOSED ACTION

MAX owns and operates the Yukon facility. Sampling and analysis of the sludge indicates that the sludge does not exhibit the characteristics of hazardous waste. Nonetheless, per USEPA, and in accordance with the March 28, 2018 First Amendment to the September 21, 2016 Consent Order and Agreement (COA) between MAX and the Pennsylvania Department of Environmental Protection (PADEP), the sludge must be managed as hazardous F039 waste, presumably based on the “derived from” rule.

Under this listing, the treatment and handling of the sludge from the leachate treatment system as hazardous waste results in additional unwarranted operating costs for MAX given that the sludge does not exhibit the characteristics of hazardous waste and concentrations of constituents of interest are below levels that are protective of human health and the environment. The facility is not permitted to land dispose materials that are either characteristic or listed wastes. Therefore, management of the sludge as a F039 waste stream would entail transportation and disposal at another facility. To the extent that unnecessary fuel consumption

and the potential for accidents during hauling can be avoided, MAX is interested in formally delisting the sludge as a hazardous waste.

A.7 STATEMENT OF NEED AND JUSTIFICATION

This petition has been prepared based on compliance, community relations, safety, environmental, and economic considerations. MAX entered into a Consent Order and Agreement with PADEP to prepare this delisting petition and MAX has complied with the requirement to do so via preparation of this document. Offsite transportation and disposal of the leachate treatment system sludge can be avoided if the delisting petition is approved and this is advantageous from a community relations perspective given that unwarranted truck traffic on primary and secondary roads can be avoided. Although the chances for vehicular accidents associated with hauling are remote, they are not nonexistent, and hence safety considerations also exist. MAX has adequate onsite air space for management of the sludge and, consequently, offsite air space in RCRA Subtitle C facilities can be preserved if the sludge is delisted. This, as well as elimination of vehicular emissions and reduction of fuel consumption associated with offsite transportation are environmental benefits. Finally, disposal of the sludge at an offsite facility is expensive relative to onsite placement and this places an economic burden on MAX and its employees.

A.8 CERTIFICATION STATEMENT

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Petitioner

Carl Spadaro
Environmental General Manager
MAX Environmental Technologies, Inc.

May 24, 2018
Date

B. WASTE AND WASTE MANAGEMENT HISTORY INFORMATION

This section presents a description of the waste for which this delisting petition has been prepared. It describes the basis for the current hazardous listing and summarizes the history of waste generation and disposal at the Yukon facility. It also presents the recent waste management methods and identifies proposed waste management methods in the event that the waste is delisted as proposed.

B.1 BASIS FOR WASTE LISTING

The petitioned material was not considered a listed waste by MAX but is now being managed as an F039 listed waste under the terms of the COA. Some listed wastes were disposed in the Impoundment 5 generating the leachate that results in the production of sludge via treatment. The materials disposed in the other various onsite cells were either non-hazardous residual wastes, delisted materials, were considered exempt from the hazardous waste regulations, or were placed prior to the advent of the Land Disposal Restrictions and/or the Resource Conservation and Recovery Act. MAX submitted a delisting petition for treated K061 (EAF Dust) in November 2003 which was subsequently approved (prior to placement of any K061). MAX (or its predecessor, Mill Service, Inc.) also historically managed K062 (spent pickle liquor) at the facility. The spent pickle liquor was treated with lime. Spent pickle liquor treated with lime is exempt from regulation under the hazardous waste regulations. Materials disposed at the facility more recently are clearly residual wastes that must meet MAX's acceptance criteria. Materials are treated as necessary to render them nonhazardous.

Notwithstanding MAX's position regarding the listing of the leachate and the resultant sludge, MAX has agreed to submit a delisting petition for the sludge via the aforementioned March 28, 2018 First Amendment to the September 21, 2016 Consent Order and Agreement with PADEP.

For the purposes of this petition, the sludge is therefore considered to be derived from F039, defined at 40 CFR 261.31 as "Leachate (liquids that have percolated through land disposed waste) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part." Subpart D of 40 CFR 261 is the lists of hazardous wastes and includes wastes from non-specific sources (i.e., F-listed wastes), and wastes from specific sources including wood-preserving, pigments, organic chemicals, inorganic chemicals, pesticides, explosives, petroleum refining, iron and steel, primary aluminum, secondary lead, veterinary pharmaceuticals, ink formulation, and coking (K-listed wastes), as well as discarded commercial chemical products, off-specification species, container residues, and spill residues thereof that are either acutely hazardous (P-Listed wastes) or toxic (U-Listed wastes). F039 has been assigned Hazard Code T, indicating that it is toxic.

B.2 HISTORY OF WASTE GENERATION

The Yukon facility (formerly known as Mill Service, Inc.) opened in 1963 in a former strip mine area, located approximately 30 miles south of Pittsburgh. It accepted waste pickle liquor from western Pennsylvania steel mills for treatment via neutralization with lime. A series of four unlined impoundments were constructed and filled. The first three impoundments were filled and out of service prior to 1980.

When RCRA regulations were proposed in the mid-1970s, a fifth, bentonite-lined impoundment was constructed with a leachate collection system and the fourth impoundment was clean closed into this fifth impoundment. The fifth impoundment reached capacity in 1985 and was closed in 2002 under RCRA. The first three impoundments were subsequently re-closed with a RCRA cap (under a COA with PADEP) in 2013. The sixth and current residual waste land disposal unit was constructed and opened in 1989 when it began accepting waste. It is double lined, with a leachate collection system, leak detection and other required features. Originally permitted as an impoundment, it was reclassified by PADEP in September 2016 as a landfill. It remains in active waste disposal operation.

As indicated, the primary materials received for treatment and disposal at the facility consist of wastes generated in steel-making operations or other metal-related industries, including materials generated as a result of remediation of metal-impacted sites. Predominantly managed materials are as follows:

- Waste pickle liquor as spent sulfuric, hydrochloric, and nitric/hydrofluoric acids (K062);
- Emission control dust and sludge generated from electric arc furnace steel production (K061);
- Wastewater treatment plant sludge generated from steelmaking operations;
- Slags, dusts, and sludges from battery and cathode ray tube manufacturing operations;
- Foundry sands, slags, and soils, accepted as both hazardous and non-hazardous wastes;
- Oil and gas industry drill cuttings since approximately 2010.

Perimeter drains collect runoff and leachate from closed impoundments. Any leachate and contact stormwater is piped to the facility's leachate treatment system. Leachate from units 5 and 6 is also piped to the leachate treatment system. Generally, leachate is treated with lime to precipitate metals then with mineral acid to ensure a neutral pH (i.e., between 6.0-9.0 SU) prior to discharge. Treatment of leachate via polymer addition and clarification is conducted for solids removal. Sludge from the clarifier is placed in thickener tanks and the thickened sludge is subsequently transferred to lined roll-off boxes, from which the water gravity drains through geotextile fabric for collection and recycle back into the treatment system.

B.3 VOLUME OF PETITIONED WASTE

This petition is for sludge that will be generated on a continuous basis. Approximately 20 cubic yards of sludge is generated every quarter. This volume was estimated from the number and capacity of full roll-off boxes historically transported to Landfill 6. The quantity of sludge is not expected to vary significantly over time and may decline if improvements in stormwater controls or treatment plant operation, or a reduction in leachate generation occurs. In addition to the sludge, Landfill 6 receives 40,000 to 70,000 cubic yards of waste each year such that the sludge constitutes approximately 0.2% of the material placed in Landfill 6 annually.

B.4 HISTORY OF WASTE MANAGEMENT

Historically, sludge generated in the leachate treatment system at the Yukon facility was managed as a residual waste and was transported via covered roll-off boxes to Landfill 6 for disposal. If this delisting petition is successful, MAX will have the flexibility to resume disposal of the sludge in the onsite Landfill.

It is not planned that the material would be transported to any other Subtitle D residual waste landfill; however MAX wishes to have that option available.

C. PROCESS AND WASTE MANAGEMENT INFORMATION

This section describes the processes that contribute to the waste for which this delisting petition has been prepared. It summarizes the wastes accepted by the Yukon facility, describes general operations at the Yukon leachate treatment facility where the sludge is being generated, and provides a description of how the sludge is managed.

C.1 GENERAL OPERATIONS AT THE GENERATING FACILITY

MAX's Yukon facility offers RCRA Subtitle C waste treatment and on-site commercial disposal of hazardous and non-hazardous residual waste from multiple sources. The facility had a SIC code of 4953 corresponding to "Refuse Systems". The facility has NAICS codes of 562211 corresponding to "Hazardous Waste Treatment and Disposal" and 562212 corresponding to "Solid Waste Landfill". No products are manufactured at the facility and no other wastes are generated at the facility other than typical municipal refuse and septage.

The leachate treatment plant produces sludge which, according to the USEPA must be managed as EPA Hazardous Waste F039 – "Leachate ...resulting from the disposal of more than one restricted waste listed as an F-, K-, P- or U-listed waste." The treated effluent from the wastewater treatment plant is discharged pursuant to an NPDES permit (Permit No. PA0027715) and is regulated under the Clean Water Act and Clean Streams Law.

The Yukon facility consists of five closed impoundments and a sixth active impoundment (currently classified as a landfill). The onsite treatment facility treats leachate from all of the impoundments/landfill and contact stormwater. Figure 2 depicts the current layout of the Facility. Operations are conducted in accordance with multiple permits as identified in the following table:

MAX Yukon Facility Permits

Type of Permit	Permit No.	Issuing Agency	Date Issued
Water Obstruction/Encroachment Permits	6574712 E65-164	PADEP	07/29/1974 08/06/1986
Hazardous Waste Storage/Treatment Facility Permit	PAD004835146	PADEP	02/14/15
Solid Waste Disposal/Processing Facility Permit No.	301071	PADEP	06/27/17
Dam Safety Permit	D65-153	PADEP	08/06/1986
Earth Disturbance Permit	(65) 65-84-8-2	PADEP	08/06/1986
Dams & Waterway Management - GP No. 8	E65-423	PADEP	10/04/1989
Dams & Waterway Management – GP No. 7	GP076591001	PADEP	07/18/1991
NPDES Permit No. PA0027715		PADEP	03/01/1999 ⁽¹⁾

1. An NPDES Permit Renewal Application was submitted on April 20, 2018.
2. HW permit last issued 2/14/15; renewal application submitted August 18, 2014
3. RW permit renewed 6/27/17

C.2 CONTRIBUTING MANUFACTURING PROCESSES

Because no manufacturing occurs at the Yukon facility, no on-site manufacturing processes contribute to the leachate treatment plant sludge. Land disposed materials from which the treated leachate originates included materials associated with various manufacturing operations, primarily steelmaking.

C.3 CONTRIBUTING WASTE TREATMENT PROCESSES

A process flow diagram depicting contact stormwater and leachate flow for the facility is provided as Figure 3. Water is collected via leachate collection and detection system and multiple drains. Various pumps are used to convey collected water to the leachate treatment plant. Two streams (provided by pump stations number 4 and number 5) ultimately enter the treatment plant. The leachate treatment plant has a design capacity of 100 gallons/minute. The plant can run 24 hours a day, 7 days a week. A process flow diagram of the leachate treatment plant is provided as Figure 4.

The stream associated with Landfill 6 is first treated with sodium hypochlorite (as needed for ammonia removal) and is then dechlorinated with sodium bisulfite (as needed). The flow is then combined with leachate from Impoundment 5 and other flows. Metal hydroxide precipitation occurs in a 2,850-gallon neutralization tank using dolomitic lime combined with plant recycle water from the sludge dewatering process. The treated leachate/contact stormwater then flows to a flash mix/flocculation Tank (514 gallons) where potable water and a synthetic polymer are added to aid flocculation and coagulation. The treated waste then flows to a 23,000 gallon clarifier for settling.

The solids from the clarifier are pumped to thickener tanks (sludge storage tanks 4, 5 and 6 having a combined volume of 27,150 gallons). From there, the wet solids are pumped to geotextile lined roll-off boxes for gravity dewatering on a sludge dewatering pad. Water collected on the pad is conveyed back into the treatment plant. Historically, the sludge was conveyed to Landfill 6 for disposal as residual waste.

The treated effluent from the clarifier is subjected to pH adjustment using sulfuric acid or caustic soda beads contingent upon pH and is eventually discharged at a rate of up to 100 gallons/minute to Outfall 001 subject to NPDES permit conditions.

C.4 WASTE MANAGEMENT OPERATIONS (LAND DISPOSAL)

Delisting the petitioned sludge will allow MAX the flexibility to dispose of the waste in any nonhazardous waste landfill. Historically, the sludge has been disposed on-site in Landfill 6 at the Yukon facility and it is planned that this practice will continue should the delisting petition be approved.

Landfill 6 has a base layer of compacted clay, which is covered with a polyvinyl chloride (PVC) synthetic liner. Above this is a leachate detection and collection system which channels leachate that percolates through the primary liner. The primary liner is made of high density polyethylene (HDPE) which is covered by 12 inches of permeable protective material. Perforated piping in this permeable protective material collects leachate which is transported to the treatment plant.

Landfill 6 is approximately 16 acres in size and was constructed with a capacity of 990 acre-feet (1.6 million cubic yards). In 2016, a vertical expansion of the disposal unit was requested and approved, which increased the capacity by about 430,000 cubic yards. Appendix B presents relevant drawings from MAX's permit modification application for the vertical expansion and contains a schematic of the waste unit showing unit dimensions, influent points, effluent points and the planned final waste thickness. Current estimates place the waste thickness at 140 feet. In 2017, the leachate collection system was improved by lining the interior perimeter channel and installing additional 1.2 million gallon leachate storage system.

C.5 PROCESS MATERIALS

All the treatment chemicals used for leachate treatment and sludge generation are commercially available. The function and quantity of each is listed in the table below. Safety Data Sheets (SDS) for the treatment chemicals are provided in Appendix C.

Chemicals Used for Treatment of Leachate/Contact Stormwater

Material	Function	Annual Quantity (tons/year) ⁽¹⁾
Hypochlorite (Na or Ca)	Ammonia nitrogen removal	180
Sodium Bisulfite	Dechlorination/pH adjustment/Chromium reduction	18
Dolomitic Lime	Metal hydroxide precipitation	18
Polymer	Flocculation/Coagulation	0.07
Sulfuric Acid	Neutralization (pH adjustment)	18
Sodium Hydroxide	Neutralization (pH adjustment)	18
Hydrogen peroxide (20-40%)	Disinfection	18

1. Best estimates of annual usage based on available records.

The streams treated do not contain oil, grease or hydraulic fluids given their origin although oil and grease effluent monitoring is conducted under the NPDES program by default.

C.6 SPECIAL INFORMATION

Not applicable. An upfront exclusion for a waste that is not currently being generated is not being requested. An exclusion for a waste generated by a multiple waste treatment plant is not being requested.

D. ANALYTICAL PLAN DEVELOPMENT

The analytical plan for the delisting process was developed via a multi-tiered evaluation process. First, available information as communicated by current and former MAX employees regarding the types of materials managed at the facility was considered. Second, the preliminary delisting sampling and analysis data obtained by MAX personnel in February, March, and May of 2017 were reviewed. Third, the preliminary delisting data were contrasted to Universal Treatment Standards. Fourth, a preliminary understanding and proposed analytical program was discussed with PADEP personnel at a meeting held September 12, 2017. During the meeting, PADEP personnel indicated that a more extensive list of analytes than was proposed at the meeting should be considered. As a result of these evaluation elements, and pursuant to a specific request by PADEP personnel, a comprehensive Sampling and Analysis Plan (SAP) and a comprehensive Quality Assurance Project Plan (QAPP) were prepared and submitted to PADEP for approval. As agreed, the SAP was submitted first for approval to ensure agreement on the scope of the sampling and analysis program prior to preparation of the QAPP. The SAP and QAPP were revised in response to PADEP comment and were finalized in October 2017 (SAP) and February 2018 (QAPP). The historical samples obtained in February, March, and May of 2017, and the supplemental samples obtained in accordance with the PADEP-approved plans were analyzed for the following constituent classes where sample dates are indicated in brackets and the analytical methods are identified in parentheses:

Initial Delisting Samples [02-21-17, 03-21-17, 05-03-17, 05-14-17]	Supplemental Delisting Samples [10-17-17, 12-13-17, 03-01-18]
TCLP Metals (1311/6010B/7471B) Total Metals (6010B/7471B) Volatile Organics (8260B) Semi-Volatile Organics (8270D) Pesticides (3541/8081B) Chlorinated Herbicides (8151A) Polychlorinated Biphenyls (8082) Total Cyanide (9014) Amenable Cyanide (4500) Fluoride (9056A) Sulfide (9030/9034)	TCLP Metals (1311/6010B/7471B) Total Metals (6010B/7471B) Volatile Organics (8260B) Semi-Volatile Organics (8270D) TCLP Semi-Volatile Organics (1311/3510C) Pesticides (3541/8081B) Chlorinated Herbicides (8151A) Polychlorinated Biphenyls (8082) Total Cyanide (9014) Amenable Cyanide (4500) Fluoride (9056A) Sulfide (9030/9034) pH (9045D/1311)

D.1 CONSTITUENTS OF INTEREST

The initial constituents of interest for the leachate treatment system sludge consist of the various chemicals or classes of chemicals identified in the preceding table. It should be noted, however, that many of the constituents were not expected to be present in the sludge based on knowledge of the types of materials managed at the facility. Complete classes of chemicals (specifically pesticides, chlorinated herbicides, and Polychlorinated Biphenyls) were shown to be absent as a result of the initial delisting sampling and analysis. Nonetheless, in view of the potential for seasonal variability, these classes of constituents were carried through for the supplemental delisting sampling program. These classes of chemicals were not found in any of the supplemental delisting samples.

Constituents of interest for the purposes of execution of the Delisting Risk Assessment System simulations were also selected. This was a relatively straightforward process given that a decision was made to simulate any targeted and detected constituent accommodated by the DRAS software. The complete list of chemicals considered constituents of interest for the DRAS simulation is as follows:

Metals	Volatile Organics	Semi-Volatile Organics	Anions
Antimony	2-Butanone	2-Methylnaphthalene	Cyanide
Arsenic	4-Methyl-2-pentanone	Aniline	Fluoride
Barium	Acetone	Benzidine	
Beryllium	Carbon disulfide	Benzo (a) anthracene	
Cadmium	Chloroform	Benzo (a) pyrene	
Chromium	Ethylbenzene	Benzo (b) fluoranthene	
Cobalt	Methylene chloride	Benzyl alcohol	
Copper	Styrene	Bis(2-ethylhexyl)phthalate	
Iron	Toluene	Chrysene	
Lead	Xylenes (total)	Dibenzofuran	
Manganese		Di-n-butyl phthalate	
Mercury		Di-n-octyl phthalate	
Nickel		Fluoranthene	
Selenium		Fluorene	
Silver		Isophorone	
Thallium		Naphthalene	
Vanadium		Phenanthrene	
Zinc		Phenol	
		Pyrene	

Various other constituents were also reported by the laboratory but were not simulated using the DRAS software. Specifically, the laboratory provided results for some constituents that were not requested analytes. Examples are calcium and potassium, which are quantitated using Inductively Coupled Plasma, and hence are reported by the laboratory by default. These non-toxic constituents (essential human nutrients) were not simulated. Aluminum was also analyzed and reported by the laboratory but is not supported by DRAS given its low toxicity. In addition to the preceding, pH and sulfide were also considered as indicators of corrosivity and reactivity, respectively.

D.2 MASS BALANCE DEMONSTRATION

Mass balance calculations in the traditional manner were not used in this petition given that concentrations were measured and mass balances were unnecessary to estimate concentrations. However, the USEPA's Delisting Risk Assessment System requires the use of TCLP extract concentrations for the groundwater pathway. TCLP analysis was completed for routine toxicity characteristic parameters. A conservative (protective) method of estimating extract concentrations based on total measured concentrations and the extracting fluid to solids ratio (20:1) used for the TCLP method was used to estimate extract concentrations for non-toxicity characteristic parameters that were detected in the sludge samples. A conservative extraction efficiency (100%) was assumed to estimate the concentration (i.e., mass per unit volume) in the extracts.

D.3 OTHER CONSTITUENTS OF CONCERN

This petition utilized laboratory analysis that covered a broad suite of chemical classes and adhered to EPA sanctioned procedures specific to delisting wastes. Thus, there are no delisting constituents of concern that were not addressed by the chemical analyses. The analyses that were completed were much more extensive than was considered necessary based on knowledge of the materials managed at the facility. For example, analysis for pesticides, herbicides, and PCBs was conducted although there was no reason to suspect that such compounds would be present. The analytical data confirmed this belief, none of the targeted pesticides, herbicides, or PCBs were detected.

D.4 OTHER HAZARDOUS WASTE CHARACTERISTICS

The laboratory analytical data were used to ascertain the toxicity, corrosivity, and reactivity of the Yukon sludge samples. The sludge was deemed to be non-ignitable based on generator knowledge and physical and olfactory inspection of the material. TCLP analysis for constituents expected to be present are below regulatory limits for classification as a hazardous waste as a result of the toxicity characteristic. The non-corrosive nature of the sludge was ascertained via pH measurements which showed the pH of the sludge to be between 8.38 and 8.74 standard pH units (i.e., well within the 2.0-12.5 range outside of which a material is considered corrosive). Measured sulfide and cyanide concentrations are well below concentrations that could be indicative of a reactive material. The USEPA Delisting Petition guidance manual stipulates that reactive sulfide and reactive cyanide should be analyzed if total sulfide and total cyanide results exceed 500 and 250 parts per million, respectively. The maximum total sulfide and total cyanide concentrations measured for the leachate treatment system sludge were 13.4 mg/kg and 23.5 mg/kg, respectively, well below the aforementioned benchmarks.

E. SAMPLING AND ANALYSIS INFORMATION

This section discusses the sludge sampling effort completed by MAX's contractors to support the delisting petition for the Yukon facility sludge. A draft Sampling and Analysis Plan (SAP) for the Yukon Site was submitted to PADEP in August 2017. Comments received on the Plan in September 2017 were incorporated into a final SAP that was submitted in October 2017. A corresponding Quality Assurance Project Plan (QAPP) was submitted in draft form in November 2017. The final QAPP, incorporating agency comments, was submitted in February 2018.

E.1 WASTE SAMPLING INFORMATION

All sludge sampling was conducted in accordance with the PADEP-approved SAP and QAPP for the project. Sampling was conducted by experienced personnel from Field and Technical Services, Inc., a company affiliated with KEY Environmental, Inc. The following contact information is provided for KEY Environmental, Inc. and Field and Technical Services, Inc.:

200 Third Avenue
Carnegie, PA, 15106
412-279-3363

Resumes for personnel who prepared and implemented the SAP and the QAPP are provided in Appendix D.

E.2 SAMPLING STRATEGY

Initial samples obtained by MAX personnel to support the delisting petition were obtained as grab samples from the dewatering roll-off box. The results for these samples were provided to PADEP during the project planning stage and were deemed acceptable as preliminary data although PADEP requested that additional samples be collected subject to an approved SAP and QAPP and that alternate sampling protocols be used (e.g., the use of a compositing approach for all but the volatile organic chemical fraction). In accordance with the PADEP-approved SAP, it was planned that a supplemental composite and grab sample of sludge would be collected from the roll-off container(s) that receives sludge from the thickener tanks during each of the three planned sampling events. Composite sampling was planned for all analytical fractions/analytes with the exception of volatile organics. The composite sample was to be generated by collecting a vertical core sample from each quadrant of any full or partially full roll-off box (it was expected that one or more boxes could contain material at the time of sampling). The grab sample was to be obtained from a random roll-off box location and was to be collected in a manner to minimize the potential for losses of volatile organics. However, given the nature of the treatment operations and the low volumes of sludge generated, it was anticipated that material may not be present in a dewatering roll-off box during a given sample event and the SAP also included provisions for the collection of sampling from other vessels (i.e., the clarifier or the thickener tanks). It became necessary in fact, to collect samples from these other vessels.

During the first sampling event, material was present in a roll-off box. A sample for volatile organic analysis was obtained as a random grab sample from one of the corners of the box using a hand auger to

eliminate the potential for loss of volatiles during subsequent sample processing. The volatile organic aliquot was obtained from the subsurface (center of a core) such that the potential for losses as a result of volatilization from the surface of the containerized sludge was minimized. The remaining sample materials were then homogenized via coning and quartering or mixing in a bowl if the sludge had a high liquid content. Sample containers were filled once the coning and quartering or mixing process was complete. Excess material was returned to the unit being sampled (i.e., roll-off box, clarifier or thickener).

Because the roll-offs are emptied periodically, and because the amount of sludge generated is small, it was necessary on two occasion(s) to collect the sample from the clarifier or thickener tank. A similar vertical core/quadrant-based approach was used. Figure 5 shows the locations of the roll-off staging area and the thickener, as well as the clarifier. Sampling equipment was described in the SAP.

In accordance with the PADEP-approved SAP, one such composite sample per event was considered to be adequate for characterization purposes because the treatment process results in mixing that minimizes time or location variabilities. Duplicate samples were obtained during the January 2018 sampling event to evaluate laboratory precision, per the final QAPP.

E.3 SAMPLE SPECIFIC INFORMATION

This section has been prepared only for the recent samples collected specifically for this delisting petition. The four earlier samples (collected between February and May 2017) were collected by site personnel using bottles sent from the laboratory. Specific sampling details are not available for those samples.

Sludge samples were collected at the Yukon facility on October 17, 2017, December 13, 2017 and March 1, 2018 (duplicate sample collected), for a total of four discrete samples for analysis. These three sampling events, combined with the four historical samples, provide a complete calendar year of sampling.

E.3.1 Sample Identification

The following sample-specific identification information is provided for the leachate treatment system sludge samples collected at the Yukon facility:

Field Sample ID	Sample Date	Type of Sample	Composite or Grab	Sample Location	Sample Time
Clarifier Sludge	02-21-17	Sludge	Grab	Clarifier	18:00
Clarifier Sludge	03-21-17	Sludge	Grab	Clarifier	20:00
Clarifier Sludge	05-03-17	Sludge	Grab	Clarifier	21:00
Clarifier Sludge	05-14-17	Sludge	Grab	Clarifier	14:00
RO-101717	10-17-17	Sludge	Composite	Roll off box	10:58
RO-101717	10-17-17	Sludge	Grab (VOC)	Roll off box	10:37
Clarifier-121317	12-13-17	Sludge	Composite	Clarifier	14:40
Clarifier-121317	12-13-17	Sludge	Grab (VOC)	Clarifier	14:40
TH-01-030118	03-01-18	Sludge	Composite	Thickener	09:30
TH-01-030118	03-01-18	Sludge	Grab (VOC)	Thickener	09:45
TH-02-030118	03-01-18	Sludge duplicate	Composite	Thickener	10:00
TH-02-030118	03-01-18	Sludge duplicate	Grab (VOC)	Thickener	10:15

Given the small quantity of sludge generated by the leachate treatment system (i.e., ~80 cubic yards per year), opportunistic sampling was employed. Samples were obtained from various treatment system vessels contingent upon the presence of sludge in such vessels. The following preferential hierarchy was used: sample roll-off box sludge if sludge present; sample thickener sludge if present; sample sludge from clarifier. Given the absence of sludge in various downstream vessels, all three of the various vessels (the roll-off box, the thickener, and the clarifier) were necessarily sampled contingent upon the sample date. The sludge in the various vessels is considered indicative of the sludge although it must be recognized that the water content of the sludge varies significantly in the various vessels. Results are reported on a dry weight basis in accordance with typical protocols which tends to normalize the results although varying water contents affect detection limits.

Samples for semi-volatiles organics, pesticides, herbicides, PCBs, cyanides, fluoride, sulfide and TCLP analyses were placed in two 1-liter amber glass jars (unpreserved) after compositing. Grab samples for volatile organics analyses were placed in varying containers (bisulfite vials and a 40-mL methanol vial or 4 ounce glass jars) depending on the sample location and water content of the sludge. All sample containers were provided by the laboratory.

Materials collected from the roll-off boxes, thickener, and clarifier (non-volatiles analysis) were obtained using various bulk sampling devices such as ponar dredges or augers contingent upon the location sampled. Equal amounts of bulk material were obtained from each of the four corners or quadrants of the selected sample locations and were mixed and placed in the sample containers. Samples of the bulk materials were obtained using dedicated, pre-cleaned stainless steel spoons, and, for the composite samples, were mixed in stainless steel mixing bowls. A photograph is provided in Appendix E showing the grayish brown sludge in a mixing bowl prior to filling sample jars. When the thickener was sampled, the facility pumped the sludge (so that the unit's liner was not damaged) into mixing bowls, and the material was subsequently placed in the laboratory-provided sample containers. The samples for volatiles analyses were single grab samples collected in the "middle" of the unit to avoid loss of volatile constituents.

E.4 OTHER GENERAL INFORMATION

During the October 2017 sampling event, the weather was described as temperatures in the 60s and sunny. The weather on December 13, 2017 was temperatures in the 20s and sunny. In March 2018, the temperature was in the 50s. Sample representativeness was not affected by any other concurrent activities occurring at the facility. The leachate treatment system is isolated from active waste treatment, storage and disposal areas.

All sample equipment used in sampling was pre-cleaned at FTS' offices and wrapped for transport to the site. Decontamination processes were provided in the SAP (Attachment E, Standard Operating Procedures). Sample chain of custody was maintained per Attachment A, Standard Operating Procedures, provided in the PADEP-approved SAP. Field notes and details on the chain of custody are provided in Appendix E of this petition. Sample coolers were picked up at the site by a laboratory courier.

E.5 LOCALIZED AREA OF CONTAMINATION

The sludge is generated via a consistent treatment process and is not expected to exhibit the presence of any hot spots because of all the mixing that occurs in the treatment system. In accordance with the PADEP-approved Sampling and Analysis Plan, composite samples were collected of the sludge (with the exception of grab sampling for VOC analysis) to result in concentrations representative of the sludge. Samples were also obtained over an extended period of time to account for potential seasonal variations.

E.6 MULTIPLE WASTE TREATMENT FACILITY

This section is not applicable for the Yukon facility delisting petition. The sludge is generated from only one source and is not mixed with any other materials.

E.7 WASTE ANALYSIS INFORMATION

E.7.1 Organization Conducting the Analyses

Laboratory analyses of the sludge samples were performed by Fairway Laboratories, Inc. of Altoona Pennsylvania. Fairway Laboratories is certified by the State of Pennsylvania (Certification No. PA 41-04684). The following contact information is provided:

Ms. Michelle Fye
Fairway Laboratories, Inc.
2019 Ninth Avenue
Altoona, PA 16603
814-946-4306

Analyses were conducted by qualified, experienced personnel. All laboratory employees are trained on the particular equipment and are subject to refresher training as required. Personnel conducting each analysis

are identified in the data packages by their initials. Training and certification information is maintained at the laboratory and are available for inspection. Signed laboratory packages are provided in Appendix F of this petition.

E.7.2 Laboratory Sample Identification Numbers

Laboratory sample identification numbers as logged during collection and as assigned by the laboratory are as follows:

Field Sample Number	Sample Date and Time	Laboratory Sample Number	Sample Type
Clarifier Sludge	2/21/2017 18:00	7B23015-01	Grab
Clarifier Sludge	3/21/2017 20:00	7C22164-01	Grab
Clarifier Sludge	5/3/2017 21:00	7E05016-01	Grab
Clarifier Sludge	5/14/2017 14:00	7E16021-01	Grab
RO-101717	10/17/2017 10:58	7J18185-01	Composite
RO-101717	10/17/2017 10:37	7J18185-02	Grab
Clarifier-121317	12/13/2017 14:40	7L15058-01	Composite
Clarifier-121317	12/13/2017 14:40	7L15058-01	Grab
TH-01-030118	3/1/2018 9:30	8C02121-01	Grab
TH-01-030118	3/1/2018 9:45	8C02121-03	Composite
TH-02-030118	3/1/2018 10:00	8C02121-02	Grab
TH-02-030118	3/1/2018 10:15	8C02121-04	Composite

The analytical and preparation methods employed for the sampling and analysis program are as follows:

Analytical Method	Analytes	Preparation Method
EPA 6010B 7471B	Metals	3050B
EPA SW846-9045D	pH	EPA SW846-9045D
SM20-4500	Amenable Cyanide	SM20-4500
EPA 8151A	Chlorinated Herbicides	EPA 8151A
EPA 9056A	Fluoride	EPA 9056A
SM 2540 G97	Percent Solids	SM 2540 G97
EPA SW846 9030/9034	Sulfide	EPA SW846 9030/9034
EPA 9014	Total Cyanide	EPA 9010
EPA 8081B	Pesticides	EPA 3541
EPA 8082	PCBs	EPA 3541
EPA 8270D	Semivolatile Organics	EPA 3541
EPA 1311	TCLP pH	EPA 1311
EPA 6010B	TCLP Metals	EPA 1311
EPA 8270D	TCLP Semivolatile Organics	EPA 1311/3510C
EPA 8260B	Volatile Organics	EPA 5035/8260B

Sample specific laboratory results are summarized in Table 1. The table includes all constituents for which analyses were conducted and the final results reported on a dry-weight basis. If an analyte was not detected, the sample-specific Method Detection Limit is indicated in the table. For the most part, Method Detection Limits were below the Universal Treatment Standards, with the exception of a few pesticides (toxaphene and technical grade Chlordane).

Detection limits varied from sample to sample, and occasionally were greater than the UTS when the sample matrix exhibited high moisture content (lower percent solids). Additional information on chain of custody, sample receipt, preparation dates, analyses, test results, quantification limits etc. are provided in the laboratory reports presented in Appendix F. The data were subjected to Level II data validation and data validation memoranda are also provided in Appendix F,

E.7.3 Laboratory Equipment

Fairway Laboratories provided a list of laboratory equipment from their Quality Assurance Manual. Pages from that document are reproduced as Appendix G.

E.7.4 Analytical Results

Complete analytical results for all samples are presented in Table 1. The DRAS simulation based on the constituents of interest and the output of the DRAS simulation are presented in Appendix H.

The pH of the sludge samples covered a narrow range, from 8.38 to 8.74 standard units. These pH values are well within the range of 2 to 12.5 standard pH units, outside of which a material is defined as corrosive. These pH results exhibited very little variability over the course of the sampling period. Hence it can be concluded that this sludge is not corrosive. The sludge is also non-reactive and non-ignitable based on the nature of the material and generator knowledge.

To support this delisting petition, the analytical results were evaluated via two mechanisms. The first mechanism is direct comparison of the concentrations to the UTS. As previously indicated, the measured concentrations (on a chemical-specific basis) are an order of magnitude or more below their respective UTS. The second is simulation of potential human health or ecological risks via the use of a conservative multi-media exposure model. Specifically, this petition was prepared using the USEPA's Delisting Risk Assessment System (DRAS) to identify constituents that could pose a threat to human or ecological receptors.

DRAS was run assuming a target cancer risk level of 1×10^{-6} and a target hazard quotient of 1 (non-carcinogenic human health effects and ecological receptors). The output of the DRAS model are acceptable concentrations based on the target risk levels. DRAS also identifies constituents which exceed acceptable concentrations on a pathway-specific basis.

The sludge samples were analyzed for 19 metals, 18 of which may be simulated using DRAS (DRAS does not simulate aluminum as a result of its low toxicity). The analytical results (number of detections/number of samples, maximum, and average) and the corresponding DRAS-generated maximum allowable total concentration (DRAS Limit) for the 18 metals are summarized in the following table.

Measured Total Metal Concentrations - Leachate Treatment System Sludge

Metal	Detects/ No. of Samples	Sludge Total Concentration (mg/kg)		Benchmark Values (mg/kg)	
		Maximum	Average ⁽¹⁾	UTS ⁽²⁾	DRAS Limit ⁽³⁾
Antimony	7/8	73.9	29.6	-	> 1,000,000
Arsenic	8/8	389	122	-	11,700
Barium	8/8	6,680	4,101	-	> 1,000,000
Beryllium	7/8	0.977	0.596	-	142,000
Cadmium	8/8	32.2	16.5	-	189,000
Chromium	8/8	781	385	-	28,300
Cobalt	4/4	32.2	20.0	-	37,800
Copper	4/4	662	434	-	> 1,000,000
Iron	4/4	49,400	32,800	-	> 1,000,000
Lead	8/8	2,410	1,700	-	> 1,000,000
Manganese	4/4	1,360	961	-	> 1,000,000
Mercury ⁽⁴⁾	8/8	1.06	0.636	-	158
Nickel	8/8	412	217	-	> 1,000,000
Selenium	5/8	33.9	14.8	-	> 1,000,000
Silver	7/8	31.0	17.7	-	> 1,000,000
Thallium	2/8	4.92	2.10	-	5,300
Vanadium	8/8	82.9	45.4	-	> 1,000,000
Zinc	8/8	7,490	2,800	-	> 1,000,000

1. To calculate the average, all non-detects were assigned a value of the detection limit divided by 2 and the average was taken of the resulting values. However, if the detection limit divided by 2 was greater than the highest measurement observed, this value was ignored when calculating the average. Duplicate sample results were averaged first before the overall average was determined.
2. Universal Treatment Standards as listed in 40 CFR 268.48. UTS for metals are based on concentrations in the waste extract (TCLP results).
3. The DRAS delisting limit is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/kg this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.
4. The DRAS delisting level for mercury is based on the fish ingestion pathway assuming that the mercury exists as methyl mercury.

As shown in the preceding table, the maximum and average concentrations of total metals in the sludge samples are well below the calculated DRAS limits, typically by multiple orders of magnitude. As expected given the types of materials treated and disposed at the facility, metals were consistently detected in the sludge samples.

TCLP analysis for metals was also completed to support the delisting process. Universal Treatment Standards have been developed for metals based on concentrations in the waste extract and TCLP data are used to determine compliance with the UTS for metals. The DRAS software also relies on TCLP data as inputs to support analysis of potential exposure associated with groundwater pathways. The TCLP results for the 18 metals, as well as the corresponding UTS/DRAS limits are summarized in the following table:

Measured TCLP Metal Concentrations - Leachate Treatment System Sludge

Metal	Detects/ No. of Samples	Sludge TCLP Concentration (mg/L)		Benchmark Values (mg/L)	
		Maximum	Average ⁽¹⁾	UTS ⁽²⁾	DRAS Limit ⁽³⁾
Antimony	6/8	0.0980	0.0595	1.15	9.49
Arsenic	2/8	0.0793	0.0236	5.0	0.0738
Barium	8/8	0.969	0.684	21	3,130
Beryllium	1/8	0.000832	0.000532	1.22	6.47
Cadmium	1/8	0.0229	0.00491	0.11	7.97
Chromium	2/8	0.0175	0.00460	0.60	154
Cobalt	0/4	Not detected	0.0107	-	17.9
Copper	3/4	0.0141	0.0117	-	2,030
Iron	1/4	0.172	0.0948	-	> 1,000,000
Lead	1/8	0.0380	0.0116	0.75	45.3
Manganese	4/4	3.59	2.45	-	1,420
Mercury	0/8	Not detected	0.000206	0.025	5.95
Nickel	6/8	0.246	0.117	11	1,170
Selenium	3/8	0.0224	0.0143	5.7	76.5
Silver	2/8	0.00792	0.00427	0.14	549
Thallium	2/8	0.0363	0.0160	0.20	3.19
Vanadium	3/8	0.0795	0.0193	1.6	286
Zinc	5/8	0.934	0.200	4.3	17,700

1. To calculate the average, all non-detects were assigned a value of one half the detection limit. If one half a sample-specific detection was greater than the maximum concentration, this value was excluded from the average calculation. Duplicate sample results were averaged before the overall average was determined.
2. Universal Treatment Standards as listed in 40 CFR 268.48.
3. The DRAS delisting limit is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/L this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.

As shown in the preceding table, the metals were generally detected less frequently in the TCLP extract than as a result of the total analysis. This is consistent with expectations given that the leachate is treated with lime which tends to bind the metals. Cobalt and mercury were not detected in any sample so the average of one half of the detection limits is presented in the “Average” column for these analytes. The laboratory detection limits for these analytes are several orders of magnitude lower than their respective delisting limits. Consequently, it has been concluded that these metals are not of concern for the groundwater pathway. For the other 16 metals, the maximum and average concentrations detected are well below the UTS and are typically at least an order of magnitude lower than the delisting limit. Only one constituent, arsenic, yielded a result greater than its delisting limit. Specifically, the maximum arsenic TCLP concentration was 0.0793 mg/L, slightly above the delisting level of 0.0738 mg/L. However, of the 8 samples taken over an approximate 12-month period, arsenic was only detected in one other TCLP sample. The concentration in that sample was 0.028 mg/L. The DRAS simulation was based on an annual sludge disposal volume (80 cubic yards). If DRAS is executed using a quarterly disposal volume, which is more consistent with the potential effects of a maximum arsenic detection, the arsenic delisting limit is approximately 3 times higher, and the limit is not exceeded. The average arsenic concentration is approximately 3 times lower than the delisting limit and is orders of magnitude lower than the UTS. In conclusion, it is apparent that 1) the metals in the sludge are not particularly leachable, and 2) do not constitute a threat to any receptors via the potential groundwater pathway.

Two laboratory methods were used to quantitate 119 volatile and semi-volatile organic compound concentrations in the samples (some overlap exists – e.g., naphthalene is quantitated via both 8260B and 8270D). A total of 29 volatile and semi-volatile organic compounds were detected in the samples. The analytical results may be summarized as follows (complete data are provided elsewhere in this petition):

Measured VOC and SVOC Total Concentrations - Leachate Treatment System Sludge

Organic Compound	Detects/ No. of Samples	Total concentration (mg/kg)		Benchmark values (mg/kg)	
		Maximum	Average ⁽¹⁾	UTS ⁽²⁾	DRAS Level ⁽³⁾
Volatile Organic Compounds					
2-Butanone ⁽⁴⁾	5/8	0.245	0.104	36	> 1,000,000
4-Methyl-2-pentanone ⁽⁵⁾	3/6	0.0719	0.0253	33	> 1,000,000
Acetone	1/6	0.480	0.196	160	> 1,000,000
Carbon disulfide	4/8	0.138	0.0420	-	> 1,000,000
Chloroform	1/8	0.00640	0.00189	6.0	56,000
Ethylbenzene	6/7	0.141	0.0324	10	> 1,000,000
Methylene chloride	1/8	0.0206	0.00643	30	> 1,000,000
Styrene	3/4	0.485	0.165	-	> 1,000,000
Toluene	4/8	0.0197	0.00980	10	> 1,000,000
Xylenes (total)	6/8	0.195	0.0571	30	> 1,000,000
Semi-Volatile Organic Compounds					
2-Methylnaphthalene	2/8	0.485	0.215	-	> 1,000,000
Aniline	1/8	0.086	0.0409	14	> 1,000,000
Benzidine	1/8	6.18	1.75	-	1,420
Benzo(a)anthracene	1/8	1.27	0.242	3.4	644
Benzo(a)pyrene	1/8	0.110	0.0556	3.4	47.8
Benzo(b)fluoranthene	3/8	1.40	0.379	6.8	376
Benzyl alcohol	2/8	3.62	0.934	-	> 1,000,000
Bis(2-ethylhexyl)phthalate	6/8	7.91	2.86	28	> 1,000,000
Chrysene	3/8	1.48	0.277	3.4	63,200
Dibenzofuran	1/8	0.430	0.121	-	> 1,000,000
Di-n-butyl phthalate	2/8	2.01	0.739	28	> 1,000,000
Di-n-octyl phthalate	3/8	0.685	0.332	28	> 1,000,000
Fluoranthene	34/8	0.763	0.251	3.4	> 1,000,000
Fluorene	1/8	0.0471	0.0226	3.4	> 1,000,000
Isophorone	2/8	3.43	0.681	-	> 1,000,000
Naphthalene	1/8	0.0707	0.0339	5.6	> 1,000,000
Phenanthrene	4/8	0.890	0.257	5.6	Not applicable
Phenol	1/8	0.471	0.282	6.2	> 1,000,000
Pyrene	3/8	0.573	0.269	8.2	> 1,000,000

1. To calculate the average, all non-detects were assigned a value of one half the detection limit. If one half a sample-specific detection was greater than the maximum concentration, this value was excluded from the average calculation. Duplicate sample results were averaged before the overall average was determined.
2. Universal Treatment Standards as listed in 40 CFR 268.48.
3. The DRAS delisting level is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/kg this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.
4. 2-Butanone – methyl ethyl ketone
5. 4-Methyl-2-pentanone – methyl isobutyl ketone

Several things are noteworthy regarding the detected organic constituents. First, a number of the detected analytes, such as acetone, methyl ethyl ketone (2-butanone), methylene chloride, bis(2-ethylhexyl)phthalate

and di-n-butyl phthalate are considered common laboratory artifacts. Second, some of the constituents (i.e., the Polynuclear Aromatic Hydrocarbons) are ubiquitous in the environment and are often found in environmental samples at anthropogenic background levels simply as a result of atmospheric deposition.

Nonetheless, notwithstanding the potential source of the organics, the concentrations of all of the preceding volatile and semi-volatile organic compounds (VOCs and SVOCs) were reported at concentrations several orders of magnitude below the UTS and the maximum allowable concentration determined via the DRAS simulation (i.e., the DRAS Limit). Consequently, it is concluded that organic compounds are not of concern for surface exposure pathways (i.e., pathways other than the groundwater pathway).

In accordance with the PADEP-approved sampling and analysis plan, TCLP SVOC analysis was completed for the four supplemental sludge samples collected by FTS personnel. TCLP SVOC analysis was completed for the 13 SVOCs included on the TCLP list (i.e., Table CCWE in 40 CFR 268.41), although 3- and 4-methylphenol (i.e., m- and p-cresol) were reported together given that they co-elute. Benzidine was also subjected to TCLP extraction and analysis given that an anomalous hit of total benzidine was noted in one of the four original characterization samples obtained by MAX personnel although it was not detected in any of the seven other samples collected in support of the delisting petition.

All organic constituents subjected to TCLP testing yielded non-detect results. However, given the detection of other non-TCLP VOCs and SVOCs, and given that the DRAS requires the entry of TCLP concentrations for any analytes of interest, conservative estimates of TCLP concentrations were calculated for those organic constituents that were detected via totals analysis. A worst-case procedure was used in this respect.

Specifically, the TCLP procedure relies on an extraction fluid mass/sample mass ratio of 20:1. Per Method 1311, “The solid phase is extracted with an amount of extraction fluid equal to 20 times the weight of the solid phase.” As a worst-case estimate, it may therefore be assumed that the extraction efficiency is 100% and that 100% of any constituent present in the solid sample will be present in the extract albeit at a concentration equal to 1/20th of that in the solid phase.

The following tables present summaries of the calculated TCLP VOC and SVOC extract concentrations for analytes detected in at least one of the samples subjected to totals analysis (the average concentrations for the totals analysis were first determined, as summarized in the preceding table, and the theoretical leachate concentration was then determined):

Calculated TCLP VOC and SVOC Concentrations – Leachate Treatment System Sludge

Organic Compound	Average Total Concentration (mg/kg) ⁽¹⁾	Calculated Leachate Concentration (mg/L) ⁽²⁾	Benchmark Value (mg/L)	
			UTS ⁽³⁾	DRAS Limit ⁽⁴⁾
Volatile Organic Compounds				
2-Butanone	0.104	0.00522	-	30,400
4-Methyl-2-pentanone	0.0253	0.00126	-	4,050
Acetone	0.196	0.00980	-	45,500
Carbon disulfide	0.0420	0.00210	4.8	4,940
Chloroform	0.00189	0.0000944	4.8	0.701
Ethylbenzene	0.0324	0.00162	-	949
Methylene chloride	0.00643	0.000321	-	6.91
Styrene	0.165	0.00826	-	132
Toluene	0.00980	0.000490	-	1,320
Xylenes (total)	0.0571	0.00285	-	837
Semi-Volatile Organic Compounds				
2-Methylnaphthalene	0.215	0.0108	-	63.6
Aniline	0.0409	0.00204	-	17.3
Benzidine ⁽⁵⁾	NA	0.00550 ⁽⁵⁾	-	0.000428
Benzo(a)anthracene	0.242	0.0121	-	0.613
Benzo(a)pyrene	0.0556	0.00278	-	230
Benzo(b)fluoranthene	0.379	0.0189	-	1,960
Benzyl alcohol	0.934	0.0467	-	25,300
Bis(2-ethylhexyl)phthalate	2.86	0.143	-	> 1,000,000
Chrysene	0.277	0.0139	-	61.3
Dibenzofuran	0.121	0.00607	-	0.649
Di-n-butyl phthalate	0.739	0.0370	-	2,150
Di-n-octyl phthalate	0.332	0.0166	-	> 1,000,000
Fluoranthene	0.251	0.0125	-	215
Fluorene	0.0226	0.00113	-	429
Isophorone	0.681	0.0340	-	98.5
Naphthalene	0.0339	0.00170	-	0.286
Phenanthrene	0.257	0.0128	-	---
Phenol	0.282	0.0141	-	15,200
Pyrene	0.269	0.0135	-	389

1. To calculate the average, all non-detects were assigned a value of one half the detection limit. If one half a sample-specific detection was greater than the maximum concentration, this value was excluded from the average calculation. Duplicate sample results were averaged before the overall average was determined.
2. To calculate a conservative leachate concentration, the contaminant concentration in the sludge was divided by 20. These were all assumed to be below the detection limit of the TCLP analysis.
3. Universal Treatment Standards as listed in 40 CFR 268.48.
4. The DRAS delisting level is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/kg this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.
5. Unlike the other organic compounds, the benzidine concentration listed here is the average of one half of four 4 benzidine TCLP detection limits. This compound was targeted for TCLP analysis based on its detection in one of the preliminary characterization samples. It was never subsequently detected.

As shown in the preceding table, the hypothetical TCLP concentrations are significantly lower than the DRAS limits. The only constituent that appears to exceed its DRAS limit is the constituent that was specifically targeted for TCLP analysis based on its detection in one of the samples subjected to totals analysis (i.e., benzidine). The delisting limit determined via DRAS simulation (0.000428 mg/L) is

extremely low as a result of the carcinogenic potency of this compound (oral cancer slope factor of 230 per mg/kg/day). Although relatively low detection limits were attained for this compound, the detection limits (0.011 mg/L) are still greater than the delisting limit. This apparent exceedance is considered purely artificial given that benzidine was not in fact detected in any of the TCLP extracts analyzed for this compound. The original detection of benzidine in one sample is considered suspect given that 1) no materials known to contain this compound have ever been managed at the facility, and 2) its presence was not noted in seven subsequent samples submitted for total analysis (nor as a result of TCLP analysis).

In accordance with the PADEP-approved Sampling and Analysis Plan, sludge samples were also analyzed for Polychlorinated Biphenyls (PCBs), pesticides, and chlorinated herbicides. These constituents were not expected to be present based on the nature of the materials treated/disposed at the facility. No PCBs, pesticides, or chlorinated herbicides were detected in any of the sludge samples collected and consequently these results are not summarized in this executive summary. Tabulation of the non-detect results for these classes of organic constituents is provided elsewhere in this delisting petition.

Finally, cyanide (total and amenable), fluoride, and sulfide analyses were completed in accordance with the PADEP-approved sampling and analysis plan. As before, because DRAS requires the entry of extract concentrations, the average extract concentrations were assumed to be equal to the average total concentration divided by 20.

Measured Anion Concentrations - Leachate Treatment System Sludge

Anion	Detects/Number of Samples	Sludge Concentration (mg/kg)		Benchmark value (mg/kg)	
		Maximum	Average ⁽¹⁾	UTS ⁽²⁾	DRAS limit ⁽³⁾
Cyanide (Total)	7/8	23.5	10.6	590	> 1,000,000
Cyanide (Amenable)	4/8	23.5	4.43	30	--
Fluoride	8/8	83.6	54.2	--	> 1,000,000
Sulfide	1/8	13.4	2.90	--	--

1. To calculate the average, all non-detects were assigned a value of the detection limit divided by 2 and the average taken of the resulting values. However, if the detection limit divided by 2 was greater than the highest measurement observed, this value was ignored when calculating the average.
2. Universal Treatment Standards as listed in 40 CFR 268.48.
3. The DRAS delisting level is the limiting exposure pathway-specific concentration calculated by DRAS assuming a cancer risk level of 1×10^{-6} and a hazard quotient of 1. Where the DRAS delisting limit exceeds 1,000,000 mg/kg this was assumed to be the pure substance and a concentration of 1 million parts per million is reported.

As shown, the anion concentrations are below their respective UTS as well as the limits calculated via DRAS simulation although UTS have not been established for fluoride or sulfide and DRAS does not include dose-response information for sulfide. The sulfide and cyanide concentrations are well below levels that might be considered indicative of reactive conditions (i.e., 500 mg/kg and 250 mg/kg, respectively).

The following table presents the theoretical worst-case extract concentrations for two of the anions of interest (sulfide was not subjected to DRAS extract simulation given that DRAS does not accommodate sulfide).

Calculated Anion Extract Concentrations – Leachate Treatment System Sludge

Anion	Average Total Concentration (mg/kg)	Calculated Leachate Concentration (mg/L)	Benchmark values (mg/L)	
			UTS	DRAS Level
Cyanide (Total)	10.6	0.531	-	270
Cyanide (Amenable)	4.43	0.222	-	--
Fluoride	54.2	2.71	-	3,430

Again, as shown in the preceding table, the theoretical worst-case extract concentrations are well below the DRAS limits. UTS have not been promulgated for anions in extraction fluids.

In conclusion, it is evident that the total concentrations and the extract concentrations for the Yukon leachate treatment system sludge are well below UTS and limits based on the most protective pathway as determined via the DRAS multi-media simulation software. No UTS exceedances were noted for any of the analytes in any of the samples. The only DRAS limit exceedance was for a compound in the TCLP extract that was not actually detected (i.e., the detection limit, although low, exceeded the very protective DRAS limit for benzidine, a limit that cannot be readily measured via routine analytical methods). It is recommended that the sludge be delisted as F039 based on this assessment.

E.7.5 Laboratory Quality Control Analyses

Fairway Laboratories completed quality control analysis in accordance with the analytical methods selected for quantitation of the various constituents of interest. Quality control analysis consisted of the analysis of Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate analysis, addition of required surrogate compounds, and preparation and analysis of method blanks. The supplemental analytical data were subjected to Level II data validation, as documented in Appendix F.

E.7.6 Analytical Inconsistencies and Deviations

Several constituents were detected in laboratory method blanks and, in accordance with published data validation protocols, these constituents were qualified as non-detects if detected in samples at concentrations less than 5 times the concentration detected in the associated method blank. Some non-conformances were identified for Laboratory Control Samples and for Matrix Spike/Matrix Spike Duplicate results. However, non-conformances issues for MS/MSD samples are not atypical for solid matrices. One issue of concern was the Laboratory Control Samples percent recoveries for selected analytes for the semi-volatile fraction for the December 13, 2017 sample. Percent recoveries for the more volatile components were below acceptance criteria. The laboratory was contacted regarding this issue and explained that the LCS samples was inadvertently left in the concentrator too long which drove off the more volatile components. However, review of the sample results indicates that they were consistent with the other samples and that surrogate recoveries were acceptable. Therefore, no action was taken as a result of this nonconformance issue. Based on review of the data it has been concluded that they are of acceptable quality for their intended use.

E.7.7 Relative Percent Difference – Field Duplicate Samples

Consistency between results for field duplicate samples is used to assess the variability attributable to the collection, handling, storage and/or laboratory handling/analysis. The sampling and analysis program for the leachate treatment system sludge included collecting grab/composite samples from the treatment system over a calendar year. Because of the consistency of the source material, it was determined that laboratory and field quality control would be evaluated via intersample comparison as well as a set of duplicate samples collected during one sampling event.

Comparison of each of the sample results indicated that metals/cyanide were the most frequently and most consistently detected analytes. Pesticides, herbicides and PCBs were not detected in any samples.

For the field duplicates, the relative percent difference was calculated and presented in Table 2. For the vast majority of the analytes, the RPD was below 50%, with a few exceptions:

- Analytes which were detected in one of the duplicate pairs, such as acetone, carbon disulfide, chrysene, isophorone, sulfide, and amenable cyanide. However, acetone and carbon disulfide may be laboratory artifacts, and were detected sporadically, with acetone in only one sample, and carbon disulfide in four of the eight discrete samples. The concentrations of amenable cyanide varied over the course of the year, ranging as high as 23.5 mg/kg, as did the concentrations of chrysene and isophorone. The duplicate results for the March 2018 sample were not in agreement, but when all the six other samples are considered, the variability is evident. Therefore, chrysene, isophorone and cyanide were retained for DRAS modeling. Sulfide was detected in only one of the duplicate pair of samples.
- Analytes that were detected in both of the duplicate pair samples, such as TCLP copper, styrene, 2-butanone, the RPDs exceeded 50%, but again a comparison of these results to others indicates that there is some minor variability in the results from sample to sample. In addition, 2-butanone is a common laboratory artifact.
- Analytes that were not detected in either of the field duplicate samples, but which had RPDs greater than 50%, such as PCBs and gamma-Chlordane. This variation is not considered to be significant since no pesticides or PCBs were ever detected in any of the samples and are not expected to be present based on the source of materials accepted at the facility.

Even though the RPDs for several analytes as discussed above exceeded the goal of 50%, these results are still considered to be usable for the purposes of the DRAS modeling and determining the appropriateness of delisting the sludge. No results were eliminated from consideration in the modeling based on the RPDs for the field duplicates, therefore resulting in a conservative estimate of any potential impacts associated with the Yukon sludge.

F. GROUNDWATER MONITORING INFORMATION

The sludge from the leachate treatment system at the Yukon facility was managed under the PA Solid Waste Management Act, Chapter 288 (Residual Waste Landfills). Landfill 6, which is approximately 16 acres in size, has historically been used for disposal of the sludge given that it was considered a residual waste and will be used for sludge disposal should this delisting petition be approved.

F.1 MANAGEMENT OF PETITIONED WASTE

The petitioned waste is currently managed in a land-based waste management unit (on-site) known as Landfill 6, and groundwater monitoring is required pursuant to Yukon's Solid Waste Permit No. 301071 and PADEP's residual waste management regulations. Groundwater monitoring requirements for Landfill 6 have not been waived. In addition, the petitioned waste is a small portion of the materials emplaced in the landfill, and therefore the existing groundwater monitoring conducted pursuant to the Solid Waste Permit provides valuable information regarding the overall potential environmental impacts and risks associated with the current management scenario.

F.2 GROUNDWATER MONITORING INFORMATION

Three water-bearing zones have been identified at the site. Groundwater monitoring is conducted in these units per the *Facility Wide Groundwater Monitoring and Reporting Plan* prepared in December 1996 by CE Consultants, Inc. These units, from top to bottom, are the Redstone Coal (present only in the southwestern portion of the property near closed Lagoons 1-3), the Pittsburgh Coal, and the Pittsburgh Limestone, which comprise the lower portion (the coal units) of the Pittsburgh Formation of the Pennsylvanian age Monongahela Group and the uppermost portion of the Conemaugh Group (the limestone unit).

Landfill 6 was constructed on top of the Pittsburgh Limestone. Any remaining pillars of the Pittsburgh Coal were removed during construction, leaving no mine workings beneath the landfill. Groundwater is present in the Pittsburgh Coal within mine spoils located southeast and northwest of Landfill 6. Groundwater in the spoils is monitored via three wells located upgradient/southeast (SP-1) and downgradient (SP-2 and SP-3) of the landfill. Because water from SP-1 does not flow beneath Landfill 6, monitoring of SP-1 was discontinued (approved by PADEP in October 1996), and intra-well comparisons are used to monitor for potential releases from Landfill 6.

The Pittsburgh Limestone is the first laterally-continuous hydrostratigraphic unit beneath the entire Yukon property. The Pittsburgh Limestone is a confined aquifer at the site, with upward vertical gradients, and a general flow direction toward the northwest. Wells W-9 and TB-210 are upgradient of both Impoundment 5 and Landfill 6, but monitoring of TB-210 was discontinued with PADEP approval in October 1996. Wells W-10, W-11, W-12, W-13 and W-14 are located at 200-foot intervals around the northwestern (downgradient) boundary of Landfill 6. Similarly, with PADEP consent, monitoring of W-13 and W-14 was discontinued. Monitoring well locations are shown in Figure 2.

Additional groundwater monitoring is conducted around the closed lagoons, at two mine discharge points along Sewickley Creek north of the facility, three wells in mine workings to recover groundwater potentially affected by Impoundment 5, and a domestic well north of Impoundment 5. Landfill 6 is also monitored at via a spring, seven surface water locations, two additional leachate locations, and water from blanket drains (when they are producing).

Monitoring is conducted according to Permit 301071 and the residual waste regulations. The most recent annual report (Form 14R) is provided as Appendix I. Under the current permit, the facility is required to analyze for any parameter with established Maximum Contaminant Level (MCL), Maximum Contaminant Level Goal (MCLG) or secondary MCL. In addition, Mandatory Abatement Trigger Levels were established for each analyte. Groundwater samples are analyzed for the following parameters:

- Volatile organics (BTEX and halogenated aliphatics)
- Total Organic Halogens (TOX)
- Total Organic Carbon (TOC)
- Extractable organics
- Total and dissolved metals
- Phenols
- Cyanide
- General chemistry (pH, specific conductance, chloride, fluoride, sulfate, alkalinity, chemical oxygen demand, total dissolved solids and turbidity)
- Nitrate and ammonia-nitrogen

The most recent groundwater analytical results indicate that the groundwater downgradient of Landfill 6 (Wells W-10, W-11 and W-12) are included in Appendix I of this petition. No volatile organics were detected, and all detection limits were below Safe Drinking Water Act Maximum Contaminant Levels (MCLs). Dissolved barium was detected in two of the three downgradient wells at concentrations that are an order of magnitude below the MCLs. No other dissolved metals were detected. These data, in conjunction with the results of the DRAS modeling, indicate that no adverse groundwater impacts have been observed nor are they expected to occur as a result of continued disposal of the sludge in Landfill 6.

F.3 LANDFILL 6 DETAILS

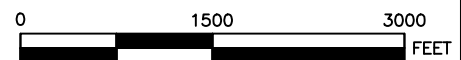
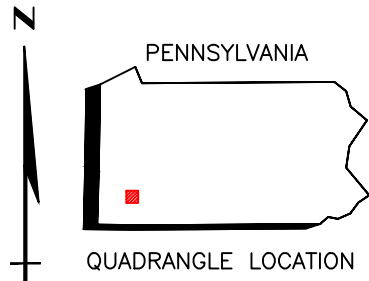
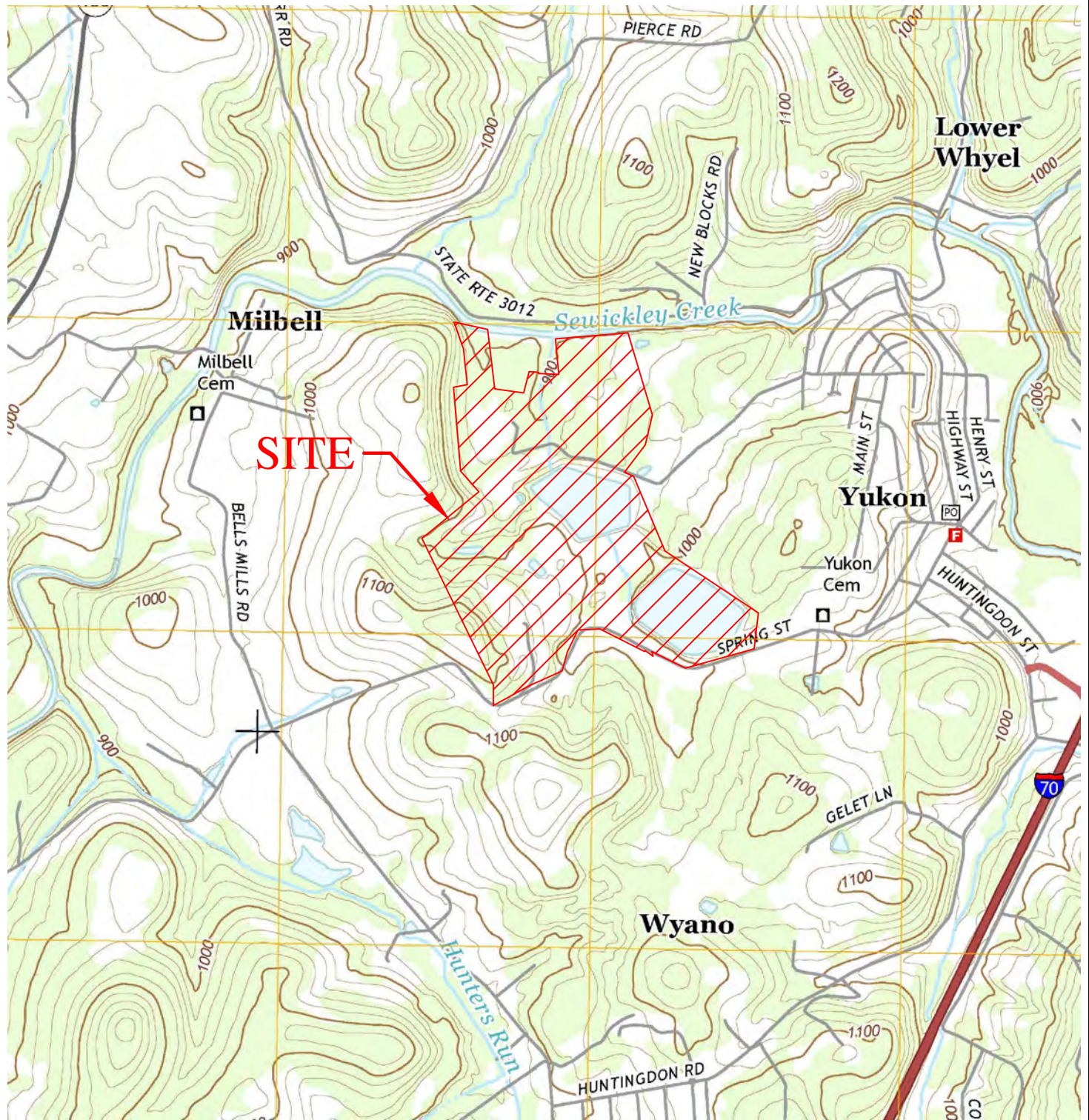
The currently operating, permitted residual waste landfill (Landfill 6) is approximately 16 acres in size. It receives 40,000 to 70,000 cubic yard of waste each year, of which approximately 0.2% is the sludge under consideration in this delisting petition. While the groundwater is being monitored per the current residual waste permit for the facility, no groundwater impacts potentially related to metals, VOCs or SVOCs that have been noted in the sludge samples have been observed in the downgradient monitoring wells. No additional groundwater monitoring is required for the sludge disposal conducted at the facility.

G. CONCLUSIONS

Based upon the data and analysis presented in this Delisting Petition, MAX has demonstrated that the Yukon sludge does not exhibit characteristics that would cause the sludge to be considered hazardous. MAX has conducted sampling and analysis of the sludge in accordance with PADEP–approved plans and has evaluated the analytical results via comparison to UTS and via multimedia simulation using the USEPA DRAS model. A limited number of constituents were identified as being present in the sludge and the concentrations of these constituents have been shown to be below UTS and limits determined via the DRAS simulation. It has also been demonstrated that the sludge is also not ignitable, corrosive or reactive. Based on the data collected and the subsequent data evaluation as documented in this petition it is recommended that the sludge be delisted as F039.

FIGURES

y:\max environmental\yukon\1039 delisting\figure 1 - site location map.dwg Last Saved By: Emaloney 5/11/2018 2:55 PM Plotted By: Elizabeth Maloney 5/11/2018 2:55 PM Scale: 1:1



MAX ENVIRONMENTAL TECHNOLOGIES, INC.

DRWN: ERM DATE: 05/10/18
CHKD: RJH DATE: 05/11/18
APPD: RJH DATE: 05/11/18
SCALE: AS SHOWN



LEACHATE TREATMENT SYSTEM
SLUDGE DELISTING PETITION
YUKON, PENNSYLVANIA

REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
SMITHTON, PENNSYLVANIA 2016

ISSUE DATE:

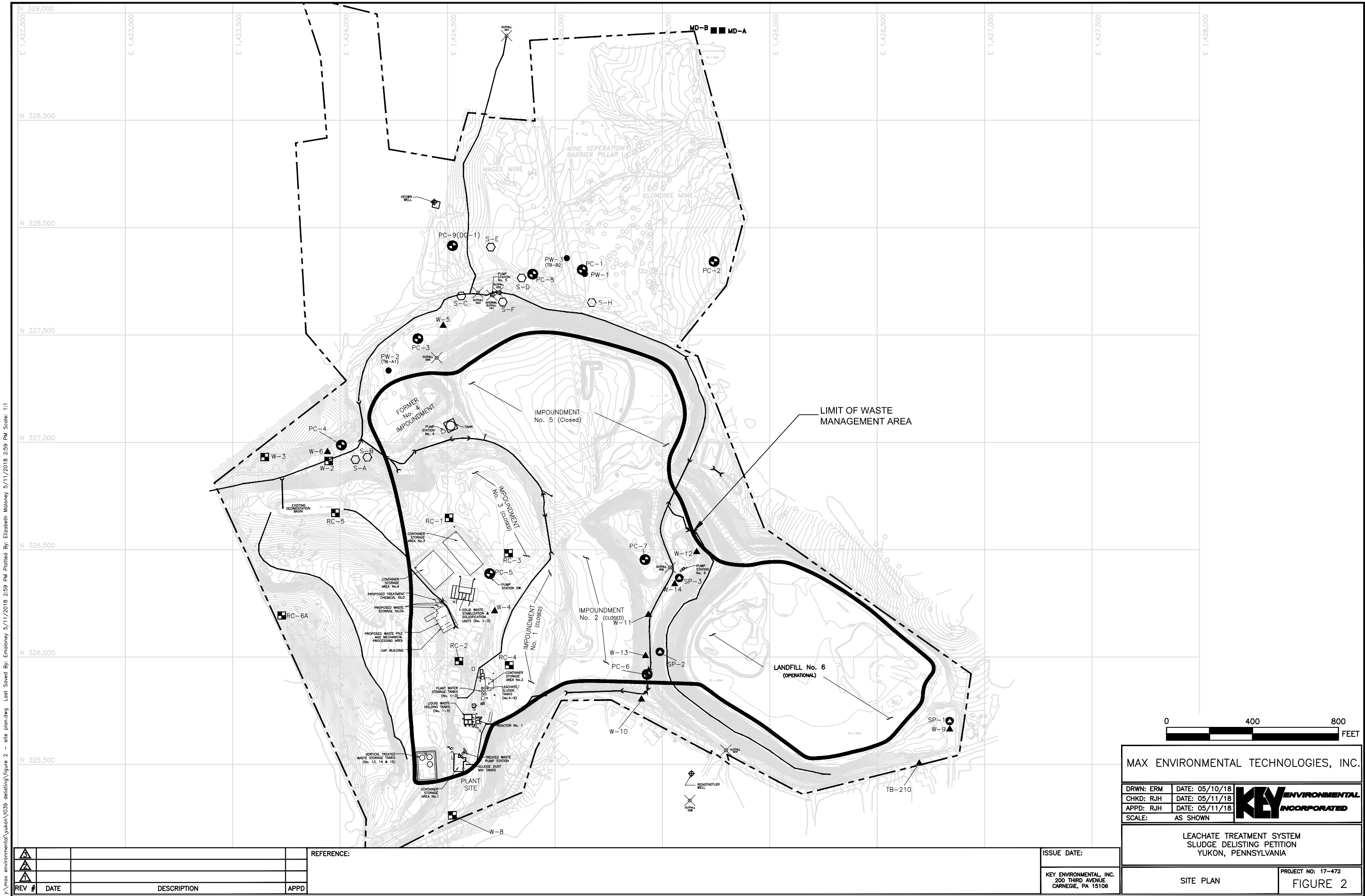
KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

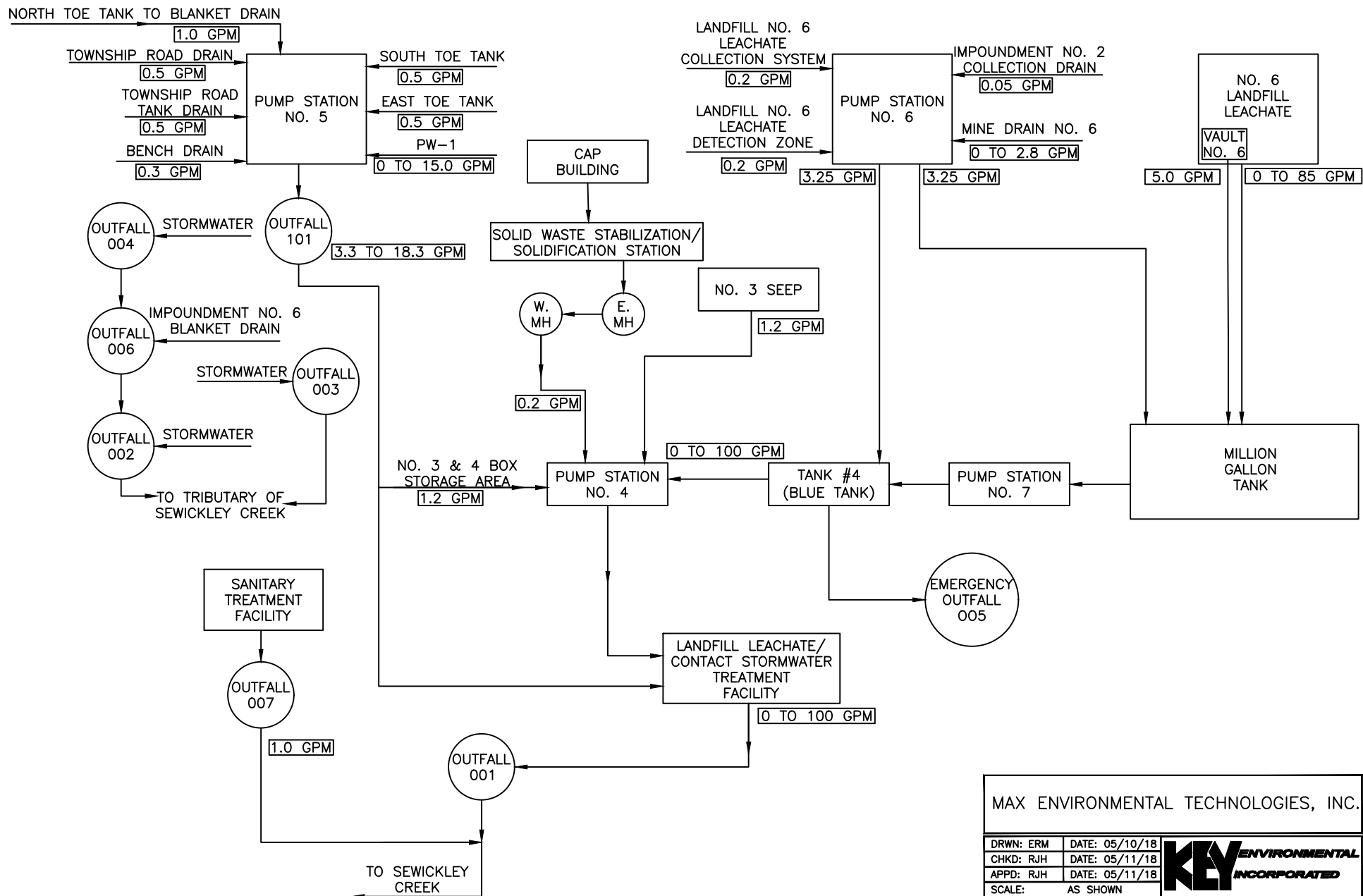
SITE LOCATION MAP

PROJECT NO: 17-472

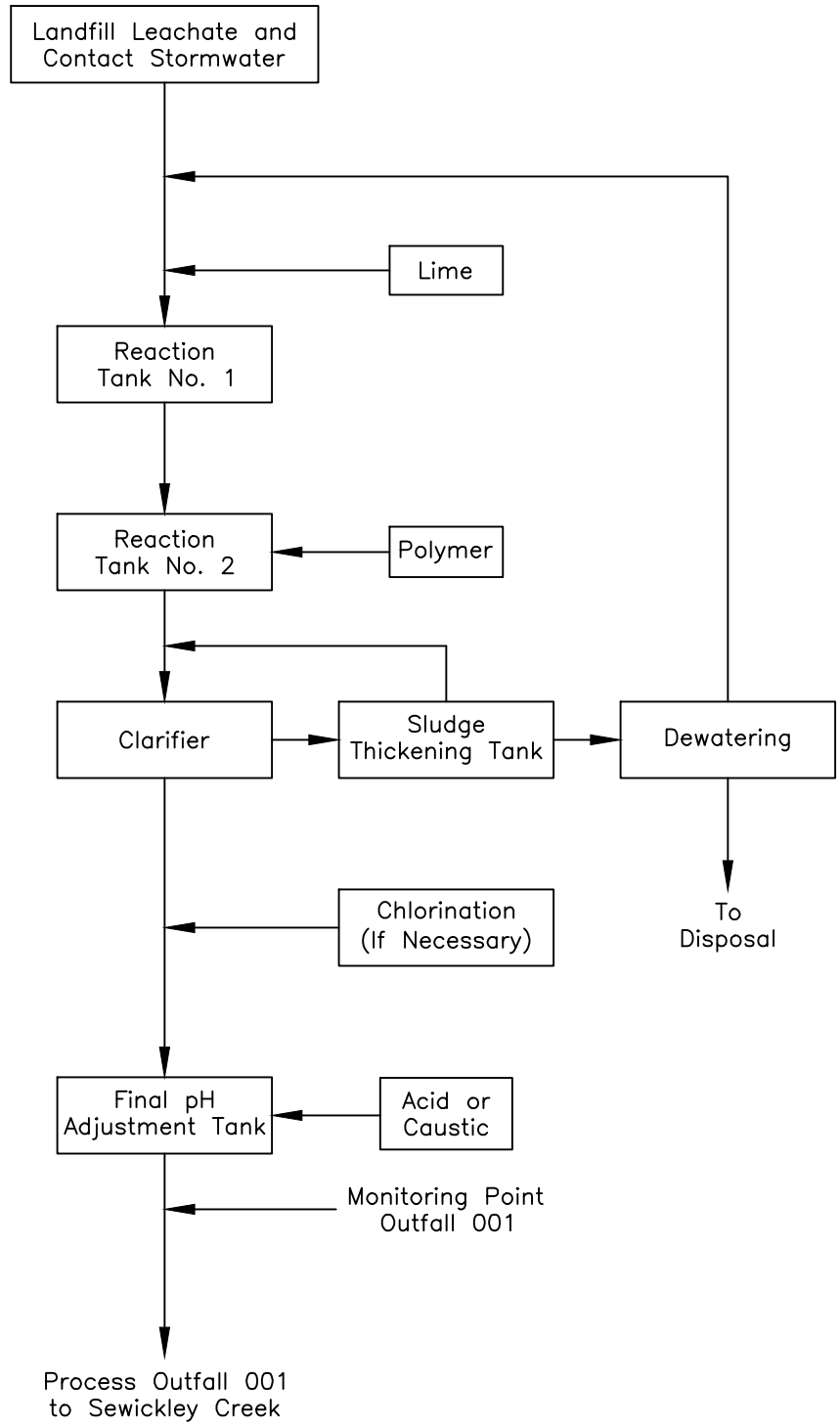
FIGURE 1

y:\max environmental\yukon\039 delisting\figure 2 - site plan.dwg Last Saved By: Enalaney 5/11/2018 2:59 PM Plotted By: Elizabeth Moloney 5/11/2018 2:59 PM Scale: 1:1





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MAX ENVIRONMENTAL TECHNOLOGIES, INC.

DRWN: ERM	DATE: 05/10/18
CHKD: RJH	DATE: 05/11/18
APPD: RJH	DATE: 05/11/18
SCALE:	AS SHOWN



LEACHATE TREATMENT SYSTEM
SLUDGE DELISTING PETITION
YUKON, PENNSYLVANIA

REFERENCE:

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

PROCESS FLOW DIAGRAM
- TREATMENT PLANT

PROJECT NO: 17-472
FIGURE 4



TABLES

TABLE 1
ANALYTICAL RESULTS - LEACHATE TREATMENT SYSTEM SLUDGE
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	'Clarifier Sludge' Clarifier 2/21/2017		'Clarifier Sludge' Clarifier 3/21/2017		'Clairifier Sludge' Clarifier 5/3/2017		'Clarifier Sludge' Clarifier 5/14/2017		RO-101717' Roll Off Box 10/17/2017		'Clarifier-121317' Clarifier 12/13/2017		TH-01-030118' Thickener 3/1/2018		'TH-02-030118' Thickener 3/1/2018 Duplicate	
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers
pH (9045D)																		
pH	SU	-	NA		NA		NA		8.74		8.69		8.38		8.52		8.61	
Metals (6010B/7471B)																		
Aluminum	mg/kg	--(3)	NA		NA		NA		NA		17200		4960		16100	T	13500	T
Antimony	mg/kg	--(3)	4.68	U,I	29		36.4		32.4	L	73.9		6.74		27		25.6	
Arsenic	mg/kg	--(3)	16.2	I	96.7		111		90.5		389		38.1		126		105	
Barium	mg/kg	--(3)	1080	L	5830	L	6430	L	6680	L	3930		1010		3150	T	4340	T
Beryllium	mg/kg	--(3)	0.234	U,I	0.413	J	0.944	J	0.937	J	0.977	J	0.139	J	0.695	J	0.597	J
Cadmium	mg/kg	--(3)	7.03	I	16.8		20		16.8		32.2		5.56		18.1		15.5	
Chromium	mg/kg	--(3)	79	I	353		471		471		781		117		461		386	T
Cobalt	mg/kg	--(3)	NA		NA		NA		NA		32.2		7.41		22		18.9	
Copper	mg/kg	--(3)	NA		NA		NA		NA		662		176		503		426	
Iron	mg/kg	--(3)	NA		NA		NA		NA		49400		16400	T	35400		29800	T
Lead	mg/kg	--(3)	433	I	1890		2360		2330		2410		645		2000	T	1660	T
Manganese	mg/kg	--(3)	NA		NA		NA		NA		1360		368		1250		1060	
Mercury	mg/kg	--(3)	0.246		0.953		1.06		0.933		0.409		0.336		0.57		0.458	
Nickel	mg/kg	--(3)	36.6		182		412		351		291		64.8		194		165	
Selenium	mg/kg	--(3)	5.6	U,I	13.5	J	19.9	U	15.7	U	33.9		11.5		26		22.1	
Silver	mg/kg	--(3)	0.308	U	24.4		31		28.4	G	12.8		9.77		18.8		15.8	
Thallium	mg/kg	--(3)	1.66	U,I	2.39	U	5.88	U	4.64	U	4.72	U	0.592	U	4.92	J	4.65	J
Vanadium	mg/kg	--(3)	34.5		39.1		53		36.4		82.9		19.5		57.5		47.5	
Zinc	mg/kg	--(3)	910	I,K	2100		3020		2570		7490		944	L	2710		2360	T
TCLP Metals (1311/6010B/7471B)																		
Aluminum	mg/l	-	NA		NA		NA		NA		0.5	U	0.101	J	0.065	U	0.114	J
Antimony	mg/l	1.15	0.0760		0.0795		0.0400	J	0.0980	K	0.0779	U	0.0661	U	0.0535		0.0483	J
Arsenic	mg/l	5	0.0250	U	0.0250	U	0.0250	U	0.0250	U	0.0793		0.028	J	0.016	U	0.016	U
Barium	mg/l	21	0.629		0.969		0.584		0.767		0.231		0.762		0.854		0.842	
Beryllium	mg/l	1.22	0.00073	U	0.00073	U	0.00073	U	0.000832	J	0.0012	U	0.0012	U	0.0012	U	0.0012	U
Cadmium	mg/l	0.11	0.0052	U	0.0229		0.0052	U	0.0052	U	0.00245	U	0.00245	U	0.00245	U	0.00245	U
Chromium	mg/l	0.6	0.0175	J	0.00834	J	0.00522	U	0.00522	U	0.00075	U	0.00075	U	0.00075	U	0.00075	U
Cobalt	mg/l	-	NA		NA		NA		NA		0.05	U	0.007	U	0.007	U	0.007	U
Copper	mg/l	-	NA		NA		NA		NA		0.05	U	0.0123	J	0.00826	J	0.0141	J
Iron	mg/l	-	NA		NA		NA		NA		0.2	U	0.172	J	0.025	U	0.025	U
Lead	mg/l	0.75	0.0169	U	0.0380	J	0.0169	U	0.0169	U	0.0120	U	0.012	U	0.012	U	0.012	U
Manganese	mg/l	-	NA		NA		NA		NA		0.481		3.37		3.43		3.59	
Mercury	mg/l	0.025	0.00041	U,Q	0.00041	U,Q	0.00041	U,Q	0.00041	U,Q	0.00059	U,Q	0.000059	U,Q	0.00059	U,Q	0.00059	U,Q
Nickel	mg/l	11	0.0901	J	0.246	J	0.0382	U	0.0382	U	0.0293	J	0.223	J	0.182	J	0.209	J
Selenium	mg/l	5.7	0.0224	U	0.0224	U	0.0224	U	0.0224	U	0.0315	U	0.0174	J	0.0224	J	0.0216	J
Silver	mg/l	0.14	0.00802	U	0.00802	U	0.00802	U	0.00802	U	0.0060	U	0.006	U	0.00783	J	0.00792	J
Thallium	mg/l	0.2	0.0361	U	0.0361	U	0.0361	U	0.0361	U	0.009	U	0.009	U	0.0363	J	0.0251	J
Vanadium	mg/l	1.6	0.00374	U	0.00374	U	0.00374	U	0.00374	U	0.013	U	0.0795	J	0.0432	J	0.0403	J
Zinc	mg/l	4.3	0.0136	U	0.934		0.0136	U	0.0152	J	0.011	U	0.258		0.135		0.216	
pH (1311)																		
pH	SU	-	11.6		7.49		8.41		8.38		8.30		7.05		7.31		7.3	

TABLE 1
ANALYTICAL RESULTS - LEACHATE TREATMENT SYSTEM SLUDGE
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	'Clarifier Sludge' Clarifier 2/21/2017		'Clarifier Sludge' Clarifier 3/21/2017		'Clairifier Sludge' Clarifier 5/3/2017		'Clarifier Sludge' Clarifier 5/14/2017		RO-101717' Roll Off Box 10/17/2017		'Clarifier-121317' Clarifier 12/13/2017		TH-01-030118' Thickener 3/1/2018		'TH-02-030118' Thickener 3/1/2018 Duplicate	
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers
Volatile Organic Compounds (8260B)																		
1,1,1,2-Tetrachloroethane	mg/kg	6	0.0191	U,I4	0.0296	U	0.0008	U,I4	0.0005	U,I4	0.0003	U,I5	0.0139	U,I4,D	0.0008	U	0.0007	U
1,1,1-Trichloroethane	mg/kg	6	0.0369	U,I4	0.057	U	0.0015	U,I4	0.0009	U,I4	0.0007	U,I5	0.0287	U,I4,D	0.0017	U	0.0014	U
1,1,2,2-Tetrachloroethane	mg/kg	6	0.0314	U,I4	0.0486	U	0.0013	U,I4	0.0008	U,I4	0.0008	U,I5	0.0343	U,I4	0.0021	U	0.0017	U
1,1,2-Trichloroethane	mg/kg	6	0.0301	U,I4	0.0464	U	0.0012	U,I4	0.0007	U,I4	0.0006	U,I5	0.0241	U,I4	0.0014	U	0.0012	U
1,1-Dichloroethane	mg/kg	6	0.0164	U,I4	0.0253	U	0.0007	U,I4	0.0004	U,I4	0.0004	U,I5	0.0148	U,I4	0.0009	U	0.0007	U
1,1-Dichloroethene	mg/kg	6	0.0342	U,I4	0.0528	U	0.0014	U,I4	0.0008	U,I4	0.0004	U,I5	0.0176	U,I4	0.0011	U	0.0009	U
1,2,3-Trichloropropane	mg/kg	30	NA		0.0697	U,D	0.0018	U,I4	0.0011	U,I4	0.0004	U,I5	0.0158	U,I4	0.0009	U	0.0008	U
1,2,4-Trichlorobenzene	mg/kg	19	0.0451	U,I4	0.0697	U	0.0018	U,I4	0.0011	U,I4	0.0013	U,I5	0.0538	U,I4	0.0032	U	0.0026	U
1,2-Dibromo-3-chloropropane	mg/kg	15	0.0396	U,I4,E	0.0612	U,D	0.0016	U,I4	0.001	U,I4	0.0006	U,I5	0.0269	U,I4,D	0.0016	U	0.0013	U
1,2-Dibromoethane (EDB)	mg/kg	15	0.026	U,I4	0.0401	U	0.0011	U,I4	0.0006	U,I4	0.0009	U,I5	0.0362	U,I4	0.0022	U	0.0018	U
1,2-Dichlorobenzene	mg/kg	6	NA		0.0528	U	0.0014	U,I4	0.0008	U,I4	0.0008	U,I5	0.0315	U,I4	0.0019	U	0.0015	U
1,2-Dichloroethane	mg/kg	6	0.0301	U,I4	0.0464	U	0.0012	U,I4	0.0007	U,I4	0.0004	U,I5	0.0185	U,I4	0.0011	U	0.0009	U
1,2-Dichloropropane	mg/kg	18	NA		0.0253	U	0.0007	U,I4	0.0004	U,I4	0.0003	U,I5	0.013	U,I4,D	0.0008	U	0.0006	U
1,3-Dichlorobenzene	mg/kg	6	NA		0.0591	U	0.0016	U,I4	0.0009	U,I4	0.0007	U,I5	0.0306	U,I4	0.0018	U	0.0015	U
1,3-Dichloropropane ⁽⁴⁾	mg/kg	18	0.0232	U,I4	NA		NA		NA		NA		0.0121	U,I4	0.0007	U	0.0006	U
1,4-Dichlorobenzene	mg/kg	6	NA		0.0549	U	0.0015	U,I4	0.0009	U,I4	0.0009	U,I5	0.0371	U,I4	0.0022	U	0.0018	U
2-Butanone	mg/kg	36	0.205	U,I4	0.317	U	0.123	I4	0.0630	I4	0.0599		0.139	U,I4,D	0.245	J	0.0628	J
2-Chloroethylvinyl ether	mg/kg	-	0.581	U,I4	0.897	U,D	2.16	U,I4	1.56	U,I4	0.0015	U,I5	0.063	U,I4AAa	0.0038	U	0.0031	U
2-Hexanone	mg/kg	-	NA		NA		NA		NA		0.0007	U,I5	0.0297	U,I4	0.0018	U	0.0014	U
4-Methyl-2-pentanone	mg/kg	33	0.0355	U,I4	0.0549	U,D	NA		NA		0.006	J,I5	0.0139	U,I4,D	0.0719		0.0463	
Acetone	mg/kg	160	0.212	U,I4,D	0.327	U	NA		NA		0.373	U,I5	0.144	U,I4	0.849	U,D	0.48	
Acrolein	mg/kg	-	0.513	U,I4	0.792	U	1.91	U,I4	1.38	U,I4	0.0095	U,I5	0.399	U,I4AAa	0.024	U	0.0193	U
Acrylonitrile	mg/kg	84	NA		0.095	U	0.0025	U,I4	0.0005	U,I4	0.001	U,I5	0.0417	U,I4	0.0025	U	0.002	U
Benzene	mg/kg	10	0.0219	U,I4	0.0338	U	0.0009	U,I4	0.0005	U,I4	0.0003	U,I5	0.0121	U,I4	0.0007	U	0.0006	U
Bromodichloromethane	mg/kg	15	0.0191	U,I4	0.0296	U	0.0008	U,I4	0.0005	U,I4	0.0012	U,I5	0.0491	U,I4	0.003	U	0.0024	U
Bromoform	mg/kg	15	0.0232	U,I4	0.0359	U	0.0010	U,I4	0.0006	U,I4	0.001	U,I5	0.0408	U,I4,D	0.0025	U	0.002	U
Bromomethane	mg/kg	-	0.0684	U,I4	0.106	U	0.0028	U,I4	0.0017	U,I4	0.0004	U,I5	0.0176	U,I4	0.0011	U	0.0009	U
Carbon disulfide	mg/kg	-	0.0424	U,I4	0.0655	U	0.138	I4	0.0357	I4	0.0149		0.0473	U,I4	0.0553		0.0023	U
Carbon tetrachloride	mg/kg	6	0.0383	U,I4	0.0591	U	0.0016	U,I4	0.0009	U,I4	0.0012	U,I5	0.0501	U,I4	0.003	U	0.0024	U
Chlorobenzene	mg/kg	6	0.0684	U,I4	0.106	U	0.0028	U,I4	0.0017	U,I4	0.0002	U,I5	0.0102	U,I4	0.0006	U	0.0005	U
Chloroethane	mg/kg	6	NA		0.0655	U	0.0017	U,I4	0.0010	U,I4	0.001	U,I5	0.0426	U,I4	0.0026	U	0.0021	U
Chloroform	mg/kg	6	0.026	U,I4	0.0401	U	0.0064	J,I4	0.0006	U,I4	0.0007	U,I5	0.0287	U,I4	0.0017	U	0.0014	U
Chloromethane	mg/kg	-	NA		NA		NA		NA		0.0004	U,I5	0.0167	U,I4	0.001	U	0.0008	U
cis-1,2-Dichloroethene	mg/kg	-	NA		NA		NA		NA		0.0003	U,I5	0.013	U,I4	0.0008	U	0.0006	U
cis-1,3-Dichloropropene	mg/kg	18	0.0164	U,I4	0.0253	U	0.0007	U,I4	0.0004	U,I4	0.0004	U,I5	0.0185	U,I4	0.0011	U	0.0009	U
Dibromochloromethane	mg/kg	-	0.0342	U,I4	0.0528	U	0.0014	U,I4	0.0008	U,I4	0.0004	U,I5	0.0148	U,I4	0.0009	U	0.0007	U
Dibromomethane	mg/kg	15	NA		0.0317	U	0.0008	U,I4	0.0005	U,I4	0.0008	U,I5	0.0324	U,I4	0.002	U	0.0016	U
Dichlorodifluoromethane	mg/kg	7.2	0.0492	U,I4,E	0.076	U	0.0020	U,I4	0.0012	U,I4,G	0.001	U,E	0.0399	U,I4	0.0024	U	0.0019	U
Ethylbenzene	mg/kg	10	NA		0.0084	U	0.0272	J,I4	0.0128	J,I4	0.0024	J,I5	0.141	J,I4	0.0121	J	0.0073	J
Hexachlorobutadiene	mg/kg	5.6	0.067	U,I4,E	0.103	U	0.0027	U,I4	0.0016	U,I4	0.001	U,I5	0.0417	U,I4,D	0.0025	U	0.002	U
Iodomethane	mg/kg	65	0.0287	U,I4	0.0443	U	0.0012	U,I4	0.0007	U,I4	0.0008	U,I5	0.0352	U,I4	0.0021	U	0.0017	U
Isopropylbenzene	mg/kg	-	NA		NA		NA		NA		0.0009	U,I5	0.038	U,I4	0.0023	U	0.0018	U
Methyl tert-butyl ether	mg/kg	-	NA		NA		NA		NA		0.0003	U,I5	0.013	U,I4	0.0008	U	0.0006	U
Methylene chloride	mg/kg	30	0.308	U,I4	0.475	U	0.0206	J,I4	0.0074	U,I4	0.0011	U,I5	0.0482	U,I4	0.0029	U	0.0023	U
Naphthalene	mg/kg	5.6	0.0465	U,I4	0.0718	U	0.0019	U,I4	0.0011	U,I4	0.0005	U,I5	0.0204	U,I4	0.0012	U	0.001	U
Styrene	mg/kg	-	NA		NA		NA		NA		0.0003	U,I5	0.485		0.0183	J	0.0101	J
Tetrachloroethene	mg/kg	6	0.0465	U,I4	0.0718	U	0.0019	U,I4	0.0011	U,I4	0.0007	U,I5	0.0287	U,I4	0.0017	U	0.0014	U
Toluene	mg/kg	10	0.0191	U,I4	0.0296	U	0.0197	J,I4	0.0087	J,I4	0.0003	U,I5	0.0111	U,I4	0.0175	J	0.0128	J

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Volatile Organic Compounds (8260B)																		
trans-1,2-Dichloroethene	mg/kg	30	0.0383	U,I4	0.0591	U	0.0016	U,I4	0.0009	U,I4	0.0004	U,I5	0.0176	U,I4	0.0011	U	0.0009	U
trans-1,3-Dichloropropene	mg/kg	18	0.0178	U,I4	0.0274	U	0.0007	U,I4	0.0004	U,I4	0.0003	U,I5	0.0139	U,I4,D	0.0008	U	0.0007	U
Trichloroethene	mg/kg	6	0.0369	U,I4	0.057	U	0.0015	U,I4	0.0009	U,I4	0.0005	U,I5	0.0195	U,I4	0.0012	U	0.0009	U
Trichlorofluoromethane	mg/kg	30	0.157	U,I4	0.243	U	0.0064	U,I4	0.0038	U,I4	0.0007	U,I5	0.0278	U,I4	0.0017	U	0.0013	U
Vinyl chloride	mg/kg	6	0.123	U,I4	0.19	U	0.005	U,I4	0.003	U,I4	0.0005	U,I5	0.0195	U,I4	0.0012	U	0.0009	U
Xylenes (total)	mg/kg	30	0.0684	U,I4	0.106	U	0.0645	I4	0.0200	J,I4	0.0117	J,I5	0.195	J	0.0374	J	0.0239	J
Semivolatile Organic Compounds (8270D)																		
1,2,4-Trichlorobenzene	mg/kg	19	0.047	U	0.0667	U	0.738	U,A7	0.426	U,A7	0.788	U,G	0.0864	U	2.03	U	1.4	U
1,2-Dichlorobenzene	mg/kg	6	0.0384	U	0.0546	U	0.603	U,A7	0.349	U,A7	0.645	U,G	0.0707	U	1.66	U	1.14	U
1,2-Diphenylhydrazine	mg/kg	-	0.0171	U	0.0243	U	0.268	U,A7	0.155	U,A7	0.287	U	0.0314	U	0.739	U	0.509	U
1,3-Dichlorobenzene	mg/kg	6	0.0213	U	0.0303	U	0.335	U,A7	0.194	U,A7	0.358	U,G	0.0393	U	0.924	U	0.636	U
1,4-Dichlorobenzene	mg/kg	6	0.0213	U	0.0303	U	0.335	U,A7	0.194	U,A7	0.358	U,G	0.0393	U	0.924	U	0.636	U
2,4,5-Trichlorophenol	mg/kg	7.4	0.0726	U	0.103	U	1.14	U,A7	0.658	U,A7	1.22	U	0.134	U	3.14	U	2.16	U
2,4,6-Trichlorophenol	mg/kg	7.4	0.0683	U	0.097	U	1.07	U,A7	0.62	U,A7	1.15	U,G	0.126	U	2.96	U	2.03	U
2,4-Dichlorophenol	mg/kg	14	0.047	U	0.0667	U	0.738	U,A7	0.426	U,A7	0.788	U,G	0.0864	U	2.03	U	1.4	U,H
2,4-Dimethylphenol	mg/kg	14	0.0342	U	0.0485	U	0.536	U,A7	0.31	U,A7	0.573	U,G	0.0628	U	1.48	U	1.02	U,H
2,4-Dinitrophenol	mg/kg	160	0.111	U	0.158	U	1.74	U,A7	1.01	U,A7,F	1.86	U	0.204	U	4.8	U	3.31	U,I
2,4-Dinitrotoluene	mg/kg	140	0.0897	U,F	0.127	U,F	1.41	U,A7	0.813	U,A7	1.5	U	0.165	U	3.88	U	2.67	U
2,6-Dinitrotoluene	mg/kg	28	0.0811	U	0.115	U	1.27	U,A7	0.736	U,A7	1.36	U	0.149	U	3.51	U	2.42	U
2-Chloronaphthalene	mg/kg	5.6	0.0256	U	0.0364	U	0.402	U,A7	0.232	U,A7	0.43	U,G	0.0471	U	1.11	U	0.763	U
2-Chlorophenol	mg/kg	5.7	0.0213	U	0.0303	U	0.335	U,A7	0.194	U,A7	0.358	U,G	0.0393	U	0.924	U	0.636	U
2-Methylnaphthalene	mg/kg	-	0.0342	U	0.485	J	0.536	U,A7	0.31	U,A7	0.573	U,G	0.0786	J	1.48	U	1.02	U
2-Methylphenol	mg/kg	5.6	0.0683	U	0.097	U	1.07	U,A7	0.62	U,A7	1.15	U,G	0.126	U	2.96	U	2.03	U
2-Nitroaniline	mg/kg	-	0.047	U	0.0667	U	0.738	U,A7	0.426	U,A7	0.788	U	0.0864	U	2.03	U	1.4	U
2-Nitrophenol	mg/kg	-	0.064	U	0.091	U	1.01	U,A7	0.581	U,A7	1.07	U,G	0.118	U	2.77	U	1.91	U,H
3 & 4-Methylphenol	mg/kg	5.6	0.0384	U	0.0546	U	0.603	U,A7	0.349	U,A7	0.645	U	0.0707	U	1.66	U	1.14	U
3,3'-Dichlorobenzidine	mg/kg	-	0.0384	U	0.0546	U	0.603	U,A7	0.349	U,A7	0.645	U	0.0707	U	1.66	U	1.14	U
3-Nitroaniline	mg/kg	-	0.12	U	0.17	U	1.88	U,A7	1.08	U,A7	2.01	U	0.22	U	5.17	U	3.56	U
4,6-Dinitro-2-methylphenol	mg/kg	160	0.137	U	0.194	U	2.15	U,A7	1.24	U,A7	2.29	U	0.251	U	5.91	U	4.07	U,I
4-Bromophenyl phenyl ether	mg/kg	15	0.0299	U	0.0425	U	0.469	U,A7	0.271	U,A7	0.501	U	0.055	U	1.29	U	0.89	U
4-Chloro-3-methylphenol	mg/kg	14	0.0384	U	0.0546	U	0.603	U,A7	0.349	U,A7	0.645	U	0.0707	U	1.66	U	1.14	U,H
4-Chloroaniline	mg/kg	16	0.0555	U	0.0788	U	0.872	U,A7	0.503	U,A7	0.931	U	0.102	U	2.4	U	1.65	U
4-Chlorophenyl phenyl ether	mg/kg	-	0.0555	U,F	0.0788	U	0.872	U,A7	0.503	U,A7	0.931	U	0.102	U	2.4	U	1.65	U
4-Nitroaniline	mg/kg	28	0.0982	U	0.139	U	1.54	U,A7	0.891	U,A7	1.65	U	0.181	U	4.25	U	2.93	U
4-Nitrophenol	mg/kg	29	0.107	U,F	0.152	U	1.68	U,A7	0.968	U,A7	1.79	U	0.196	U	4.62	U	3.18	U
Acenaphthene	mg/kg	43.4	0.0299	U	0.0425	U	0.469	U,A7	0.271	U,A7	0.501	U	0.055	U	1.29	U	0.89	U
Acenaphthylene	mg/kg	3	0.0342	U	0.0485	U	0.536	U,A7	0.31	U,A7	0.573	U	0.0628	U	1.48	U	1.02	U
Acetophenone	mg/kg	9.7	0.047	U	0.0667	U	0.738	U,A7	0.426	U,A7	0.788	U,G	0.0864	U	2.03	U	1.4	U
Aniline	mg/kg	14	0.0299	U	0.0425	U	0.469	U,A7	0.271	U,A7	0.501	U,G	0.0864	J	1.29	U	0.89	U
Anthracene	mg/kg	3.4	0.0213	U	0.0303	U	0.335	U,A7	0.194	U,A7	0.358	U	0.0393	U	0.924	U	0.636	U
Benzidine	mg/kg	-	0.149	U,G	6.18		2.35	U,A7,F	1.36	U,A7,F	2.51	U	0.275	U,F	6.47	U,F	4.45	U,F
Benzo (a) anthracene	mg/kg	3.4	0.0213	U	0.0303	U	0.335	U,A7	0.194	U,A7	0.931	U	0.141	U	0.924	U	1.27	J
Benzo (a) pyrene	mg/kg	3.4	0.047	U	0.0667	U	0.738	U,A7	0.426	U,A7	0.788	U	0.11	J	2.03	U	1.4	U
Benzo (b) fluoranthene	mg/kg	6.8	0.047	U	0.334	J	0.738	U,A7	0.426	U,A7	0.788	U	0.11	J	2.03	U	1.4	J
Benzo (g,h,i) perylene	mg/kg	1.8	0.0342	U	0.0485	U	0.536	U,A7	0.31	U,A7	0.573	U	0.0628	U	1.48	U,F	1.02	U,F,H
Benzo (k) fluoranthene	mg/kg	6.8	0.0299	U	0.0425	U	0.469	U,A7	0.271	U,A7	0.501	U	0.055	U	1.29	U	0.89	U
Benzoic acid	mg/kg	-	0.184	U,F	0.261	U	2.88	U,A7	1.67	U,A7	3.08	U	0.338	U	7.94	U	5.47	U
Benzyl alcohol	mg/kg	-	0.0598	U	0.0849	U	3.62	J,A7	0.542	U,A7	1.43	J,G	0.11	U	2.59	U	1.78	U

TABLE 1
ANALYTICAL RESULTS - LEACHATE TREATMENT SYSTEM SLUDGE
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	'Clarifier Sludge' Clarifier 2/21/2017		'Clarifier Sludge' Clarifier 3/21/2017		'Clairifier Sludge' Clarifier 5/3/2017		'Clarifier Sludge' Clarifier 5/14/2017		RO-101717' Roll Off Box 10/17/2017		'Clarifier-121317' Clarifier 12/13/2017		TH-01-030118' Thickener 3/1/2018		'TH-02-030118' Thickener 3/1/2018 Duplicate	
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers
Semivolatile Organic Compounds (8270D)																		
Bis(2-chloroethoxy)methane	mg/kg	7.2	0.0598	U	0.0849	U	0.939	U,A7	0.542	U,A7	1	U,A9,G	0.11	U,A9	2.59	U	1.78	U
Bis(2-chloroethyl)ether	mg/kg	6	0.047	U	0.0667	U	0.738	U,A7	0.426	U,A7	0.788	U,G	0.0864	U	2.03	U	1.4	U
Bis(2-chloroisopropyl)ether	mg/kg	7.2	0.0256	U	0.0364	U	0.402	U,A7	0.232	U,A7	0.43	U,A9,G	0.0471	U,A9	1.11	U	0.763	U
Bis(2-ethylhexyl)phthalate	mg/kg	28	0.303	J	7.91		2.01	U,A7	1.16	U,A7	2.72	J	1.27		5.91	J	6.61	J
Butyl benzyl phthalate	mg/kg	28	0.0512	U	0.0728	U	0.805	U,A7,F	0.465	U,A7	0.86	U	0.0943	U	2.22	U	1.53	U
Chrysene	mg/kg	3.4	0.0213	U	0.37	J	0.335	U,A7	0.194	U,A7	0.358	J	0.0786	U	1.48	J	0.636	U
Dibenz (a,h) anthracene	mg/kg	8.2	0.0299	U	0.0425	U	0.469	U,A7	0.271	U,A7	0.501	U	0.055	U	1.29	U	0.89	U
Dibenzofuran	mg/kg	-	0.0128	U,F	0.0182	U	0.201	U,A7	0.116	U,A7	0.43	J	0.0236	U	0.554	U	0.382	U
Diethyl phthalate	mg/kg	28	0.0427	U,F	0.0606	U	0.671	U,A7	0.387	U,A7,F	0.716	U	0.0786	U	1.85	U	1.27	U
Dimethyl phthalate	mg/kg	28	0.0256	U,F	0.0364	U	0.402	U,A7	0.232	U,A7	0.43	U	0.0471	U	1.11	U	0.763	U
Di-n-butyl phthalate	mg/kg	28	0.0897	U	0.127	U	1.41	U,A7	0.813	U,A7	2.01	J	0.306	J	3.88	U	2.67	U
Di-n-octyl phthalate	mg/kg	28	0.0299	U	0.685		0.469	U,A7,F	0.271	U,A7	0.573	J	0.134	J	1.29	U	0.89	U
Diphenylamine	mg/kg	-	0.0512	U	0.0728	U	0.805	U,A7	0.465	U,A7	0.86	U	0.0943	U,F	2.22	U	1.53	U
Fluoranthene	mg/kg	3.4	0.0213	U	0.346	J	0.335	U,A7	0.194	U,A7	0.43	J	0.181	U	0.924	U	0.763	J
Fluorene	mg/kg	3.4	0.0171	U,F	0.0243	U	0.268	U,A7	0.155	U,A7	0.287	U	0.0471	J	0.739	U	0.509	U
Hexachlorobenzene	mg/kg	10	0.0512	U	0.0728	U	0.805	U,A7	0.465	U,A7	0.86	U	0.0943	U	2.22	U	1.53	U
Hexachlorobutadiene	mg/kg	5.6	0.0555	U	0.0788	U	0.872	U,A7	0.503	U,A7	0.931	U,G	0.102	U	2.4	U	1.65	U
Hexachlorocyclopentadiene	mg/kg	2.4	0.107	U	0.152	U	1.68	U,A7	0.968	U,A7	1.79	U,G	0.196	U	4.62	U	3.18	U,I
Hexachloroethane	mg/kg	30	0.0512	U	0.0728	U	0.805	U,A7	0.465	U,A7	0.86	U,G	0.0943	U	2.22	U	1.53	U
Indeno (1,2,3-cd) pyrene	mg/kg	3.4	0.047	U	0.0667	U	0.738	U,A7	0.426	U,A7	0.788	U	0.0864	U	2.03	U	1.4	U
Isophorone	mg/kg	-	0.047	U	1.5		0.738	U,A7	0.426	U,A7	0.788	U,G	0.0864	U	2.03	U	3.43	J
Naphthalene	mg/kg	5.6	0.0256	U	0.0364	U	0.402	U,A7	0.232	U,A7	0.43	U,G	0.0707	J	1.11	U	0.763	U
Nitrobenzene	mg/kg	14	0.0555	U	0.0788	U	0.872	U,A7	0.503	U,A7	0.931	U	0.102	U	2.4	U	1.65	U
N-Nitrosodimethylamine	mg/kg	-	0.0555	U	0.0788	U	0.872	U,A7	0.503	U,A7	0.931	U,G	0.102	U	2.4	U	1.65	U
N-Nitrosodi-n-propylamine	mg/kg	-	0.0427	U	0.0606	U	0.671	U,A7	0.387	U,A7	0.716	U,G	0.0786	U	1.85	U	1.27	U
Pentachlorophenol	mg/kg	7.4	0.107	U	0.152	U	1.68	U,A7	0.968	U,A7	1.79	U	0.196	U	4.62	U	3.18	U
Phenanthrene	mg/kg	5.6	0.0213	U	0.34	J	0.335	U,A7	0.194	U,A7	0.358	J	0.149	J	0.924	U	0.89	J
Phenol	mg/kg	6.2	0.0555	U	0.0788	U	0.872	U,A7	0.503	U,A7	0.931	U,G	0.471	J	2.4	U	1.65	U
Pyrene	mg/kg	8.2	0.0299	U	0.34	J	0.469	U,A7	0.271	U,A7	0.573	J	0.141	J	1.29	U	0.89	U
Pyridine	mg/kg	16	0.222	U	0.315	U	3.49	U,A7	2.01	U,A7	3.72	U,G	0.409	U	9.61	U	6.61	U,I
TCLP Semivolatile Organic Compounds (1311/3510C)																		
1,4-Dichlorobenzene	mg/l		NA		NA		NA		NA		0.004	U	0.004	U	0.004	U,F	0.004	U,F
2,4,5-Trichlorophenol	mg/l		NA		NA		NA		NA		0.006	U	0.006	U	0.006	U	0.006	U
2,4,6-Trichlorophenol	mg/l		NA		NA		NA		NA		0.006	U	0.006	U	0.006	U	0.006	U
2,4-Dinitrotoluene	mg/l		NA		NA		NA		NA		0.0085	U	0.0085	U	0.0085	U	0.0085	U
2-Methylphenol	mg/l		NA		NA		NA		NA		0.0065	U	0.0065	U	0.0065	U	0.0065	U
3 & 4-Methylphenol	mg/l		NA		NA		NA		NA		0.0045	U	0.0045	U	0.0045	U	0.0045	U
Benzidine	mg/l		NA		NA		NA		NA		0.011	U	0.011	U	0.011	U,F	0.011	U,F
Hexachlorobenzene	mg/l		NA		NA		NA		NA		0.009	U	0.009	U,G	0.009	U	0.009	U
Hexachlorobutadiene	mg/l		NA		NA		NA		NA		0.008	U	0.008	U	0.008	U	0.008	U
Hexachloroethane	mg/l		NA		NA		NA		NA		0.0055	U	0.0055	U	0.0055	U,F	0.0055	U,F
Nitrobenzene	mg/l		NA		NA		NA		NA		0.006	U	0.006	U	0.006	U	0.006	U
Pentachlorophenol	mg/l		NA		NA		NA		NA		0.0135	U	0.0135	U	0.0135	U	0.0135	U
Pyridine	mg/l		NA		NA		NA		NA		0.0135	U	0.0135	U	0.0135	U	0.0135	U
Polychlorinated Biphenyls (8082)																		
PCB-1016	mg/kg	10 ⁽⁵⁾	0.007	U	0.01	U	0.027	U	0.022	U	0.031	U	0.037	U	0.069	U	0.036	U
PCB-1221	mg/kg	10 ⁽⁵⁾	0.01	U	0.015	U	0.039	U	0.032	U	0.043	U	0.052	U	0.097	U,F	0.05	U,F

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YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	'Clarifier Sludge' Clarifier 2/21/2017		'Clarifier Sludge' Clarifier 3/21/2017		'Clairifier Sludge' Clarifier 5/3/2017		'Clarifier Sludge' Clarifier 5/14/2017		RO-101717' Roll Off Box 10/17/2017		'Clarifier-121317' Clarifier 12/13/2017		TH-01-030118' Thickener 3/1/2018		'TH-02-030118' Thickener 3/1/2018 Duplicate	
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers
Polychlorinated Biphenyls (8082)																		
PCB-1232	mg/kg	10 ⁽⁵⁾	0.01	U	0.015	U	0.039	U	0.032	U	0.033	U	0.04	U	0.074	U	0.039	U
PCB-1242	mg/kg	10 ⁽⁵⁾	0.003	U	0.005	U	0.013	U	0.011	U	0.011	U	0.013	U	0.025	U	0.013	U
PCB-1248	mg/kg	10 ⁽⁵⁾	0.002	U	0.003	U	0.008	U	0.007	U	0.022	U	0.028	U	0.051	U	0.026	U
PCB-1254	mg/kg	10 ⁽⁵⁾	0.008	U	0.011	U	0.03	U	0.024	U	0.048	U	0.059	U	0.109	U	0.057	U
PCB-1260	mg/kg	10 ⁽⁵⁾	0.007	U	0.011	U	0.028	U	0.023	U	0.036	U	0.044	U	0.081	U	0.042	U
Pesticides (8081B)																		
4,4'-DDD	mg/kg	0.087	0.00475	U	0.0273	U,AA	0.113	U	0.0148	U	0.0317	U,D	0.106	U,AA	0.14	U,AA	0.101	U
4,4'-DDE	mg/kg	0.087	0.00431	U	0.0247	U,AA	0.103	U	0.0134	U	0.0144	U	0.0482	U,AA	0.0637	U,AA	0.0458	U
4,4'-DDT	mg/kg	0.087	0.00399	U	0.0229	U,AA	0.0952	U	0.0124	U	0.0346	U	0.116	U,AA,F	0.153	U,AA	0.11	U
Aldrin	mg/kg	0.066	0.005	U	0.0287	U,AA	0.119	U	0.0156	U	0.0144	U	0.0482	U,AA,F	0.0637	U,AA	0.0458	U
alpha-BHC	mg/kg	0.066	0.00437	U,H	0.0251	U,AA	0.104	U,H	0.0136	U	0.0104	U,D	0.0347	U,AA	0.0459	U,AA	0.033	U
alpha-Chlordane	mg/kg	0.26	NA		0.0265	U,AA	0.11	U	0.0144	U	0.0485	U	0.162	U,AA	0.214	U,AA	0.154	U
beta-BHC	mg/kg	0.066	0.00621	U,H	0.0356	U,AA	0.148	U	0.0193	U	0.0525	U	0.175	U,AA	0.232	U,AA	0.167	U
Chlordane (tech)	mg/kg	0.26	NA		0.911	U,AA	3.78	U	0.493	U	1.44	U	4.82	U,AA	6.38	U,AA	4.59	U
delta-BHC	mg/kg	0.066	0.00393	U,G	0.0225	U,AA	0.0937	U,K	0.0122	U	0.0121	U,D	0.0404	U,AA,D	0.0535	U,AA	0.0385	U
Dieldrin	mg/kg	0.13	0.00431	U	0.0247	U,AA	0.103	U	0.0134	U	0.0138	U	0.0462	U,AA	0.0612	U,D,AA	0.044	U,D
Endosulfan I	mg/kg	0.066	0.00462	U	0.0265	U,AA	0.11	U,H	0.0144	U	0.0127	U	0.0424	U,AA,F	0.0561	U,AA	0.0403	U
Endosulfan II	mg/kg	0.13	0.00507	U	0.0291	U,AA	0.121	U	0.0158	U	0.0162	U	0.0539	U,AA,F	0.0714	U,F,AA	0.0513	U,F
Endosulfan sulfate	mg/kg	0.13	0.00386	U	0.0222	U,AA	0.0922	U	0.012	U	0.0461	U	0.154	U,AA,D,F	0.204	U,AA	0.147	U
Endrin	mg/kg	0.13	0.00507	U	0.0291	U,AA	0.121	U	0.0158	U	0.0196	U,D	0.0655	U,AA	0.0866	U,AA	0.0623	U
Endrin aldehyde	mg/kg	0.13	0.005	U,D	0.0287	U,AA	0.119	U	0.0156	U	0.0219	U	0.0732	U,AA,D	0.0968	U,AA	0.0697	U
Endrin ketone	mg/kg	-	NA		NA		0.192	U	0.025	U	0.0565	U,D	0.189	U,AA	0.25	U,AA	0.18	U
gamma-BHC (Lindane)	mg/kg	0.066	0.00412	U,H	0.0236	U,AA	0.0982	U,H	0.0128	U	0.0727	U,D	0.243	U,AA	0.321	U,AA	0.231	U
gamma-Chlordane	mg/kg	0.26	NA		0.0251	U,AA	0.104	U	0.0136	U	0.0461	U	0.154	U,AA	0.204	U,AA	0.0434	U
Heptachlor	mg/kg	0.066	0.00424	U	0.0244	U,AA,D,F	0.101	U	0.0132	U	0.0121	U	0.0404	U,AA	0.0535	U,AA	0.0385	U
Heptachlor epoxide	mg/kg	0.066	0.0069	U,D	0.0396	U,AA	0.165	U	0.0215	U	0.0144	U	0.0482	U,AA	0.0637	U,AA	0.0458	U
Isodrin	mg/kg	0.066	0.00513	U,F,H	NA		NA		NA		NA		0.0385	U,AA	0.051	U,AA	0.0367	U
Methoxychlor	mg/kg	0.18	0.00773	U	0.0444	U,AA,D	0.184	U,K	0.024	U	0.0254	U,D	0.0847	U,AA,D,F	0.112	U,AA	0.0807	U
Toxaphene	mg/kg	2.6	0.264	U	1.52	U,AA	6.3	U	0.822	U	2.41	U	8.03	U,AA	10.6	U,AA	7.65	U
Chlorinated Herbicides (8151A)																		
2,4-D	mg/kg	10	0.000857	U	0.00121	U	0.0063	U,A7	0.00263	U	0.0126	U,D,F	0.106	U	0.04	U	0.0337	U
2,4,5-T	mg/kg	7.9	NA		0.000604	U	0.00315	U,A7	0.00132	U	0.0095	U,D	0.0256	U	0.0251	U	0.0211	U
2,4,5-TP (Silvex)	mg/kg	7.9	0.000428	U	0.000604	U	0.00315	U,A7	0.00132	U	0.0107	U,D	0.0269	U	0.0314	U	0.0264	U
2,4-DB	mg/kg	-	NA		NA		0.0063	U,A7,F,H	0.00263	U	0.0119	U,D	0.188	U	0.0386	U	0.0325	U
Acifluorfen	mg/kg	-	NA		NA		0.00315	U,A7	0.00132	U	0.0126	U,D	NA		0.00526	U	0.00443	U
Dalapon	mg/kg	-	NA		NA		0.0788	U,A7	0.0329	U	0.0612	U,D	0.209	U	0.138	U	0.116	U
Dicamba	mg/kg	-	NA		NA		0.00315	U,A7	0.00132	U	0.00967	U,D	0.0675	U	0.0203	U	0.0171	U
Dichloroprop	mg/kg	-	NA		NA		0.00315	U,A7	0.00132	U	0.0112	U,D	0.11	U	0.0303	U	0.0255	U
Dinoseb	mg/kg	2.5	NA		0.000604	U,K	0.00315	U,A7,F	0.00132	U	0.00457	U,D	0.0491	U	0.033	U	0.0278	U
Total Cyanide (9014)																		
Cyanide (total)	mg/kg	-	0.551	J	0.128	U	23.5		18.3	Q	20		2.21		15.8		11.8	
Amenable Cyanide (4500)																		
Amenable Cyanide	mg/kg	-	0.551	J	0.128	U	23.5		0.551	U	3.05		0.141	U	6.97		0.392	U
Fluoride (9056A)																		
Fluoride	mg/kg	-	21.5	J	55.5	J	78.1	J	69.5	J	83.6	J	22.4	J	80	J	61.3	J
Sulfide (9030/9034)																		
Sulfide	mg/kg	-	3.62	U	32.7	U	93.9	U	68.9	U	6.29	U	72	U	7	U	13.4	J

TABLE 1
ANALYTICAL RESULTS - LEACHATE TREATMENT SYSTEM SLUDGE
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	'Clarifier Sludge' Clarifier 2/21/2017		'Clarifier Sludge' Clarifier 3/21/2017		'Clairifier Sludge' Clarifier 5/3/2017		'Clarifier Sludge' Clarifier 5/14/2017		RO-101717' Roll Off Box 10/17/2017		'Clarifier-121317' Clarifier 12/13/2017		TH-01-030118' Thickener 3/1/2018		'TH-02-030118' Thickener 3/1/2018 Duplicate	
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers
			% Solids (2540G)															
% Solids	%	-	77.3		54.6		20.7		25		27		83.7		25.9		21.5	

NOTES

- (1) 40 CFR 268.40 Univeral Treatment Standards For Non-Wastewaters. Analytes for which no UTS is available are indicated with "--".
- (2) Method detection limit reported for non-detected results
- (3) - No UTS for Total Metals . See TCLP results
- (4) - UTS is for 1,2-Dichloropropane
- (5) - UTS for PCB is the sum of all PCB Isomers
- NA - Not analyzed
- SU - Standard units
- AA - Due to the dilution required by the nature of the sample matrix, the matrix spike is not recoveryable for this compound
- A7 - A reduced amount of sample was used during the preparation step due to the matrix of the sample
- D - A continuing calibration verification analyzed with the analytical batch recovered above the acceptance range for the noted analyte
- E - A continuing calibration verification analyzed with the analytical batch recovered below the acceptance range for the noted analyte
- F - The laboratory control sample analyzed with this preparation batch recovered above the acceptance range for the noted analyte
- G - The laboratory control sample analyzed with this preparation batch recovered below the acceptance range for the noted analyte
- H - The spike recovery was above the acceptance range for the matrix spike and/or matrix spike duplicate sample analyzed with the preparation batch
- I - The spike recovery was below the acceptance range for the matrix spike and/or matrix spike duplicate sample analyzed with the preparation batch
- I4 - Vials were prepared at the laboratory from the received container
- I5 - Vial provided by the laboratory contained preservative for 5 grams of sample; however, the vial was received with greater than 130% of that amount of sample
- J - Detected between the Method Detection Limit and the Reporting Limit; therefore the result is an estimated value
- J - Data validation indicated that the RPD result between the duplicates is greater than 50%, due to laboratory or field sampling imprecision
- K - The RPD result exceeded the quality control limits for the duplicate, laboratory control sample duplicate, or matrix spike duplicate sample analyzed with the preparation batch
- L - The noted analyte was detected in the method blank
- Q - Sample was analyzed at a dilution. Reporting limits were adjusted accordingly
- U - Not detected at reported concentration
- U - Data validation indicated that analyte concentration was below the blank action level

TABLE 2
COMPARISON OF FIELD DUPLICATE RESULTS
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	3/1/2018		3/1/2018 Duplicate		Relative Percent Difference
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	
pH (9045D)							
pH	SU	-	8.52		8.61		1.1
Metals (6010B/7471B)							
Aluminum	mg/kg	--(3)	16100	T	13500	T	17.6
Antimony	mg/kg	--(3)	27		25.6		5.3
Arsenic	mg/kg	--(3)	126		105		18.2
Barium	mg/kg	--(3)	3150	T	4340	T	31.8
Beryllium	mg/kg	--(3)	0.695	J	0.597	J	15.2
Cadmium	mg/kg	--(3)	18.1		15.5		15.5
Chromium	mg/kg	--(3)	461		386	T	17.7
Cobalt	mg/kg	--(3)	22		18.9		15.2
Copper	mg/kg	--(3)	503		426		16.6
Iron	mg/kg	--(3)	35400		29800	T	17.2
Lead	mg/kg	--(3)	2000	T	1660	T	18.6
Manganese	mg/kg	--(3)	1250		1060		16.5
Mercury	mg/kg	--(3)	0.57		0.458		21.8
Nickel	mg/kg	--(3)	194		165		16.2
Selenium	mg/kg	--(3)	26		22.1		16.2
Silver	mg/kg	--(3)	18.8		15.8		17.3
Thallium	mg/kg	--(3)	4.92	J	4.65	J	5.6
Vanadium	mg/kg	--(3)	57.5		47.5		19.0
Zinc	mg/kg	--(3)	2710		2360	T	13.8
TCLP Metals (1311/6010B/7471B)							
Aluminum	mg/l	-	0.065	U	0.114	J	54.7
Antimony	mg/l	1.15	0.0535		0.0483	J	10.2
Arsenic	mg/l	5	0.016	U	0.016	U	0.0
Barium	mg/l	21	0.854		0.842		1.4
Beryllium	mg/l	1.22	0.0012	U	0.0012	U	0.0
Cadmium	mg/l	0.11	0.00245	U	0.00245	U	0.0
Chromium	mg/l	0.6	0.00075	U	0.00075	U	0.0
Cobalt	mg/l	-	0.007	U	0.007	U	0.0
TCLP Metals (1311/6010B/7471B)							
Copper	mg/l	-	0.00826	J	0.0141	J	52.2
Iron	mg/l	-	0.025	U	0.025	U	0.0
Lead	mg/l	0.75	0.012	U	0.012	U	0.0
Manganese	mg/l	-	3.43		3.59		4.6
Mercury	mg/l	0.025	0.00059	U,Q	0.00059	U,Q	0.0
Nickel	mg/l	11	0.182	J	0.209	J	13.8
Selenium	mg/l	5.7	0.0224	J	0.0216	J	3.6
Silver	mg/l	0.14	0.00783	J	0.00792	J	1.1
Thallium	mg/l	0.2	0.0363	J	0.0251	J	36.5
Vanadium	mg/l	1.6	0.0432	J	0.0403	J	6.9
Zinc	mg/l	4.3	0.135		0.216		46.2
pH (1311)							
pH	SU	-	7.31		7.3		0.1

TABLE 2
COMPARISON OF FIELD DUPLICATE RESULTS
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	3/1/2018		3/1/2018 Duplicate		Relative Percent Difference
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	
Volatile Organic Compounds (8260B)							
1,1,1,2-Tetrachloroethane	mg/kg	6	0.0008	U	0.0007	U	13.3
1,1,1-Trichloroethane	mg/kg	6	0.0017	U	0.0014	U	19.4
1,1,2,2-Tetrachloroethane	mg/kg	6	0.0021	U	0.0017	U	21.1
1,1,2-Trichloroethane	mg/kg	6	0.0014	U	0.0012	U	15.4
1,1-Dichloroethane	mg/kg	6	0.0009	U	0.0007	U	25.0
1,1-Dichloroethene	mg/kg	6	0.0011	U	0.0009	U	20.0
1,2,3-Trichloropropane	mg/kg	30	0.0009	U	0.0008	U	11.8
1,2,4-Trichlorobenzene	mg/kg	19	0.0032	U	0.0026	U	20.7
1,2-Dibromo-3-chloropropane	mg/kg	15	0.0016	U	0.0013	U	20.7
1,2-Dibromoethane (EDB)	mg/kg	15	0.0022	U	0.0018	U	20.0
1,2-Dichlorobenzene	mg/kg	6	0.0019	U	0.0015	U	23.5
1,2-Dichloroethane	mg/kg	6	0.0011	U	0.0009	U	20.0
1,2-Dichloropropane	mg/kg	18	0.0008	U	0.0006	U	28.6
1,3-Dichlorobenzene	mg/kg	6	0.0018	U	0.0015	U	18.2
1,3-Dichloropropane ⁽⁴⁾	mg/kg	18	0.0007	U	0.0006	U	15.4
1,4-Dichlorobenzene	mg/kg	6	0.0022	U	0.0018	U	20.0
2-Butanone	mg/kg	36	0.245	J	0.0628	J	118.4
2-Chloroethylvinyl ether	mg/kg	-	0.0038	U	0.0031	U	20.3
2-Hexanone	mg/kg	-	0.0018	U	0.0014	U	25.0
4-Methyl-2-pentanone	mg/kg	33	0.0719		0.0463		43.3
Volatile Organic Compounds (8260B)							
Acetone	mg/kg	160	0.849	U,D	0.48		55.5
Acrolein	mg/kg	-	0.024	U	0.0193	U	21.7
Acrylonitrile	mg/kg	84	0.0025	U	0.002	U	22.2
Benzene	mg/kg	10	0.0007	U	0.0006	U	15.4
Bromodichloromethane	mg/kg	15	0.003	U	0.0024	U	22.2
Bromoform	mg/kg	15	0.0025	U	0.002	U	22.2
Bromomethane	mg/kg	-	0.0011	U	0.0009	U	20.0
Carbon disulfide	mg/kg	-	0.0553		0.0023	U	184.0
Carbon tetrachloride	mg/kg	6	0.003	U	0.0024	U	22.2
Chlorobenzene	mg/kg	6	0.0006	U	0.0005	U	18.2
Chloroethane	mg/kg	6	0.0026	U	0.0021	U	21.3
Chloroform	mg/kg	6	0.0017	U	0.0014	U	19.4
Chloromethane	mg/kg	-	0.001	U	0.0008	U	22.2
cis-1,2-Dichloroethene	mg/kg	-	0.0008	U	0.0006	U	28.6
cis-1,3-Dichloropropene	mg/kg	18	0.0011	U	0.0009	U	20.0
Dibromochloromethane	mg/kg	-	0.0009	U	0.0007	U	25.0
Dibromomethane	mg/kg	15	0.002	U	0.0016	U	22.2
Dichlorodifluoromethane	mg/kg	7.2	0.0024	U	0.0019	U	23.3
Ethylbenzene	mg/kg	10	0.0121	J	0.0073	J	49.5
Hexachlorobutadiene	mg/kg	5.6	0.0025	U	0.002	U	22.2
Iodomethane	mg/kg	65	0.0021	U	0.0017	U	21.1
Isopropylbenzene	mg/kg	-	0.0023	U	0.0018	U	24.4
Methyl tert-butyl ether	mg/kg	-	0.0008	U	0.0006	U	28.6
Methylene chloride	mg/kg	30	0.0029	U	0.0023	U	23.1
Naphthalene	mg/kg	5.6	0.0012	U	0.001	U	18.2
Styrene	mg/kg	-	0.0183	J	0.0101	J	57.7
Tetrachloroethene	mg/kg	6	0.0017	U	0.0014	U	19.4

TABLE 2
COMPARISON OF FIELD DUPLICATE RESULTS
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	3/1/2018		3/1/2018 Duplicate		Relative Percent Difference
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	
Volatile Organic Compounds (8260B)							
Toluene	mg/kg	10	0.0175	J	0.0128	J	31.0
trans-1,2-Dichloroethene	mg/kg	30	0.0011	U	0.0009	U	20.0
trans-1,3-Dichloropropene	mg/kg	18	0.0008	U	0.0007	U	13.3
Trichloroethene	mg/kg	6	0.0012	U	0.0009	U	28.6
Trichlorofluoromethane	mg/kg	30	0.0017	U	0.0013	U	26.7
Vinyl chloride	mg/kg	6	0.0012	U	0.0009	U	28.6
Xylenes (total)	mg/kg	30	0.0374	J	0.0239	J	44.0
Semivolatile Organic Compounds (8270D)							
1,2,4-Trichlorobenzene	mg/kg	19	2.03	U	1.4	U	36.7
1,2-Dichlorobenzene	mg/kg	6	1.66	U	1.14	U	37.1
1,2-Diphenylhydrazine	mg/kg	-	0.739	U	0.509	U	36.9
1,3-Dichlorobenzene	mg/kg	6	0.924	U	0.636	U	36.9
1,4-Dichlorobenzene	mg/kg	6	0.924	U	0.636	U	36.9
2,4,5-Trichlorophenol	mg/kg	7.4	3.14	U	2.16	U	37.0
2,4,6-Trichlorophenol	mg/kg	7.4	2.96	U	2.03	U	37.3
2,4-Dichlorophenol	mg/kg	14	2.03	U	1.4	U,H	36.7
2,4-Dimethylphenol	mg/kg	14	1.48	U	1.02	U,H	36.8
2,4-Dinitrophenol	mg/kg	160	4.8	U	3.31	U,I	36.7
2,4-Dinitrotoluene	mg/kg	140	3.88	U	2.67	U	36.9
2,6-Dinitrotoluene	mg/kg	28	3.51	U	2.42	U	36.8
2-Chloronaphthalene	mg/kg	5.6	1.11	U	0.763	U	37.1
2-Chlorophenol	mg/kg	5.7	0.924	U	0.636	U	36.9
2-Methylnaphthalene	mg/kg	-	1.48	U	1.02	U	36.8
2-Methylphenol	mg/kg	5.6	2.96	U	2.03	U	37.3
2-Nitroaniline	mg/kg	-	2.03	U	1.4	U	36.7
2-Nitrophenol	mg/kg	-	2.77	U	1.91	U,H	36.8
3 & 4-Methylphenol	mg/kg	5.6	1.66	U	1.14	U	37.1
3,3'-Dichlorobenzidine	mg/kg	-	1.66	U	1.14	U	37.1
3-Nitroaniline	mg/kg	-	5.17	U	3.56	U	36.9
4,6-Dinitro-2-methylphenol	mg/kg	160	5.91	U	4.07	U,I	36.9
4-Bromophenyl phenyl ether	mg/kg	15	1.29	U	0.89	U	36.7
4-Chloro-3-methylphenol	mg/kg	14	1.66	U	1.14	U,H	37.1
4-Chloroaniline	mg/kg	16	2.4	U	1.65	U	37.0
4-Chlorophenyl phenyl ether	mg/kg	-	2.4	U	1.65	U	37.0
4-Nitroaniline	mg/kg	28	4.25	U	2.93	U	36.8
4-Nitrophenol	mg/kg	29	4.62	U	3.18	U	36.9
Acenaphthene	mg/kg	43.4	1.29	U	0.89	U	36.7
Acenaphthylene	mg/kg	3	1.48	U	1.02	U	36.8
Acetophenone	mg/kg	9.7	2.03	U	1.4	U	36.7
Aniline	mg/kg	14	1.29	U	0.89	U	36.7
Anthracene	mg/kg	3.4	0.924	U	0.636	U	36.9
Benzidine	mg/kg	-	6.47	U,F	4.45	U,F	37.0
Benzo (a) anthracene	mg/kg	3.4	0.924	U	1.27	J	31.5
Benzo (a) pyrene	mg/kg	3.4	2.03	U	1.4	U	36.7
Benzo (b) fluoranthene	mg/kg	6.8	2.03	U	1.4	J	36.7
Benzo (g,h,i) perylene	mg/kg	1.8	1.48	U,F	1.02	U,F,H	36.8
Benzo (k) fluoranthene	mg/kg	6.8	1.29	U	0.89	U	36.7
Benzoic acid	mg/kg	-	7.94	U	5.47	U	36.8

TABLE 2
COMPARISON OF FIELD DUPLICATE RESULTS
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	3/1/2018		3/1/2018 Duplicate		Relative Percent Difference
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	
Semivolatile Organic Compounds (8270D)							
Benzyl alcohol	mg/kg	-	2.59	U	1.78	U	37.1
Bis(2-chloroethoxy)methane	mg/kg	7.2	2.59	U	1.78	U	37.1
Bis(2-chloroethyl)ether	mg/kg	6	2.03	U	1.4	U	36.7
Bis(2-chloroisopropyl)ether	mg/kg	7.2	1.11	U	0.763	U	37.1
Bis(2-ethylhexyl)phthalate	mg/kg	28	5.91	J	6.61	J	11.2
Butyl benzyl phthalate	mg/kg	28	2.22	U	1.53	U	36.8
Chrysene	mg/kg	3.4	1.48	J	0.636	U	79.8
Dibenz (a,h) anthracene	mg/kg	8.2	1.29	U	0.89	U	36.7
Dibenzofuran	mg/kg	-	0.554	U	0.382	U	36.8
Diethyl phthalate	mg/kg	28	1.85	U	1.27	U	37.2
Dimethyl phthalate	mg/kg	28	1.11	U	0.763	U	37.1
Di-n-butyl phthalate	mg/kg	28	3.88	U	2.67	U	36.9
Di-n-octyl phthalate	mg/kg	28	1.29	U	0.89	U	36.7
Diphenylamine	mg/kg	-	2.22	U	1.53	U	36.8
Fluoranthene	mg/kg	3.4	0.924	U	0.763	J	19.1
Fluorene	mg/kg	3.4	0.739	U	0.509	U	36.9
Hexachlorobenzene	mg/kg	10	2.22	U	1.53	U	36.8
Hexachlorobutadiene	mg/kg	5.6	2.4	U	1.65	U	37.0
Hexachlorocyclopentadiene	mg/kg	2.4	4.62	U	3.18	U,I	36.9
Hexachloroethane	mg/kg	30	2.22	U	1.53	U	36.8
Indeno (1,2,3-cd) pyrene	mg/kg	3.4	2.03	U	1.4	U	36.7
Isophorone	mg/kg	-	2.03	U	3.43	J	51.3
Naphthalene	mg/kg	5.6	1.11	U	0.763	U	37.1
Nitrobenzene	mg/kg	14	2.4	U	1.65	U	37.0
N-Nitrosodimethylamine	mg/kg	-	2.4	U	1.65	U	37.0
N-Nitrosodi-n-propylamine	mg/kg	-	1.85	U	1.27	U	37.2
Pentachlorophenol	mg/kg	7.4	4.62	U	3.18	U	36.9
Phenanthrene	mg/kg	5.6	0.924	U	0.89	J	3.7
Semivolatile Organic Compounds (8270D)							
Phenol	mg/kg	6.2	2.4	U	1.65	U	37.0
Pyrene	mg/kg	8.2	1.29	U	0.89	U	36.7
Pyridine	mg/kg	16	9.61	U	6.61	U,I	37.0
TCLP Semivolatile Organic Compounds (1311/3510C)							
1,4-Dichlorobenzene	mg/l		0.004	U,F	0.004	U,F	0.0
2,4,5-Trichlorophenol	mg/l		0.006	U	0.006	U	0.0
2,4,6-Trichlorophenol	mg/l		0.006	U	0.006	U	0.0
2,4-Dinitrotoluene	mg/l		0.0085	U	0.0085	U	0.0
2-Methylphenol	mg/l		0.0065	U	0.0065	U	0.0
3 & 4-Methylphenol	mg/l		0.0045	U	0.0045	U	0.0
Benzidine	mg/l		0.011	U,F	0.011	U,F	0.0
Hexachlorobenzene	mg/l		0.009	U	0.009	U	0.0
Hexachlorobutadiene	mg/l		0.008	U	0.008	U	0.0
Hexachloroethane	mg/l		0.0055	U,F	0.0055	U,F	0.0
Nitrobenzene	mg/l		0.006	U	0.006	U	0.0
Pentachlorophenol	mg/l		0.0135	U	0.0135	U	0.0
Pyridine	mg/l		0.0135	U	0.0135	U	0.0

TABLE 2
COMPARISON OF FIELD DUPLICATE RESULTS
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	3/1/2018		3/1/2018 Duplicate		Relative Percent Difference
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	
Polychlorinated Biphenyls (8082)							
PCB-1016	mg/kg	10 ⁽⁵⁾	0.069	U	0.036	U	62.9
PCB-1221	mg/kg	10 ⁽⁵⁾	0.097	U,F	0.05	U,F	63.9
PCB-1232	mg/kg	10 ⁽⁵⁾	0.074	U	0.039	U	61.9
PCB-1242	mg/kg	10 ⁽⁵⁾	0.025	U	0.013	U	63.2
PCB-1248	mg/kg	10 ⁽⁵⁾	0.051	U	0.026	U	64.9
PCB-1254	mg/kg	10 ⁽⁵⁾	0.109	U	0.057	U	62.7
PCB-1260	mg/kg	10 ⁽⁵⁾	0.081	U	0.042	U	63.4
Pesticides (8081B)							
4,4'-DDD	mg/kg	0.087	0.14	U,AA	0.101	U	32.4
4,4'-DDE	mg/kg	0.087	0.0637	U,AA	0.0458	U	32.7
4,4'-DDT	mg/kg	0.087	0.153	U,AA	0.11	U	32.7
Aldrin	mg/kg	0.066	0.0637	U,AA	0.0458	U	32.7
alpha-BHC	mg/kg	0.066	0.0459	U,AA	0.033	U	32.7
alpha-Chlordane	mg/kg	0.26	0.214	U,AA	0.154	U	32.6
beta-BHC	mg/kg	0.066	0.232	U,AA	0.167	U	32.6
Pesticides (8081B)							
Chlordane (tech)	mg/kg	0.26	6.38	U,AA	4.59	U	32.6
delta-BHC	mg/kg	0.066	0.0535	U,AA	0.0385	U	32.6
Dieldrin	mg/kg	0.13	0.0612	U,D,AA	0.044	U,D	32.7
Endosulfan I	mg/kg	0.066	0.0561	U,AA	0.0403	U	32.8
Endosulfan II	mg/kg	0.13	0.0714	U,F,AA	0.0513	U,F	32.8
Endosulfan sulfate	mg/kg	0.13	0.204	U,AA	0.147	U	32.5
Endrin	mg/kg	0.13	0.0866	U,AA	0.0623	U	32.6
Endrin aldehyde	mg/kg	0.13	0.0968	U,AA	0.0697	U	32.6
Endrin ketone	mg/kg	-	0.25	U,AA	0.18	U	32.6
gamma-BHC (Lindane)	mg/kg	0.066	0.321	U,AA	0.231	U	32.6
gamma-Chlordane	mg/kg	0.26	0.204	U,AA	0.0434	U	129.8
Heptachlor	mg/kg	0.066	0.0535	U,AA	0.0385	U	32.6
Heptachlor epoxide	mg/kg	0.066	0.0637	U,AA	0.0458	U	32.7
Isodrin	mg/kg	0.066	0.051	U,AA	0.0367	U	32.6
Methoxychlor	mg/kg	0.18	0.112	U,AA	0.0807	U	32.5
Toxaphene	mg/kg	2.6	10.6	U,AA	7.65	U	32.3
Chlorinated Herbicides (8151A)							
2,4-D	mg/kg	10	0.04	U	0.0337	U	17.1
2,4,5-T	mg/kg	7.9	0.0251	U	0.0211	U	17.3
2,4,5-TP (Silvex)	mg/kg	7.9	0.0314	U	0.0264	U	17.3
2,4-DB	mg/kg	-	0.0386	U	0.0325	U	17.2
Acifluorfen	mg/kg	-	0.00526	U	0.00443	U	17.1
Dalapon	mg/kg	-	0.138	U	0.116	U	17.3
Dicamba	mg/kg	-	0.0203	U	0.0171	U	17.1
Dichloroprop	mg/kg	-	0.0303	U	0.0255	U	17.2
Dinoseb	mg/kg	2.5	0.033	U	0.0278	U	17.1
Total Cyanide (9014)							
Cyanide (total)	mg/kg	-	15.8		11.8		29.0
Amenable Cyanide (4500)							
Amenable Cyanide	mg/kg	-	6.97		0.392	U	178.7

TABLE 2
COMPARISON OF FIELD DUPLICATE RESULTS
MAX ENVIRONMENTAL TECHNOLOGIES, INC. FACILITY
YUKON, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	3/1/2018		3/1/2018 Duplicate		Relative Percent Difference
			Result ⁽²⁾	Qualifiers	Result ⁽²⁾	Qualifiers	
Fluoride (9056A)							
Fluoride	mg/kg	-	80	J	61.3	J	26.5
Sulfide (9030/9034)							
Sulfide	mg/kg	-	7	U	13.4	J	62.7
% Solids (2540G)							
% Solids	%	-	25.9		21.5		18.6

NOTES

(1) 40 CFR 268.40 Universal Treatment Standards For Non-Wastewaters. Analytes for which no UTS is available are indicated with "--".

(2) Method detection limit reported for non-detected results

(3) - No UTS for Total Metals . See TCLP results

(4) - UTS is for 1,2-Dichloropropane

(5) - UTS for PCB is the sum of all PCB Isomers

NA - Not analyzed

SU - Standard units

AA - Due to the dilution required by the nature of the sample matrix, the matrix spike is not recoverable for this compound

A7 - A reduced amount of sample was used during the preparation step due to the matrix of the sample

D - A continuing calibration verification analyzed with the analytical batch recovered above the acceptance range for the noted analyte

E - A continuing calibration verification analyzed with the analytical batch recovered below the acceptance range for the noted analyte

F - The laboratory control sample analyzed with this preparation batch recovered above the acceptance range for the noted analyte

G - The laboratory control sample analyzed with this preparation batch recovered below the acceptance range for the noted analyte

H - The spike recovery was above the acceptance range for the matrix spike and/or matrix spike duplicate sample analyzed with the preparation batch spike and/or matrix spike duplicate sample analyzed with the

I4 - Vials were prepared at the laboratory from the received container

I5 - Vial provided by the laboratory contained preservative for 5 grams of sample; however, the vial was received with greater than 130% of that amount of sample

J - Detected between the Method Detection Limit and the Reporting Limit; therefore the result is an estimated value

J - Data validation indicated that the RPD result between the duplicates is greater than 50%, due to laboratory or field sampling imprecision

K - The RPD result exceeded the quality control limits for the duplicate, laboratory control sample duplicate, or matrix spike duplicate sample analyzed with the preparation batch

L - The noted analyte was detected in the method blank

Q - Sample was analyzed at a dilution. Reporting limits were adjusted accordingly

U - Not detected at reported concentration

APPENDIX A

COMPLETED DELISTING PETITION CHECKLIST

SECTION A: ADMINISTRATIVE INFORMATION

(Refer to Guidance Manual Section 3.0, "Administrative Information.")

A space is provided (i.e., "Section _____") with each item in this outline so that you may indicate which section of your petition fully addresses the requested information.

1. Name of Petitioner. Section A.1

a. Name of individual or firm submitting petition:

MAX Environmental Technologies, Inc.

b. Mailing address of individual or firm:

Street/P.O. Box: Foster Plaza #5, 651 Holiday Drive

City: Pittsburgh

State: PA Zip Code: 15220

2. People to Contact for Additional Information Pertaining to this Petition. Section A.2

a. Name	Title	Telephone No.

<u>Carl Spadaro</u>	<u>Environmental</u>	<u>(412) 343-4900</u>

<u></u>	<u>General Manager</u>	<u>()</u>

<u></u>	<u></u>	<u>()</u>

b. Mailing address of contact(s) if different from petitioner. Section

Street/P.O. Box: Same as above

City:

State: Zip Code:

3. Facility Responsible for Generating Petitioned Waste. Section A.3

a. Name of facility: Yukon Facility

b. Location of facility:

Street: 233 MAX Lane

City: Yukon

State: PA Zip Code: 15698

c. RCRA ID Number: EPA ID Number - PAD059087072

4. Location of Petitioned Waste. Section A.4

Same as facility name and address given in item 3;
or

a. Name of facility: Same as above

b. Location of facility:

Street: _____

City: _____

State: _____ Zip Code: _____

c. RCRA ID Number: _____

5. Describe the proposed delisting action. Section A.5

6. Provide a statement of your interest in the proposed action.
Section A.6

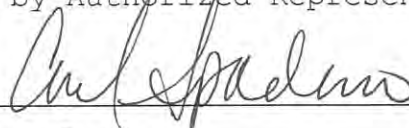
7. Provide a statement of the need and justification for the
proposed action. Section A.7

8. Signed Certification Statement.

Section A.8

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signed by Authorized Representative*,



Typed Name: Carl Spadaro

Title: Environmental General Manager

*Note: An "authorized representative" is a person responsible for the overall operation of a facility or an operation unit (i.e., part of a facility), for example, a plant manager, superintendent, or person of equivalent responsibility. Consultants or other outside parties should not sign the certification statement.

SECTION B. WASTE AND WASTE MANAGEMENT HISTORY INFORMATION

(Refer to Guidance Manual Section 4.0, "Waste and Waste Management History Information.")

BASIS FOR THE WASTE LISTING

1. Which of the following scenarios best describes the petitioned waste? (Choose the most appropriate scenario and provide the information requested for the chosen scenario.)

Section B.1

- a. Petitioned waste is not a mixture of two or more listed hazardous wastes.

Common name of
petitioned waste: Leachate

EPA Hazardous
Waste Number: F039

Hazardous waste
description: Leachate ...resulting from the disposal of more than one restricted wastes listed as an F-, K-, P- or U-listed waste.

- b. Petitioned waste is a mixture of two or more listed hazardous wastes.

Common name of
mixture: _____

For all listed wastes provide:

EPA Hazardous
Waste Number: _____

Hazardous waste
description: _____

Common name: _____

- c. Petitioned waste is a mixture of one or more solid non-hazardous wastes and one or more listed hazardous wastes, as described in 40 CFR §261.3(a)(2)(iii-iv).

Common name
of mixture: _____

Solid waste(s)
common name(s): _____

For all listed wastes provide:

EPA Hazardous

Waste Number: _____

Hazardous waste

description: _____

Common name: _____

- d. Petitioned waste is generated from the treatment, storage, or disposal of one or more listed hazardous wastes (or solid non-hazardous and listed hazardous waste mixture), as described in 40 CFR §261.3(c)(2)(i).

Description of
petitioned waste: _____

Common name of
petitioned waste: _____

Solid waste(s)
common name(s): _____

For all listed wastes provide:

EPA Hazardous

Waste Number: _____

Hazardous waste

description: _____

Common name: _____

2. Describe the physical form of the petitioned waste.

Section **B.1**

3. If the physical form is sludge or liquid, estimate based on waste analysis the percentage of solids (e.g., provide a range).

Section **B.1**

HISTORY OF WASTE GENERATION

4. Which of the following describes the generation of the petitioned waste: (Indicate those that apply and provide the information requested for each item.) Section B.2

- a. Waste has been generated in the past.

Provide the year when waste
was first generated:

1988 (as F039)

Provide the year when waste
generation ended (if applicable):

- b. Waste is presently being generated.

Provide the year when waste
was first generated:

- c. Waste will be generated in the future.

VOLUME OF PETITIONED WASTE

5. Is the petition for a waste of fixed quantity (e.g., a discrete volume of waste contained in a unit)?

Yes [Answer item 5a]

No [Answer item 5b]

- a. Petitioned waste is/will be a fixed quantity.

Section _____

Estimated volume: _____
Quantity Unit of measurement

Describe the method of volume estimation.

- b. Petitioned waste is/will be generated on a routine or continuous basis. Section **B.3**

	Average Quantity	Maximum Quantity	Unit of Measurement
Monthly Volume			
Annual Volume	<u>80</u>	<u>80</u>	<u>cubic yards</u>

Describe the method of volume estimation.

HISTORY OF WASTE MANAGEMENT

6. As appropriate, describe the present, past, and proposed waste management methods for the petitioned waste. Section **B.3**

- a. Present waste management methods, and off-site facility or facilities used (name, address, and waste management method).
- b. Past waste management methods, if different from present, and off-site facility or facilities used (name, address, and waste management method).
- c. Proposed waste management methods if delisting petition is granted, and off-site facility or facilities to be used (name, address, and waste management method).

SECTION C: PROCESS AND WASTE MANAGEMENT INFORMATION

(Refer to Guidance Manual Section 5.0, "Process and Waste Management Information.")

GENERAL OPERATIONS AT THE GENERATING FACILITY

1. Describe facility business area(s) and operations. Include SIC code(s). Section C.1

SIC

4	9	5	3

 : Refuse Systems (NAICS 562211 and 562212)

SIC

 : _____

2. List and describe products manufactured at the facility. Section C.1

3. List and describe all wastes (including all hazardous wastes) generated at the facility. Section C.1

4. Describe your manufacturing and waste treatment areas and waste management units. Attach schematics showing the layout of the facility. Section C.1

5. Describe the regulatory status of all on-site waste treatment, storage, and disposal units. Include a list of all hazardous waste permits and other permits issued under Federal and State environmental statutes. Include the permit numbers in this list. Section C.1

CONTRIBUTING MANUFACTURING PROCESSES

6. Describe and include schematics of all "pre-process" steps used to prepare materials for processing prior to primary manufacturing operations, including surface and equipment preparation operations. Identify all pre-process material inputs and outputs in your descriptions and schematics.
Section C.2
7. Provide a step-by-step description and schematic of each manufacturing process contributing to the petitioned waste. Include each process step, reactions occurring, flow rates, and material inputs and outputs, as well as reaction intermediates and byproducts. Identify and describe waste inputs and outputs on the schematic(s) and indicate how each waste is managed.
Section C.2
8. Describe, and identify on the schematic, exactly where the petitioned waste is generated (if generated by a manufacturing process).
Section C.2
9. List and describe all process equipment, including the function of each unit and the ranges of the operating parameters.
Section C.2
10. Describe all of your operating cycles (batch cycles, versus continuous operation, start-up, shut-down, maintenance, cleaning) on a daily, weekly, or other period basis, as appropriate. Identify periods when process wastes are not generated (e.g., plant shutdowns or routine equipment maintenance).
Section C.2
11. Assess the extent that all contributing manufacturing processes, operations, process materials, or generated wastes have varied in the past or may vary in the future.
Section C.2
12. Describe how the composition and generation rate of the petitioned waste may periodically vary due to any aspect of manufacturing process variability.
Section C.2

13. Does a waste treatment process contribute to the petitioned waste?

Yes **[Continue with item 14]**

No **[Skip to item 22]**

CONTRIBUTING WASTE TREATMENT PROCESSES

14. Provide a step-by-step description and schematic of each waste treatment process contributing to the petitioned waste. Include process steps, reactions occurring, flow rates, material inputs, and waste inputs and outputs. Section **C.3**

15. Describe, and identify on the schematic, exactly where the petitioned waste is generated (if applicable).

Section **C.3**

16. Identify and describe waste inputs and outputs on the schematic(s) and indicate how each waste is managed.

Section **C.3**

17. Describe all non-process wastes entering the waste treatment processes, including composition, rate of inputs, and source.

Section **C.3**

18. List and describe all process equipment, including the function of each unit and the ranges of the operating parameters.

Section **C.3**

19. Describe all of your operating cycles (batch cycles versus continuous operation, start-up, shut-down, maintenance, cleaning) on a daily, weekly, or other period basis, as appropriate. Identify periods when treatment wastes are not generated (e.g., plant shutdowns or routine equipment maintenance).

Section **C.3**

20. Assess the extent that all contributing treatment processes, operations, process materials, or generated wastes have varied in the past or may vary in the future. Section **C.3**

21. Describe how the composition and generation rate of the petitioned waste may periodically vary due to any aspect of treatment process variability. Section C.3

22. Has the petitioned waste been managed in a land-based unit?

Yes [Continue with item 23]

No [Skip to item 25]

WASTE MANAGEMENT OPERATIONS

23. Provide the following information (items 23a through 23g) for each unit that is (or was) used to manage the petitioned waste: Section C.4

(If the petitioned waste is managed in more than one unit, assign a number to each unit (e.g., Unit #1, Unit #2, etc.) and use the unit numbers to associate a description with a specific unit.)

- a. Unit location/address (indicate if on- or off-site).
- b. Description of unit construction (current design and materials).
- c. History of unit design (e.g., chronological summary of any changes to original construction).
- d. Purpose and description of any unit design and operating modifications.
- e. Estimated surface area.
- f. Estimated unit capacity volume.

- g. Listing of waste and material inputs which have occurred throughout the life of the unit, if known.

24. Provide detailed schematic(s) of the waste unit(s) showing (as appropriate) unit dimensions, influent point(s), effluent point(s), and waste thickness. Section C.4

PROCESS MATERIALS

25. List all materials used in the operations that contribute to the petitioned waste. The list should include:

Section C.5

- a. The name of the material(s).
- b. The process/operation in which it is used (i.e., manufacturing process, treatment process, waste management operations).
- c. Function of each material in the process.
- d. Approximate annual quantities used.

26. Provide Material Safety Data Sheets (MSDS) and any other compositional information for tradename and non-elemental materials.

Section C.5

27. Specify the source, quality (i.e., recycled or virgin), and quantity of oil, grease, and hydraulic fluids entering the processes.

Section C.5

SPECIAL INFORMATION

28. Are you requesting an upfront exclusion for a waste that is not currently generated but will be in the future?

Yes **[Continue with item 29]**

No **[Skip to item 32]**

29. Explain how the bench-scale or pilot-scale process demonstration adequately models the proposed full-scale process.

Section NA

30. Explain any real or potential differences between the two processes.

Section NA

31. Describe the impact of those differences on the character of the petitioned waste.

Section NA

32. Are you requesting an exclusion for a waste generated by a multiple waste treatment facility (MWTF)?

Yes **[Continue with item 33]**

No **[Skip to Section D]**

33. Describe your procedure for prescreening clients and wastes and how this procedure will be implemented should your waste be excluded.

Section NA

34. Describe the procedures by which you will ensure that: (1) treatment levels required by an exclusion are maintained and (2) a hazardous waste is not disposed improperly as non-hazardous.

Section NA

SECTION D: ANALYTICAL PLAN DEVELOPMENT

(Refer to Guidance Manual Section 6.0, "Analytical Plan Development.")

1. Provide a complete list of the constituents and parameters of concern identified for your petitioned waste based on appropriate waste constituent analyses and the results of an engineering analysis. Identify those constituents quantitated by laboratory analysis and those quantitated using mass balance demonstrations. Section **D.1**
2. Provide mass balance demonstrations for those constituents of concern in your list for which analyses were not conducted. Provide all calculations and assumptions. Section **D.2**
3. Explain why any other delisting constituent of concern is not on the constituent of concern list for your petitioned waste. Section **D.3**
4. Explain why your petitioned waste does not exhibit any hazardous waste characteristic for which analysis was not conducted. Section **D.4**

SECTION E: SAMPLING AND ANALYSIS INFORMATION

(Refer to Guidance Manual Sections 7.0 and 8.0, "Sampling Plan Development" and "Waste Sampling and Analysis Information," respectively.)

1. Has a draft sampling and analysis plan been submitted to EPA for review prior to petition preparation? Section **E.1**

Yes [Answer items 1a and 1b]

No **[Skip to item 2]**

- a. Submittal date of sampling and analysis plan / /
- b. Log number assigned by EPA to
your draft submittal

WASTE SAMPLING INFORMATION

2. Were all sampling-related activities performed by in-house staff?

Yes [Answer items 2a and 2b]

No [Answer item 2b]

- a. Name and address of the organization(s) or company(s) responsible for designing the sampling strategy and collecting the samples. Section **E.1**

Name **KEY Environmental, Inc. and Field and Technical Services, Inc**

Street **200 Third Avenue**

City	Carnegie	State	PA	Zip	15106

Telephone (412) 279-3363

- b. For each individual person (in-house or otherwise) who designed the sampling plan, the quality control plan, and/or participated in sample collection, please provide a resume of qualifications and the following information:
- Section E.1

Name

Affiliation

Title

SAMPLING STRATEGY

3. Provide the following information (items 3a through 3f) on the sampling strategy you followed to ensure that the samples were representative. Section E.2

- a. Identify which process point discharges, containment areas (e.g., lagoons), or other areas (e.g., soil) were sampled and why these areas were selected for sample collection.
- b. Describe the techniques and guidelines used to select waste sampling points (e.g., random sampling procedure or fixed transect and offset sampling procedure).
- c. Describe the sampling and subsampling (i.e., transferring of sample aliquots into containers specific to certain analyses) procedures used during the sample collection process, including the particular days and times selected for sample collection, the number of grab samples collected for each composite sample, and why these procedures were used.
- d. Describe the sampling devices used for sample collection and the basis for selecting the devices.
- e. Identify and discuss any deviations from your original sampling plan and strategy and the impact of these deviations on waste characterization.
- f. Explain why you believe the samples collected are non-biased and sufficiently represent the petitioned waste. In this explanation, fully address the potential for waste uniformity or spatial and temporal variability and how the strategy ensured collection of representative samples

SAMPLE SPECIFIC INFORMATION

4. How many samples of the petitioned waste were collected?

Section E.3

5. For each individual sample collected, please provide the following sample-specific information (items 5a through 5g).

- a. For each sample included in item 4, provide the sample identification number (as it appears in your field logbook and other records), the date that the sample was taken, an indication as to what type of sample it is (waste sample versus quality control sample and whether or not it is a composite sample).

Section E.3.1

Type of Sample
[Mark one box only]

[illegible]

- b. Describe how each sample was collected, and its point of collection from the petitioned waste. If a sample is a composite of grabs, provide the number of grab samples collected for the composite sample, the sampling location for each grab sample, the volume of each grab sample, and the volume of the composite sample. Section E.3
- c. Describe the general sampling location (e.g., which quadrant of a surface impoundment) and the specific sampling points (e.g., specific location in the quadrant). You may refer to numbered sampling points indicated in a diagram. Section E.3
- d. Describe how each sample was composited (e.g., equipment used and manner of mixing). Section E.3
- e. Provide a physical description of each sampling at time of collection (e.g., color, odor, whether phase separation occurred soon after collection). Section E.3
- f. for each composite sample, specify the time and date when the grab samples were collected and the time and date when the sample was composited, as applicable. Section E.3
- g. Describe the handling and preparation techniques used for each sample (including types of containers used and techniques employed for container preparation) and types and amounts of preservatives used. Section E.3

OTHER GENERAL INFORMATION

6. Describe the weather conditions during sampling (if conducted outdoors). Section E.4
7. Describe any facility activities separate from sampling that occurred at the same time and might have affected sample representativeness. Section E.4

8. Describe sampling device decontamination; and note when disposable devices were used for sample collection.

Section E.4

9. Were the chain-of-custody procedures specified in SW-846 followed?

Yes **[Skip to item 11]**

No **[Continue with item 10]**

10. Provide a description of the quality control procedures and documentation system used to track sample location and maintain sample integrity during transportation to the laboratory. Copies of the chain-of-custody forms may be provided, but are not required.

Section _____

LOCALIZED AREA OF CONTAMINATION

11. Have you collected samples to characterize a localized area of contamination (a "hot spot") within the petitioned waste?

Yes **[Continue with item 12]**

No **[Skip to item 16]**

12. Discuss your basis for believing a hot spot may or does exist (e.g., records of a one-time discharge of a concentrated material at a specific location).

Section NA

13. Describe the known or predicted location (on a diagram) and the dimensions (e.g., depth, width and length) of the hot spot.

Section NA

14. Identify the samples specifically collected to characterize the hot spot.

Section NA

15. Explain why the samples sufficiently represent the hot spot.

Section NA

16. Have you collected samples to characterize a waste generated by a multiple waste treatment facility (MWTF)?

No **[Skip to item 21]**

20. Explain why the wastes not represented by the sampling period are not expected to contain any other hazardous constituents of concern, different levels of constituents of concern, or other different characteristics than that represented by the sampling period.
- Section **NA**

WASTE ANALYSIS INFORMATION

21. Was sample analyses done by in-house staff?

No [Answer items 21a and 21b]

Yes [Answer item 21b]

- a. Name and address of the organization(s) or company(s) responsible for sample analyses. Section E.7.1

Name Ms Michelle Fye c/o Fairway Laboratories, Inc
Street 2019 Ninth Avenue
City Altoona State PA Zip Code 16603
Telephone (814) 946-4306

- b. For each individual person (in-house and otherwise) who conducted analyses or was responsible for data reduction, validation, and laboratory quality control, please provide a resume of qualifications and the following information: Section E.7.1

Name _____
Affiliation _____
Title _____

22. Provide your signed laboratory data reporting forms from all analyses, including results from quality control analyses. Section E.7.1

23. Provide the following information on each sample and each analysis. Section E.7.2

- a. Sample identification numbers as logged during collection and as assigned by the laboratory.
- b. Type of sample (e.g., waste sample, waste sample replicate, equipment blank, field blank.)
- c. Date of sample receipt by the laboratory.

- d. The sample workup or preparation method and reference for the method (e.g., SW-846 Method 3500).
 - e. The date of sample workup or preparation.
 - f. The name of the person conducting the analysis.
 - g. The date of extraction and analysis.
 - h. The test method used and the source of the test method (e.g., SW-846 Method 8020).
 - i. The specific constituent, parameter, or hazard for which analysis was conducted.
 - j. The test results, expressed in appropriate units (e.g., mg/L, mg/kg).
 - k. The basis for the analysis (e.g., wet weight, dry weight).
 - l. The quantitation limits.
24. Provide the names and model numbers of all equipment used during analysis. Section E.7.1
25. Provide all other information necessary to fully interpret the test procedures or results. Section NA

26. For each quality control analysis that involved a matrix or a surrogate spike and spike duplicate analysis, provide the following information. Section E.7.5

- a. The name of the spike analyte added.
- b. The concentration of the spike analyte in the unspiked sample.
- c. The amount of the spike analyte added.
- d. The measured amount of the spike in both spiked samples.
- e. The calculated percent recovery of the spike and method of calculation.
- f. The acceptance criterion for recovery of each matrix spike.
- g. The relative percent difference (RPD) between the duplicate results.
- h. The acceptance criterion for the RPD.

27. Identify whether the waste analytical data was corrected based on quality control results (e.g., blank analysis) and explain how the correction was made. Section E.7.5

28. Explain any inconsistencies or deviations found in the reported analytical results. The discussion should include any observed analytical interferences and what actions were taken to resolve the problems. Section E.7.6

SECTION F: GROUND-WATER MONITORING INFORMATION

(Refer to Guidance Manual Section 9.0, "Ground-water Monitoring Information.")

1. Indicate which of the following describes the management of the petitioned waste. Section **F.1**
 - a. The petitioned waste is currently managed in a land-based waste management unit (on-site or off-site), and ground-water monitoring is required pursuant to 40 CFR Part 264 or 265 or authorized State equivalent, or other Federal, state, or local requirements; or if ground-water monitoring information is otherwise available for the unit.
[Go to item 2]
 - b. The petitioned waste was once managed (but is no longer) in a land-based waste management unit (on-site or off-site) and ground-water monitoring was required pursuant to 40 CFR part 264 or 265 or authorized State equivalent, or other Federal, state, or local requirements; or if ground-water monitoring information is otherwise available for the unit.
[Go to item 2]
 - c. The petitioned waste is currently managed, or was once managed, in a land-based waste management unit, but ground-water monitoring requirement has been waived.
[Go to item 9]
 - d. The petitioned waste is currently managed, or was once managed, in one or more land-based waste management units containing also significant amounts of other wastes, and you consider ground-water data from these non-dedicated units are immaterial in evaluating the petitioned waste's impact on ground-water quality.
[Go to item 10]
 - e. None of the above management scenarios apply.
[Go to item 11]

- Yes [Continue with item 3]
No [Skip to item 5]

- Yes **[Complete item 4 and continue with item 6]**
No **[Skip to item 5]**

- Section NA

a. Name of contact: **Diane McDaniel**

b. Affiliation: **Bureau of Waste Management, PADEP**

c. Title of report (if applicable):

d. Street/P.O. Box: **400 Waterfront Drive**

City: **Pittsburgh**

State: **PA** Zip Code: **15222**

e. Phone: **(412)442-4153**

- Section
- F.2**

a. A description of site geology and hydrology.

- b. A description of the ground-water monitoring systems for the units in which the petitioned waste is (or was) managed.
 - c. The results obtained from the analysis of ground-water samples.
 - d. A discussion of sampling and analytical procedures followed in obtaining and analyzing the ground-water samples.
 - e. Any additional information necessary to characterize the petitioned waste's impact on ground-water quality.
 - f. An analysis and discussion of whether the above-listed information and data that indicate contamination of the ground-water is attributable to the petitioned waste.
6. Is the unsaturated (vadose) zone monitored at any of the subject units?

Yes **[Continue with item 7]**

No **[Skip to item 8]**

7. Provide the following information on vadose zone monitoring (e.g., lysimeter information) in as much detail as possible (similar to that requested for ground-water monitoring systems).

Section **F.2**

- a. A description of regional, local, and unit-specific geology and hydrology, and soil characteristics.
- b. A description of the monitoring system(s) (e.g., design and construction).

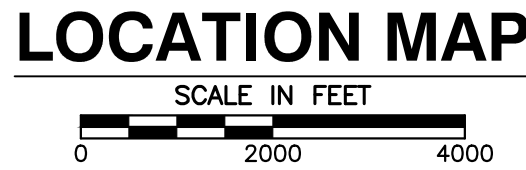
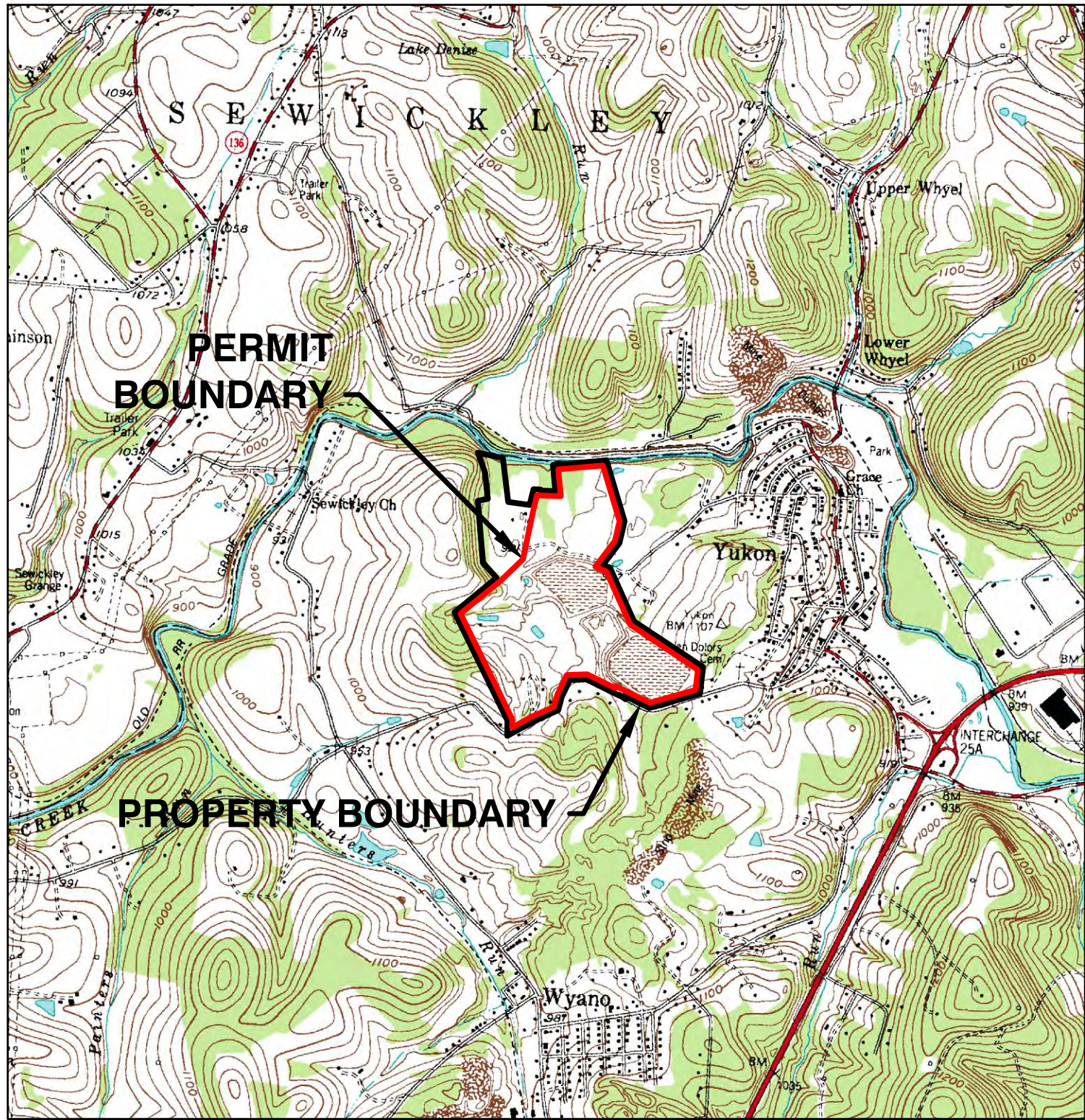
- c. A description of the sampling and analytical procedures followed.
 - d. Analytical and QC data obtained from sample analysis.
 - e. An interpretation of the information and data presented.
8. Discuss whether ground-water contamination exists on the site and, if it does, identify the source. If the source is not the petitioned waste, explain, with supporting information, why the petitioned waste has not contributed to the contamination. Section F.2
[End]
9. Provide documentation on the waiver or exemption of ground-water monitoring at the land-based waste management unit containing the petitioned waste. Section _____
[End]
10. Identify the units in question, provide estimates of the relative volumes of the petitioned and other wastes disposed in the units, and discuss in detail why you consider ground-water data from these non-dedicated units are immaterial in evaluating the petitioned waste's impact on ground-water quality. Section _____
[End]
11. Describe why ground-water monitoring is not required for your petitioned waste. Section _____

APPENDIX B

DRAWING SET OF VERTICAL INCREASE OF LANDFILL 6

APPLICATION-DRAWING SET
MAJOR PERMIT MODIFICATION
VERTICAL INCREASE OF IMPOUNDMENT NO. 6
MAX ENVIRONMENTAL TECHNOLOGIES, INC. - YUKON FACILITY
SOUTH HUNTINGDON TWP., WESTMORELAND CO., PENNSYLVANIA
PERMIT NO. 301071

REVISION RECORD		
NO	DATE	DESCRIPTION
△	4/20/13	REVISED TO RESPOND TO LMP COMMENTS
△	3/20/14	REVISED TO ADDRESS DEP COMMENT LETTER DATED 8/29/2013
△	11/20/14	REVISED TO ADDRESS DEP COMMENT LETTER DATED 9/11/2014
△	5/20/15	REVISED TO ADDRESS DEP COMMENT LETTER DATED 4/8/2015
△	12/20/15	REVISED TO ADDRESS DEP COMMENT LETTER DATED 10/20/2015
SUBMITTAL RECORD		
NO	DATE	DESCRIPTION



PREPARED FOR:



MAX ENVIRONMENTAL TECHNOLOGIES, INC.
1815 WASHINGTON ROAD
PITTSBURGH, PA 15241

PREPARED BY:



CIVIL & ENVIRONMENTAL
CONSULTANTS, INC
4000 TRIANGLE LANE, SUITE 200
EXPORT, PA 15632

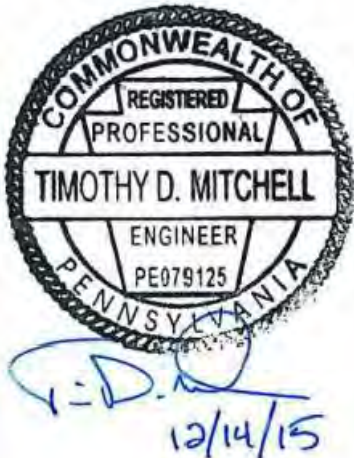
INITIAL SUBMITTAL: AUGUST 2012

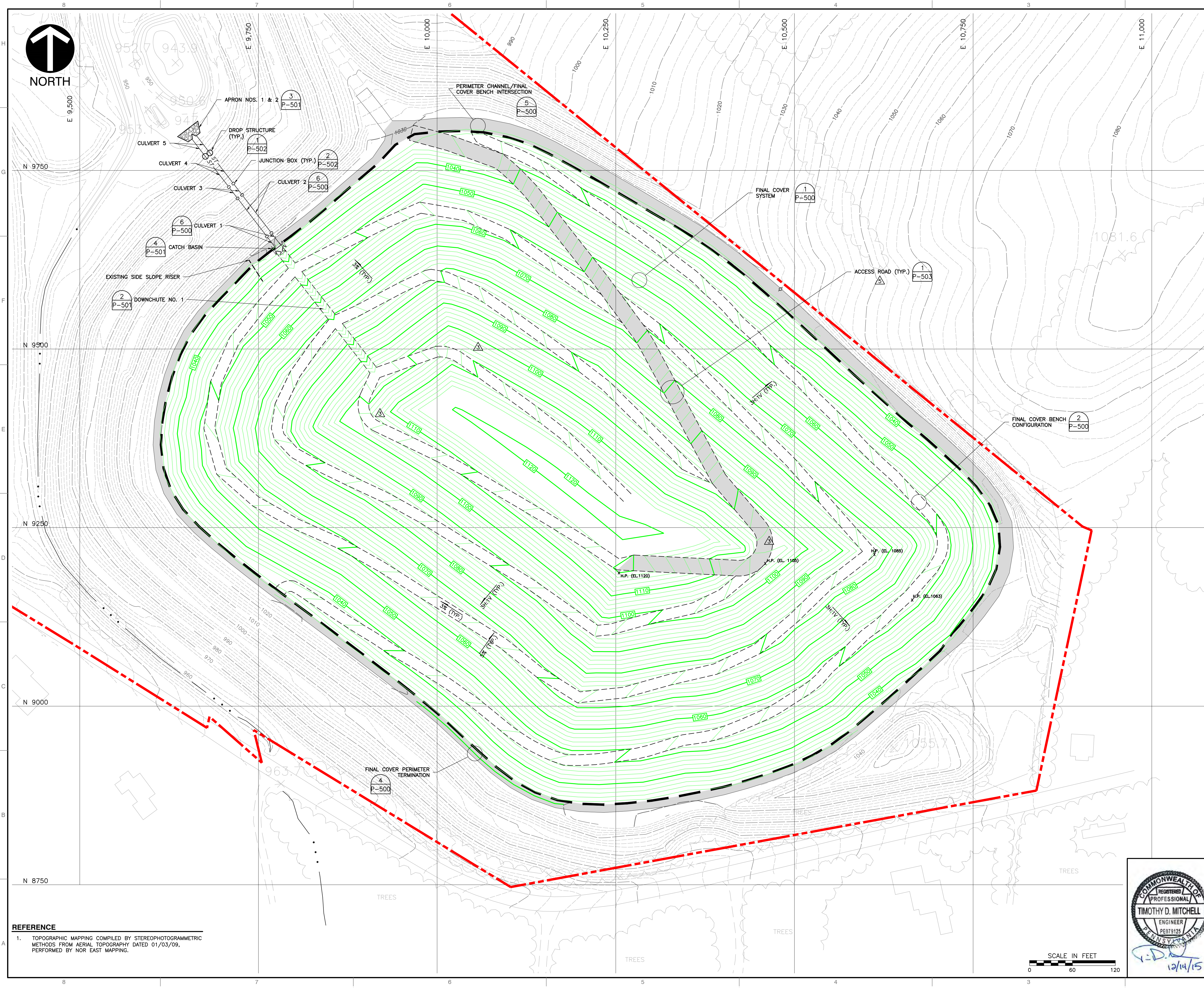
- △ REVISION NO. 1: APRIL 2013
- △ REVISION NO. 2: MARCH 2014
- △ REVISION NO. 3: NOVEMBER 2014
- △ REVISION NO. 4: MAY 2015
- △ REVISION NO. 5: DECEMBER 2015

△ DRAWINGS

DRAWING TITLE	DRAWING NO.	REVISION NO.
TITLE SHEET	P-000	5
GENERAL SITE ARRANGEMENT	P-090	3
EXISTING CONDITIONS - AND SUBSURFACE INVESTIGATION	P-100	3
PERMITTED BASE GRADES	P-101	-
PERMITTED FINAL GRADING	P-102	-
PREVIOUSLY PERMITTED LEACHATE DETECTION ZONE	P-103	2
PREVIOUSLY PERMITTED LEACHATE COLLECTION ZONE	P-104	2
PREVIOUSLY PERMITTED DETAILS	P-105	2
PROPOSED FINAL GRADING	P-200	5
PHASING (SHEET 1 OF 2)	P-201	5
PHASING (SHEET 2 OF 2)	P-202	5
SITE IMPROVEMENTS TO BE PERFORMED PRIOR TO PHASE 1 WASTE ACCEPTANCE	P-203	3
EROSION, SEDIMENT, AND STORMWATER CONTROL PLAN	P-300	5
ENGINEERING CROSS-SECTIONS	P-400	5
DETAILS (SHEET 1 OF 5)	P-500	5
DETAILS (SHEET 2 OF 5)	P-501	5
DETAILS (SHEET 3 OF 5)	P-502	5
DETAILS (SHEET 4 OF 5)	P-503	5
DETAILS (SHEET 5 OF 5)	P-504	5
ALTERNATIVE SLUDGE DEWATERING PLAN	P-600	2
LEACHATE TRANSMISSION LINE AND ABOVE GROUND STORAGE TANK PLAN	P-700	5
ABOVE GROUND STORAGE TANK TYPICAL FOUNDATION DETAILS	P-701	5
LEACHATE STORAGE TANK MINE GROUTING PLAN	P-702	5

- NOTE:
- AS SHOWN ON THESE DRAWINGS, IN AREAS WHERE THE PERMIT BOUNDARY IS SHOWN ADJACENT TO A PROPERTY BOUNDARY, THE PERMIT BOUNDARY SHALL BE CONSIDERED COINCIDENT WITH THE PROPERTY BOUNDARY.





REVISION RECORD		
NO	DATE	DESCRIPTION
1	11/20/14	SOFTEN CURVES ON BENCH 3 REACH A AND BENCH 4 REACHES A AND B
2	12/20/15	REVISED TO ADDRESS DEP COMMENT LETTER DATED 10/20/2015
SUBMITTAL RECORD		
NO	DATE	DESCRIPTION

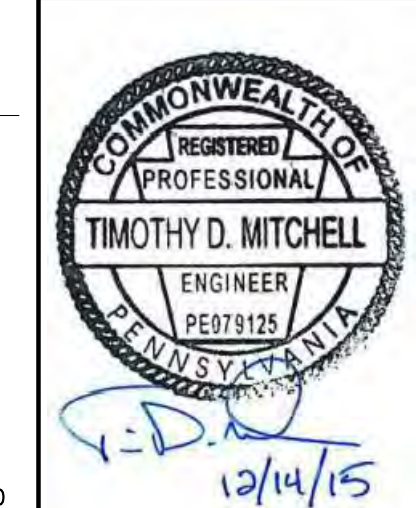
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	EXISTING INDEX CONTOUR
	EXISTING INTERMEDIATE CONTOUR
	PROPOSED FINAL GRADING INDEX CONTOUR
	PROPOSED FINAL GRADING INTERMEDIATE CONTOUR
	LIMITS OF BENCHES
	APPROXIMATE LIMIT OF WASTE PLACEMENT
	PERMIT BOUNDARY/PROPERTY LINE
	STORMWATER CULVERT
	APRON
	JUNCTION BOX
	DETAIL DESIGNATION
	SHEET WHERE DETAIL IS SHOWN

NOTE

1. THE PERMIT BOUNDARY FOR THE FACILITY COINCIDES WITH THE PROPERTY BOUNDARY.

REFERENCE

1. TOPOGRAPHIC MAPPING COMPILED BY STEREOPHOTOGRAMMETRIC METHODS FROM AERIAL TOPOGRAPHY DATED 01/03/09, PERFORMED BY NOR EAST MAPPING.



Civil & Environmental Consultants, Inc.
4000 Triangle Lane, Suite 200 - Export, PA 15632
Ph: 724.327.5200 • 800.899.3610 • Fax: 724.327.5280
www.cecinc.com

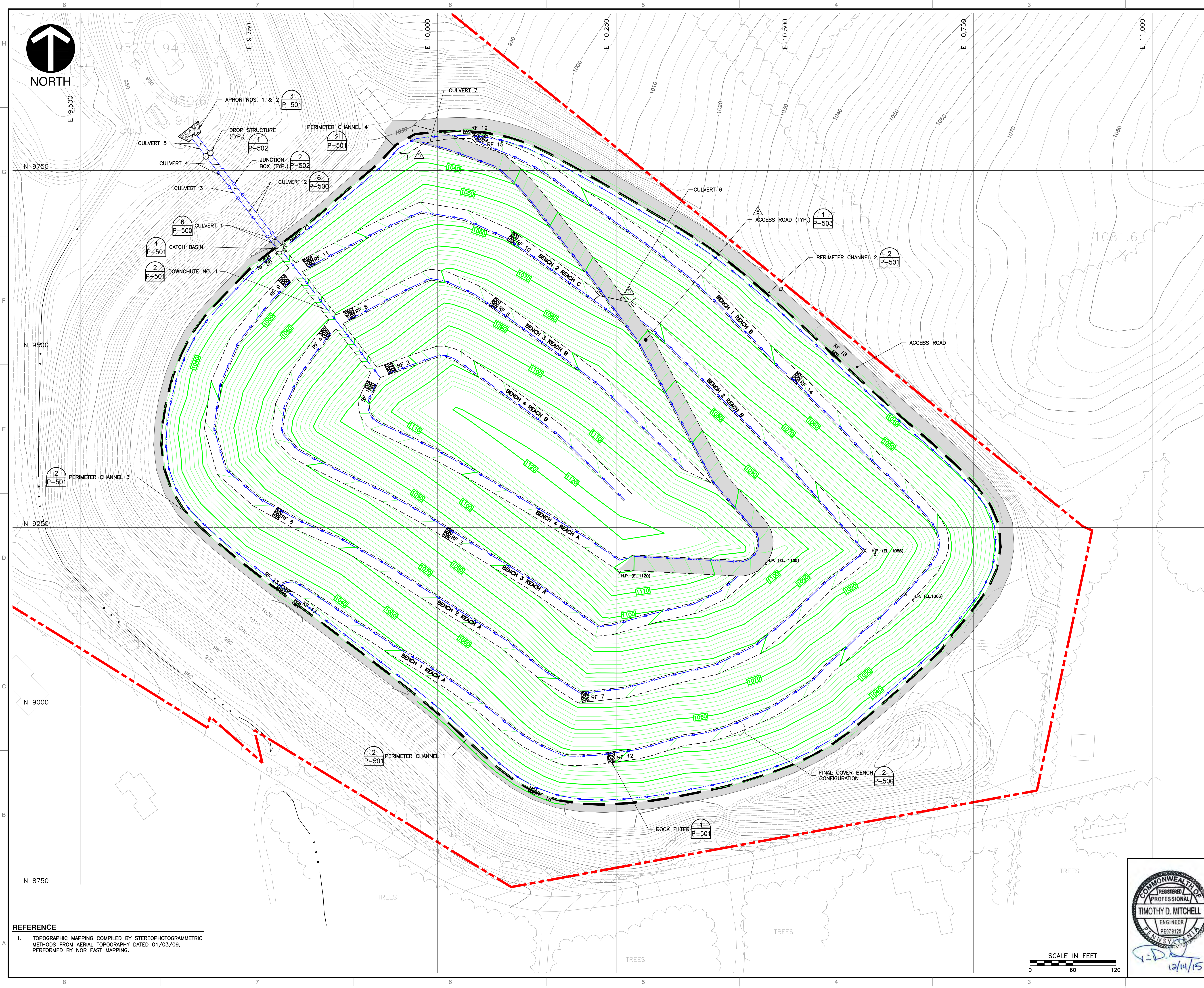
MAX ENVIRONMENTAL TECHNOLOGIES, INC.
YUKON FACILITY
VERTICAL INCREASE OF IMPOUNDMENT NO. 6
SOUTH HUNTINGDON TOWNSHIP,
WESTMORELAND COUNTY, PENNSYLVANIA

DRAWN BY: RJP | CHECKED BY: TDM | APPROVED BY: *ECD
DATE: JULY 2012 | DWG SCALE: 1"= 60' | PROJECT NO: 111-935.0002

PROPOSED FINAL GRADING

P-200

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REVISION RECORD		
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2	12/20/15	REVISED TO ADDRESS DEP COMMENT LETTER DATED 10/20/2015
SUBMITTAL RECORD		
NO	DATE	DESCRIPTION

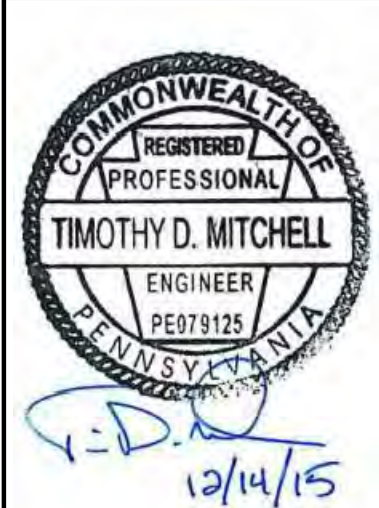
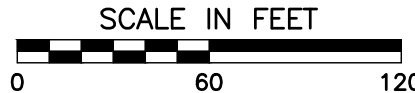
- LEGEND**
- 870 EXISTING INDEX CONTOUR
 - EXISTING INTERMEDIATE CONTOUR
 - PROPOSED FINAL GRADING INDEX CONTOUR
 - PROPOSED FINAL GRADING INTERMEDIATE CONTOUR
 - LIMIT OF BENCHES
 - DRAINAGE SWALE/CHANNEL
 - STORMWATER CULVERT
 - PERMIT BOUNDARY/PROPERTY LINE
 - RF1 ROCK FILTER
 - APRON
 - JUNCTION BOX
 - DROP STRUCTURE
 - DETAIL DESIGNATION
 - SHEET WHERE DETAIL IS SHOWN

NOTE

1. THE PERMIT BOUNDARY FOR THE FACILITY COINCIDES WITH THE PROPERTY BOUNDARY.

REFERENCE

1. TOPOGRAPHIC MAPPING COMPILED BY STEREOPHOTOGRAMMETRIC METHODS FROM AERIAL TOPOGRAPHY DATED 01/03/09, PERFORMED BY NOR EAST MAPPING.



C&E

Civil & Environmental Consultants, Inc.

4000 Triangle Lane, Suite 200 - Export, PA 15632
Ph: 724.327.5200 • 800.899.3610 • Fax: 724.327.5280
www.ccecinc.com

MAX ENVIRONMENTAL TECHNOLOGIES, INC.

YUKON FACILITY

VERTICAL INCREASE OF IMPOUNDMENT NO. 6

SOUTH HUNTINGDON TOWNSHIP,

WESTMORELAND COUNTY, PENNSYLVANIA

DRAWN BY: RJP | CHECKED BY: TDM | APPROVED BY: *EDC

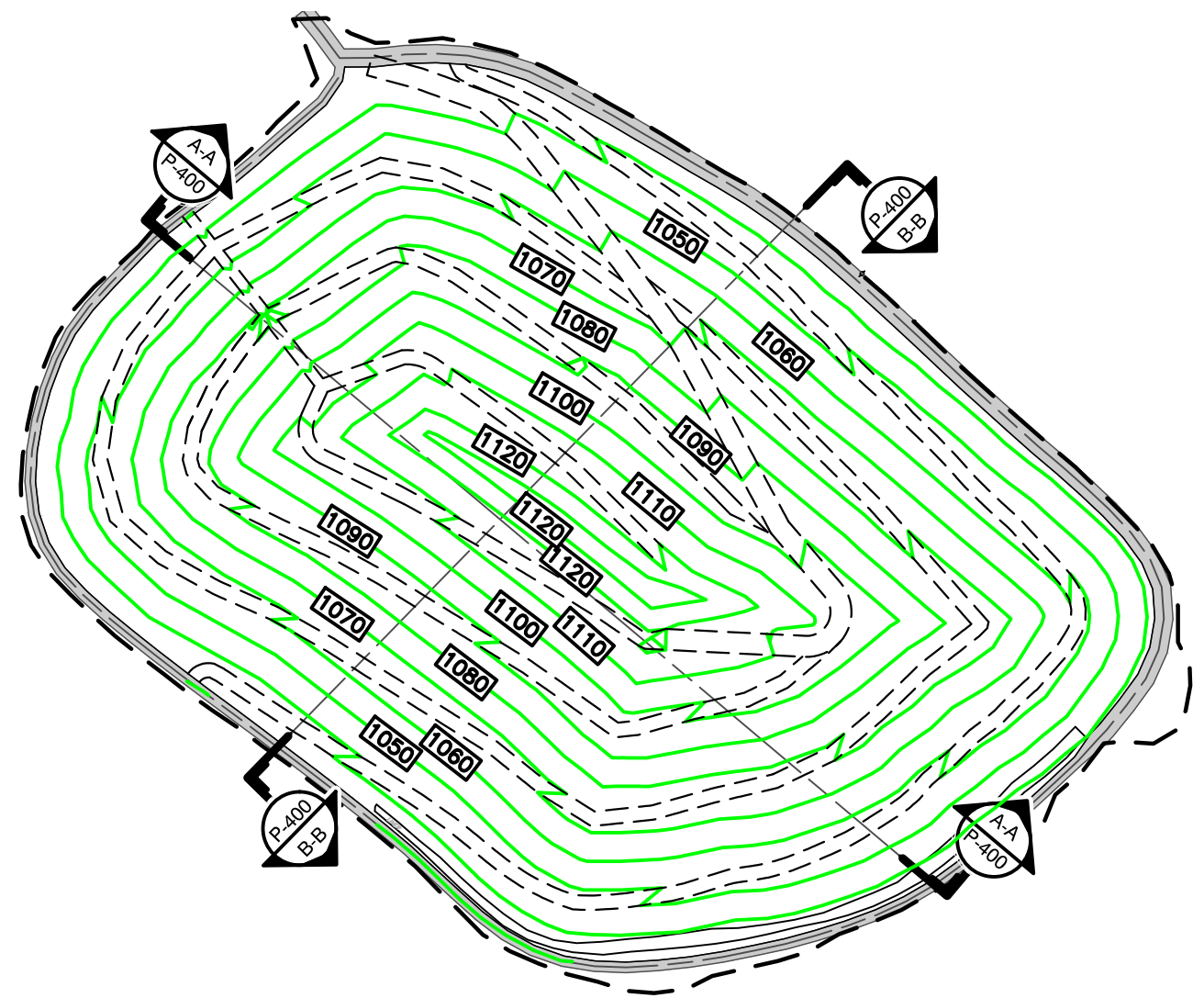
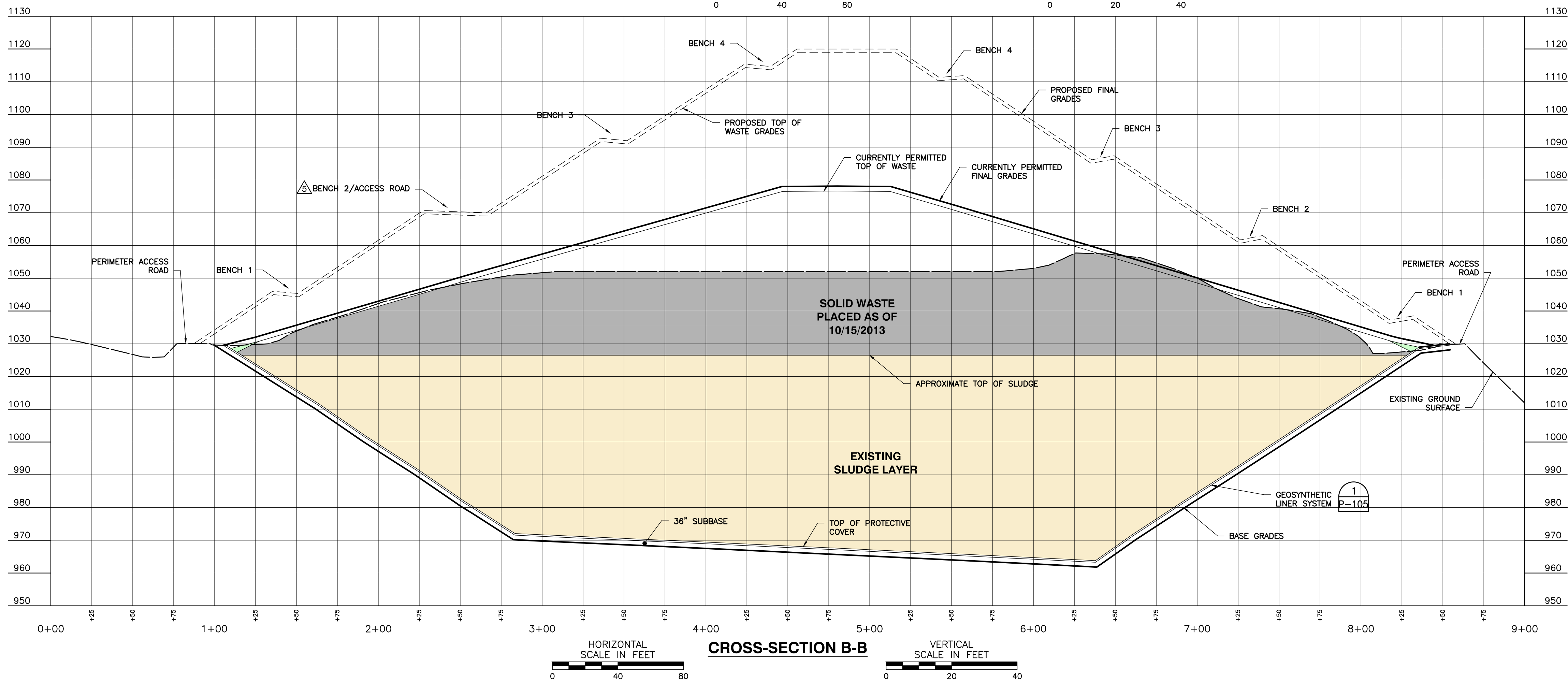
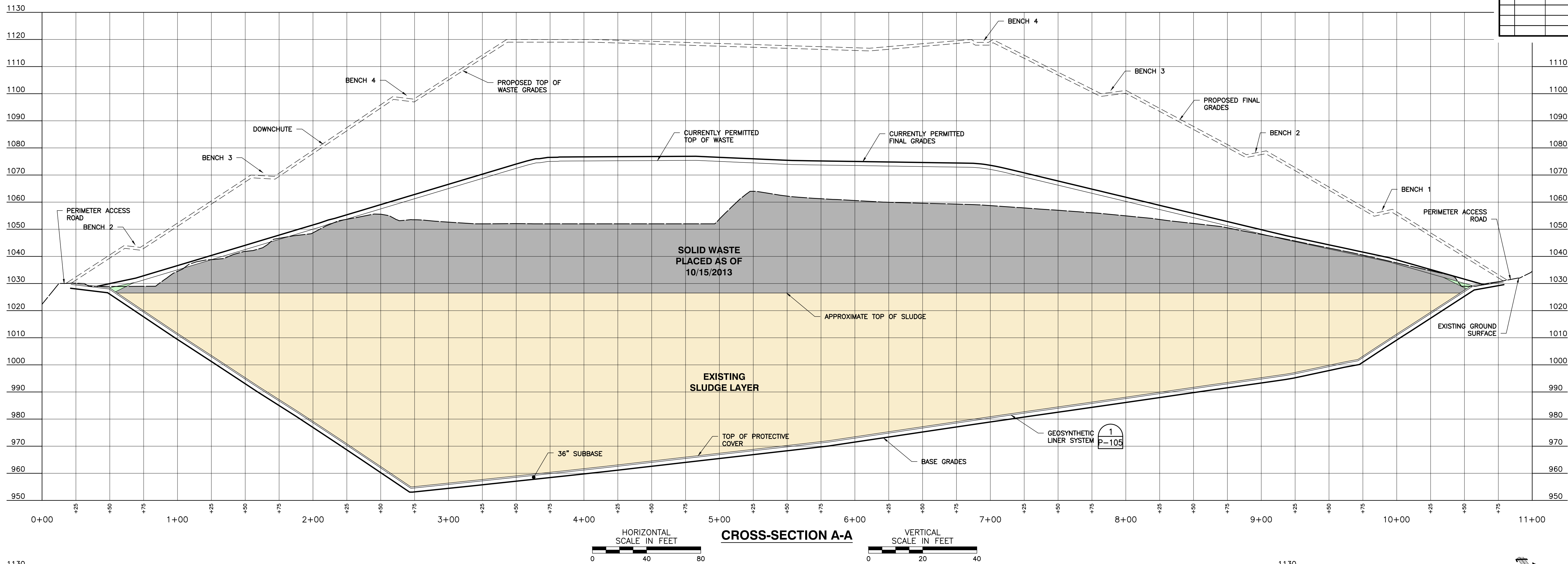
DATE: JULY 2012 | DWG SCALE: 1"= 60' | PROJECT NO: 111-935.0002

EROSION, SEDIMENT, AND STORMWATER CONTROL PLAN

P-300

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REVISION RECORD		
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2	12/2015	REVISED TO ADDRESS DEP COMMENT LETTER DATED 10/20/2015
3		
4		
SUBMITTAL RECORD		
NO	DATE	DESCRIPTION
1		
2		
3		



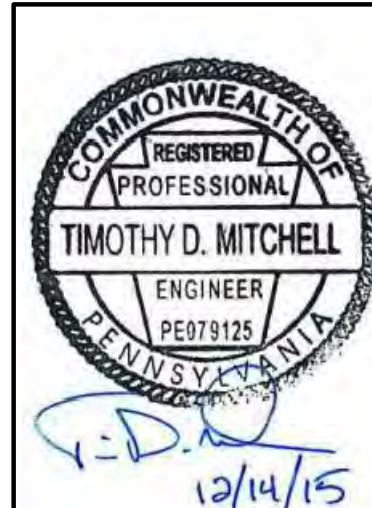
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MAX ENVIRONMENTAL TECHNOLOGIES, INC.
YUKON FACILITY
VERTICAL INCREASE OF IMPOUNDMENT NO. 6
SOUTH HUNTINGDON TOWNSHIP,
WESTMORELAND COUNTY, PENNSYLVANIA

DRAWN BY: JHG CHECKED BY: TDM APPROVED BY: *EDC
DATE: JULY 2012 DWG SCALE: AS SHOWN PROJECT NO.: 111-935.0002
DRAWING NO.: P-400

ENGINEERING CROSS-SECTIONS



APPENDIX C

LEACHATE TREATMENT PLANT SAFETY DATA SHEETS (PROVIDED ON CD IN HARD COPY)

Safety Data Sheet

Distributed By:
SAL Chemical
3036 Birch Drive
Weirton, WV 26062
304-748-8200

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier****Product Name**

- **Calcium Hypochlorite Granular**

Synonyms

- All-Clear™ ChlorRight; All-Clear™ Shock Clear; AmeriChlor Calcium Hypochlorite Granules; Assalt 73; BioGuard Burn Out 73; BioGuard CLC Classic; Ca(OCl)₂; Cal Hypo Granules; Calcium Hypochlorite; Calcium Hypochlorite Granular; Ideal Pool Products Super Shock 73; Induclor™; Induclor™ 70; More Chlor 65; Nature's Way Super Pool Shock; Pittclor 70; Pittclor®; Power Powder® Plus; Power Powder® Pro; Prestochlor™; Pro Team Power 73; ProGuard; Refresh Dry Chlorinating Granular; Re-Fresh®; Regal®; Repak™ + Granules; Repak™ Dry Chlorinating Granules; Super Pool Shock; Super Shock-It®; Super Shock-It® 73; Super Zappit™; Sustain® Shock Treatment; Tropiclear; Vanguard® Plus Calcium Hypochlorite Granules; Zappit™; Zappit™ 73

1.2 Relevant identified uses of the substance or mixture and uses advised against**Relevant identified use(s)**

- Industrial Application, Chlorine Disinfectant, Pool Chemicals

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Axiall, LLC
1000 Abernathy Rd. NE, Suite 1200
Atlanta, GA 30328
United States
www.axiall.com
msdsinfo@axiall.com

Telephone (General) • +1 225-685-1240

1.4 Emergency telephone number**Manufacturer**

- +1 304-455-6882

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture**CLP**

- Oxidizing Solids 2 - H272
Acute Toxicity Oral 4 - H302
Skin Corrosion 1B - H314
Serious Eye Damage 1 - H318
Hazardous to the aquatic environment Acute 1 - H400

2.2 Label Elements**CLP**

DANGER



- Hazard statements •**
- H272 - May intensify fire; oxidizer
 - H302 - Harmful if swallowed
 - H318 - Causes serious eye damage
 - H314 - Causes severe skin burns and eye damage.
 - H400 - Very toxic to aquatic life

Precautionary statements

- Prevention •**
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P220 - Keep/Store away from clothing and other combustible materials.
 - P221 - Take any precaution to avoid mixing with combustibles
 - P260 - Do not breathe dusts or mists.
 - P264 - Wash thoroughly after handling.
 - P270 - Do not eat, drink or smoke when using this product.
 - P273 - Avoid release to the environment.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response •**
- P370+P378 - In case of fire: Use appropriate media to extinguish.
 - P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P321 - Specific treatment, see supplemental first aid information.
 - P363 - Wash contaminated clothing before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
 - P330 - Rinse mouth.
 - P331 - Do NOT induce vomiting.
 - P391 - Collect spillage.
- Storage/Disposal •**
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P405 - Store locked up.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information •** 0 - 3 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

UN GHS Revision 3

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Third Revised Edition

2.1 Classification of the substance or mixture

- UN GHS**
- Oxidizing Solids 2
 - Acute Toxicity Oral 4
 - Skin Corrosion 1B
 - Serious Eye Damage 1
 - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
 - Hazardous to the aquatic environment Acute 1
 - Hazardous to the aquatic environment Chronic 1

2.2 Label elements

UN GHS

DANGER



- Hazard statements** • May intensify fire; oxidizer
Harmful if swallowed
Causes serious eye damage
May cause respiratory irritation
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects
Causes severe skin burns and eye damage.

Precautionary statements

- Prevention** • Keep away from heat.
Keep/Store away from clothing and other combustible materials.
Take any precaution to avoid mixing with combustibles .
Do not breathe dusts or mists.
Avoid breathing dust, fume, gas, mist, vapours and/or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • In case of fire: Use appropriate media for extinction.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Collect spillage.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Supplemental information** • 0-3 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

UN GHS

- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Oxidizing Solids 2
Acute Toxicity Oral 4
Skin Corrosion 1B
Serious Eye Damage 1
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • May intensify fire; oxidizer
Harmful if swallowed
Causes severe skin burns and eye damage.
Causes serious eye damage
May cause respiratory irritation

Precautionary statements

- Prevention** • Keep away from heat.
Keep/Store away from clothing and other combustible materials.
Take any precaution to avoid mixing with combustibles
Do not breathe dust.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • In case of fire: Use appropriate media to extinguish.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER/doctor/ physician if you feel unwell.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor/ physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information** • 0 - 3 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015

- Oxidizing Solids 2
Acute Toxicity Oral 4
Skin Corrosion 1B
Serious Eye Damage 1
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

2.2 Label elements

WHMIS 2015

DANGER



- Hazard statements** • May intensify fire; oxidizer

Harmful if swallowed
 Causes severe skin burns and eye damage.
 Causes serious eye damage
 May cause respiratory irritation

Precautionary statements

- Prevention** • Keep away from heat
 Take any precaution to avoid mixing with combustibles
 Keep away from clothing and other combustible materials.
 Do not breathe dust.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Wear fire resistant or flame retardant clothing.
- Response** • In case of fire: Use appropriate media to extinguish.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/doctor if you feel unwell.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 Wash contaminated clothing before reuse.
 Immediately call a POISON CENTER/doctor.
 Specific treatment, see supplemental first aid information.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information • 0 - 3 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

WHMIS 2015

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Calcium hypochlorite	CAS:7778-54-3 EC Number:231-908-7 EU Index:017-012-00-7	65% TO 76%	NDA	EU CLP: Annex VI, Table 3.1: Ox. Sol. 2, H272; Acute Tox. 4 *, H302; Skin Corr. 1B, H314; Aquatic Acute 1, H400 UN GHS Revision 3: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (orl); STOT SE 3: Resp. Irrit; Aquatic Acute 1; Aquatic Chronic 1 OSHA HCS 2012: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (Orl); STOT SE 3: Resp. Irrit. WHMIS 2015: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (Orl); STOT SE 3: Resp. Irrit.

Sodium chloride	CAS: 7647-14-5 EC Number: 231-598-3	10% TO 30%	Ingestion/Oral-Rat LD50 • 3000 mg/kg	EU CLP: Eye Irrit. 2, H319 UN GHS Revision 3: Acute Tox. 5 (oral); Eye Irrit. 2; Skin Irrit. 3 OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2
Calcium hydroxide	CAS: 1305-62-0 EC Number: 215-137-3	1% TO 3%	Ingestion/Oral-Rat LD50 • 7340 mg/kg	EU CLP: Eye Dam. 1, H318; Skin Corr. 1, H314; Aquatic Chronic 3, H412 UN GHS Revision 3: Eye Dam. 1; Skin Corr. 1; OSHA HCS 2012: Skin Corr. 1; Eye Dam. 1 WHMIS 2015: Skin Corr. 1; Eye Dam. 1
Calcium chlorate	CAS: 10137-74-3 EINECS: 233-378-2	0% TO 3%	NDA	EU CLP: Ox. Sol. 2, H272 UN GHS Revision 3: Ox. Sol. 2; OSHA HCS 2012: Ox. Sol. 2 WHMIS 2015: Ox. Sol. 2
Calcium carbonate	CAS: 471-34-1 EC Number: 207-439-9	1% TO 3%	Ingestion/Oral-Rat LD50 • 6450 mg/kg	EU CLP: Skin Irrit. 2, H315; Eye Irrit. 2, H319 UN GHS Revision 3: Skin Irrit. 2; Eye Irrit. 2 OSHA HCS 2012: Skin Irrit. 2; Eye Irrit. 2 WHMIS 2015: Skin Irrit. 2; Eye Irrit. 2
Calcium chloride	CAS: 10043-52-4 EC Number: 233-140-8 EU Index: 017-013-00-2	0.1%	Ingestion/Oral-Rat LD50 • 1 g/kg	EU CLP: Annex VI, Table 3.1: Eye Irrit. 2, H319 UN GHS Revision 3: Eye Irrit. 2; Acute Tox. 4 (Orl); OSHA HCS 2012: Eye Irrit. 2; Acute Tox. 4 (Orl) WHMIS 2015: Eye Irrit. 2; Acute Tox. 4 (Orl)

See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison control center or doctor for further treatment advice.

Skin

- For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Call a poison center or doctor for treatment advice.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Remove contact lenses, if present after the first 5 minutes. Continue Rinsing. Call a poison control center or doctor for further treatment advice.

Ingestion

- If swallowed, seek medical attention immediately from poison control center or doctor. Have a person sip a glass of water, if able to swallow. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless told to do so by the poison control center or doctor.

4.2 Most important symptoms and effects, both acute and delayed

- If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during, or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person. Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- Probable mucosal damage may contraindicate the use of gastric lavage. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Drench with large quantities of water only.

Unsuitable Extinguishing Media • Do not use dry chemicals or foams. Product supplies own oxygen, therefore attempts to smother fire with a wet blanket, carbon dioxide, dry chemical extinguisher or other means are not effective. Product has the potential to cause a violent reaction if dry chemical fire extinguishers are used.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Containers may explode when heated.
May explode from heat or contamination.
May ignite combustibles (wood, paper, oil, clothing, etc.)
Runoff may create fire or explosion hazard.
Some will react explosively with hydrocarbons (fuels)
These substances will accelerate burning when involved in a fire.
Emits toxic fumes under fire conditions.
Chlorine gas may be generated.

Hazardous Combustion Products • Depending on conditions, decomposition products may include the following materials: carbon oxides; halogenated compounds; metal oxide/oxides.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
No action shall be taken involving any personal risk or without suitable training.
This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Use extreme caution in handling spilled material. Ventilate the area before entry. Use spark-proof tools and explosion-proof equipment. Do not walk through spilled material. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Contamination with moisture, acids, organic matter, other chemicals (including, but not limited to cleaning chemicals and other pool chemicals), petroleum or paint products or other easily combustible materials may start a chemical reaction with generation of heat, liberation of hazardous gases and possible violent reaction leading to fire or explosion. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up • Avoid generating dust.

Measures

If fire or decomposition occurs in area of spill, immediately douse with plenty of water. Otherwise, sweep up all visible material using a clean (new, if possible), dry shovel and broom and immediately dissolve material in a water-filled container. Spilled material that has been swept up and dissolved in water should be used immediately in the normal application for which this product is being consumed.

6.4 Reference to other sections

- Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7 - Handling and Storage**7.1 Precautions for safe handling****Handling**

- Use extreme caution in handling spilled material. Use only with adequate ventilation. Keep away from combustible material. Strong oxidizer. Contact with other material may cause fire. Use spark-proof tools and explosion-proof equipment. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Contamination with moisture, acids, organic matter, other chemicals (including, but not limited to cleaning chemicals and other pool chemicals), petroleum or paint products or other easily combustible materials may start a chemical reaction with generation of heat, liberation of hazardous gases and possible violent reaction leading to fire or explosion. Always add product to large quantities of water to fully dissolve product. Do not pour water into product, always add product to water. Use only a clean (new, if possible), dry scoop made of metal or plastic each time product is taken from the container. Do not use with stabilized chlorine or bromine tablet chemical feeders. Do not add this product to any dispensing device containing remnants of any other product or pool chemical. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Empty containers retain product residue and can be hazardous. Do not reuse container. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Ventilate enclosed areas. Keep only in the original container. Keep container closed. Separate from acids, alkalis, reducing agents and combustibles. Product is an NFPA Class 3 oxidizer which can cause a severe increase in fire intensity. Store in a cool, dry, well-ventilated place. If product becomes contaminated or decomposes do not reseal container. If possible isolate container in open air or well-ventilated area.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters**

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Ontario	Canada Quebec	NIOSH
Calcium chloride (10043-52-4)	TWAs	Not established	Not established	5 mg/m ³ TWA	Not established	Not established
Calcium hydroxide (1305-62-0)	TWAs	5 mg/m ³ TWA	5 mg/m ³ TWA	5 mg/m ³ TWA	5 mg/m ³ TWAEV	5 mg/m ³ TWA
Calcium carbonate (471-34-1)	TWAs	Not established	Not established	Not established	10 mg/m ³ TWAEV (total dust)	10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable dust)

Exposure Limits/Guidelines (Con't.)		
	Result	OSHA
Calcium hydroxide (1305-62-0)	TWAs	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal Protective Equipment

Respiratory

- If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye/Face

- Wear chemical splash goggles and face shield.

Skin/Body

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. HANDS: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. GLOVES: Nitrile, neoprene, and butyl rubber.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEV = Short Term Exposure Value

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

STEL = Short Term Exposure Limits are based on 15-minute exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Various colored solid (granular solid) with a slight chlorine odor.
Color	Various colors.	Odor	Slight chlorine odor.
Odor Threshold	No data available		
General Properties			
Boiling Point	170 to 180 °C(338 to 356 °F) Decomposes	Melting Point/Freezing Point	No data available
Decomposition Temperature	170 to 180 °C(338 to 356 °F)	pH	Alkaline
Specific Gravity/Relative Density	No data available	Bulk Density	1 to 1.07 g/cm ³
Water Solubility	Soluble 100 %	Viscosity	No data available
Volatility			

Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	Volatiles (Wt.)	0 %
Volatiles (Vol.)	0 %		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	No data available
Self-Accelerating Decomposition Temperature (SADT)	60 °C(140 °F)	Flammability (solid, gas)	No data available
Environmental			
Octanol/Water Partition coefficient	No data available		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- The product may not be stable under certain conditions of storage or use. Product decomposes at approximately 170-180°C (338-356°F) releasing oxygen gas and some chlorine gas.

10.3 Possibility of hazardous reactions

- Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following: contact with combustible materials, contact with acids/ammonia. Reactions may include the following: risk of causing or intensifying fire, liberation of toxic gas.

10.4 Conditions to avoid

- Heating may cause a fire or explosion. Excessive heat will cause decomposition resulting in the release of oxygen and chlorine gas.

10.5 Incompatible materials

- Highly reactive or incompatible with the following materials: moisture, combustible materials, organic materials, metals, acids, alkalis, oxidizing materials, reducing materials, ammonia, petroleum products, paint products, wood and paper, and pool chemicals. Acid or ammonia contamination will release toxic gases.

10.6 Hazardous decomposition products

- Depending on conditions, product slowly releases chlorine gas.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Calcium chloride (0.1%)	10043-52-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1 g/kg
Calcium hydroxide (1% TO 3%)	1305-62-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • 7340 mg/kg; Irritation: Eye-Rabbit • 10 mg • Severe irritation
Calcium carbonate (1% TO 3%)	471-34-1	Irritation: Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation
		Acute Toxicity: Ingestion/Oral-Rat LD50 • 3000 mg/kg;

Sodium chloride (10% TO 30%)	7647-14-5	Irritation: Eye-Rabbit • 100 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 201.6 g/kg 6 Week(s)-Intermittent; <i>Vascular:BP elevation not characterized in autonomic section;</i> Mutagen: Unscheduled DNA synthesis • Ingestion/Oral-Rat • 16800 mg/kg 4 Week(s)-Continuous; Reproductive: Ingestion/Oral-Rat TDLo • 56400 mg/kg (5D pre-21D post); <i>Reproductive Effects:Maternal Effects:Postpartum; Reproductive Effects:Effects on Newborn:Biochemical and metabolic</i>
Calcium hypochlorite (65% TO 76%)	7778-54-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 850 mg/kg

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Oral 4 - ATEmix (Orl) = 1118 mg/kg UN GHS 3 • Acute Toxicity - Oral 4 - ATEmix (Orl) = 1054 mg/kg OSHA HCS 2012 • Acute Toxicity - Oral 4 - ATEmix (Orl) = 1054 mg/kg WHMIS 2015 • Acute Toxicity - Oral 4 - ATEmix (Orl) = 1054 mg/kg
Skin corrosion/Irritation	EU/CLP • Skin Corrosion 1B UN GHS 3 • Skin Corrosion 1B OSHA HCS 2012 • Skin Corrosion 1B WHMIS 2015 • Skin Corrosion 1B
Serious eye damage/Irritation	EU/CLP • Serious Eye Damage 1 UN GHS 3 • Serious Eye Damage 1 OSHA HCS 2012 • Serious Eye Damage 1 WHMIS 2015 • Serious Eye Damage 1
Skin sensitization	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Respiratory sensitization	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Aspiration Hazard	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Carcinogenicity	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Germ Cell Mutagenicity	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Toxicity for Reproduction	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
	EU/CLP • No data available UN GHS 3 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract

STOT-SE	Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation WHMIS 2015 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available

Potential Health Effects

Inhalation

Acute (Immediate)

- May cause corrosive burns - irreversible damage. May cause respiratory irritation.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

Acute (Immediate)

- Causes severe skin burns.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

Acute (Immediate)

- Causes serious eye damage. Direct contact with the eyes can cause irreversible damage, including blindness.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Ingestion

Acute (Immediate)

- Harmful or fatal if swallowed. May cause irreversible damage to mucous membranes.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

Carcinogenic Effects

- This material contains components that may cause cancer, however, based on regulatory criteria this material is not classified as a carcinogen.

Key to abbreviations

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

	CAS	
Calcium Hypochlorite Granular	NDA	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Bluegill</i> - <i>Lepomis macrochirus</i> 57-60 µg/L [Fresh water] Comments: Calcium hypochlorite 96 Hour(s) LC50 <i>Atlantic silverside</i> - <i>Menidia menidia</i> 37 µg/L [Marine water] Comments: Calcium hypochlorite 96 Hour(s) LC50 <i>Bluegill</i> - <i>Lepomis macrochirus</i> 1294600 µg/L [Fresh water] Comments: Sodium chloride 96 Hour(s) LC50 <i>Guppy</i> - <i>Poecilia reticulata</i> 356 mg/L [Marine water] Comments: Calcium hydroxide 96 Hour(s) NOEC <i>Guppy</i> - <i>Poecilia reticulata</i> 56 mg/L [Marine water] Comments: Calcium hydroxide Aquatic Toxicity-Crustacea: 48 Hour(s) EC50 <i>Water flea</i> - <i>Daphnia magna</i> 402600-469200 µg/L [Fresh water] Comments: Sodium chloride 48 Hour(s) EC50 <i>Water flea</i> - <i>Daphnia magna</i> 0.073-0.079 µg/L [Marine water] Comments: Calcium hypochlorite

- LC50: 0.088 mg/L (96 hr, Bluegill Sunfish) Very toxic to aquatic life. Do not allow to enter groundwater, surface water or drains.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Spilled material that has been swept up and dissolved in water should be used immediately in the normal application for which this product is being consumed. If this is not possible, material may be neutralized. Please contact Axiall Corporation Emergency Response team for guidance at 304-455-6882. Note: Only properly neutralized material should be flushed to sewer. Unneutralized material can cause environmental damage to receiving water or can interfere with treatment plant operation. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. Empty containers retain product residue and can be hazardous. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN2880	Calcium hypochlorite, hydrated	5.1	II	Marine Pollutant
TDG	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Marine Pollutant
IMO/IMDG	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Marine Pollutant
IATA/ICAO	UN2880	Calcium hypochlorite, hydrated	5.1	II	Chronic Aquatic Toxicity

14.6 Special precautions for user

- Under 49 CFR (DOT), non-bulk U.S. domestic shipments by ground do not require Marine Pollutant markings or labels, nor does Marine Pollutant need to be mentioned on shipping papers.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Fire

FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the Environmental Protection Agency and is regulated under FIFRA. Pesticide products are exempt from TSCA and not subject to inventory requirements.

- This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Calcium chloride	10043-52-4	Yes	No	Yes	No	Yes
Calcium hydroxide	1305-62-0	Yes	No	Yes	No	Yes
Calcium carbonate	471-34-1	Yes	No	Yes	No	Yes
Calcium chlorate	10137-74-3	No	No	Yes	No	No
Calcium hypochlorite	7778-54-3	Yes	No	Yes	No	Yes
Sodium chloride	7647-14-5	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Calcium chloride	10043-52-4	D2B
• Calcium hypochlorite	7778-54-3	C, E
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	E
• Sodium chloride	7647-14-5	Uncontrolled product according to WHMIS classification criteria
• Calcium carbonate	471-34-1	Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	1 %
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed

• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	10 lb final RQ; 4.54 kg final RQ
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed

• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H412 - Harmful to aquatic life with long lasting effects

Revision Date

- 20/January/2017

Preparation Date

- 13/October/2015

Disclaimer/Statement of Liability

- The technical data given herein is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. No guarantee is being given as to the end use performance. The product is sold on the basis that buyers test the product for their specific purposes. This information related to the material designated and may not be valid for such material used in combination with any other materials or in any process.

Key to abbreviations

NDA = No Data Available



Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name	• Caustic Soda Beads
Synonyms	• Anhydrous Sodium Hydroxide; Caustic Soda; NaOH; PELS® Caustic Soda Beads; PELS® Plus Caustic Soda Beads; Sodium Hydroxide
CAS Number	• 1310-73-2
EC Number	• 215-185-5
Molecular Formula	• :H 1:O 1:Na 1:

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s)	• Chemical reagent; Industrial uses

1.3 Details of the supplier of the safety data sheet

Manufacturer	• Axiall, LLC 1000 Abernathy Rd. NE, Suite 1200 Atlanta, GA 30328 United States www.axiall.com msdsinfo@axiall.com
Telephone (General)	• +1 225-685-1240

Distributed By:
SAL Chemical
3036 Birch Drive
Weirton, WV 26062
304-748-8200

Responsible Party - EU	• Intertek France 12 Rue Alfred Kastler 71530 Fagnès France christian.gimenez@intertek.com
Telephone (General)	• 33 (0) 385 99 1274
Telephone (General)	• 33 385 99 1288 - Fax

1.4 Emergency telephone number

Manufacturer	• +1 304-455-6882

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture

CLP	• Skin Corrosion 1A - H314

2.2 Label Elements

CLP

DANGER

Hazard statements • H314 - Causes severe skin burns and eye damage.

Precautionary statements

- Prevention** • P260 - Do not breathe dust.
P264 - Wash thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P310 - Immediately call a POISON CENTER or doctor/physician.
P363 - Wash contaminated clothing before reuse.
P321 - Specific treatment, see supplemental first aid information.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

- Storage/Disposal** • P405 - Store locked up.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

UN GHS Revision 3

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Third Revised Edition

2.1 Classification of the substance or mixture

- UN GHS**
- Skin Corrosion 1B
Serious Eye Damage 1

2.2 Label elements

UN GHS

DANGER

Hazard statements • Causes severe skin burns and eye damage.
Causes serious eye damage

Precautionary statements

- Prevention** • Do not breathe dust.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

- Storage/Disposal** • Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

UN GHS

- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Serious Eye Damage 1
Skin Corrosion 1B

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • Causes severe skin burns and eye damage.
Causes serious eye damage

Precautionary statements

- Prevention** • Do not breathe dust.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor/ .
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

- Storage/Disposal** • Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015

- Serious Eye Damage 1
Skin Corrosion 1B

2.2 Label elements

WHMIS 2015

DANGER

Hazard statements • Causes severe skin burns and eye damage.
Causes serious eye damage

Precautionary statements

- Prevention** • Do not breathe dust.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor/ .
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage/Disposal • Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards**WHMIS 2015**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients**3.1 Substances**

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Sodium hydroxide	CAS:1310-73-2 EC Number:215-185-5 EU Index:011-002-00-6	96% TO 100%	NDA	EU CLP: Annex VI, Table 3.1: Skin Corr. 1A, H314 UN GHS Revision 3: Skin Corr. 1B; Eye Dam. 1 OSHA HCS 2012: Skin Corr. 1B; Eye Dam. 1 WHMIS 2015: Skin Corr. 1B; Eye Dam. 1
Sodium chloride	CAS:7647-14-5 EC Number:231-598-3	0% TO 2%	Ingestion/Oral-Rat LD50 • 3000 mg/kg	EU CLP: Self Classified: Eye Irrit. 2, H319 UN GHS Revision 3: Eye Irrit. 2; Skin Irrit. 3; Acute Tox. 5 (oral) OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2
Sodium carbonate (2:1)	CAS:497-19-8 EC Number:207-838-8 EU Index:011-005-00-2	0% TO 2%	Ingestion/Oral-Rat LD50 • 4090 mg/kg Inhalation-Rat LC50 • 2300 mg/m ³ 2 Hour(s)	EU CLP: Annex VI, Table 3.1: Eye Irrit. 2, H319 UN GHS Revision 3: Eye Irrit. 2; Acute Tox 5 (oral) OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Acute Tox. 4 (Inhalation); Eye Irrit. 2; STOT SE 3: Resp. Irrit.

3.2 Mixtures

- Material does not meet the criteria of a mixture in accordance with Regulation (EC) No 1272/2008.

See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Administer oxygen if breathing is difficult. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give artificial respiration if victim is not breathing. Move victim to fresh air.

Skin

- For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

- If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

- SMALL FIRES: Dry chemical or carbon dioxide.
LARGE FIRES: Dry chemical, carbon dioxide, alcohol-resistant foam or water spray.

Unsuitable Extinguishing Media

- No data available

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Containers may explode when heated.

Hazardous Combustion Products

- Depending on conditions, decomposition products may include the following materials: carbon oxides; halogenated compounds; metal oxide/oxides.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate the area before entry.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Avoid generating dust.
Carefully shovel or sweep up spilled material and place in suitable container.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Handle and open container with care. Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest. Add this product only to water. Never add water to this product. Do not add to warm or hot water, a violent eruption or explosive reaction can result. May cause fire or explosion. Avoid contact with organic materials. Take any precaution to avoid mixing with strong acids. When making solutions or diluting, only add caustic soda slowly to surface of cold water while stirring. Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Caustic soda may react with various sugars to generate carbon monoxide. Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed vessels and can cause death. Empty containers retain product residue and can be hazardous. Do not reuse container. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Ventilate enclosed areas. Keep only in the original container. Keep container tightly closed. Keep away from incompatible materials. Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Ontario	Canada Quebec	NIOSH
Sodium hydroxide (1310-73-2)	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling
Exposure Limits/Guidelines (Con't.)						
	Result	OSHA				

Sodium hydroxide (1310-73-2)	TWAs	2 mg/m3 TWA

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye/Face

- Wear chemical splash goggles and face shield.

Skin/Body

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. HANDS: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White dustless granules with no odor.
Color	White	Odor	Odorless
Odor Threshold	No data available		
General Properties			
Boiling Point	1390 °C(2534 °F)	Melting Point/Freezing Point	310 to 320 °C(590 to 608 °F)
Decomposition Temperature	No data available	pH	Strongly basic
Specific Gravity/Relative Density	= 2.13 Water=1	Water Solubility	100 %
Viscosity	No data available	Explosive Properties	No data available
Oxidizing Properties:	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	Volatiles (Wt.)	0 %

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	No data available
Flammability (solid, gas)	No data available		

Environmental

Octanol/Water Partition coefficient	No data available		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under recommended storage and handling conditions.

10.3 Possibility of hazardous reactions

- Under normal conditions of storage and use, hazardous polymerization will not occur.

10.4 Conditions to avoid

- Incompatible materials. Excess heat.

10.5 Incompatible materials

- Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids. Reactive or incompatible with the following materials: metals (Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.), acids, organic materials (May cause fire or explosion.), food sugars (Caustic soda may react with various sugars to generate carbon monoxide.), water (Aqueous reaction with caustic soda can generate heat (strongly exothermic)).

10.6 Hazardous decomposition products

- Depending on conditions, decomposition products may include the following materials: carbon oxides; halogenated compounds; metal oxide/oxides.

Section 11 - Toxicological Information**11.1 Information on toxicological effects**

Components		
Sodium hydroxide (96% TO 100%)	1310-73-2	Irritation: Eye-Monkey • 1 % 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Severe irritation
Impurities, Stabilizers, etc...		
		Acute Toxicity: Ingestion/Oral-Rat LD50 • 4090 mg/kg; Inhalation-Rat LC50 • 2300 mg/m ³ 2 Hour(s); <i>Lungs, Thorax, or Respiration:</i> Dyspnea ; <i>Gastrointestinal:</i> Other changes ;
Sodium carbonate (2:1) (0% TO 2%)	497-19-8	Irritation: Eye-Rabbit • 50 mg • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Multi-dose Toxicity: Inhalation-Rat TCLo • 16.2 mg/m ³ 16 Week(s)-Intermittent; <i>Sense Organs and Special Senses:</i> Olfaction:Change in sensation of smell ; <i>Lungs, Thorax, or Respiration:</i> Emphysema ; <i>Immunological Including Allergic:</i> Decrease in cellular immune response
		Irritation: Eye-Rabbit • 100 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 201.6 g/kg 6 Week(s)-Intermittent; <i>Vascular:</i> BP elevation not characterized in autonomic section ;
Sodium chloride (0% TO 2%)	7647-14-5	Mutagen: Unscheduled DNA synthesis • Ingestion/Oral-Rat • 16800 mg/kg 4 Week(s)-Continuous; Reproductive: Ingestion/Oral-Rat TDLo • 56400 mg/kg (5D pre-21D post); <i>Reproductive Effects:</i> Maternal

Effects: **Postpartum**; Reproductive Effects: Effects on Newborn: **Biochemical and metabolic**

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Corrosion 1A UN GHS 3 • Skin Corrosion 1B OSHA HCS 2012 • Skin Corrosion 1B WHMIS 2015 • Skin Corrosion 1B
Serious eye damage/Irritation	EU/CLP • Classification criteria not met UN GHS 3 • Serious Eye Damage 1 OSHA HCS 2012 • Serious Eye Damage 1 WHMIS 2015 • Serious Eye Damage 1
Skin sensitization	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met UN GHS 3 • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met

Potential Health Effects

Inhalation

- Acute (Immediate)**
 - May cause corrosive burns - irreversible damage.
- Chronic (Delayed)**
 - Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

- Acute (Immediate)**
 - Causes severe skin burns.
- Chronic (Delayed)**
 - Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

- Acute (Immediate)**
 - Causes serious eye damage. Direct contact with the eyes can cause irreversible damage, including blindness.
- Chronic (Delayed)**
 - Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Ingestion

- Acute (Immediate)**
 - May cause irreversible damage to mucous membranes.
- Chronic (Delayed)**
 - Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

	CAS	
Caustic Soda Beads	1310-73-2	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Gambusia affinis</i> - Adult 125000 µg/L [Fresh water] 96 Hour(s) NOEC <i>Poecilia reticulata</i> - Young 56 mg/L [Marine water] 96 Hour(s) LC50 <i>Guppy</i> - <i>Poecilia reticulata</i> 196 mg/L [Marine water] 96 Hour(s) NOEC <i>Guppy</i> - <i>Poecilia reticulata</i> 56 mg/L [Marine water] Aquatic Toxicity-Crustacea: 48 Hour(s) EC50 Water Flea <i>Ceriodaphnia dubia</i> 40.4 mg/L [Fresh water] 48 Hour(s) LC50 <i>Crangon</i> - adult 33000-100000 µg/L [Marine water]

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Water solubility: Soluble.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1823	Sodium hydroxide, solid	8	II	NDA
TDG	UN1823	SODIUM HYDROXIDE, SOLID	8	II	NDA
IMO/IMDG	UN1823	SODIUM HYDROXIDE, SOLID	8	II	NDA
IATA/ICAO	UN1823	Sodium hydroxide, solid	8	II	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Sodium carbonate (2:1)	497-19-8	Yes	No	Yes	No	Yes
Sodium chloride	7647-14-5	Yes	No	Yes	No	Yes
Sodium hydroxide	1310-73-2	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Sodium hydroxide

1310-73-2

E (including 0.04% in aqueous solution, 0.04N, 0.08%, 0.4% in aqueous solution, 2%, 2.5%, 4% in aqueous solution, 5%, 10%, 16%, 20%, 40%, 50% in aqueous solution, 8.7N)

- Sodium chloride

7647-14-5

Uncontrolled product according to WHMIS classification criteria

- Sodium carbonate (2:1)

497-19-8

D2B, E

Canada - WHMIS - Ingredient Disclosure List

- Sodium hydroxide
- Sodium chloride

1310-73-2

1 %

7647-14-5

Not Listed

• Sodium carbonate (2:1)	497-19-8	1 %

Environment**Canada - CEPA - Priority Substances List**

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Sodium hydroxide	1310-73-2	1000 lb final RQ; 454 kg final RQ
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed

• Sodium carbonate (2:1)	497-19-8	Not Listed
U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification		
• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Sodium hydroxide	1310-73-2	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Sodium carbonate (2:1)	497-19-8	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H319 - Causes serious eye irritation

Revision Date

- 17/May/2016

Preparation Date

- 12/May/2014

Other Information

Disclaimer/Statement of Liability

- NSF® Standard 60 Drinking Water Treatment Chemicals – PELS™ Caustic Soda Beads and PELS™ Plus Caustic Soda Beads have Health Effect Listing and are certified for maximum use of 100 mg/l.
- The technical data given herein is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. No guarantee is being given as to the end use performance. The product is sold on the basis that buyers test the product for their specific purposes. This information related to the material designated and may not be valid for such material used in combination with any other materials or in any process.

Key to abbreviations

NDA = No Data Available

**SDS****Safety Data Sheet**

80 Metcalfe Street
Buffalo, New York 14206
716-856-2300/fax 716-856-7115

24 hour emergency telephone
CHEMTREC 800-424-9300

Distributed by:
SAL Chemical
3036 Birch Drive,
Weirton, WV 26062
304.748.8200 - Phone
304.797.8751 - Fax

Effective Date: 04/01/14
Replaces Revision(s): All Previous

NON-EMERGENCY TELEPHONE
716-856-2300

24-HOUR EMERGENCY TELEPHONE
CHEMTREC 800-424-9300

1. Identification

Product Identifier: HYDROGEN PEROXIDE 20 - 40%

Synonyms: Peroxide, 100 Volume Peroxide, Hydrogen Dioxide Solution, Hydrogen Peroxide

Chemical Formula: H₂O₂

Manufacturer / Supplier: Chemical Distributors, Inc. 80 Metcalfe Street Buffalo, NY 14206

Phone: 716-856-2300

Emergency Phone Number: 24-Hour Chemtrec Emergency Telephone 800-424-9300

2. Hazard(s) Identification

Classification of the Substance or Mixture:

Oxidizing liquids (Category 1)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 5)
Skin corrosion (Category 1A)
Serious eye damage (Category 1)
Acute aquatic toxicity (Category 3)

Risk Phrases:

Symbol: O, C
R5: Heating may cause an explosion.
R8: Contact with combustible material may cause fire.
R20: Harmful by inhalation.
R22: Harmful if swallowed.
R35: Causes severe burns.

Label Elements:

Trade Name: HYDROGEN PEROXIDE 20 - 40%

Signal Word: Danger



Hazard Statements:

H271: May cause fire or explosion; strong oxidizer.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H333: May be harmful if inhaled.

H402: Harmful to aquatic life.

Precautionary Statements:

P220: Keep / Store away from clothing / combustible materials.

P280: Wear protective gloves / protective clothing / eye protection / face protection.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P310: Immediately call a POISON CENTER or doctor / physician.

3. Composition / Information on Ingredients

CAS Number: 7722-84-1

EC Number: 231-765-0

Index Number: 008-003-00-9

Molecular Weight: 34.01 g/mol

Ingredient	CAS No	EC Number	Percent	Hazardous	Chemical Characterization
Hydrogen Peroxide	7722-84-1	231-765-0	20- 40%	Yes	Substance
Water	7732-18-5	231-791-2	60 - 80%	No	Mixture

4. First-aid Measures

In all cases, immediately call a POISON CENTER or doctor / physician.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Get medical attention immediately.

Ingestion: DO NOT INDUCE VOMITING! Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. If allowed to dry on clothing, evaporation leads to concentration and increased possibility of ignition. Call a physician.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Note to Physician: Pulmonary edema may be delayed for 24 to 72 hours; keep under observation. Gastric lavage may be necessary if swallowed. Analysis of body fluids (particularly gastric aspirates) using the titanium chloride reaction, if done immediately, will reveal peroxides.

5. Fire-fighting Measures.

Fire: Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Increases the flammability of combustible, organic and readily oxidizable materials.

Explosion: Contact with oxidizable substances may cause extremely violent combustion. Drying of concentrated Hydrogen Peroxide on clothing or other combustible materials may cause fire or explosion. Sealed containers may rupture when heated.

Fire Extinguishing Media: Water spray may be used to keep fire exposed containers cool. Water spray will also reduce fume and irritant gases.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: CAUTION! Caustic material. Causes fires with organic material. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions and Methods and Materials for Containment and Cleaning Up: Contain and recover liquid when possible. Do not return spilled material to original container.

Larger Spills: Dilute with a large amount of water and hold in a pond or dyked area until the peroxide decomposes followed by discharge into a suitable treatment system.

May be neutralized with sodium metabisulfite or sodium sulfite after diluting to 5 - 10% peroxide.

Do not flush undiluted material to sewer. Do not let undiluted product enter drains. This oxidizing material can increase the flammability of adjacent combustible materials. Empty containers should be rinsed with water before discarding.

7. Handling and Storage

Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities:

Store in a cool (< 35C,) well-ventilated dark area separated from combustible substances, reducing agents, strong bases, organics. Do not store on wooden shelves or floors. Suggest rotation of stock. Containers must be vented, but check periodically for bulging containers which can burst from pressure. Protect containers from physical damage, contamination, heat and incompatibles. Contamination from any source (dust, metals) may cause rapid decomposition with generation of large quantities of Oxygen gas and high pressures. Rinse empty containers thoroughly with clean water. Glass, polyethylene, stainless steel and aluminum are recommended materials for storage containers. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid.) Observe all warnings and precautions listed for the product.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits:

OSHA Permissible Exposure Limit (PEL): 1 ppm (TWA)

ACGIH Threshold Limit Value (TLV): 1 ppm (TWA,) A3: Animal carcinogen

Ventilation System: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded, wear a supplied air, full face piece respirator, air-lined hood, or full face piece self-contained breathing apparatus. This substance has unknown warning properties.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and / or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear, colorless liquid

Odor: Slight acrid odor

Odor Threshold: Not determined

pH: 3.3

% Volatiles by volume @ 21C (70F): 100

Melting Point: -25C (-13F)

Boiling Point / Boiling Range: 108C (226F)

Flash Point: Not applicable

Evaporation Rate (BuAC=1): < 1

Flammability: Not applicable

Upper / Lower Flammability or Explosive Limits: Not applicable

Vapor Pressure (mm Hg): 25 @ 30C (86F)

Vapor Density (Air=1): 1.17

Relative Density: 1.110 g/cm³

Solubility: Infinitely soluble

Partition Coefficient: n-octanol / water: No data available

Auto-ignition Temperature: Not applicable

Decomposition Temperature: No data available

Viscosity: Slightly more viscous than water

10. Stability and Reactivity

Reactivity and / or Chemical Stability: Normally stable if uncontaminated, but slowly decomposes to release Oxygen. Unstable with heat, may result in dangerous pressures. A strong oxidizer, reacts violently upon contact with many organic substances, particularly textile and paper. Avoid light and keep in a closed but vented container to prevent evaporation (concentration) and contamination.

Possibility of Hazardous Reactions and Conditions to Avoid: Excessive heat, light, incompatibles, and contact with combustible or organic materials.

Incompatible Materials: Heat, reducing agents, organic materials, dirt, alkalis, rust, and many metals. Spontaneous combustion may occur on standing in contact with readily flammable materials.

Hazardous Decomposition Products: Decomposes to Water and Oxygen with rapid heat release. Use vented containers. The solution can decompose violently upon heating.

11. Toxicological Information

Emergency Overview: DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. CORROSIVE. CAUSES BURNS TO SKIN, EYES, AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED OR INHALED.

Potential Health Effects:

Inhalation: Vapors are corrosive and irritating to the respiratory tract. Inhalation of mist may burn the mucous membrane of the nose and throat. In severe cases, exposures may result in pulmonary edema and death.

Ingestion: Corrosive and irritating to the mouth, throat, and abdomen. Large doses may cause symptoms of abdominal pain, vomiting, and diarrhea as well as blistering or tissue destruction. Stomach distention (due to rapid liberation of Oxygen,) and risk of stomach perforation, convulsions, pulmonary edema, coma, possible cerebral edema (fluid on the brain,) and death are possible.

Skin Contact: Corrosive! Can cause redness, pain, and severe skin burns.

Eye Contact: Corrosive! Vapors are very corrosive and irritating to the eyes. Symptoms include pain, redness and blurred vision. Splashes can cause permanent tissue destruction.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: Vapors are very corrosive and irritating to the eyes. Symptoms include pain, redness and blurred vision. Splashes can cause permanent tissue destruction.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) No data available.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data available.

Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

Ingredient	Known	Anticipated	IARC Category
Hydrogen Peroxide (7722-84-1)	No	No	3
Water (7732-18-5)	No	No	None

Acute Toxicity Oral LC50: 1518 mg/kg (rat)

12. Ecological Information

Ecotoxicity:

Toxic to aquatic life. / EC50 Algae: 2.5 mg/l 72 hrs / EC50 Daphnia: 2.4 mg/l 48 hrs / LC50 Fish: 16.4 mg/l 96 hrs

Persistence and Degradability: Expected to be readily biodegradable.

Bio-accumulative Potential: No bioaccumulation expected.

Mobility in Soil: This material is a mobile liquid.

Other adverse effects: No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

UN Number: UN2014

UN Proper Shipping Name:

HYDROGEN PEROXIDE, AQUEOUS SOLUTION (WITH 20-40% HYDROGEN PEROXIDE)

Packing Group: II

Land Transport ADR/RID and GGVs/GGVE (Cross Border / Domestic)

Transport Hazard Class(es): 5.1, 8

Maritime Transport IMDG/GGVSea

Transport Hazard Class(es): 5.1, 8

Marine Pollutant: No

Air Transport ICAO-TI and IATA-DGR

Transport Hazard Class(es): 5.1, 8

Transport in Bulk (According to Annex II of MARPOL 73/78 and the IBC Code:) Not applicable

Special Precautions for User: No additional information

15. Regulatory Information

Chemical Inventory Status – Part 1

Ingredient	TSCA	EC	Japan	Australia
Hydrogen Peroxide (7722-84-1)	Yes	Yes	Yes	Yes
Water (7732-18-5)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2

Ingredient	Korea	Canada		Phil.
		DSL	NDSL	
Hydrogen Peroxide (7722-84-1)	Yes	Yes	No	Yes
Water (7732-18-5)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1

Ingredient	SARA 302		SARA 313	
	RQ	TPQ	List Chemical	Catg.
Hydrogen Peroxide (7722-84-1)	No	No	No	No
Water (7732-18-5)	No	No	No	No

Federal, State & International Regulations - Part 2

Ingredient	RCRA		TSCA
	CERCLA	261.33	8(d)
Hydrogen Peroxide (7722-84-1)	No	No	No
Water (7732-18-5)	No	No	No

Chemical Weapons Convention: No		TSCA 12(b): No		CDTA: No
SARA 311/312:	Acute: Yes	Chronic: No	Fire: Yes	Pressure: No
Reactivity: Yes		Mixture / Liquid		

16. Other Information

Australian Hazchem Code: 2P
Poison Schedule: S6

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SUITABILITY, STABILITY OR OTHERWISE. The information included herein is not intended to be all-inclusive as to the appropriate manner and/or conditions of use, handling and/or storage. Factors pertaining to certain conditions of storage, handling, or use of this product may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended to, and nothing herein shall be construed as a recommendation to, infringe any existing patents or violate any laws, rules, regulations or ordinances of any governmental entity. TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY OR DAMAGE RESULTING FROM THE USE OF THE PRODUCT DESCRIBED HEREIN



SAFETY DATA SHEET

DOLOMITIC HYDRATED LIME

Section 1. Identification

GHS product identifier : DOLOMITIC HYDRATED LIME
Code : Not available.
Other means of identification : Hydrated dolomitic lime ($\text{Ca}(\text{OH})_2\text{MgO}$), Double hydrated dolomitic lime ($\text{CaMg}(\text{OH})_4$)
Product type : Solid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Neutralization, flocculation, stabilization, polishing, masonry mortar, plaster, stucco, fresco paints and lime wash.

Supplier/Manufacturer : GRAYMONT
 #200-10991 Shellbridge Way
 Richmond, BC V6X 3C6
 Canada
 Phone: 1 604 207-4292
 Toll free: 1 866 207-4292
 Fax: 1 604 207-9014
 Web Site: <http://www.graymont.com/>

Emergency telephone number (with hours of operation) : CANUTEC (613-996-6666)
 CHEMTREC, US (800-424-9300)
 INTERNATIONAL: (703-527-3887)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 CARCINOGENICITY (inhalation) - Category 1A
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory tract) - Category 1

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: H318 - Causes serious eye damage.
 H315 - Causes skin irritation.
 H350 - May cause cancer if inhaled.
 H335 - May cause respiratory irritation.
 H372 - Causes damage to organs through prolonged or repeated exposure. (respiratory tract)



Section 2. Hazards identification

Precautionary statements

Prevention

- : P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
- P271 - Use only outdoors or in a well-ventilated area.
- P260 - Do not breathe dust.
- P270 - Do not eat, drink or smoke when using this product.
- P264 - Wash hands thoroughly after handling.

Response

- : P314 - Get medical attention if you feel unwell.
- P308 + P313 - IF exposed or concerned: Get medical attention.
- P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
- P302 + P352 + P362 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse.
- P332 + P313 - If skin irritation occurs: Get medical attention.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

- : P401 - Store to minimize dust generation.

Disposal

- : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification/ HHNOC/PHNOC

- : None known.

Section 3. Composition/information on ingredients

Substance/mixture

- : Mixture

Other means of identification

- : Hydrated dolomitic lime ($\text{Ca}(\text{OH})_2\text{MgO}$), Double hydrated dolomitic lime ($\text{CaMg}(\text{OH})_4$)

CAS number/other identifiers

CAS number

- : Not applicable.

Product code

- : Not available.

Ingredient name	%	CAS number
Calcium magnesium tetrahydroxide	60 - 100	39445-23-3
Calcium magnesium dihydroxide oxide	60 - 100	58398-71-3
Calcium Hydroxide	30 - 60	1305-62-0
Crystalline silica, respirable powder	0.0001 - 1	14808-60-7

Crystalline silica has been found in some products at or above detection level 0.1%. Concentration is dependent upon limestone source.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Get medical attention immediately. Call a poison center or physician.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
burning sensation
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
burning sensation
abdominal cramps and pain
vomiting

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products : None.

Special protective actions for fire-fighters : No special measures are required.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store to minimize dust generation. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

Ingredient name	Exposure limits
Calcium magnesium tetrahydroxide Calcium magnesium dihydroxide oxide Calcium Hydroxide	None. None. ACGIH TLV (United States, 3/2016). TWA: 5 mg/m³ 8 hours. NIOSH REL (United States, 10/2013). TWA: 5 mg/m³ 10 hours. OSHA PEL (United States, 6/2016). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust MSHA PEL TWA 8/40 hours: 5 mg/m³
Crystalline silica, respirable powder	OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf 8 hours. Form: Respirable TWA: 10 mg/m³ 8 hours. Form: Respirable TWA: 5 mg/m³ Form: Respirable fraction TWA: 15 mg/m³ Form: Total dust NIOSH REL (United States, 10/2013). TWA: 0.05 mg/m³ 10 hours. Form: Respirable dust TWA: 5 mg/m³ Form: Respirable fraction TWA: 10 mg/m³ Form: Total dust OSHA PEL (United States, 6/2016). TWA: 50 µg/m³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 3/2016). TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction MSHA PEL TWA 8/40 hours: 30 mg/m³/(%SiO₂)+2 mg/m³ Form: Total dust 10 mg/m³/(%SiO₂)+2 mg/m³ Form: Respirable dust

Canada

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Calcium Hydroxide	CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 5 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 5/2015). TWA: 5 mg/m³ 8 hours. CA Ontario Provincial (Canada, 7/2015). TWA: 5 mg/m³ 8 hours. CA Quebec Provincial (Canada, 1/2014). TWA EV: 5 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 10 mg/m³ 15 minutes. TWA: 5 mg/m³ 8 hours.
Crystalline silica, respirable powder	CA British Columbia Provincial (Canada, 5/2015). TWA: 0.025 mg/m³ 8 hours. Form: Respirable CA Quebec Provincial (Canada, 1/2014). TWA EV: 0.1 mg/m³ 8 hours. Form: Respirable dust CA Ontario Provincial (Canada, 7/2015). TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m³ 8 hours. Form: Respirable fraction CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 0.025 mg/m³ 8 hours. Form: Respirable particulate.

Appropriate engineering controls

- Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Engineering controls may be required to control the primary or secondary risks associated with this product.

Environmental exposure controls

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Fine powder.]
- Color** : White.
- Odor** : Sweet, soil like odor.
- Odor threshold** : Not available.
- pH** : 12.45 [Sat. soln.] at 25°C
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not applicable.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 2.2 to 2.6
- Solubility** : Not available.
- Solubility in water** : 0.1 g/100 g at 20°C
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : 345°C (653°F)
- Viscosity** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : None.
- Conditions to avoid** : Do not allow quicklime to come into contact with incompatible materials. e.g. Water, acids, reactive fluoridated compounds, reactive brominated compounds. reactive powdered metals, organic acid anhydrides, nitro-organic compounds, reactive phosphorous compounds, interhalogenated compounds.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials and acids.

Section 10. Stability and reactivity

Hazardous decomposition products : None.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Calcium Hydroxide	LD50 Oral	Rat	7340 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Calcium Hydroxide	Eyes - Severe irritant	Rabbit	-	10 mg	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Magnesium oxide	-	-	-	A4	-	-
Crystalline silica, respirable powder	-	1	Known to be a human carcinogen.	A2	-	+

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Calcium magnesium tetrahydroxide	Category 3	Not applicable.	Respiratory tract irritation
Calcium magnesium dihydroxide oxide	Category 3	Not applicable.	Respiratory tract irritation
Calcium Hydroxide	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Crystalline silica, respirable powder	Category 1	Inhalation	respiratory tract

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
burning sensation
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
burning sensation
abdominal cramps and pain
vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Long term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Potential chronic health effects

- General** : Causes damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : May cause cancer if inhaled. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Calcium Hydroxide	Acute LC50 33884.4 µg/L Fresh water	Fish - Clarias gariepinus - Fingerling	96 hours

Persistence and degradability

There is no data available.

Section 12. Ecological information

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT	TDG	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

AERG : Not applicable.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: Dolomitic Hydrated Lime is subject to inventory update reporting (IUR).
RCRA classification: Dolomitic Hydrated Lime is not listed or classified.
CWA-311: Dolomitic Hydrated Lime is not listed.
CERCLA: Dolomitic Hydrated Lime is not listed.
FDA: Not applicable

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard
 Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Calcium magnesium tetrahydroxide	No.	No.	No.	Yes.	No.
Calcium magnesium dihydroxide oxide	No.	No.	No.	Yes.	No.
Calcium Hydroxide	No.	No.	No.	Yes.	No.
Crystalline silica, respirable powder	No.	No.	No.	No.	Yes.

SARA 313

	Product name	CAS number
Form R - Reporting requirements	Not listed	-
Supplier notification	Not listed	-

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Calcium Hydroxide; Magnesium oxide; Crystalline silica, respirable powder

New York : None of the components are listed.

New Jersey : The following components are listed: Calcium Hydroxide; Magnesium oxide; Crystalline silica, respirable powder

Section 15. Regulatory information

Pennsylvania : The following components are listed: Calcium Hydroxide; Magnesium oxide; Crystalline silica, respirable powder

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Crystalline silica, respirable powder	Yes.	No.	No.	No.

Canada

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory : At least one component is not listed in DSL but all such components are listed in NDSL.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability :** 0 **Physical hazards :** 1

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability :** 0 **Instability :** 1

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Expert judgment
SERIOUS EYE DAMAGE - Category 1	On basis of test data
CARCINOGENICITY (inhalation) - Category 1A	Expert judgment
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory tract) - Category 1	Calculation method

History

Date of issue mm/dd/yyyy : 01/30/2017

Date of previous issue : 06/15/2015

Version : 2

Prepared by : KMK Regulatory Services Inc.

Section 16. Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Revision Date May-18-2015

Safety Data Sheet

Item # 10592

Distributed by:
SAL Chemical
3036 Birch Drive,
Weirton, WV 26062
304.748.8200 - Phone
304.797.8751 - Fax

Safety Data Sheet 0599

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Sodium Bisulfite 38% Solution
UN/ID No. UN2693
Synonyms No information available
Recommended Use Reserved for industrial and professional use
Uses advised against Consumer uses: Private households (= general public = consumers).

Company Name
PVS Chemical Solutions Inc.
10900 Harper Ave.
Detroit, MI 48213
313-921-1200

24 Hour Emergency Phone Number CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification
OSHA Regulatory Status This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 1

Emergency Overview

DANGER

Hazard statements

Causes serious eye irritation
Causes skin irritation
Harmful if swallowed

Physical hazards

Do not handle until all hazard precautions have been read and understood



Precautionary statements

Prevention

- Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Immediately call a POISON CENTER or doctor/physician
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
- Wash contaminated clothing before reuse

Response

Item # 10592 Sodium Bisulfite 38% Solution**Storage**

- Store in a well-ventilated place. Keep container tightly closed
- Store in a secure area

Disposal

- Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None known.

Other Information**Other hazards**

- May be harmful if swallowed

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	Weight-% *
Water	7732-18-5	231-791-2	62
Sodium bisulfite	7631-90-5	231-548-0	38

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES**General advice**

If symptoms persist, call a physician Do not breathe dust/fume/gas/mist/vapors/spray Do not get in eyes, on skin, or on clothing

Eye contact

- Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes
- Keep eyes wide open while rinsing
- If symptoms persist, call a physician

Skin Contact

- Consult a physician if necessary
- Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes
- Wash contaminated clothing before reuse

Inhalation

- Remove to fresh air
- If breathing is irregular or stopped, administer artificial respiration
- If breathing is difficult, give oxygen
- If symptoms persist, call a physician

Ingestion

- Call a physician immediately
- Do NOT induce vomiting
- Rinse mouth
- Drink 1 or 2 glasses of water
- Never give anything by mouth to an unconscious person

Note to physician

Treat symptomatically.

Self-protection for first aid personnel

Use personal protective equipment as required.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

- Dry chemical, CO₂, water spray or alcohol-resistant foam
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media

- No information available

Specific hazards arising from the chemical

- Thermal decomposition can lead to release of irritating and toxic gases and vapors
- Sulfur Oxides (SO_x)

Protective equipment and precautions for firefighters • Wear a self-contained breathing apparatus and chemical protective clothing

Flammable properties • Not flammable
Explosive properties • No information available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions • Evacuate personnel to safe areas
 • Use personal protective equipment as required
 • Keep people away from and upwind of spill/leak

Environmental precautions • For small spills, absorb material with clay absorbent or other compatible material. Dispose of the waste material according to local, state and governmental requirements.
 • For large spills, contain the material using barriers of absorbent pigs, clay absorbent or earth dams.

Methods for cleaning up • Cover liquid spill with sand, earth or other non-combustible absorbent material
 • Pick up and transfer to properly labeled containers
 • Prevent product from entering drains

Other Information • No information available

7. HANDLING AND STORAGE

Advice on safe handling • Avoid contact with skin, eyes or clothing
 • Use personal protective equipment as required
 • Wash contaminated clothing before reuse
 • Do not breathe dust/fume/gas/mist/vapors/spray
 • Do not eat, drink or smoke when using this product

Storage Conditions • Keep container tightly closed in a dry and well-ventilated place
 • Keep in properly labeled containers
 • Keep out of the reach of children

Incompatible materials Acids, Oxidizers

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium bisulfite 7631-90-5	TWA: 5 mg/m ³	(vacated) TWA: 5 mg/m ³	TWA: 5 mg/m ³

Exposure Guidelines

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection • A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.

Eye/Face protection • Tight sealing safety goggles

Skin and body protection • Wear suitable protective clothing
 • Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact

General Hygiene Considerations • Handle in accordance with good industrial hygiene and safety practice
 • Do not eat, drink or smoke when using this product

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	clear
Color	colorless or slight yellow
Odor	Sulfur dioxide
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	3-5	
Melting point/Freezing Point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit (%)	No information available	
Lower flammability limit (%):	No information available	
Vapor pressure	78 mm Hg	@ 37.7 °C
Vapor density	No information available	
Specific Gravity	1.3-1.37	
Water solubility	Miscible in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
<u>Other Information</u>		
Softening point °C	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Density	No information available	
Bulk density	10.8-11.4 Pounds per gallon (lb/gal)	

10. STABILITY AND REACTIVITY

Stability	• Stable under recommended storage conditions
Conditions to avoid	• Elevated temperature
Incompatible materials	• Acids • Oxidizers
Hazardous Decomposition Products	• Reacts with acids to liberate corrosive and toxic sulfur dioxide • Thermal decomposition can lead to release of irritating and toxic gases and vapors • Sulfur Oxides (SO _x) • Carbon oxides (CO _x)
Possibility of Hazardous Reactions	• None under normal processing and storage

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation	May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Ingestion	May be harmful if swallowed.
Skin Contact	May cause skin irritation and/or dermatitis.

Item # 10592 Sodium Bisulfite 38% Solution

Eye contact

Contact with eyes may cause irritation.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium bisulfite 7631-90-5	= 1420 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms

No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium bisulfite 7631-90-5	-	Group 3	-	-

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium bisulfite 7631-90-5	-	-	119: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Disposal of wastes

• Dispose of in accordance with federal, state and local regulations

Contaminated packaging

• Dispose of hazardous waste in a RCRA licensed facility

US EPA Waste Number

• Do not reuse container

• D002

14. TRANSPORT INFORMATION

DOT

Proper shipping name

BISULFITES, AQUEOUS SOLUTIONS, N.O.S.

Hazard Class

8

UN/ID No.

UN2693

Packing Group

III

RQ (lbs)(dry)

5000

RQ as is (lbs)(wet)

13157

Item # 10592 Sodium Bisulfite 38% Solution

DOT Technical Name Sodium bisulfite
Technical Name Description SODIUM BISULFITE
Description UN2693, Bisulfites, aqueous solutions, n.o.s.,(Sodium bisulfite),8, III
Special Provisions IB3, T7, TP1, TP28
Emergency Response Guide Number 154

IATA

UN/ID No. UN2693
Proper shipping name Bisulphites, aqueous solution, n.o.s.
Hazard Class 8
Packing Group III
ERG Code 8L
DOT Technical Name Sodium bisulfite

IMDG

UN/ID No. UN2693
Proper shipping name Bisulphites, aqueous solution, n.o.s.
Hazard Class 8
Packing Group III
EmS-No. F-A, S-B
Special Provisions 274
DOT Technical Name Sodium bisulfite

15. REGULATORY INFORMATION**US Federal Regulations****SARA 311/312 Hazard Categories**

Acute health hazard Yes
Chronic Health Hazard No
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium bisulfite 7631-90-5	5000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ (lbs)(dry)
Sodium bisulfite 7631-90-5	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium bisulfite 7631-90-5	X	X	X

International Inventories

TSCA Complies

Item # 10592 Sodium Bisulfite 38% Solution

DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION

NFPA	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection B

Item #	10592
Safety Data Sheet	0599
Revision Date	May-18-2015
Issue Date	May-18-2015
Version	1.01
Revision Note	*** Updated value on SDS.

Disclaimer

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End of Safety Data Sheet



SAFETY DATA SHEET

OLIN CORPORATION

Product name: Sodium Hypochlorite, 5 - 17%

Issue Date: 03/22/2017

Print Date: 03/23/2017

OLIN CORPORATION encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: Sodium Hypochlorite, 5 - 17%

Recommended use of the chemical and restrictions on use

Identified uses: Disinfectant. Paper bleaching agent Water treatment chemicals Biocidal product Bleaching agents, activators and stabilisers Textile bleaching agent

COMPANY IDENTIFICATION

OLIN CORPORATION
190 CARONDELET PLAZA
CLAYTON MO 63105
UNITED STATES

Customer Information Number:

+1 844-238-3445
INFO@OLINBC.com

Distributed By:
SAL Chemical
3036 Birch Drive
Weirton, WV 26062
304-748-8200

EMERGENCY TELEPHONE NUMBER

Local Emergency Contact: 1 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Corrosive to metals - Category 1

Skin corrosion - Category 1B

Serious eye damage - Category 1

Label elements

Hazard pictograms



Signal word: **DANGER!**

Hazards

May be corrosive to metals.

Causes severe skin burns and eye damage.

Precautionary statements**Prevention**

Keep only in original container.

Wash skin thoroughly after handling.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Storage

Store locked up.

Store in corrosive resistant container with a resistant inner liner.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Contact with acids liberates toxic gas.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Sodium Hypochloride

This product is a substance.

Component	CASRN	Concentration
Sodium hypochlorite	7681-52-9	>= 5.0 - <= 17.0 %
Water	7732-18-5	>= 83.0 - <= 95.0 %
Sodium hydroxide	1310-73-2	>= 0.1 - <= 4.5 %

4. FIRST AID MEASURES

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse. Suitable emergency safety shower facility should be immediately available.

Eye contact: - Wash eyes with plenty of water for 15 minutes at least. Do not forget to remove contact lenses. Suitable emergency eye wash facility should be immediately available.

Ingestion: Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth unless the person is fully conscious.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. Maintain adequate ventilation and oxygenation of the patient. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Repeated excessive exposure may aggravate preexisting lung disease.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: In case of fire, use water fog, foam, dry powder, carbon dioxide.

Unsuitable extinguishing media: Do NOT use water jet. May spread fire. Dry chemical extinguishing agents may react with product; use with caution.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Unusual Fire and Explosion Hazards: No data available

Advice for firefighters

Fire Fighting Procedures: For safety reasons in case of fire, containers should be stored separately in closed containments. Do not breathe fumes.

Special protective equipment for firefighters: Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep unnecessary and unprotected personnel from entering the area. Wear suitable protective equipment. Avoid breathing vapor. Avoid all contact. Keep people away from and upwind of spill/leak. Wear suitable protective clothing. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Ventilate area of leak or spill.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Do not discharge directly to a water source. See Section 13, Disposal Considerations, for additional information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Large spills: Absorb with materials such as: Vermiculite. Cover with absorbent or contain. Collect and dispose. Dike and transfer to suitable and properly labeled containers. This material is corrosive. See SECTION 8, Exposure Controls/Personal Protection, prior to handling.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep container closed. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Use with adequate ventilation. Use good general industrial hygiene practices for handling. Wash thoroughly after handling. Protect from direct exposure to sunlight.

Conditions for safe storage: Keep container tightly closed. Store away from incompatible materials. See STABILITY AND REACTIVITY section. Store under cover in a dry, clean, cool, well ventilated place away from sunlight. Store away from oxidizing materials. Store in original vented container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Sodium hypochlorite	US WEEL	STEL	2 mg/m3
Sodium hydroxide	ACGIH	C	2 mg/m3
	OSHA Z-1	TWA	2 mg/m3
	OSHA P0	C	2 mg/m3

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles.

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Avoid gloves made of: Polyvinyl

alcohol ("PVA"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Reports indicate that sodium hypochlorite can react with various fabrics usually increasing with concentration. Reactions vary significantly depending on strength of chemical, material, fabric treatment and color of dyes. Fire resistant clothing treated cotton has a stronger response than plain cotton. Poly blend fabrics and meta aramid fabric have a weaker response than natural fibers. Contact the Personal Protective Equipment manufacturer for specific information about their products.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Particulate filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	liquid
Color	Not available
Odor	pungent
Odor Threshold	No data available
pH	12 - 14
Melting point/range	-20 °C (-4 °F) <i>Literature</i>
Freezing point	-20 °C (-4 °F) <i>Literature</i>
Boiling point (760 mmHg)	No data available
Flash point	Not applicable
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	Not expected to form explosive dust-air mixtures.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor Pressure	12 mmHg
Relative Vapor Density (air = 1)	Not available
Relative Density (water = 1)	1.082 - 1.275 at 20 °C (68 °F)
Water solubility	completely miscible
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available No test data available

Kinematic Viscosity	No data available
Explosive properties	Not applicable
Oxidizing properties	No information available. Not applicable
Softening point	No data available
Molecular weight	74.5 g/mol
Pour point	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: No data available

Possibility of hazardous reactions: Polymerization will not occur.

Polymerization will not occur.

Stable under recommended storage conditions.

Conditions to avoid: contact with incompatible materials Avoid direct sunlight or ultraviolet sources. Excessive heat. contact between acids and chlorates, a component of this product mixture, can cause the generation of chlorine gas.

Incompatible materials: No data available

Hazardous decomposition products: Does not decompose.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Very low toxicity if swallowed. Swallowing may result in burns of the mouth and throat. Swallowing may result in gastrointestinal irritation or ulceration. May cause nausea and vomiting. May cause abdominal discomfort or diarrhea.

LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rabbit, > 5,000 mg/kg

Acute inhalation toxicity

Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs.

LC50, Rat, dust/mist, > 10.5 mg/l

Skin corrosion/irritation

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Prolonged contact may cause severe skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.

Serious eye damage/eye irritation

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Sensitization

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Repeated exposures to dusts of this material are not anticipated to result in systemic toxicity or permanent lung injury; however, excessive exposures may cause less severe respiratory effects.

Carcinogenicity

Did not cause cancer in laboratory animals.

Teratogenicity

For similar material(s): Has been toxic to the fetus in laboratory animal tests.

Reproductive toxicity

For similar material(s): In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

Mutagenicity

In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were predominantly negative.

Aspiration Hazard

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity**Acute toxicity to fish**

Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

LC50, Pimephales promelas (fathead minnow), 96 Hour, 0.22 - 0.62 mg/l, Method Not Specified.

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), flow-through test, 48 Hour, 0.035 mg/l, OECD Test Guideline 202

Toxicity to bacteria

EC50, activated sludge, 28.7 mg/l

Chronic aquatic toxicity**Chronic toxicity to fish**

NOEC, Menidia peninsulae (tidewater silverside), flow-through test, 28 d, 0.04 mg/l

Persistence and degradability

Biodegradability: Biodegradation is not applicable.

Bioaccumulative potential

Bioaccumulation: Bioconcentration potential is low ($BCF < 100$ or $\log P_{ow} < 3$). Partitioning from water to n-octanol is not applicable.

Mobility in soil

No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler.

14. TRANSPORT INFORMATION

DOT

Proper shipping name	Hypochlorite solutions
UN number	UN 1791
Class	8
Packing group	II
Marine pollutant	Sodium hypochlorite
Reportable Quantity	Sodium hypochlorite, Sodium hydroxide

Classification for SEA transport (IMO-IMDG):

Proper shipping name	HYPOCHLORITE SOLUTION
UN number	UN 1791
Class	8
Packing group	II
Marine pollutant	Sodium hypochlorite
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Proper shipping name	Hypochlorite solution
UN number	UN 1791
Class	8
Packing group	II

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard
Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103

Components	CASRN	RQ (RCRA Code)
Sodium hypochlorite	7681-52-9	100 lbs RQ
Sodium hydroxide	1310-73-2	1000 lbs RQ

Pennsylvania Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components	CASRN
Sodium hydroxide	1310-73-2
Sodium hypochlorite	7681-52-9

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Hazard Rating System**NFPA**

Health	Fire	Reactivity
3	0	0

Revision

Identification Number: 10000001223 / A619 / Issue Date: 03/22/2017 / Version: 1.2

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV)
C	Ceiling limit
OSHA P0	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
STEL	Short-Term TWA
TWA	8-hour time weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

OLIN CORPORATION urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.



Revision Date May-12-2016

Item #Multi

Safety Data Sheet 0738

Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Sulfuric Acid >51.0% - 100%
UN/ID No. UN1830
Synonyms Sulphuric acid, Oil of vitriol,
Recommended Use Reserved for industrial and professional use
Uses advised against Consumer uses: Private households (= general public = consumers).

Company Name

PVS Chemical Solutions Inc.
10900 Harper Ave.
Detroit, MI 48213
313-921-1200

24 Hour Emergency Phone Number CHEMTREC 1-800-424-9300

Distributed By:
SAL Chemical
3036 Birch Drive
Weirton, WV 26062
304-748-8200

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
May be corrosive to metals	Category 1
Carcinogenicity	Category 1A***

Emergency Overview

DANGER

Hazard statements

Toxic if inhaled
Causes severe skin burns and eye damage
Causes serious eye damage
May cause cancer
Corrosive

Physical hazards

May be corrosive to metals***
Do not handle until all hazard precautions have been read and understood



Precautionary statements

Prevention

- Use only outdoors or in a well-ventilated area
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Specific treatment (see section 4 on this Safety Data Sheet)
- Immediately call a POISON CENTER or doctor/physician
- Specific treatment (see section 4 on this Safety Data Sheet)
- Store in a well-ventilated place. Keep container tightly closed
- Store locked up
- Dispose of contents/container to an approved waste disposal plant

Response

Storage

Disposal

Sulfuric Acid >51.0% - 100%
Hazards not otherwise classified
(HNOC)

None known.

Other Information
Other hazards

- May be harmful if swallowed

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	Weight-% *
Sulfuric acid	7664-93-9	231-639-5	>51.0%-100%
Water	7732-18-5	231-791-2	0-49

4. FIRST AID MEASURES

General advice	Call 911 or emergency medical service Remove and isolate contaminated clothing and shoes***
Eye contact	• Immediate medical attention is required • Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes • Keep eyes wide open while rinsing • Do not rub affected area***
Skin Contact	• Wash off immediately with plenty of water for at least 15 minutes • Get medical attention if irritation or other symptoms occur***
-Inhalation	• Remove to fresh air • If not breathing, give artificial respiration • If breathing is difficult, give oxygen • Call a physician or poison control center immediately***
Ingestion	• Immediate medical attention is required • Rinse mouth • Do NOT induce vomiting • Drink 4 to 8 ounces (120-240 ml) of water as soon as possible after ingestion. • Never give anything by mouth to an unconscious person • Call a physician or poison control center immediately***
Note to physician	• Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure • Treat symptomatically***
Self-protection for first aid personnel	• Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves • Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device***

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	• Dry chemical or CO₂ • Cool containers with flooding quantities of water until well after fire is out • Move containers from fire area if you can do it without risk • Flood fire area with large quantities of water, while knocking down vapors with water fog. If insufficient water supply: knock down vapors only
Unsuitable extinguishing media	• MAY REACT VIOLENTLY WITH WATER • Contact with water generates heat
Specific hazards arising from the	• The product causes burns of eyes, skin and mucous membranes

Sulfuric Acid >51.0% - 100% chemical

- Thermal decomposition can lead to release of irritating and toxic gases and vapors
- In the event of fire and/or explosion, do not breathe fumes***

Protective equipment and precautions for firefighters

- Substance will react with water (some violently), releasing corrosive and/or toxic gases
- When material is not involved in fire: do not use water on material itself
- ALWAYS stay away from tanks engulfed in fire
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank

Flammable properties

- Not flammable

Explosive properties

- Contact with metals may evolve flammable hydrogen gas
- No information available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

- Evacuate personnel to safe areas
- Use personal protective equipment as required
- Avoid contact with skin, eyes or clothing
- Keep people away from and upwind of spill/leak***

Environmental precautions

- For small spills, absorb material with clay absorbent or other compatible material. Dispose of the waste material according to local, state and governmental requirements.
- For large spills, contain the material using barriers of absorbent pigs, clay absorbent or earth dams.

Methods for cleaning up

- Dike far ahead of liquid spill for later disposal
- Neutralize with soda ash or lime
- Soak up with inert absorbent material
- Take up mechanically, placing in appropriate containers for disposal
- Clean contaminated surface thoroughly
- Prevent product from entering drains***

Other Information

- Do not get water inside containers or in contact with substance
- Keep combustibles (wood, paper, oil, etc) away from spilled material
- Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container

7. HANDLING AND STORAGE

Advice on safe handling

- Use personal protective equipment as required
- Avoid contact with skin, eyes or clothing
- Ensure adequate ventilation, especially in confined areas
- In case of insufficient ventilation, wear suitable respiratory equipment
- Use only with adequate ventilation and in closed systems***

Storage Conditions

- Keep containers tightly closed in a dry, cool and well-ventilated place
- Keep in properly labeled containers
- Keep out of the reach of children***

Incompatible materials

Reacts with many compounds, Bases, Water, Metals, Combustible material, Reducing agents, Contact with metals may evolve flammable hydrogen gas, Nitrogen containing compounds, Organics, Amines, Cyanide compounds, Styrene, Oxidizers, Incompatible with strong acids and bases, Incompatible with oxidizing agents***

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric acid 7664-93-9	TWA: 0.2 mg/m ³ thoracic fraction	TWA: 1 mg/m ³	IDLH: 15 mg/m ³ TWA: 1 mg/m ³

Exposure Guidelines

.

Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Sulfuric Acid >51.0% - 100%

Respiratory protection	• A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.
Eye/Face protection	• Tight sealing safety goggles • Face protection shield***
Skin and body protection	• Wear suitable protective clothing • Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact
General Hygiene Considerations	• When using do not eat, drink or smoke • Wash contaminated clothing before reuse • Keep away from food, drink and animal feeding stuffs • Contaminated work clothing should not be allowed out of the workplace • Regular cleaning of equipment, work area and clothing is recommended • Avoid contact with skin, eyes or clothing • Take off all contaminated clothing and wash it before reuse • Wear suitable gloves and eye/face protection***

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	clear oily Liquid
Color	colorless
Odor	Odorless slightly pungent characteristic
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	<1	
Melting point/Freezing Point	-35 to 10 °C / -31 to 50 °F	***
Boiling point / boiling range	270 to 121 °C / 518 to 250 °F	(at 760 mm Hg)***
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit (%)	No information available	
Lower flammability limit (%):	No information available	
Vapor pressure	<1 mm Hg	@ 40 °C***
Vapor density	3.4	@ Air = 1 ***
Specific Gravity	1.48-1.84	***
Water solubility	completely soluble	***
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	6.8 - 23 cps @ 20°C	***
Explosive properties	No information available	
Oxidizing properties	No information available	

<u>Other Information</u>	
Softening point °C	No information available
Molecular weight	98.07
VOC Content (%)	No information available
Density	No information available
Bulk density	12.3 - 15.3 Pounds per gallon (lb/gal)

10. STABILITY AND REACTIVITY

Sulfuric Acid >51.0% - 100%**Stability**

- Stable under recommended storage conditions

Conditions to avoid

- Water reactive
- Exposure to air or moisture over prolonged periods***

Incompatible materials

- Reacts with many compounds
- Bases
- Water
- Metals
- Combustible material
- Reducing agents
- Contact with metals may evolve flammable hydrogen gas
- Nitrogen containing compounds
- Organics
- Amines
- Cyanide compounds
- Styrene
- Oxidizers
- Incompatible with strong acids and bases
- Incompatible with oxidizing agents***

Hazardous Decomposition Products • Thermal decomposition can lead to release of irritating and toxic gases and vapors***

Possibility of Hazardous Reactions • None under normal processing and storage

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Principle Routes of Exposure****-Inhalation**

-Inhalation, Skin Contact, Eye contact***

Ingestion

May cause irritation of respiratory tract. Avoid breathing vapors or mists.

Skin Contact

May be harmful if swallowed.

Eye contact

May cause skin irritation and/or dermatitis.

Contact with eyes may cause irritation.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfuric acid 7664-93-9	= 2140 mg/kg (Rat)	-	= 510 mg/m ³ (Rat) 2 h
Water 7732-18-5	> 90 mL/kg (Rat)	-	-

Information on toxicological effects**Symptoms**

No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Sensitization**

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sulfuric acid 7664-93-9	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen***

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans***

NTP (National Toxicology Program)

Known - Known Carcinogen***

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present***

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Sulfuric Acid >51.0% - 100%**Chronic toxicity**

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects.***

Target Organ Effects

Eyes, Respiratory system, Skin, Teeth.***

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION**Ecotoxicity**

1% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sulfuric acid 7664-93-9	-	500: 96 h Brachydanio rerio mg/L LC50 static	-

Persistence and degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Disposal of wastes**

• This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261)

Contaminated packaging

• Do not reuse container***

US EPA Waste Number

• D002

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Sulfuric acid 7664-93-9	Toxic Corrosive

14. TRANSPORT INFORMATION**DOT****Proper shipping name**

SULFURIC ACID

Hazard Class

8

UN/ID No.

UN1830

Packing Group

II

RQ (lbs)(dry)

1000

RQ as is (lbs)(wet)

1073 (as 93% sulfuric acid)

Technical Name Description

WITH MORE THAN 51 PERCENT ACID

Description

UN1830, Sulfuric acid, 8, II

Special Provisions

A3, A7, B3, B83, B84, IB2, N34, T8, TP2

Emergency Response Guide Number

137

Transport Canada**UN/ID No.**

UN1830

Proper shipping name

SULFURIC ACID

Hazard Class

8

Packing Group

II

Description

UN1830, Sulfuric acid, 8, II

IATA**UN/ID No.**

UN1830

Sulfuric Acid >51.0% - 100%

Proper shipping name Sulphuric acid
Hazard Class 8
Packing Group II
ERG Code 8L

IMDG

UN/ID No. UN1830
Proper shipping name Sulphuric acid
Hazard Class 8
Packing Group II
EmS-No. F-A, S-B

15. REGULATORY INFORMATION**US Federal Regulations****SARA 311/312 Hazard Categories**

Acute health hazard Yes***
Chronic Health Hazard Yes***
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard Yes

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372***

Chemical Name	SARA 313 - Threshold Values %
Sulfuric acid - 7664-93-9	1.0

U.S. - TSCA (Toxic Substances Control Act) - Section 5(a)(2) - Chemicals with Significant New Use Rules (SNURs)**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sulfuric acid 7664-93-9	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ (lbs)(dry)
Sulfuric acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

Canada**WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Classification

D2A - Very toxic materials
Non-controlled

WHMIS**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals***

Sulfuric Acid >51.0% - 100%

Chemical Name	California Proposition 65
Sulfuric acid - 7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sulfuric acid 7664-93-9	X	X	X
Water 7732-18-5	-	-	X

DEA List I, List II***

Chemical Name	U.S. - DEA - List I or Precursor Chemicals	U.S.- DEA - List II or Essential Chemicals
Sulfuric acid 7664-93-9	-	50 gallon, Export Volume

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 3***	Flammability 0	Instability 2	Physical and Chemical Properties W
<u>HMIS</u>	Health hazards 3***	Flammability 0	Physical hazards 2	Personal protection D

Item #	Multi
Safety Data Sheet	0738
Revision Date	May-12-2016
Issue Date	May-12-2016
Version	1.03
Revision Note	*** Updated value on SDS.

Disclaimer

All information, statements, data, advice, and/or recommendations, including, without limitation, those relating to storage, loading/unloading, piping, and transportation (collectively referred to herein as "information") are believed to be accurate, reliable, and based on reliable industry and regulatory references. However, no representation or warranty, express or implied, is made as to its completeness, accuracy, fitness for a particular purpose or any other matter, including, without limitation, that the practice or application of any such information is free of patent infringement or other intellectual property misappropriation. The Company providing this SDS is not engaged in the business of providing technical, operational, engineering, or safety information for a fee, and therefore, any such information provided herein has been furnished as an accommodation and without charge. All information provided herein is intended for use by persons having requisite knowledge, skill, and experience in the chemical industry. The Company providing this SDS shall not be responsible or liable for the use, application, or implementation of the information provided herein, and all such information is to be used at the risk, and in the sole judgment and discretion of such persons, their employees, advisors, and agents. This safety data sheet (SDS) is offered for your information, consideration, and investigation as required by federal hazardous products act and related legislation.

APPENDIX D

RESUMES OF SAMPLING PERSONNEL

Robert J. Hubbard, P.E.

Senior Project Manager/Risk Assessment Specialist

Professional Registrations and Certification			
Registration/Certification	State	Number	Date Exp.
Professional Engineer	PA	PE052342E	9/30/19
CFR 1910.120, 40-Hour Health & Safety Training/Refresher			current



Key Expertise

Project Management
Site Investigation
Remedial Design
Risk Assessment
Fate and Transport
Statistics
Process Engineering
Expert Witness
Brownfields
MGPs
Wood Treating
Facilities

Education:

B.S., Chemical Engineering, University of Colorado, 1984

Years of Experience/Years with KEY: 33/15

Professional Experience:

- Over 33 years of experience in multi-disciplinary environmental science and engineering projects
- Environmental projects administered under CERCLA and RCRA as well as various state programs
- Site investigation and remedy selection/design for both active and inactive/former industrial facilities
- Performance of human health and ecological risk assessments under relevant federal and state guidance
- Chemical fate and transport analysis for overland, subsurface, and atmospheric pathways
- Familiarity with multiple modeling tools, including, but not limited to closed-form solutions, BioScreen, BioChlor, PentoxSD, WASP4, and Screen III
- Development of risk-based cleanup criteria and narrative remediation goals via point estimate and Monte Carlo methods
- Completion of statistical analyses to support trend analysis, exposure point concentration determination, and background comparison
- Preparation of approved alternate concentration limits demonstrations, approved delisting petitions, and approved background demonstrations
- Expert witness support (depositional testimony and expert reports) for multiple sites (7) with emphasis on risk assessment and fate and transport
- Design engineer for groundwater remediation projects (pump and treat operations, air sparging, and in-situ chemical oxidation)
- Construction oversight, documentation, and reporting for remediation projects and demolition/decontamination

Primary Responsibilities:

Senior Project Manager responsible for scope, schedule, and budget on a variety of projects, including:

- Human health risk assessment
- Chemical fate and transport analysis
- Statistical evaluation of chemical analytical results
- Brownfields remediation and redevelopment
- Remediation of former manufactured gas plant (MGP) sites
- Treatment system design (air sparging, pump and treat, etc.)
- Project planning documents for multiple regulatory programs
- Managed projects with contract values of up to \$3MM

Representative Projects		
Role	Project	Location
Project Manager	Former Wood Treating Plant: Prepared Phase II Assessment report. Prepared technical memorandum to Ohio Bureau of Underground Storage Tank Regulation regarding impacts in the vicinity of former underground petroleum storage tanks and obtained a release regarding UST compliance issues, thereby preserving the eligibility of the site for consideration under the Voluntary Action Program. Acted as design engineer for excavation and offsite disposal of soils. Prepared an OEPA-approved arsenic background demonstration report confirming that intermittent arsenic detections in groundwater are within background levels, using information from the Ohio Ambient Groundwater Monitoring network, geochemistry, and statistics with results from a cross-gradient municipal production well a mile from the site.	OH
Expert Witness	Former Manufactured Gas Plant (MGP) Site: Provided technical support for the implementation of a soil gas sampling and analysis program. Completed data evaluation, statistical analyses, and risk assessment to demonstrate the receptors in an occupied onsite structure were not at risk as a result of potential vapor inhalation. Prepared a non-intrusive investigation work plan to study the potential presence of unidentified sources at the site. Provides ongoing expert witness support on behalf of the client.	VT
Risk Assessment Specialist Process Engineer	Former MGP Site: Supported remediation activities in a densely populated area. Developed acceptable ambient air concentrations for fugitive emissions and sized a blower to maintain negative pressure inside a sprung structure erected over the excavation area. Completed statistical analysis of downwind perimeter air sample results to demonstrate compliance with air standard and risk-based limits.	MO/IL
Risk Assessment Specialist	Former Chemical Production Site: Completed groundwater modeling for a benzene and ethylbenzene release located adjacent to the Elizabeth River under the Virginia Voluntary Remediation Program. Compiled historical analytical data, and prepared a work plan to collect additional data and complete tidal gauging. Conducted analytical groundwater modeling to simulate transport to the river and demonstrated that discharges would not adversely impact the receiving water body.	VA
Project Manager	Former Tar Plant: Prepared a U.S. EPA-approved work plan for implementation of a site investigation and coordinated field activities. Prepared an interim data submittal for the regulators, a risk assessment, a removal site evaluation, and an engineering evaluation/cost analysis.	MO
Process Engineer	Former Chlorobenzene/Naphthalene and Chromite Ore Processing Facilities: Provided technical support for two adjacent sites located on a major surface water body. Prepared an Area of Contamination demonstration ("like vs. like") memorandum to support onsite disposal of dredged sediment and excavated surficial materials. Prepared an engineering evaluation/cost analysis report. Prepared a TSCA self-implementing PCB remediation notification and coordinated PCB-impacted soil excavation and disposal activities. Designed a groundwater recovery and treatment system that employed chromium reduction, metals precipitation, clarification, solids management, pH adjustment, oil/water separation, and carbon adsorption. Provided support for construction quality assurance and prepared as-built drawings and operation and maintenance plan.	NJ
Process Engineer	Former Wood Treating Facility: Prepared a five-year report on behalf of the U.S. EPA and a focused feasibility study to address groundwater impacts. Prepared a technical memorandum supporting the use of monitored natural attenuation as the site remedy, and completed supplemental technology screening that demonstrated that the more costly alternatives were both ineffective and non-implementable.	TX
Expert Witness	Active Industrial Facility: Prepared an expert report on analytical methods and sediment core dating procedures for a law firm. A plaintiff alleged that a specific industry was the source of PCB impacts although other others existed. Judge issued a Summary Judgment exonerating the industry in view of substantial evidence pointing to other sources.	CT
Project Engineer	Former Creosote Wood Treating Facility: Prepared work plan to delineate DNAPL and dissolved phase constituents. Developed extensive supplemental sampling and analysis program to address regulatory concerns regarding downstream transport of site-related constituents. Conducted sediment core sampling in downstream pond and other depositional areas. Supported development of three-dimensional Graphic Information System. Assessed potential migration of DNAPL.	VA



Field & Technical Services

Andrew Clark
Sampling Coordinator

Experience Summary

10+ years of experience supervising/conducting environmental sampling and investigation efforts. Expertise in groundwater/surface water/domestic well monitoring programs related to delineation, transport, remedial treatment performance monitoring and natural attenuation of various site constituents of concern.

Representative Projects

Groundwater Monitoring Program Supervisor responsible for the oversight of twenty-nine groundwater monitoring programs at individual sites across the United States

Interpretation and coordination of the site management and monitoring requirements pursuant to site control documents predicated under RCRA, TSCA and similar statutes.

Responsible for developing and implementing the training program for Field Sampling Technicians involving various groundwater sampling techniques such as Low Flow Purging and Sampling, Diffusion (No-Flow) Sample Collection, Westbay Discrete Interval Sampling, and Traditional (three well volume) groundwater sampling techniques.

Responsible for the field oversight of twenty-four discharge monitoring programs at individual sites in fourteen states

Responsibilities include the renewal, interpretation, and implementation of discharge permits from various state agencies, oversight of Discharge Monitoring and preparation of reports for clients and state agencies.

Significant experience in all sampling media

Environmental sampling efforts include employing various groundwater sampling techniques such as Low Flow Purging and Sampling, Westbay Discrete Interval Sampling, and Traditional (three well volume) groundwater sampling techniques. Proficient in techniques and instrumentation used to conduct industrial discharge sampling including composite and grab sample collection, preservation and submittal for laboratory analysis. Proficient in implementing domestic well monitoring programs.

Education

- B.A., Environmental Science with Chemistry Minor, Thiel College, 2007

Professional Registrations and Certifications

- CFR 1910.120, 40-Hour Health & Safety Training/Refresher
- CFR 172-704, DOT Hazardous Materials Training
- CFR 265.16, RCRA Hazardous Waste Training
- Adult CPR/AED



Field & Technical Services

Angela Gatchie
Data Manager/Project Scientist

Experience Summary

15+ years of experience managing environmental projects, reports and data, as well as, data validation and chemical analysis. Expertise includes statistical evaluation and graphical presentation utilizing programs which include EQUIS, GISKEY and custom Access applications.

Ms. Gatchie is the primary contact for more than ten different environmental laboratories.

Representative Projects

Responsible for the data acquisition, management, and reporting functions of forty-four groundwater monitoring programs at individual sites across the United States

Responsibilities include the coordination of groundwater monitoring and discharge monitoring (storm water, industrial wastewater, etc.); laboratory data oversight; data management, data validation, and report coordination/writing. The programs are implemented pursuant to site control documents predicated under RCRA, TSCA and similar statutes.

Responsible for the data acquisition, management, and reporting functions of twenty-four discharge monitoring programs at individual sites in fourteen states.

Responsibilities include laboratory coordination, review of the discharge monitoring reports, and submittal to the appropriate state agency.

Development and implementation of site groundwater sampling and reporting optimizations resulting in annual savings of \$220,000 continuing over the related life cycle of the client's monitoring obligations.

Successful optimizations in managed programs include negotiation of reduced frequency and/or number of wells monitored at multiple sites and elimination of a NPDES discharge monitoring and reporting program and a Consent Decree monitoring and reporting program.

Quality Assurance Contractor and Data Verification/Validation Contractor for Pre-design and Pilot Studies in Newark Bay and the Lower Passaic River

Related activities include Data Verification/Validation, Coordination and Support of Lab/Field Crews, Completion of Field Audits, Sample Tracking and Laboratory Quality Assurance Checking and Preparation of a Data Usability Report.

Manages all aspects of laboratory analytical data for client portfolio of groundwater and discharge monitoring programs.

Responsibilities include preparation of cost estimates, laboratory coordination, database preparation and creation using Access, GISKey, and EQUIS, database transfers, data evaluations, data validation, and table preparation for reporting purposes. Also responsible for the creation and distribution of chemical data, as well as, the trend line graphs for figures

Data Validation for client portfolio of groundwater and discharge monitoring programs.

As a data validator, validates data in accordance with the USEPA National Functional Guidelines for Organic and Inorganic Review as well as specific Regional guidelines including Regions I, II, III, IV, and V. In addition, client specific validation is performed using specific guidelines and forms set by the client.

Implementation and troubleshooting of an electronic validation tool to assist data validators in order to qualify data electronically and provide smooth transfer to a database.

Development of a real-time field data management system

Assisted with the development of a real-time field data management system which interfaces handheld data collection units with a web hosted data management platform. The developed system interfaces with EQUIS on the front end to allow the sampling technicians to print fully completed labels at the well and produces an out export of field data to EQUIS in its standard required format.

Conversion of Client's historical groundwater data (29 Sites)

Successful conversion of the Client's historical groundwater sampling data. The Client's groundwater sampling data, including a million plus records, was previously stored in various versions of EQUIS, GISKey, MS Access or in Excel spreadsheets in various structures.

Education

- B.S., Chemistry with Mathematics minor, University of Pittsburgh, 2001

Professional Registrations and Certifications

- CFR 1910.120, 40 Hour Health & Safety Training/Refresher
- 8 Hr. Field Quality Assurance and Documentation Training Certificate
- Access Database Management Certificate





Field & Technical Services

Benjamin Trask Sampling Technician

Experience Summary

2+ years of experience performing environmental sampling events.

Skills

Groundwater Sampling (Traditional/Low-Flow/West Bay/Diffusion Bags/Passive In- Situ)	Review and Assessment of Site Sampling, Health & Safety and Waste Management Plans
Domestic Well Sampling	Data Collection, Evaluation and Management
Waste Water Sampling	Compliance Inspections
Air Sampling	Excellent Communication and Verbal Skills

Representative Experience

Sampling

Proficient in multiple groundwater sample collection techniques, groundwater remediation projects, O&M remediation projects, non-aqueous phase liquid recovery and remediation, hazardous and non-hazardous waste handling, storage, and shipping.

Conduct groundwater sampling events utilizing various groundwater sampling techniques such as Low Flow Purging and Sampling, Diffusion (No-Flow) Sample Collection, Westbay Discrete Interval Sampling, and Traditional (three well volume) groundwater sampling techniques.

Proficient in conducting domestic well monitoring sampling events.

Compliance Inspections

Conduct site inspections to assess compliance for client sites that include: monuments, CAMU units, landfills, monitoring wells, outfalls, etc.

Education

- B.S., Environmental Studies, California University of Pennsylvania, 2015

Professional Registrations and Certifications

- CFR 1910.120, 40-Hour Health & Safety Training/Refresher
- CFR 172-704, DOT Hazardous Materials Training
- CFR 265.16, RCRA Hazardous Waste Training
- Adult CPR/AED

APPENDIX E

FIELD NOTES AND CHAIN OF CUSTODY FORMS

Location

Location

Date 10/17/17

31

Project / Client

Project / Client

60'2

Suzanne

1. Sam

Index

BLFM

0800 cal Oakton
0820 Mob to Site
0924 On Site
0930 Check 001 & 007
~~1050~~ 1050 Check 101
1037 Collect Sludge Grabs
1058 Collect Sludge Composite
1128 Collect Samples @ 007
1208 Collect Samples @ 001
007:
pH: 7.85 Temp: 16.4°C Cond: 1.320^{ms} TRC:
001
pH: 7.14 Temp: 18.0°C Cond: 9.21^{ms} TRC
1345 Collect Samples @ 101
pH: 3.43 Temp: 17.0 Cond: 6.5^{ms}
1450 off Site
1505 Collect Stream Sample
1517 Mob to Lab
1533 Arrive @ Lab
1600 Leave Lab/Mob to Office
1700 @ office
1745 End day
37 10/17/17

Rite in the Rain.

Location Bulger/Yukon RADate 12/13/17

55

Project / Client Max Env Re-SampleLo's Sunny Samples: BT, EM

0800	Load truck
0830	Map to Bulger
0905	On Site
0910	Attempt to collect sludge
1010	Collect 001 /ms/msD
1020	Collect 101
1035	Break down Equipment
1110	Off site
1140	@ office to get core catcher
1230	Map to Yukon
1524	On Site
1343	Collect 001 & 00/ms/msD
1440	Collect Sludge Samples from Clarifiers
1553	@ face gbg
1558	Map to office
1700	@ office / unload
1745	End day

37

12/13/17

Location Yukon, PA

Date 3/1/18

41

Project / Client Yukon sludge sampling

0745 meet AC at Carnegie office
MOB to Yukon

0900 on site at MAX-Yukon met
with Carl

0930 collect Yukon-TH-030118

0945 collect Yukon-TH-2-030118 (DUP)
{VOC 4oz jars}

1000 collect Yukon-TH-1-030118

1015 collect Yukon-TH-2-030118 (DUP)

- Composite amber liters of
all other analysis's

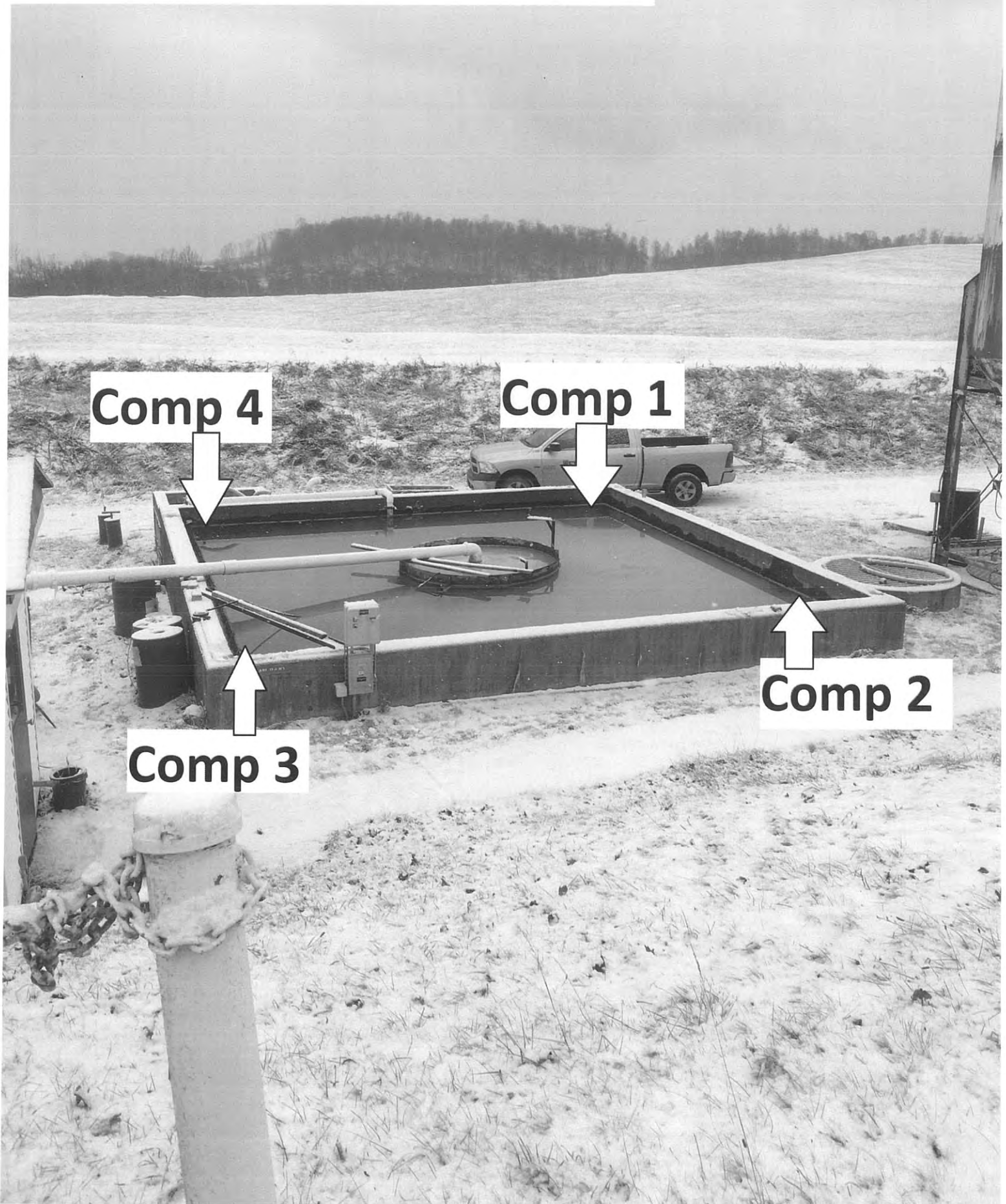
1100 decon equipment, spray tires

1115 Off site / end job

MOB to Washington County

JEL
3/1/18

Clairifier Tank



Composite



Please print. See back of COC for instructions/terms and conditions.



2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

[illegible]

Please print. See back of COC for instructions/terms and conditions. **Key Environment**



AY LABORA

Environmental Laboratory

2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES



Environmental Laboratory

2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

Client Name: <u>max Environmental</u> Address: <u>233 Max Ln Yukon, PA 15698</u> Contact: _____ Phone #: _____ Fax #: _____ Project Name: <u>Yukon Sludge Sampling</u> Quote/PO #: _____			Received on ice? Y ☐ N ☐ Sample Temp: _____		Reportable to PADEP? Yes ☐ PWSID # _____		Analyses Requested VOCs ☒ SVOCs, PCBs, Pest. and Herb. ☐ Ammonia ☐ Metals, Total and Cyanide ☐ pH, Fluoride, Sulfide ☐ % Solids ☐ TCLP SVOCs and metals, pH ☐							LAB USE ONLY Work Order # <u>8062121</u> Attach # <u>1</u> FLI Page # <u>1</u> of <u>2</u> Tracking # _____																		
TAT: Normal ☐ Rush ☐ Rush TAT subject to pre-approval and surcharge. Date Required: ____/____/____			GRAB ☐ Composite ☐		GRAB -or- Composite		Matrix Solid ☐ Water ☐ Other ☐		# of Containers									Bottle Type/Comments														
Sample Description/Location			Start Date		Start Time		End Date		End Time		Solid		Water		Other		VOCs		SVOCs, PCBs, Pest. and Herb.		Ammonia		Metals, Total and Cyanide		pH, Fluoride, Sulfide		% Solids		TCLP SVOCs and metals, pH			
1 Yukon - TH - 01 - 030118							3/1/18		0930		x						x															
2 Yukon - TH - 02 - 030118							3/1/18		1000		x						x															
3 Yukon - TH - 01 - 030118							3/1/18		0945		x						x		x		x		x		x							
4 Yukon - TH - 02 - 030118							3/1/18		1015		x						x		x		x		x		x							
<del> 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1098 1099 1100 1101 1102 1103 1104 1105 1106 1107 1108 1109 1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164 1165 1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187 1188 1189 1190 1191 1192 1193 1194 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211 1212 1213 1214 1215 1216 1217 1218 1219 1220 1221 1222 1223 1224 1225 1226 1227 1228 1229 1230 1231 1232 1233 1234 1235 1236 1237 1238 1239 1240 1241 1242 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257 1258 1259 1260 126</del>																																

APPENDIX F

LABORATORY DATA PACKAGES AND VALIDATION LETTERS (PROVIDED ON CD IN HARD COPY)



2019 Ninth Avenue
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Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
CLAIFIER SLUDGE	7B23015-01	Solid	Grab	02/21/17 18:00	02/22/17 16:30

7B23015 Report revised. This report replaces the report issued on 12/20/17 08:28. 1/9/18smc/mlf.

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:49

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Calculated Analytes

Amenable Cyanide	0.551 J	0.095	0.633	mg/kg dry	02/27/17 17:21	SM20-4500 CN-C+E+G	caa	

Chlorinated Herbicides by EPA Method 8151A

2,4-D	<0.857	0.857	4.28	ug/kg dry	03/03/17 11:33	EPA 8151A	rsr	
2,4,5-TP (Silvex)	<0.428	0.428	4.28	ug/kg dry	03/03/17 11:33	EPA 8151A	rsr	
Surrogate: 2,4-DCAA		75 %	40.6-150		03/03/17 11:33	EPA 8151A	rsr	

Conventional Chemistry Parameters by SM/EPA Methods

Fluoride	21.5 J	1.43	56.3	mg/kg dry	03/01/17 21:47	EPA 9056A	bdw	
% Solids	77.3		0.100	%	02/27/17 15:38	SM 2540 G-97	ark	
Sulfide	<3.62	3.62	25.6	mg/kg dry	02/25/17 13:30	EPA SW846 9030/9034	pra	

Cyanide by Preparation Method EPA 9010

Cyanide (total)	0.551 J	0.095	0.633	mg/kg dry	02/27/17 17:21	EPA 9014	caa	

Metals by EPA 6000/7000 Series Methods

Silver	<0.308	0.308	2.28	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	
Arsenic	16.2	1.54	4.57	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I

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Project Manager: Dave Thomas

Project: YUKON

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:49

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by EPA 6000/7000 Series Methods

Barium	1080	3.54	5.71	mg/kg dry	03/02/17 05:45	EPA 6010B/2.0	rab	L
Beryllium	<0.234	0.234	1.14	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I
Cadmium	7.03	0.812	2.28	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I
Chromium	79.0	0.416	2.86	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I
Mercury	0.246	0.00364	0.0364	mg/kg dry	02/27/17 11:52	EPA 7471B	jks	
Nickel	36.6	4.17	28.6	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	
Lead	433	0.745	4.57	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I
Antimony	<4.68	4.68	5.71	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I
Selenium	<5.60	5.60	11.4	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I
Thallium	<1.66	1.66	11.4	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I
Vanadium	34.5	0.366	11.4	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	
Zinc	910	2.51	11.4	mg/kg dry	02/28/17 21:34	EPA 6010B/2.0	rab	I, K

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Reported:

Pittsburgh PA, 15220

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01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Organochlorine Pesticides by EPA Extraction Method 3541

Isodrin	<5.13	5.13	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	F, H
Aldrin	<5.00	5.00	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
alpha-BHC	<4.37	4.37	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	H
beta-BHC	<6.21	6.21	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	H
delta-BHC	<3.93	3.93	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	G
gamma-BHC (Lindane)	<4.12	4.12	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	H
4,4'-DDD	<4.75	4.75	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
4,4'-DDE	<4.31	4.31	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
4,4'-DDT	<3.99	3.99	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
Dieldrin	<4.31	4.31	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
Endosulfan I	<4.62	4.62	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
Endosulfan II	<5.07	5.07	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
Endosulfan sulfate	<3.86	3.86	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
Endrin	<5.07	5.07	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
Endrin aldehyde	<5.00	5.00	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	D
Heptachlor	<4.24	4.24	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
Heptachlor epoxide	<6.90	6.90	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	D
Methoxychlor	<7.73	7.73	12.7	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

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01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Organochlorine Pesticides by EPA Extraction Method 3541

Toxaphene	<264	264	633	ug/kg dry	03/02/17 06:35	EPA 8081B	RSR	
Surrogate: Tetrachloro-meta-xylene	105 %		40-157		03/02/17 06:35	EPA 8081B	RSR	
Surrogate: Decachlorobiphenyl	162 %		57.1-153		03/02/17 06:35	EPA 8081B	RSR	P

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.007	0.007	0.012	mg/kg dry	02/27/17 22:34	EPA 8082	rsr	
PCB-1221	<0.010	0.010	0.012	mg/kg dry	02/27/17 22:34	EPA 8082	rsr	
PCB-1232	<0.010	0.010	0.012	mg/kg dry	02/27/17 22:34	EPA 8082	rsr	
PCB-1242	<0.003	0.003	0.012	mg/kg dry	02/27/17 22:34	EPA 8082	rsr	
PCB-1248	<0.002	0.002	0.012	mg/kg dry	02/27/17 22:34	EPA 8082	rsr	
PCB-1254	<0.008	0.008	0.012	mg/kg dry	02/27/17 22:34	EPA 8082	rsr	
PCB-1260	<0.007	0.007	0.012	mg/kg dry	02/27/17 22:34	EPA 8082	rsr	
Surrogate: Tetrachloro-meta-xylene	74.8 %		11-140		02/27/17 22:34	EPA 8082	rsr	
Surrogate: Decachlorobiphenyl	78.6 %		24.4-140		02/27/17 22:34	EPA 8082	rsr	

Semivolatile Organic Compounds by EPA Extraction Method 3541

Benzidine	<0.149	0.149	2.13	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	G
Diphenylamine	<0.0512	0.0512	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Pyridine	<0.222	0.222	0.854	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Acenaphthene	<0.0299	0.0299	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Acenaphthylene	<0.0342	0.0342	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Anthracene	<0.0213	0.0213	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Benzoic acid	<0.184	0.184	4.27	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	F
Benzo (a) anthracene	<0.0213	0.0213	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Benzo (b) fluoranthene	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Benzo (k) fluoranthene	<0.0299	0.0299	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Benzo (g,h,i) perylene	<0.0342	0.0342	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Benzo (a) pyrene	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Benzyl alcohol	<0.0598	0.0598	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Bis(2-chloroethoxy)methane	<0.0598	0.0598	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Bis(2-chloroethyl)ether	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Bis(2-chloroisopropyl)ether	<0.0256	0.0256	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Bis(2-ethylhexyl)phthalate	0.303 J	0.128	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
4-Bromophenyl phenyl ether	<0.0299	0.0299	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Butyl benzyl phthalate	<0.0512	0.0512	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
4-Chloroaniline	<0.0555	0.0555	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
4-Chloro-3-methylphenol	<0.0384	0.0384	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2-Chloronaphthalene	<0.0256	0.0256	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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01/09/18 08:49

Project Manager: Dave Thomas

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Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

2-Chlorophenol	<0.0213	0.0213	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
4-Chlorophenyl phenyl ether	<0.0555	0.0555	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	F
Chrysene	<0.0213	0.0213	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Dibenz (a,h) anthracene	<0.0299	0.0299	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Dibenzofuran	<0.0128	0.0128	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	F
Di-n-butyl phthalate	<0.0897	0.0897	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
1,2-Dichlorobenzene	<0.0384	0.0384	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
1,3-Dichlorobenzene	<0.0213	0.0213	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
1,4-Dichlorobenzene	<0.0213	0.0213	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
3,3'-Dichlorobenzidine	<0.0384	0.0384	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2,4-Dichlorophenol	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Diethyl phthalate	<0.0427	0.0427	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	F
2,4-Dimethylphenol	<0.0342	0.0342	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Dimethyl phthalate	<0.0256	0.0256	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	F
4,6-Dinitro-2-methylphenol	<0.137	0.137	2.13	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2,4-Dinitrophenol	<0.111	0.111	2.13	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2,4-Dinitrotoluene	<0.0897	0.0897	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	F
2,6-Dinitrotoluene	<0.0811	0.0811	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	

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89 Kristi Road
Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Di-n-octyl phthalate	<0.0299	0.0299	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Aniline	<0.0299	0.0299	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Naphthalene	<0.0256	0.0256	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
N-Nitrosodimethylamine	<0.0555	0.0555	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Acetophenone	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
3 & 4-Methylphenol	<0.0384	0.0384	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
1,2-Diphenylhydrazine	<0.0171	0.0171	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Fluoranthene	<0.0213	0.0213	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Fluorene	<0.0171	0.0171	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	F
Hexachlorobenzene	<0.0512	0.0512	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Hexachlorobutadiene	<0.0555	0.0555	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Hexachlorocyclopentadiene	<0.107	0.107	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Hexachloroethane	<0.0512	0.0512	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Indeno (1,2,3-cd) pyrene	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Isophorone	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2-Methylnaphthalene	<0.0342	0.0342	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2-Methylphenol	<0.0683	0.0683	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2-Nitroaniline	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

3-Nitroaniline	<0.120	0.120	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
4-Nitroaniline	<0.0982	0.0982	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Nitrobenzene	<0.0555	0.0555	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2-Nitrophenol	<0.0640	0.0640	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
4-Nitrophenol	<0.107	0.107	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	F
N-Nitrosodi-n-propylamine	<0.0427	0.0427	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Pentachlorophenol	<0.107	0.107	2.13	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Phenanthrene	<0.0213	0.0213	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Phenol	<0.0555	0.0555	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Pyrene	<0.0299	0.0299	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
1,2,4-Trichlorobenzene	<0.0470	0.0470	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2,4,5-Trichlorophenol	<0.0726	0.0726	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
2,4,6-Trichlorophenol	<0.0683	0.0683	0.427	mg/kg dry	03/01/17 00:39	EPA 8270D	rsr	
Surrogate: 2-Fluorophenol	70 %		10-169		03/01/17 00:39	EPA 8270D	rsr	
Surrogate: Phenol-d6	94 %		10-166		03/01/17 00:39	EPA 8270D	rsr	
Surrogate: Nitrobenzene-d5	103 %		18.8-170		03/01/17 00:39	EPA 8270D	rsr	
Surrogate: 2-Fluorobiphenyl	109 %		35.1-154		03/01/17 00:39	EPA 8270D	rsr	
Surrogate: 2,4,6-Tribromophenol	74 %		20-158		03/01/17 00:39	EPA 8270D	rsr	
Surrogate: Terphenyl-d14	105 %		52.1-160		03/01/17 00:39	EPA 8270D	rsr	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:49

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Extraction by EPA 1311

# pH @ 21.1°C	11.6			pH Units	03/08/17 09:00	EPA 1311	spp	

TCLP Metals extracted by EPA 1311

Silver	<0.00802	0.00802	0.0200	mg/l	03/10/17 14:22	EPA 6010B/2.0	sr	
Arsenic	<0.0250	0.0250	0.0400	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	
Barium	0.629	0.0310	0.0500	mg/l	03/10/17 14:20	EPA 6010B/2.0	sr	
Beryllium	<0.000730	0.000730	0.0100	mg/l	03/10/17 14:22	EPA 6010B/2.0	sr	
Cadmium	<0.00520	0.00520	0.0200	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	
Chromium	0.0175 J	0.00522	0.0250	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	
Mercury	<0.000410	0.000410	0.00200	mg/l	03/10/17 11:05	EPA 7471B	jks	Q
Nickel	0.0901 J	0.0382	0.250	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	
Lead	<0.0169	0.0169	0.0400	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	
Antimony	0.0760	0.0289	0.0500	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Metals extracted by EPA 1311

Selenium	<0.0224	0.0224	0.100	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	
Thallium	<0.0361	0.0361	0.100	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	
Vanadium	<0.00374	0.00374	0.100	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	
Zinc	<0.0136	0.0136	0.100	mg/l	03/10/17 14:23	EPA 6010B/2.0	sr	

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Volatile Organic Compounds by EPA Method 8260B

Benzene	<0.0219	0.0219	0.273	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Toluene	<0.0191	0.0191	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Xylenes (total)	<0.0684	0.0684	1.37	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Naphthalene	<0.0465	0.0465	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Acetone	<0.212	0.212	1.37	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	D
Acrolein	<0.513	0.513	6.84	mg/kg dry	03/01/17 14:09	EPA 8260B	mtc	
Bromodichloromethane	<0.0191	0.0191	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Bromoform	<0.0232	0.0232	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Bromomethane	<0.0684	0.0684	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
2-Butanone	<0.205	0.205	1.37	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Carbon disulfide	<0.0424	0.0424	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

14

Carbon tetrachloride	<0.0383	0.0383	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Chlorobenzene	<0.0684	0.0684	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
2-Chloroethylvinyl ether	<0.581	0.581	6.84	mg/kg dry	03/01/17 14:09	EPA 8260B	mtc	
Chloroform	<0.0260	0.0260	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,2-Dibromo-3-chloropropane	<0.0396	0.0396	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	E
Dibromochloromethane	<0.0342	0.0342	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,2-Dibromoethane (EDB)	<0.0260	0.0260	0.273	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Dichlorodifluoromethane	<0.0492	0.0492	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	E
1,2-Dichloroethane	<0.0301	0.0301	0.273	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,1-Dichloroethane	<0.0164	0.0164	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
trans-1,2-Dichloroethene	<0.0383	0.0383	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,1-Dichloroethene	<0.0342	0.0342	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,3-Dichloropropane	<0.0232	0.0232	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
trans-1,3-Dichloropropene	<0.0178	0.0178	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
cis-1,3-Dichloropropene	<0.0164	0.0164	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Hexachlorobutadiene	<0.0670	0.0670	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	E
Iodomethane	<0.0287	0.0287	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Methylene chloride	<0.308	0.308	2.73	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLAIFIER SLUDGE

Date/Time Sampled: 02/21/17 18:00

Laboratory Sample ID: 7B23015-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

14

4-Methyl-2-pentanone	<0.0355	0.0355	1.37	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,1,2,2-Tetrachloroethane	<0.0314	0.0314	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,1,1,2-Tetrachloroethane	<0.0191	0.0191	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Tetrachloroethene	<0.0465	0.0465	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,2,4-Trichlorobenzene	<0.0451	0.0451	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,1,1-Trichloroethane	<0.0369	0.0369	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
1,1,2-Trichloroethane	<0.0301	0.0301	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Trichloroethene	<0.0369	0.0369	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Trichlorofluoromethane	<0.157	0.157	0.684	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Vinyl chloride	<0.123	0.123	0.273	mg/kg dry	02/28/17 19:43	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	99 %		70-130		02/28/17 19:43	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	103 %		70-130		02/28/17 19:43	EPA 8260B	mtc	
Surrogate: Fluorobenzene	99 %		70-130		02/28/17 19:43	EPA 8260B	mtc	

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control

Chlorinated Herbicides by EPA Method 8151A

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7061023 - EPA 8151A									
Blank (7061023-BLK1)					Prepared: 03/02/17 Analyzed: 03/03/17				
2,4-D	ND		3.33	ug/kg wet					
2,4,5-TP (Silvex)	ND		3.33	ug/kg wet					
Surrogate: 2,4-DCAA			38100	ug/kg wet	33300		114 40.6-150		
LCS (7061023-BS1)					Prepared: 03/02/17 Analyzed: 03/03/17				
2,4-D	20.0		3.33	ug/kg wet	26.7		75 42.5-122		200
2,4,5-TP (Silvex)	17.2		3.33	ug/kg wet	26.7		64 23.5-121		200
Surrogate: 2,4-DCAA			31200	ug/kg wet	33300		94 40.6-150		
Matrix Spike (7061023-MS1)					Source: 7B23015-01 Prepared: 03/02/17 Analyzed: 03/03/17				
2,4-D	29.8		4.26	ug/kg dry	34.1	ND	87 17.1-157		47.4
2,4,5-TP (Silvex)	20.5		4.26	ug/kg dry	34.1	ND	60 10-138		46.5
Surrogate: 2,4-DCAA			30300	ug/kg dry	42700		71 40.6-150		
Matrix Spike Dup (7061023-MSD1)					Source: 7B23015-01 Prepared: 03/02/17 Analyzed: 03/03/17				
2,4-D	31.6		4.25	ug/kg dry	34.0	ND	93 17.1-157	6	47.4
2,4,5-TP (Silvex)	21.3		4.25	ug/kg dry	34.0	ND	63 10-138	4	46.5
Surrogate: 2,4-DCAA			28100	ug/kg dry	42500		66 40.6-150		

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Conventional Chemistry Parameters by SM/EPA Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7056003 - General Preparation									
Blank (7056003-BLK1)									
Sulfide	ND		20.0	mg/kg wet					
Prepared & Analyzed: 02/25/17									
LCS (7056003-BS1)									
Sulfide	44.8		16.0	mg/kg wet	44.0		102 90-110		200
Prepared & Analyzed: 02/25/17									
Duplicate (7056003-DUP1)									
Sulfide	ND		25.4	mg/kg dry		ND			10
Source: 7B23015-01									
Prepared & Analyzed: 02/25/17									
Batch: 7058043 - General Preparation									
Blank (7058043-BLK1)									
% Solids	ND		0.100	%					
Prepared & Analyzed: 02/27/17									
Blank (7058043-BLK2)									
% Solids	ND		0.100	%					
Prepared & Analyzed: 02/27/17									
Duplicate (7058043-DUP1)									
% Solids	85.0		0.100	%		82.8		2.53	5
Source: 7B23063-09									
Prepared & Analyzed: 02/27/17									
Duplicate (7058043-DUP2)									
% Solids	46.7		0.100	%		52.7		12.1	5
Source: 7B24107-01									
Prepared & Analyzed: 02/27/17									

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Project: YUKON

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Reported:

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Cyanide by Preparation Method EPA 9010

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7058064 - General Prep										
Blank (7058064-BLK1)										
Cyanide (total)	ND		0.476	mg/kg wet						
Prepared & Analyzed: 02/27/17										
Blank (7058064-BLK2)										
Cyanide (total)	ND		0.500	mg/kg wet						
Prepared & Analyzed: 02/27/17										
LCS (7058064-BS1)										
Cyanide (total)	8.72		0.494	mg/kg wet	9.88		88.2	85-115		200
Prepared & Analyzed: 02/27/17										
LCS (7058064-BS2)										
Cyanide (total)	0.530		0.500	mg/kg wet	0.500		106	85-115		200
Prepared & Analyzed: 02/27/17										
Duplicate (7058064-DUP1)										
Cyanide (total)	0.383	J	1.32	mg/kg dry		0.357			6.99	10
Source: 7B17033-01										

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control (Continued)

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7055025 - EPA 3050B									
Blank (7055025-BLK1)									
Prepared: 02/24/17 Analyzed: 02/28/17									
Antimony	ND		0.962	mg/kg wet					
Arsenic	ND		0.770	mg/kg wet					
Beryllium	ND		0.192	mg/kg wet					
Cadmium	ND		0.385	mg/kg wet					
Chromium	0.0742	J	0.481	mg/kg wet					
Lead	0.513	J	0.770	mg/kg wet					
Nickel	ND		4.81	mg/kg wet					
Selenium	ND		1.92	mg/kg wet					
Silver	0.0856	J	0.385	mg/kg wet					
Thallium	ND		1.92	mg/kg wet					
Zinc	ND		1.92	mg/kg wet					
Vanadium	ND		1.92	mg/kg wet					
LCS (7055025-BS1)									
Prepared: 02/24/17 Analyzed: 02/28/17									
Antimony	37.7		0.998	mg/kg wet	39.9		94 80-120		200
Arsenic	14.3		0.798	mg/kg wet	16.0		90 80-120		200
Beryllium	3.64		0.200	mg/kg wet	3.99		91 80-120		200
Cadmium	7.22		0.399	mg/kg wet	7.98		90 80-120		200
Chromium	3.95		0.499	mg/kg wet	3.99		99 80-120		200
Lead	16.4		0.798	mg/kg wet	16.0		103 80-120		200
Nickel	36.8		4.99	mg/kg wet	39.9		92 80-120		200
Selenium	33.8		2.00	mg/kg wet	39.9		85 80-120		200
Silver	7.49		0.399	mg/kg wet	7.98		94 80-120		200
Thallium	15.0		2.00	mg/kg wet	16.0		94 80-120		200
Zinc	36.1		2.00	mg/kg wet	39.9		90 80-120		200

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7055025 - EPA 3050B (Continued)									
LCS (7055025-BS1)									
Vanadium	38.1		2.00	mg/kg wet	39.9		95 80-120		200
Duplicate (7055025-DUP1)									
Source: 7B23015-01									
Prepared: 02/24/17 Analyzed: 02/28/17									
Antimony	ND		5.70	mg/kg dry		ND			20
Arsenic	16.1		4.56	mg/kg dry		16.2		0.02	20
Beryllium	ND		1.14	mg/kg dry		ND			20
Cadmium	6.35		2.28	mg/kg dry		7.03		10	20
Chromium	66.0		2.85	mg/kg dry		79.0		18	20
Lead	396		4.56	mg/kg dry		433		9	20
Nickel	35.1		28.5	mg/kg dry		36.6		4	20
Selenium	ND		11.4	mg/kg dry		ND			20
Silver	ND		2.28	mg/kg dry		ND			20
Thallium	ND		11.4	mg/kg dry		ND			20
Zinc	515		11.4	mg/kg dry		910		55	20
Vanadium	38.6		11.4	mg/kg dry		34.5		11	20
Matrix Spike (7055025-MS1)									
Source: 7B22055-09									
Prepared: 02/24/17 Analyzed: 02/28/17									
Antimony	47.1		4.91	mg/kg dry	39.3	31.2	41 75-125		200
Arsenic	3.73	J	3.93	mg/kg dry	15.7	ND	24 75-125		200
Beryllium	3.11		0.981	mg/kg dry	3.93	ND	79 75-125		200
Cadmium	7.11		1.96	mg/kg dry	7.85	ND	91 75-125		200
Chromium	9100000000		2.45	mg/kg dry	3.93	9400000000	NR 75-125		200
Lead	9100000000		3.93	mg/kg dry	15.7	23700	NR 75-125		200
Nickel	31.7		24.5	mg/kg dry	39.3	ND	81 75-125		200
Selenium	22.6		9.81	mg/kg dry	39.3	ND	58 75-125		200
Silver	8.13		1.96	mg/kg dry	7.85	0.689	95 75-125		200

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7055025 - EPA 3050B (Continued)										
Matrix Spike (7055025-MS1)			Source: 7B22055-09		Prepared: 02/24/17 Analyzed: 02/28/17					
Thallium	10.5		9.81	mg/kg dry	15.7	ND	67	75-125		200
Zinc	91000000000		9.81	mg/kg dry	39.3	94000000000	NR	75-125		200
Vanadium	32.4		9.81	mg/kg dry	39.3	ND	82	75-125		200
Matrix Spike (7055025-MS2)			Source: 7B23015-01		Prepared: 02/24/17 Analyzed: 02/28/17					
Antimony	12.0		5.71	mg/kg dry	45.7	ND	26	75-125		200
Arsenic	26.4		4.57	mg/kg dry	18.3	16.2	56	75-125		200
Beryllium	2.62		1.14	mg/kg dry	4.57	ND	57	75-125		200
Cadmium	12.7		2.28	mg/kg dry	9.14	7.03	62	75-125		200
Chromium	61.4		2.86	mg/kg dry	4.57	79.0	NR	75-125		200
Lead	324		4.57	mg/kg dry	18.3	433	NR	75-125		200
Nickel	71.1		28.6	mg/kg dry	45.7	36.6	76	75-125		200
Selenium	27.4		11.4	mg/kg dry	45.7	ND	60	75-125		200
Silver	7.55		2.28	mg/kg dry	9.14	ND	83	75-125		200
Thallium	5.21	J	11.4	mg/kg dry	18.3	ND	29	75-125		200
Zinc	464		11.4	mg/kg dry	45.7	910	NR	75-125		200
Vanadium	82.2		11.4	mg/kg dry	45.7	34.5	104	75-125		200
Batch: 7055086 - EPA 7471A										
Blank (7055086-BLK1)			Prepared: 02/24/17 Analyzed: 02/27/17							
Mercury	ND		0.0310	mg/kg wet						
LCS (7055086-BS1)			Prepared: 02/24/17 Analyzed: 02/27/17							
Mercury	0.3202		0.0323	mg/kg wet	0.326		98.2	85-115		200

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:49

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7055086 - EPA 7471A (Continued)									
Matrix Spike (7055086-MS1)									
Mercury	0.8991		0.171	mg/kg dry	0.861	2.402	NR 70-130		20
Matrix Spike Dup (7055086-MSD1)									
Mercury	0.8882		0.162	mg/kg dry	0.820	2.402	NR 70-130	1.22	20
Reference (7055086-SRM1)									
Mercury	0.3460		0.0330	mg/kg wet	0.333		104 90-110		
Batch: 7060056 - EPA 3050B									
Blank (7060056-BLK1)									
Barium	3.86		0.962	mg/kg wet					
LCS (7060056-BS1)									
Barium	41.2		0.998	mg/kg wet	39.9		103 80-120		200

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7060034 - EPA 3541										
Blank (7060034-BLK1)					Prepared: 03/01/17 Analyzed: 03/02/17					
Isodrin	12.4			ug/kg wet						
Aldrin	ND		2.00	ug/kg wet						
alpha-BHC	ND		2.00	ug/kg wet						
beta-BHC	ND		2.00	ug/kg wet						
delta-BHC	ND		2.00	ug/kg wet						
gamma-BHC (Lindane)	ND		2.00	ug/kg wet						
Chlordane (tech)	ND		100	ug/kg wet						
4,4'-DDD	ND		2.00	ug/kg wet						
4,4'-DDE	ND		2.00	ug/kg wet						
4,4'-DDT	ND		2.00	ug/kg wet						
Dieldrin	ND		2.00	ug/kg wet						
Endosulfan I	ND		2.00	ug/kg wet						
Endosulfan II	ND		2.00	ug/kg wet						
Endosulfan sulfate	ND		2.00	ug/kg wet						
Endrin	ND		2.00	ug/kg wet						
Endrin aldehyde	ND		2.00	ug/kg wet						
Heptachlor	ND		2.00	ug/kg wet						
Heptachlor epoxide	ND		2.00	ug/kg wet						
Methoxychlor	ND		2.00	ug/kg wet						
Toxaphene	ND		100	ug/kg wet						
alpha-Chlordane	ND		2.00	ug/kg wet						
gamma-Chlordane	ND		2.00	ug/kg wet						
Endrin ketone	ND		2.00	ug/kg wet						
LCS (7060034-BS1)					Prepared: 03/01/17 Analyzed: 03/02/17					

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Project: YUKON

651 Holiday Drive Foster Plaza #5

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Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7060034 - EPA 3541 (Continued)									
LCS (7060034-BS1)					Prepared: 03/01/17 Analyzed: 03/02/17				
Isodrin	16.8			ug/kg wet	12.0		140		
Aldrin	9.58		2.00	ug/kg wet	12.0	79.8	40.4-132		200
alpha-BHC	7.50		2.00	ug/kg wet	12.0	62.5	38.9-127		200
beta-BHC	11.9		2.00	ug/kg wet	12.0	99.5	30.4-151		200
delta-BHC	3.15		2.00	ug/kg wet	12.0	26.3	29.5-182		200
gamma-BHC (Lindane)	8.46		2.00	ug/kg wet	12.0	70.5	38.2-130		200
Chlordane (tech)	ND		100	ug/kg wet			80-120		200
4,4'-DDD	8.69		2.00	ug/kg wet	12.0	72.4	43.7-138		200
4,4'-DDE	9.54		2.00	ug/kg wet	12.0	79.5	45.6-123		200
4,4'-DDT	9.67		2.00	ug/kg wet	12.0	80.6	39.3-158		200
Dieldrin	10.1		2.00	ug/kg wet	12.0	84.2	30.3-142		200
Endosulfan I	10.4		2.00	ug/kg wet	12.0	86.8	32.9-150		200
Endosulfan II	10.8		2.00	ug/kg wet	12.0	90.3	29.4-160		200
Endosulfan sulfate	9.19		2.00	ug/kg wet	12.0	76.6	31.8-159		200
Endrin	10.2		2.00	ug/kg wet	12.0	84.6	44.4-135		200
Endrin aldehyde	12.3		2.00	ug/kg wet	12.0	102	29.8-140		200
Heptachlor	11.9		2.00	ug/kg wet	12.0	99.2	46.4-128		200
Heptachlor epoxide	9.46		2.00	ug/kg wet	12.0	78.9	43.8-123		200
Methoxychlor	10.2		2.00	ug/kg wet	12.0	84.6	23.4-159		200
Toxaphene	ND		100	ug/kg wet			80-120		200
alpha-Chlordane	8.91		2.00	ug/kg wet	12.0	74.3	42.4-120		200
gamma-Chlordane	9.59		2.00	ug/kg wet	12.0	79.9	43-133		200
Endrin ketone	10.0		2.00	ug/kg wet	12.0	83.6	44.1-137		200
Surrogate: Tetrachloro-meta-xylene			14.1	ug/kg wet	20.0	70.4	40-157		
Surrogate: Decachlorobiphenyl			17.8	ug/kg wet	20.0	89.0	57.1-153		

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7060034 - EPA 3541 (Continued)									
Matrix Spike (7060034-MS1)			Source: 7B23015-01		Prepared: 03/01/17 Analyzed: 03/02/17				
Isodrin	25.7			ug/kg dry	14.9	0.00	172		
Aldrin	13.2		12.4	ug/kg dry	14.9	ND	88.6	44.4-177	41.5
alpha-BHC	19.2		12.4	ug/kg dry	14.9	ND	128	31.8-167	61.8
beta-BHC	50.4		12.4	ug/kg dry	14.9	ND	338	10-189	53.1
delta-BHC	15.8		12.4	ug/kg dry	14.9	ND	106	14.5-192	54.7
gamma-BHC (Lindane)	53.3		12.4	ug/kg dry	14.9	ND	357	11.4-177	46.3
4,4'-DDD	9.48		6.22	ug/kg dry	14.9	ND	63.5	20.6-189	59.3
4,4'-DDE	12.0		6.22	ug/kg dry	14.9	ND	80.0	29.5-172	55.1
4,4'-DDT	14.3		12.4	ug/kg dry	14.9	ND	95.7	10-178	57.4
Dieldrin	13.0		12.4	ug/kg dry	14.9	ND	87.2	10-182	58.2
Endosulfan I	13.9		12.4	ug/kg dry	14.9	ND	92.8	16.7-182	37.7
Endosulfan II	14.0		12.4	ug/kg dry	14.9	ND	94.0	10-186	40.4
Endosulfan sulfate	7.24		6.22	ug/kg dry	14.9	ND	48.5	13.3-179	48.8
Endrin	9.65		6.22	ug/kg dry	14.9	ND	64.6	20.1-179	40.3
Endrin aldehyde	7.68		6.22	ug/kg dry	14.9	ND	51.4	10-178	41.7
Heptachlor	19.0		12.4	ug/kg dry	14.9	ND	127	28.6-184	46.7
Heptachlor epoxide	10.4	J	12.4	ug/kg dry	14.9	ND	69.4	31.4-154	59
Methoxychlor	13.0		12.4	ug/kg dry	14.9	ND	87.3	35.5-181	52.3
Toxaphene	ND		622	ug/kg dry		ND		80-120	10
alpha-Chlordane	12.6		12.4	ug/kg dry	14.9	ND	84.2	24.9-178	34.3
gamma-Chlordane	12.8		12.4	ug/kg dry	14.9	ND	85.7	10-187	30.1
Endrin ketone	10.1		9.34	ug/kg dry	14.9	ND	67.3	10-194	65.5
Surrogate: Tetrachloro-meta-xylene			26.4	ug/kg dry	24.9		106	40-157	
Surrogate: Decachlorobiphenyl			40.5	ug/kg dry	24.9		163	57.1-153	

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7060034 - EPA 3541 (Continued)									
Matrix Spike Dup (7060034-MSD1)		Source: 7B23015-01		Prepared: 03/01/17 Analyzed: 03/02/17					
Isodrin	31.4			ug/kg dry	14.9	0.00	211	20.0	
Aldrin	12.4		12.4	ug/kg dry	14.9	ND	83.1	44.4-177	6.79
alpha-BHC	30.0		12.4	ug/kg dry	14.9	ND	202	31.8-167	44.1
beta-BHC	44.9		12.4	ug/kg dry	14.9	ND	302	10-189	11.6
delta-BHC	19.1		12.4	ug/kg dry	14.9	ND	128	14.5-192	19.1
gamma-BHC (Lindane)	69.3		12.4	ug/kg dry	14.9	ND	466	11.4-177	26.1
4,4'-DDD	8.99		6.20	ug/kg dry	14.9	ND	60.4	20.6-189	5.36
4,4'-DDE	12.8		12.4	ug/kg dry	14.9	ND	86.3	29.5-172	7.11
4,4'-DDT	14.4		12.4	ug/kg dry	14.9	ND	96.9	10-178	0.806
Dieldrin	13.7		12.4	ug/kg dry	14.9	ND	91.9	10-182	4.78
Endosulfan I	17.2		12.4	ug/kg dry	14.9	ND	115	16.7-182	21.4
Endosulfan II	12.6		12.4	ug/kg dry	14.9	ND	84.8	10-186	10.6
Endosulfan sulfate	8.17		6.20	ug/kg dry	14.9	ND	54.9	13.3-179	12.1
Endrin	10.7		6.20	ug/kg dry	14.9	ND	72.0	20.1-179	10.4
Endrin aldehyde	10.0		6.20	ug/kg dry	14.9	ND	67.4	10-178	26.5
Heptachlor	21.6		12.4	ug/kg dry	14.9	ND	145	28.6-184	12.6
Heptachlor epoxide	12.8		12.4	ug/kg dry	14.9	ND	85.9	31.4-154	20.8
Methoxychlor	14.1		12.4	ug/kg dry	14.9	ND	94.9	35.5-181	7.95
Toxaphene	ND		620	ug/kg dry		ND		80-120	10
alpha-Chlordane	14.8		12.4	ug/kg dry	14.9	ND	99.7	24.9-178	16.5
gamma-Chlordane	13.9		12.4	ug/kg dry	14.9	ND	93.2	10-187	7.96
Endrin ketone	11.0		9.30	ug/kg dry	14.9	ND	74.0	10-194	9.06
Surrogate: Tetrachloro-meta-xylene			26.9	ug/kg dry	24.8		108	40-157	
Surrogate: Decachlorobiphenyl			32.8	ug/kg dry	24.8		132	57.1-153	

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7055054 - EPA 3541									
Blank (7055054-BLK1)					Prepared: 02/24/17 Analyzed: 02/27/17				
PCB-1016	ND		0.010	mg/kg wet					
PCB-1221	ND		0.010	mg/kg wet					
PCB-1232	ND		0.010	mg/kg wet					
PCB-1242	ND		0.010	mg/kg wet					
PCB-1248	ND		0.010	mg/kg wet					
PCB-1254	ND		0.010	mg/kg wet					
PCB-1260	ND		0.010	mg/kg wet					
Surrogate: Tetrachloro-meta-xylene			0.0786	mg/kg wet	0.100		78.6	11-140	
Surrogate: Decachlorobiphenyl			0.0830	mg/kg wet	0.100		83.0	24.4-140	
LCS (7055054-BS1)					Prepared: 02/24/17 Analyzed: 02/27/17				
PCB-1248	0.099		0.010	mg/kg wet	0.100		99.3	57.8-140	200
Surrogate: Tetrachloro-meta-xylene			0.0797	mg/kg wet	0.100		79.7	70-130	
Surrogate: Decachlorobiphenyl			0.0854	mg/kg wet	0.100		85.4	70-130	
Matrix Spike (7055054-MS1)					Source: 7B23015-01 Prepared: 02/24/17 Analyzed: 02/27/17				
PCB-1248	0.129		0.013	mg/kg dry	0.125	ND	103	32.1-157	35.4
Surrogate: Tetrachloro-meta-xylene			0.0908	mg/kg dry	0.125		72.5	70-130	
Surrogate: Decachlorobiphenyl			0.0963	mg/kg dry	0.125		76.9	70-130	
Matrix Spike Dup (7055054-MSD1)					Source: 7B23015-01 Prepared: 02/24/17 Analyzed: 02/27/17				
PCB-1248	0.135		0.013	mg/kg dry	0.127	ND	107	32.1-157	5.10 35.4
Surrogate: Tetrachloro-meta-xylene			0.0960	mg/kg dry	0.127		75.9	70-130	
Surrogate: Decachlorobiphenyl			0.102	mg/kg dry	0.127		80.5	70-130	

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541										
Blank (7059041-BLK1)					Prepared: 02/27/17 Analyzed: 02/28/17					
Diphenylamine	ND		0.333	mg/kg wet						
Pyridine	ND		0.667	mg/kg wet						
Benzidine	ND		1.67	mg/kg wet						
Acenaphthene	ND		0.333	mg/kg wet						
Acenaphthylene	ND		0.333	mg/kg wet						
Anthracene	ND		0.333	mg/kg wet						
Benzoic acid	ND		3.33	mg/kg wet						
Benzo (a) anthracene	0.0167	J	0.333	mg/kg wet						
Benzo (b) fluoranthene	ND		0.333	mg/kg wet						
Benzo (k) fluoranthene	ND		0.333	mg/kg wet						
Benzo (g,h,i) perylene	ND		0.333	mg/kg wet						
Benzo (a) pyrene	ND		0.333	mg/kg wet						
Benzyl alcohol	ND		0.333	mg/kg wet						
Bis(2-chloroethoxy)methane	ND		0.333	mg/kg wet						
Bis(2-chloroethyl)ether	ND		0.333	mg/kg wet						
Bis(2-chloroisopropyl)ether	ND		0.333	mg/kg wet						
Bis(2-ethylhexyl)phthalate	ND		0.333	mg/kg wet						
4-Bromophenyl phenyl ether	ND		0.333	mg/kg wet						
Butyl benzyl phthalate	ND		0.333	mg/kg wet						
4-Chloroaniline	ND		0.333	mg/kg wet						
4-Chloro-3-methylphenol	ND		0.333	mg/kg wet						
2-Chloronaphthalene	ND		0.333	mg/kg wet						
2-Chlorophenol	ND		0.333	mg/kg wet						
4-Chlorophenyl phenyl ether	ND		0.333	mg/kg wet						
Chrysene	ND		0.333	mg/kg wet						

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)										
Blank (7059041-BLK1)			Prepared: 02/27/17 Analyzed: 02/28/17							
Dibenz (a,h) anthracene	ND		0.333	mg/kg wet						
Dibenzofuran	ND		0.333	mg/kg wet						
Di-n-butyl phthalate	0.0800	J	0.333	mg/kg wet						
1,2-Dichlorobenzene	ND		0.333	mg/kg wet						
1,3-Dichlorobenzene	ND		0.333	mg/kg wet						
1,4-Dichlorobenzene	ND		0.333	mg/kg wet						
3,3'-Dichlorobenzidine	ND		0.333	mg/kg wet						
2,4-Dichlorophenol	ND		0.333	mg/kg wet						
Diethyl phthalate	ND		0.333	mg/kg wet						
2,4-Dimethylphenol	ND		0.333	mg/kg wet						
Dimethyl phthalate	ND		0.333	mg/kg wet						
4,6-Dinitro-2-methylphenol	ND		1.67	mg/kg wet						
2,4-Dinitrophenol	ND		1.67	mg/kg wet						
2,4-Dinitrotoluene	ND		0.333	mg/kg wet						
2,6-Dinitrotoluene	ND		0.333	mg/kg wet						
Di-n-octyl phthalate	ND		0.333	mg/kg wet						
Aniline	ND		0.333	mg/kg wet						
Naphthalene	ND		0.333	mg/kg wet						
N-Nitrosodimethylamine	ND		0.333	mg/kg wet						
3 & 4-Methylphenol	ND		0.333	mg/kg wet						
Acetophenone	ND		0.333	mg/kg wet						
1,2-Diphenylhydrazine	ND		0.333	mg/kg wet						
Fluoranthene	ND		0.333	mg/kg wet						
Fluorene	ND		0.333	mg/kg wet						
Hexachlorobenzene	ND		0.333	mg/kg wet						

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)										
Blank (7059041-BLK1)										
Prepared: 02/27/17 Analyzed: 02/28/17										
Hexachlorobutadiene	ND		0.333	mg/kg wet						
Hexachlorocyclopentadiene	ND		0.333	mg/kg wet						
Hexachloroethane	ND		0.333	mg/kg wet						
Indeno (1,2,3-cd) pyrene	ND		0.333	mg/kg wet						
Isophorone	ND		0.333	mg/kg wet						
2-Methylnaphthalene	ND		0.333	mg/kg wet						
2-Methylphenol	ND		0.333	mg/kg wet						
2-Nitroaniline	ND		0.333	mg/kg wet						
3-Nitroaniline	ND		0.333	mg/kg wet						
4-Nitroaniline	ND		0.333	mg/kg wet						
Nitrobenzene	ND		0.333	mg/kg wet						
2-Nitrophenol	ND		0.333	mg/kg wet						
4-Nitrophenol	ND		0.333	mg/kg wet						
N-Nitrosodi-n-propylamine	ND		0.333	mg/kg wet						
Pentachlorophenol	ND		1.67	mg/kg wet						
Phenanthrene	ND		0.333	mg/kg wet						
Phenol	ND		0.333	mg/kg wet						
Pyrene	ND		0.333	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.333	mg/kg wet						
2,4,5-Trichlorophenol	ND		0.333	mg/kg wet						
2,4,6-Trichlorophenol	ND		0.333	mg/kg wet						
Surrogate: 2-Fluorophenol			13.9	mg/kg wet	13.3		104	10-169		
Surrogate: Phenol-d6			13.1	mg/kg wet	13.3		98	10-166		
Surrogate: Nitrobenzene-d5			7.05	mg/kg wet	6.67		106	18.8-170		
Surrogate: 2-Fluorobiphenyl			7.73	mg/kg wet	6.67		116	35.1-154		

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)									
Blank (7059041-BLK1)					Prepared: 02/27/17 Analyzed: 02/28/17				
Surrogate: 2,4,6-Tribromophenol			14.9	mg/kg wet	13.3		112	20-158	
Surrogate: Terphenyl-d14			7.51	mg/kg wet	6.67		113	52.1-160	
LCS (7059041-BS1)					Prepared: 02/27/17 Analyzed: 02/28/17				
Pyridine	16.4		0.667	mg/kg wet	33.3		49	10-137	10
Diphenylamine	15.0		0.333	mg/kg wet	16.7		90	56-103	10
Benzidine	ND		1.67	mg/kg wet	16.7			10-35	10
Acenaphthene	20.3		0.333	mg/kg wet	16.7		122	63-126	10
Acenaphthylene	20.8		0.333	mg/kg wet	16.7		125	63-132	10
Anthracene	17.7		0.333	mg/kg wet	16.7		106	68-124	10
Benzoic acid	19.1		3.33	mg/kg wet	16.7		114	31-104	10
Benzo (a) anthracene	17.2		0.333	mg/kg wet	16.7		103	70-124	10
Benzo (b) fluoranthene	18.3		0.333	mg/kg wet	16.7		110	76-125	10
Benzo (k) fluoranthene	18.5		0.333	mg/kg wet	16.7		111	71-125	10
Benzo (g,h,i) perylene	17.5		0.333	mg/kg wet	16.7		105	73-127	10
Benzo (a) pyrene	18.5		0.333	mg/kg wet	16.7		111	71-127	10
Benzyl alcohol	16.8		0.333	mg/kg wet	16.7		101	34-138	10
Bis(2-chloroethoxy)methane	17.3		0.333	mg/kg wet	16.7		104	39-131	10
Bis(2-chloroethyl)ether	15.8		0.333	mg/kg wet	16.7		95	11-149	10
Bis(2-chloroisopropyl)ether	14.6		0.333	mg/kg wet	16.7		88	17-154	10
Bis(2-ethylhexyl)phthalate	18.0		0.333	mg/kg wet	16.7		108	63-115	10
4-Bromophenyl phenyl ether	19.3		0.333	mg/kg wet	16.7		116	68-121	10
Butyl benzyl phthalate	17.9		0.333	mg/kg wet	16.7		107	62-122	10
4-Chloroaniline	9.44		0.333	mg/kg wet	16.7		57	34-103	10
4-Chloro-3-methylphenol	17.0		0.333	mg/kg wet	16.7		102	62-123	10

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)									
LCS (7059041-BS1)									
					Prepared: 02/27/17 Analyzed: 02/28/17				
2-Chloronaphthalene	20.1		0.333	mg/kg wet	16.7		121 57-124		10
2-Chlorophenol	16.2		0.333	mg/kg wet	16.7		97 24-142		10
4-Chlorophenyl phenyl ether	21.5		0.333	mg/kg wet	16.7		129 65-122		10
Chrysene	18.4		0.333	mg/kg wet	16.7		110 71-125		10
Dibenz (a,h) anthracene	17.8		0.333	mg/kg wet	16.7		107 74-128		10
Dibenzofuran	19.9		0.333	mg/kg wet	16.7		119 63-118		10
Di-n-butyl phthalate	19.0		0.333	mg/kg wet	16.7		114 72-123		10
1,2-Dichlorobenzene	15.6		0.333	mg/kg wet	16.7		94 10-151		10
1,3-Dichlorobenzene	15.1		0.333	mg/kg wet	16.7		91 10-156		10
1,4-Dichlorobenzene	15.3		0.333	mg/kg wet	16.7		92 10-154		10
3,3'-Dichlorobenzidine	9.90		0.333	mg/kg wet	16.7		59 48-107		10
2,4-Dichlorophenol	16.8		0.333	mg/kg wet	16.7		101 50-130		10
Diethyl phthalate	21.7		0.333	mg/kg wet	16.7		130 67-124		10
2,4-Dimethylphenol	15.3		0.333	mg/kg wet	16.7		92 40-111		10
Dimethyl phthalate	20.9		0.333	mg/kg wet	16.7		125 66-121		10
4,6-Dinitro-2-methylphenol	16.5		1.67	mg/kg wet	16.7		99 10-111		10
2,4-Dinitrophenol	16.6		1.67	mg/kg wet	16.7		100 10-111		10
2,4-Dinitrotoluene	20.0		0.333	mg/kg wet	16.7		120 66-112		10
2,6-Dinitrotoluene	19.8		0.333	mg/kg wet	16.7		119 57-128		10
Di-n-octyl phthalate	17.4		0.333	mg/kg wet	16.7		104 56-119		10
Aniline	6.46		0.333	mg/kg wet	16.7		39 16-99		10
Naphthalene	17.1		0.333	mg/kg wet	16.7		103 32-140		10
N-Nitrosodimethylamine	13.0		0.333	mg/kg wet	16.7		78 10-156		10
Acetophenone	17.2		0.333	mg/kg wet	16.7		103 27-142		10
3 & 4-Methylphenol	15.5		0.333	mg/kg wet	16.7		93 41-118		10

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NELAP: PA 07-062, VA 460212

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)										
LCS (7059041-BS1)										
Prepared: 02/27/17 Analyzed: 02/28/17										
1,2-Diphenylhydrazine	16.5		0.333	mg/kg wet				60-127		10
Fluoranthene	17.8		0.333	mg/kg wet	16.7		107	71-128		10
Fluorene	20.7		0.333	mg/kg wet	16.7		124	69-122		10
Hexachlorobenzene	18.6		0.333	mg/kg wet	16.7		111	69-118		10
Hexachlorobutadiene	18.7		0.333	mg/kg wet	16.7		112	18-146		10
Hexachlorocyclopentadiene	18.8		0.333	mg/kg wet	16.7		113	22-155		10
Hexachloroethane	15.3		0.333	mg/kg wet	16.7		92	10-154		10
Indeno (1,2,3-cd) pyrene	17.4		0.333	mg/kg wet	16.7		104	73-130		10
Isophorone	18.6		0.333	mg/kg wet	16.7		111	42-131		10
2-Methylnaphthalene	17.6		0.333	mg/kg wet	16.7		105	47-131		10
2-Methylphenol	15.3		0.333	mg/kg wet	16.7		92	35-119		10
2-Nitroaniline	19.3		0.333	mg/kg wet	16.7		116	57-128		10
3-Nitroaniline	14.0		0.333	mg/kg wet	16.7		84	60-112		10
4-Nitroaniline	17.0		0.333	mg/kg wet	16.7		102	44-127		10
Nitrobenzene	16.9		0.333	mg/kg wet	16.7		102	28-138		10
2-Nitrophenol	18.5		0.333	mg/kg wet	16.7		111	31-144		10
4-Nitrophenol	20.1		0.333	mg/kg wet	16.7		120	50-118		10
N-Nitrosodi-n-propylamine	15.6		0.333	mg/kg wet	16.7		94	34-135		10
Pentachlorophenol	19.4		1.67	mg/kg wet	16.7		116	56-126		10
Phenanthrene	16.8		0.333	mg/kg wet	16.7		101	68-118		10
Phenol	15.5		0.333	mg/kg wet	16.7		93	32-129		10
Pyrene	16.8		0.333	mg/kg wet	16.7		101	70-126		10
1,2,4-Trichlorobenzene	17.6		0.333	mg/kg wet	16.7		106	24-141		10
2,4,5-Trichlorophenol	21.6		0.333	mg/kg wet	16.7		130	63-138		10
2,4,6-Trichlorophenol	20.7		0.333	mg/kg wet	16.7		124	64-128		10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)									
LCS (7059041-BS1)					Prepared: 02/27/17 Analyzed: 02/28/17				
Surrogate: 2-Fluorophenol			13.1	mg/kg wet	13.3		98	35-115	
Surrogate: Phenol-d6			12.5	mg/kg wet	13.3		94	35-115	
Surrogate: Nitrobenzene-d5			7.00	mg/kg wet	6.67		105	35-115	
Surrogate: 2-Fluorobiphenyl			7.36	mg/kg wet	6.67		110	40-120	
Surrogate: 2,4,6-Tribromophenol			16.1	mg/kg wet	13.3		121	40-120	
Surrogate: Terphenyl-d14			6.75	mg/kg wet	6.67		101	40-120	
Matrix Spike (7059041-MS1)					Source: 7B24007-01 Prepared: 02/27/17 Analyzed: 02/28/17				
Diphenylamine	17.1		0.375	mg/kg dry	18.7	ND	91	70-130	20
Pyridine	26.4		0.750	mg/kg dry	37.5	ND	70	70-130	20
Benzidine	0.412	J	1.87	mg/kg dry	18.7	ND	2	70-130	20
Acenaphthene	23.4		0.375	mg/kg dry	18.7	0.740	121	70-130	20
Acenaphthylene	24.4		0.375	mg/kg dry	18.7	4.31	107	70-130	20
Anthracene	20.6		0.375	mg/kg dry	18.7	3.72	90	70-130	20
Benzoic acid	20.1		3.75	mg/kg dry	18.7	ND	107	70-130	20
Benzo (a) anthracene	20.4		0.375	mg/kg dry	18.7	8.36	64	70-130	20
Benzo (b) fluoranthene	22.0		0.375	mg/kg dry	18.7	10.6	61	70-130	20
Benzo (k) fluoranthene	21.0		0.375	mg/kg dry	18.7	3.01	96	70-130	20
Benzo (g,h,i) perylene	20.6		0.375	mg/kg dry	18.7	4.04	88	70-130	20
Benzo (a) pyrene	21.8		0.375	mg/kg dry	18.7	6.00	84	70-130	20
Benzyl alcohol	20.1		0.375	mg/kg dry	18.7	ND	107	70-130	20
Bis(2-chloroethoxy)methane	20.2		0.375	mg/kg dry	18.7	ND	108	70-130	20
Bis(2-chloroethyl)ether	18.6		0.375	mg/kg dry	18.7	ND	99	70-130	20
Bis(2-chloroisopropyl)ether	17.2		0.375	mg/kg dry	18.7	ND	92	70-130	20
Bis(2-ethylhexyl)phthalate	21.1		0.375	mg/kg dry	18.7	ND	113	70-130	20

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)									
Matrix Spike (7059041-MS1)		Source: 7B24007-01		Prepared: 02/27/17 Analyzed: 02/28/17					
4-Bromophenyl phenyl ether	22.1		0.375	mg/kg dry	18.7	ND	118	70-130	20
Butyl benzyl phthalate	21.2		0.375	mg/kg dry	18.7	ND	113	70-130	20
4-Chloroaniline	18.8		0.375	mg/kg dry	18.7	ND	100	70-130	20
4-Chloro-3-methylphenol	20.2		0.375	mg/kg dry	18.7	ND	108	70-130	20
2-Chloronaphthalene	23.4		0.375	mg/kg dry	18.7	ND	125	70-130	20
2-Chlorophenol	19.3		0.375	mg/kg dry	18.7	ND	103	70-130	20
4-Chlorophenyl phenyl ether	24.9		0.375	mg/kg dry	18.7	ND	133	70-130	20
Chrysene	21.3		0.375	mg/kg dry	18.7	8.17	70	70-130	20
Dibenz (a,h) anthracene	20.5		0.375	mg/kg dry	18.7	1.08	104	70-130	20
Dibenzofuran	23.3		0.375	mg/kg dry	18.7	5.33	96	70-130	20
Di-n-butyl phthalate	21.8		0.375	mg/kg dry	18.7	ND	116	70-130	20
1,2-Dichlorobenzene	18.6		0.375	mg/kg dry	18.7	ND	99	70-130	20
1,3-Dichlorobenzene	18.1		0.375	mg/kg dry	18.7	ND	96	70-130	20
1,4-Dichlorobenzene	18.3		0.375	mg/kg dry	18.7	ND	98	70-130	20
3,3'-Dichlorobenzidine	17.1		0.375	mg/kg dry	18.7	ND	91	70-130	20
2,4-Dichlorophenol	19.8		0.375	mg/kg dry	18.7	ND	106	70-130	20
Diethyl phthalate	25.6		0.375	mg/kg dry	18.7	ND	137	70-130	20
2,4-Dimethylphenol	17.3		0.375	mg/kg dry	18.7	ND	93	70-130	20
Dimethyl phthalate	24.5		0.375	mg/kg dry	18.7	ND	131	70-130	20
4,6-Dinitro-2-methylphenol	18.6		1.87	mg/kg dry	18.7	ND	99	70-130	20
2,4-Dinitrophenol	18.0		1.87	mg/kg dry	18.7	ND	96	70-130	20
2,4-Dinitrotoluene	23.4		0.375	mg/kg dry	18.7	ND	125	70-130	20
2,6-Dinitrotoluene	23.0		0.375	mg/kg dry	18.7	ND	123	70-130	20
Di-n-octyl phthalate	20.5		0.375	mg/kg dry	18.7	ND	109	70-130	20
Aniline	12.3		0.375	mg/kg dry	18.7	ND	65	70-130	20

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)										
Matrix Spike (7059041-MS1)		Source: 7B24007-01		Prepared: 02/27/17 Analyzed: 02/28/17						
Naphthalene	20.2		0.375	mg/kg dry	18.7	0.796	103	70-130		20
N-Nitrosodimethylamine	16.0		0.375	mg/kg dry	18.7	ND	85	70-130		20
3 & 4-Methylphenol	18.2		0.375	mg/kg dry	18.7	ND	97	70-130		20
Acetophenone	20.1		0.375	mg/kg dry	18.7	ND	107	70-130		20
Fluoranthene	21.1		0.375	mg/kg dry	18.7	28.9	NR	70-130		20
Fluorene	24.0		0.375	mg/kg dry	18.7	2.81	113	70-130		20
Hexachlorobenzene	21.8		0.375	mg/kg dry	18.7	ND	116	70-130		20
Hexachlorobutadiene	21.9		0.375	mg/kg dry	18.7	ND	117	70-130		20
Hexachlorocyclopentadiene	22.8		0.375	mg/kg dry	18.7	ND	121	70-130		20
Hexachloroethane	18.3		0.375	mg/kg dry	18.7	ND	97	70-130		20
Indeno (1,2,3-cd) pyrene	20.5		0.375	mg/kg dry	18.7	3.78	89	70-130		20
Isophorone	21.9		0.375	mg/kg dry	18.7	ND	117	70-130		20
2-Methylnaphthalene	20.6		0.375	mg/kg dry	18.7	0.643	107	70-130		20
2-Methylphenol	18.0		0.375	mg/kg dry	18.7	ND	96	70-130		20
2-Nitroaniline	23.0		0.375	mg/kg dry	18.7	ND	123	70-130		20
3-Nitroaniline	21.4		0.375	mg/kg dry	18.7	ND	114	70-130		20
4-Nitroaniline	22.1		0.375	mg/kg dry	18.7	ND	118	70-130		20
Nitrobenzene	19.7		0.375	mg/kg dry	18.7	ND	105	70-130		20
2-Nitrophenol	21.0		0.375	mg/kg dry	18.7	ND	112	70-130		20
4-Nitrophenol	23.4		0.375	mg/kg dry	18.7	ND	125	70-130		20
N-Nitrosodi-n-propylamine	18.7		0.375	mg/kg dry	18.7	ND	100	70-130		20
Pentachlorophenol	22.3		1.87	mg/kg dry	18.7	ND	119	70-130		20
Phenanthrene	19.7		0.375	mg/kg dry	18.7	33.9	NR	70-130		20
Phenol	18.2		0.375	mg/kg dry	18.7	ND	97	70-130		20
Pyrene	20.0		0.375	mg/kg dry	18.7	19.1	5	70-130		20

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)									
Matrix Spike (7059041-MS1)			Source: 7B24007-01		Prepared: 02/27/17 Analyzed: 02/28/17				
1,2,4-Trichlorobenzene	20.8		0.375	mg/kg dry	18.7	ND	111	70-130	20
2,4,5-Trichlorophenol	25.1		0.375	mg/kg dry	18.7	ND	134	70-130	20
2,4,6-Trichlorophenol	23.9		0.375	mg/kg dry	18.7	ND	128	70-130	20
Surrogate: 2-Fluorophenol			14.6	mg/kg dry	15.0		97	35-115	
Surrogate: Phenol-d6			14.2	mg/kg dry	15.0		94	35-115	
Surrogate: Nitrobenzene-d5			7.78	mg/kg dry	7.50		104	35-115	
Surrogate: 2-Fluorobiphenyl			8.24	mg/kg dry	7.50		110	40-120	
Surrogate: 2,4,6-Tribromophenol			16.8	mg/kg dry	15.0		112	40-120	
Surrogate: Terphenyl-d14			7.62	mg/kg dry	7.50		102	40-120	
Matrix Spike Dup (7059041-MSD1)			Source: 7B24007-01		Prepared: 02/27/17 Analyzed: 03/01/17				
Pyridine	32.4		0.746	mg/kg dry	37.3	ND	87	70-130	20
Benzidine	1.51	J	1.87	mg/kg dry	18.7	ND	8	70-130	114
Diphenylamine	17.6		0.373	mg/kg dry	18.7	ND	94	70-130	3
Acenaphthene	23.8		0.373	mg/kg dry	18.7	0.740	124	70-130	2
Acenaphthylene	24.8		0.373	mg/kg dry	18.7	4.31	110	70-130	2
Anthracene	20.9		0.373	mg/kg dry	18.7	3.72	92	70-130	1
Benzoic acid	19.0		3.73	mg/kg dry	18.7	ND	102	70-130	5
Benzo (a) anthracene	20.9		0.373	mg/kg dry	18.7	8.36	67	70-130	3
Benzo (b) fluoranthene	21.6		0.373	mg/kg dry	18.7	10.6	59	70-130	2
Benzo (k) fluoranthene	21.9		0.373	mg/kg dry	18.7	3.01	101	70-130	4
Benzo (g,h,i) perylene	20.9		0.373	mg/kg dry	18.7	4.04	90	70-130	2
Benzo (a) pyrene	22.2		0.373	mg/kg dry	18.7	6.00	87	70-130	2
Benzyl alcohol	21.0		0.373	mg/kg dry	18.7	ND	112	70-130	4
Bis(2-chloroethoxy)methane	20.4		0.373	mg/kg dry	18.7	ND	109	70-130	1

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)										
Matrix Spike Dup (7059041-MSD1)		Source: 7B24007-01		Prepared: 02/27/17 Analyzed: 03/01/17						
Bis(2-chloroethyl)ether	19.0		0.373	mg/kg dry	18.7	ND	102	70-130	2	20
Bis(2-chloroisopropyl)ether	17.8		0.373	mg/kg dry	18.7	ND	96	70-130	4	20
Bis(2-ethylhexyl)phthalate	21.4		0.373	mg/kg dry	18.7	ND	115	70-130	1	20
4-Bromophenyl phenyl ether	22.4		0.373	mg/kg dry	18.7	ND	120	70-130	1	20
Butyl benzyl phthalate	21.4		0.373	mg/kg dry	18.7	ND	115	70-130	1	20
4-Chloroaniline	19.9		0.373	mg/kg dry	18.7	ND	107	70-130	6	20
4-Chloro-3-methylphenol	20.6		0.373	mg/kg dry	18.7	ND	110	70-130	2	20
2-Chloronaphthalene	23.7		0.373	mg/kg dry	18.7	ND	127	70-130	1	20
2-Chlorophenol	19.7		0.373	mg/kg dry	18.7	ND	106	70-130	2	20
4-Chlorophenyl phenyl ether	25.3		0.373	mg/kg dry	18.7	ND	136	70-130	2	20
Chrysene	21.2		0.373	mg/kg dry	18.7	8.17	70	70-130	0.2	20
Dibenz (a,h) anthracene	21.0		0.373	mg/kg dry	18.7	1.08	107	70-130	2	20
Dibenzofuran	23.7		0.373	mg/kg dry	18.7	5.33	98	70-130	2	20
Di-n-butyl phthalate	22.1		0.373	mg/kg dry	18.7	ND	119	70-130	2	20
1,2-Dichlorobenzene	19.0		0.373	mg/kg dry	18.7	ND	102	70-130	3	20
1,3-Dichlorobenzene	18.5		0.373	mg/kg dry	18.7	ND	99	70-130	2	20
1,4-Dichlorobenzene	18.7		0.373	mg/kg dry	18.7	ND	100	70-130	2	20
3,3'-Dichlorobenzidine	19.6		0.373	mg/kg dry	18.7	ND	105	70-130	13	20
2,4-Dichlorophenol	19.9		0.373	mg/kg dry	18.7	ND	107	70-130	0.6	20
Diethyl phthalate	26.2		0.373	mg/kg dry	18.7	ND	140	70-130	2	20
2,4-Dimethylphenol	17.5		0.373	mg/kg dry	18.7	ND	94	70-130	0.7	20
Dimethyl phthalate	25.0		0.373	mg/kg dry	18.7	ND	134	70-130	2	20
4,6-Dinitro-2-methylphenol	19.8		1.87	mg/kg dry	18.7	ND	106	70-130	6	20
2,4-Dinitrophenol	17.6		1.87	mg/kg dry	18.7	ND	94	70-130	2	20
2,4-Dinitrotoluene	24.4		0.373	mg/kg dry	18.7	ND	131	70-130	4	20

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)										
Matrix Spike Dup (7059041-MSD1)		Source: 7B24007-01		Prepared: 02/27/17 Analyzed: 03/01/17						
2,6-Dinitrotoluene	23.8		0.373	mg/kg dry	18.7	ND	128	70-130	4	20
Di-n-octyl phthalate	20.7		0.373	mg/kg dry	18.7	ND	111	70-130	1	20
Aniline	14.5		0.373	mg/kg dry	18.7	ND	77	70-130	16	20
Naphthalene	20.5		0.373	mg/kg dry	18.7	0.796	106	70-130	2	20
N-Nitrosodimethylamine	16.7		0.373	mg/kg dry	18.7	ND	90	70-130	5	20
3 & 4-Methylphenol	18.8		0.373	mg/kg dry	18.7	ND	101	70-130	4	20
Acetophenone	20.6		0.373	mg/kg dry	18.7	ND	110	70-130	2	20
Fluoranthene	21.2		0.373	mg/kg dry	18.7	28.9	NR	70-130	0.2	20
Fluorene	24.8		0.373	mg/kg dry	18.7	2.81	118	70-130	3	20
Hexachlorobenzene	21.9		0.373	mg/kg dry	18.7	ND	117	70-130	0.4	20
Hexachlorobutadiene	22.3		0.373	mg/kg dry	18.7	ND	120	70-130	2	20
Hexachlorocyclopentadiene	22.8		0.373	mg/kg dry	18.7	ND	122	70-130	0.3	20
Hexachloroethane	18.5		0.373	mg/kg dry	18.7	ND	99	70-130	1	20
Indeno (1,2,3-cd) pyrene	21.0		0.373	mg/kg dry	18.7	3.78	92	70-130	3	20
Isophorone	22.1		0.373	mg/kg dry	18.7	ND	118	70-130	0.8	20
2-Methylnaphthalene	20.6		0.373	mg/kg dry	18.7	0.643	107	70-130	0.07	20
2-Methylphenol	18.5		0.373	mg/kg dry	18.7	ND	99	70-130	3	20
2-Nitroaniline	23.3		0.373	mg/kg dry	18.7	ND	125	70-130	1	20
3-Nitroaniline	22.0		0.373	mg/kg dry	18.7	ND	118	70-130	3	20
4-Nitroaniline	22.6		0.373	mg/kg dry	18.7	ND	121	70-130	2	20
Nitrobenzene	19.8		0.373	mg/kg dry	18.7	ND	106	70-130	0.2	20
2-Nitrophenol	22.1		0.373	mg/kg dry	18.7	ND	119	70-130	5	20
4-Nitrophenol	24.0		0.373	mg/kg dry	18.7	ND	129	70-130	3	20
N-Nitrosodi-n-propylamine	19.1		0.373	mg/kg dry	18.7	ND	102	70-130	2	20
Pentachlorophenol	22.4		1.87	mg/kg dry	18.7	ND	120	70-130	0.5	20

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(570) 494-6380
PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit
Batch: 7059041 - EPA 3541 (Continued)										
Matrix Spike Dup (7059041-MSD1)		Source: 7B24007-01		Prepared: 02/27/17 Analyzed: 03/01/17						
Phenanthrene	19.9		0.373	mg/kg dry	18.7	33.9	NR	70-130	0.9	20
Phenol	18.8		0.373	mg/kg dry	18.7	ND	101	70-130	3	20
Pyrene	20.1		0.373	mg/kg dry	18.7	19.1	6	70-130	0.6	20
1,2,4-Trichlorobenzene	21.1		0.373	mg/kg dry	18.7	ND	113	70-130	1	20
2,4,5-Trichlorophenol	25.9		0.373	mg/kg dry	18.7	ND	139	70-130	3	20
2,4,6-Trichlorophenol	24.5		0.373	mg/kg dry	18.7	ND	132	70-130	3	20
Surrogate: 2-Fluorophenol			14.6	mg/kg dry	14.9		98	35-115		
Surrogate: Phenol-d6			14.1	mg/kg dry	14.9		94	35-115		
Surrogate: Nitrobenzene-d5			7.76	mg/kg dry	7.46		104	35-115		
Surrogate: 2-Fluorobiphenyl			8.14	mg/kg dry	7.46		109	40-120		
Surrogate: 2,4,6-Tribromophenol			16.6	mg/kg dry	14.9		111	40-120		
Surrogate: Terphenyl-d14			7.44	mg/kg dry	7.46		100	40-120		

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7067059 - EPA 3010A TCLP/SPLP									
Blank (7067059-BLK1)					Prepared: 03/08/17 Analyzed: 03/10/17				
Arsenic	ND		0.00800	mg/l					
Barium	ND		0.0100	mg/l					
Beryllium	0.000196	J	0.00200	mg/l					
Cadmium	ND		0.00400	mg/l					
Chromium	ND		0.00500	mg/l					
Lead	ND		0.00800	mg/l					
Nickel	ND		0.0500	mg/l					
Selenium	ND		0.0200	mg/l					
Silver	ND		0.00400	mg/l					
Thallium	ND		0.0200	mg/l					
Vanadium	0.00154	J	0.0200	mg/l					
Zinc	ND		0.0200	mg/l					
Duplicate (7067059-DUP1)					Source: 7C08054-01 Prepared: 03/08/17 Analyzed: 03/10/17				
Arsenic	ND		0.0400	mg/l		ND			20
Barium	5000000000		0.0500	mg/l		38.7		200	20
Beryllium	ND		0.0100	mg/l		ND			20
Cadmium	ND		0.0200	mg/l		ND			20
Chromium	0.0527		0.0250	mg/l		0.0611		15	20
Lead	ND		0.0400	mg/l		ND			20
Nickel	0.0628	J	0.250	mg/l		0.0803		24	20
Selenium	ND		0.100	mg/l		ND			20
Silver	ND		0.0200	mg/l		ND			20
Thallium	ND		0.100	mg/l		ND			20
Vanadium	0.00607	J	0.100	mg/l		0.0102		51	20

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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control (Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7067059 - EPA 3010A TCLP/SPLP (Continued)									
Duplicate (7067059-DUP1)		Source: 7C08054-01		Prepared: 03/08/17 Analyzed: 03/10/17					
Zinc	0.276		0.100	mg/l		0.313		13	20
Matrix Spike (7067059-MS1)		Source: 7C08054-01		Prepared: 03/08/17 Analyzed: 03/10/17					
Arsenic	0.790		0.0400	mg/l	0.800	ND	99	75-125	200
Barium	5000000000		0.0500	mg/l	2.00	38.7	NR	75-125	200
Beryllium	0.197		0.0100	mg/l	0.200	ND	99	75-125	200
Cadmium	0.394		0.0200	mg/l	0.400	ND	99	75-125	200
Chromium	0.253		0.0250	mg/l	0.200	0.0611	96	75-125	200
Lead	0.802		0.0400	mg/l	0.800	ND	100	75-125	200
Nickel	2.05		0.250	mg/l	2.00	0.0803	99	75-125	200
Selenium	1.99		0.100	mg/l	2.00	ND	99	75-125	200
Silver	0.433		0.0200	mg/l	0.400	ND	108	75-125	200
Thallium	0.738		0.100	mg/l	0.800	ND	92	75-125	200
Vanadium	1.97		0.100	mg/l	2.00	0.0102	98	75-125	200
Zinc	2.41		0.100	mg/l	2.00	0.313	105	75-125	200

Batch: 7068048 - EPA 200 Series

Blank (7068048-BLK1)				Prepared: 03/09/17 Analyzed: 03/10/17					
Mercury	ND		0.000200	mg/l					
Matrix Spike (7068048-MS1)		Source: 7B23015-01		Prepared: 03/09/17 Analyzed: 03/10/17					
Mercury	0.01050		0.00200	mg/l	0.0100	ND	105	70-130	10
Matrix Spike Dup (7068048-MSD1)		Source: 7B23015-01		Prepared: 03/09/17 Analyzed: 03/10/17					
Mercury	0.01008		0.00200	mg/l	0.0100	ND	101	70-130	4.08

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:49

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: 7068048 - EPA 200 Series (Continued)



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Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7060049 - Volatiles									
Blank (7060049-BLK1)					Prepared: 01/03/18 Analyzed: 02/28/18				
Benzene	ND		0.0040	mg/kg wet					
Toluene	ND		0.0100	mg/kg wet					
Xylenes (total)	ND		0.0200	mg/kg wet					
Naphthalene	ND		0.0100	mg/kg wet					
Acetone	ND		0.0200	mg/kg wet					
Acrolein	ND		0.100	mg/kg wet					
Bromodichloromethane	ND		0.0100	mg/kg wet					
Bromoform	ND		0.0100	mg/kg wet					
Bromomethane	ND		0.0100	mg/kg wet					
2-Butanone	ND		0.0200	mg/kg wet					
Carbon disulfide	ND		0.0100	mg/kg wet					
Carbon tetrachloride	ND		0.0100	mg/kg wet					
Chlorobenzene	ND		0.0100	mg/kg wet					
2-Chloroethylvinyl ether	ND		0.100	mg/kg wet					
Chloroform	ND		0.0100	mg/kg wet					
1,2-Dibromo-3-chloropropane	ND		0.0100	mg/kg wet					
Dibromochloromethane	ND		0.0100	mg/kg wet					
1,2-Dibromoethane (EDB)	ND		0.0040	mg/kg wet					
Dichlorodifluoromethane	ND		0.0100	mg/kg wet					
1,2-Dichloroethane	ND		0.0040	mg/kg wet					
1,1-Dichloroethane	ND		0.0100	mg/kg wet					
trans-1,2-Dichloroethene	ND		0.0100	mg/kg wet					
1,1-Dichloroethene	ND		0.0100	mg/kg wet					
1,3-Dichloropropane	ND		0.0100	mg/kg wet					
trans-1,3-Dichloropropene	ND		0.0100	mg/kg wet					

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7060049 - Volatiles (Continued)										
Blank (7060049-BLK1)										
					Prepared: 01/03/18 Analyzed: 02/28/18					
cis-1,3-Dichloropropene	ND		0.0100	mg/kg wet						
Hexachlorobutadiene	ND		0.0100	mg/kg wet						
Iodomethane	ND		0.0100	mg/kg wet						
Methylene chloride	ND		0.0400	mg/kg wet						
4-Methyl-2-pentanone	ND		0.0200	mg/kg wet						
1,1,2,2-Tetrachloroethane	ND		0.0100	mg/kg wet						
1,1,1,2-Tetrachloroethane	ND		0.0100	mg/kg wet						
Tetrachloroethene	ND		0.0100	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.0100	mg/kg wet						
1,1,1-Trichloroethane	ND		0.0100	mg/kg wet						
1,1,2-Trichloroethane	ND		0.0100	mg/kg wet						
Trichloroethene	ND		0.0100	mg/kg wet						
Trichlorofluoromethane	ND		0.0100	mg/kg wet						
Vinyl chloride	ND		0.0040	mg/kg wet						
<i>Surrogate: 4-Bromofluorobenzene</i>			101	ug/l	100		101	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>			99.1	ug/l	100		99	70-130		
<i>Surrogate: Fluorobenzene</i>			97.3	ug/l	100		97	70-130		
LCS (7060049-BS1)										
					Prepared: 01/03/18 Analyzed: 03/01/18					
Benzene	0.089		0.0040	mg/kg wet	0.100		89	70-130		200
Toluene	0.092		0.0100	mg/kg wet	0.100		92	70-130		200
Xylenes (total)	0.297		0.0200	mg/kg wet	0.300		99	70-130		200
Naphthalene	0.094		0.0100	mg/kg wet	0.100		94	70-130		200
Acetone	0.127		0.0200	mg/kg wet	0.100		127	70-130		200
Bromodichloromethane	0.096		0.0100	mg/kg wet	0.100		96	70-130		200

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7060049 - Volatiles (Continued)									
LCS (7060049-BS1)					Prepared: 01/03/18 Analyzed: 03/01/18				
Bromoform	0.118		0.0100	mg/kg wet	0.100		118 70-130		200
Bromomethane	0.088		0.0100	mg/kg wet	0.100		88 70-130		200
2-Butanone	0.107		0.0200	mg/kg wet	0.100		107 70-130		200
Carbon disulfide	0.081		0.0100	mg/kg wet	0.100		81 70-130		200
Carbon tetrachloride	0.087		0.0100	mg/kg wet	0.100		87 70-130		200
Chlorobenzene	0.092		0.0100	mg/kg wet	0.100		92 70-130		200
Chloroform	0.085		0.0100	mg/kg wet	0.100		85 70-130		200
1,2-Dibromo-3-chloropropane	0.087		0.0100	mg/kg wet	0.100		87 70-130		200
Dibromochloromethane	0.106		0.0100	mg/kg wet	0.100		106 70-130		200
1,2-Dibromoethane (EDB)	0.092		0.0040	mg/kg wet	0.100		92 70-130		200
Dichlorodifluoromethane	0.072		0.0100	mg/kg wet	0.100		72 70-130		200
1,2-Dichloroethane	0.095		0.0040	mg/kg wet	0.100		95 70-130		200
1,1-Dichloroethane	0.090		0.0100	mg/kg wet	0.100		90 70-130		200
trans-1,2-Dichloroethene	0.091		0.0100	mg/kg wet	0.100		91 70-130		200
1,1-Dichloroethene	0.093		0.0100	mg/kg wet	0.100		93 70-130		200
1,3-Dichloropropane	0.094		0.0100	mg/kg wet	0.100		94 70-130		200
trans-1,3-Dichloropropene	0.090		0.0100	mg/kg wet	0.100		90 70-130		200
cis-1,3-Dichloropropene	0.089		0.0100	mg/kg wet	0.100		89 70-130		200
Hexachlorobutadiene	0.086		0.0100	mg/kg wet	0.100		86 70-130		200
Iodomethane	0.093		0.0100	mg/kg wet			70-130		200
Methylene chloride	0.087		0.0400	mg/kg wet	0.100		87 70-130		200
4-Methyl-2-pentanone	0.093		0.0200	mg/kg wet	0.100		93 70-130		200
1,1,2,2-Tetrachloroethane	0.101		0.0100	mg/kg wet	0.100		101 70-130		200
1,1,1,2-Tetrachloroethane	0.100		0.0100	mg/kg wet	0.100		100 70-130		200
Tetrachloroethene	0.088		0.0100	mg/kg wet	0.100		88 70-130		200

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Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7060049 - Volatiles (Continued)									
LCS (7060049-BS1)					Prepared: 01/03/18 Analyzed: 03/01/18				
1,2,4-Trichlorobenzene	0.089		0.0100	mg/kg wet	0.100		89 70-130		200
1,1,1-Trichloroethane	0.085		0.0100	mg/kg wet	0.100		85 70-130		200
1,1,2-Trichloroethane	0.095		0.0100	mg/kg wet	0.100		95 70-130		200
Trichloroethene	0.090		0.0100	mg/kg wet	0.100		90 70-130		200
Trichlorofluoromethane	0.093		0.0100	mg/kg wet	0.100		93 70-130		200
Vinyl chloride	0.091		0.0040	mg/kg wet	0.100		91 70-130		200
Surrogate: 4-Bromofluorobenzene			102	ug/l	100		102 70-130		
Surrogate: 1,2-Dichloroethane-d4			101	ug/l	100		101 70-130		
Surrogate: Fluorobenzene			99.5	ug/l	100		99 70-130		

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennsdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Max Environmental

Project: YUKON

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:49

Project Manager: Dave Thomas

Number of Containers: 6

Notes

- D A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered above the acceptance range for the noted analyte.
- E A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered below the acceptance range for the noted analyte.
- F The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered above the acceptance range for the noted analyte.
- G The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered below the acceptance range for the noted analyte.
- H The spike recovery was above the acceptance range for the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- I The spike recovery was below the acceptance range for the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- I4 Vials were prepared at the laboratory from the received container.
- J Detected between the Method Detection Limit (MDL) and the Reporting Limit (RL); therefore, the result is an estimated value.
- K The RPD result exceeded the quality control limits for the duplicate, Laboratory Control Sample Duplicate (LCSD), or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- L The noted analyte was detected in the method blank.
- P The noted surrogate value was below the acceptance range.
- Q Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.



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01/09/18 08:49

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

* G indicates analysis performed by Fairway Laboratories, Inc. at the Greensburg location PaDEP: 65-00392. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved,

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Client Page # _____ of _____

Please print. See back of COC for instructions/terms and conditions.

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7B23015

§ 268.48 Universal treatment standards.

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in § 268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

Universal Treatment Standards

[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard Concentration ² in mg/l	Nonwastewater standard Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Organic Constituents			
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
~~2-Acetylaminofluorene~~	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
~~Acrylamide~~	79-06-1	19	23
~~Acrylonitrile~~	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
~~4-Aminobiphenyl~~	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
~~o-Anisidine (2-methoxyaniline)~~	90-04-0	0.010	0.66
Anthracene	120-12-7	0.059	3.4
~~Aramite~~	140-57-8	0.36	NA
alpha-BHC	319-84-6	0.00014	0.066

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beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC	58-89-9	0.0017	0.066
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
~~Benzal chloride~~	98-87-3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Bromomethane/Methyl bromide	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol/Dinoseb	88-85-7	0.066	2.5
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
~~Chlorobenzilate~~	510-15-6	0.10	NA
~~2-Chloro-1,3-butadiene~~	126-99-8	0.057	0.28
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2

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o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
2,4-Dichlorophenoxyacetic acid/2,4-D	94-75-7	0.72	10
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	28
~~p-Dimethylaminoazobenzene~~	60-11-7	0.13	NA
~~2,4-Dimethylaniline (2,4-xylydine)~~	95-68-1	0.010	0.66
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
~~Di-n-propylnitrosamine~~	621-64-7	0.40	14

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bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloromethane/Methyl chloride	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chloropchenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
~~p-Cresidine~~	120-71-8	0.010	0.66
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
~~Cyclohexanone~~	108-94-1	0.36	0.75 mg/l TCLP
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
~~Dibenz(a,e)pyrene~~	192-65-4	0.061	NA
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
m-Dichlorobenzene	541-73-1	0.036	6.0

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~~1,4-Dioxane~~	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
~~Diphenylnitrosamine (difficult to distinguish from diphenylamine)~~	86-30-6	0.92	13
1,2-Diphenylhydrazine	122-66-7	0.087	NA
~~Disulfoton~~	298-04-4	0.017	6.2
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
~~Ethyl acetate~~	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
~~Ethyl cyanide/Propanenitrile~~	107-12-0	0.24	360
~~Ethyl ether~~	60-29-7	0.12	160
bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
~~Ethyl methacrylate~~	97-63-2	0.14	160
~~Ethylene oxide~~	75-21-8	0.12	NA
~~Famphur~~	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
~~1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)~~	35822-46-9	0.000035	.0025
~~1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)~~	67562-39-4	0.000035	.0025

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~~1,2,3,4,7,8,9~~			
~~Heptachlorodibenzofuran~~	55673-89-7	0.000035	.0025
~~(1,2,3,4,7,8,9-HpCDF)~~			
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
~~HxCDDs (All Hexachlorodibenzo-p-dioxins)~~	NA	0.000063	0.001
~~HxCDFs (All Hexachlorodibenzofurans)~~	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
~~Hexachloropropylene~~	1888-71-7	0.035	30
Indeno(1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
~~Isobutyl alcohol~~	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
~~Isosafrole~~	120-58-1	0.081	2.6
~~Kepon~~	143-50-0	0.0011	0.13
~~Methacrylonitrile~~	126-98-7	0.24	84
~~Methanol~~	67-56-1	5.6	0.75 mg/l TCLP
~~Methapyrilene~~	91-80-5	0.081	1.5
Methoxychlor	72-43-5	0.25	0.18
~~3-Methylcholanthrene~~	56-49-5	0.0055	15
4,4-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
~~Methyl methacrylate~~	80-62-6	0.14	160
~~Methyl methanesulfonate~~	66-27-3	0.018	NA

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~~Methyl parathion~~	298-00-0	0.014	4.6
Naphthalene	91-20-3	0.059	5.6
~~2-Naphthylamine~~	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
~~5-Nitro-o-toluidine~~	99-55-8	0.32	28
o-Nitrophenol	88-75-5	0.028	13
p-Nitrophenol	100-02-7	0.12	29
~~N-Nitrosodiethylamine~~	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	2.3
~~N-Nitroso-di-n-butylamine~~	924-16-3	0.40	17
~~N-Nitrosomethylethylamine~~	10595-95-6	0.40	2.3
~~N-Nitrosomorpholine~~	59-89-2	0.40	2.3
~~N-Nitrosopiperidine~~	100-75-4	0.013	35
~~N-Nitrosopyrrolidine~~	930-55-2	0.013	35
~~1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)~~	3268-87-9	0.000063	0.005
~~1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)~~	39001-02-0	0.000063	0.005
~~Parathion~~	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors) ⁸	1336-36-3	0.10	10
~~Pentachlorobenzene~~	608-93-5	0.055	10
~~PeCDDs (All Pentachlorodibenzo-p-dioxins)~~	NA	0.000063	0.001
~~PeCDFs (All Pentachlorodibenzofurans)~~	NA	0.000035	0.001
~~Pentachloroethane~~	76-01-7	0.055	6.0
~~Pentachloronitrobenzene~~	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
~~Phenacetin~~	62-44-2	0.081	16

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Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
~~1,3-Phenylenediamine~~	108-45-2	0.010	0.66
~~Phorate~~	298-02-2	0.021	4.6
~~Phthalic acid~~	100-21-0	0.055	28
~~Phthalic anhydride~~	85-44-9	0.055	28
~~Pronamide~~	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
~~Safrole~~	94-59-7	0.081	22
Silvex/2,4,5-TP	93-72-1	0.72	7.9
~~1,2,1,5-Tetrachlorobenzene~~	95-94-3	0.055	14
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Tribromomethane/Bromoform	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichlorofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4

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7B2 30/5

2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	93-76-5	0.72	7.9
1,2,3-Trichloropropane	96-18-4	0.85	30
~~1,1,2-Trichloro-1,2,2-trifluoroethane~~	~~76-13-1~~	~~0.057~~	~~30~~
~~tris (2,3-Dibromopropyl) phosphate~~	~~126-72-7~~	~~0.11~~	~~0.10~~
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Inorganic Constituents			
Antimony	7440-36-0	1.9	1.15 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	21 mg/l TCLP
Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) ⁴	57-12-5	1.2	590
Cyanides (Amenable) ⁴	57-12-5	0.86	30
Fluoride ⁵	16984-48-8	35	NA
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury - Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury - All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium ⁷	7782-49-2	0.82	5.7 mg/l TCLP
Silver	7440-22-4	0.43	0.14 mg/l TCLP
Sulfide ⁵	18496-25-8	14	NA

7673015

Thallium	7440-28-0	1.4	0.20 mg/l TCLP
Vanadium ⁵	7440-62-2	4.3	1.6 mg/l TCLP
Zinc ⁵	7440-66-6	2.61	4.3 mg/l TCLP

Footnotes to Table UTS

CAS means Chemical Abstract Services. When the waste code and/or regulated
1 constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

2 Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A
3 facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste,
4 Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

5 These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at § 268.2(i).

6 [Reserved]

This constituent is not an underlying hazardous constituent as defined at § 268.2(i) of this
7 Part because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.

8 This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004-D011 only.

[59 FR 48103, Sept. 19, 1994, as amended at 60 FR 302, Jan. 3, 1995; 61 FR 15654, Apr. 8, 1996; 61 FR 33690, June 28, 1996; 62 FR 7596, Feb. 19, 1997; 63 FR 24626, May 4, 1998; 63 FR 28739, May 26, 1998; 63 FR 47417, Sept. 4, 1998; 64 FR 25417, May 11, 1999; 65 FR 14475, Mar. 17, 2000; 70 FR 34590, June 14, 2005; 70 FR 9178, Feb. 24, 2005; 71 FR 40279, July 14, 2006; 75 FR 13008, Mar. 18, 2010; 76 FR 34156, June 13, 2011]



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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
CLARIFIER	7C22164-01	Solid	Grab	03/21/17 20:00	03/22/17 18:45

7C22164 Report revised. This report replaces the report issued on 12/20/17 8:31. 1/9/18smc/mlf

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Calculated Analytes

Amenable Cyanide	<0.128	0.128	0.851	mg/kg dry	03/31/17 10:35	SM20-4500 CN-C+E+G	caa	

Chlorinated Herbicides by EPA Method 8151A

2,4-D	<1.21	1.21	6.04	ug/kg dry	04/03/17 12:06	EPA 8151A	rsr	
2,4,5-T	<0.604	0.604	6.04	ug/kg dry	04/03/17 12:06	EPA 8151A	rsr	
2,4,5-TP (Silvex)	<0.604	0.604	6.04	ug/kg dry	04/03/17 12:06	EPA 8151A	rsr	
Dinoseb	<0.604	0.604	6.04	ug/kg dry	04/03/17 12:06	EPA 8151A	rsr	K
Surrogate: 2,4-DCAA		62 %	40.6-150		04/03/17 12:06	EPA 8151A	rsr	

Conventional Chemistry Parameters by SM/EPA Methods

Fluoride	55.5 J	3.17	70.7	mg/kg dry	03/30/17 01:41	EPA 9056A	bdw	
% Solids	54.6		0.100	%	03/28/17 19:20	SM 2540 G-97	ark	
Sulfide	<32.7		32.7	mg/kg dry	03/24/17 17:30	EPA SW846 9030/9034	pra	

Cyanide by Preparation Method EPA 9010

Cyanide (total)	<0.128	0.128	0.851	mg/kg dry	03/30/17 16:13	EPA 9014	caa	

Metals by EPA 6000/7000 Series Methods

Silver	24.4	0.446	3.30	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	

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Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by EPA 6000/7000 Series Methods

Arsenic	96.7	2.23	6.60	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	
Barium	5830	102	165	mg/kg dry	03/26/17 13:35	EPA 6010B/2.0	sr	L
Beryllium	0.413 J	0.338	1.65	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	
Cadmium	16.8	1.17	3.30	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	
Chromium	353	12.0	82.6	mg/kg dry	03/26/17 13:37	EPA 6010B/2.0	sr	
Mercury	0.953	0.00483	0.0483	mg/kg dry	03/27/17 14:33	EPA 7471B	jks	
Nickel	182	6.03	41.3	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	
Lead	1890	21.5	132	mg/kg dry	03/26/17 13:37	EPA 6010B/2.0	sr	
Antimony	29.0	6.77	8.26	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	
Selenium	13.5 J	8.09	16.5	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	
Thallium	<2.39	2.39	16.5	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	
Vanadium	39.1	0.529	16.5	mg/kg dry	03/26/17 13:18	EPA 6010B/2.0	sr	

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Project: YUKON CLARIFIER

Project Number: [none]

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Reported:

01/09/18 08:56

Client Sample ID: CLARIFIER

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Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by EPA 6000/7000 Series Methods

Zinc	2100	72.6	330	mg/kg dry	03/26/17 13:37	EPA 6010B/2.0	sr	

Organochlorine Pesticides by EPA Extraction Method 3541

Aldrin	<28.7	28.7	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
alpha-BHC	<25.1	25.1	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
beta-BHC	<35.6	35.6	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
delta-BHC	<22.5	22.5	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
gamma-BHC (Lindane)	<23.6	23.6	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Chlordane (tech)	<911	911	3640	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
4,4'-DDD	<27.3	27.3	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
4,4'-DDE	<24.7	24.7	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
4,4'-DDT	<22.9	22.9	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Dieldrin	<24.7	24.7	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Endosulfan I	<26.5	26.5	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Endosulfan II	<29.1	29.1	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Endosulfan sulfate	<22.2	22.2	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Endrin	<29.1	29.1	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Endrin aldehyde	<28.7	28.7	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Organochlorine Pesticides by EPA Extraction Method 3541

Heptachlor	<24.4	24.4	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA, D, F
Heptachlor epoxide	<39.6	39.6	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Methoxychlor	<44.4	44.4	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA, D
Toxaphene	<1520	1520	3640	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
alpha-Chlordane	<26.5	26.5	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
gamma-Chlordane	<25.1	25.1	72.7	ug/kg dry	03/30/17 19:56	EPA 8081B	RSR	AA
Surrogate: Tetrachloro-meta-xylene	137 %		40-157		03/30/17 19:56	EPA 8081B	RSR	
Surrogate: Decachlorobiphenyl	85.7 %		57.1-153		03/30/17 19:56	EPA 8081B	RSR	

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.010	0.010	0.018	mg/kg dry	03/26/17 20:06	EPA 8082	rsr	
PCB-1221	<0.015	0.015	0.018	mg/kg dry	03/26/17 20:06	EPA 8082	rsr	
PCB-1232	<0.015	0.015	0.018	mg/kg dry	03/26/17 20:06	EPA 8082	rsr	
PCB-1242	<0.005	0.005	0.018	mg/kg dry	03/26/17 20:06	EPA 8082	rsr	
PCB-1248	<0.003	0.003	0.018	mg/kg dry	03/26/17 20:06	EPA 8082	rsr	
PCB-1254	<0.011	0.011	0.018	mg/kg dry	03/26/17 20:06	EPA 8082	rsr	
PCB-1260	<0.011	0.011	0.018	mg/kg dry	03/26/17 20:06	EPA 8082	rsr	
Surrogate: Tetrachloro-meta-xylene	80.8 %		11-140		03/26/17 20:06	EPA 8082	rsr	
Surrogate: Decachlorobiphenyl	86.6 %		24.4-140		03/26/17 20:06	EPA 8082	rsr	

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Benzidine	6.18	0.212	3.03	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Diphenylamine	<0.0728	0.0728	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Pyridine	<0.315	0.315	1.21	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Acenaphthene	<0.0425	0.0425	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Acenaphthylene	<0.0485	0.0485	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Anthracene	<0.0303	0.0303	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Benzoic acid	<0.261	0.261	6.06	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Benzo (a) anthracene	<0.0303	0.0303	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Benzo (b) fluoranthene	0.334 J	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Benzo (k) fluoranthene	<0.0425	0.0425	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Benzo (g,h,i) perylene	<0.0485	0.0485	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Benzo (a) pyrene	<0.0667	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Benzyl alcohol	<0.0849	0.0849	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Bis(2-chloroethoxy)methane	<0.0849	0.0849	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Bis(2-chloroethyl)ether	<0.0667	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Bis(2-chloroisopropyl)ether	<0.0364	0.0364	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Bis(2-ethylhexyl)phthalate	7.91	0.182	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
4-Bromophenyl phenyl ether	<0.0425	0.0425	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Butyl benzyl phthalate	<0.0728	0.0728	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
4-Chloroaniline	<0.0788	0.0788	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
4-Chloro-3-methylphenol	<0.0546	0.0546	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2-Chloronaphthalene	<0.0364	0.0364	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2-Chlorophenol	<0.0303	0.0303	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
4-Chlorophenyl phenyl ether	<0.0788	0.0788	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Chrysene	0.370 J	0.0303	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Dibenz (a,h) anthracene	<0.0425	0.0425	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Dibenzofuran	<0.0182	0.0182	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Di-n-butyl phthalate	<0.127	0.127	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
1,2-Dichlorobenzene	<0.0546	0.0546	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
1,3-Dichlorobenzene	<0.0303	0.0303	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
1,4-Dichlorobenzene	<0.0303	0.0303	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
3,3'-Dichlorobenzidine	<0.0546	0.0546	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2,4-Dichlorophenol	<0.0667	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Diethyl phthalate	<0.0606	0.0606	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2,4-Dimethylphenol	<0.0485	0.0485	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Dimethyl phthalate	<0.0364	0.0364	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	

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Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

4,6-Dinitro-2-methylphenol	<0.194	0.194	3.03	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2,4-Dinitrophenol	<0.158	0.158	3.03	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2,4-Dinitrotoluene	<0.127	0.127	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	F
2,6-Dinitrotoluene	<0.115	0.115	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Di-n-octyl phthalate	0.685	0.0425	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Aniline	<0.0425	0.0425	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Naphthalene	<0.0364	0.0364	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
N-Nitrosodimethylamine	<0.0788	0.0788	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Acetophenone	<0.0667	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
3 & 4-Methylphenol	<0.0546	0.0546	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
1,2-Diphenylhydrazine	<0.0243	0.0243	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Fluoranthene	0.346 J	0.0303	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Fluorene	<0.0243	0.0243	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Hexachlorobenzene	<0.0728	0.0728	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Hexachlorobutadiene	<0.0788	0.0788	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Hexachlorocyclopentadiene	<0.152	0.152	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Hexachloroethane	<0.0728	0.0728	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Indeno (1,2,3-cd) pyrene	<0.0667	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Isophorone	1.50	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2-Methylnaphthalene	0.485 J	0.0485	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2-Methylphenol	<0.0970	0.0970	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2-Nitroaniline	<0.0667	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
3-Nitroaniline	<0.170	0.170	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
4-Nitroaniline	<0.139	0.139	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Nitrobenzene	<0.0788	0.0788	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2-Nitrophenol	<0.0910	0.0910	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
4-Nitrophenol	<0.152	0.152	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
N-Nitrosodi-n-propylamine	<0.0606	0.0606	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Pentachlorophenol	<0.152	0.152	3.03	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Phenanthrene	0.340 J	0.0303	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Phenol	<0.0788	0.0788	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Pyrene	0.340 J	0.0425	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
1,2,4-Trichlorobenzene	<0.0667	0.0667	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2,4,5-Trichlorophenol	<0.103	0.103	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
2,4,6-Trichlorophenol	<0.0970	0.0970	0.606	mg/kg dry	03/27/17 04:36	EPA 8270D	rsr	
Surrogate: 2-Fluorophenol		105 %	10-169		03/27/17 04:36	EPA 8270D	rsr	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Surrogate: Phenol-d6	103 %		10-166		03/27/17 04:36	EPA 8270D	rsr	
Surrogate: Nitrobenzene-d5	126 %		18.8-170		03/27/17 04:36	EPA 8270D	rsr	
Surrogate: 2-Fluorobiphenyl	114 %		35.1-154		03/27/17 04:36	EPA 8270D	rsr	
Surrogate: 2,4,6-Tribromophenol	124 %		20-158		03/27/17 04:36	EPA 8270D	rsr	
Surrogate: Terphenyl-d14	109 %		52.1-160		03/27/17 04:36	EPA 8270D	rsr	

TCLP Extraction by EPA 1311

# pH @ 20.4°C	7.49			pH Units	03/25/17 13:44	EPA 1311	spp	

TCLP Metals extracted by EPA 1311

Silver	<0.00802	0.00802	0.0200	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Arsenic	<0.0250	0.0250	0.0400	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Barium	0.969	0.0310	0.0500	mg/l	03/28/17 13:26	EPA 6010B/2.0	sr	
Beryllium	<0.000730	0.000730	0.0100	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Cadmium	0.0229	0.00520	0.0200	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Chromium	0.00834 J	0.00522	0.0250	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Mercury	<0.000410	0.000410	0.00200	mg/l	03/28/17 16:31	EPA 7471B	jks	Q

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PaDEP: PA 41-04684



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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Metals extracted by EPA 1311

Nickel	0.246 J	0.0382	0.250	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Lead	0.0380 J	0.0169	0.0400	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Antimony	0.0795	0.0289	0.0500	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Selenium	<0.0224	0.0224	0.100	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Thallium	<0.0361	0.0361	0.100	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Vanadium	<0.00374	0.00374	0.100	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	
Zinc	0.934	0.0136	0.100	mg/l	03/28/17 13:28	EPA 6010B/2.0	sr	

Volatile Organic Compounds by EPA Method 8260B

Benzene	<0.0338	0.0338	0.422	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Toluene	<0.0296	0.0296	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Ethylbenzene	<0.0084	0.0084	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Xylenes (total)	<0.106	0.106	2.11	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Naphthalene	<0.0718	0.0718	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Acetone	<0.327	0.327	2.11	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

Acrolein	<0.792	0.792	10.6	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Acrylonitrile	<0.0950	0.0950	2.11	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Bromodichloromethane	<0.0296	0.0296	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Bromoform	<0.0359	0.0359	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Bromomethane	<0.106	0.106	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
2-Butanone	<0.317	0.317	2.11	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Carbon disulfide	<0.0655	0.0655	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Carbon tetrachloride	<0.0591	0.0591	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Chlorobenzene	<0.106	0.106	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Chloroethane	<0.0655	0.0655	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
2-Chloroethylvinyl ether	<0.897	0.897	10.6	mg/kg dry	03/30/17 17:46	EPA 8260B	mtc	D
Chloroform	<0.0401	0.0401	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,2-Dibromo-3-chloropropane	<0.0612	0.0612	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	D
Dibromochloromethane	<0.0528	0.0528	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,2-Dibromoethane (EDB)	<0.0401	0.0401	0.422	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Dibromomethane	<0.0317	0.0317	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,2-Dichlorobenzene	<0.0528	0.0528	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,4-Dichlorobenzene	<0.0549	0.0549	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

1,3-Dichlorobenzene	<0.0591	0.0591	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Dichlorodifluoromethane	<0.0760	0.0760	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,2-Dichloroethane	<0.0464	0.0464	0.422	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,1-Dichloroethane	<0.0253	0.0253	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
trans-1,2-Dichloroethene	<0.0591	0.0591	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,1-Dichloroethene	<0.0528	0.0528	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,2-Dichloropropane	<0.0253	0.0253	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
trans-1,3-Dichloropropene	<0.0274	0.0274	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
cis-1,3-Dichloropropene	<0.0253	0.0253	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Hexachlorobutadiene	<0.103	0.103	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Iodomethane	<0.0443	0.0443	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Methylene chloride	<0.475	0.475	4.22	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
4-Methyl-2-pentanone	<0.0549	0.0549	2.11	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	D
1,1,2,2-Tetrachloroethane	<0.0486	0.0486	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,1,1,2-Tetrachloroethane	<0.0296	0.0296	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Tetrachloroethene	<0.0718	0.0718	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,2,4-Trichlorobenzene	<0.0697	0.0697	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,1,1-Trichloroethane	<0.0570	0.0570	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Client Sample ID: CLARIFIER

Date/Time Sampled: 03/21/17 20:00

Laboratory Sample ID: 7C22164-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

1,1,2-Trichloroethane	<0.0464	0.0464	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Trichloroethene	<0.0570	0.0570	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Trichlorofluoromethane	<0.243	0.243	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
1,2,3-Trichloropropane	<0.0697	0.0697	1.06	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	D
Vinyl chloride	<0.190	0.190	0.422	mg/kg dry	03/28/17 18:29	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		98 %	70-130		03/28/17 18:29	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130		03/28/17 18:29	EPA 8260B	mtc	
Surrogate: Fluorobenzene		102 %	70-130		03/28/17 18:29	EPA 8260B	mtc	

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control

Chlorinated Herbicides by EPA Method 8151A

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7090023 - EPA 8151A										
Blank (7090023-BLK1)					Prepared: 03/31/17 Analyzed: 04/03/17					
2,4-D	ND		3.33	ug/kg wet						
2,4,5-T	ND		3.33	ug/kg wet						
2,4,5-TP (Silvex)	ND		3.33	ug/kg wet						
Dinoseb	ND		3.33	ug/kg wet						
Surrogate: 2,4-DCAA			22900	ug/kg wet	33300		69	40.6-150		
LCS (7090023-BS1)					Prepared: 03/31/17 Analyzed: 04/03/17					
2,4-D	18.4		3.33	ug/kg wet	26.7		69	42.5-122		200
2,4,5-T	18.3		3.33	ug/kg wet	26.7		69	25.9-138		200
2,4,5-TP (Silvex)	17.5		3.33	ug/kg wet	26.7		66	23.5-121		200
Dinoseb	12.5		3.33	ug/kg wet	26.7		47	10-86.5		200
Surrogate: 2,4-DCAA			26300	ug/kg wet	33300		79	40.6-150		
Matrix Spike (7090023-MS1)					Source: 7C22164-01 Prepared: 03/31/17 Analyzed: 04/03/17					
2,4-D	28.9		6.02	ug/kg dry	48.2	ND	60	17.1-157		47.4
2,4,5-T	31.3		6.02	ug/kg dry	48.2	ND	65	10-156		58.3
2,4,5-TP (Silvex)	27.8		6.02	ug/kg dry	48.2	ND	58	10-138		46.5
Dinoseb	23.0		6.02	ug/kg dry	48.2	ND	48	10-165		39.1
Surrogate: 2,4-DCAA			39200	ug/kg dry	60300		65	40.6-150		
Matrix Spike Dup (7090023-MSD1)					Source: 7C22164-01 Prepared: 03/31/17 Analyzed: 04/03/17					
2,4-D	32.3		6.02	ug/kg dry	48.2	ND	67	17.1-157	11	47.4
2,4,5-T	34.9		6.02	ug/kg dry	48.2	ND	72	10-156	11	58.3
2,4,5-TP (Silvex)	29.6		6.02	ug/kg dry	48.2	ND	62	10-138	6	46.5

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7090023 - EPA 8151A (Continued)									
Matrix Spike Dup (7090023-MSD1)		Source: 7C22164-01		Prepared: 03/31/17 Analyzed: 04/03/17					
Dinoseb	54.1		6.02	ug/kg dry	48.2	ND	112 10-165	81	39.1
Surrogate: 2,4-DCAA			62800	ug/kg dry	60200		104 40.6-150		

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Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Quality Control
(Continued)

Conventional Chemistry Parameters by SM/EPA Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083050 - General Preparation									
Blank (7083050-BLK1)									
Sulfide	ND		20.0	mg/kg wet					
Prepared & Analyzed: 03/24/17									
LCS (7083050-BS1)									
Sulfide	240		80.0	mg/kg wet	220	109	90-110		200
Prepared & Analyzed: 03/24/17									
Duplicate (7083050-DUP1)									
Sulfide	ND		33.6	mg/kg dry		ND			10
Source: 7C22164-01 Prepared & Analyzed: 03/24/17									
Batch: 7087071 - General Preparation									
Blank (7087071-BLK1)									
% Solids	ND		0.100	%					
Prepared & Analyzed: 03/28/17									
Blank (7087071-BLK2)									
% Solids	ND		0.100	%					
Prepared & Analyzed: 03/28/17									
Duplicate (7087071-DUP1)									
% Solids	88.4		0.100	%		89.2		0.849	5
Source: 7C23026-01 Prepared & Analyzed: 03/28/17									
Duplicate (7087071-DUP2)									
% Solids	79.6		0.100	%		79.6		0.00133	5
Source: 7C27060-01 Prepared & Analyzed: 03/28/17									

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Project: YUKON CLARIFIER

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Number of Containers: 6

Reported:

01/09/18 08:56

Quality Control
(Continued)

Cyanide by Preparation Method EPA 9010

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7089051 - General Prep									
Blank (7089051-BLK1)	Prepared & Analyzed: 03/30/17								
Cyanide (total)	ND		0.478	mg/kg wet					
Blank (7089051-BLK2)	Prepared & Analyzed: 03/30/17								
Cyanide (total)	ND		0.500	mg/kg wet					
LCS (7089051-BS1)	Prepared & Analyzed: 03/30/17								
Cyanide (total)	8.79		0.485	mg/kg wet	9.70	90.6	85-115		200
LCS (7089051-BS2)	Prepared & Analyzed: 03/30/17								
Cyanide (total)	0.490	J	0.500	mg/kg wet	0.500	98.0	85-115		200

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Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7082037 - EPA 3050B									
Blank (7082037-BLK1)					Prepared: 03/23/17 Analyzed: 03/26/17				
Antimony	ND		0.953	mg/kg wet					
Arsenic	ND		0.763	mg/kg wet					
Barium	1.89		0.953	mg/kg wet					
Beryllium	ND		0.191	mg/kg wet					
Cadmium	ND		0.381	mg/kg wet					
Chromium	0.107	J	0.477	mg/kg wet					
Lead	ND		0.763	mg/kg wet					
Nickel	ND		4.77	mg/kg wet					
Selenium	ND		1.91	mg/kg wet					
Silver	ND		0.381	mg/kg wet					
Thallium	ND		1.91	mg/kg wet					
Zinc	0.572	J	1.91	mg/kg wet					
Vanadium	0.207	J	1.91	mg/kg wet					
LCS (7082037-BS1)					Prepared: 03/23/17 Analyzed: 03/26/17				
Antimony	36.6		0.949	mg/kg wet	37.9		96 80-120		200
Arsenic	14.2		0.759	mg/kg wet	15.2		93 80-120		200
Barium	39.9		0.949	mg/kg wet	37.9		105 80-120		200
Beryllium	3.64		0.190	mg/kg wet	3.79		96 80-120		200
Cadmium	7.12		0.379	mg/kg wet	7.59		94 80-120		200
Chromium	3.86		0.474	mg/kg wet	3.79		102 80-120		200
Lead	14.6		0.759	mg/kg wet	15.2		96 80-120		200
Nickel	38.3		4.74	mg/kg wet	37.9		101 80-120		200
Selenium	34.8		1.90	mg/kg wet	37.9		92 80-120		200
Silver	7.35		0.379	mg/kg wet	7.59		97 80-120		200

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7082037 - EPA 3050B (Continued)									
LCS (7082037-BS1)									
					Prepared: 03/23/17 Analyzed: 03/26/17				
Thallium	14.6		1.90	mg/kg wet	15.2		96 80-120		200
Zinc	37.8		1.90	mg/kg wet	37.9		100 80-120		200
Vanadium	36.9		1.90	mg/kg wet	37.9		97 80-120		200
Duplicate (7082037-DUP1)									
			Source: 7C22129-05		Prepared: 03/23/17 Analyzed: 03/26/17				
Antimony	ND		1.02	mg/kg dry		ND			20
Arsenic	ND		0.815	mg/kg dry		0.378		200	20
Barium	5.51		1.02	mg/kg dry		4.89		12	20
Beryllium	ND		0.204	mg/kg dry		ND			20
Cadmium	ND		0.408	mg/kg dry		ND			20
Chromium	2.20		0.509	mg/kg dry		1.93		13	20
Lead	0.844		0.815	mg/kg dry		0.762		10	20
Nickel	1.05	J	5.09	mg/kg dry		0.779		30	20
Selenium	ND		2.04	mg/kg dry		ND			20
Silver	ND		0.408	mg/kg dry		ND			20
Thallium	ND		2.04	mg/kg dry		ND			20
Zinc	4.63		2.04	mg/kg dry		4.25		8	20
Vanadium	2.02	J	2.04	mg/kg dry		1.87		7	20
Matrix Spike (7082037-MS1)									
			Source: 7C22129-05		Prepared: 03/23/17 Analyzed: 03/26/17				
Antimony	24.8		0.992	mg/kg dry	39.7	ND	62 75-125		200
Arsenic	14.1		0.794	mg/kg dry	15.9	0.378	86 75-125		200
Barium	43.2		0.992	mg/kg dry	39.7	4.89	97 75-125		200
Beryllium	3.56		0.198	mg/kg dry	3.97	ND	90 75-125		200
Cadmium	6.95		0.397	mg/kg dry	7.94	ND	88 75-125		200
Chromium	6.93		0.496	mg/kg dry	3.97	1.93	126 75-125		200

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Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Quality Control (Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7082037 - EPA 3050B (Continued)										
Matrix Spike (7082037-MS1)		Source: 7C22129-05		Prepared: 03/23/17 Analyzed: 03/26/17						
Lead	15.4		0.794	mg/kg dry	15.9	0.762	92	75-125		200
Nickel	38.9		4.96	mg/kg dry	39.7	0.779	96	75-125		200
Selenium	33.1		1.98	mg/kg dry	39.7	ND	83	75-125		200
Silver	7.17		0.397	mg/kg dry	7.94	ND	90	75-125		200
Thallium	13.8		1.98	mg/kg dry	15.9	ND	87	75-125		200
Zinc	44.8		1.98	mg/kg dry	39.7	4.25	102	75-125		200
Vanadium	38.2		1.98	mg/kg dry	39.7	1.87	91	75-125		200

Batch: 7083046 - EPA 7471A

Blank (7083046-BLK1)		Prepared: 03/24/17 Analyzed: 03/27/17								
Mercury	ND		0.0328	mg/kg wet						
LCS (7083046-BS1)		Prepared: 03/24/17 Analyzed: 03/27/17								
Mercury	0.3358		0.0326	mg/kg wet	0.329		102	85-115		200
Matrix Spike (7083046-MS1)		Source: 7C23097-01		Prepared: 03/24/17 Analyzed: 03/27/17						
Mercury	0.2297		0.0338	mg/kg dry	0.171	0.05225	104	70-130		20
Matrix Spike Dup (7083046-MSD1)		Source: 7C23097-01		Prepared: 03/24/17 Analyzed: 03/27/17						
Mercury	0.2312		0.0331	mg/kg dry	0.167	0.05225	107	70-130	0.626	20
Reference (7083046-SRM1)		Prepared: 03/24/17 Analyzed: 03/27/17								
Mercury	0.3339		0.0330	mg/kg wet	0.333		100	90-110		

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7089038 - EPA 3541										
Blank (7089038-BLK1)					Prepared & Analyzed: 03/30/17					
Aldrin	ND		2.00	ug/kg wet						
alpha-BHC	ND		2.00	ug/kg wet						
beta-BHC	ND		2.00	ug/kg wet						
delta-BHC	ND		2.00	ug/kg wet						
gamma-BHC (Lindane)	ND		2.00	ug/kg wet						
Chlordane (tech)	ND		100	ug/kg wet						
4,4'-DDD	ND		2.00	ug/kg wet						
4,4'-DDE	ND		2.00	ug/kg wet						
4,4'-DDT	ND		2.00	ug/kg wet						
Dieldrin	ND		2.00	ug/kg wet						
Endosulfan I	ND		2.00	ug/kg wet						
Endosulfan II	ND		2.00	ug/kg wet						
Endosulfan sulfate	ND		2.00	ug/kg wet						
Endrin	ND		2.00	ug/kg wet						
Endrin aldehyde	ND		2.00	ug/kg wet						
Heptachlor	ND		2.00	ug/kg wet						
Heptachlor epoxide	ND		2.00	ug/kg wet						
Methoxychlor	ND		2.00	ug/kg wet						
Toxaphene	ND		100	ug/kg wet						
alpha-Chlordane	ND		2.00	ug/kg wet						
gamma-Chlordane	ND		2.00	ug/kg wet						
Endrin ketone	ND		2.00	ug/kg wet						
Surrogate: Tetrachloro-meta-xylene			22.8	ug/kg wet	20.0		114	40-157		
Surrogate: Decachlorobiphenyl			20.1	ug/kg wet	20.0		100	57.1-153		

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Project Number: [none]

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Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7089038 - EPA 3541 (Continued)									
LCS (7089038-BS1)					Prepared & Analyzed: 03/30/17				
Aldrin	12.8		2.00	ug/kg wet	12.0	106	40.4-132		200
alpha-BHC	9.66		2.00	ug/kg wet	12.0	80.5	38.9-127		200
beta-BHC	14.2		2.00	ug/kg wet	12.0	118	30.4-151		200
delta-BHC	5.12		2.00	ug/kg wet	12.0	42.7	29.5-182		200
gamma-BHC (Lindane)	10.5		2.00	ug/kg wet	12.0	87.4	38.2-130		200
4,4'-DDD	12.3		2.00	ug/kg wet	12.0	102	43.7-138		200
4,4'-DDE	12.5		2.00	ug/kg wet	12.0	104	45.6-123		200
4,4'-DDT	13.4		2.00	ug/kg wet	12.0	112	39.3-158		200
Dieldrin	12.9		2.00	ug/kg wet	12.0	107	30.3-142		200
Endosulfan I	12.3		2.00	ug/kg wet	12.0	103	32.9-150		200
Endosulfan II	13.1		2.00	ug/kg wet	12.0	109	29.4-160		200
Endosulfan sulfate	12.1		2.00	ug/kg wet	12.0	101	31.8-159		200
Endrin	13.6		2.00	ug/kg wet	12.0	113	44.4-135		200
Endrin aldehyde	14.7		2.00	ug/kg wet	12.0	122	29.8-140		200
Heptachlor	15.7		2.00	ug/kg wet	12.0	131	46.4-128		200
Heptachlor epoxide	12.3		2.00	ug/kg wet	12.0	103	43.8-123		200
Methoxychlor	16.0		2.00	ug/kg wet	12.0	133	23.4-159		200
alpha-Chlordane	11.8		2.00	ug/kg wet	12.0	98.6	42.4-120		200
gamma-Chlordane	12.3		2.00	ug/kg wet	12.0	103	43-133		200
Endrin ketone	13.4		2.00	ug/kg wet	12.0	111	44.1-137		200
Surrogate: Tetrachloro-meta-xylene			20.2	ug/kg wet	20.0	101	40-157		
Surrogate: Decachlorobiphenyl			19.5	ug/kg wet	20.0	97.7	57.1-153		
Matrix Spike (7089038-MS1)									
			Source: 7C22164-01		Prepared & Analyzed: 03/30/17				
Aldrin	ND		72.2	ug/kg dry	21.6	ND	44.4-177		41.5

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7089038 - EPA 3541 (Continued)									
Matrix Spike (7089038-MS1)		Source: 7C22164-01			Prepared & Analyzed: 03/30/17				
alpha-BHC	ND		72.2	ug/kg dry	21.6	ND	31.8-167		61.8
beta-BHC	ND		72.2	ug/kg dry	21.6	ND	10-189		53.1
delta-BHC	ND		72.2	ug/kg dry	21.6	ND	14.5-192		54.7
gamma-BHC (Lindane)	ND		72.2	ug/kg dry	21.6	ND	11.4-177		46.3
4,4'-DDD	ND		72.2	ug/kg dry	21.6	ND	20.6-189		59.3
4,4'-DDE	ND		72.2	ug/kg dry	21.6	ND	29.5-172		55.1
4,4'-DDT	ND		72.2	ug/kg dry	21.6	ND	10-178		57.4
Dieldrin	ND		72.2	ug/kg dry	21.6	ND	10-182		58.2
Endosulfan I	ND		72.2	ug/kg dry	21.6	ND	16.7-182		37.7
Endosulfan II	ND		72.2	ug/kg dry	21.6	ND	10-186		40.4
Endosulfan sulfate	ND		72.2	ug/kg dry	21.6	ND	13.3-179		48.8
Endrin	ND		72.2	ug/kg dry	21.6	ND	20.1-179		40.3
Endrin aldehyde	ND		72.2	ug/kg dry	21.6	ND	10-178		41.7
Heptachlor	ND		72.2	ug/kg dry	21.6	ND	28.6-184		46.7
Heptachlor epoxide	ND		72.2	ug/kg dry	21.6	ND	31.4-154		59
Methoxychlor	ND		72.2	ug/kg dry	21.6	ND	35.5-181		52.3
alpha-Chlordane	ND		72.2	ug/kg dry	21.6	ND	24.9-178		34.3
gamma-Chlordane	ND		72.2	ug/kg dry	21.6	ND	10-187		30.1
Endrin ketone	ND		72.2	ug/kg dry	21.6	ND	10-194		65.5
<i>Surrogate: Tetrachloro-meta-xylene</i>			236	ug/kg dry	36.1		653	40-157	
<i>Surrogate: Decachlorobiphenyl</i>			105	ug/kg dry	36.1		292	57.1-153	
Matrix Spike Dup (7089038-MSD1)		Source: 7C22164-01			Prepared & Analyzed: 03/30/17				
Aldrin	ND		72.4	ug/kg dry	21.7	ND	44.4-177		41.5
alpha-BHC	ND		72.4	ug/kg dry	21.7	ND	31.8-167		61.8

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7089038 - EPA 3541 (Continued)									
Matrix Spike Dup (7089038-MSD1)		Source: 7C22164-01			Prepared & Analyzed: 03/30/17				
beta-BHC	ND		72.4	ug/kg dry	21.7	ND	10-189		53.1
delta-BHC	ND		72.4	ug/kg dry	21.7	ND	14.5-192		54.7
gamma-BHC (Lindane)	ND		72.4	ug/kg dry	21.7	ND	11.4-177		46.3
4,4'-DDD	ND		72.4	ug/kg dry	21.7	ND	20.6-189		59.3
4,4'-DDE	ND		72.4	ug/kg dry	21.7	ND	29.5-172		55.1
4,4'-DDT	ND		72.4	ug/kg dry	21.7	ND	10-178		57.4
Dieldrin	ND		72.4	ug/kg dry	21.7	ND	10-182		58.2
Endosulfan I	ND		72.4	ug/kg dry	21.7	ND	16.7-182		37.7
Endosulfan II	ND		72.4	ug/kg dry	21.7	ND	10-186		40.4
Endosulfan sulfate	ND		72.4	ug/kg dry	21.7	ND	13.3-179		48.8
Endrin	ND		72.4	ug/kg dry	21.7	ND	20.1-179		40.3
Endrin aldehyde	ND		72.4	ug/kg dry	21.7	ND	10-178		41.7
Heptachlor	ND		72.4	ug/kg dry	21.7	ND	28.6-184		46.7
Heptachlor epoxide	ND		72.4	ug/kg dry	21.7	ND	31.4-154		59
Methoxychlor	ND		72.4	ug/kg dry	21.7	ND	35.5-181		52.3
alpha-Chlordane	ND		72.4	ug/kg dry	21.7	ND	24.9-178		34.3
gamma-Chlordane	ND		72.4	ug/kg dry	21.7	ND	10-187		30.1
Endrin ketone	ND		72.4	ug/kg dry	21.7	ND	10-194		65.5
<i>Surrogate: Tetrachloro-meta-xylene</i>			281	ug/kg dry	36.2		777	40-157	
<i>Surrogate: Decachlorobiphenyl</i>			110	ug/kg dry	36.2		305	57.1-153	

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Project Number: [none]

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Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control (Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083024 - EPA 3541									
Blank (7083024-BLK1)					Prepared: 03/23/17 Analyzed: 03/26/17				
PCB-1016	ND		0.010	mg/kg wet					
PCB-1221	ND		0.010	mg/kg wet					
PCB-1232	ND		0.010	mg/kg wet					
PCB-1242	ND		0.010	mg/kg wet					
PCB-1248	ND		0.010	mg/kg wet					
PCB-1254	ND		0.010	mg/kg wet					
PCB-1260	ND		0.010	mg/kg wet					
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0984	mg/kg wet	0.100		98.4	11-140	
<i>Surrogate: Decachlorobiphenyl</i>			0.107	mg/kg wet	0.100		107	24.4-140	
LCS (7083024-BS1)					Prepared: 03/23/17 Analyzed: 03/26/17				
PCB-1260	0.099		0.010	mg/kg wet	0.100		98.8	58.1-140	200
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.102	mg/kg wet	0.100		102	70-130	
<i>Surrogate: Decachlorobiphenyl</i>			0.107	mg/kg wet	0.100		107	70-130	
Matrix Spike (7083024-MS1)					Source: 7C23005-01 Prepared: 03/23/17 Analyzed: 03/26/17				
PCB-1016	0.097		0.012	mg/kg dry	0.124	ND	78.0	27.6-156	38.1
PCB-1260	0.108		0.012	mg/kg dry	0.124	ND	87.3	32.7-155	22.9
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.111	mg/kg dry	0.124		89.8	70-130	
<i>Surrogate: Decachlorobiphenyl</i>			0.110	mg/kg dry	0.124		89.0	70-130	
Matrix Spike Dup (7083024-MSD1)					Source: 7C23005-01 Prepared: 03/23/17 Analyzed: 03/26/17				
PCB-1016	0.107		0.013	mg/kg dry	0.127	ND	83.8	27.6-156	9.84 38.1
PCB-1221	ND		0.013	mg/kg dry		ND		10-187	46.3
PCB-1232	ND		0.013	mg/kg dry		ND		54.6-146	47.4

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Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Quality Control
(Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083024 - EPA 3541 (Continued)									
Matrix Spike Dup (7083024-MSD1)		Source: 7C23005-01		Prepared: 03/23/17 Analyzed: 03/26/17					
PCB-1242	ND		0.013	mg/kg dry		ND	38.6-147		37.1
PCB-1248	ND		0.013	mg/kg dry		ND	32.1-157		35.4
PCB-1254	ND		0.013	mg/kg dry		ND	20.5-174		30.1
PCB-1260	0.116		0.013	mg/kg dry	0.127	ND	91.1 32.7-155	6.99	22.9
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.117	mg/kg dry	0.127		92.2 70-130		
<i>Surrogate: Decachlorobiphenyl</i>			0.120	mg/kg dry	0.127		94.4 70-130		



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Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541									
Blank (7083080-BLK1)					Prepared: 03/24/17 Analyzed: 03/26/17				
Diphenylamine	ND		0.333	mg/kg wet					
Pyridine	ND		0.667	mg/kg wet					
Benzidine	ND		1.67	mg/kg wet					
Acenaphthene	ND		0.333	mg/kg wet					
Acenaphthylene	ND		0.333	mg/kg wet					
Anthracene	ND		0.333	mg/kg wet					
Benzoic acid	ND		3.33	mg/kg wet					
Benzo (a) anthracene	0.0200	J	0.333	mg/kg wet					
Benzo (b) fluoranthene	ND		0.333	mg/kg wet					
Benzo (k) fluoranthene	ND		0.333	mg/kg wet					
Benzo (g,h,i) perylene	ND		0.333	mg/kg wet					
Benzo (a) pyrene	ND		0.333	mg/kg wet					
Benzyl alcohol	0.103	J	0.333	mg/kg wet					
Bis(2-chloroethoxy)methane	ND		0.333	mg/kg wet					
Bis(2-chloroethyl)ether	ND		0.333	mg/kg wet					
Bis(2-chloroisopropyl)ether	ND		0.333	mg/kg wet					
Bis(2-ethylhexyl)phthalate	ND		0.333	mg/kg wet					
4-Bromophenyl phenyl ether	ND		0.333	mg/kg wet					
Butyl benzyl phthalate	ND		0.333	mg/kg wet					
4-Chloroaniline	ND		0.333	mg/kg wet					
4-Chloro-3-methylphenol	ND		0.333	mg/kg wet					
2-Chloronaphthalene	ND		0.333	mg/kg wet					
2-Chlorophenol	ND		0.333	mg/kg wet					
4-Chlorophenyl phenyl ether	ND		0.333	mg/kg wet					
Chrysene	ND		0.333	mg/kg wet					

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)										
Blank (7083080-BLK1)			Prepared: 03/24/17 Analyzed: 03/26/17							
Dibenz (a,h) anthracene	ND		0.333	mg/kg wet						
Dibenzofuran	ND		0.333	mg/kg wet						
Di-n-butyl phthalate	0.0767	J	0.333	mg/kg wet						
1,2-Dichlorobenzene	ND		0.333	mg/kg wet						
1,3-Dichlorobenzene	ND		0.333	mg/kg wet						
1,4-Dichlorobenzene	ND		0.333	mg/kg wet						
3,3'-Dichlorobenzidine	ND		0.333	mg/kg wet						
2,4-Dichlorophenol	ND		0.333	mg/kg wet						
Diethyl phthalate	ND		0.333	mg/kg wet						
2,4-Dimethylphenol	ND		0.333	mg/kg wet						
Dimethyl phthalate	ND		0.333	mg/kg wet						
4,6-Dinitro-2-methylphenol	ND		1.67	mg/kg wet						
2,4-Dinitrophenol	ND		1.67	mg/kg wet						
2,4-Dinitrotoluene	ND		0.333	mg/kg wet						
2,6-Dinitrotoluene	ND		0.333	mg/kg wet						
Di-n-octyl phthalate	ND		0.333	mg/kg wet						
Aniline	ND		0.333	mg/kg wet						
Naphthalene	ND		0.333	mg/kg wet						
N-Nitrosodimethylamine	ND		0.333	mg/kg wet						
Acetophenone	ND		0.333	mg/kg wet						
3 & 4-Methylphenol	ND		0.333	mg/kg wet						
1,2-Diphenylhydrazine	ND		0.333	mg/kg wet						
Fluoranthene	ND		0.333	mg/kg wet						
Fluorene	ND		0.333	mg/kg wet						
Hexachlorobenzene	ND		0.333	mg/kg wet						

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Project: YUKON CLARIFIER

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Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)										
Blank (7083080-BLK1)			Prepared: 03/24/17 Analyzed: 03/26/17							
Hexachlorobutadiene	ND		0.333	mg/kg wet						
Hexachlorocyclopentadiene	ND		0.333	mg/kg wet						
Hexachloroethane	ND		0.333	mg/kg wet						
Indeno (1,2,3-cd) pyrene	ND		0.333	mg/kg wet						
Isophorone	ND		0.333	mg/kg wet						
2-Methylnaphthalene	ND		0.333	mg/kg wet						
2-Methylphenol	ND		0.333	mg/kg wet						
2-Nitroaniline	ND		0.333	mg/kg wet						
3-Nitroaniline	ND		0.333	mg/kg wet						
4-Nitroaniline	ND		0.333	mg/kg wet						
Nitrobenzene	ND		0.333	mg/kg wet						
2-Nitrophenol	ND		0.333	mg/kg wet						
4-Nitrophenol	ND		0.333	mg/kg wet						
N-Nitrosodi-n-propylamine	ND		0.333	mg/kg wet						
Pentachlorophenol	ND		1.67	mg/kg wet						
Phenanthrene	ND		0.333	mg/kg wet						
Phenol	ND		0.333	mg/kg wet						
Pyrene	ND		0.333	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.333	mg/kg wet						
2,4,5-Trichlorophenol	ND		0.333	mg/kg wet						
2,4,6-Trichlorophenol	ND		0.333	mg/kg wet						
Surrogate: 2-Fluorophenol			13.1	mg/kg wet	13.3		99	10-169		
Surrogate: Phenol-d6			12.7	mg/kg wet	13.3		95	10-166		
Surrogate: Nitrobenzene-d5			6.71	mg/kg wet	6.67		101	18.8-170		
Surrogate: 2-Fluorobiphenyl			7.30	mg/kg wet	6.67		110	35.1-154		

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Project: YUKON CLARIFIER

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Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)									
Blank (7083080-BLK1)					Prepared: 03/24/17 Analyzed: 03/26/17				
Surrogate: 2,4,6-Tribromophenol			13.8	mg/kg wet	13.3	103	20-158		
Surrogate: Terphenyl-d14			7.03	mg/kg wet	6.67	105	52.1-160		
LCS (7083080-BS1)					Prepared: 03/24/17 Analyzed: 03/26/17				
Diphenylamine	14.0		0.333	mg/kg wet	16.7	84	56-103		10
Pyridine	25.4		0.667	mg/kg wet	33.3	76	10-137		10
Benzidine	5.71		1.67	mg/kg wet	16.7	34	10-35		10
Acenaphthene	19.0		0.333	mg/kg wet	16.7	114	63-126		10
Acenaphthylene	19.6		0.333	mg/kg wet	16.7	117	63-132		10
Anthracene	16.4		0.333	mg/kg wet	16.7	99	68-124		10
Benzoic acid	9.65		3.33	mg/kg wet	16.7	58	31-104		10
Benzo (a) anthracene	15.8		0.333	mg/kg wet	16.7	95	70-124		10
Benzo (b) fluoranthene	16.7		0.333	mg/kg wet	16.7	100	76-125		10
Benzo (k) fluoranthene	17.3		0.333	mg/kg wet	16.7	104	71-125		10
Benzo (g,h,i) perylene	16.1		0.333	mg/kg wet	16.7	97	73-127		10
Benzo (a) pyrene	17.1		0.333	mg/kg wet	16.7	103	71-127		10
Benzyl alcohol	15.9		0.333	mg/kg wet	16.7	96	34-138		10
Bis(2-chloroethoxy)methane	16.2		0.333	mg/kg wet	16.7	97	39-131		10
Bis(2-chloroethyl)ether	15.3		0.333	mg/kg wet	16.7	92	11-149		10
Bis(2-chloroisopropyl)ether	15.3		0.333	mg/kg wet	16.7	92	17-154		10
Bis(2-ethylhexyl)phthalate	16.7		0.333	mg/kg wet	16.7	100	63-115		10
4-Bromophenyl phenyl ether	17.8		0.333	mg/kg wet	16.7	107	68-121		10
Butyl benzyl phthalate	16.5		0.333	mg/kg wet	16.7	99	62-122		10
4-Chloroaniline	12.7		0.333	mg/kg wet	16.7	76	34-103		10
4-Chloro-3-methylphenol	15.8		0.333	mg/kg wet	16.7	95	62-123		10

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Project: YUKON CLARIFIER

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Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)									
LCS (7083080-BS1)									
Prepared: 03/24/17 Analyzed: 03/26/17									
2-Chloronaphthalene	18.5		0.333	mg/kg wet	16.7		111 57-124		10
2-Chlorophenol	15.5		0.333	mg/kg wet	16.7		93 24-142		10
4-Chlorophenyl phenyl ether	19.9		0.333	mg/kg wet	16.7		119 65-122		10
Chrysene	16.7		0.333	mg/kg wet	16.7		100 71-125		10
Dibenz (a,h) anthracene	16.3		0.333	mg/kg wet	16.7		98 74-128		10
Dibenzofuran	18.5		0.333	mg/kg wet	16.7		111 63-118		10
Di-n-butyl phthalate	17.4		0.333	mg/kg wet	16.7		104 72-123		10
1,2-Dichlorobenzene	15.1		0.333	mg/kg wet	16.7		91 10-151		10
1,3-Dichlorobenzene	14.7		0.333	mg/kg wet	16.7		88 10-156		10
1,4-Dichlorobenzene	14.9		0.333	mg/kg wet	16.7		90 10-154		10
3,3'-Dichlorobenzidine	13.2		0.333	mg/kg wet	16.7		79 48-107		10
2,4-Dichlorophenol	15.2		0.333	mg/kg wet	16.7		91 50-130		10
Diethyl phthalate	20.2		0.333	mg/kg wet	16.7		121 67-124		10
2,4-Dimethylphenol	14.4		0.333	mg/kg wet	16.7		87 40-111		10
Dimethyl phthalate	19.5		0.333	mg/kg wet	16.7		117 66-121		10
4,6-Dinitro-2-methylphenol	13.2		1.67	mg/kg wet	16.7		79 10-111		10
2,4-Dinitrophenol	8.74		1.67	mg/kg wet	16.7		52 10-111		10
2,4-Dinitrotoluene	19.3		0.333	mg/kg wet	16.7		116 66-112		10
2,6-Dinitrotoluene	18.3		0.333	mg/kg wet	16.7		110 57-128		10
Di-n-octyl phthalate	16.1		0.333	mg/kg wet	16.7		97 56-119		10
Aniline	10.5		0.333	mg/kg wet	16.7		63 16-99		10
Naphthalene	16.0		0.333	mg/kg wet	16.7		96 32-140		10
N-Nitrosodimethylamine	13.7		0.333	mg/kg wet	16.7		82 10-156		10
Carbazole	8.28		0.333	mg/kg wet	16.7		50 34-61		10
Acetophenone	16.0		0.333	mg/kg wet	16.7		96 27-142		10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)									
LCS (7083080-BS1)									
Prepared: 03/24/17 Analyzed: 03/26/17									
3 & 4-Methylphenol	14.8		0.333	mg/kg wet	16.7		89 41-118		10
1,2-Diphenylhydrazine	15.1		0.333	mg/kg wet			60-127		10
2,3,4,6-Tetrachlorophenol	17.7		0.333	mg/kg wet	16.7		106 72-140		10
Fluoranthene	16.4		0.333	mg/kg wet	16.7		98 71-128		10
Fluorene	19.4		0.333	mg/kg wet	16.7		117 69-122		10
Hexachlorobenzene	17.5		0.333	mg/kg wet	16.7		105 69-118		10
Hexachlorobutadiene	17.6		0.333	mg/kg wet	16.7		106 18-146		10
Hexachlorocyclopentadiene	18.9		0.333	mg/kg wet	16.7		114 22-155		10
Hexachloroethane	14.9		0.333	mg/kg wet	16.7		90 10-154		10
Indeno (1,2,3-cd) pyrene	16.1		0.333	mg/kg wet	16.7		97 73-130		10
Isophorone	17.6		0.333	mg/kg wet	16.7		105 42-131		10
2-Methylnaphthalene	16.5		0.333	mg/kg wet	16.7		99 47-131		10
2-Methylphenol	14.8		0.333	mg/kg wet	16.7		89 35-119		10
2-Nitroaniline	18.3		0.333	mg/kg wet	16.7		110 57-128		10
3-Nitroaniline	15.3		0.333	mg/kg wet	16.7		92 60-112		10
4-Nitroaniline	16.7		0.333	mg/kg wet	16.7		100 44-127		10
Nitrobenzene	15.9		0.333	mg/kg wet	16.7		96 28-138		10
2-Nitrophenol	17.2		0.333	mg/kg wet	16.7		103 31-144		10
4-Nitrophenol	18.0		0.333	mg/kg wet	16.7		108 50-118		10
N-Nitrosodiphenylamine	14.0		0.333	mg/kg wet	16.7		84 54-104		10
N-Nitrosodi-n-propylamine	15.2		0.333	mg/kg wet	16.7		91 34-135		10
Pentachlorophenol	15.9		1.67	mg/kg wet	16.7		96 56-126		10
Phenanthrene	15.5		0.333	mg/kg wet	16.7		93 68-118		10
Phenol	14.8		0.333	mg/kg wet	16.7		89 32-129		10
Pyrene	15.5		0.333	mg/kg wet	16.7		93 70-126		10

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)									
LCS (7083080-BS1)									
					Prepared: 03/24/17 Analyzed: 03/26/17				
1,2,4-Trichlorobenzene	16.7		0.333	mg/kg wet	16.7		100 24-141		10
2,4,5-Trichlorophenol	20.0		0.333	mg/kg wet	16.7		120 63-138		10
2,4,6-Trichlorophenol	18.9		0.333	mg/kg wet	16.7		113 64-128		10
Surrogate: 2-Fluorophenol			13.5	mg/kg wet	13.3		101 35-115		
Surrogate: Phenol-d6			13.2	mg/kg wet	13.3		99 35-115		
Surrogate: Nitrobenzene-d5			6.90	mg/kg wet	6.67		104 35-115		
Surrogate: 2-Fluorobiphenyl			7.15	mg/kg wet	6.67		107 40-120		
Surrogate: 2,4,6-Tribromophenol			15.6	mg/kg wet	13.3		117 40-120		
Surrogate: Terphenyl-d14			6.53	mg/kg wet	6.67		98 40-120		
Matrix Spike (7083080-MS1)									
			Source: 7C22129-01		Prepared: 03/24/17 Analyzed: 03/27/17				
Diphenylamine	26.3		0.590	mg/kg dry	29.5	ND	89 70-130		200
Pyridine	45.3		1.18	mg/kg dry	59.0	ND	77 70-130		200
Benzidine	14.6		2.95	mg/kg dry	29.5	0.939	46 70-130		200
Acenaphthene	35.3		0.590	mg/kg dry	29.5	ND	120 70-130		200
Acenaphthylene	36.6		0.590	mg/kg dry	29.5	ND	124 70-130		200
Anthracene	31.5		0.590	mg/kg dry	29.5	ND	107 70-130		200
Benzoic acid	32.5		5.90	mg/kg dry	29.5	ND	110 70-130		200
Benzo (a) anthracene	30.4		0.590	mg/kg dry	29.5	0.420	102 70-130		200
Benzo (b) fluoranthene	31.1		0.590	mg/kg dry	29.5	0.432	104 70-130		200
Benzo (k) fluoranthene	31.5		0.590	mg/kg dry	29.5	ND	107 70-130		200
Benzo (g,h,i) perylene	31.9		0.590	mg/kg dry	29.5	ND	108 70-130		200
Benzo (a) pyrene	32.4		0.590	mg/kg dry	29.5	0.315	109 70-130		200
Benzyl alcohol	30.9		0.590	mg/kg dry	29.5	ND	105 70-130		200
Bis(2-chloroethoxy)methane	30.4		0.590	mg/kg dry	29.5	ND	103 70-130		200

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)										
Matrix Spike (7083080-MS1)		Source: 7C22129-01		Prepared: 03/24/17 Analyzed: 03/27/17						
Bis(2-chloroethyl)ether	28.5		0.590	mg/kg dry	29.5	ND	97	70-130		200
Bis(2-chloroisopropyl)ether	28.6		0.590	mg/kg dry	29.5	ND	97	70-130		200
Bis(2-ethylhexyl)phthalate	32.3		0.590	mg/kg dry	29.5	ND	110	70-130		200
4-Bromophenyl phenyl ether	34.0		0.590	mg/kg dry	29.5	ND	115	70-130		200
Butyl benzyl phthalate	32.9		0.590	mg/kg dry	29.5	ND	112	70-130		200
4-Chloroaniline	29.6		0.590	mg/kg dry	29.5	ND	100	70-130		200
4-Chloro-3-methylphenol	30.0		0.590	mg/kg dry	29.5	ND	102	70-130		200
2-Chloronaphthalene	35.2		0.590	mg/kg dry	29.5	ND	119	70-130		200
2-Chlorophenol	29.2		0.590	mg/kg dry	29.5	ND	99	70-130		200
4-Chlorophenyl phenyl ether	37.2		0.590	mg/kg dry	29.5	ND	126	70-130		200
Chrysene	31.1		0.590	mg/kg dry	29.5	0.362	104	70-130		200
Dibenz (a,h) anthracene	31.0		0.590	mg/kg dry	29.5	ND	105	70-130		200
Dibenzofuran	34.8		0.590	mg/kg dry	29.5	ND	118	70-130		200
Di-n-butyl phthalate	33.4		0.590	mg/kg dry	29.5	ND	113	70-130		200
1,2-Dichlorobenzene	27.6		0.590	mg/kg dry	29.5	ND	94	70-130		200
1,3-Dichlorobenzene	26.5		0.590	mg/kg dry	29.5	ND	90	70-130		200
1,4-Dichlorobenzene	27.2		0.590	mg/kg dry	29.5	ND	92	70-130		200
3,3'-Dichlorobenzidine	30.8		0.590	mg/kg dry	29.5	ND	105	70-130		200
2,4-Dichlorophenol	29.1		0.590	mg/kg dry	29.5	ND	99	70-130		200
Diethyl phthalate	38.5		0.590	mg/kg dry	29.5	ND	130	70-130		200
2,4-Dimethylphenol	28.3		0.590	mg/kg dry	29.5	ND	96	70-130		200
Dimethyl phthalate	36.4		0.590	mg/kg dry	29.5	ND	124	70-130		200
4,6-Dinitro-2-methylphenol	25.8		2.95	mg/kg dry	29.5	ND	87	70-130		200
2,4-Dinitrophenol	21.4		2.95	mg/kg dry	29.5	ND	73	70-130		200
2,4-Dinitrotoluene	35.3		0.590	mg/kg dry	29.5	ND	120	70-130		200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)										
Matrix Spike (7083080-MS1)		Source: 7C22129-01		Prepared: 03/24/17 Analyzed: 03/27/17						
2,6-Dinitrotoluene	34.0		0.590	mg/kg dry	29.5	ND	115	70-130		200
Di-n-octyl phthalate	31.8		0.590	mg/kg dry	29.5	ND	108	70-130		200
Aniline	23.9		0.590	mg/kg dry	29.5	ND	81	70-130		200
Naphthalene	30.3		0.590	mg/kg dry	29.5	ND	103	70-130		200
N-Nitrosodimethylamine	25.2		0.590	mg/kg dry	29.5	ND	85	70-130		200
3 & 4-Methylphenol	28.5		0.590	mg/kg dry	29.5	ND	97	70-130		200
Acetophenone	30.3		0.590	mg/kg dry	29.5	ND	103	70-130		200
Total Cresol	56.6		1.18	mg/kg dry	59.0	ND	96	70-130		200
2,3,4,6-Tetrachlorophenol	34.5		0.590	mg/kg dry	29.5	ND	117	40-120		200
Fluoranthene	31.3		0.590	mg/kg dry	29.5	0.566	104	70-130		200
Fluorene	36.2		0.590	mg/kg dry	29.5	ND	123	70-130		200
Hexachlorobenzene	32.7		0.590	mg/kg dry	29.5	ND	111	70-130		200
Hexachlorobutadiene	32.3		0.590	mg/kg dry	29.5	ND	110	70-130		200
Hexachlorocyclopentadiene	20.6		0.590	mg/kg dry	29.5	ND	70	70-130		200
Hexachloroethane	26.2		0.590	mg/kg dry	29.5	ND	89	70-130		200
Indeno (1,2,3-cd) pyrene	31.4		0.590	mg/kg dry	29.5	ND	107	70-130		200
Isophorone	33.3		0.590	mg/kg dry	29.5	ND	113	70-130		200
2-Methylnaphthalene	30.9		0.590	mg/kg dry	29.5	ND	105	70-130		200
2-Methylphenol	28.1		0.590	mg/kg dry	29.5	ND	95	70-130		200
2-Nitroaniline	35.3		0.590	mg/kg dry	29.5	ND	120	70-130		200
3-Nitroaniline	32.4		0.590	mg/kg dry	29.5	ND	110	70-130		200
4-Nitroaniline	35.7		0.590	mg/kg dry	29.5	ND	121	70-130		200
Nitrobenzene	29.9		0.590	mg/kg dry	29.5	ND	101	70-130		200
2-Nitrophenol	31.1		0.590	mg/kg dry	29.5	ND	105	70-130		200
4-Nitrophenol	34.9		0.590	mg/kg dry	29.5	ND	118	70-130		200

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State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)										
Matrix Spike (7083080-MS1)		Source: 7C22129-01		Prepared: 03/24/17 Analyzed: 03/27/17						
N-Nitrosodiphenylamine	26.3		0.590	mg/kg dry	29.5	ND	89	70-130		200
N-Nitrosodi-n-propylamine	28.7		0.590	mg/kg dry	29.5	ND	97	70-130		200
Pentachlorophenol	33.6		2.95	mg/kg dry	29.5	ND	114	70-130		200
Phenanthrene	29.6		0.590	mg/kg dry	29.5	ND	100	70-130		200
Phenol	27.8		0.590	mg/kg dry	29.5	ND	94	70-130		200
Pyrene	29.9		0.590	mg/kg dry	29.5	0.461	100	70-130		200
1,2,4-Trichlorobenzene	30.8		0.590	mg/kg dry	29.5	ND	104	70-130		200
2,4,5-Trichlorophenol	38.2		0.590	mg/kg dry	29.5	ND	130	70-130		200
2,4,6-Trichlorophenol	35.8		0.590	mg/kg dry	29.5	ND	121	70-130		200
Surrogate: 2-Fluorophenol			24.5	mg/kg dry	23.6		104	35-115		
Surrogate: Phenol-d6			24.0	mg/kg dry	23.6		102	35-115		
Surrogate: Nitrobenzene-d5			12.6	mg/kg dry	11.8		107	35-115		
Surrogate: 2-Fluorobiphenyl			13.0	mg/kg dry	11.8		111	40-120		
Surrogate: 2,4,6-Tribromophenol			28.8	mg/kg dry	23.6		122	40-120		
Surrogate: Terphenyl-d14			12.5	mg/kg dry	11.8		106	40-120		
Matrix Spike Dup (7083080-MSD1)		Source: 7C22129-01		Prepared: 03/24/17 Analyzed: 03/27/17						
Benzidine	13.5		2.90	mg/kg dry	29.0	0.939	43	70-130	8	200
Pyridine	43.5		1.16	mg/kg dry	58.0	ND	75	70-130	4	200
Diphenylamine	26.0		0.580	mg/kg dry	29.0	ND	90	70-130	1	200
Acenaphthene	34.8		0.580	mg/kg dry	29.0	ND	120	70-130	1	200
Acenaphthylene	36.3		0.580	mg/kg dry	29.0	ND	125	70-130	0.8	200
Anthracene	31.2		0.580	mg/kg dry	29.0	ND	108	70-130	0.8	200
Benzoic acid	32.2		5.80	mg/kg dry	29.0	ND	111	70-130	0.9	200
Benzo (a) anthracene	30.0		0.580	mg/kg dry	29.0	0.420	102	70-130	2	200

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)									
Matrix Spike Dup (7083080-MSD1)		Source: 7C22129-01		Prepared: 03/24/17 Analyzed: 03/27/17					
Benzo (b) fluoranthene	30.4		0.580	mg/kg dry	29.0	0.432	103 70-130	2	200
Benzo (k) fluoranthene	30.8		0.580	mg/kg dry	29.0	ND	106 70-130	2	200
Benzo (g,h,i) perylene	31.2		0.580	mg/kg dry	29.0	ND	108 70-130	2	200
Benzo (a) pyrene	31.3		0.580	mg/kg dry	29.0	0.315	107 70-130	4	200
Benzyl alcohol	29.8		0.580	mg/kg dry	29.0	ND	103 70-130	4	200
Bis(2-chloroethoxy)methane	30.0		0.580	mg/kg dry	29.0	ND	103 70-130	1	200
Bis(2-chloroethyl)ether	27.5		0.580	mg/kg dry	29.0	ND	95 70-130	4	200
Bis(2-chloroisopropyl)ether	27.7		0.580	mg/kg dry	29.0	ND	96 70-130	3	200
Bis(2-ethylhexyl)phthalate	31.8		0.580	mg/kg dry	29.0	ND	110 70-130	2	200
4-Bromophenyl phenyl ether	33.8		0.580	mg/kg dry	29.0	ND	117 70-130	0.5	200
Butyl benzyl phthalate	32.2		0.580	mg/kg dry	29.0	ND	111 70-130	2	200
4-Chloroaniline	29.0		0.580	mg/kg dry	29.0	ND	100 70-130	2	200
4-Chloro-3-methylphenol	29.7		0.580	mg/kg dry	29.0	ND	102 70-130	1	200
2-Chloronaphthalene	34.7		0.580	mg/kg dry	29.0	ND	120 70-130	1	200
2-Chlorophenol	28.6		0.580	mg/kg dry	29.0	ND	98 70-130	2	200
4-Chlorophenyl phenyl ether	36.6		0.580	mg/kg dry	29.0	ND	126 70-130	2	200
Chrysene	30.4		0.580	mg/kg dry	29.0	0.362	104 70-130	2	200
Dibenz (a,h) anthracene	30.2		0.580	mg/kg dry	29.0	ND	104 70-130	3	200
Dibenzofuran	34.0		0.580	mg/kg dry	29.0	ND	117 70-130	2	200
Di-n-butyl phthalate	33.3		0.580	mg/kg dry	29.0	ND	115 70-130	0.3	200
1,2-Dichlorobenzene	26.7		0.580	mg/kg dry	29.0	ND	92 70-130	3	200
1,3-Dichlorobenzene	25.8		0.580	mg/kg dry	29.0	ND	89 70-130	3	200
1,4-Dichlorobenzene	26.1		0.580	mg/kg dry	29.0	ND	90 70-130	4	200
3,3'-Dichlorobenzidine	30.9		0.580	mg/kg dry	29.0	ND	107 70-130	0.4	200
2,4-Dichlorophenol	28.9		0.580	mg/kg dry	29.0	ND	100 70-130	0.6	200

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)										
Matrix Spike Dup (7083080-MSD1)		Source: 7C22129-01		Prepared: 03/24/17 Analyzed: 03/27/17						
Diethyl phthalate	38.1		0.580	mg/kg dry	29.0	ND	131	70-130	1	200
2,4-Dimethylphenol	27.7		0.580	mg/kg dry	29.0	ND	96	70-130	2	200
Dimethyl phthalate	36.2		0.580	mg/kg dry	29.0	ND	125	70-130	0.6	200
4,6-Dinitro-2-methylphenol	25.3		2.90	mg/kg dry	29.0	ND	87	70-130	2	200
2,4-Dinitrophenol	21.8		2.90	mg/kg dry	29.0	ND	75	70-130	2	200
2,4-Dinitrotoluene	34.9		0.580	mg/kg dry	29.0	ND	120	70-130	1	200
2,6-Dinitrotoluene	33.5		0.580	mg/kg dry	29.0	ND	116	70-130	1	200
Di-n-octyl phthalate	30.7		0.580	mg/kg dry	29.0	ND	106	70-130	4	200
Aniline	23.0		0.580	mg/kg dry	29.0	ND	79	70-130	4	200
Naphthalene	29.4		0.580	mg/kg dry	29.0	ND	101	70-130	3	200
N-Nitrosodimethylamine	24.1		0.580	mg/kg dry	29.0	ND	83	70-130	4	200
3 & 4-Methylphenol	27.2		0.580	mg/kg dry	29.0	ND	94	70-130	5	200
Acetophenone	29.2		0.580	mg/kg dry	29.0	ND	101	70-130	4	200
Total Cresol	54.5		1.16	mg/kg dry	58.0	ND	94	70-130	4	200
2,3,4,6-Tetrachlorophenol	34.5		0.580	mg/kg dry	29.0	ND	119	40-120	0.1	200
Fluoranthene	31.3		0.580	mg/kg dry	29.0	0.566	106	70-130	0.2	200
Fluorene	36.0		0.580	mg/kg dry	29.0	ND	124	70-130	0.5	200
Hexachlorobenzene	32.3		0.580	mg/kg dry	29.0	ND	111	70-130	1	200
Hexachlorobutadiene	31.5		0.580	mg/kg dry	29.0	ND	109	70-130	2	200
Hexachlorocyclopentadiene	19.2		0.580	mg/kg dry	29.0	ND	66	70-130	7	200
Hexachloroethane	26.0		0.580	mg/kg dry	29.0	ND	90	70-130	0.4	200
Indeno (1,2,3-cd) pyrene	30.3		0.580	mg/kg dry	29.0	ND	105	70-130	4	200
Isophorone	32.8		0.580	mg/kg dry	29.0	ND	113	70-130	2	200
2-Methylnaphthalene	30.1		0.580	mg/kg dry	29.0	ND	104	70-130	2	200
2-Methylphenol	27.3		0.580	mg/kg dry	29.0	ND	94	70-130	3	200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7083080 - EPA 3541 (Continued)										
Matrix Spike Dup (7083080-MSD1)		Source: 7C22129-01		Prepared: 03/24/17 Analyzed: 03/27/17						
2-Nitroaniline	35.3		0.580	mg/kg dry	29.0	ND	122	70-130	0.2	200
3-Nitroaniline	32.3		0.580	mg/kg dry	29.0	ND	111	70-130	0.4	200
4-Nitroaniline	35.4		0.580	mg/kg dry	29.0	ND	122	70-130	0.8	200
Nitrobenzene	29.0		0.580	mg/kg dry	29.0	ND	100	70-130	3	200
2-Nitrophenol	30.3		0.580	mg/kg dry	29.0	ND	104	70-130	3	200
4-Nitrophenol	34.7		0.580	mg/kg dry	29.0	ND	120	70-130	0.6	200
N-Nitrosodiphenylamine	26.0		0.580	mg/kg dry	29.0	ND	90	70-130	1	200
N-Nitrosodi-n-propylamine	28.2		0.580	mg/kg dry	29.0	ND	97	70-130	2	200
Pentachlorophenol	33.5		2.90	mg/kg dry	29.0	ND	116	70-130	0.3	200
Phenanthrene	29.4		0.580	mg/kg dry	29.0	ND	101	70-130	0.6	200
Phenol	27.0		0.580	mg/kg dry	29.0	ND	93	70-130	3	200
Pyrene	29.2		0.580	mg/kg dry	29.0	0.461	99	70-130	3	200
1,2,4-Trichlorobenzene	30.2		0.580	mg/kg dry	29.0	ND	104	70-130	2	200
2,4,5-Trichlorophenol	37.7		0.580	mg/kg dry	29.0	ND	130	70-130	1	200
2,4,6-Trichlorophenol	35.5		0.580	mg/kg dry	29.0	ND	123	70-130	0.7	200
Surrogate: 2-Fluorophenol			23.8	mg/kg dry	23.2		102	35-115		
Surrogate: Phenol-d6			23.4	mg/kg dry	23.2		101	35-115		
Surrogate: Nitrobenzene-d5			12.5	mg/kg dry	11.6		107	35-115		
Surrogate: 2-Fluorobiphenyl			12.8	mg/kg dry	11.6		111	40-120		
Surrogate: 2,4,6-Tribromophenol			28.6	mg/kg dry	23.2		123	40-120		
Surrogate: Terphenyl-d14			12.2	mg/kg dry	11.6		105	40-120		

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651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit

Batch: 7083081 - EPA 200 Series

Blank (7083081-BLK1)

Prepared: 03/24/17 Analyzed: 03/28/17

Mercury	ND		0.000200	mg/l					

Matrix Spike (7083081-MS1)

Source: 7C22164-01

Prepared: 03/24/17 Analyzed: 03/28/17

Mercury	0.01300		0.00200	mg/l	0.0100	ND	130 70-130		10

Matrix Spike Dup (7083081-MSD1)

Source: 7C22164-01

Prepared: 03/24/17 Analyzed: 03/28/17

Mercury	0.01212		0.00200	mg/l	0.0100	ND	121 70-130	6.96	10

Batch: 7085001 - EPA 3010A TCLP/SPLP

Blank (7085001-BLK1)

Prepared: 03/26/17 Analyzed: 03/28/17

Antimony	ND		0.0100	mg/l					
Arsenic	ND		0.00800	mg/l					
Barium	ND		0.0100	mg/l					
Beryllium	ND		0.00200	mg/l					
Cadmium	ND		0.00400	mg/l					
Chromium	ND		0.00500	mg/l					
Lead	ND		0.00800	mg/l					
Nickel	ND		0.0500	mg/l					
Selenium	ND		0.0200	mg/l					
Silver	ND		0.00400	mg/l					
Thallium	ND		0.0200	mg/l					
Vanadium	ND		0.0200	mg/l					
Zinc	ND		0.0200	mg/l					

Duplicate (7085001-DUP1)

Source: 7C22129-05

Prepared: 03/26/17 Analyzed: 03/28/17

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651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7085001 - EPA 3010A TCLP/SPLP (Continued)									
Duplicate (7085001-DUP1)			Source: 7C22129-05		Prepared: 03/26/17 Analyzed: 03/28/17				
Antimony	ND		0.0500	mg/l		0.0341		200	20
Arsenic	ND		0.0400	mg/l		ND			20
Barium	0.349		0.0500	mg/l		0.321		8	20
Beryllium	ND		0.0100	mg/l		ND			20
Cadmium	ND		0.0200	mg/l		ND			20
Chromium	ND		0.0250	mg/l		ND			20
Lead	ND		0.0400	mg/l		ND			20
Nickel	ND		0.250	mg/l		ND			20
Selenium	ND		0.100	mg/l		ND			20
Thallium	ND		0.100	mg/l		ND			20
Vanadium	0.0223	J	0.100	mg/l		0.0175		24	20
Zinc	0.0542	J	0.100	mg/l		0.0501		8	20
Matrix Spike (7085001-MS1)			Source: 7C22129-05		Prepared: 03/26/17 Analyzed: 03/28/17				
Antimony	2.06		0.0500	mg/l	2.00	0.0341	101	75-125	200
Arsenic	0.786		0.0400	mg/l	0.800	ND	98	75-125	200
Barium	2.37		0.0500	mg/l	2.00	0.321	102	75-125	200
Beryllium	0.200		0.0100	mg/l	0.200	ND	100	75-125	200
Cadmium	0.395		0.0200	mg/l	0.400	ND	99	75-125	200
Chromium	0.204		0.0250	mg/l	0.200	ND	102	75-125	200
Lead	0.794		0.0400	mg/l	0.800	ND	99	75-125	200
Nickel	1.97		0.250	mg/l	2.00	ND	99	75-125	200
Selenium	1.94		0.100	mg/l	2.00	ND	97	75-125	200
Silver	0.405		0.0200	mg/l	0.400	ND	101	75-125	200
Thallium	0.747		0.100	mg/l	0.800	ND	93	75-125	200

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 08:56

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7085001 - EPA 3010A TCLP/SPLP (Continued)									
Matrix Spike (7085001-MS1)		Source: 7C22129-05		Prepared: 03/26/17 Analyzed: 03/28/17					
Vanadium	2.02		0.100	mg/l	2.00	0.0175	100	75-125	200
Zinc	2.11		0.100	mg/l	2.00	0.0501	103	75-125	200

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651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7088031 - Volatiles									
Blank (7088031-BLK1)					Prepared: 03/24/17 Analyzed: 03/28/17				
Benzene	ND		0.0040	mg/kg wet					
Toluene	ND		0.0100	mg/kg wet					
Ethylbenzene	ND		0.0100	mg/kg wet					
Xylenes (total)	ND		0.0200	mg/kg wet					
Naphthalene	ND		0.0100	mg/kg wet					
Acetone	ND		0.0200	mg/kg wet					
Acrolein	ND		0.100	mg/kg wet					
Acrylonitrile	ND		0.0200	mg/kg wet					
Bromodichloromethane	ND		0.0100	mg/kg wet					
Bromoform	ND		0.0100	mg/kg wet					
Bromomethane	ND		0.0100	mg/kg wet					
2-Butanone	ND		0.0200	mg/kg wet					
Carbon disulfide	ND		0.0100	mg/kg wet					
Carbon tetrachloride	ND		0.0100	mg/kg wet					
Chlorobenzene	ND		0.0100	mg/kg wet					
Chloroethane	ND		0.0100	mg/kg wet					
2-Chloroethylvinyl ether	ND		0.100	mg/kg wet					
Chloroform	ND		0.0100	mg/kg wet					
1,2-Dibromo-3-chloropropane	ND		0.0100	mg/kg wet					
Dibromochloromethane	ND		0.0100	mg/kg wet					
1,2-Dibromoethane (EDB)	ND		0.0040	mg/kg wet					
Dibromomethane	ND		0.0100	mg/kg wet					
1,2-Dichlorobenzene	ND		0.0100	mg/kg wet					
1,4-Dichlorobenzene	ND		0.0100	mg/kg wet					
1,3-Dichlorobenzene	ND		0.0100	mg/kg wet					

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7088031 - Volatiles (Continued)									
Blank (7088031-BLK1)					Prepared: 03/24/17 Analyzed: 03/28/17				
Dichlorodifluoromethane	ND		0.0100	mg/kg wet					
1,2-Dichloroethane	ND		0.0040	mg/kg wet					
1,1-Dichloroethane	ND		0.0100	mg/kg wet					
trans-1,2-Dichloroethene	ND		0.0100	mg/kg wet					
1,1-Dichloroethene	ND		0.0100	mg/kg wet					
1,2-Dichloropropane	ND		0.0100	mg/kg wet					
trans-1,3-Dichloropropene	ND		0.0100	mg/kg wet					
cis-1,3-Dichloropropene	ND		0.0100	mg/kg wet					
Hexachlorobutadiene	ND		0.0100	mg/kg wet					
Iodomethane	ND		0.0100	mg/kg wet					
Methylene chloride	ND		0.0400	mg/kg wet					
4-Methyl-2-pentanone	ND		0.0200	mg/kg wet					
1,1,2,2-Tetrachloroethane	ND		0.0100	mg/kg wet					
1,1,1,2-Tetrachloroethane	ND		0.0100	mg/kg wet					
Tetrachloroethene	ND		0.0100	mg/kg wet					
1,2,4-Trichlorobenzene	ND		0.0100	mg/kg wet					
1,1,1-Trichloroethane	ND		0.0100	mg/kg wet					
1,1,2-Trichloroethane	ND		0.0100	mg/kg wet					
Trichloroethene	ND		0.0100	mg/kg wet					
Trichlorofluoromethane	ND		0.0100	mg/kg wet					
1,2,3-Trichloropropane	ND		0.0100	mg/kg wet					
Vinyl chloride	ND		0.0040	mg/kg wet					
Surrogate: 4-Bromofluorobenzene			97.4	ug/l	100		97	70-130	
Surrogate: 1,2-Dichloroethane-d4			109	ug/l	100		109	70-130	
Surrogate: Fluorobenzene			103	ug/l	100		103	70-130	

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7088031 - Volatiles (Continued)										
LCS (7088031-BS1)										
Prepared: 03/24/17 Analyzed: 03/29/17										
Benzene	0.097		0.0040	mg/kg wet	0.0500		194	70-130		200
Toluene	0.098		0.0100	mg/kg wet	0.0500		195	70-130		200
Ethylbenzene	0.096		0.0100	mg/kg wet	0.0500		192	70-130		200
Xylenes (total)	0.286		0.0200	mg/kg wet	0.150		191	70-130		200
Naphthalene	0.118		0.0100	mg/kg wet	0.0500		236	70-130		200
Acetone	0.109		0.0200	mg/kg wet	0.0500		218	70-130		200
Acrylonitrile	0.102		0.0200	mg/kg wet	0.0500		204	70-130		200
Bromodichloromethane	0.101		0.0100	mg/kg wet	0.0500		203	70-130		200
Bromoform	0.101		0.0100	mg/kg wet	0.0500		201	70-130		200
Bromomethane	ND		0.0100	mg/kg wet	0.0500			70-130		200
2-Butanone	0.095		0.0200	mg/kg wet	0.0500		190	70-130		200
Carbon disulfide	0.089		0.0100	mg/kg wet	0.0500		177	70-130		200
Carbon tetrachloride	0.089		0.0100	mg/kg wet	0.0500		178	70-130		200
Chlorobenzene	0.091		0.0100	mg/kg wet	0.0500		183	70-130		200
Chloroethane	0.086		0.0100	mg/kg wet	0.0500		171	70-130		200
Chloroform	0.085		0.0100	mg/kg wet	0.0500		170	70-130		200
1,2-Dibromo-3-chloropropane	0.111		0.0100	mg/kg wet	0.0500		222	70-130		200
Dibromochloromethane	0.108		0.0100	mg/kg wet	0.0500		217	70-130		200
1,2-Dibromoethane (EDB)	0.114		0.0040	mg/kg wet	0.0500		229	70-130		200
Dibromomethane	0.108		0.0100	mg/kg wet	0.0500		217	70-130		200
1,2-Dichlorobenzene	0.089		0.0100	mg/kg wet	0.0500		177	70-130		200
1,4-Dichlorobenzene	0.088		0.0100	mg/kg wet	0.0500		175	70-130		200
1,3-Dichlorobenzene	0.090		0.0100	mg/kg wet	0.0500		180	70-130		200
Dichlorodifluoromethane	0.082		0.0100	mg/kg wet	0.0500		163	70-130		200

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NELAP: PA 07-062, VA 460212

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 08:56

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7088031 - Volatiles (Continued)									
LCS (7088031-BS1)									
Prepared: 03/24/17 Analyzed: 03/29/17									
1,2-Dichloroethane	0.104		0.0040	mg/kg wet	0.0500		209 70-130		200
1,1-Dichloroethane	0.096		0.0100	mg/kg wet	0.0500		191 70-130		200
trans-1,2-Dichloroethene	0.089		0.0100	mg/kg wet	0.0500		178 70-130		200
1,1-Dichloroethene	0.091		0.0100	mg/kg wet	0.0500		182 70-130		200
1,2-Dichloropropane	0.098		0.0100	mg/kg wet	0.0500		195 70-130		200
trans-1,3-Dichloropropene	0.099		0.0100	mg/kg wet	0.0500		198 70-130		200
cis-1,3-Dichloropropene	0.099		0.0100	mg/kg wet	0.0500		198 70-130		200
Hexachlorobutadiene	0.086		0.0100	mg/kg wet	0.0500		173 70-130		200
Iodomethane	0.094		0.0100	mg/kg wet			70-130		200
Methylene chloride	0.101		0.0400	mg/kg wet	0.0500		201 70-130		200
4-Methyl-2-pentanone	0.116		0.0200	mg/kg wet	0.0500		231 70-130		200
1,1,2,2-Tetrachloroethane	0.094		0.0100	mg/kg wet	0.0500		189 70-130		200
1,1,1,2-Tetrachloroethane	0.095		0.0100	mg/kg wet	0.0500		191 70-130		200
Tetrachloroethene	0.093		0.0100	mg/kg wet	0.0500		185 70-130		200
1,2,4-Trichlorobenzene	0.100		0.0100	mg/kg wet	0.0500		199 70-130		200
1,1,1-Trichloroethane	0.095		0.0100	mg/kg wet	0.0500		189 70-130		200
1,1,2-Trichloroethane	0.102		0.0100	mg/kg wet	0.0500		204 70-130		200
Trichloroethene	0.094		0.0100	mg/kg wet	0.0500		187 70-130		200
Trichlorofluoromethane	0.085		0.0100	mg/kg wet	0.0500		170 70-130		200
1,2,3-Trichloropropane	0.105		0.0100	mg/kg wet	0.0500		210 70-130		200
Vinyl chloride	0.081		0.0040	mg/kg wet	0.0500		162 70-130		200
Surrogate: 4-Bromofluorobenzene			108	ug/l	100		108 70-130		
Surrogate: 1,2-Dichloroethane-d4			107	ug/l	100		107 70-130		
Surrogate: Fluorobenzene			102	ug/l	100		102 70-130		

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Project: YUKON CLARIFIER

Project Number: [none]

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01/09/18 08:56



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Notes

- AA Due to the dilution required by the nature of the sample matrix, the matrix spike is not recoverable for this compound.
- D A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered above the acceptance range for the noted analyte.
- F The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered above the acceptance range for the noted analyte.
- J Detected between the Method Detection Limit (MDL) and the Reporting Limit (RL); therefore, the result is an estimated value.
- K The RPD result exceeded the quality control limits for the duplicate, Laboratory Control Sample Duplicate (LCSD), or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- L The noted analyte was detected in the method blank.
- Q Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.



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01/09/18 08:56

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

* G indicates analysis performed by Fairway Laboratories, Inc. at the Greensburg location PaDEP: 65-00392. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved,

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Environmental Laboratory

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Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # _____ of _____

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Receiver: MA

Page 2 of 2

#2

Client: Max

Lab # 202164

*** (Not applicable for WV compliance) ***

COC/Labels on bottles agree? Y ☐ *

Correct containers for all the analysis requested? Y ☐ * Matrix: Solid

[illegible]

- Ⓐ No Ice ()
- Ⓑ Not at Proper Temperature ()
- Ⓒ Wrong Container ()
- Ⓓ Missing Information: ()

YES ()
By Whom:

Date: _____

Proceed with analysis; qualify data	()
Will Resample	()
Provided Information	()
No Response; Proceed and qualified	()

Client Contact: _____ **Date:** _____

***Comments:**

7C22164#3

§ 268.48 Universal treatment standards.

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in § 268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

Universal Treatment Standards

[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard Concentration ² in mg/l	Nonwastewater standard Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Organic Constituents			
/ Acenaphthylene	208-96-8	0.059	3.4
/ Acenaphthene	83-32-9	0.059	3.4
/ Acetone	67-64-1	0.28	160
/ Acetonitrile	75-05-8	5.6	38
/ Acetophenone	96-86-2	0.010	9.7
~~2-Acetylaminofluorene~~	~~53-96-3~~	~~0.059~~	~~140~~
/ Acrolein	107-02-8	0.29	NA
~~Acrylamide~~	~~79-06-1~~	~~19~~	~~23~~
/ Acrylonitrile	107-13-1	0.24	84
/ Aldrin	309-00-2	0.021	0.066
~~4-Aminobiphenyl~~	~~92-67-1~~	~~0.13~~	~~NA~~
/ Aniline	62-53-3	0.81	14
~~o-Anisidine (2-methoxyaniline)~~	~~90-04-0~~	~~0.010~~	~~0.66~~
/ Anthracene	120-12-7	0.059	3.4
~~Aramid~~	~~140-57-8~~	~~0.36~~	~~NA~~
/ alpha-BHC	319-84-6	0.00014	0.066

7C 22164 #4

✓ beta-BHC	319-85-7	0.00014	0.066
✓ delta-BHC	319-86-8	0.023	0.066
✓ gamma-BHC	58-89-9	0.0017	0.066
✓ Benzene	71-43-2	0.14	10
✓ Benz(a)anthracene	56-55-3	0.059	3.4
✓ Benzal chloride	98-87-3	0.055	6.0
✓ Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
✓ Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
✓ Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
✓ Benzo(a)pyrene	50-32-8	0.061	3.4
✓ Bromodichloromethane	75-27-4	0.35	15
✓ Bromomethane/Methyl bromide	74-83-9	0.11	15
✓ 4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
✓ Butyl benzyl phthalate	85-68-7	0.017	28
~~• 2-sec-Butyl-4,6-dinitrophenol/Dinosol~~	~~88-85-7~~	~~0.066~~	~~2.5~~
✓ Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
✓ Carbon tetrachloride	56-23-5	0.057	6.0
✓ Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
✓ p-Chloroaniline	106-47-8	0.46	16
✓ Chlorobenzene	108-90-7	0.057	6.0
~~Chlorobenzilate~~	~~510-15-6~~	~~0.10~~	~~NA~~
~~• 2-Chloro-1,3-butadiene~~	~~126-99-8~~	~~0.057~~	~~0.28~~
✓ Chlorodibromomethane	124-48-1	0.057	15
✓ Chloroethane	75-00-3	0.27	6.0
✓ bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2

7C 22164 #5

/bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
-Chloroform	67-66-3	0.046	6.0
/bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
/p-Chloro-m-cresol	59-50-7	0.018	14
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
-Chloromethane/Methyl chloride	74-87-3	0.19	30
/2-Chloronaphthalene	91-58-7	0.055	5.6
/2-Chlorophenol	95-57-8	0.044	5.7
~~/3-Chloropropylene~~	~~107-05-1~~	~~0.036~~	~~30~~
/Chrysene	218-01-9	0.059	3.4
~~p-Cresidine~~	~~120-71-8~~	~~0.010~~	~~6.66~~
/o-Cresol	95-48-7	0.11	5.6
/m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
/p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
-Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
~~o,p'-DDD~~	~~53-19-8~~	~~0.023~~	~~0.087~~
/p,p'-DDD	72-54-8	0.023	0.087
~~o,p'-DDE~~	~~3424-82-0~~	~~0.031~~	~~0.087~~
/p,p'-DDE	72-55-9	0.031	0.087
~~o,p'-DDT~~	~~789-02-6~~	~~0.0039~~	~~0.087~~
/p,p'-DDT	50-29-3	0.0039	0.087
/Dibenz(a,h)anthracene	53-70-3	0.055	8.2
~~Dibenz(a,c)pyrene~~	~~192-65-4~~	~~0.001~~	~~NA~~
/1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
/1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
-Dibromomethane	74-95-3	0.11	15
/m-Dichlorobenzene	541-73-1	0.036	6.0

7C22164 #6

✓ o-Dichlorobenzene	95-50-1	0.088	6.0
✓ p-Dichlorobenzene	106-46-7	0.090	6.0
✓ Dichlorodifluoromethane	75-71-8	0.23	7.2
- 1,1-Dichloroethane	75-34-3	0.059	6.0
- 1,2-Dichloroethane	107-06-2	0.21	6.0
- 1,1-Dichloroethylene	75-35-4	0.025	6.0
- trans-1,2-Dichloroethylene	156-60-5	0.054	30
✓ 2,4-Dichlorophenol	120-83-2	0.044	14
~~2,6-Dichlorophenol~~	~~87-65-0~~	~~0.044~~	~~14~~
2,4-Dichlorophenoxyacetic acid/2,4 D	94-75-7	0.72	10
- 1,2-Dichloropropane	78-87-5	0.85	18
- cis-1,3-Dichloropropylene	10061-01-5	0.036	18
- trans-1,3-Dichloropropylene	10061-02-6	0.036	18
✓ Dieldrin	60-57-1	0.017	0.13
✓ Diethyl phthalate	84-66-2	0.20	28
~~p-Dimethylamineazobenzene~~	~~60-11-7~~	~~0.13~~	~~NA~~
~~2,4-Dimethylaniline (2,4-Xyldine)~~	~~95-68-1~~	~~0.010~~	~~0.06~~
- 2,4-Dimethyl phenol	105-67-9	0.036	14
✓ Dimethyl phthalate	131-11-3	0.047	28
✓ Di-n-butyl phthalate	84-74-2	0.057	28
~~1,4-Dinitrobenzene~~	~~100-25-4~~	~~0.32~~	~~2.3~~
✓ 4,6-Dinitro-o-cresol	534-52-1	0.28	160
✓ 2,4-Dinitrophenol	51-28-5	0.12	160
✓ 2,4-Dinitrotoluene	121-14-2	0.32	140
✓ 2,6-Dinitrotoluene	606-20-2	0.55	28
✓ Di-n-octyl phthalate	117-84-0	0.017	28
~~Di-n-propylamrosamine~~	~~621-64-7~~	~~0.40~~	~~14~~

7C22764 #7

- 1,4-Dioxane	123-91-1	12.0	170
~~Diphenylamine (difficult to distinguish from diphenylnitrosamine)~~	~~122-99-4~~	~~0.92~~	~~13~~
~~Diphenylnitrosamine (difficult to distinguish from diphenylamine)~~	~~86-20-6~~	~~0.02~~	~~12~~
1,2-Diphenylhydrazine	122-66-7	0.087	NA
~~Disulfoton~~	~~298-04-4~~	~~0.017~~	~~6.2~~
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
~~Ethyl cyanide/Propanenitrile~~	~~107-12-0~~	~~0.24~~	~~360~~
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
~~Ethylene oxide~~	~~75-21-8~~	~~0.12~~	~~NA~~
~~Famphar~~	~~52-83-7~~	~~0.017~~	~~15~~
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000033	.0023
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000033	.0023

7C22164 #8

1,2,3,4,7,8,9- Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673- 89-7	0.000035	0.0025
✓ Heptachlor epoxide	1024- 57-3	0.016	0.066
✓ Hexachlorobenzene	118-74- 1	0.055	10
- Hexachlorobutadiene	87-68-3	0.055	5.6
✓ Hexachlorocyclopentadiene	77-47-4	0.057	2.4
~~HxCDDs (All Hexachlorodibenzo-p- dioxins)~~	~~NA~~	~~0.000063~~	~~0.001~~
~~HxCDFs (All Hexachlorodibenzofurans)~~	~~NA~~	~~0.000063~~	~~0.001~~
✓ Hexachloroethane	67-72-1	0.055	30
~~Hexachloropropylene~~	~~1888- 71-7~~	~~0.033~~	~~30~~
✓ Indeno(1,2,3-c,d) pyrene	193-39- 5	0.0055	3.4
- Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73- 6	0.021	0.066
Isosafrole	120-58- 1	0.081	2.6
Kepone	143-50- 0	0.0011	0.13
Methacrylonitrile	126-98- 7	0.24	84
Methanol	67-56-1	5.6	0.75 mg/l TCLP
Methacrylonitrile	91-08-5	0.081	1.6
✓ Methoxychlor	72-43-5	0.25	0.18
3-Methylnoranthracene	56-49-5	0.0035	15
4,4'-Methylene bis(2-chloroaniline)	101-14- 4	0.50	30
- Methylene chloride	75-09-2	0.089	30
- Methyl ethyl ketone	78-93-3	0.28	36
- Methyl isobutyl ketone	108-10- 1	0.14	33
- Methyl methacrylate	80-62-6	0.14	160
Methyl methanesulfonate	66-27-3	0.012	NA

7C22164 #9

Methyl parathion	298-00-0	0.014	4.6
✓ Naphthalene	91-20-3	0.059	5.6
~~2-Naphthylamine~~	~~91-59-8~~	~~0.52~~	~~214~~
✓ o-Nitroaniline	88-74-4	0.27	14
✓ p-Nitroaniline	100-01-6	0.028	28
✓ Nitrobenzene	98-95-3	0.068	14
~~5-Nitro-<i>o</i>-tolidine~~	~~99-53-8~~	~~0.32~~	~~28~~
✓ o-Nitrophenol	88-75-5	0.028	13
✓ p-Nitrophenol	100-02-7	0.12	29
~~N-Nitrosodicythylamine~~	~~55-18-5~~	~~0.40~~	~~20~~
✓ N-Nitrosodimethylamine	62-75-9	0.40	2.3
~~N-Nitroso-di-n-butylamine~~	~~924-16-3~~	~~0.40~~	~~17~~
~~N-Nitrosomethylethylamine~~	~~10595-95-6~~	~~0.40~~	~~2.3~~
~~N-Nitrosomorpholine~~	~~59-89-2~~	~~0.40~~	~~2.3~~
~~N-Nitrosopiperidine~~	~~100-75-4~~	~~0.013~~	~~35~~
~~N-Nitrosopyrrolidine~~	~~920-55-2~~	~~0.013~~	~~35~~
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063	0.005
~~Parathion~~	~~56-38-2~~	~~0.014~~	~~4.6~~
✓ Total PCBs (sum of all PCB isomers, or all Aroclors) ⁸	1336-36-3	0.10	10
~~Pentachlorobenzene~~	~~608-93-5~~	~~0.055~~	~~10~~
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
~~Pentachloroethane~~	~~76-01-7~~	~~0.055~~	~~6.0~~
~~Pentachloronitrobenzene~~	~~82-68-8~~	~~0.055~~	~~4.8~~
✓ Pentachlorophenol	87-86-5	0.089	7.4
~~Phenacetin~~	~~62-44-2~~	~~0.081~~	~~16~~

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/ Phenanthrene	85-01-8	0.059	5.6
/ Phenol	108-95-2	0.039	6.2
~~1,3-Phenylenediamine~~	~~108-45-2~~	~~0.010~~	~~0.66~~
~~Phorate~~	~~298-02-2~~	~~0.021~~	~~4.6~~
~~Phthalic acid~~	~~100-21-0~~	~~0.055~~	~~28~~
~~Phthalic anhydride~~	~~85-44-9~~	~~0.055~~	~~28~~
~~Propanil~~	~~25950-58-5~~	~~0.093~~	~~1.3~~
/ Pyrene	129-00-0	0.067	8.2
/ Pyridine	110-86-1	0.014	16
~~Safrole~~	~~94-59-7~~	~~0.001~~	~~22~~
~~Silver 2,4,5-TP~~	~~93-72-1~~	~~0.72~~	~~7.9~~
/ 1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
~~TCDDs (All Tetrachlorodibenzo-p-dioxins)~~	~~NA~~	~~0.000063~~	~~0.001~~
~~TCDFs (All Tetrachlorodibenzofurans)~~	~~NA~~	~~0.000063~~	~~0.001~~
- 1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
- 1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
- Tetrachloroethylene	127-18-4	0.056	6.0
/ 2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
- Toluene	108-88-3	0.080	10
/ Toxaphene	8001-35-2	0.0095	2.6
- Tribromomethane/Bromoform	75-25-2	0.63	15
- 1,2,4-Trichlorobenzene	120-82-1	0.055	19
- 1,1,1-Trichloroethane	71-55-6	0.054	6.0
- 1,1,2-Trichloroethane	79-00-5	0.054	6.0
- Trichloroethylene	79-01-6	0.054	6.0
- Trichlorofluoromethane	75-69-4	0.020	30
- 2,4,5-Trichlorophenol	95-95-4	0.18	7.4

7C22/64#11

✓ 2,4,6-Trichlorophenol	88-06-2	0.035	7.4
~~2,4,5-Trichlorophenoxyacetic acid/2,4,5-T~~	~~93-76-5~~	~~0.72~~	~~7.0~~
- 1,2,3-Trichloropropane	96-18-4	0.85	30
- 1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
~~tris (2,3-Dibromopropyl) phosphate~~	~~126-72-1~~	~~0.11~~	~~0.10~~
- Vinyl chloride	75-01-4	0.27	6.0
- Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Inorganic Constituents			
Antimony	7440-36-0	1.9	1.15 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	21 mg/l TCLP
Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) ⁴	57-12-5	1.2	590
Cyanides (Amenable) ⁴	57-12-5	0.86	30
Fluoride ⁵	16984-48-8	35	NA
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury - Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury - All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium ⁷	7782-49-2	0.82	5.7 mg/l TCLP
Silver	7440-22-4	0.43	0.14 mg/l TCLP
Sulfide ⁵	18496-25-8	14	NA

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Thallium	7440-28-0	1.4	0.20 mg/l TCLP
Vanadium ⁵	7440-62-2	4.3	1.6 mg/l TCLP
Zinc ⁵	7440-66-6	2.61	4.3 mg/l TCLP

Footnotes to Table UTS

CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at § 268.2(i).

[Reserved]

This constituent is not an underlying hazardous constituent as defined at § 268.2(i) of this Part because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.

This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004-D011 only.

[59 FR 48103, Sept. 19, 1994, as amended at 60 FR 302, Jan. 3, 1995; 61 FR 15654, Apr. 8, 1996; 61 FR 33690, June 28, 1996; 62 FR 7596, Feb. 19, 1997; 63 FR 24626, May 4, 1998; 63 FR 28739, May 26, 1998; 63 FR 47417, Sept. 4, 1998; 64 FR 25417, May 11, 1999; 65 FR 14475, Mar. 17, 2000; 70 FR 34590, June 14, 2005; 70 FR 9178, Feb. 24, 2005; 71 FR 40279, July 14, 2006; 75 FR 13008, Mar. 18, 2010; 76 FR 34156, June 13, 2011]



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State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
CLARIFIER	7E05016-01	Solid	Grab	05/03/17 21:00	05/04/17 17:30

7E05016 Report revised. This report replaces the report issued on 12/20/17 8:56. 1/9/18smc/mlf

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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01/09/18 10:10

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Calculated Analytes

Amenable Cyanide	23.5	0.353	2.35	mg/kg dry	05/09/17 14:24	SM20-4500 CN-C+E+G	caa	A7

Chlorinated Herbicides by EPA Method 8151A

2,4-D	<6.30	6.30	31.5	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	
Acifluorfen	<3.15	3.15	31.5	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	
2,4-DB	<6.30	6.30	31.5	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	F, H
2,4,5-T	<3.15	3.15	31.5	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	
2,4,5-TP (Silvex)	<3.15	3.15	31.5	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	
Dalapon	<78.8	78.8	315	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	
Dicamba	<3.15	3.15	31.5	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	
Dichloroprop	<3.15	3.15	31.5	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	
Dinoseb	<3.15	3.15	31.5	ug/kg dry	05/12/17 14:37	EPA 8151A	rsr	F
Surrogate: 2,4-DCAA	66 %		40.6-150		05/12/17 14:37	EPA 8151A	rsr	

Conventional Chemistry Parameters by SM/EPA Methods

Fluoride	78.1 J	9.69	216	mg/kg dry	05/11/17 06:10	EPA 9056A	bdw	
% Solids	20.7		0.100	%	05/09/17 20:00	SM 2540 G-97	pra	
Sulfide	<93.9		93.9	mg/kg dry	05/06/17 10:45	EPA SW846 9030/9034	pra	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Cyanide by Preparation Method EPA 9010

Cyanide (total)	23.5	0.353	2.35	mg/kg dry	05/09/17 14:24	EPA 9014	caa

Metals by EPA 6000/7000 Series Methods

Silver	31.0	1.10	8.12	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	
Arsenic	111	5.48	16.2	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	
Barium	6430	251	406	mg/kg dry	05/09/17 16:33	EPA 6010B/2.0	sr	L
Beryllium	0.944 J	0.832	4.06	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	
Cadmium	20.0	2.89	8.12	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	
Chromium	471	29.6	203	mg/kg dry	05/09/17 16:35	EPA 6010B/2.0	sr	
Mercury	1.06	0.0129	0.129	mg/kg dry	05/08/17 16:31	EPA 7471B	jks	
Nickel	412	14.8	101	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	
Lead	2360	52.9	325	mg/kg dry	05/09/17 16:35	EPA 6010B/2.0	sr	
Antimony	36.4	16.6	20.3	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by EPA 6000/7000 Series Methods

Selenium	<19.9	19.9	40.6	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	
Thallium	<5.88	5.88	40.6	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	
Vanadium	53.0	1.30	40.6	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	
Zinc	3020	8.93	40.6	mg/kg dry	05/09/17 16:28	EPA 6010B/2.0	sr	

Organochlorine Pesticides by EPA Extraction Method 3541

Aldrin	<119	119	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
alpha-BHC	<104	104	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	H
beta-BHC	<148	148	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
delta-BHC	<93.7	93.7	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	K
gamma-BHC (Lindane)	<98.2	98.2	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	H
Chlordane (tech)	<3780	3780	15100	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
4,4'-DDD	<113	113	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
4,4'-DDE	<103	103	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
4,4'-DDT	<95.2	95.2	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Dieldrin	<103	103	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Endosulfan I	<110	110	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	H

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Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Organochlorine Pesticides by EPA Extraction Method 3541

Endosulfan II	<121	121	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Endosulfan sulfate	<92.2	92.2	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Endrin	<121	121	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Endrin aldehyde	<119	119	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Heptachlor	<101	101	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Heptachlor epoxide	<165	165	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Methoxychlor	<184	184	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	K
Toxaphene	<6300	6300	15100	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
alpha-Chlordane	<110	110	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
gamma-Chlordane	<104	104	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Endrin ketone	<192	192	302	ug/kg dry	05/08/17 21:28	EPA 8081B	RSR	
Surrogate: Tetrachloro-meta-xylene	107 %		40-157		05/08/17 21:28	EPA 8081B	RSR	
Surrogate: Decachlorobiphenyl	78.3 %		57.1-153		05/08/17 21:28	EPA 8081B	RSR	

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.027	0.027	0.048	mg/kg dry	05/09/17 11:52	EPA 8082	rsr	
PCB-1221	<0.039	0.039	0.048	mg/kg dry	05/09/17 11:52	EPA 8082	rsr	
PCB-1232	<0.039	0.039	0.048	mg/kg dry	05/09/17 11:52	EPA 8082	rsr	
PCB-1242	<0.013	0.013	0.048	mg/kg dry	05/09/17 11:52	EPA 8082	rsr	

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Project Number: [none]

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Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1248	<0.008	0.008	0.048	mg/kg dry	05/09/17 11:52	EPA 8082	rsr	
PCB-1254	<0.030	0.030	0.048	mg/kg dry	05/09/17 11:52	EPA 8082	rsr	
PCB-1260	<0.028	0.028	0.048	mg/kg dry	05/09/17 11:52	EPA 8082	rsr	
Surrogate: Tetrachloro-meta-xylene	90.4 %		11-140		05/09/17 11:52	EPA 8082	rsr	
Surrogate: Decachlorobiphenyl	96.8 %		24.4-140		05/09/17 11:52	EPA 8082	rsr	

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

Pyridine	<3.49	3.49	13.4	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Diphenylamine	<0.805	0.805	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Benzidine	<2.35	2.35	33.5	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	F
Acenaphthene	<0.469	0.469	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Acenaphthylene	<0.536	0.536	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Anthracene	<0.335	0.335	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Benzoic acid	<2.88	2.88	67.1	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Benzo (a) anthracene	<0.335	0.335	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Benzo (b) fluoranthene	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Benzo (k) fluoranthene	<0.469	0.469	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Benzo (g,h,i) perylene	<0.536	0.536	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Benzo (a) pyrene	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	

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NELAP: PA 07-062, VA 460212

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Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

Benzyl alcohol	3.62 J	0.939	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Bis(2-chloroethoxy)methane	<0.939	0.939	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Bis(2-chloroethyl)ether	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Bis(2-chloroisopropyl)ether	<0.402	0.402	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Bis(2-ethylhexyl)phthalate	<2.01	2.01	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
4-Bromophenyl phenyl ether	<0.469	0.469	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Butyl benzyl phthalate	<0.805	0.805	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	F
4-Chloroaniline	<0.872	0.872	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
4-Chloro-3-methylphenol	<0.603	0.603	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2-Chloronaphthalene	<0.402	0.402	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2-Chlorophenol	<0.335	0.335	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
4-Chlorophenyl phenyl ether	<0.872	0.872	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Chrysene	<0.335	0.335	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Dibenz (a,h) anthracene	<0.469	0.469	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Dibenzofuran	<0.201	0.201	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Di-n-butyl phthalate	<1.41	1.41	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
1,2-Dichlorobenzene	<0.603	0.603	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
1,3-Dichlorobenzene	<0.335	0.335	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

1,4-Dichlorobenzene	<0.335	0.335	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
3,3'-Dichlorobenzidine	<0.603	0.603	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2,4-Dichlorophenol	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Diethyl phthalate	<0.671	0.671	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2,4-Dimethylphenol	<0.536	0.536	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Dimethyl phthalate	<0.402	0.402	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
4,6-Dinitro-2-methylphenol	<2.15	2.15	33.5	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2,4-Dinitrophenol	<1.74	1.74	33.5	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2,4-Dinitrotoluene	<1.41	1.41	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2,6-Dinitrotoluene	<1.27	1.27	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Di-n-octyl phthalate	<0.469	0.469	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	F
Aniline	<0.469	0.469	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Naphthalene	<0.402	0.402	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
N-Nitrosodimethylamine	<0.872	0.872	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
3 & 4-Methylphenol	<0.603	0.603	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Acetophenone	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
1,2-Diphenylhydrazine	<0.268	0.268	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Fluoranthene	<0.335	0.335	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

Fluorene	<0.268	0.268	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Hexachlorobenzene	<0.805	0.805	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Hexachlorobutadiene	<0.872	0.872	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Hexachlorocyclopentadiene	<1.68	1.68	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Hexachloroethane	<0.805	0.805	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Indeno (1,2,3-cd) pyrene	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Isophorone	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2-Methylnaphthalene	<0.536	0.536	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2-Methylphenol	<1.07	1.07	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2-Nitroaniline	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
3-Nitroaniline	<1.88	1.88	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
4-Nitroaniline	<1.54	1.54	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Nitrobenzene	<0.872	0.872	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2-Nitrophenol	<1.01	1.01	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
4-Nitrophenol	<1.68	1.68	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
N-Nitrosodi-n-propylamine	<0.671	0.671	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Pentachlorophenol	<1.68	1.68	33.5	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Phenanthrene	<0.335	0.335	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

Phenol	<0.872	0.872	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Pyrene	<0.469	0.469	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
1,2,4-Trichlorobenzene	<0.738	0.738	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2,4,5-Trichlorophenol	<1.14	1.14	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
2,4,6-Trichlorophenol	<1.07	1.07	6.71	mg/kg dry	05/09/17 16:34	EPA 8270D	rsr	
Surrogate: 2-Fluorophenol		96 %	10-169		05/09/17 16:34	EPA 8270D	rsr	
Surrogate: Phenol-d6		94 %	10-166		05/09/17 16:34	EPA 8270D	rsr	
Surrogate: Nitrobenzene-d5		111 %	18.8-170		05/09/17 16:34	EPA 8270D	rsr	
Surrogate: 2-Fluorobiphenyl		100 %	35.1-154		05/09/17 16:34	EPA 8270D	rsr	
Surrogate: 2,4,6-Tribromophenol		95 %	20-158		05/09/17 16:34	EPA 8270D	rsr	
Surrogate: Terphenyl-d14		100 %	52.1-160		05/09/17 16:34	EPA 8270D	rsr	

TCLP Extraction by EPA 1311

# pH @ 22.6°C	8.41			pH Units	05/09/17 08:49	EPA 1311	spp	

TCLP Metals extracted by EPA 1311

Silver	<0.00802	0.00802	0.0200	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Arsenic	<0.0250	0.0250	0.0400	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Barium	0.584	0.0310	0.0500	mg/l	05/11/17 12:23	EPA 6010B/2.0	rab	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
TCLP Metals extracted by EPA 1311								
Beryllium	<0.000730	0.000730	0.0100	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Cadmium	<0.00520	0.00520	0.0200	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Chromium	<0.00522	0.00522	0.0250	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Mercury	<0.000410	0.000410	0.00200	mg/l	05/09/17 13:40	EPA 7471B	jks	Q
Nickel	<0.0382	0.0382	0.250	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Lead	<0.0169	0.0169	0.0400	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Antimony	0.0400 J	0.0289	0.0500	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Selenium	<0.0224	0.0224	0.100	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Thallium	<0.0361	0.0361	0.100	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Vanadium	<0.00374	0.00374	0.100	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	
Zinc	<0.0136	0.0136	0.100	mg/l	05/11/17 12:25	EPA 6010B/2.0	rab	

Volatile Organic Compounds by EPA Method 8260B

14

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

14

Acrolein	<1.91	1.91	25.4	mg/kg dry	05/10/17 18:17	EPA 8260B	mtc
2-Chloroethylvinyl ether	<2.16	2.16	25.4	mg/kg dry	05/10/17 18:17	EPA 8260B	mtc
Benzene	<0.0009	0.0009	0.0112	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Toluene	0.0197 J	0.0008	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Ethylbenzene	0.0272 J	0.0002	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Xylenes (total)	0.0645	0.0028	0.0560	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Naphthalene	<0.0019	0.0019	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Acrylonitrile	<0.0025	0.0025	0.0560	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Bromodichloromethane	<0.0008	0.0008	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Bromoform	<0.0010	0.0010	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Bromomethane	<0.0028	0.0028	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
2-Butanone	0.123	0.0084	0.0560	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Carbon disulfide	0.138	0.0017	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Carbon tetrachloride	<0.0016	0.0016	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Chlorobenzene	<0.0028	0.0028	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Chloroethane	<0.0017	0.0017	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Chloroform	0.0064 J	0.0011	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,2-Dibromo-3-chloropropane	<0.0016	0.0016	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

14

Dibromochloromethane	<0.0014	0.0014	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,2-Dibromoethane (EDB)	<0.0011	0.0011	0.0112	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Dibromomethane	<0.0008	0.0008	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,2-Dichlorobenzene	<0.0014	0.0014	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,4-Dichlorobenzene	<0.0015	0.0015	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,3-Dichlorobenzene	<0.0016	0.0016	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Dichlorodifluoromethane	<0.0020	0.0020	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,2-Dichloroethane	<0.0012	0.0012	0.0112	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,1-Dichloroethane	<0.0007	0.0007	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
trans-1,2-Dichloroethene	<0.0016	0.0016	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,1-Dichloroethene	<0.0014	0.0014	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,2-Dichloropropane	<0.0007	0.0007	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
trans-1,3-Dichloropropene	<0.0007	0.0007	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
cis-1,3-Dichloropropene	<0.0007	0.0007	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Hexachlorobutadiene	<0.0027	0.0027	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Iodomethane	<0.0012	0.0012	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
Methylene chloride	0.0206 J	0.0126	0.112	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc
1,1,2,2-Tetrachloroethane	<0.0013	0.0013	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/03/17 21:00

Laboratory Sample ID: 7E05016-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

14

1,1,1,2-Tetrachloroethane	<0.0008	0.0008	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
Tetrachloroethene	<0.0019	0.0019	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
1,2,4-Trichlorobenzene	<0.0018	0.0018	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
1,1,1-Trichloroethane	<0.0015	0.0015	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
1,1,2-Trichloroethane	<0.0012	0.0012	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
Trichloroethene	<0.0015	0.0015	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
Trichlorofluoromethane	<0.0064	0.0064	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
1,2,3-Trichloropropane	<0.0018	0.0018	0.0280	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
Vinyl chloride	<0.0050	0.0050	0.0112	mg/kg dry	05/09/17 17:33	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	94 %		70-130		05/09/17 17:33	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	101 %		70-130		05/09/17 17:33	EPA 8260B	mtc	
Surrogate: Fluorobenzene	99 %		70-130		05/09/17 17:33	EPA 8260B	mtc	

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control

Chlorinated Herbicides by EPA Method 8151A

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7130064 - EPA 8151A										
Blank (7130064-BLK1)					Prepared: 05/10/17 Analyzed: 05/12/17					
2,4-D	ND		3.33	ug/kg wet						
Acifluorfen	ND		3.33	ug/kg wet						
2,4-DB	ND		3.33	ug/kg wet						
2,4,5-T	ND		3.33	ug/kg wet						
2,4,5-TP (Silvex)	ND		3.33	ug/kg wet						
Dalapon	ND		33.3	ug/kg wet						
Dicamba	ND		3.33	ug/kg wet						
Dichloroprop	ND		3.33	ug/kg wet						
Dinoseb	ND		3.33	ug/kg wet						
Surrogate: 2,4-DCAA			19800	ug/kg wet	33300		59	40.6-150		
LCS (7130064-BS1)					Prepared: 05/10/17 Analyzed: 05/12/17					
2,4-D	17.2		3.33	ug/kg wet	26.7		64	42.5-122		200
Acifluorfen	16.9		3.33	ug/kg wet	26.7		63	16.8-144		200
2,4-DB	55.0		3.33	ug/kg wet	26.7		206	17.6-149		200
2,4,5-T	16.8		3.33	ug/kg wet	26.7		63	25.9-138		200
2,4,5-TP (Silvex)	16.9		3.33	ug/kg wet	26.7		63	23.5-121		200
Dalapon	331		33.3	ug/kg wet	267		124	10-173		200
Dicamba	15.3		3.33	ug/kg wet	26.7		57	12.6-122		200
Dichloroprop	18.7		3.33	ug/kg wet	26.7		70	10-151		200
Dinoseb	32.3		3.33	ug/kg wet	26.7		121	10-86.5		200
Surrogate: 2,4-DCAA			26500	ug/kg wet	33300		79	40.6-150		
Matrix Spike (7130064-MS1)			Source: 7E05016-01		Prepared: 05/10/17 Analyzed: 05/12/17					

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7130064 - EPA 8151A (Continued)									
Matrix Spike (7130064-MS1)		Source: 7E05016-01		Prepared: 05/10/17 Analyzed: 05/12/17					
2,4-D	213		31.5	ug/kg dry	252	ND	84 17.1-157		47.4
Acifluorfen	118		31.5	ug/kg dry	252	ND	47 10-193		72.9
2,4-DB	539		31.5	ug/kg dry	252	ND	214 15.3-156		42.3
2,4,5-T	136		31.5	ug/kg dry	252	ND	54 10-156		58.3
2,4,5-TP (Silvex)	133		31.5	ug/kg dry	252	ND	53 10-138		46.5
Dalapon	2640		315	ug/kg dry	2520	ND	105 10-156		38
Dicamba	138		31.5	ug/kg dry	252	ND	55 10-130		46
Dichloroprop	231		31.5	ug/kg dry	252	ND	92 14.1-137		60
Dinoseb	372		31.5	ug/kg dry	252	ND	148 10-165		39.1
<i>Surrogate: 2,4-DCAA</i>			208000	ug/kg dry	315000		66 40.6-150		
Matrix Spike Dup (7130064-MSD1)		Source: 7E05016-01		Prepared: 05/10/17 Analyzed: 05/12/17					
2,4-D	244		31.5	ug/kg dry	252	ND	97 17.1-157	14	47.4
Acifluorfen	139		31.5	ug/kg dry	252	ND	55 10-193	17	72.9
2,4-DB	445		31.5	ug/kg dry	252	ND	177 15.3-156	19	42.3
2,4,5-T	125		31.5	ug/kg dry	252	ND	49 10-156	8	58.3
2,4,5-TP (Silvex)	146		31.5	ug/kg dry	252	ND	58 10-138	9	46.5
Dalapon	2490		315	ug/kg dry	2520	ND	99 10-156	6	38
Dicamba	156		31.5	ug/kg dry	252	ND	62 10-130	12	46
Dichloroprop	237		31.5	ug/kg dry	252	ND	94 14.1-137	2	60
Dinoseb	287		31.5	ug/kg dry	252	ND	114 10-165	26	39.1
<i>Surrogate: 2,4-DCAA</i>			234000	ug/kg dry	315000		74 40.6-150		

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Quality Control
(Continued)

Conventional Chemistry Parameters by SM/EPA Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7126018 - General Preparation									
Blank (7126018-BLK1)	Prepared: 05/05/17 Analyzed: 05/06/17								
Sulfide	ND		20.0	mg/kg wet					
LCS (7126018-BS1)	Prepared: 05/05/17 Analyzed: 05/06/17								
Sulfide	48.0		16.0	mg/kg wet	45.2		106 90-110		200
Matrix Spike (7126018-MS1)	Prepared: 05/05/17 Analyzed: 05/06/17								
Sulfide	1110		368	mg/kg dry	1040	ND	106 90-110		200
Batch: 7129073 - General Preparation									
Blank (7129073-BLK1)	Prepared & Analyzed: 05/09/17								
% Solids	ND		0.100	%					
Blank (7129073-BLK2)	Prepared & Analyzed: 05/09/17								
% Solids	ND		0.100	%					
Duplicate (7129073-DUP1)	Prepared & Analyzed: 05/09/17								
% Solids	79.0		0.100	%		79.2		0.247	5
Duplicate (7129073-DUP2)	Prepared & Analyzed: 05/09/17								
% Solids	87.7		0.100	%		88.2		0.580	5

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Quality Control
(Continued)

Cyanide by Preparation Method EPA 9010

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7129057 - General Prep									
Blank (7129057-BLK1)									
Cyanide (total)	ND		0.493	mg/kg wet					
Prepared & Analyzed: 05/09/17									
LCS (7129057-BS1)									
Cyanide (total)	8.43		0.460	mg/kg wet	9.21		91.6 85-115		200
Prepared & Analyzed: 05/09/17									
Duplicate (7129057-DUP1)									
Cyanide (total)	ND		0.509	mg/kg dry		0.196		200	10
Source: 7E05001-01									



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Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Quality Control (Continued)

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7125072 - EPA 7471A									
Blank (7125072-BLK1)									
Mercury	ND		0.0309	mg/kg wet					
Prepared: 05/05/17 Analyzed: 05/08/17									
LCS (7125072-BS1)									
Mercury	0.3318		0.0301	mg/kg wet	0.304		109 85-115		200
Prepared: 05/05/17 Analyzed: 05/08/17									
Matrix Spike (7125072-MS1)									
Mercury	1.607		0.129	mg/kg dry	0.651	1.057	84.5 70-130		20
Prepared: 05/05/17 Analyzed: 05/08/17									
Matrix Spike Dup (7125072-MSD1)									
Mercury	1.635		0.127	mg/kg dry	0.644	1.057	89.9 70-130	1.73	20
Prepared: 05/05/17 Analyzed: 05/08/17									
Reference (7125072-SRM1)									
Mercury	0.3550		0.0330	mg/kg wet	0.333		106 90-110		
Prepared: 05/05/17 Analyzed: 05/08/17									
Batch: 7125073 - EPA 3050B									
Blank (7125073-BLK1)									
Antimony	ND		0.933	mg/kg wet					
Arsenic	ND		0.746	mg/kg wet					
Barium	1.07		0.933	mg/kg wet					
Beryllium	ND		0.187	mg/kg wet					
Cadmium	ND		0.373	mg/kg wet					
Chromium	0.114	J	0.466	mg/kg wet					
Lead	ND		0.746	mg/kg wet					
Nickel	ND		4.66	mg/kg wet					
Selenium	ND		1.87	mg/kg wet					
Prepared: 05/05/17 Analyzed: 05/09/17									

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7125073 - EPA 3050B (Continued)									
Blank (7125073-BLK1)									
					Prepared: 05/05/17 Analyzed: 05/09/17				
Silver	ND		0.373	mg/kg wet					
Thallium	ND		1.87	mg/kg wet					
Zinc	0.525	J	1.87	mg/kg wet					
Vanadium	ND		1.87	mg/kg wet					
LCS (7125073-BS1)									
					Prepared: 05/05/17 Analyzed: 05/09/17				
Antimony	37.0		0.944	mg/kg wet	37.8		98 80-120		200
Arsenic	13.6		0.755	mg/kg wet	15.1		90 80-120		200
Barium	37.8		0.944	mg/kg wet	37.8		100 80-120		200
Beryllium	3.57		0.189	mg/kg wet	3.78		94 80-120		200
Cadmium	6.90		0.378	mg/kg wet	7.55		91 80-120		200
Chromium	3.75		0.472	mg/kg wet	3.78		99 80-120		200
Lead	14.5		0.755	mg/kg wet	15.1		96 80-120		200
Nickel	37.6		4.72	mg/kg wet	37.8		100 80-120		200
Selenium	32.8		1.89	mg/kg wet	37.8		87 80-120		200
Silver	8.06		0.378	mg/kg wet	7.55		107 80-120		200
Thallium	14.3		1.89	mg/kg wet	15.1		95 80-120		200
Zinc	36.8		1.89	mg/kg wet	37.8		98 80-120		200
Vanadium	35.5		1.89	mg/kg wet	37.8		94 80-120		200
Duplicate (7125073-DUP1)									
			Source: 7E05033-01		Prepared: 05/05/17 Analyzed: 05/09/17				
Antimony	ND		11.8	mg/kg dry		ND			20
Arsenic	ND		9.42	mg/kg dry		ND			20
Barium	197		11.8	mg/kg dry		291		39	20
Beryllium	ND		2.36	mg/kg dry		ND			20
Cadmium	ND		4.71	mg/kg dry		ND			20

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7125073 - EPA 3050B (Continued)									
Duplicate (7125073-DUP1)			Source: 7E05033-01		Prepared: 05/05/17 Analyzed: 05/09/17				
Chromium	12.4		5.89	mg/kg dry		16.8		30	20
Lead	9.83		9.42	mg/kg dry		15.9		47	20
Nickel	ND		58.9	mg/kg dry		9.60		200	20
Selenium	ND		23.6	mg/kg dry		ND			20
Silver	ND		4.71	mg/kg dry		ND			20
Thallium	ND		23.6	mg/kg dry		ND			20
Zinc	96.0		23.6	mg/kg dry		143		40	20
Vanadium	3.83	J	23.6	mg/kg dry		3.62		6	20
Matrix Spike (7125073-MS1)			Source: 7E05033-01		Prepared: 05/05/17 Analyzed: 05/09/17				
Antimony	76.8		11.7	mg/kg dry	93.2	ND	82	75-125	200
Arsenic	22.5		9.32	mg/kg dry	37.3	ND	60	75-125	200
Barium	359		11.7	mg/kg dry	93.2	291	73	75-125	200
Beryllium	9.88		2.33	mg/kg dry	9.32	ND	106	75-125	200
Cadmium	18.1		4.66	mg/kg dry	18.6	ND	97	75-125	200
Chromium	24.8		5.83	mg/kg dry	9.32	16.8	85	75-125	200
Lead	49.5		9.32	mg/kg dry	37.3	15.9	90	75-125	200
Nickel	103		58.3	mg/kg dry	93.2	9.60	100	75-125	200
Selenium	76.4		23.3	mg/kg dry	93.2	ND	82	75-125	200
Silver	20.0		4.66	mg/kg dry	18.6	ND	107	75-125	200
Thallium	23.1	J	23.3	mg/kg dry	37.3	ND	62	75-125	200
Zinc	229		23.3	mg/kg dry	93.2	143	92	75-125	200
Vanadium	93.5		23.3	mg/kg dry	93.2	3.62	96	75-125	200

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7128012 - EPA 3541										
Blank (7128012-BLK1)			Prepared: 05/05/17 Analyzed: 05/08/17							
Hexachlorocyclopentadiene	ND		2.00	ug/kg wet						
Hexachlorobenzene	ND		2.00	ug/kg wet						
Aldrin	ND		2.00	ug/kg wet						
alpha-BHC	ND		2.00	ug/kg wet						
beta-BHC	ND		2.00	ug/kg wet						
delta-BHC	ND		2.00	ug/kg wet						
gamma-BHC (Lindane)	ND		2.00	ug/kg wet						
Chlordane (tech)	ND		100	ug/kg wet						
4,4'-DDD	ND		2.00	ug/kg wet						
4,4'-DDE	ND		2.00	ug/kg wet						
4,4'-DDT	ND		2.00	ug/kg wet						
Dieldrin	ND		2.00	ug/kg wet						
Endosulfan I	ND		2.00	ug/kg wet						
Endosulfan II	ND		2.00	ug/kg wet						
Endosulfan sulfate	ND		2.00	ug/kg wet						
Endrin	ND		2.00	ug/kg wet						
Endrin aldehyde	ND		2.00	ug/kg wet						
Heptachlor	ND		2.00	ug/kg wet						
Heptachlor epoxide	ND		2.00	ug/kg wet						
Methoxychlor	ND		2.00	ug/kg wet						
Toxaphene	ND		100	ug/kg wet						
alpha-Chlordane	ND		2.00	ug/kg wet						
gamma-Chlordane	ND		2.00	ug/kg wet						
Endrin ketone	ND		2.00	ug/kg wet						
Surrogate: Tetrachloro-meta-xylene			17.8	ug/kg wet	20.0		88.9	40-157		

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128012 - EPA 3541 (Continued)									
Blank (7128012-BLK1)			Prepared: 05/05/17 Analyzed: 05/08/17						
Surrogate: Decachlorobiphenyl			21.4	ug/kg wet	20.0	107	57.1-153		
LCS (7128012-BS1)			Prepared: 05/05/17 Analyzed: 05/08/17						
Hexachlorobenzene	9.73		2.00	ug/kg wet	12.0	81.1	39.4-140		200
Hexachlorocyclopentadiene	12.6		2.00	ug/kg wet	12.0	105	10-162		200
Aldrin	10.8		2.00	ug/kg wet	12.0	90.4	40.4-132		200
alpha-BHC	9.01		2.00	ug/kg wet	12.0	75.1	38.9-127		200
beta-BHC	12.4		2.00	ug/kg wet	12.0	103	30.4-151		200
delta-BHC	10.1		2.00	ug/kg wet	12.0	84.5	29.5-182		200
gamma-BHC (Lindane)	9.38		2.00	ug/kg wet	12.0	78.2	38.2-130		200
4,4'-DDD	10.7		2.00	ug/kg wet	12.0	89.2	43.7-138		200
4,4'-DDE	11.4		2.00	ug/kg wet	12.0	94.9	45.6-123		200
4,4'-DDT	12.7		2.00	ug/kg wet	12.0	106	39.3-158		200
Dieldrin	10.5		2.00	ug/kg wet	12.0	87.6	30.3-142		200
Endosulfan I	10.8		2.00	ug/kg wet	12.0	89.6	32.9-150		200
Endosulfan II	12.5		2.00	ug/kg wet	12.0	104	29.4-160		200
Endosulfan sulfate	12.0		2.00	ug/kg wet	12.0	100	31.8-159		200
Endrin	11.7		2.00	ug/kg wet	12.0	97.8	44.4-135		200
Endrin aldehyde	9.49		2.00	ug/kg wet	12.0	79.1	29.8-140		200
Heptachlor	11.5		2.00	ug/kg wet	12.0	95.6	46.4-128		200
Heptachlor epoxide	12.3		2.00	ug/kg wet	12.0	102	43.8-123		200
Methoxychlor	12.2		2.00	ug/kg wet	12.0	102	23.4-159		200
alpha-Chlordane	10.9		2.00	ug/kg wet	12.0	91.0	42.4-120		200
gamma-Chlordane	12.3		2.00	ug/kg wet	12.0	103	43-133		200
Endrin ketone	11.3		2.00	ug/kg wet	12.0	94.1	44.1-137		200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128012 - EPA 3541 (Continued)									
LCS (7128012-BS1)					Prepared: 05/05/17 Analyzed: 05/08/17				
Surrogate: Tetrachloro-meta-xylene	22.4		ug/kg wet	20.0	112	40-157			
Surrogate: Decachlorobiphenyl	20.2		ug/kg wet	20.0	101	57.1-153			
Matrix Spike (7128012-MS1)					Source: 7E05016-01 Prepared: 05/05/17 Analyzed: 05/08/17				
Hexachlorobenzene	398		355	ug/kg dry	427	ND	93.3	37.7-186	43.2
Hexachlorocyclopentadiene	396		355	ug/kg dry	427	ND	92.8	10-186	131
Aldrin	297	J	355	ug/kg dry	427	ND	69.7	44.4-177	41.5
alpha-BHC	562		355	ug/kg dry	427	ND	132	31.8-167	61.8
beta-BHC	581		355	ug/kg dry	427	ND	136	10-189	53.1
delta-BHC	796		355	ug/kg dry	427	ND	186	14.5-192	54.7
gamma-BHC (Lindane)	1640		355	ug/kg dry	427	ND	383	11.4-177	46.3
4,4'-DDD	274	J	355	ug/kg dry	427	ND	64.1	20.6-189	59.3
4,4'-DDE	331	J	355	ug/kg dry	427	ND	77.5	29.5-172	55.1
4,4'-DDT	389		355	ug/kg dry	427	ND	91.1	10-178	57.4
Dieldrin	348	J	355	ug/kg dry	427	ND	81.5	10-182	58.2
Endosulfan I	795		355	ug/kg dry	427	ND	186	16.7-182	37.7
Endosulfan II	352	J	355	ug/kg dry	427	ND	82.5	10-186	40.4
Endosulfan sulfate	591		355	ug/kg dry	427	ND	139	13.3-179	48.8
Endrin	329	J	355	ug/kg dry	427	ND	77.1	20.1-179	40.3
Endrin aldehyde	294	J	355	ug/kg dry	427	ND	68.8	10-178	41.7
Heptachlor	478		355	ug/kg dry	427	ND	112	28.6-184	46.7
Heptachlor epoxide	387		355	ug/kg dry	427	ND	90.6	31.4-154	59
Methoxychlor	358		355	ug/kg dry	427	ND	83.8	35.5-181	52.3
alpha-Chlordane	540		355	ug/kg dry	427	ND	127	24.9-178	34.3
gamma-Chlordane	509		355	ug/kg dry	427	ND	119	10-187	30.1

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Project: YUKON CLARIFIER

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Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128012 - EPA 3541 (Continued)									
Matrix Spike (7128012-MS1)			Source: 7E05016-01		Prepared: 05/05/17 Analyzed: 05/08/17				
Endrin ketone	359		355	ug/kg dry	427	ND	84.1 10-194		65.5
<i>Surrogate: Tetrachloro-meta-xylene</i>			1200	ug/kg dry	711		169 40-157		
<i>Surrogate: Decachlorobiphenyl</i>			1150	ug/kg dry	711		162 57.1-153		
Matrix Spike Dup (7128012-MSD1)			Source: 7E05016-01		Prepared: 05/05/17 Analyzed: 05/08/17				
Hexachlorobenzene	309		260	ug/kg dry	312	ND	99.2 37.7-186	25.0	43.2
Hexachlorocyclopentadiene	171	J	260	ug/kg dry	312	ND	54.7 10-186	79.5	131
Aldrin	297		260	ug/kg dry	312	ND	95.2 44.4-177	0.0659	41.5
alpha-BHC	527		260	ug/kg dry	312	ND	169 31.8-167	6.31	61.8
beta-BHC	484		260	ug/kg dry	312	ND	155 10-189	18.1	53.1
delta-BHC	344		260	ug/kg dry	312	ND	110 14.5-192	79.2	54.7
gamma-BHC (Lindane)	1670		260	ug/kg dry	312	ND	536 11.4-177	2.23	46.3
4,4'-DDD	240	J	260	ug/kg dry	312	ND	76.9 20.6-189	13.2	59.3
4,4'-DDE	233	J	260	ug/kg dry	312	ND	74.7 29.5-172	34.6	55.1
4,4'-DDT	283		260	ug/kg dry	312	ND	90.9 10-178	31.3	57.4
Dieldrin	244	J	260	ug/kg dry	312	ND	78.1 10-182	35.2	58.2
Endosulfan I	853		260	ug/kg dry	312	ND	274 16.7-182	7.07	37.7
Endosulfan II	292		260	ug/kg dry	312	ND	93.5 10-186	18.8	40.4
Endosulfan sulfate	454		260	ug/kg dry	312	ND	146 13.3-179	26.3	48.8
Endrin	255	J	260	ug/kg dry	312	ND	81.6 20.1-179	25.5	40.3
Endrin aldehyde	203	J	260	ug/kg dry	312	ND	65.0 10-178	36.6	41.7
Heptachlor	436		260	ug/kg dry	312	ND	140 28.6-184	9.30	46.7
Heptachlor epoxide	276		260	ug/kg dry	312	ND	88.6 31.4-154	33.3	59
Methoxychlor	209	J	260	ug/kg dry	312	ND	66.9 35.5-181	52.6	52.3
alpha-Chlordane	463		260	ug/kg dry	312	ND	149 24.9-178	15.2	34.3

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128012 - EPA 3541 (Continued)									
Matrix Spike Dup (7128012-MSD1)		Source: 7E05016-01		Prepared: 05/05/17 Analyzed: 05/08/17					
gamma-Chlordane	402		260	ug/kg dry	312	ND	129 10-187	23.5	30.1
Endrin ketone	264		260	ug/kg dry	312	ND	84.6 10-194	30.4	65.5

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control (Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7125075 - EPA 3541									
Blank (7125075-BLK1)					Prepared: 05/05/17 Analyzed: 05/08/17				
PCB-1016	ND		0.020	mg/kg wet					
PCB-1221	ND		0.020	mg/kg wet					
PCB-1232	ND		0.020	mg/kg wet					
PCB-1242	ND		0.020	mg/kg wet					
PCB-1248	ND		0.020	mg/kg wet					
PCB-1254	ND		0.020	mg/kg wet					
PCB-1260	ND		0.020	mg/kg wet					
Surrogate: Tetrachloro-meta-xylene			0.107	mg/kg wet	0.100		107	11-140	
Surrogate: Decachlorobiphenyl			0.109	mg/kg wet	0.100		109	24.4-140	
LCS (7125075-BS1)					Prepared: 05/05/17 Analyzed: 05/08/17				
PCB-1232	0.097		0.010	mg/kg wet	0.100		97.1	56.2-138	200
Surrogate: Tetrachloro-meta-xylene			0.0990	mg/kg wet	0.100		99.0	70-130	
Surrogate: Decachlorobiphenyl			0.0998	mg/kg wet	0.100		99.8	70-130	
Matrix Spike (7125075-MS1)					Source: 7E05033-01 Prepared: 05/05/17 Analyzed: 05/09/17				
PCB-1232	1.35		0.026	mg/kg dry	0.263	ND	514	54.6-146	47.4
Surrogate: Tetrachloro-meta-xylene			0.196	mg/kg dry	0.263		74.8	70-130	
Surrogate: Decachlorobiphenyl			0.226	mg/kg dry	0.263		85.9	70-130	
Matrix Spike Dup (7125075-MSD1)					Source: 7E05033-01 Prepared: 05/05/17 Analyzed: 05/09/17				
PCB-1232	1.33		0.026	mg/kg dry	0.263	ND	507	54.6-146	1.37 47.4
Surrogate: Tetrachloro-meta-xylene			0.190	mg/kg dry	0.263		72.3	70-130	
Surrogate: Decachlorobiphenyl			0.217	mg/kg dry	0.263		82.6	70-130	

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541									
Blank (7128085-BLK1)					Prepared: 05/08/17 Analyzed: 05/09/17				
Pyridine	ND		0.667	mg/kg wet					
Benzidine	ND		1.67	mg/kg wet					
Diphenylamine	ND		0.333	mg/kg wet					
Acenaphthene	ND		0.333	mg/kg wet					
Acenaphthylene	ND		0.333	mg/kg wet					
Anthracene	ND		0.333	mg/kg wet					
Benzoic acid	ND		3.33	mg/kg wet					
Benzo (a) anthracene	ND		0.333	mg/kg wet					
Benzo (b) fluoranthene	ND		0.333	mg/kg wet					
Benzo (k) fluoranthene	ND		0.333	mg/kg wet					
Benzo (g,h,i) perylene	ND		0.333	mg/kg wet					
Benzo (a) pyrene	ND		0.333	mg/kg wet					
Benzyl alcohol	0.157	J	0.333	mg/kg wet					
Bis(2-chloroethoxy)methane	ND		0.333	mg/kg wet					
Bis(2-chloroethyl)ether	ND		0.333	mg/kg wet					
Bis(2-chloroisopropyl)ether	ND		0.333	mg/kg wet					
Bis(2-ethylhexyl)phthalate	ND		0.333	mg/kg wet					
4-Bromophenyl phenyl ether	ND		0.333	mg/kg wet					
Butyl benzyl phthalate	ND		0.333	mg/kg wet					
4-Chloroaniline	ND		0.333	mg/kg wet					
4-Chloro-3-methylphenol	ND		0.333	mg/kg wet					
2-Chloronaphthalene	ND		0.333	mg/kg wet					
2-Chlorophenol	ND		0.333	mg/kg wet					
4-Chlorophenyl phenyl ether	ND		0.333	mg/kg wet					
Chrysene	ND		0.333	mg/kg wet					

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)									
Blank (7128085-BLK1)					Prepared: 05/08/17 Analyzed: 05/09/17				
Dibenz (a,h) anthracene	ND		0.333	mg/kg wet					
Dibenzofuran	ND		0.333	mg/kg wet					
Di-n-butyl phthalate	ND		0.333	mg/kg wet					
1,2-Dichlorobenzene	ND		0.333	mg/kg wet					
1,3-Dichlorobenzene	ND		0.333	mg/kg wet					
1,4-Dichlorobenzene	ND		0.333	mg/kg wet					
3,3'-Dichlorobenzidine	ND		0.333	mg/kg wet					
2,4-Dichlorophenol	ND		0.333	mg/kg wet					
Diethyl phthalate	ND		0.333	mg/kg wet					
2,4-Dimethylphenol	ND		0.333	mg/kg wet					
Dimethyl phthalate	ND		0.333	mg/kg wet					
4,6-Dinitro-2-methylphenol	ND		1.67	mg/kg wet					
2,4-Dinitrophenol	ND		1.67	mg/kg wet					
2,4-Dinitrotoluene	ND		0.333	mg/kg wet					
2,6-Dinitrotoluene	ND		0.333	mg/kg wet					
Di-n-octyl phthalate	ND		0.333	mg/kg wet					
Aniline	ND		0.333	mg/kg wet					
Naphthalene	ND		0.333	mg/kg wet					
N-Nitrosodimethylamine	ND		0.333	mg/kg wet					
Acetophenone	ND		0.333	mg/kg wet					
3 & 4-Methylphenol	ND		0.333	mg/kg wet					
1,2-Diphenylhydrazine	ND		0.333	mg/kg wet					
Fluoranthene	ND		0.333	mg/kg wet					
Fluorene	ND		0.333	mg/kg wet					
Hexachlorobenzene	ND		0.333	mg/kg wet					

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)										
Blank (7128085-BLK1)										
Prepared: 05/08/17 Analyzed: 05/09/17										
Hexachlorobutadiene	ND		0.333	mg/kg wet						
Hexachlorocyclopentadiene	ND		0.333	mg/kg wet						
Hexachloroethane	ND		0.333	mg/kg wet						
Indeno (1,2,3-cd) pyrene	ND		0.333	mg/kg wet						
Isophorone	ND		0.333	mg/kg wet						
2-Methylnaphthalene	ND		0.333	mg/kg wet						
2-Methylphenol	ND		0.333	mg/kg wet						
2-Nitroaniline	ND		0.333	mg/kg wet						
3-Nitroaniline	ND		0.333	mg/kg wet						
4-Nitroaniline	ND		0.333	mg/kg wet						
Nitrobenzene	ND		0.333	mg/kg wet						
2-Nitrophenol	ND		0.333	mg/kg wet						
4-Nitrophenol	ND		0.333	mg/kg wet						
N-Nitrosodi-n-propylamine	ND		0.333	mg/kg wet						
Pentachlorophenol	ND		1.67	mg/kg wet						
Phenanthrene	ND		0.333	mg/kg wet						
Phenol	ND		0.333	mg/kg wet						
Pyrene	ND		0.333	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.333	mg/kg wet						
2,4,5-Trichlorophenol	ND		0.333	mg/kg wet						
2,4,6-Trichlorophenol	ND		0.333	mg/kg wet						
Surrogate: 2-Fluorophenol			12.4	mg/kg wet	13.3		93	10-169		
Surrogate: Phenol-d6			12.1	mg/kg wet	13.3		90	10-166		
Surrogate: Nitrobenzene-d5			6.65	mg/kg wet	6.67		100	18.8-170		
Surrogate: 2-Fluorobiphenyl			6.73	mg/kg wet	6.67		101	35.1-154		

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Project Number: [none]

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)									
Blank (7128085-BLK1)					Prepared: 05/08/17 Analyzed: 05/09/17				
Surrogate: 2,4,6-Tribromophenol	11.5		mg/kg wet	13.3	86	20-158			
Surrogate: Terphenyl-d14	6.79		mg/kg wet	6.67	102	52.1-160			
LCS (7128085-BS1)					Prepared: 05/08/17 Analyzed: 05/09/17				
Pyridine	24.7		0.667	mg/kg wet	33.3	74	10-137		10
Diphenylamine	15.2		0.333	mg/kg wet	16.7	91	56-103		10
Benzidine	9.74		1.67	mg/kg wet	16.7	58	10-35		10
Acenaphthene	16.6		0.333	mg/kg wet	16.7	100	63-126		10
Acenaphthylene	18.9		0.333	mg/kg wet	16.7	113	63-132		10
Anthracene	17.5		0.333	mg/kg wet	16.7	105	68-124		10
Benzoic acid	8.98		3.33	mg/kg wet	16.7	54	31-104		10
Benzo (a) anthracene	16.3		0.333	mg/kg wet	16.7	98	70-124		10
Benzo (b) fluoranthene	16.7		0.333	mg/kg wet	16.7	100	76-125		10
Benzo (k) fluoranthene	17.4		0.333	mg/kg wet	16.7	104	71-125		10
Benzo (g,h,i) perylene	17.1		0.333	mg/kg wet	16.7	102	73-127		10
Benzo (a) pyrene	16.7		0.333	mg/kg wet	16.7	100	71-127		10
Benzyl alcohol	16.5		0.333	mg/kg wet	16.7	99	34-138		10
Bis(2-chloroethoxy)methane	17.1		0.333	mg/kg wet	16.7	103	39-131		10
Bis(2-chloroethyl)ether	15.9		0.333	mg/kg wet	16.7	95	11-149		10
Bis(2-chloroisopropyl)ether	15.1		0.333	mg/kg wet	16.7	91	17-154		10
Bis(2-ethylhexyl)phthalate	19.1		0.333	mg/kg wet	16.7	114	63-115		10
4-Bromophenyl phenyl ether	18.5		0.333	mg/kg wet	16.7	111	68-121		10
Butyl benzyl phthalate	20.6		0.333	mg/kg wet	16.7	124	62-122		10
4-Chloroaniline	12.2		0.333	mg/kg wet	16.7	73	34-103		10
4-Chloro-3-methylphenol	16.8		0.333	mg/kg wet	16.7	101	62-123		10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)										
LCS (7128085-BS1)										
Prepared: 05/08/17 Analyzed: 05/09/17										
2-Chloronaphthalene	17.3		0.333	mg/kg wet	16.7		104	57-124		10
2-Chlorophenol	16.2		0.333	mg/kg wet	16.7		97	24-142		10
4-Chlorophenyl phenyl ether	18.0		0.333	mg/kg wet	16.7		108	65-122		10
Chrysene	15.4		0.333	mg/kg wet	16.7		92	71-125		10
Dibenz (a,h) anthracene	17.1		0.333	mg/kg wet	16.7		103	74-128		10
Dibenzofuran	17.4		0.333	mg/kg wet	16.7		105	63-118		10
Di-n-butyl phthalate	19.9		0.333	mg/kg wet	16.7		119	72-123		10
1,2-Dichlorobenzene	15.2		0.333	mg/kg wet	16.7		91	10-151		10
1,3-Dichlorobenzene	15.3		0.333	mg/kg wet	16.7		92	10-156		10
1,4-Dichlorobenzene	15.2		0.333	mg/kg wet	16.7		91	10-154		10
3,3'-Dichlorobenzidine	14.0		0.333	mg/kg wet	16.7		84	48-107		10
2,4-Dichlorophenol	18.3		0.333	mg/kg wet	16.7		110	50-130		10
Diethyl phthalate	20.2		0.333	mg/kg wet	16.7		121	67-124		10
2,4-Dimethylphenol	14.5		0.333	mg/kg wet	16.7		87	40-111		10
Dimethyl phthalate	18.1		0.333	mg/kg wet	16.7		108	66-121		10
4,6-Dinitro-2-methylphenol	12.8		1.67	mg/kg wet	16.7		77	10-111		10
2,4-Dinitrophenol	6.93		1.67	mg/kg wet	16.7		42	10-111		10
2,4-Dinitrotoluene	17.9		0.333	mg/kg wet	16.7		107	66-112		10
2,6-Dinitrotoluene	18.0		0.333	mg/kg wet	16.7		108	57-128		10
Di-n-octyl phthalate	21.0		0.333	mg/kg wet	16.7		126	56-119		10
Aniline	11.0		0.333	mg/kg wet	16.7		66	16-99		10
Naphthalene	16.2		0.333	mg/kg wet	16.7		97	32-140		10
N-Nitrosodimethylamine	15.3		0.333	mg/kg wet	16.7		92	10-156		10
Carbazole	8.90		0.333	mg/kg wet	16.7		53	34-61		10
3 & 4-Methylphenol	15.8		0.333	mg/kg wet	16.7		95	41-118		10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)										
LCS (7128085-BS1)										
Prepared: 05/08/17 Analyzed: 05/09/17										
Acetophenone	16.2		0.333	mg/kg wet	16.7		97	27-142		10
1,2-Diphenylhydrazine	18.6		0.333	mg/kg wet				60-127		10
2,3,4,6-Tetrachlorophenol	15.1		0.333	mg/kg wet	16.7		90	72-140		10
Fluoranthene	18.3		0.333	mg/kg wet	16.7		110	71-128		10
Fluorene	17.9		0.333	mg/kg wet	16.7		107	69-122		10
Hexachlorobenzene	16.8		0.333	mg/kg wet	16.7		101	69-118		10
Hexachlorobutadiene	16.6		0.333	mg/kg wet	16.7		99	18-146		10
Hexachlorocyclopentadiene	17.7		0.333	mg/kg wet	16.7		106	22-155		10
Hexachloroethane	15.2		0.333	mg/kg wet	16.7		91	10-154		10
Indeno (1,2,3-cd) pyrene	17.1		0.333	mg/kg wet	16.7		103	73-130		10
Isophorone	17.6		0.333	mg/kg wet	16.7		106	42-131		10
2-Methylnaphthalene	18.0		0.333	mg/kg wet	16.7		108	47-131		10
2-Methylphenol	15.5		0.333	mg/kg wet	16.7		93	35-119		10
2-Nitroaniline	18.7		0.333	mg/kg wet	16.7		112	57-128		10
3-Nitroaniline	14.7		0.333	mg/kg wet	16.7		88	60-112		10
4-Nitroaniline	16.8		0.333	mg/kg wet	16.7		101	44-127		10
Nitrobenzene	16.2		0.333	mg/kg wet	16.7		97	28-138		10
2-Nitrophenol	18.0		0.333	mg/kg wet	16.7		108	31-144		10
4-Nitrophenol	16.5		0.333	mg/kg wet	16.7		99	50-118		10
N-Nitrosodiphenylamine	15.2		0.333	mg/kg wet	16.7		91	54-104		10
N-Nitrosodi-n-propylamine	16.2		0.333	mg/kg wet	16.7		97	34-135		10
Pentachlorophenol	16.3		1.67	mg/kg wet	16.7		98	56-126		10
Phenanthrene	16.3		0.333	mg/kg wet	16.7		98	68-118		10
Phenol	15.8		0.333	mg/kg wet	16.7		95	32-129		10
Pyrene	16.4		0.333	mg/kg wet	16.7		98	70-126		10

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)									
LCS (7128085-BS1)					Prepared: 05/08/17 Analyzed: 05/09/17				
1,2,4-Trichlorobenzene	17.1		0.333	mg/kg wet	16.7		102 24-141		10
2,4,5-Trichlorophenol	17.9		0.333	mg/kg wet	16.7		107 63-138		10
2,4,6-Trichlorophenol	16.9		0.333	mg/kg wet	16.7		102 64-128		10
Surrogate: 2-Fluorophenol			12.2	mg/kg wet	13.3		91 35-115		
Surrogate: Phenol-d6			12.0	mg/kg wet	13.3		90 35-115		
Surrogate: Nitrobenzene-d5			6.93	mg/kg wet	6.67		104 35-115		
Surrogate: 2-Fluorobiphenyl			6.50	mg/kg wet	6.67		97 40-120		
Surrogate: 2,4,6-Tribromophenol			13.2	mg/kg wet	13.3		99 40-120		
Surrogate: Terphenyl-d14			6.19	mg/kg wet	6.67		93 40-120		
Matrix Spike (7128085-MS1)					Source: 7E05056-01 Prepared: 05/08/17 Analyzed: 05/09/17				
Diphenylamine	155		3.06	mg/kg dry	153	ND	101 70-130		200
Pyridine	270		6.12	mg/kg dry	306	ND	88 70-130		200
Benzidine	127		15.3	mg/kg dry	153	ND	83 70-130		200
Acenaphthene	170		3.06	mg/kg dry	153	ND	111 70-130		200
Acenaphthylene	194		3.06	mg/kg dry	153	ND	127 70-130		200
Anthracene	178		3.06	mg/kg dry	153	ND	116 70-130		200
Benzoic acid	153		30.6	mg/kg dry	153	ND	100 70-130		200
Benzo (a) anthracene	167		3.06	mg/kg dry	153	ND	109 70-130		200
Benzo (b) fluoranthene	174		3.06	mg/kg dry	153	ND	114 70-130		200
Benzo (k) fluoranthene	171		3.06	mg/kg dry	153	ND	112 70-130		200
Benzo (g,h,i) perylene	173		3.06	mg/kg dry	153	ND	113 70-130		200
Benzo (a) pyrene	166		3.06	mg/kg dry	153	ND	108 70-130		200
Benzyl alcohol	174		3.06	mg/kg dry	153	ND	113 70-130		200
Bis(2-chloroethoxy)methane	175		3.06	mg/kg dry	153	ND	114 70-130		200

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)									
Matrix Spike (7128085-MS1)		Source: 7E05056-01		Prepared: 05/08/17 Analyzed: 05/09/17					
Bis(2-chloroethyl)ether	164		3.06	mg/kg dry	153	ND	107 70-130		200
Bis(2-chloroisopropyl)ether	156		3.06	mg/kg dry	153	ND	102 70-130		200
Bis(2-ethylhexyl)phthalate	193		3.06	mg/kg dry	153	ND	126 70-130		200
4-Bromophenyl phenyl ether	190		3.06	mg/kg dry	153	ND	124 70-130		200
Butyl benzyl phthalate	208		3.06	mg/kg dry	153	ND	136 70-130		200
4-Chloroaniline	165		3.06	mg/kg dry	153	ND	108 70-130		200
4-Chloro-3-methylphenol	172		3.06	mg/kg dry	153	ND	112 70-130		200
2-Chloronaphthalene	176		3.06	mg/kg dry	153	ND	115 70-130		200
2-Chlorophenol	169		3.06	mg/kg dry	153	ND	110 70-130		200
4-Chlorophenyl phenyl ether	184		3.06	mg/kg dry	153	ND	120 70-130		200
Chrysene	156		3.06	mg/kg dry	153	ND	102 70-130		200
Dibenz (a,h) anthracene	173		3.06	mg/kg dry	153	ND	113 70-130		200
Dibenzofuran	179		3.06	mg/kg dry	153	ND	117 70-130		200
Di-n-butyl phthalate	200		3.06	mg/kg dry	153	ND	131 70-130		200
1,2-Dichlorobenzene	154		3.06	mg/kg dry	153	ND	101 70-130		200
1,3-Dichlorobenzene	156		3.06	mg/kg dry	153	ND	102 70-130		200
1,4-Dichlorobenzene	156		3.06	mg/kg dry	153	ND	102 70-130		200
3,3'-Dichlorobenzidine	183		3.06	mg/kg dry	153	ND	119 70-130		200
2,4-Dichlorophenol	188		3.06	mg/kg dry	153	ND	123 70-130		200
Diethyl phthalate	208		3.06	mg/kg dry	153	ND	136 70-130		200
2,4-Dimethylphenol	158		3.06	mg/kg dry	153	ND	103 70-130		200
Dimethyl phthalate	184		3.06	mg/kg dry	153	ND	120 70-130		200
4,6-Dinitro-2-methylphenol	174		15.3	mg/kg dry	153	ND	113 70-130		200
2,4-Dinitrophenol	132		15.3	mg/kg dry	153	ND	86 70-130		200
2,4-Dinitrotoluene	184		3.06	mg/kg dry	153	ND	120 70-130		200

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651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)									
Matrix Spike (7128085-MS1)		Source: 7E05056-01		Prepared: 05/08/17 Analyzed: 05/09/17					
2,6-Dinitrotoluene	181		3.06	mg/kg dry	153	ND	118 70-130		200
Di-n-octyl phthalate	211		3.06	mg/kg dry	153	ND	138 70-130		200
Aniline	148		3.06	mg/kg dry	153	ND	96 70-130		200
Naphthalene	164		3.06	mg/kg dry	153	ND	107 70-130		200
N-Nitrosodimethylamine	160		3.06	mg/kg dry	153	ND	105 70-130		200
3 & 4-Methylphenol	167		3.06	mg/kg dry	153	ND	109 70-130		200
Acetophenone	165		3.06	mg/kg dry	153	ND	108 70-130		200
Total Cresol	328		6.12	mg/kg dry	306	ND	107 70-130		200
2,3,4,6-Tetrachlorophenol	159		3.06	mg/kg dry	153	ND	104 40-120		200
Fluoranthene	186		3.06	mg/kg dry	153	ND	122 70-130		200
Fluorene	183		3.06	mg/kg dry	153	ND	120 70-130		200
Hexachlorobenzene	171		3.06	mg/kg dry	153	ND	112 70-130		200
Hexachlorobutadiene	167		3.06	mg/kg dry	153	ND	109 70-130		200
Hexachlorocyclopentadiene	147		3.06	mg/kg dry	153	ND	96 70-130		200
Hexachloroethane	153		3.06	mg/kg dry	153	ND	100 70-130		200
Indeno (1,2,3-cd) pyrene	175		3.06	mg/kg dry	153	ND	114 70-130		200
Isophorone	180		3.06	mg/kg dry	153	ND	117 70-130		200
2-Methylnaphthalene	182		3.06	mg/kg dry	153	ND	119 70-130		200
2-Methylphenol	161		3.06	mg/kg dry	153	ND	105 70-130		200
2-Nitroaniline	191		3.06	mg/kg dry	153	ND	125 70-130		200
3-Nitroaniline	170		3.06	mg/kg dry	153	ND	111 70-130		200
4-Nitroaniline	180		3.06	mg/kg dry	153	ND	117 70-130		200
Nitrobenzene	166		3.06	mg/kg dry	153	ND	108 70-130		200
2-Nitrophenol	181		3.06	mg/kg dry	153	ND	118 70-130		200
4-Nitrophenol	171		3.06	mg/kg dry	153	ND	112 70-130		200

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Max Environmental

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651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)									
Matrix Spike (7128085-MS1)		Source: 7E05056-01		Prepared: 05/08/17 Analyzed: 05/09/17					
N-Nitrosodiphenylamine	155		3.06	mg/kg dry	153	ND	101 70-130		200
N-Nitrosodi-n-propylamine	166		3.06	mg/kg dry	153	ND	109 70-130		200
Pentachlorophenol	179		15.3	mg/kg dry	153	ND	117 70-130		200
Phenanthrene	166		3.06	mg/kg dry	153	ND	108 70-130		200
Phenol	162		3.06	mg/kg dry	153	ND	106 70-130		200
Pyrene	167		3.06	mg/kg dry	153	ND	109 70-130		200
1,2,4-Trichlorobenzene	172		3.06	mg/kg dry	153	ND	112 70-130		200
2,4,5-Trichlorophenol	185		3.06	mg/kg dry	153	ND	121 70-130		200
2,4,6-Trichlorophenol	179		3.06	mg/kg dry	153	ND	117 70-130		200
Surrogate: 2-Fluorophenol			126	mg/kg dry	122		103 35-115		
Surrogate: Phenol-d6			124	mg/kg dry	122		101 35-115		
Surrogate: Nitrobenzene-d5			72.2	mg/kg dry	61.2		118 35-115		
Surrogate: 2-Fluorobiphenyl			65.8	mg/kg dry	61.2		107 40-120		
Surrogate: 2,4,6-Tribromophenol			137	mg/kg dry	122		112 40-120		
Surrogate: Terphenyl-d14			62.8	mg/kg dry	61.2		103 40-120		
Matrix Spike Dup (7128085-MSD1)		Source: 7E05056-01		Prepared: 05/08/17 Analyzed: 05/09/17					
Diphenylamine	138		3.10	mg/kg dry	155	ND	89 70-130	12	200
Benzidine	122		15.5	mg/kg dry	155	ND	79 70-130	4	200
Pyridine	238		6.21	mg/kg dry	310	ND	77 70-130	12	200
Acenaphthene	146		3.10	mg/kg dry	155	ND	94 70-130	15	200
Acenaphthylene	167		3.10	mg/kg dry	155	ND	108 70-130	15	200
Anthracene	158		3.10	mg/kg dry	155	ND	102 70-130	12	200
Benzoic acid	139		31.0	mg/kg dry	155	ND	90 70-130	9	200
Benzo (a) anthracene	148		3.10	mg/kg dry	155	ND	95 70-130	12	200

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)										
Matrix Spike Dup (7128085-MSD1)		Source: 7E05056-01		Prepared: 05/08/17 Analyzed: 05/09/17						
Benzo (b) fluoranthene	151		3.10	mg/kg dry	155	ND	98	70-130	14	200
Benzo (k) fluoranthene	151		3.10	mg/kg dry	155	ND	97	70-130	12	200
Benzo (g,h,i) perylene	152		3.10	mg/kg dry	155	ND	98	70-130	13	200
Benzo (a) pyrene	148		3.10	mg/kg dry	155	ND	95	70-130	11	200
Benzyl alcohol	158		3.10	mg/kg dry	155	ND	102	70-130	9	200
Bis(2-chloroethoxy)methane	154		3.10	mg/kg dry	155	ND	99	70-130	13	200
Bis(2-chloroethyl)ether	145		3.10	mg/kg dry	155	ND	94	70-130	12	200
Bis(2-chloroisopropyl)ether	139		3.10	mg/kg dry	155	ND	90	70-130	12	200
Bis(2-ethylhexyl)phthalate	176		3.10	mg/kg dry	155	ND	113	70-130	9	200
4-Bromophenyl phenyl ether	165		3.10	mg/kg dry	155	ND	106	70-130	14	200
Butyl benzyl phthalate	192		3.10	mg/kg dry	155	ND	124	70-130	8	200
4-Chloroaniline	150		3.10	mg/kg dry	155	ND	97	70-130	9	200
4-Chloro-3-methylphenol	155		3.10	mg/kg dry	155	ND	100	70-130	10	200
2-Chloronaphthalene	152		3.10	mg/kg dry	155	ND	98	70-130	14	200
2-Chlorophenol	150		3.10	mg/kg dry	155	ND	97	70-130	12	200
4-Chlorophenyl phenyl ether	157		3.10	mg/kg dry	155	ND	101	70-130	16	200
Chrysene	138		3.10	mg/kg dry	155	ND	89	70-130	12	200
Dibenz (a,h) anthracene	153		3.10	mg/kg dry	155	ND	98	70-130	12	200
Dibenzofuran	154		3.10	mg/kg dry	155	ND	99	70-130	15	200
Di-n-butyl phthalate	183		3.10	mg/kg dry	155	ND	118	70-130	9	200
1,2-Dichlorobenzene	138		3.10	mg/kg dry	155	ND	89	70-130	11	200
1,3-Dichlorobenzene	138		3.10	mg/kg dry	155	ND	89	70-130	13	200
1,4-Dichlorobenzene	137		3.10	mg/kg dry	155	ND	89	70-130	13	200
3,3'-Dichlorobenzidine	169		3.10	mg/kg dry	155	ND	109	70-130	8	200
2,4-Dichlorophenol	166		3.10	mg/kg dry	155	ND	107	70-130	13	200

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)										
Matrix Spike Dup (7128085-MSD1)		Source: 7E05056-01		Prepared: 05/08/17 Analyzed: 05/09/17						
Diethyl phthalate	180		3.10	mg/kg dry	155	ND	116	70-130	14	200
2,4-Dimethylphenol	140		3.10	mg/kg dry	155	ND	90	70-130	12	200
Dimethyl phthalate	161		3.10	mg/kg dry	155	ND	104	70-130	13	200
4,6-Dinitro-2-methylphenol	157		15.5	mg/kg dry	155	ND	101	70-130	10	200
2,4-Dinitrophenol	117		15.5	mg/kg dry	155	ND	76	70-130	12	200
2,4-Dinitrotoluene	163		3.10	mg/kg dry	155	ND	105	70-130	12	200
2,6-Dinitrotoluene	162		3.10	mg/kg dry	155	ND	104	70-130	11	200
Di-n-octyl phthalate	193		3.10	mg/kg dry	155	ND	124	70-130	9	200
Aniline	131		3.10	mg/kg dry	155	ND	84	70-130	12	200
Naphthalene	145		3.10	mg/kg dry	155	ND	93	70-130	12	200
N-Nitrosodimethylamine	144		3.10	mg/kg dry	155	ND	93	70-130	10	200
Acetophenone	147		3.10	mg/kg dry	155	ND	94	70-130	12	200
3 & 4-Methylphenol	147		3.10	mg/kg dry	155	ND	94	70-130	13	200
Total Cresol	290		6.21	mg/kg dry	310	ND	94	70-130	12	200
2,3,4,6-Tetrachlorophenol	138		3.10	mg/kg dry	155	ND	89	40-120	14	200
Fluoranthene	164		3.10	mg/kg dry	155	ND	105	70-130	13	200
Fluorene	159		3.10	mg/kg dry	155	ND	103	70-130	14	200
Hexachlorobenzene	151		3.10	mg/kg dry	155	ND	97	70-130	13	200
Hexachlorobutadiene	148		3.10	mg/kg dry	155	ND	95	70-130	13	200
Hexachlorocyclopentadiene	124		3.10	mg/kg dry	155	ND	80	70-130	17	200
Hexachloroethane	137		3.10	mg/kg dry	155	ND	88	70-130	11	200
Indeno (1,2,3-cd) pyrene	153		3.10	mg/kg dry	155	ND	98	70-130	13	200
Isophorone	159		3.10	mg/kg dry	155	ND	102	70-130	12	200
2-Methylnaphthalene	162		3.10	mg/kg dry	155	ND	105	70-130	11	200
2-Methylphenol	144		3.10	mg/kg dry	155	ND	93	70-130	11	200

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7128085 - EPA 3541 (Continued)										
Matrix Spike Dup (7128085-MSD1)		Source: 7E05056-01		Prepared: 05/08/17 Analyzed: 05/09/17						
2-Nitroaniline	175		3.10	mg/kg dry	155	ND	113	70-130	9	200
3-Nitroaniline	152		3.10	mg/kg dry	155	ND	98	70-130	11	200
4-Nitroaniline	162		3.10	mg/kg dry	155	ND	104	70-130	10	200
Nitrobenzene	149		3.10	mg/kg dry	155	ND	96	70-130	11	200
2-Nitrophenol	166		3.10	mg/kg dry	155	ND	107	70-130	9	200
4-Nitrophenol	153		3.10	mg/kg dry	155	ND	99	70-130	11	200
N-Nitrosodiphenylamine	138		3.10	mg/kg dry	155	ND	89	70-130	12	200
N-Nitrosodi-n-propylamine	151		3.10	mg/kg dry	155	ND	97	70-130	10	200
Pentachlorophenol	162		15.5	mg/kg dry	155	ND	104	70-130	10	200
Phenanthrene	146		3.10	mg/kg dry	155	ND	94	70-130	13	200
Phenol	143		3.10	mg/kg dry	155	ND	92	70-130	12	200
Pyrene	147		3.10	mg/kg dry	155	ND	95	70-130	13	200
1,2,4-Trichlorobenzene	153		3.10	mg/kg dry	155	ND	98	70-130	12	200
2,4,5-Trichlorophenol	160		3.10	mg/kg dry	155	ND	103	70-130	15	200
2,4,6-Trichlorophenol	153		3.10	mg/kg dry	155	ND	98	70-130	16	200
Surrogate: 2-Fluorophenol			115	mg/kg dry	124		92	35-115		
Surrogate: Phenol-d6			112	mg/kg dry	124		90	35-115		
Surrogate: Nitrobenzene-d5			65.7	mg/kg dry	62.1		106	35-115		
Surrogate: 2-Fluorobiphenyl			57.5	mg/kg dry	62.1		93	40-120		
Surrogate: 2,4,6-Tribromophenol			124	mg/kg dry	124		100	40-120		
Surrogate: Terphenyl-d14			55.8	mg/kg dry	62.1		90	40-120		

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PaDEP: PA 41-04684



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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7128048 - EPA 200 Series									
Blank (7128048-BLK1)									
Mercury	ND		0.000200	mg/l					
Prepared: 05/08/17 Analyzed: 05/09/17									
Matrix Spike (7128048-MS1)									
Mercury	0.009902		0.00200	mg/l	0.0100	ND	99.0 70-130		10
Prepared: 05/08/17 Analyzed: 05/09/17									
Matrix Spike (7128048-MS2)									
Mercury	0.009363		0.00200	mg/l	0.0100	ND	93.6 70-130		10
Prepared: 05/08/17 Analyzed: 05/09/17									
Matrix Spike Dup (7128048-MSD1)									
Mercury	0.009849		0.00200	mg/l	0.0100	ND	98.5 70-130	0.539	10
Prepared: 05/08/17 Analyzed: 05/09/17									
Matrix Spike Dup (7128048-MSD2)									
Mercury	0.009635		0.00200	mg/l	0.0100	ND	96.4 70-130	2.86	10
Prepared: 05/08/17 Analyzed: 05/09/17									
Batch: 7129022 - EPA 3010A TCLP/SPLP									
Blank (7129022-BLK1)									
Prepared: 05/09/17 Analyzed: 05/11/17									
Antimony	ND		0.0100	mg/l					
Arsenic	ND		0.00800	mg/l					
Barium	ND		0.0100	mg/l					
Beryllium	ND		0.00200	mg/l					
Cadmium	ND		0.00400	mg/l					
Chromium	ND		0.00500	mg/l					
Lead	ND		0.00800	mg/l					
Nickel	ND		0.0500	mg/l					
Selenium	ND		0.0200	mg/l					

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7129022 - EPA 3010A TCLP/SPLP (Continued)									
Blank (7129022-BLK1)					Prepared: 05/09/17 Analyzed: 05/11/17				
Silver	ND		0.00400	mg/l					
Thallium	ND		0.0200	mg/l					
Vanadium	ND		0.0200	mg/l					
Zinc	ND		0.0200	mg/l					
Duplicate (7129022-DUP1)					Source: 7E05035-02 Prepared: 05/09/17 Analyzed: 05/11/17				
Antimony	ND		0.0500	mg/l		ND			20
Arsenic	ND		0.0400	mg/l		ND			20
Barium	0.214		0.0500	mg/l		0.214		0.3	20
Beryllium	ND		0.0100	mg/l		ND			20
Cadmium	ND		0.0200	mg/l		ND			20
Chromium	0.00756	J	0.0250	mg/l		0.00792		5	20
Lead	ND		0.0400	mg/l		ND			20
Nickel	ND		0.250	mg/l		ND			20
Selenium	ND		0.100	mg/l		ND			20
Silver	ND		0.0200	mg/l		ND			20
Thallium	ND		0.100	mg/l		ND			20
Vanadium	0.0212	J	0.100	mg/l		0.0188		12	20
Zinc	0.0235	J	0.100	mg/l		0.0242		3	20
Matrix Spike (7129022-MS1)					Source: 7E05035-02 Prepared: 05/09/17 Analyzed: 05/11/17				
Antimony	1.91		0.0500	mg/l	2.00	ND	96	75-125	200
Arsenic	0.730		0.0400	mg/l	0.800	ND	91	75-125	200
Barium	1.98		0.0500	mg/l	2.00	0.214	88	75-125	200
Beryllium	0.186		0.0100	mg/l	0.200	ND	93	75-125	200
Cadmium	0.369		0.0200	mg/l	0.400	ND	92	75-125	200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7129022 - EPA 3010A TCLP/SPLP (Continued)									
Matrix Spike (7129022-MS1)		Source: 7E05035-02		Prepared: 05/09/17 Analyzed: 05/11/17					
Chromium	0.196		0.0250	mg/l	0.200	0.00792	94	75-125	200
Lead	0.744		0.0400	mg/l	0.800	ND	93	75-125	200
Nickel	1.94		0.250	mg/l	2.00	ND	97	75-125	200
Selenium	1.81		0.100	mg/l	2.00	ND	90	75-125	200
Silver	0.331		0.0200	mg/l	0.400	ND	83	75-125	200
Thallium	0.703		0.100	mg/l	0.800	ND	88	75-125	200
Vanadium	1.87		0.100	mg/l	2.00	0.0188	93	75-125	200
Zinc	2.04		0.100	mg/l	2.00	0.0242	101	75-125	200

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7130023 - Volatiles										
Blank (7130023-BLK1)					Prepared & Analyzed: 05/09/17					
Benzene	ND		0.0020	mg/kg wet						
Toluene	ND		0.0050	mg/kg wet						
Ethylbenzene	ND		0.0050	mg/kg wet						
Xylenes (total)	ND		0.0100	mg/kg wet						
Naphthalene	ND		0.0050	mg/kg wet						
Acetone	ND		0.0100	mg/kg wet						
Acrolein	ND		0.0500	mg/kg wet						
Acrylonitrile	ND		0.0100	mg/kg wet						
Bromodichloromethane	ND		0.0050	mg/kg wet						
Bromoform	ND		0.0050	mg/kg wet						
Bromomethane	ND		0.0050	mg/kg wet						
2-Butanone	ND		0.0100	mg/kg wet						
Carbon disulfide	ND		0.0050	mg/kg wet						
Carbon tetrachloride	ND		0.0050	mg/kg wet						
Chlorobenzene	ND		0.0050	mg/kg wet						
Chloroethane	ND		0.0050	mg/kg wet						
2-Chloroethylvinyl ether	ND		0.0500	mg/kg wet						
Chloroform	ND		0.0050	mg/kg wet						
1,2-Dibromo-3-chloropropane	ND		0.0050	mg/kg wet						
Dibromochloromethane	ND		0.0050	mg/kg wet						
1,2-Dibromoethane (EDB)	ND		0.0020	mg/kg wet						
Dibromomethane	ND		0.0050	mg/kg wet						
1,2-Dichlorobenzene	ND		0.0050	mg/kg wet						
1,4-Dichlorobenzene	ND		0.0050	mg/kg wet						
1,3-Dichlorobenzene	ND		0.0050	mg/kg wet						

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7130023 - Volatiles (Continued)										
Blank (7130023-BLK1)			Prepared & Analyzed: 05/09/17							
Dichlorodifluoromethane	ND		0.0050	mg/kg wet						
1,2-Dichloroethane	ND		0.0020	mg/kg wet						
1,1-Dichloroethane	ND		0.0050	mg/kg wet						
trans-1,2-Dichloroethene	ND		0.0050	mg/kg wet						
1,1-Dichloroethene	ND		0.0050	mg/kg wet						
1,2-Dichloropropane	ND		0.0050	mg/kg wet						
trans-1,3-Dichloropropene	ND		0.0050	mg/kg wet						
cis-1,3-Dichloropropene	ND		0.0050	mg/kg wet						
Hexachlorobutadiene	ND		0.0050	mg/kg wet						
Iodomethane	ND		0.0050	mg/kg wet						
Methylene chloride	ND		0.0200	mg/kg wet						
4-Methyl-2-pentanone	ND		0.0100	mg/kg wet						
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/kg wet						
1,1,1,2-Tetrachloroethane	ND		0.0050	mg/kg wet						
Tetrachloroethene	ND		0.0050	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.0050	mg/kg wet						
1,1,1-Trichloroethane	ND		0.0050	mg/kg wet						
1,1,2-Trichloroethane	ND		0.0050	mg/kg wet						
Trichloroethene	ND		0.0050	mg/kg wet						
Trichlorofluoromethane	ND		0.0050	mg/kg wet						
1,2,3-Trichloropropane	ND		0.0050	mg/kg wet						
Vinyl chloride	ND		0.0020	mg/kg wet						
Surrogate: 4-Bromofluorobenzene			0.0974	mg/kg wet	0.100		97	70-130		
Surrogate: 1,2-Dichloroethane-d4			0.0931	mg/kg wet	0.100		93	70-130		
Surrogate: Fluorobenzene			0.0976	mg/kg wet	0.100		98	70-130		

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7130023 - Volatiles (Continued)										
LCS (7130023-BS1)					Prepared & Analyzed: 05/09/17					
Benzene	0.051		0.0020	mg/kg wet	0.0500		102	70-130		200
Toluene	0.052		0.0050	mg/kg wet	0.0500		104	70-130		200
Ethylbenzene	0.053		0.0050	mg/kg wet	0.0500		106	70-130		200
Xylenes (total)	0.158		0.0100	mg/kg wet	0.150		105	70-130		200
Naphthalene	0.047		0.0050	mg/kg wet	0.0500		95	70-130		200
Acetone	0.038		0.0100	mg/kg wet	0.0500		75	70-130		200
Acrylonitrile	0.042		0.0100	mg/kg wet	0.0500		83	70-130		200
Bromodichloromethane	0.048		0.0050	mg/kg wet	0.0500		96	70-130		200
Bromoform	0.048		0.0050	mg/kg wet	0.0500		97	70-130		200
Bromomethane	0.051		0.0050	mg/kg wet	0.0500		101	70-130		200
2-Butanone	0.044		0.0100	mg/kg wet	0.0500		88	70-130		200
Carbon disulfide	0.056		0.0050	mg/kg wet	0.0500		113	70-130		200
Carbon tetrachloride	0.049		0.0050	mg/kg wet	0.0500		99	70-130		200
Chlorobenzene	0.051		0.0050	mg/kg wet	0.0500		101	70-130		200
Chloroethane	0.052		0.0050	mg/kg wet	0.0500		104	70-130		200
Chloroform	0.045		0.0050	mg/kg wet	0.0500		91	70-130		200
1,2-Dibromo-3-chloropropane	0.046		0.0050	mg/kg wet	0.0500		91	70-130		200
Dibromochloromethane	0.051		0.0050	mg/kg wet	0.0500		101	70-130		200
1,2-Dibromoethane (EDB)	0.050		0.0020	mg/kg wet	0.0500		99	70-130		200
Dibromomethane	0.050		0.0050	mg/kg wet	0.0500		101	70-130		200
1,2-Dichlorobenzene	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
1,4-Dichlorobenzene	0.047		0.0050	mg/kg wet	0.0500		94	70-130		200
1,3-Dichlorobenzene	0.048		0.0050	mg/kg wet	0.0500		97	70-130		200
Dichlorodifluoromethane	0.045		0.0050	mg/kg wet	0.0500		91	70-130		200

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7130023 - Volatiles (Continued)										
LCS (7130023-BS1)					Prepared & Analyzed: 05/09/17					
1,2-Dichloroethane	0.048		0.0020	mg/kg wet	0.0500		96	70-130		200
1,1-Dichloroethane	0.049		0.0050	mg/kg wet	0.0500		99	70-130		200
trans-1,2-Dichloroethene	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
1,1-Dichloroethane	0.051		0.0050	mg/kg wet	0.0500		102	70-130		200
1,2-Dichloropropane	0.049		0.0050	mg/kg wet	0.0500		99	70-130		200
trans-1,3-Dichloropropene	0.047		0.0050	mg/kg wet	0.0500		94	70-130		200
cis-1,3-Dichloropropene	0.050		0.0050	mg/kg wet	0.0500		101	70-130		200
Hexachlorobutadiene	0.051		0.0050	mg/kg wet	0.0500		101	70-130		200
Iodomethane	0.050		0.0050	mg/kg wet				70-130		200
Methylene chloride	0.050		0.0200	mg/kg wet	0.0500		99	70-130		200
4-Methyl-2-pentanone	0.044		0.0100	mg/kg wet	0.0500		88	70-130		200
1,1,2,2-Tetrachloroethane	0.043		0.0050	mg/kg wet	0.0500		86	70-130		200
1,1,1,2-Tetrachloroethane	0.054		0.0050	mg/kg wet	0.0500		108	70-130		200
Tetrachloroethene	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
1,2,4-Trichlorobenzene	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
1,1,1-Trichloroethane	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
1,1,2-Trichloroethane	0.049		0.0050	mg/kg wet	0.0500		98	70-130		200
Trichloroethene	0.048		0.0050	mg/kg wet	0.0500		96	70-130		200
Trichlorofluoromethane	0.051		0.0050	mg/kg wet	0.0500		101	70-130		200
1,2,3-Trichloropropane	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
Vinyl chloride	0.050		0.0020	mg/kg wet	0.0500		100	70-130		200
Surrogate: 4-Bromofluorobenzene			0.0982	mg/kg wet	0.100		98	70-130		
Surrogate: 1,2-Dichloroethane-d4			0.0896	mg/kg wet	0.100		90	70-130		
Surrogate: Fluorobenzene			0.0999	mg/kg wet	0.100		100	70-130		

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7130023 - Volatiles (Continued)									
Duplicate (7130023-DUP1)			Source: 7E09004-03		Prepared & Analyzed: 05/09/17				
Benzene	ND		0.0020	mg/kg dry		ND			20
Toluene	ND		0.0050	mg/kg dry		ND			20
Ethylbenzene	ND		0.0050	mg/kg dry		ND			20
Xylenes (total)	ND		0.0099	mg/kg dry		ND			20
Naphthalene	ND		0.0050	mg/kg dry		ND			20
Acetone	0.007	J	0.0099	mg/kg dry		0.007		1	20
Acrolein	ND		0.0496	mg/kg dry		ND			20
Acrylonitrile	ND		0.0099	mg/kg dry		ND			20
Bromodichloromethane	ND		0.0050	mg/kg dry		ND			20
Bromoform	ND		0.0050	mg/kg dry		ND			20
Bromomethane	ND		0.0050	mg/kg dry		ND			20
2-Butanone	ND		0.0099	mg/kg dry		ND			20
Carbon disulfide	ND		0.0050	mg/kg dry		ND			20
Carbon tetrachloride	ND		0.0050	mg/kg dry		ND			20
Chlorobenzene	ND		0.0050	mg/kg dry		ND			20
Chloroethane	ND		0.0050	mg/kg dry		ND			20
2-Chloroethylvinyl ether	ND		0.0496	mg/kg dry		ND			20
Chloroform	ND		0.0050	mg/kg dry		ND			20
1,2-Dibromo-3-chloropropane	ND		0.0050	mg/kg dry		ND			20
Dibromochloromethane	ND		0.0050	mg/kg dry		ND			20
1,2-Dibromoethane (EDB)	ND		0.0020	mg/kg dry		ND			20
Dibromomethane	ND		0.0050	mg/kg dry		ND			20
1,2-Dichlorobenzene	ND		0.0050	mg/kg dry		ND			20
1,4-Dichlorobenzene	ND		0.0050	mg/kg dry		ND			20
1,3-Dichlorobenzene	ND		0.0050	mg/kg dry		ND			20

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7130023 - Volatiles (Continued)										
Duplicate (7130023-DUP1)		Source: 7E09004-03			Prepared & Analyzed: 05/09/17					
Dichlorodifluoromethane	ND		0.0050	mg/kg dry		ND				20
1,2-Dichloroethane	ND		0.0020	mg/kg dry		ND				20
1,1-Dichloroethane	ND		0.0050	mg/kg dry		ND				20
trans-1,2-Dichloroethene	ND		0.0050	mg/kg dry		ND				20
1,1-Dichloroethene	ND		0.0050	mg/kg dry		ND				20
1,2-Dichloropropane	ND		0.0050	mg/kg dry		ND				20
trans-1,3-Dichloropropene	ND		0.0050	mg/kg dry		ND				20
cis-1,3-Dichloropropene	ND		0.0050	mg/kg dry		ND				20
Hexachlorobutadiene	ND		0.0050	mg/kg dry		ND				20
Iodomethane	ND		0.0050	mg/kg dry		ND				20
Methylene chloride	ND		0.0199	mg/kg dry		ND				20
4-Methyl-2-pentanone	ND		0.0099	mg/kg dry		ND				20
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/kg dry		ND				20
1,1,1,2-Tetrachloroethane	ND		0.0050	mg/kg dry		ND				20
Tetrachloroethene	ND		0.0050	mg/kg dry		ND				20
1,2,4-Trichlorobenzene	ND		0.0050	mg/kg dry		ND				20
1,1,1-Trichloroethane	ND		0.0050	mg/kg dry		ND				20
1,1,2-Trichloroethane	ND		0.0050	mg/kg dry		ND				20
Trichloroethene	ND		0.0050	mg/kg dry		ND				20
Trichlorofluoromethane	ND		0.0050	mg/kg dry		ND				20
1,2,3-Trichloropropane	ND		0.0050	mg/kg dry		ND				20
Vinyl chloride	ND		0.0020	mg/kg dry		ND				20
<i>Surrogate: 4-Bromofluorobenzene</i>			0.0979	mg/kg dry	0.0993		99	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>			0.0965	mg/kg dry	0.0993		97	70-130		
<i>Surrogate: Fluorobenzene</i>			0.0995	mg/kg dry	0.0993		100	70-130		

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7130023 - Volatiles (Continued)										
Matrix Spike (7130023-MS1)		Source: 7E09003-03			Prepared & Analyzed: 05/09/17					
Benzene	0.042		0.0020	mg/kg dry	0.0496	ND	85	70-130		200
Toluene	0.041		0.0050	mg/kg dry	0.0496	ND	84	70-130		200
Ethylbenzene	0.043		0.0050	mg/kg dry	0.0496	ND	87	70-130		200
Xylenes (total)	0.126		0.0099	mg/kg dry	0.149	ND	85	70-130		200
Naphthalene	0.031		0.0050	mg/kg dry	0.0496	ND	63	70-130		200
Acetone	0.043		0.0099	mg/kg dry	0.0496	0.003	80	70-130		200
Acrylonitrile	0.028		0.0099	mg/kg dry	0.0496	ND	56	70-130		200
Bromodichloromethane	0.036		0.0050	mg/kg dry	0.0496	ND	72	70-130		200
Bromoform	0.032		0.0050	mg/kg dry	0.0496	ND	65	70-130		200
Bromomethane	0.045		0.0050	mg/kg dry	0.0496	ND	91	70-130		200
2-Butanone	0.036		0.0099	mg/kg dry	0.0496	ND	72	70-130		200
Carbon disulfide	0.051		0.0050	mg/kg dry	0.0496	ND	103	70-130		200
Carbon tetrachloride	0.046		0.0050	mg/kg dry	0.0496	ND	92	70-130		200
Chlorobenzene	0.038		0.0050	mg/kg dry	0.0496	ND	76	70-130		200
Chloroethane	0.046		0.0050	mg/kg dry	0.0496	ND	93	70-130		200
Chloroform	0.037		0.0050	mg/kg dry	0.0496	ND	74	70-130		200
1,2-Dibromo-3-chloropropane	0.030		0.0050	mg/kg dry	0.0496	ND	61	70-130		200
Dibromochloromethane	0.037		0.0050	mg/kg dry	0.0496	ND	74	70-130		200
1,2-Dibromoethane (EDB)	0.035		0.0020	mg/kg dry	0.0496	ND	71	70-130		200
Dibromomethane	0.037		0.0050	mg/kg dry	0.0496	ND	75	70-130		200
1,2-Dichlorobenzene	0.035		0.0050	mg/kg dry	0.0496	ND	72	70-130		200
1,4-Dichlorobenzene	0.034		0.0050	mg/kg dry	0.0496	ND	69	70-130		200
1,3-Dichlorobenzene	0.037		0.0050	mg/kg dry	0.0496	ND	75	70-130		200
Dichlorodifluoromethane	0.037		0.0050	mg/kg dry	0.0496	ND	74	70-130		200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:10

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7130023 - Volatiles (Continued)									
Matrix Spike (7130023-MS1)		Source: 7E09003-03			Prepared & Analyzed: 05/09/17				
1,2-Dichloroethane	0.035		0.0020	mg/kg dry	0.0496	ND	70	70-130	200
1,1-Dichloroethane	0.039		0.0050	mg/kg dry	0.0496	ND	80	70-130	200
trans-1,2-Dichloroethene	0.043		0.0050	mg/kg dry	0.0496	ND	88	70-130	200
1,1-Dichloroethene	0.049		0.0050	mg/kg dry	0.0496	ND	100	70-130	200
1,2-Dichloropropane	0.037		0.0050	mg/kg dry	0.0496	ND	75	70-130	200
trans-1,3-Dichloropropene	0.034		0.0050	mg/kg dry	0.0496	ND	69	70-130	200
cis-1,3-Dichloropropene	0.037		0.0050	mg/kg dry	0.0496	ND	74	70-130	200
Hexachlorobutadiene	0.042		0.0050	mg/kg dry	0.0496	ND	85	70-130	200
Iodomethane	0.043		0.0050	mg/kg dry		ND		70-130	200
Methylene chloride	0.039		0.0198	mg/kg dry	0.0496	ND	78	70-130	200
4-Methyl-2-pentanone	0.033		0.0099	mg/kg dry	0.0496	ND	67	70-130	200
1,1,2,2-Tetrachloroethane	0.031		0.0050	mg/kg dry	0.0496	ND	63	70-130	200
1,1,1,2-Tetrachloroethane	0.039		0.0050	mg/kg dry	0.0496	ND	78	70-130	200
Tetrachloroethene	0.043		0.0050	mg/kg dry	0.0496	ND	88	70-130	200
1,2,4-Trichlorobenzene	0.034		0.0050	mg/kg dry	0.0496	ND	68	70-130	200
1,1,1-Trichloroethane	0.045		0.0050	mg/kg dry	0.0496	ND	90	70-130	200
1,1,2-Trichloroethane	0.035		0.0050	mg/kg dry	0.0496	ND	70	70-130	200
Trichloroethene	0.042		0.0050	mg/kg dry	0.0496	ND	85	70-130	200
Trichlorofluoromethane	0.050		0.0050	mg/kg dry	0.0496	ND	102	70-130	200
1,2,3-Trichloropropane	0.034		0.0050	mg/kg dry	0.0496	ND	68	70-130	200
Vinyl chloride	0.047		0.0020	mg/kg dry	0.0496	ND	95	70-130	200
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>0.102</i>	<i>mg/kg dry</i>	<i>0.0992</i>		<i>103</i>	<i>70-130</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>			<i>0.102</i>	<i>mg/kg dry</i>	<i>0.0992</i>		<i>103</i>	<i>70-130</i>	
<i>Surrogate: Fluorobenzene</i>			<i>0.0990</i>	<i>mg/kg dry</i>	<i>0.0992</i>		<i>100</i>	<i>70-130</i>	

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:10

Notes

- A7 A reduced amount of sample was used during the preparation step due to the matrix of the sample.
- F The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered above the acceptance range for the noted analyte.
- H The spike recovery was above the acceptance range for the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- I4 Vials were prepared at the laboratory from the received container.
- J Detected between the Method Detection Limit (MDL) and the Reporting Limit (RL); therefore, the result is an estimated value.
- K The RPD result exceeded the quality control limits for the duplicate, Laboratory Control Sample Duplicate (LCSD), or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- L The noted analyte was detected in the method blank.
- Q Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.



2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennsdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



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Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

* G indicates analysis performed by Fairway Laboratories, Inc. at the Greensburg location PaDEP: 65-00392. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

Fairway Laboratories, Inc.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved,

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ENVIRONMENTAL LABORATORIES
Environmental Laboratory

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§ 268.48 Universal treatment standards.

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in § 268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

Universal Treatment Standards

[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard Concentration ² in mg/l	Nonwastewater standard Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Organic Constituents			
✓ Acenaphthylene	208-96-8	0.059	3.4
✓ Acenaphthene	83-32-9	0.059	3.4
✓ Acetone	67-64-1	0.28	160
✓ Acetonitrile	75-05-8	5.6	38
✓ Acetophenone	96-86-2	0.010	9.7
~~2-Acetylaminofluorene~~	~~53-96-3~~	~~0.059~~	~~140~~
✓ Acrolein	107-02-8	0.29	NA
~~Acrylamide~~	~~79-06-1~~	~~19~~	~~23~~
✓ Acrylonitrile	107-13-1	0.24	84
✓ Aldrin	309-00-2	0.021	0.066
~~4-Aminobiphenyl~~	~~92-67-1~~	~~0.13~~	~~NA~~
✓ Aniline	62-53-3	0.81	14
~~Anilidine (2-methoxyaniline)~~	~~90-04-0~~	~~0.010~~	~~0.66~~
✓ Anthracene	120-12-7	0.059	3.4
~~Aramite~~	~~140-57-8~~	~~0.36~~	~~NA~~
✓ alpha-BHC	319-84-6	0.00014	0.066

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✓ beta-BHC	319-85-7	0.00014	0.066
✓ delta-BHC	319-86-8	0.023	0.066
✓ gamma-BHC	58-89-9	0.0017	0.066
✓ Benzene	71-43-2	0.14	10
✓ Benz(a)anthracene	56-55-3	0.059	3.4
✓ Benzal chloride	98-87-3	0.055	6.0
✓ Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
✓ Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
✓ Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
✓ Benzo(a)pyrene	50-32-8	0.061	3.4
✓ Bromodichloromethane	75-27-4	0.35	15
✓ Bromomethane/Methyl bromide	74-83-9	0.11	15
✓ 4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
✓ Butyl benzyl phthalate	85-68-7	0.017	28
✓ 2 sec-Butyl 4,6-dinitrophenol/Dinoseb	~~88-85-7~~	~~0.066~~	~~2.5~~
✓ Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
✓ Carbon tetrachloride	56-23-5	0.057	6.0
✓ Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
✓ p-Chloroaniline	106-47-8	0.46	16
✓ Chlorobenzene	108-90-7	0.057	6.0
✓ Chlorobenzilate	~~510-15-6~~	~~0.10~~	~~NA~~
✓ 2-Chloro-1,3-butadiene	~~126-99-8~~	~~0.057~~	~~0.26~~
✓ Chlorodibromomethane	124-48-1	0.057	15
✓ Chloroethane	75-00-3	0.27	6.0
✓ bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2

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/ bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
- Chloroform	67-66-3	0.046	6.0
/ bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
/ p-Chloro-m-cresol	59-50-7	0.018	14
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
- Chloromethane/Methyl chloride	74-87-3	0.19	30
/ 2-Chloronaphthalene	91-58-7	0.055	5.6
/ 2-Chlorophenol	95-57-8	0.044	5.7
~~/ 3-Chloropropylene~~	~~107-05-1~~	~~0.036~~	~~30~~
/ Chrysene	218-01-9	0.059	3.4
~~/ p-Cresidine~~	~~120-71-8~~	~~0.010~~	~~0.66~~
/ o-Cresol	95-48-7	0.11	5.6
/ m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
/ p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
- Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
~~/ o,p'-DDD~~	~~53-19-8~~	~~0.023~~	~~0.087~~
/ p,p'-DDD	72-54-8	0.023	0.087
~~/ o,p'-DDE~~	~~3424-82-0~~	~~0.031~~	~~0.087~~
/ p,p'-DDE	72-55-9	0.031	0.087
~~/ o,p'-DDT~~	~~789-02-6~~	~~0.0039~~	~~0.087~~
/ p,p'-DDT	50-29-3	0.0039	0.087
/ Dibenz(a,h)anthracene	53-70-3	0.055	8.2
~~/ Dibenz(a,c)pyrene~~	~~192-65-4~~	~~0.001~~	~~NA~~
/ 1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
/ 1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
- Dibromomethane	74-95-3	0.11	15
/ m-Dichlorobenzene	541-73-1	0.036	6.0

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✓ o-Dichlorobenzene	95-50-1	0.088	6.0
✓ p-Dichlorobenzene	106-46-7	0.090	6.0
✓ Dichlorodifluoromethane	75-71-8	0.23	7.2
✓ 1,1-Dichloroethane	75-34-3	0.059	6.0
✓ 1,2-Dichloroethane	107-06-2	0.21	6.0
✓ 1,1-Dichloroethylene	75-35-4	0.025	6.0
✓ trans-1,2-Dichloroethylene	156-60-5	0.054	30
✓ 2,4-Dichlorophenol	120-83-2	0.044	14
~~2,6-Dichlorophenol~~	~~87-65-0~~	~~0.044~~	~~14~~
~~2,4-Dichlorophenoxyacetic acid/2,4-D~~	~~94-75-7~~	~~0.72~~	~~10~~
✓ 1,2-Dichloropropane	78-87-5	0.85	18
✓ cis-1,3-Dichloropropylene	10061-01-5	0.036	18
✓ trans-1,3-Dichloropropylene	10061-02-6	0.036	18
✓ Dieldrin	60-57-1	0.017	0.13
✓ Diethyl phthalate	84-66-2	0.20	28
~~p-Dimethylaminoazobenzene~~	~~60-11-7~~	~~0.13~~	~~NA~~
~~2,4-Dimethylaniline (2,4-Xyldine)~~	~~95-68-1~~	~~0.010~~	~~0.06~~
✓ 2,4-Dimethyl phenol	105-67-9	0.036	14
✓ Dimethyl phthalate	131-11-3	0.047	28
✓ Di-n-butyl phthalate	84-74-2	0.057	28
~~1,4-Dinitrobenzene~~	~~100-25-4~~	~~0.32~~	~~2.3~~
✓ 4,6-Dinitro-o-cresol	534-52-1	0.28	160
✓ 2,4-Dinitrophenol	51-28-5	0.12	160
✓ 2,4-Dinitrotoluene	121-14-2	0.32	140
✓ 2,6-Dinitrotoluene	606-20-2	0.55	28
✓ Di-n-octyl phthalate	117-84-0	0.017	28
~~Di-n-propyl nitrosamine~~	~~621-64-7~~	~~0.40~~	~~14~~

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1,4-Dioxane	123-91-1	12.0	170
~~Diphenylamine (difficult to distinguish from diphenylnitrosamine)~~	~~122-39-4~~	~~0.92~~	~~13~~
~~Diphenylnitrosamine (difficult to distinguish from diphenylamine)~~	~~86-30-6~~	~~0.02~~	~~13~~
1,2-Diphenylhydrazine	122-66-7	0.087	NA
~~Disulfoton~~	~~298-04-4~~	~~0.017~~	~~6.2~~
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
~~Ethyl cyanide/Propanenitrile~~	~~107-12-0~~	~~0.24~~	~~360~~
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
~~Ethylene oxide~~	~~75-21-8~~	~~0.12~~	~~NA~~
~~Famphur~~	~~52-83-7~~	~~0.017~~	~~15~~
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	.0025
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	.0025

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1,2,3,4,7,8,9- Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673- 89-7	0.000035	0.0025
✓ Heptachlor epoxide	1024- 57-3	0.016	0.066
✓ Hexachlorobenzene	118-74- 1	0.055	10
- Hexachlorobutadiene	87-68-3	0.055	5.6
✓ Hexachlorocyclopentadiene	77-47-4	0.057	2.4
~~HxCDDs (All Hexachlorodibenzo-p- dioxins)~~	~~NA~~	~~0.000063~~	~~0.001~~
~~HxCDFs (All Hexachlorodibenzofurans)~~	~~NA~~	~~0.000063~~	~~0.001~~
✓ Hexachloroethane	67-72-1	0.055	30
~~Hexachloropropylene~~	~~1888- 71-7~~	~~0.055~~	~~30~~
✓ Indeno(1,2,3-c,d) pyrene	193-39- 5	0.0055	3.4
- Iodomethane	74-88-4	0.19	65
~~Isobutyl alcohol~~	~~78-83-1~~	~~5.6~~	~~170~~
~~Isodrin~~	~~465-73- 6~~	~~0.021~~	~~0.066~~
~~Isosafrole~~	~~120-58- 1~~	~~0.081~~	~~2.6~~
~~Kepone~~	~~143-50- 0~~	~~0.0011~~	~~0.15~~
~~Methacrylonitrile~~	~~126-98- 7~~	~~0.24~~	~~84~~
~~Methanol~~	~~67-56-1~~	~~5.6~~	~~0.75 mg/L TCLP~~
~~Methapyrilene~~	~~91-88-5~~	~~0.081~~	~~1.5~~
✓ Methoxychlor	72-43-5	0.25	0.18
~~3-Methylcholanthrene~~	~~56-49-5~~	~~0.0035~~	~~15~~
~~4,4'-Methylene bis(2-chloroaniline)~~	~~101-14- 4~~	~~0.50~~	~~30~~
- Methylene chloride	75-09-2	0.089	30
- Methyl ethyl ketone	78-93-3	0.28	36
- Methyl isobutyl ketone	108-10- 1	0.14	33
- Methyl methacrylate	80-62-6	0.14	160
~~Methyl methanesulfonate~~	~~66-27-3~~	~~0.012~~	~~NA~~

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Methyl parathion	298-00-0	0.014	4.6
✓ Naphthalene	91-20-3	0.059	5.6
~~2-Naphthylamine~~	~~91-59-8~~	~~0.52~~	~~NA~~
✓ o-Nitroaniline	88-74-4	0.27	14
✓ p-Nitroaniline	100-01-6	0.028	28
✓ Nitrobenzene	98-95-3	0.068	14
~~5-Nitro-o-toluidine~~	~~99-55-8~~	~~0.22~~	~~28~~
✓ o-Nitrophenol	88-75-5	0.028	13
✓ p-Nitrophenol	100-02-7	0.12	29
~~N-Nitrosodichthylamine~~	~~55-18-5~~	~~0.40~~	~~28~~
✓ N-Nitrosodimethylamine	62-75-9	0.40	2.3
~~N-Nitroso-di-n-butylamine~~	~~924-16-5~~	~~0.40~~	~~17~~
~~N-Nitrosomethylthylamine~~	~~10595-95-6~~	~~0.40~~	~~2.3~~
~~N-Nitrosomorpholine~~	~~59-89-2~~	~~0.40~~	~~2.3~~
~~N-Nitrosopiperidine~~	~~100-75-4~~	~~0.013~~	~~35~~
~~N-Nitrosopyrrolidine~~	~~930-55-2~~	~~0.013~~	~~35~~
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063	0.005
~~Parathion~~	~~36-38-2~~	~~0.014~~	~~4.6~~
✓ Total PCBs (sum of all PCB isomers, or all Aroclors) ⁸	1336-36-3	0.10	10
~~Pentachlorobenzene~~	~~608-93-5~~	~~0.055~~	~~10~~
~~PeCDDs (All Pentachlorodibenzo-p-dioxins)~~	~~NA~~	~~0.000063~~	~~0.001~~
~~PeCDFs (All Pentachlorodibenzofurans)~~	~~NA~~	~~0.000035~~	~~0.001~~
~~Pentachloroethane~~	~~76-01-7~~	~~0.055~~	~~6.0~~
~~Pentachloronitrobenzene~~	~~82-68-8~~	~~0.055~~	~~4.8~~
✓ Pentachlorophenol	87-86-5	0.089	7.4
~~Phthalocyanine~~	~~62-44-2~~	~~0.081~~	~~16~~

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/ Phenanthrene	85-01-8	0.059	5.6
/ Phenol	108-95-2	0.039	6.2
~~1,3-Phenylenediamine~~	~~108-45-2~~	~~0.010~~	~~0.66~~
~~Phorate~~	~~298-02-2~~	~~0.021~~	~~4.6~~
~~Phthalic acid~~	~~100-21-0~~	~~0.055~~	~~28~~
~~Phthalic anhydride~~	~~85-44-9~~	~~0.055~~	~~28~~
~~Propanilide~~	~~23930-58-5~~	~~0.093~~	~~1.3~~
/ Pyrene	129-00-0	0.067	8.2
/ Pyridine	110-86-1	0.014	16
~~Safrole~~	~~94-59-7~~	~~0.081~~	~~22~~
~~Silver 2,4,5-TP~~	~~93-72-1~~	~~0.72~~	~~7.9~~
/ 1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
~~TCDDs (All Tetrachlorodibenzo-p-dioxins)~~	~~NA~~	~~0.000063~~	~~0.001~~
~~TCDFs (All Tetrachlorodibenzofurans)~~	~~NA~~	~~0.000063~~	~~0.001~~
- 1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
- 1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
- Tetrachloroethylene	127-18-4	0.056	6.0
/ 2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
- Toluene	108-88-3	0.080	10
/ Toxaphene	8001-35-2	0.0095	2.6
- Tribromomethane/Bromoform	75-25-2	0.63	15
- 1,2,4-Trichlorobenzene	120-82-1	0.055	19
- 1,1,1-Trichloroethane	71-55-6	0.054	6.0
- 1,1,2-Trichloroethane	79-00-5	0.054	6.0
- Trichloroethylene	79-01-6	0.054	6.0
- Trichlorofluoromethane	75-69-4	0.020	30
/ 2,4,5-Trichlorophenol	95-95-4	0.18	7.4

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✓ 2,4,6-Trichlorophenol	88-06-2	0.035	7.4
~~2,4,5-Trichlorophenoxyacetic acid/2,4,5-T~~	~~93-76-5~~	~~0.72~~	~~7.0~~
✓ 1,2,3-Trichloropropane	96-18-4	0.85	30
✓ 1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
~~tris (2,3-Dibromopropyl) phosphate~~	~~126-72-1~~	~~0.11~~	~~0.10~~
✓ Vinyl chloride	75-01-4	0.27	6.0
✓ Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Inorganic Constituents			
Antimony	7440-36-0	1.9	1.15 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	21 mg/l TCLP
Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) ⁴	57-12-5	1.2	590
Cyanides (Amenable) ⁴	57-12-5	0.86	30
Fluoride ⁵	16984-48-8	35	NA
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury - Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury - All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium ⁷	7782-49-2	0.82	5.7 mg/l TCLP
Silver	7440-22-4	0.43	0.14 mg/l TCLP
Sulfide ⁵	18496-25-8	14	NA

7E05016 # 12

Thallium	7440-28-0	1.4	0.20 mg/l TCLP
Vanadium ⁵	7440-62-2	4.3	1.6 mg/l TCLP
Zinc ⁵	7440-66-6	2.61	4.3 mg/l TCLP

Footnotes to Table UTS

CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at § 268.2(i).

[Reserved]

This constituent is not an underlying hazardous constituent as defined at § 268.2(i) of this Part because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.

This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004-D011 only.

[59 FR 48103, Sept. 19, 1994, as amended at 60 FR 302, Jan. 3, 1995; 61 FR 15654, Apr. 8, 1996; 61 FR 33690, June 28, 1996; 62 FR 7596, Feb. 19, 1997; 63 FR 24626, May 4, 1998; 63 FR 28739, May 26, 1998; 63 FR 47417, Sept. 4, 1998; 64 FR 25417, May 11, 1999; 65 FR 14475, Mar. 17, 2000; 70 FR 34590, June 14, 2005; 70 FR 9178, Feb. 24, 2005; 71 FR 40279, July 14, 2006; 75 FR 13008, Mar. 18, 2010; 76 FR 34156, June 13, 2011]



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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
CLARIFIER	7E16021-01	Solid	Grab	05/14/17 14:00	05/15/17 17:20

7E16021 Report revised. This report replaces the report issued on 12/20/17 8:42. 1/9/18smc/mlf

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Analyses to be performed immediately upon sampling. See Definition indicated by: #

# pH @ 20.7°C	8.74			pH Units	05/16/17 13:26	SW846-9045 D	elb	

Calculated Analytes

Amenable Cyanide	<0.551	0.551	3.67	mg/kg dry	05/23/17 12:52	SM20-4500 CN-C+E+G	caa	

Chlorinated Herbicides by EPA Method 8151A

2,4-D	<2.63	2.63	13.2	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	
Acifluorfen	<1.32	1.32	13.2	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	
2,4-DB	<2.63	2.63	13.2	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	
2,4,5-T	<1.32	1.32	13.2	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	
2,4,5-TP (Silvex)	<1.32	1.32	13.2	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	
Dalapon	<32.9	32.9	132	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	
Dicamba	<1.32	1.32	13.2	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	
Dichloroprop	<1.32	1.32	13.2	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	
Dinoseb	<1.32	1.32	13.2	ug/kg dry	05/24/17 00:29	EPA 8151A	rsr	

Surrogate: 2,4-DCAA	93 %	40.6-150			05/24/17 00:29	EPA 8151A	rsr	

Conventional Chemistry Parameters by SM/EPA Methods

Fluoride	69.5 J	8.22	183	mg/kg dry	05/18/17 06:59	EPA 9056A	bdw	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	25.0		0.100	%	05/18/17 20:00	SM 2540 G-97	pra	
Sulfide	<68.9		68.9	mg/kg dry	05/16/17 15:00	EPA SW846 9030/9034	pra	

Cyanide by Preparation Method EPA 9010

Cyanide (total)	18.3	0.551	3.67	mg/kg dry	05/23/17 12:52	EPA 9014	caa	Q

Metals by EPA 6000/7000 Series Methods

Silver	28.4	0.863	6.39	mg/kg dry	05/22/17 14:18	EPA 6010B/2.0	sr	G
Arsenic	90.5	4.32	12.8	mg/kg dry	05/22/17 14:19	EPA 6010B/2.0	sr	
Barium	6680	198	320	mg/kg dry	05/22/17 14:24	EPA 6010B/2.0	sr	L
Beryllium	0.937 J	0.655	3.20	mg/kg dry	05/22/17 14:18	EPA 6010B/2.0	sr	
Cadmium	16.8	2.27	6.39	mg/kg dry	05/22/17 14:19	EPA 6010B/2.0	sr	
Chromium	471	23.3	160	mg/kg dry	05/22/17 14:26	EPA 6010B/2.0	sr	
Mercury	0.933	0.0105	0.105	mg/kg dry	05/18/17 10:13	EPA 7471B	jks	
Nickel	351	11.7	79.9	mg/kg dry	05/22/17 14:19	EPA 6010B/2.0	sr	

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by EPA 6000/7000 Series Methods

Lead	2330	41.7	256	mg/kg dry	05/22/17 14:26	EPA 6010B/2.0	sr	
Antimony	32.4	13.1	16.0	mg/kg dry	05/22/17 14:19	EPA 6010B/2.0	sr	L
Selenium	<15.7	15.7	32.0	mg/kg dry	05/22/17 14:19	EPA 6010B/2.0	sr	
Thallium	<4.64	4.64	32.0	mg/kg dry	05/22/17 14:19	EPA 6010B/2.0	sr	
Vanadium	36.4	1.02	32.0	mg/kg dry	05/22/17 14:18	EPA 6010B/2.0	sr	
Zinc	2570	7.03	32.0	mg/kg dry	05/22/17 14:18	EPA 6010B/2.0	sr	

Organochlorine Pesticides by EPA Extraction Method 3541

Aldrin	<15.6	15.6	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
alpha-BHC	<13.6	13.6	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
beta-BHC	<19.3	19.3	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
delta-BHC	<12.2	12.2	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
gamma-BHC (Lindane)	<12.8	12.8	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Chlordane (tech)	<493	493	1970	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
4,4'-DDD	<14.8	14.8	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Organochlorine Pesticides by EPA Extraction Method 3541

4,4'-DDE	<13.4	13.4	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
4,4'-DDT	<12.4	12.4	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Dieldrin	<13.4	13.4	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Endosulfan I	<14.4	14.4	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Endosulfan II	<15.8	15.8	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Endosulfan sulfate	<12.0	12.0	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Endrin	<15.8	15.8	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Endrin aldehyde	<15.6	15.6	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Heptachlor	<13.2	13.2	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Heptachlor epoxide	<21.5	21.5	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Methoxychlor	<24.0	24.0	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Toxaphene	<822	822	1970	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
alpha-Chlordane	<14.4	14.4	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
gamma-Chlordane	<13.6	13.6	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Endrin ketone	<25.0	25.0	39.4	ug/kg dry	05/17/17 22:04	EPA 8081B	RSR	
Surrogate: Tetrachloro-meta-xylene	133 %		40-157		05/17/17 22:04	EPA 8081B	RSR	
Surrogate: Decachlorobiphenyl	115 %		57.1-153		05/17/17 22:04	EPA 8081B	RSR	

Polychlorinated Biphenyls by EPA Extraction Method 3541

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.022	0.022	0.039	mg/kg dry	05/19/17 06:09	EPA 8082	rsr	
PCB-1221	<0.032	0.032	0.039	mg/kg dry	05/19/17 06:09	EPA 8082	rsr	
PCB-1232	<0.032	0.032	0.039	mg/kg dry	05/19/17 06:09	EPA 8082	rsr	
PCB-1242	<0.011	0.011	0.039	mg/kg dry	05/19/17 06:09	EPA 8082	rsr	
PCB-1248	<0.007	0.007	0.039	mg/kg dry	05/19/17 06:09	EPA 8082	rsr	
PCB-1254	<0.024	0.024	0.039	mg/kg dry	05/19/17 06:09	EPA 8082	rsr	
PCB-1260	<0.023	0.023	0.039	mg/kg dry	05/19/17 06:09	EPA 8082	rsr	
Surrogate: Tetrachloro-meta-xylene	83.3 %		11-140		05/19/17 06:09	EPA 8082	rsr	
Surrogate: Decachlorobiphenyl	96.7 %		24.4-140		05/19/17 06:09	EPA 8082	rsr	

Semivolatile Organic Compounds by EPA Extraction Method 3541

Pyridine	<2.01	2.01	7.74	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Diphenylamine	<0.465	0.465	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Benzidine	<1.36	1.36	19.4	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	F
Acenaphthene	<0.271	0.271	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Acenaphthylene	<0.310	0.310	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Anthracene	<0.194	0.194	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Benzoic acid	<1.67	1.67	38.7	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Benzo (a) anthracene	<0.194	0.194	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

Benzo (b) fluoranthene	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Benzo (k) fluoranthene	<0.271	0.271	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Benzo (g,h,i) perylene	<0.310	0.310	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Benzo (a) pyrene	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Benzyl alcohol	<0.542	0.542	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Bis(2-chloroethoxy)methane	<0.542	0.542	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Bis(2-chloroethyl)ether	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Bis(2-chloroisopropyl)ether	<0.232	0.232	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Bis(2-ethylhexyl)phthalate	<1.16	1.16	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
4-Bromophenyl phenyl ether	<0.271	0.271	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Butyl benzyl phthalate	<0.465	0.465	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
4-Chloroaniline	<0.503	0.503	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
4-Chloro-3-methylphenol	<0.349	0.349	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2-Chloronaphthalene	<0.232	0.232	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2-Chlorophenol	<0.194	0.194	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
4-Chlorophenyl phenyl ether	<0.503	0.503	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Chrysene	<0.194	0.194	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Dibenz (a,h) anthracene	<0.271	0.271	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	

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Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

Dibenzofuran	<0.116	0.116	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Di-n-butyl phthalate	<0.813	0.813	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
1,2-Dichlorobenzene	<0.349	0.349	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
1,3-Dichlorobenzene	<0.194	0.194	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
1,4-Dichlorobenzene	<0.194	0.194	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
3,3'-Dichlorobenzidine	<0.349	0.349	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2,4-Dichlorophenol	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Diethyl phthalate	<0.387	0.387	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	F
2,4-Dimethylphenol	<0.310	0.310	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Dimethyl phthalate	<0.232	0.232	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
4,6-Dinitro-2-methylphenol	<1.24	1.24	19.4	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2,4-Dinitrophenol	<1.01	1.01	19.4	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	F
2,4-Dinitrotoluene	<0.813	0.813	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2,6-Dinitrotoluene	<0.736	0.736	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Di-n-octyl phthalate	<0.271	0.271	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Aniline	<0.271	0.271	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Naphthalene	<0.232	0.232	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
N-Nitrosodimethylamine	<0.503	0.503	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	

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Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

3 & 4-Methylphenol	<0.349	0.349	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Acetophenone	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
1,2-Diphenylhydrazine	<0.155	0.155	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Fluoranthene	<0.194	0.194	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Fluorene	<0.155	0.155	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Hexachlorobenzene	<0.465	0.465	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Hexachlorobutadiene	<0.503	0.503	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Hexachlorocyclopentadiene	<0.968	0.968	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Hexachloroethane	<0.465	0.465	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Indeno (1,2,3-cd) pyrene	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Isophorone	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2-Methylnaphthalene	<0.310	0.310	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2-Methylphenol	<0.620	0.620	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2-Nitroaniline	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
3-Nitroaniline	<1.08	1.08	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
4-Nitroaniline	<0.891	0.891	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Nitrobenzene	<0.503	0.503	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2-Nitrophenol	<0.581	0.581	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

A7

4-Nitrophenol	<0.968	0.968	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
N-Nitrosodi-n-propylamine	<0.387	0.387	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Pentachlorophenol	<0.968	0.968	19.4	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Phenanthrene	<0.194	0.194	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Phenol	<0.503	0.503	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Pyrene	<0.271	0.271	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
1,2,4-Trichlorobenzene	<0.426	0.426	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2,4,5-Trichlorophenol	<0.658	0.658	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
2,4,6-Trichlorophenol	<0.620	0.620	3.87	mg/kg dry	05/19/17 00:46	EPA 8270D	rsr	
Surrogate: 2-Fluorophenol	88 %		10-169		05/19/17 00:46	EPA 8270D	rsr	
Surrogate: Phenol-d6	88 %		10-166		05/19/17 00:46	EPA 8270D	rsr	
Surrogate: Nitrobenzene-d5	89 %		18.8-170		05/19/17 00:46	EPA 8270D	rsr	
Surrogate: 2-Fluorobiphenyl	93 %		35.1-154		05/19/17 00:46	EPA 8270D	rsr	
Surrogate: 2,4,6-Tribromophenol	95 %		20-158		05/19/17 00:46	EPA 8270D	rsr	
Surrogate: Terphenyl-d14	87 %		52.1-160		05/19/17 00:46	EPA 8270D	rsr	

TCLP Extraction by EPA 1311

# pH @ 21°C	8.38		pH Units	05/17/17 08:59	EPA 1311	spp	

TCLP Metals extracted by EPA 1311

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PaDEP: PA 41-04684



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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
TCLP Metals extracted by EPA 1311								
Silver	<0.00802	0.00802	0.0200	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Arsenic	<0.0250	0.0250	0.0400	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Barium	0.767	0.0310	0.0500	mg/l	05/19/17 09:57	EPA 6010B/2.0	sr	
Beryllium	0.000832 J	0.000730	0.0100	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Cadmium	<0.00520	0.00520	0.0200	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Chromium	<0.00522	0.00522	0.0250	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Mercury	<0.000410	0.000410	0.00200	mg/l	05/18/17 12:37	EPA 7471B	jks	Q
Nickel	<0.0382	0.0382	0.250	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Lead	<0.0169	0.0169	0.0400	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Antimony	0.0980	0.0289	0.0500	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	K
Selenium	<0.0224	0.0224	0.100	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Thallium	<0.0361	0.0361	0.100	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Metals extracted by EPA 1311

Vanadium	<0.00374	0.00374	0.100	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	
Zinc	0.0152 J	0.0136	0.100	mg/l	05/19/17 09:59	EPA 6010B/2.0	sr	

Volatile Organic Compounds by EPA Method 8260B

14

Acrolein	<1.38	1.38	18.4	mg/kg dry	05/25/17 19:19	EPA 8260B	mtc	
2-Chloroethylvinyl ether	<1.56	1.56	18.4	mg/kg dry	05/25/17 19:19	EPA 8260B	mtc	
Benzene	<0.0005	0.0005	0.0066	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Toluene	0.0087 J	0.0005	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Ethylbenzene	0.0128 J	0.0001	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Xylenes (total)	0.0200 J	0.0017	0.0330	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Naphthalene	<0.0011	0.0011	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Acrylonitrile	<0.0015	0.0015	0.0330	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Bromodichloromethane	<0.0005	0.0005	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Bromoform	<0.0006	0.0006	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Bromomethane	<0.0017	0.0017	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
2-Butanone	0.0630	0.0050	0.0330	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Carbon disulfide	0.0357	0.0010	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Carbon tetrachloride	<0.0009	0.0009	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	

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PaDEP: PA 41-04684



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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

14

Chlorobenzene	<0.0017	0.0017	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Chloroethane	<0.0010	0.0010	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Chloroform	<0.0006	0.0006	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
1,2-Dibromo-3-chloropropane	<0.0010	0.0010	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Dibromochloromethane	<0.0008	0.0008	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
1,2-Dibromoethane (EDB)	<0.0006	0.0006	0.0066	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Dibromomethane	<0.0005	0.0005	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
1,2-Dichlorobenzene	<0.0008	0.0008	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
1,4-Dichlorobenzene	<0.0009	0.0009	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
1,3-Dichlorobenzene	<0.0009	0.0009	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
Dichlorodifluoromethane	<0.0012	0.0012	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	G
1,2-Dichloroethane	<0.0007	0.0007	0.0066	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
1,1-Dichloroethane	<0.0004	0.0004	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
trans-1,2-Dichloroethene	<0.0009	0.0009	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
1,1-Dichloroethene	<0.0008	0.0008	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
1,2-Dichloropropane	<0.0004	0.0004	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
trans-1,3-Dichloropropene	<0.0004	0.0004	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	
cis-1,3-Dichloropropene	<0.0004	0.0004	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Client Sample ID: CLARIFIER

Date/Time Sampled: 05/14/17 14:00

Laboratory Sample ID: 7E16021-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B

14

Hexachlorobutadiene	<0.0016	0.0016	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
Iodomethane	<0.0007	0.0007	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
Methylene chloride	<0.0074	0.0074	0.0661	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
1,1,2,2-Tetrachloroethane	<0.0008	0.0008	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
1,1,1,2-Tetrachloroethane	<0.0005	0.0005	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
Tetrachloroethene	<0.0011	0.0011	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
1,2,4-Trichlorobenzene	<0.0011	0.0011	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
1,1,1-Trichloroethane	<0.0009	0.0009	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
1,1,2-Trichloroethane	<0.0007	0.0007	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
Trichloroethene	<0.0009	0.0009	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
Trichlorofluoromethane	<0.0038	0.0038	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
1,2,3-Trichloropropane	<0.0011	0.0011	0.0165	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
Vinyl chloride	<0.0030	0.0030	0.0066	mg/kg dry	05/25/17 05:07	EPA 8260B	MTC
Surrogate: 4-Bromofluorobenzene	91 %		70-130		05/25/17 05:07	EPA 8260B	MTC
Surrogate: 1,2-Dichloroethane-d4	111 %		70-130		05/25/17 05:07	EPA 8260B	MTC
Surrogate: Fluorobenzene	99 %		70-130		05/25/17 05:07	EPA 8260B	MTC

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Quality Control

Analyses to be performed immediately upon sampling. See Definition indicated by: #

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: 7136015 - General Prep

Duplicate (7136015-DUP1)

Source: 7E16021-01

Prepared & Analyzed: 05/16/17

# pH	8.83			pH Units		8.74			1.02	10

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State Certifications: MD 275, WV 364

Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7142030 - EPA 8151A									
Blank (7142030-BLK1)					Prepared: 05/22/17 Analyzed: 05/23/17				
2,4-D	ND		3.33	ug/kg wet					
Acifluorfen	ND		3.33	ug/kg wet					
2,4-DB	ND		3.33	ug/kg wet					
2,4,5-T	ND		3.33	ug/kg wet					
2,4,5-TP (Silvex)	ND		3.33	ug/kg wet					
Dalapon	ND		33.3	ug/kg wet					
Dicamba	ND		3.33	ug/kg wet					
Dichloroprop	ND		3.33	ug/kg wet					
Dinoseb	ND		3.33	ug/kg wet					
Surrogate: 2,4-DCAA			22200	ug/kg wet	33300		67	40.6-150	
LCS (7142030-BS1)					Prepared: 05/22/17 Analyzed: 05/23/17				
2,4-D	24.9		3.33	ug/kg wet	26.7		93	42.5-122	200
Acifluorfen	16.4		3.33	ug/kg wet	26.7		61	16.8-144	200
2,4-DB	24.5		3.33	ug/kg wet	26.7		92	17.6-149	200
2,4,5-T	14.5		3.33	ug/kg wet	26.7		54	25.9-138	200
2,4,5-TP (Silvex)	15.9		3.33	ug/kg wet	26.7		60	23.5-121	200
Dalapon	293		33.3	ug/kg wet	267		110	10-173	200
Dicamba	18.5		3.33	ug/kg wet	26.7		69	12.6-122	200
Dichloroprop	25.0		3.33	ug/kg wet	26.7		94	10-151	200
Dinoseb	7.20		3.33	ug/kg wet	26.7		27	10-86.5	200
Surrogate: 2,4-DCAA			27000	ug/kg wet	33300		81	40.6-150	
LCS (7142030-BS2)					Prepared: 05/22/17 Analyzed: 05/23/17				
2,4-D	27.9		3.33	ug/kg wet	26.7		105	42.5-122	200

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7142030 - EPA 8151A (Continued)									
LCS (7142030-BS2)					Prepared: 05/22/17 Analyzed: 05/23/17				
Acifluorfen	19.5		3.33	ug/kg wet	26.7	73	16.8-144		200
2,4-DB	23.9		3.33	ug/kg wet	26.7	90	17.6-149		200
2,4,5-T	17.8		3.33	ug/kg wet	26.7	67	25.9-138		200
2,4,5-TP (Silvex)	21.3		3.33	ug/kg wet	26.7	80	23.5-121		200
Dalapon	353		33.3	ug/kg wet	267	132	10-173		200
Dicamba	20.7		3.33	ug/kg wet	26.7	78	12.6-122		200
Dichloroprop	27.8		3.33	ug/kg wet	26.7	104	10-151		200
Dinoseb	19.1		3.33	ug/kg wet	26.7	72	10-86.5		200
<i>Surrogate: 2,4-DCAA</i>			42900	ug/kg wet	33300	129	40.6-150		
LCS (7142030-BS3)					Prepared: 05/22/17 Analyzed: 05/23/17				
2,4-D	26.9		3.33	ug/kg wet	26.7	101	42.5-122		200
Acifluorfen	18.2		3.33	ug/kg wet	26.7	68	16.8-144		200
2,4-DB	23.5		3.33	ug/kg wet	26.7	88	17.6-149		200
2,4,5-T	18.2		3.33	ug/kg wet	26.7	68	25.9-138		200
2,4,5-TP (Silvex)	19.3		3.33	ug/kg wet	26.7	72	23.5-121		200
Dalapon	265		33.3	ug/kg wet	267	99	10-173		200
Dicamba	18.7		3.33	ug/kg wet	26.7	70	12.6-122		200
Dichloroprop	26.0		3.33	ug/kg wet	26.7	98	10-151		200
Dinoseb	18.4		3.33	ug/kg wet	26.7	69	10-86.5		200
<i>Surrogate: 2,4-DCAA</i>			32700	ug/kg wet	33300	98	40.6-150		
LCS (7142030-BS4)					Prepared: 05/22/17 Analyzed: 05/23/17				
2,4-D	29.8		3.33	ug/kg wet	26.7	112	42.5-122		200
Acifluorfen	17.2		3.33	ug/kg wet	26.7	64	16.8-144		200

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651 Holiday Drive Foster Plaza #5

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Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7142030 - EPA 8151A (Continued)									
LCS (7142030-BS4)					Prepared: 05/22/17 Analyzed: 05/23/17				
2,4-DB	23.8		3.33	ug/kg wet	26.7		89	17.6-149	200
2,4,5-T	13.0		3.33	ug/kg wet	26.7		49	25.9-138	200
2,4,5-TP (Silvex)	20.1		3.33	ug/kg wet	26.7		75	23.5-121	200
Dalapon	294		33.3	ug/kg wet	267		110	10-173	200
Dicamba	18.2		3.33	ug/kg wet	26.7		68	12.6-122	200
Dichloroprop	27.5		3.33	ug/kg wet	26.7		103	10-151	200
Dinoseb	15.8		3.33	ug/kg wet	26.7		59	10-86.5	200
<i>Surrogate: 2,4-DCAA</i>			<i>19900</i>	<i>ug/kg wet</i>	<i>33300</i>		<i>60</i>	<i>40.6-150</i>	

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Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Quality Control
(Continued)

Conventional Chemistry Parameters by SM/EPA Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7136063 - General Preparation									
Blank (7136063-BLK1)									
Sulfide	ND		20.0	mg/kg wet					
Prepared & Analyzed: 05/16/17									
LCS (7136063-BS1)									
Sulfide	256		80.0	mg/kg wet	228	112	90-110		200
Prepared & Analyzed: 05/16/17									
Duplicate (7136063-DUP1)									
Sulfide	ND		79.9	mg/kg dry		ND			10
Source: 7E16021-01 Prepared & Analyzed: 05/16/17									
Matrix Spike (7136063-MS1)									
Sulfide	959		320	mg/kg dry	911	ND	105	90-110	200
Prepared & Analyzed: 05/16/17									
Batch: 7138060 - General Preparation									
Blank (7138060-BLK1)									
% Solids	ND		0.100	%					
Prepared & Analyzed: 05/18/17									
Blank (7138060-BLK2)									
% Solids	ND		0.100	%					
Prepared & Analyzed: 05/18/17									
Duplicate (7138060-DUP1)									
% Solids	57.6		0.100	%		58.9		2.21	5
Source: 7E16005-02 Prepared & Analyzed: 05/18/17									
Duplicate (7138060-DUP2)									
% Solids	19.9		0.100	%		19.5		1.75	5
Source: 7E18041-01 Prepared & Analyzed: 05/18/17									

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Project: YUKON CLARIFIER

Project Number: [none]

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Number of Containers: 6

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Quality Control
(Continued)

Cyanide by Preparation Method EPA 9010

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7143029 - General Prep										
Blank (7143029-BLK1)										
Cyanide (total)	ND		0.484	mg/kg wet						
Prepared & Analyzed: 05/23/17										
LCS (7143029-BS1)										
Cyanide (total)	8.70		0.493	mg/kg wet	9.87		88.2	85-115		200
Prepared & Analyzed: 05/23/17										
Duplicate (7143029-DUP1)										
Cyanide (total)	ND		0.634	mg/kg dry		ND				10
Source: 7E17178-01										



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Project Number: [none]

Reported:

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Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137074 - EPA 3050B									
Blank (7137074-BLK1)					Prepared: 05/17/17 Analyzed: 05/22/17				
Antimony	1.08		0.935	mg/kg wet					
Arsenic	ND		0.748	mg/kg wet					
Barium	6.00		0.935	mg/kg wet					
Beryllium	ND		0.187	mg/kg wet					
Cadmium	ND		0.374	mg/kg wet					
Chromium	0.0864	J	0.467	mg/kg wet					
Lead	ND		0.748	mg/kg wet					
Nickel	ND		4.67	mg/kg wet					
Selenium	ND		1.87	mg/kg wet					
Silver	0.0621	J	0.374	mg/kg wet					
Thallium	ND		1.87	mg/kg wet					
Zinc	ND		1.87	mg/kg wet					
Vanadium	ND		1.87	mg/kg wet					
LCS (7137074-BS1)					Prepared: 05/17/17 Analyzed: 05/22/17				
Antimony	35.6		0.947	mg/kg wet	37.9	94	80-120		200
Arsenic	13.0		0.757	mg/kg wet	15.1	86	80-120		200
Barium	36.4		0.947	mg/kg wet	37.9	96	80-120		200
Beryllium	3.43		0.189	mg/kg wet	3.79	91	80-120		200
Cadmium	6.63		0.379	mg/kg wet	7.57	87	80-120		200
Chromium	3.64		0.473	mg/kg wet	3.79	96	80-120		200
Lead	13.5		0.757	mg/kg wet	15.1	89	80-120		200
Nickel	36.4		4.73	mg/kg wet	37.9	96	80-120		200
Selenium	31.5		1.89	mg/kg wet	37.9	83	80-120		200
Silver	5.78		0.379	mg/kg wet	7.57	76	80-120		200

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137074 - EPA 3050B (Continued)									
LCS (7137074-BS1)									
					Prepared: 05/17/17 Analyzed: 05/22/17				
Thallium	13.5		1.89	mg/kg wet	15.1		89 80-120		200
Zinc	34.9		1.89	mg/kg wet	37.9		92 80-120		200
Vanadium	34.6		1.89	mg/kg wet	37.9		91 80-120		200
Duplicate (7137074-DUP1)									
			Source: 7E16171-01		Prepared: 05/17/17 Analyzed: 05/22/17				
Antimony	ND		18.3	mg/kg dry		ND			20
Arsenic	ND		14.6	mg/kg dry		ND			20
Barium	7940		366	mg/kg dry		9140		14	20
Beryllium	6.95		3.66	mg/kg dry		7.88		13	20
Cadmium	3.22	J	7.32	mg/kg dry		3.66		13	20
Chromium	192		9.15	mg/kg dry		215		11	20
Lead	113		14.6	mg/kg dry		125		10	20
Nickel	677		91.5	mg/kg dry		765		12	20
Selenium	ND		36.6	mg/kg dry		ND			20
Silver	ND		7.32	mg/kg dry		ND			20
Thallium	ND		36.6	mg/kg dry		ND			20
Zinc	1310		36.6	mg/kg dry		1480		12	20
Vanadium	40.8		36.6	mg/kg dry		46.0		12	20
Matrix Spike (7137074-MS1)									
			Source: 7E16171-01		Prepared: 05/17/17 Analyzed: 05/22/17				
Antimony	54.7		18.4	mg/kg dry	147	ND	37 75-125		200
Arsenic	40.1		14.7	mg/kg dry	58.8	ND	68 75-125		200
Barium	7790		367	mg/kg dry	147	9140	NR 75-125		200
Beryllium	19.7		3.67	mg/kg dry	14.7	7.88	81 75-125		200
Cadmium	28.9		7.34	mg/kg dry	29.4	3.66	86 75-125		200
Chromium	193		9.18	mg/kg dry	14.7	215	NR 75-125		200

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7137074 - EPA 3050B (Continued)										
Matrix Spike (7137074-MS1)			Source: 7E16171-01		Prepared: 05/17/17 Analyzed: 05/22/17					
Lead	157		14.7	mg/kg dry	58.8	125	55	75-125		200
Nickel	773		91.8	mg/kg dry	147	765	5	75-125		200
Selenium	97.7		36.7	mg/kg dry	147	ND	66	75-125		200
Silver	23.0		7.34	mg/kg dry	29.4	ND	78	75-125		200
Thallium	16.9	J	36.7	mg/kg dry	58.8	ND	29	75-125		200
Zinc	1360		36.7	mg/kg dry	147	1480	NR	75-125		200
Vanadium	168		36.7	mg/kg dry	147	46.0	83	75-125		200

Batch: 7137085 - EPA 7471A

Blank (7137085-BLK1)			Prepared: 05/17/17 Analyzed: 05/18/17							
Mercury	ND		0.0324	mg/kg wet						
LCS (7137085-BS1)			Prepared: 05/17/17 Analyzed: 05/18/17							
Mercury	0.3427		0.0329	mg/kg wet	0.332		103	85-115		200
Matrix Spike (7137085-MS1)			Source: 7E16171-01		Prepared: 05/17/17 Analyzed: 05/18/17					
Mercury	0.8507		0.138	mg/kg dry	0.696	0.1393	102	70-130		20
Matrix Spike Dup (7137085-MSD1)			Source: 7E16171-01		Prepared: 05/17/17 Analyzed: 05/18/17					
Mercury	0.8383		0.133	mg/kg dry	0.671	0.1393	104	70-130	1.47	20
Reference (7137085-SRM1)			Prepared: 05/17/17 Analyzed: 05/18/17							
Mercury	0.3278		0.0330	mg/kg wet	0.333		98.3	90-110		

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7137039 - EPA 3541										
Blank (7137039-BLK1)					Prepared & Analyzed: 05/17/17					
Hexachlorocyclopentadiene	ND		2.00	ug/kg wet						
Hexachlorobenzene	ND		2.00	ug/kg wet						
Aldrin	ND		2.00	ug/kg wet						
alpha-BHC	ND		2.00	ug/kg wet						
beta-BHC	ND		2.00	ug/kg wet						
delta-BHC	ND		2.00	ug/kg wet						
gamma-BHC (Lindane)	ND		2.00	ug/kg wet						
Chlordane (tech)	ND		100	ug/kg wet						
4,4'-DDD	ND		2.00	ug/kg wet						
4,4'-DDE	ND		2.00	ug/kg wet						
4,4'-DDT	ND		2.00	ug/kg wet						
Dieldrin	ND		2.00	ug/kg wet						
Endosulfan I	ND		2.00	ug/kg wet						
Endosulfan II	ND		2.00	ug/kg wet						
Endosulfan sulfate	ND		2.00	ug/kg wet						
Endrin	ND		2.00	ug/kg wet						
Endrin aldehyde	ND		2.00	ug/kg wet						
Heptachlor	ND		2.00	ug/kg wet						
Heptachlor epoxide	ND		2.00	ug/kg wet						
Methoxychlor	ND		2.00	ug/kg wet						
Toxaphene	ND		100	ug/kg wet						
alpha-Chlordane	ND		2.00	ug/kg wet						
gamma-Chlordane	ND		2.00	ug/kg wet						
Endrin ketone	ND		2.00	ug/kg wet						
Surrogate: Tetrachloro-meta-xylene			12.8	ug/kg wet	20.0		63.8	40-157		

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137039 - EPA 3541 (Continued)									
Blank (7137039-BLK1)				Prepared & Analyzed: 05/17/17					
Surrogate: Decachlorobiphenyl			15.6	ug/kg wet	20.0	78.1	57.1-153		
LCS (7137039-BS1)				Prepared & Analyzed: 05/17/17					
Hexachlorobenzene	8.63		2.00	ug/kg wet	12.0	72.0	39.4-140		200
Hexachlorocyclopentadiene	8.86		2.00	ug/kg wet	12.0	73.8	10-162		200
Aldrin	8.48		2.00	ug/kg wet	12.0	70.6	40.4-132		200
alpha-BHC	7.99		2.00	ug/kg wet	12.0	66.6	38.9-127		200
beta-BHC	8.41		2.00	ug/kg wet	12.0	70.1	30.4-151		200
delta-BHC	8.26		2.00	ug/kg wet	12.0	68.8	29.5-182		200
gamma-BHC (Lindane)	8.71		2.00	ug/kg wet	12.0	72.6	38.2-130		200
4,4'-DDD	7.98		2.00	ug/kg wet	12.0	66.5	43.7-138		200
4,4'-DDE	9.00		2.00	ug/kg wet	12.0	75.0	45.6-123		200
4,4'-DDT	8.87		2.00	ug/kg wet	12.0	74.0	39.3-158		200
Dieldrin	8.81		2.00	ug/kg wet	12.0	73.4	30.3-142		200
Endosulfan I	8.63		2.00	ug/kg wet	12.0	71.9	32.9-150		200
Endosulfan II	9.08		2.00	ug/kg wet	12.0	75.7	29.4-160		200
Endosulfan sulfate	8.87		2.00	ug/kg wet	12.0	73.9	31.8-159		200
Endrin	8.92		2.00	ug/kg wet	12.0	74.3	44.4-135		200
Endrin aldehyde	9.76		2.00	ug/kg wet	12.0	81.3	29.8-140		200
Heptachlor	10.6		2.00	ug/kg wet	12.0	88.6	46.4-128		200
Heptachlor epoxide	8.16		2.00	ug/kg wet	12.0	68.0	43.8-123		200
Methoxychlor	11.1		2.00	ug/kg wet	12.0	92.6	23.4-159		200
alpha-Chlordane	7.74		2.00	ug/kg wet	12.0	64.5	42.4-120		200
gamma-Chlordane	8.90		2.00	ug/kg wet	12.0	74.2	43-133		200
Endrin ketone	8.92		2.00	ug/kg wet	12.0	74.3	44.1-137		200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7137039 - EPA 3541 (Continued)										
LCS (7137039-BS1)					Prepared & Analyzed: 05/17/17					
Surrogate: Tetrachloro-meta-xylene	14.2		ug/kg wet	20.0	71.1	40-157				
Surrogate: Decachlorobiphenyl	16.2		ug/kg wet	20.0	80.9	57.1-153				
LCS (7137039-BS2)					Prepared & Analyzed: 05/17/17					
Hexachlorocyclopentadiene	12.2		2.00	ug/kg wet	12.0	102	10-162			200
Hexachlorobenzene	9.14		2.00	ug/kg wet	12.0	76.2	39.4-140			200
Aldrin	8.85		2.00	ug/kg wet	12.0	73.7	40.4-132			200
alpha-BHC	8.91		2.00	ug/kg wet	12.0	74.2	38.9-127			200
beta-BHC	8.98		2.00	ug/kg wet	12.0	74.8	30.4-151			200
delta-BHC	8.48		2.00	ug/kg wet	12.0	70.7	29.5-182			200
gamma-BHC (Lindane)	9.72		2.00	ug/kg wet	12.0	81.0	38.2-130			200
4,4'-DDD	9.64		2.00	ug/kg wet	12.0	80.3	43.7-138			200
4,4'-DDE	9.90		2.00	ug/kg wet	12.0	82.5	45.6-123			200
4,4'-DDT	9.43		2.00	ug/kg wet	12.0	78.6	39.3-158			200
Dieldrin	9.81		2.00	ug/kg wet	12.0	81.8	30.3-142			200
Endosulfan I	9.10		2.00	ug/kg wet	12.0	75.8	32.9-150			200
Endosulfan II	9.85		2.00	ug/kg wet	12.0	82.1	29.4-160			200
Endosulfan sulfate	9.77		2.00	ug/kg wet	12.0	81.4	31.8-159			200
Endrin	10.3		2.00	ug/kg wet	12.0	86.0	44.4-135			200
Endrin aldehyde	9.83		2.00	ug/kg wet	12.0	81.9	29.8-140			200
Heptachlor	11.5		2.00	ug/kg wet	12.0	95.7	46.4-128			200
Heptachlor epoxide	9.00		2.00	ug/kg wet	12.0	75.0	43.8-123			200
Methoxychlor	12.1		2.00	ug/kg wet	12.0	100	23.4-159			200
alpha-Chlordane	8.36		2.00	ug/kg wet	12.0	69.7	42.4-120			200
gamma-Chlordane	10.0		2.00	ug/kg wet	12.0	83.5	43-133			200

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137039 - EPA 3541 (Continued)									
LCS (7137039-BS2)					Prepared & Analyzed: 05/17/17				
Endrin ketone	9.88		2.00	ug/kg wet	12.0		82.3 44.1-137		200
LCS (7137039-BS3)					Prepared & Analyzed: 05/17/17				
Aldrin	8.63		2.00	ug/kg wet	12.0		71.9 40.4-132		200
alpha-BHC	8.57		2.00	ug/kg wet	12.0		71.4 38.9-127		200
beta-BHC	7.81		2.00	ug/kg wet	12.0		65.0 30.4-151		200
delta-BHC	8.40		2.00	ug/kg wet	12.0		70.0 29.5-182		200
gamma-BHC (Lindane)	9.66		2.00	ug/kg wet	12.0		80.5 38.2-130		200
4,4'-DDD	8.81		2.00	ug/kg wet	12.0		73.4 43.7-138		200
4,4'-DDE	9.75		2.00	ug/kg wet	12.0		81.2 45.6-123		200
4,4'-DDT	9.51		2.00	ug/kg wet	12.0		79.2 39.3-158		200
Dieldrin	9.56		2.00	ug/kg wet	12.0		79.7 30.3-142		200
Endosulfan I	9.31		2.00	ug/kg wet	12.0		77.6 32.9-150		200
Endosulfan II	9.74		2.00	ug/kg wet	12.0		81.2 29.4-160		200
Endosulfan sulfate	9.60		2.00	ug/kg wet	12.0		80.0 31.8-159		200
Endrin	9.59		2.00	ug/kg wet	12.0		79.9 44.4-135		200
Endrin aldehyde	9.48		2.00	ug/kg wet	12.0		79.0 29.8-140		200
Heptachlor	11.3		2.00	ug/kg wet	12.0		93.9 46.4-128		200
Heptachlor epoxide	8.77		2.00	ug/kg wet	12.0		73.1 43.8-123		200
Methoxychlor	11.6		2.00	ug/kg wet	12.0		96.8 23.4-159		200
alpha-Chlordane	8.26		2.00	ug/kg wet	12.0		68.8 42.4-120		200
gamma-Chlordane	9.77		2.00	ug/kg wet	12.0		81.4 43-133		200
Endrin ketone	9.52		2.00	ug/kg wet	12.0		79.3 44.1-137		200
LCS (7137039-BS4)					Prepared & Analyzed: 05/17/17				
Aldrin	8.74		2.00	ug/kg wet	12.0		72.8 40.4-132		200

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137039 - EPA 3541 (Continued)									
LCS (7137039-BS4)					Prepared & Analyzed: 05/17/17				
alpha-BHC	8.44		2.00	ug/kg wet	12.0		70.3 38.9-127		200
beta-BHC	7.62		2.00	ug/kg wet	12.0		63.5 30.4-151		200
delta-BHC	8.14		2.00	ug/kg wet	12.0		67.9 29.5-182		200
gamma-BHC (Lindane)	9.18		2.00	ug/kg wet	12.0		76.5 38.2-130		200
4,4'-DDD	9.40		2.00	ug/kg wet	12.0		78.3 43.7-138		200
4,4'-DDE	9.76		2.00	ug/kg wet	12.0		81.4 45.6-123		200
4,4'-DDT	10.1		2.00	ug/kg wet	12.0		84.3 39.3-158		200
Dieldrin	9.68		2.00	ug/kg wet	12.0		80.6 30.3-142		200
Endosulfan I	9.18		2.00	ug/kg wet	12.0		76.5 32.9-150		200
Endosulfan II	9.60		2.00	ug/kg wet	12.0		80.0 29.4-160		200
Endosulfan sulfate	9.59		2.00	ug/kg wet	12.0		79.9 31.8-159		200
Endrin	10.1		2.00	ug/kg wet	12.0		84.4 44.4-135		200
Endrin aldehyde	10.1		2.00	ug/kg wet	12.0		84.5 29.8-140		200
Heptachlor	11.2		2.00	ug/kg wet	12.0		93.3 46.4-128		200
Heptachlor epoxide	8.85		2.00	ug/kg wet	12.0		73.8 43.8-123		200
Methoxychlor	11.7		2.00	ug/kg wet	12.0		97.3 23.4-159		200
alpha-Chlordane	8.34		2.00	ug/kg wet	12.0		69.5 42.4-120		200
gamma-Chlordane	9.51		2.00	ug/kg wet	12.0		79.2 43-133		200
Endrin ketone	9.69		2.00	ug/kg wet	12.0		80.7 44.1-137		200
LCS (7137039-BS5)					Prepared & Analyzed: 05/17/17				
Aldrin	6.70		2.00	ug/kg wet	12.0		55.9 40.4-132		200
alpha-BHC	6.55		2.00	ug/kg wet	12.0		54.6 38.9-127		200
beta-BHC	6.12		2.00	ug/kg wet	12.0		51.0 30.4-151		200
delta-BHC	6.29		2.00	ug/kg wet	12.0		52.4 29.5-182		200

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137039 - EPA 3541 (Continued)									
LCS (7137039-BS5)					Prepared & Analyzed: 05/17/17				
gamma-BHC (Lindane)	7.58		2.00	ug/kg wet	12.0		63.2 38.2-130		200
4,4'-DDD	6.62		2.00	ug/kg wet	12.0		55.1 43.7-138		200
4,4'-DDE	7.47		2.00	ug/kg wet	12.0		62.3 45.6-123		200
4,4'-DDT	7.19		2.00	ug/kg wet	12.0		59.9 39.3-158		200
Dieldrin	7.43		2.00	ug/kg wet	12.0		62.0 30.3-142		200
Endosulfan I	7.47		2.00	ug/kg wet	12.0		62.3 32.9-150		200
Endosulfan II	7.83		2.00	ug/kg wet	12.0		65.3 29.4-160		200
Endosulfan sulfate	7.66		2.00	ug/kg wet	12.0		63.9 31.8-159		200
Endrin	7.44		2.00	ug/kg wet	12.0		62.0 44.4-135		200
Endrin aldehyde	7.83		2.00	ug/kg wet	12.0		65.3 29.8-140		200
Heptachlor	8.92		2.00	ug/kg wet	12.0		74.3 46.4-128		200
Heptachlor epoxide	6.77		2.00	ug/kg wet	12.0		56.4 43.8-123		200
Methoxychlor	9.20		2.00	ug/kg wet	12.0		76.7 23.4-159		200
alpha-Chlordane	6.33		2.00	ug/kg wet	12.0		52.7 42.4-120		200
gamma-Chlordane	8.11		2.00	ug/kg wet	12.0		67.6 43-133		200
Endrin ketone	7.48		2.00	ug/kg wet	12.0		62.3 44.1-137		200
Matrix Spike (7137039-MS1)					Source: 7E16171-01 Prepared: 05/17/17 Analyzed: 05/18/17				
Aldrin	35.0	J	42.4	ug/kg dry	50.9	ND	68.8 44.4-177		41.5
alpha-BHC	30.9	J	42.4	ug/kg dry	50.9	ND	60.6 31.8-167		61.8
beta-BHC	52.3		42.4	ug/kg dry	50.9	ND	103 10-189		53.1
delta-BHC	23.5	J	42.4	ug/kg dry	50.9	ND	46.1 14.5-192		54.7
gamma-BHC (Lindane)	30.7	J	42.4	ug/kg dry	50.9	ND	60.2 11.4-177		46.3
4,4'-DDD	29.8	J	42.4	ug/kg dry	50.9	ND	58.6 20.6-189		59.3
4,4'-DDE	39.7	J	42.4	ug/kg dry	50.9	ND	77.8 29.5-172		55.1

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137039 - EPA 3541 (Continued)									
Matrix Spike (7137039-MS1)		Source: 7E16171-01		Prepared: 05/17/17 Analyzed: 05/18/17					
4,4'-DDT	37.2	J	42.4	ug/kg dry	50.9	ND	72.9 10-178		57.4
Dieldrin	38.6	J	42.4	ug/kg dry	50.9	ND	75.8 10-182		58.2
Endosulfan I	36.7	J	42.4	ug/kg dry	50.9	ND	72.0 16.7-182		37.7
Endosulfan II	36.6	J	42.4	ug/kg dry	50.9	ND	71.9 10-186		40.4
Endosulfan sulfate	39.5	J	42.4	ug/kg dry	50.9	ND	77.6 13.3-179		48.8
Endrin	36.2	J	42.4	ug/kg dry	50.9	ND	71.2 20.1-179		40.3
Endrin aldehyde	38.1	J	42.4	ug/kg dry	50.9	ND	74.9 10-178		41.7
Heptachlor	49.2		42.4	ug/kg dry	50.9	ND	96.6 28.6-184		46.7
Heptachlor epoxide	35.4	J	42.4	ug/kg dry	50.9	ND	69.6 31.4-154		59
Methoxychlor	42.0	J	42.4	ug/kg dry	50.9	ND	82.4 35.5-181		52.3
alpha-Chlordane	34.6	J	42.4	ug/kg dry	50.9	ND	67.8 24.9-178		34.3
gamma-Chlordane	45.5		42.4	ug/kg dry	50.9	ND	89.3 10-187		30.1
Endrin ketone	41.1	J	42.4	ug/kg dry	50.9	ND	80.7 10-194		65.5
<i>Surrogate: Tetrachloro-meta-xylene</i>			44.6	ug/kg dry	84.9		52.5 40-157		
<i>Surrogate: Decachlorobiphenyl</i>			84.6	ug/kg dry	84.9		99.6 57.1-153		
Matrix Spike Dup (7137039-MSD1)		Source: 7E16171-01		Prepared: 05/17/17 Analyzed: 05/18/17					
Aldrin	30.6	J	40.7	ug/kg dry	48.9	ND	62.6 44.4-177	13.5	41.5
alpha-BHC	28.4	J	40.7	ug/kg dry	48.9	ND	58.1 31.8-167	8.36	61.8
beta-BHC	31.2	J	40.7	ug/kg dry	48.9	ND	63.7 10-189	50.7	53.1
delta-BHC	24.8	J	40.7	ug/kg dry	48.9	ND	50.8 14.5-192	5.51	54.7
gamma-BHC (Lindane)	26.3	J	40.7	ug/kg dry	48.9	ND	53.8 11.4-177	15.3	46.3
4,4'-DDD	26.3	J	40.7	ug/kg dry	48.9	ND	53.9 20.6-189	12.5	59.3
4,4'-DDE	36.1	J	40.7	ug/kg dry	48.9	ND	73.8 29.5-172	9.45	55.1
4,4'-DDT	33.6	J	40.7	ug/kg dry	48.9	ND	68.6 10-178	10.2	57.4

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137039 - EPA 3541 (Continued)									
Matrix Spike Dup (7137039-MSD1)		Source: 7E16171-01		Prepared: 05/17/17 Analyzed: 05/18/17					
Dieldrin	37.9	J	40.7	ug/kg dry	48.9	ND	77.6 10-182	1.73	58.2
Endosulfan I	31.0	J	40.7	ug/kg dry	48.9	ND	63.5 16.7-182	16.6	37.7
Endosulfan II	34.6	J	40.7	ug/kg dry	48.9	ND	70.7 10-186	5.82	40.4
Endosulfan sulfate	36.1	J	40.7	ug/kg dry	48.9	ND	73.8 13.3-179	9.03	48.8
Endrin	35.4	J	40.7	ug/kg dry	48.9	ND	72.4 20.1-179	2.38	40.3
Endrin aldehyde	32.6	J	40.7	ug/kg dry	48.9	ND	66.7 10-178	15.6	41.7
Heptachlor	48.6		40.7	ug/kg dry	48.9	ND	99.4 28.6-184	1.34	46.7
Heptachlor epoxide	34.0	J	40.7	ug/kg dry	48.9	ND	69.6 31.4-154	4.10	59
Methoxychlor	40.4	J	40.7	ug/kg dry	48.9	ND	82.6 35.5-181	3.89	52.3
alpha-Chlordane	32.4	J	40.7	ug/kg dry	48.9	ND	66.4 24.9-178	6.33	34.3
gamma-Chlordane	44.3		40.7	ug/kg dry	48.9	ND	90.7 10-187	2.50	30.1
Endrin ketone	40.0	J	40.7	ug/kg dry	48.9	ND	81.9 10-194	2.62	65.5
<i>Surrogate: Tetrachloro-meta-xylene</i>			36.3	ug/kg dry	81.5		44.5 40-157		
<i>Surrogate: Decachlorobiphenyl</i>			28.0	ug/kg dry	81.5		34.3 57.1-153		

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control (Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7136078 - EPA 3541									
Blank (7136078-BLK1)					Prepared: 05/16/17 Analyzed: 05/18/17				
PCB-1016	ND		0.010	mg/kg wet					
PCB-1221	ND		0.010	mg/kg wet					
PCB-1232	ND		0.010	mg/kg wet					
PCB-1242	ND		0.010	mg/kg wet					
PCB-1248	ND		0.010	mg/kg wet					
PCB-1254	ND		0.010	mg/kg wet					
PCB-1260	ND		0.010	mg/kg wet					
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.101	mg/kg wet	0.100		101	11-140	
<i>Surrogate: Decachlorobiphenyl</i>			0.100	mg/kg wet	0.100		100	24.4-140	
LCS (7136078-BS1)					Prepared: 05/16/17 Analyzed: 05/18/17				
PCB-1221	0.065		0.010	mg/kg wet	0.100		65.2	60.3-143	200
PCB-1254	0.112		0.010	mg/kg wet	0.100		112	69.4-134	200
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.108	mg/kg wet	0.100		108	70-130	
<i>Surrogate: Decachlorobiphenyl</i>			0.104	mg/kg wet	0.100		104	70-130	
Matrix Spike (7136078-MS1)					Source: 7E12085-29 Prepared: 05/16/17 Analyzed: 05/19/17				
PCB-1221	0.090		0.008	mg/kg dry	0.0779	ND	115	10-187	46.3
PCB-1254	0.073		0.008	mg/kg dry	0.0779	ND	94.0	20.5-174	30.1
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0730	mg/kg dry	0.0779		93.7	70-130	
<i>Surrogate: Decachlorobiphenyl</i>			0.0685	mg/kg dry	0.0779		88.0	70-130	
Matrix Spike Dup (7136078-MSD1)					Source: 7E12085-29 Prepared: 05/16/17 Analyzed: 05/19/17				
PCB-1221	0.070		0.008	mg/kg dry	0.0794	ND	88.7	10-187	46.3
PCB-1254	0.064		0.008	mg/kg dry	0.0794	ND	81.1	20.5-174	30.1

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Quality Control
(Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7136078 - EPA 3541 (Continued)									
Matrix Spike Dup (7136078-MSD1)		Source: 7E12085-29		Prepared: 05/16/17 Analyzed: 05/19/17					
Surrogate: Tetrachloro-meta-xylene			0.0679	mg/kg dry	0.0794	85.6	70-130		
Surrogate: Decachlorobiphenyl			0.0783	mg/kg dry	0.0794	98.6	70-130		

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541									
Blank (7138041-BLK1)					Prepared: 05/17/17 Analyzed: 05/18/17				
Diphenylamine	ND		0.333	mg/kg wet					
Pyridine	ND		0.667	mg/kg wet					
Benzidine	ND		1.67	mg/kg wet					
Acenaphthene	ND		0.333	mg/kg wet					
Acenaphthylene	ND		0.333	mg/kg wet					
Anthracene	ND		0.333	mg/kg wet					
Benzoic acid	ND		3.33	mg/kg wet					
Benzo (a) anthracene	0.0267	J	0.333	mg/kg wet					
Benzo (b) fluoranthene	ND		0.333	mg/kg wet					
Benzo (k) fluoranthene	ND		0.333	mg/kg wet					
Benzo (g,h,i) perylene	ND		0.333	mg/kg wet					
Benzo (a) pyrene	ND		0.333	mg/kg wet					
Benzyl alcohol	0.0833	J	0.333	mg/kg wet					
Bis(2-chloroethoxy)methane	ND		0.333	mg/kg wet					
Bis(2-chloroethyl)ether	ND		0.333	mg/kg wet					
Bis(2-chloroisopropyl)ether	ND		0.333	mg/kg wet					
Bis(2-ethylhexyl)phthalate	ND		0.333	mg/kg wet					
4-Bromophenyl phenyl ether	ND		0.333	mg/kg wet					
Butyl benzyl phthalate	ND		0.333	mg/kg wet					
4-Chloroaniline	ND		0.333	mg/kg wet					
4-Chloro-3-methylphenol	ND		0.333	mg/kg wet					
2-Chloronaphthalene	ND		0.333	mg/kg wet					
2-Chlorophenol	ND		0.333	mg/kg wet					
4-Chlorophenyl phenyl ether	ND		0.333	mg/kg wet					
Chrysene	ND		0.333	mg/kg wet					

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
Blank (7138041-BLK1)										
Prepared: 05/17/17 Analyzed: 05/18/17										
Dibenz (a,h) anthracene	ND		0.333	mg/kg wet						
Dibenzofuran	ND		0.333	mg/kg wet						
Di-n-butyl phthalate	0.0900	J	0.333	mg/kg wet						
1,2-Dichlorobenzene	ND		0.333	mg/kg wet						
1,3-Dichlorobenzene	ND		0.333	mg/kg wet						
1,4-Dichlorobenzene	ND		0.333	mg/kg wet						
3,3'-Dichlorobenzidine	0.0567	J	0.333	mg/kg wet						
2,4-Dichlorophenol	ND		0.333	mg/kg wet						
Diethyl phthalate	ND		0.333	mg/kg wet						
2,4-Dimethylphenol	ND		0.333	mg/kg wet						
Dimethyl phthalate	ND		0.333	mg/kg wet						
4,6-Dinitro-2-methylphenol	ND		1.67	mg/kg wet						
2,4-Dinitrophenol	ND		1.67	mg/kg wet						
2,4-Dinitrotoluene	ND		0.333	mg/kg wet						
2,6-Dinitrotoluene	ND		0.333	mg/kg wet						
Di-n-octyl phthalate	ND		0.333	mg/kg wet						
Aniline	ND		0.333	mg/kg wet						
Naphthalene	ND		0.333	mg/kg wet						
N-Nitrosodimethylamine	ND		0.333	mg/kg wet						
3 & 4-Methylphenol	ND		0.333	mg/kg wet						
Acetophenone	ND		0.333	mg/kg wet						
1,2-Diphenylhydrazine	ND		0.333	mg/kg wet						
Fluoranthene	ND		0.333	mg/kg wet						
Fluorene	ND		0.333	mg/kg wet						
Hexachlorobenzene	ND		0.333	mg/kg wet						

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
Blank (7138041-BLK1)										
Prepared: 05/17/17 Analyzed: 05/18/17										
Hexachlorobutadiene	ND		0.333	mg/kg wet						
Hexachlorocyclopentadiene	ND		0.333	mg/kg wet						
Hexachloroethane	ND		0.333	mg/kg wet						
Indeno (1,2,3-cd) pyrene	ND		0.333	mg/kg wet						
Isophorone	ND		0.333	mg/kg wet						
2-Methylnaphthalene	ND		0.333	mg/kg wet						
2-Methylphenol	ND		0.333	mg/kg wet						
2-Nitroaniline	ND		0.333	mg/kg wet						
3-Nitroaniline	ND		0.333	mg/kg wet						
4-Nitroaniline	ND		0.333	mg/kg wet						
Nitrobenzene	ND		0.333	mg/kg wet						
2-Nitrophenol	ND		0.333	mg/kg wet						
4-Nitrophenol	ND		0.333	mg/kg wet						
N-Nitrosodi-n-propylamine	ND		0.333	mg/kg wet						
Pentachlorophenol	ND		1.67	mg/kg wet						
Phenanthrene	ND		0.333	mg/kg wet						
Phenol	ND		0.333	mg/kg wet						
Pyrene	ND		0.333	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.333	mg/kg wet						
2,4,5-Trichlorophenol	ND		0.333	mg/kg wet						
2,4,6-Trichlorophenol	ND		0.333	mg/kg wet						
Surrogate: 2-Fluorophenol			11.5	mg/kg wet	13.3		86	10-169		
Surrogate: Phenol-d6			11.5	mg/kg wet	13.3		87	10-166		
Surrogate: Nitrobenzene-d5			5.45	mg/kg wet	6.67		82	18.8-170		
Surrogate: 2-Fluorobiphenyl			5.77	mg/kg wet	6.67		87	35.1-154		

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)									
Blank (7138041-BLK1)					Prepared: 05/17/17 Analyzed: 05/18/17				
Surrogate: 2,4,6-Tribromophenol			12.2	mg/kg wet	13.3		92	20-158	
Surrogate: Terphenyl-d14			5.35	mg/kg wet	6.67		80	52.1-160	
LCS (7138041-BS1)					Prepared: 05/17/17 Analyzed: 05/18/17				
Diphenylamine	12.8		0.333	mg/kg wet	16.7		77	56-103	10
Benzidine	6.68		1.67	mg/kg wet	16.7		40	10-35	10
Pyridine	21.0		0.667	mg/kg wet	33.3		63	10-137	10
Acenaphthene	15.0		0.333	mg/kg wet	16.7		90	63-126	10
Acenaphthylene	17.2		0.333	mg/kg wet	16.7		103	63-132	10
Anthracene	14.4		0.333	mg/kg wet	16.7		86	68-124	10
Benzoic acid	6.71		3.33	mg/kg wet	16.7		40	31-104	10
Benzo (a) anthracene	14.2		0.333	mg/kg wet	16.7		85	70-124	10
Benzo (b) fluoranthene	13.7		0.333	mg/kg wet	16.7		82	76-125	10
Benzo (k) fluoranthene	12.2		0.333	mg/kg wet	16.7		73	71-125	10
Benzo (g,h,i) perylene	13.2		0.333	mg/kg wet	16.7		79	73-127	10
Benzo (a) pyrene	12.7		0.333	mg/kg wet	16.7		76	71-127	10
Benzyl alcohol	14.1		0.333	mg/kg wet	16.7		85	34-138	10
Bis(2-chloroethoxy)methane	13.4		0.333	mg/kg wet	16.7		80	39-131	10
Bis(2-chloroethyl)ether	12.5		0.333	mg/kg wet	16.7		75	11-149	10
Bis(2-chloroisopropyl)ether	11.5		0.333	mg/kg wet	16.7		69	17-154	10
Bis(2-ethylhexyl)phthalate	16.0		0.333	mg/kg wet	16.7		96	63-115	10
4-Bromophenyl phenyl ether	14.6		0.333	mg/kg wet	16.7		87	68-121	10
Butyl benzyl phthalate	17.3		0.333	mg/kg wet	16.7		104	62-122	10
4-Chloroaniline	10.6		0.333	mg/kg wet	16.7		64	34-103	10
4-Chloro-3-methylphenol	13.7		0.333	mg/kg wet	16.7		82	62-123	10

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)									
LCS (7138041-BS1)									
Prepared: 05/17/17 Analyzed: 05/18/17									
2-Chloronaphthalene	15.0		0.333	mg/kg wet	16.7		90 57-124		10
2-Chlorophenol	13.2		0.333	mg/kg wet	16.7		79 24-142		10
4-Chlorophenyl phenyl ether	16.2		0.333	mg/kg wet	16.7		97 65-122		10
Chrysene	12.8		0.333	mg/kg wet	16.7		77 71-125		10
Dibenz (a,h) anthracene	13.4		0.333	mg/kg wet	16.7		80 74-128		10
Dibenzofuran	15.7		0.333	mg/kg wet	16.7		94 63-118		10
Di-n-butyl phthalate	15.9		0.333	mg/kg wet	16.7		96 72-123		10
1,2-Dichlorobenzene	11.8		0.333	mg/kg wet	16.7		71 10-151		10
1,3-Dichlorobenzene	11.7		0.333	mg/kg wet	16.7		70 10-156		10
1,4-Dichlorobenzene	11.8		0.333	mg/kg wet	16.7		71 10-154		10
3,3'-Dichlorobenzidine	12.4		0.333	mg/kg wet	16.7		74 48-107		10
2,4-Dichlorophenol	14.7		0.333	mg/kg wet	16.7		88 50-130		10
Diethyl phthalate	18.0		0.333	mg/kg wet	16.7		108 67-124		10
2,4-Dimethylphenol	11.2		0.333	mg/kg wet	16.7		67 40-111		10
Dimethyl phthalate	16.9		0.333	mg/kg wet	16.7		101 66-121		10
4,6-Dinitro-2-methylphenol	8.43		1.67	mg/kg wet	16.7		51 10-111		10
2,4-Dinitrophenol	5.19		1.67	mg/kg wet	16.7		31 10-111		10
2,4-Dinitrotoluene	16.4		0.333	mg/kg wet	16.7		98 66-112		10
2,6-Dinitrotoluene	16.2		0.333	mg/kg wet	16.7		97 57-128		10
Di-n-octyl phthalate	16.3		0.333	mg/kg wet	16.7		98 56-119		10
Aniline	9.31		0.333	mg/kg wet	16.7		56 16-99		10
Naphthalene	12.7		0.333	mg/kg wet	16.7		76 32-140		10
N-Nitrosodimethylamine	12.3		0.333	mg/kg wet	16.7		74 10-156		10
Carbazole	7.52		0.333	mg/kg wet	16.7		45 34-61		10
Acetophenone	13.3		0.333	mg/kg wet	16.7		80 27-142		10

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
LCS (7138041-BS1)										
Prepared: 05/17/17 Analyzed: 05/18/17										
3 & 4-Methylphenol	13.2		0.333	mg/kg wet	16.7		79	41-118		10
1,2-Diphenylhydrazine	14.5		0.333	mg/kg wet				60-127		10
2,3,4,6-Tetrachlorophenol	14.6		0.333	mg/kg wet	16.7		87	72-140		10
Fluoranthene	14.9		0.333	mg/kg wet	16.7		89	71-128		10
Fluorene	16.2		0.333	mg/kg wet	16.7		97	69-122		10
Hexachlorobenzene	13.7		0.333	mg/kg wet	16.7		82	69-118		10
Hexachlorobutadiene	12.4		0.333	mg/kg wet	16.7		75	18-146		10
Hexachlorocyclopentadiene	15.7		0.333	mg/kg wet	16.7		94	22-155		10
Hexachloroethane	12.0		0.333	mg/kg wet	16.7		72	10-154		10
Indeno (1,2,3-cd) pyrene	13.4		0.333	mg/kg wet	16.7		80	73-130		10
Isophorone	12.5		0.333	mg/kg wet	16.7		75	42-131		10
2-Methylnaphthalene	13.9		0.333	mg/kg wet	16.7		83	47-131		10
2-Methylphenol	12.8		0.333	mg/kg wet	16.7		77	35-119		10
2-Nitroaniline	16.8		0.333	mg/kg wet	16.7		101	57-128		10
3-Nitroaniline	13.8		0.333	mg/kg wet	16.7		83	60-112		10
4-Nitroaniline	15.8		0.333	mg/kg wet	16.7		95	44-127		10
Nitrobenzene	12.8		0.333	mg/kg wet	16.7		77	28-138		10
2-Nitrophenol	14.8		0.333	mg/kg wet	16.7		89	31-144		10
4-Nitrophenol	15.6		0.333	mg/kg wet	16.7		94	50-118		10
N-Nitrosodiphenylamine	12.8		0.333	mg/kg wet	16.7		77	54-104		10
N-Nitrosodi-n-propylamine	13.5		0.333	mg/kg wet	16.7		81	34-135		10
Pentachlorophenol	14.0		1.67	mg/kg wet	16.7		84	56-126		10
Phenanthrene	12.8		0.333	mg/kg wet	16.7		77	68-118		10
Phenol	12.4		0.333	mg/kg wet	16.7		74	32-129		10
Pyrene	13.8		0.333	mg/kg wet	16.7		83	70-126		10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
LCS (7138041-BS1)			Prepared: 05/17/17 Analyzed: 05/18/17							
1,2,4-Trichlorobenzene	13.2		0.333	mg/kg wet	16.7		79	24-141		10
2,4,5-Trichlorophenol	16.8		0.333	mg/kg wet	16.7		101	63-138		10
2,4,6-Trichlorophenol	16.1		0.333	mg/kg wet	16.7		96	64-128		10
Surrogate: 2-Fluorophenol			11.1	mg/kg wet	13.3		83	35-115		
Surrogate: Phenol-d6			11.1	mg/kg wet	13.3		83	35-115		
Surrogate: Nitrobenzene-d5			5.06	mg/kg wet	6.67		76	35-115		
Surrogate: 2-Fluorobiphenyl			5.46	mg/kg wet	6.67		82	40-120		
Surrogate: 2,4,6-Tribromophenol			12.5	mg/kg wet	13.3		94	40-120		
Surrogate: Terphenyl-d14			4.84	mg/kg wet	6.67		73	40-120		
LCS (7138041-BS2)			Prepared: 05/17/17 Analyzed: 05/18/17							
Diphenylamine	15.1		0.333	mg/kg wet	16.7		91	56-103		10
Pyridine	25.3		0.667	mg/kg wet	33.3		76	10-137		10
Benzidine	8.50		1.67	mg/kg wet	16.7		51	10-35		10
Acenaphthene	17.8		0.333	mg/kg wet	16.7		107	63-126		10
Acenaphthylene	20.3		0.333	mg/kg wet	16.7		122	63-132		10
Anthracene	17.1		0.333	mg/kg wet	16.7		103	68-124		10
Benzoic acid	8.20		3.33	mg/kg wet	16.7		49	31-104		10
Benzo (a) anthracene	16.8		0.333	mg/kg wet	16.7		100	70-124		10
Benzo (b) fluoranthene	16.5		0.333	mg/kg wet	16.7		99	76-125		10
Benzo (k) fluoranthene	14.4		0.333	mg/kg wet	16.7		86	71-125		10
Benzo (g,h,i) perylene	15.8		0.333	mg/kg wet	16.7		95	73-127		10
Benzo (a) pyrene	15.4		0.333	mg/kg wet	16.7		93	71-127		10
Benzyl alcohol	16.8		0.333	mg/kg wet	16.7		101	34-138		10
Bis(2-chloroethoxy)methane	15.8		0.333	mg/kg wet	16.7		94	39-131		10

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)									
LCS (7138041-BS2)									
Prepared: 05/17/17 Analyzed: 05/18/17									
Bis(2-chloroethyl)ether	14.8		0.333	mg/kg wet	16.7		89	11-149	10
Bis(2-chloroisopropyl)ether	13.8		0.333	mg/kg wet	16.7		83	17-154	10
Bis(2-ethylhexyl)phthalate	18.6		0.333	mg/kg wet	16.7		112	63-115	10
4-Bromophenyl phenyl ether	17.4		0.333	mg/kg wet	16.7		105	68-121	10
Butyl benzyl phthalate	20.0		0.333	mg/kg wet	16.7		120	62-122	10
4-Chloroaniline	13.5		0.333	mg/kg wet	16.7		81	34-103	10
4-Chloro-3-methylphenol	16.2		0.333	mg/kg wet	16.7		97	62-123	10
2-Chloronaphthalene	17.6		0.333	mg/kg wet	16.7		106	57-124	10
2-Chlorophenol	15.6		0.333	mg/kg wet	16.7		94	24-142	10
4-Chlorophenyl phenyl ether	19.3		0.333	mg/kg wet	16.7		116	65-122	10
Chrysene	15.0		0.333	mg/kg wet	16.7		90	71-125	10
Dibenz (a,h) anthracene	16.1		0.333	mg/kg wet	16.7		97	74-128	10
Dibenzofuran	18.4		0.333	mg/kg wet	16.7		110	63-118	10
Di-n-butyl phthalate	18.6		0.333	mg/kg wet	16.7		111	72-123	10
1,2-Dichlorobenzene	14.4		0.333	mg/kg wet	16.7		86	10-151	10
1,3-Dichlorobenzene	14.3		0.333	mg/kg wet	16.7		86	10-156	10
1,4-Dichlorobenzene	14.3		0.333	mg/kg wet	16.7		86	10-154	10
3,3'-Dichlorobenzidine	14.8		0.333	mg/kg wet	16.7		89	48-107	10
2,4-Dichlorophenol	17.6		0.333	mg/kg wet	16.7		106	50-130	10
Diethyl phthalate	21.2		0.333	mg/kg wet	16.7		127	67-124	10
2,4-Dimethylphenol	13.3		0.333	mg/kg wet	16.7		80	40-111	10
Dimethyl phthalate	19.9		0.333	mg/kg wet	16.7		119	66-121	10
4,6-Dinitro-2-methylphenol	9.76		1.67	mg/kg wet	16.7		59	10-111	10
2,4-Dinitrophenol	6.77		1.67	mg/kg wet	16.7		41	10-111	10
2,4-Dinitrotoluene	19.2		0.333	mg/kg wet	16.7		115	66-112	10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)									
LCS (7138041-BS2)									
Prepared: 05/17/17 Analyzed: 05/18/17									
2,6-Dinitrotoluene	19.0		0.333	mg/kg wet	16.7		114 57-128		10
Di-n-octyl phthalate	19.1		0.333	mg/kg wet	16.7		115 56-119		10
Aniline	11.8		0.333	mg/kg wet	16.7		71 16-99		10
Naphthalene	15.1		0.333	mg/kg wet	16.7		90 32-140		10
N-Nitrosodimethylamine	14.9		0.333	mg/kg wet	16.7		89 10-156		10
Carbazole	9.01		0.333	mg/kg wet	16.7		54 34-61		10
3 & 4-Methylphenol	15.7		0.333	mg/kg wet	16.7		94 41-118		10
Acetophenone	15.8		0.333	mg/kg wet	16.7		95 27-142		10
1,2-Diphenylhydrazine	17.2		0.333	mg/kg wet			60-127		10
2,3,4,6-Tetrachlorophenol	17.2		0.333	mg/kg wet	16.7		103 72-140		10
Fluoranthene	17.8		0.333	mg/kg wet	16.7		107 71-128		10
Fluorene	19.1		0.333	mg/kg wet	16.7		115 69-122		10
Hexachlorobenzene	16.4		0.333	mg/kg wet	16.7		98 69-118		10
Hexachlorobutadiene	15.1		0.333	mg/kg wet	16.7		91 18-146		10
Hexachlorocyclopentadiene	18.8		0.333	mg/kg wet	16.7		113 22-155		10
Hexachloroethane	14.4		0.333	mg/kg wet	16.7		86 10-154		10
Indeno (1,2,3-cd) pyrene	16.1		0.333	mg/kg wet	16.7		97 73-130		10
Isophorone	15.2		0.333	mg/kg wet	16.7		91 42-131		10
2-Methylnaphthalene	16.6		0.333	mg/kg wet	16.7		100 47-131		10
2-Methylphenol	14.9		0.333	mg/kg wet	16.7		89 35-119		10
2-Nitroaniline	19.4		0.333	mg/kg wet	16.7		117 57-128		10
3-Nitroaniline	16.4		0.333	mg/kg wet	16.7		99 60-112		10
4-Nitroaniline	18.2		0.333	mg/kg wet	16.7		109 44-127		10
Nitrobenzene	15.3		0.333	mg/kg wet	16.7		92 28-138		10
2-Nitrophenol	17.5		0.333	mg/kg wet	16.7		105 31-144		10

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)									
LCS (7138041-BS2)					Prepared: 05/17/17 Analyzed: 05/18/17				
4-Nitrophenol	18.4		0.333	mg/kg wet	16.7		111 50-118		10
N-Nitrosodiphenylamine	15.1		0.333	mg/kg wet	16.7		91 54-104		10
N-Nitrosodi-n-propylamine	15.9		0.333	mg/kg wet	16.7		95 34-135		10
Pentachlorophenol	16.4		1.67	mg/kg wet	16.7		99 56-126		10
Phenanthrene	15.4		0.333	mg/kg wet	16.7		92 68-118		10
Phenol	14.6		0.333	mg/kg wet	16.7		87 32-129		10
Pyrene	16.2		0.333	mg/kg wet	16.7		97 70-126		10
1,2,4-Trichlorobenzene	15.8		0.333	mg/kg wet	16.7		95 24-141		10
2,4,5-Trichlorophenol	19.8		0.333	mg/kg wet	16.7		119 63-138		10
2,4,6-Trichlorophenol	18.9		0.333	mg/kg wet	16.7		113 64-128		10
Surrogate: 2-Fluorophenol			12.2	mg/kg wet	13.3		92 35-115		
Surrogate: Phenol-d6			12.2	mg/kg wet	13.3		92 35-115		
Surrogate: Nitrobenzene-d5			6.08	mg/kg wet	6.67		91 35-115		
Surrogate: 2-Fluorobiphenyl			6.21	mg/kg wet	6.67		93 40-120		
Surrogate: 2,4,6-Tribromophenol			14.2	mg/kg wet	13.3		106 40-120		
Surrogate: Terphenyl-d14			5.47	mg/kg wet	6.67		82 40-120		
LCS (7138041-BS3)					Prepared: 05/17/17 Analyzed: 05/18/17				
Benzidine	7.83		1.67	mg/kg wet	16.7		47 10-35		10
Pyridine	24.2		0.667	mg/kg wet	33.3		73 10-137		10
Diphenylamine	14.0		0.333	mg/kg wet	16.7		84 56-103		10
Acenaphthene	16.3		0.333	mg/kg wet	16.7		98 63-126		10
Acenaphthylene	18.8		0.333	mg/kg wet	16.7		113 63-132		10
Anthracene	15.7		0.333	mg/kg wet	16.7		94 68-124		10
Benzoic acid	8.85		3.33	mg/kg wet	16.7		53 31-104		10

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
LCS (7138041-BS3)										
Prepared: 05/17/17 Analyzed: 05/18/17										
Benzo (a) anthracene	15.5		0.333	mg/kg wet	16.7		93	70-124		10
Benzo (b) fluoranthene	15.3		0.333	mg/kg wet	16.7		92	76-125		10
Benzo (k) fluoranthene	13.4		0.333	mg/kg wet	16.7		80	71-125		10
Benzo (g,h,i) perylene	14.6		0.333	mg/kg wet	16.7		88	73-127		10
Benzo (a) pyrene	14.2		0.333	mg/kg wet	16.7		85	71-127		10
Benzyl alcohol	15.5		0.333	mg/kg wet	16.7		93	34-138		10
Bis(2-chloroethoxy)methane	14.6		0.333	mg/kg wet	16.7		87	39-131		10
Bis(2-chloroethyl)ether	13.9		0.333	mg/kg wet	16.7		83	11-149		10
Bis(2-chloroisopropyl)ether	12.8		0.333	mg/kg wet	16.7		77	17-154		10
Bis(2-ethylhexyl)phthalate	17.4		0.333	mg/kg wet	16.7		104	63-115		10
4-Bromophenyl phenyl ether	16.0		0.333	mg/kg wet	16.7		96	68-121		10
Butyl benzyl phthalate	18.9		0.333	mg/kg wet	16.7		113	62-122		10
4-Chloroaniline	12.1		0.333	mg/kg wet	16.7		72	34-103		10
4-Chloro-3-methylphenol	15.0		0.333	mg/kg wet	16.7		90	62-123		10
2-Chloronaphthalene	16.4		0.333	mg/kg wet	16.7		98	57-124		10
2-Chlorophenol	14.4		0.333	mg/kg wet	16.7		86	24-142		10
4-Chlorophenyl phenyl ether	17.7		0.333	mg/kg wet	16.7		106	65-122		10
Chrysene	13.9		0.333	mg/kg wet	16.7		83	71-125		10
Dibenz (a,h) anthracene	14.9		0.333	mg/kg wet	16.7		89	74-128		10
Dibenzofuran	17.2		0.333	mg/kg wet	16.7		103	63-118		10
Di-n-butyl phthalate	17.5		0.333	mg/kg wet	16.7		105	72-123		10
1,2-Dichlorobenzene	13.4		0.333	mg/kg wet	16.7		80	10-151		10
1,3-Dichlorobenzene	13.4		0.333	mg/kg wet	16.7		80	10-156		10
1,4-Dichlorobenzene	13.3		0.333	mg/kg wet	16.7		80	10-154		10
3,3'-Dichlorobenzidine	13.6		0.333	mg/kg wet	16.7		82	48-107		10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)									
LCS (7138041-BS3)									
Prepared: 05/17/17 Analyzed: 05/18/17									
2,4-Dichlorophenol	16.1		0.333	mg/kg wet	16.7		96 50-130		10
Diethyl phthalate	19.7		0.333	mg/kg wet	16.7		118 67-124		10
2,4-Dimethylphenol	12.3		0.333	mg/kg wet	16.7		74 40-111		10
Dimethyl phthalate	18.4		0.333	mg/kg wet	16.7		110 66-121		10
4,6-Dinitro-2-methylphenol	10.5		1.67	mg/kg wet	16.7		63 10-111		10
2,4-Dinitrophenol	7.29		1.67	mg/kg wet	16.7		44 10-111		10
2,4-Dinitrotoluene	18.0		0.333	mg/kg wet	16.7		108 66-112		10
2,6-Dinitrotoluene	17.6		0.333	mg/kg wet	16.7		106 57-128		10
Di-n-octyl phthalate	18.0		0.333	mg/kg wet	16.7		108 56-119		10
Aniline	10.9		0.333	mg/kg wet	16.7		65 16-99		10
Naphthalene	13.8		0.333	mg/kg wet	16.7		83 32-140		10
N-Nitrosodimethylamine	14.1		0.333	mg/kg wet	16.7		85 10-156		10
Carbazole	8.22		0.333	mg/kg wet	16.7		49 34-61		10
Acetophenone	14.6		0.333	mg/kg wet	16.7		88 27-142		10
3 & 4-Methylphenol	14.4		0.333	mg/kg wet	16.7		86 41-118		10
1,2-Diphenylhydrazine	15.9		0.333	mg/kg wet			60-127		10
2,3,4,6-Tetrachlorophenol	16.0		0.333	mg/kg wet	16.7		96 72-140		10
Fluoranthene	16.2		0.333	mg/kg wet	16.7		97 71-128		10
Fluorene	17.7		0.333	mg/kg wet	16.7		106 69-122		10
Hexachlorobenzene	14.9		0.333	mg/kg wet	16.7		89 69-118		10
Hexachlorobutadiene	13.8		0.333	mg/kg wet	16.7		83 18-146		10
Hexachlorocyclopentadiene	17.4		0.333	mg/kg wet	16.7		105 22-155		10
Hexachloroethane	13.5		0.333	mg/kg wet	16.7		81 10-154		10
Indeno (1,2,3-cd) pyrene	14.9		0.333	mg/kg wet	16.7		89 73-130		10
Isophorone	13.7		0.333	mg/kg wet	16.7		82 42-131		10

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NELAP: PA 07-062, VA 460212

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
LCS (7138041-BS3)										
Prepared: 05/17/17 Analyzed: 05/18/17										
2-Methylnaphthalene	15.2		0.333	mg/kg wet	16.7		91	47-131		10
2-Methylphenol	14.0		0.333	mg/kg wet	16.7		84	35-119		10
2-Nitroaniline	18.2		0.333	mg/kg wet	16.7		109	57-128		10
3-Nitroaniline	15.2		0.333	mg/kg wet	16.7		91	60-112		10
4-Nitroaniline	16.8		0.333	mg/kg wet	16.7		101	44-127		10
Nitrobenzene	14.2		0.333	mg/kg wet	16.7		85	28-138		10
2-Nitrophenol	16.2		0.333	mg/kg wet	16.7		97	31-144		10
4-Nitrophenol	17.2		0.333	mg/kg wet	16.7		103	50-118		10
N-Nitrosodiphenylamine	14.0		0.333	mg/kg wet	16.7		84	54-104		10
N-Nitrosodi-n-propylamine	14.9		0.333	mg/kg wet	16.7		89	34-135		10
Pentachlorophenol	15.9		1.67	mg/kg wet	16.7		95	56-126		10
Phenanthrene	14.1		0.333	mg/kg wet	16.7		84	68-118		10
Phenol	13.6		0.333	mg/kg wet	16.7		81	32-129		10
Pyrene	15.0		0.333	mg/kg wet	16.7		90	70-126		10
1,2,4-Trichlorobenzene	14.5		0.333	mg/kg wet	16.7		87	24-141		10
2,4,5-Trichlorophenol	18.4		0.333	mg/kg wet	16.7		110	63-138		10
2,4,6-Trichlorophenol	17.5		0.333	mg/kg wet	16.7		105	64-128		10
Surrogate: 2-Fluorophenol			11.5	mg/kg wet	13.3		86	35-115		
Surrogate: Phenol-d6			11.6	mg/kg wet	13.3		87	35-115		
Surrogate: Nitrobenzene-d5			5.50	mg/kg wet	6.67		83	35-115		
Surrogate: 2-Fluorobiphenyl			5.74	mg/kg wet	6.67		86	40-120		
Surrogate: 2,4,6-Tribromophenol			13.3	mg/kg wet	13.3		100	40-120		
Surrogate: Terphenyl-d14			5.12	mg/kg wet	6.67		77	40-120		
LCS (7138041-BS4)										
Prepared: 05/17/17 Analyzed: 05/19/17										

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Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
LCS (7138041-BS4)										
Prepared: 05/17/17 Analyzed: 05/19/17										
Benzidine	7.50		1.67	mg/kg wet	16.7		45	10-35		10
Pyridine	23.8		0.667	mg/kg wet	33.3		71	10-137		10
Diphenylamine	13.9		0.333	mg/kg wet	16.7		83	56-103		10
Acenaphthene	16.5		0.333	mg/kg wet	16.7		99	63-126		10
Acenaphthylene	18.8		0.333	mg/kg wet	16.7		113	63-132		10
Anthracene	15.6		0.333	mg/kg wet	16.7		93	68-124		10
Benzoic acid	10.4		3.33	mg/kg wet	16.7		63	31-104		10
Benzo (a) anthracene	15.3		0.333	mg/kg wet	16.7		92	70-124		10
Benzo (b) fluoranthene	14.9		0.333	mg/kg wet	16.7		89	76-125		10
Benzo (k) fluoranthene	13.3		0.333	mg/kg wet	16.7		80	71-125		10
Benzo (g,h,i) perylene	14.5		0.333	mg/kg wet	16.7		87	73-127		10
Benzo (a) pyrene	14.1		0.333	mg/kg wet	16.7		84	71-127		10
Benzyl alcohol	15.3		0.333	mg/kg wet	16.7		92	34-138		10
Bis(2-chloroethoxy)methane	14.6		0.333	mg/kg wet	16.7		88	39-131		10
Bis(2-chloroethyl)ether	13.6		0.333	mg/kg wet	16.7		82	11-149		10
Bis(2-chloroisopropyl)ether	12.8		0.333	mg/kg wet	16.7		77	17-154		10
Bis(2-ethylhexyl)phthalate	17.1		0.333	mg/kg wet	16.7		103	63-115		10
4-Bromophenyl phenyl ether	16.0		0.333	mg/kg wet	16.7		96	68-121		10
Butyl benzyl phthalate	18.5		0.333	mg/kg wet	16.7		111	62-122		10
4-Chloroaniline	12.0		0.333	mg/kg wet	16.7		72	34-103		10
4-Chloro-3-methylphenol	15.1		0.333	mg/kg wet	16.7		91	62-123		10
2-Chloronaphthalene	16.4		0.333	mg/kg wet	16.7		98	57-124		10
2-Chlorophenol	14.2		0.333	mg/kg wet	16.7		85	24-142		10
4-Chlorophenyl phenyl ether	17.8		0.333	mg/kg wet	16.7		107	65-122		10
Chrysene	13.7		0.333	mg/kg wet	16.7		82	71-125		10

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
LCS (7138041-BS4)										
Prepared: 05/17/17 Analyzed: 05/19/17										
Dibenz (a,h) anthracene	14.7		0.333	mg/kg wet	16.7		88	74-128		10
Dibenzofuran	17.1		0.333	mg/kg wet	16.7		103	63-118		10
Di-n-butyl phthalate	17.2		0.333	mg/kg wet	16.7		103	72-123		10
1,2-Dichlorobenzene	13.2		0.333	mg/kg wet	16.7		79	10-151		10
1,3-Dichlorobenzene	13.3		0.333	mg/kg wet	16.7		80	10-156		10
1,4-Dichlorobenzene	13.2		0.333	mg/kg wet	16.7		79	10-154		10
3,3'-Dichlorobenzidine	13.5		0.333	mg/kg wet	16.7		81	48-107		10
2,4-Dichlorophenol	16.0		0.333	mg/kg wet	16.7		96	50-130		10
Diethyl phthalate	19.7		0.333	mg/kg wet	16.7		118	67-124		10
2,4-Dimethylphenol	12.3		0.333	mg/kg wet	16.7		74	40-111		10
Dimethyl phthalate	18.3		0.333	mg/kg wet	16.7		110	66-121		10
4,6-Dinitro-2-methylphenol	12.0		1.67	mg/kg wet	16.7		72	10-111		10
2,4-Dinitrophenol	8.60		1.67	mg/kg wet	16.7		52	10-111		10
2,4-Dinitrotoluene	17.9		0.333	mg/kg wet	16.7		108	66-112		10
2,6-Dinitrotoluene	17.6		0.333	mg/kg wet	16.7		106	57-128		10
Di-n-octyl phthalate	17.7		0.333	mg/kg wet	16.7		106	56-119		10
Aniline	10.5		0.333	mg/kg wet	16.7		63	16-99		10
Naphthalene	13.9		0.333	mg/kg wet	16.7		84	32-140		10
N-Nitrosodimethylamine	13.7		0.333	mg/kg wet	16.7		82	10-156		10
Carbazole	8.29		0.333	mg/kg wet	16.7		50	34-61		10
Acetophenone	14.4		0.333	mg/kg wet	16.7		86	27-142		10
3 & 4-Methylphenol	14.3		0.333	mg/kg wet	16.7		86	41-118		10
1,2-Diphenylhydrazine	15.8		0.333	mg/kg wet				60-127		10
2,3,4,6-Tetrachlorophenol	16.3		0.333	mg/kg wet	16.7		98	72-140		10
Fluoranthene	16.2		0.333	mg/kg wet	16.7		97	71-128		10

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PaDEP: PA 41-04684



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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)										
LCS (7138041-BS4)										
Prepared: 05/17/17 Analyzed: 05/19/17										
Fluorene	17.6		0.333	mg/kg wet	16.7		106	69-122		10
Hexachlorobenzene	14.9		0.333	mg/kg wet	16.7		89	69-118		10
Hexachlorobutadiene	13.9		0.333	mg/kg wet	16.7		84	18-146		10
Hexachlorocyclopentadiene	17.6		0.333	mg/kg wet	16.7		105	22-155		10
Hexachloroethane	13.7		0.333	mg/kg wet	16.7		82	10-154		10
Indeno (1,2,3-cd) pyrene	14.7		0.333	mg/kg wet	16.7		88	73-130		10
Isophorone	13.9		0.333	mg/kg wet	16.7		83	42-131		10
2-Methylnaphthalene	15.2		0.333	mg/kg wet	16.7		91	47-131		10
2-Methylphenol	13.8		0.333	mg/kg wet	16.7		83	35-119		10
2-Nitroaniline	18.6		0.333	mg/kg wet	16.7		111	57-128		10
3-Nitroaniline	15.0		0.333	mg/kg wet	16.7		90	60-112		10
4-Nitroaniline	17.1		0.333	mg/kg wet	16.7		102	44-127		10
Nitrobenzene	14.1		0.333	mg/kg wet	16.7		84	28-138		10
2-Nitrophenol	16.3		0.333	mg/kg wet	16.7		98	31-144		10
4-Nitrophenol	17.7		0.333	mg/kg wet	16.7		106	50-118		10
N-Nitrosodiphenylamine	13.9		0.333	mg/kg wet	16.7		83	54-104		10
N-Nitrosodi-n-propylamine	14.8		0.333	mg/kg wet	16.7		89	34-135		10
Pentachlorophenol	16.3		1.67	mg/kg wet	16.7		98	56-126		10
Phenanthrene	14.0		0.333	mg/kg wet	16.7		84	68-118		10
Phenol	13.4		0.333	mg/kg wet	16.7		80	32-129		10
Pyrene	14.8		0.333	mg/kg wet	16.7		89	70-126		10
1,2,4-Trichlorobenzene	14.6		0.333	mg/kg wet	16.7		87	24-141		10
2,4,5-Trichlorophenol	18.2		0.333	mg/kg wet	16.7		109	63-138		10
2,4,6-Trichlorophenol	17.7		0.333	mg/kg wet	16.7		106	64-128		10
Surrogate: 2-Fluorophenol			11.3	mg/kg wet	13.3		85	35-115		

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7138041 - EPA 3541 (Continued)									
LCS (7138041-BS4)					Prepared: 05/17/17 Analyzed: 05/19/17				
Surrogate: Phenol-d6	11.2			mg/kg wet	13.3	84	35-115		
Surrogate: Nitrobenzene-d5	5.78			mg/kg wet	6.67	87	35-115		
Surrogate: 2-Fluorobiphenyl	5.98			mg/kg wet	6.67	90	40-120		
Surrogate: 2,4,6-Tribromophenol	13.2			mg/kg wet	13.3	99	40-120		
Surrogate: Terphenyl-d14	5.18			mg/kg wet	6.67	78	40-120		

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Quality Control
(Continued)

TCLP Extraction by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7136051 - General Preparation									
Blank (7136051-BLK1)									
# pH	4.99			pH Units					
Duplicate (7136051-DUP1)									
# pH	8.33		Source: 7E16021-01	pH Units					

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Quality Control
(Continued)

TCLP Metals extracted by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137033 - EPA 3010A TCLP/SPLP									
Blank (7137033-BLK1)					Prepared: 05/17/17 Analyzed: 05/19/17				
Antimony	ND		0.0100	mg/l					
Arsenic	ND		0.00800	mg/l					
Barium	ND		0.0100	mg/l					
Beryllium	0.000444	J	0.00200	mg/l					
Cadmium	ND		0.00400	mg/l					
Chromium	ND		0.00500	mg/l					
Lead	ND		0.00800	mg/l					
Nickel	ND		0.0500	mg/l					
Selenium	ND		0.0200	mg/l					
Silver	ND		0.00400	mg/l					
Thallium	ND		0.0200	mg/l					
Vanadium	0.00434	J	0.0200	mg/l					
Zinc	ND		0.0200	mg/l					
Duplicate (7137033-DUP1)					Source: 7E16021-01 Prepared: 05/17/17 Analyzed: 05/19/17				
Antimony	0.0741		0.0500	mg/l		0.0980		28	20
Arsenic	ND		0.0400	mg/l		ND			20
Barium	0.734		0.0500	mg/l		0.767		4	20
Beryllium	0.00133	J	0.0100	mg/l		0.000832		46	20
Cadmium	ND		0.0200	mg/l		ND			20
Chromium	ND		0.0250	mg/l		ND			20
Lead	0.0194	J	0.0400	mg/l		ND		200	20
Nickel	ND		0.250	mg/l		ND			20
Selenium	ND		0.100	mg/l		ND			20
Silver	ND		0.0200	mg/l		ND			20

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7137033 - EPA 3010A TCLP/SPLP (Continued)									
Duplicate (7137033-DUP1)		Source: 7E16021-01		Prepared: 05/17/17 Analyzed: 05/19/17					
Thallium	ND		0.100	mg/l		ND			20
Vanadium	ND		0.100	mg/l		ND			20
Zinc	ND		0.100	mg/l		0.0152		200	20
Matrix Spike (7137033-MS1)		Source: 7E16021-01		Prepared: 05/17/17 Analyzed: 05/19/17					
Antimony	2.13		0.0500	mg/l	2.00	0.0980	102 75-125		200
Arsenic	0.735		0.0400	mg/l	0.800	ND	92 75-125		200
Barium	2.61		0.0500	mg/l	2.00	0.767	92 75-125		200
Beryllium	0.196		0.0100	mg/l	0.200	0.000832	98 75-125		200
Cadmium	0.382		0.0200	mg/l	0.400	ND	96 75-125		200
Chromium	0.201		0.0250	mg/l	0.200	ND	100 75-125		200
Lead	0.759		0.0400	mg/l	0.800	ND	95 75-125		200
Nickel	1.98		0.250	mg/l	2.00	ND	99 75-125		200
Selenium	1.89		0.100	mg/l	2.00	ND	95 75-125		200
Silver	0.360		0.0200	mg/l	0.400	ND	90 75-125		200
Thallium	0.660		0.100	mg/l	0.800	ND	82 75-125		200
Vanadium	1.96		0.100	mg/l	2.00	ND	98 75-125		200
Zinc	1.96		0.100	mg/l	2.00	0.0152	97 75-125		200

Batch: 7137057 - EPA 200 Series

Blank (7137057-BLK1)			Prepared: 05/17/17 Analyzed: 05/18/17						
Mercury	ND	0.000200	mg/l						
Matrix Spike (7137057-MS1)			Source: 7E17024-02		Prepared: 05/17/17 Analyzed: 05/18/17				
Mercury	0.008699	0.00200	mg/l	0.0100	ND	87.0	70-130	10	

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(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennsdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit

Batch: 7137057 - EPA 200 Series (Continued)

Matrix Spike Dup (7137057-MSD1)		Source: 7E17024-02		Prepared: 05/17/17 Analyzed: 05/18/17						
Mercury	0.009286	0.00200	mg/l	0.0100	ND	92.9	70-130	6.53	10	

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Reported:

Pittsburgh PA, 15220

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01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7145080 - Volatiles									
Blank (7145080-BLK1)					Prepared: 05/19/17 Analyzed: 05/24/17				
Benzene	ND		0.0020	mg/kg wet					
Toluene	ND		0.0050	mg/kg wet					
Ethylbenzene	ND		0.0050	mg/kg wet					
Xylenes (total)	ND		0.0100	mg/kg wet					
Naphthalene	ND		0.0050	mg/kg wet					
Acetone	ND		0.0100	mg/kg wet					
Acrolein	ND		0.0500	mg/kg wet					
Acrylonitrile	ND		0.0100	mg/kg wet					
Bromodichloromethane	ND		0.0050	mg/kg wet					
Bromoform	ND		0.0050	mg/kg wet					
Bromomethane	ND		0.0050	mg/kg wet					
2-Butanone	ND		0.0100	mg/kg wet					
Carbon disulfide	ND		0.0050	mg/kg wet					
Carbon tetrachloride	ND		0.0050	mg/kg wet					
Chlorobenzene	ND		0.0050	mg/kg wet					
Chloroethane	ND		0.0050	mg/kg wet					
2-Chloroethylvinyl ether	ND		0.0500	mg/kg wet					
Chloroform	ND		0.0050	mg/kg wet					
1,2-Dibromo-3-chloropropane	ND		0.0050	mg/kg wet					
Dibromochloromethane	ND		0.0050	mg/kg wet					
1,2-Dibromoethane (EDB)	ND		0.0020	mg/kg wet					
Dibromomethane	ND		0.0050	mg/kg wet					
1,2-Dichlorobenzene	ND		0.0050	mg/kg wet					
1,4-Dichlorobenzene	ND		0.0050	mg/kg wet					
1,3-Dichlorobenzene	ND		0.0050	mg/kg wet					

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01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7145080 - Volatiles (Continued)										
Blank (7145080-BLK1)			Prepared: 05/19/17 Analyzed: 05/24/17							
Dichlorodifluoromethane	ND		0.0050	mg/kg wet						
1,2-Dichloroethane	ND		0.0020	mg/kg wet						
1,1-Dichloroethane	ND		0.0050	mg/kg wet						
trans-1,2-Dichloroethene	ND		0.0050	mg/kg wet						
1,1-Dichloroethene	ND		0.0050	mg/kg wet						
1,2-Dichloropropane	ND		0.0050	mg/kg wet						
trans-1,3-Dichloropropene	ND		0.0050	mg/kg wet						
cis-1,3-Dichloropropene	ND		0.0050	mg/kg wet						
Hexachlorobutadiene	ND		0.0050	mg/kg wet						
Iodomethane	ND		0.0050	mg/kg wet						
Methylene chloride	ND		0.0200	mg/kg wet						
4-Methyl-2-pentanone	ND		0.0100	mg/kg wet						
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/kg wet						
1,1,1,2-Tetrachloroethane	ND		0.0050	mg/kg wet						
Tetrachloroethene	ND		0.0050	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.0050	mg/kg wet						
1,1,1-Trichloroethane	ND		0.0050	mg/kg wet						
1,1,2-Trichloroethane	ND		0.0050	mg/kg wet						
Trichloroethene	ND		0.0050	mg/kg wet						
Trichlorofluoromethane	ND		0.0050	mg/kg wet						
1,2,3-Trichloropropane	ND		0.0050	mg/kg wet						
Vinyl chloride	ND		0.0020	mg/kg wet						
Surrogate: 4-Bromofluorobenzene			0.0978	mg/kg wet	0.100		98	70-130		
Surrogate: 1,2-Dichloroethane-d4			0.103	mg/kg wet	0.100		103	70-130		
Surrogate: Fluorobenzene			0.0988	mg/kg wet	0.100		99	70-130		

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Max Environmental

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Pittsburgh PA, 15220

Project Manager: Dave Thomas

Project: YUKON CLARIFIER

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

01/09/18 10:01

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7145080 - Volatiles (Continued)										
LCS (7145080-BS1)										
Prepared: 05/19/17 Analyzed: 05/25/17										
Benzene	0.042		0.0020	mg/kg wet	0.0500		84	70-130		200
Toluene	0.041		0.0050	mg/kg wet	0.0500		82	70-130		200
Ethylbenzene	0.041		0.0050	mg/kg wet	0.0500		82	70-130		200
Xylenes (total)	0.123		0.0100	mg/kg wet	0.150		82	70-130		200
Naphthalene	0.040		0.0050	mg/kg wet	0.0500		80	70-130		200
Acetone	0.041		0.0100	mg/kg wet	0.0500		82	70-130		200
Acrylonitrile	0.039		0.0100	mg/kg wet	0.0500		77	70-130		200
Bromodichloromethane	0.039		0.0050	mg/kg wet	0.0500		79	70-130		200
Bromoform	0.041		0.0050	mg/kg wet	0.0500		82	70-130		200
Bromomethane	0.037		0.0050	mg/kg wet	0.0500		73	70-130		200
2-Butanone	0.042		0.0100	mg/kg wet	0.0500		83	70-130		200
Carbon disulfide	0.039		0.0050	mg/kg wet	0.0500		77	70-130		200
Carbon tetrachloride	0.038		0.0050	mg/kg wet	0.0500		76	70-130		200
Chlorobenzene	0.043		0.0050	mg/kg wet	0.0500		86	70-130		200
Chloroethane	0.041		0.0050	mg/kg wet	0.0500		82	70-130		200
Chloroform	0.041		0.0050	mg/kg wet	0.0500		83	70-130		200
1,2-Dibromo-3-chloropropane	0.039		0.0050	mg/kg wet	0.0500		78	70-130		200
Dibromochloromethane	0.044		0.0050	mg/kg wet	0.0500		87	70-130		200
1,2-Dibromoethane (EDB)	0.042		0.0020	mg/kg wet	0.0500		84	70-130		200
Dibromomethane	0.043		0.0050	mg/kg wet	0.0500		87	70-130		200
1,2-Dichlorobenzene	0.041		0.0050	mg/kg wet	0.0500		82	70-130		200
1,4-Dichlorobenzene	0.039		0.0050	mg/kg wet	0.0500		79	70-130		200
1,3-Dichlorobenzene	0.042		0.0050	mg/kg wet	0.0500		84	70-130		200
Dichlorodifluoromethane	0.031		0.0050	mg/kg wet	0.0500		63	70-130		200

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Max Environmental

Project: YUKON CLARIFIER

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

01/09/18 10:01

Project Manager: Dave Thomas

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7145080 - Volatiles (Continued)									
LCS (7145080-BS1)					Prepared: 05/19/17 Analyzed: 05/25/17				
1,2-Dichloroethane	0.040		0.0020	mg/kg wet	0.0500		80 70-130		200
1,1-Dichloroethane	0.040		0.0050	mg/kg wet	0.0500		79 70-130		200
trans-1,2-Dichloroethene	0.039		0.0050	mg/kg wet	0.0500		78 70-130		200
1,1-Dichloroethene	0.040		0.0050	mg/kg wet	0.0500		79 70-130		200
1,2-Dichloropropane	0.042		0.0050	mg/kg wet	0.0500		84 70-130		200
trans-1,3-Dichloropropene	0.043		0.0050	mg/kg wet	0.0500		86 70-130		200
cis-1,3-Dichloropropene	0.042		0.0050	mg/kg wet	0.0500		84 70-130		200
Hexachlorobutadiene	0.039		0.0050	mg/kg wet	0.0500		78 70-130		200
Iodomethane	0.043		0.0050	mg/kg wet			70-130		200
Methylene chloride	0.041		0.0200	mg/kg wet	0.0500		81 70-130		200
4-Methyl-2-pentanone	0.043		0.0100	mg/kg wet	0.0500		87 70-130		200
1,1,2,2-Tetrachloroethane	0.033		0.0050	mg/kg wet	0.0500		66 70-130		200
1,1,1,2-Tetrachloroethane	0.041		0.0050	mg/kg wet	0.0500		82 70-130		200
Tetrachloroethene	0.041		0.0050	mg/kg wet	0.0500		81 70-130		200
1,2,4-Trichlorobenzene	0.038		0.0050	mg/kg wet	0.0500		76 70-130		200
1,1,1-Trichloroethane	0.039		0.0050	mg/kg wet	0.0500		77 70-130		200
1,1,2-Trichloroethane	0.042		0.0050	mg/kg wet	0.0500		84 70-130		200
Trichloroethene	0.040		0.0050	mg/kg wet	0.0500		79 70-130		200
Trichlorofluoromethane	0.041		0.0050	mg/kg wet	0.0500		81 70-130		200
1,2,3-Trichloropropane	0.043		0.0050	mg/kg wet	0.0500		86 70-130		200
Vinyl chloride	0.037		0.0020	mg/kg wet	0.0500		73 70-130		200
Surrogate: 4-Bromofluorobenzene			0.101	mg/kg wet	0.100		101 70-130		
Surrogate: 1,2-Dichloroethane-d4			0.0938	mg/kg wet	0.100		94 70-130		
Surrogate: Fluorobenzene			0.0978	mg/kg wet	0.100		98 70-130		

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651 Holiday Drive Foster Plaza #5

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Project Manager: Dave Thomas

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Project Number: [none]

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Notes

- A7 A reduced amount of sample was used during the preparation step due to the matrix of the sample.
- F The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered above the acceptance range for the noted analyte.
- G The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered below the acceptance range for the noted analyte.
- I4 Vials were prepared at the laboratory from the received container.
- J Detected between the Method Detection Limit (MDL) and the Reporting Limit (RL); therefore, the result is an estimated value.
- K The RPD result exceeded the quality control limits for the duplicate, Laboratory Control Sample Duplicate (LCSD), or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- L The noted analyte was detected in the method blank.
- Q Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.



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01/09/18 10:01

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

* G indicates analysis performed by Fairway Laboratories, Inc. at the Greensburg location PaDEP: 65-00392. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Project Number: [none]

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Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved,

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#3

7E16021

§ 268.48 Universal treatment standards.

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in § 268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

Universal Treatment Standards

[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard Concentration ² in mg/l	Nonwastewater standard Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Organic Constituents			
✓ Acenaphthylene	208-96-8	0.059	3.4
✓ Acenaphthene	83-32-9	0.059	3.4
✓ Acetone	67-64-1	0.28	160
✓ Acetonitrile	75-05-8	5.6	38
✓ Acetophenone	96-86-2	0.010	9.7
~~2-Acetylaminofluorene~~	~~53-96-3~~	~~0.059~~	~~140~~
✓ Acrolein	107-02-8	0.29	NA
~~Acrylamide~~	~~79-06-1~~	~~19~~	~~23~~
✓ Acrylonitrile	107-13-1	0.24	84
✓ Aldrin	309-00-2	0.021	0.066
~~4-Aminobiphenyl~~	~~92-67-1~~	~~0.13~~	~~NA~~
✓ Aniline	62-53-3	0.81	14
~~o-Anisidine (2-methoxyaniline)~~	~~90-04-0~~	~~0.010~~	~~0.66~~
✓ Anthracene	120-12-7	0.059	3.4
~~Aramite~~	~~140-57-8~~	~~0.36~~	~~NA~~
✓ alpha-BHC	319-84-6	0.00014	0.066

#4

7E16021

✓ beta-BHC	319-85-7	0.00014	0.066
✓ delta-BHC	319-86-8	0.023	0.066
✓ gamma-BHC	58-89-9	0.0017	0.066
✓ Benzene	71-43-2	0.14	10
✓ Benz(a)anthracene	56-55-3	0.059	3.4
✓ Benzal chloride	98-87-3	0.055	6.0
✓ Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
✓ Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
✓ Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
✓ Benzo(a)pyrene	50-32-8	0.061	3.4
✓ Bromodichloromethane	75-27-4	0.35	15
✓ Bromomethane/Methyl bromide	74-83-9	0.11	15
✓ 4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
✓ Butyl benzyl phthalate	85-68-7	0.017	28
✓ ~~2-sec-Butyl-4,6-dinitrophenol/Dinoseb~~	~~88-85-7~~	~~0.066~~	~~2.5~~
✓ Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
✓ Carbon tetrachloride	56-23-5	0.057	6.0
✓ Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
✓ p-Chloroaniline	106-47-8	0.46	16
✓ Chlorobenzene	108-90-7	0.057	6.0
✓ ~~Chlorobenzilate~~	~~510-15-6~~	~~0.10~~	~~NA~~
✓ ~~2-Chloro-1,3-butadiene~~	~~126-99-8~~	~~0.057~~	~~0.26~~
✓ Chlorodibromomethane	124-48-1	0.057	15
✓ Chloroethane	75-00-3	0.27	6.0
✓ bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2

TS

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/bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
-Chloroform	67-66-3	0.046	6.0
/bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
/p-Chloro-m-cresol	59-50-7	0.018	14
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
-Chloromethane/Methyl chloride	74-87-3	0.19	30
/2-Chloronaphthalene	91-58-7	0.055	5.6
/2-Chlorophenol	95-57-8	0.044	5.7
~~/3-Chloropropylene~~	~~107-05-1~~	~~0.026~~	~~30~~
/Chrysene	218-01-9	0.059	3.4
~~p-Cresidine~~	~~120-71-8~~	~~0.010~~	~~0.66~~
/o-Cresol	95-48-7	0.11	5.6
/m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
/p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
-Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
~~o,p'-DDD~~	~~59-19-0~~	~~0.023~~	~~0.087~~
/p,p'-DDD	72-54-8	0.023	0.087
~~o,p'-DDE~~	~~3424-82-8~~	~~0.031~~	~~0.087~~
/p,p'-DDE	72-55-9	0.031	0.087
~~o,p'-DDT~~	~~789-02-6~~	~~0.0039~~	~~0.087~~
/p,p'-DDT	50-29-3	0.0039	0.087
/Dibenz(a,h)anthracene	53-70-3	0.055	8.2
~~Dibenz(a,e)pyrene~~	~~192-65-4~~	~~0.001~~	~~NA~~
/1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
/1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
-Dibromomethane	74-95-3	0.11	15
/m-Dichlorobenzene	541-73-1	0.036	6.0

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✓ o-Dichlorobenzene	95-50-1	0.088	6.0
✓ p-Dichlorobenzene	106-46-7	0.090	6.0
✓ Dichlorodifluoromethane	75-71-8	0.23	7.2
- 1,1-Dichloroethane	75-34-3	0.059	6.0
- 1,2-Dichloroethane	107-06-2	0.21	6.0
- 1,1-Dichloroethylene	75-35-4	0.025	6.0
- trans-1,2-Dichloroethylene	156-60-5	0.054	30
✓ 2,4-Dichlorophenol	120-83-2	0.044	14
~~2,6-Dichlorophenol~~	~~87-65-0~~	~~0.044~~	~~14~~
~~2,4-Dichlorophenoxyacetic acid/2,4-D~~	~~94-75-7~~	~~0.72~~	~~10~~
- 1,2-Dichloropropane	78-87-5	0.85	18
- cis-1,3-Dichloropropylene	10061-01-5	0.036	18
- trans-1,3-Dichloropropylene	10061-02-6	0.036	18
✓ Dieldrin	60-57-1	0.017	0.13
✓ Diethyl phthalate	84-66-2	0.20	28
~~p-Dimethylaminoazobenzene~~	~~60-11-7~~	~~0.13~~	~~NA~~
~~2,4-Dimethylaniline (2,4-xylidine)~~	~~95-68-1~~	~~0.010~~	~~0.66~~
- 2,4-Dimethyl phenol	105-67-9	0.036	14
✓ Dimethyl phthalate	131-11-3	0.047	28
✓ Di-n-butyl phthalate	84-74-2	0.057	28
~~1,4-Dinitrobenzene~~	~~100-25-4~~	~~0.32~~	~~2.3~~
✓ 4,6-Dinitro-o-cresol	534-52-1	0.28	160
✓ 2,4-Dinitrophenol	51-28-5	0.12	160
✓ 2,4-Dinitrotoluene	121-14-2	0.32	140
✓ 2,6-Dinitrotoluene	606-20-2	0.55	28
✓ Di-n-octyl phthalate	117-84-0	0.017	28
~~Di-n-propylnitrosamine~~	~~621-64-7~~	~~0.40~~	~~14~~

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1,4-Dioxane	123-91-1	12.0	170
~~Diphenylamine (difficult to distinguish from diphenylnitrosamine)~~	~~122-99-4~~	~~0.92~~	~~13~~
~~Diphenylnitrosamine (difficult to distinguish from diphenylamine)~~	~~86-30-6~~	~~0.02~~	~~13~~
1,2-Diphenylhydrazine	122-66-7	0.087	NA
~~Disulfoton~~	~~298-04-4~~	~~0.017~~	~~6.2~~
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
~~Ethyl cyanide/Propanenitrile~~	~~107-12-0~~	~~0.24~~	~~360~~
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
~~Ethylene oxide~~	~~75-21-8~~	~~0.12~~	~~NA~~
~~Famphur~~	~~52-63-7~~	~~0.017~~	~~15~~
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
~~1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)~~	~~35822-46-9~~	~~0.000035~~	~~.0025~~
~~1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)~~	~~67562-39-4~~	~~0.000035~~	~~.0025~~

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1,2,3,4,7,8,9- ~~Heptachlorodibenzofuran~~ (1,2,3,4,7,8,9-HpCDF)	55673- ~~89-7~~	0.000035	~~0.0025~~
✓ ~~Heptachlor epoxide~~	1024- ~~57-3~~	0.016	0.066
✓ ~~Hexachlorobenzene~~	118-74- ~~1~~	0.055	10
- ~~Hexachlorobutadiene~~	87-68-3	0.055	5.6
✓ ~~Hexachlorocyclopentadiene~~	77-47-4	0.057	2.4
~~HxCDDs (All Hexachlorodibenzo-p-dioxins)~~	~~NA~~	~~0.000062~~	~~0.001~~
~~HxCDEs (All Hexachlorodibenzofurans)~~	~~NA~~	~~0.000063~~	~~0.001~~
✓ ~~Hexachloroethane~~	67-72-1	0.055	30
~~Hexachloropropylene~~	1888- ~~71-7~~	~~0.033~~	~~30~~
✓ ~~Indeno(1,2,3-c,d) pyrene~~	193-39- ~~5~~	0.0055	3.4
- ~~Iodomethane~~	74-88-4	0.19	65
~~Isobutyl alcohol~~	78-83-1	5.6	170
~~Isodrin~~	465-73- ~~6~~	~~0.021~~	~~0.066~~
~~Isosafrole~~	120-58- ~~1~~	~~0.081~~	~~2.6~~
~~Kepone~~	143-50- ~~0~~	~~0.0011~~	~~0.13~~
~~Methacrylonitrile~~	126-98- ~~7~~	0.24	84
~~Methanol~~	67-56-1	5.6	0.75 mg/l TCLP
~~Methapyrilene~~	91-88-5	0.081	1.5
✓ ~~Methoxychlor~~	72-43-5	0.25	0.18
~~3-Methylcholanthrene~~	56-49-5	0.0033	13
~~4,4'-Methylene bis(2-chloroaniline)~~	101-14- ~~4~~	0.50	30
- ~~Methylene chloride~~	75-09-2	0.089	30
- ~~Methyl ethyl ketone~~	78-93-3	0.28	36
- ~~Methyl isobutyl ketone~~	108-10- ~~1~~	0.14	33
- ~~Methyl methacrylate~~	80-62-6	0.14	160
~~Methyl methanesulfonate~~	66-27-3	0.012	NA

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Methyl parathion	298-00-0	0.014	4.6
✓ Naphthalene	91-20-3	0.059	5.6
~~2-Naphthylamine~~	~~91-59-8~~	~~0.62~~	~~NA~~
✓ o-Nitroaniline	88-74-4	0.27	14
✓ p-Nitroaniline	100-01-6	0.028	28
✓ Nitrobenzene	98-95-3	0.068	14
~~5-Nitro-o-toluidine~~	~~99-55-8~~	~~0.32~~	~~28~~
✓ o-Nitrophenol	88-75-5	0.028	13
✓ p-Nitrophenol	100-02-7	0.12	29
~~N-Nitrosodietylamine~~	~~55-18-5~~	~~0.40~~	~~28~~
✓ N-Nitrosodimethylamine	62-75-9	0.40	2.3
~~N-Nitroso-di-n-butylamine~~	~~924-16-3~~	~~0.40~~	~~17~~
~~N-Nitrosomethylethylamine~~	~~10595-95-6~~	~~0.40~~	~~2.3~~
~~N-Nitrosomorpholine~~	~~59-89-2~~	~~0.40~~	~~2.3~~
~~N-Nitrosopiperidine~~	~~100-75-4~~	~~0.013~~	~~35~~
~~N-Nitrosopyrrolidine~~	~~930-55-2~~	~~0.013~~	~~35~~
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063	0.005
~~Parathion~~	~~36-38-2~~	~~0.014~~	~~4.6~~
✓ Total PCBs (sum of all PCB isomers, or all Aroclors) ⁸	1336-36-3	0.10	10
~~Pentachlorobenzene~~	~~608-93-5~~	~~0.055~~	~~10~~
~~PeCDDs (All Pentachlorodibenzo-p-dioxins)~~	~~NA~~	~~0.000063~~	~~0.001~~
~~PeCDFs (All Pentachlorodibenzofurans)~~	~~NA~~	~~0.000035~~	~~0.001~~
~~Pentachloroethane~~	~~76-01-7~~	~~0.055~~	~~6.0~~
~~Pentachloronitrobenzene~~	~~82-68-8~~	~~0.055~~	~~4.8~~
✓ Pentachlorophenol	87-86-5	0.089	7.4
~~Phenacetin~~	~~62-44-2~~	~~0.081~~	~~16~~

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/ Phenanthrene	85-01-8	0.059	5.6
/ Phenol	108-95-2	0.039	6.2
~~1,3-Phenylenediamine~~	~~108-45-2~~	~~0.010~~	~~0.66~~
~~Phorate~~	~~298-02-2~~	~~0.021~~	~~4.6~~
~~Phthalic acid~~	~~100-21-0~~	~~0.055~~	~~28~~
~~Phthalic anhydride~~	~~85-44-9~~	~~0.055~~	~~28~~
~~Propanamide~~	~~23950-58-5~~	~~0.093~~	~~1.5~~
/ Pyrene	129-00-0	0.067	8.2
/ Pyridine	110-86-1	0.014	16
~~Safrole~~	~~94-59-7~~	~~0.081~~	~~22~~
~~Silver 2,4,5-TP~~	~~93-72-1~~	~~0.72~~	~~7.9~~
/ 1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
~~TCDDs (All Tetrachlorodibenzo-p-dioxins)~~	~~NA~~	~~0.000063~~	~~0.001~~
~~TCDFs (All Tetrachlorodibenzofurans)~~	~~NA~~	~~0.000063~~	~~0.001~~
- 1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
- 1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
- Tetrachloroethylene	127-18-4	0.056	6.0
/ 2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
- Toluene	108-88-3	0.080	10
/ Toxaphene	8001-35-2	0.0095	2.6
- Tribromomethane/Bromoform	75-25-2	0.63	15
- 1,2,4-Trichlorobenzene	120-82-1	0.055	19
- 1,1,1-Trichloroethane	71-55-6	0.054	6.0
- 1,1,2-Trichloroethane	79-00-5	0.054	6.0
- Trichloroethylene	79-01-6	0.054	6.0
- Trichlorofluoromethane	75-69-4	0.020	30
- 2,4,5-Trichlorophenol	95-95-4	0.18	7.4

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✓ 2,4,6-Trichlorophenol	88-06-2	0.035	7.4
~~2,4,5-Trichlorophenoxyacetic acid/2,4,5-T~~	~~93-76-5~~	~~0.72~~	~~7.0~~
✓ 1,2,3-Trichloropropane	96-18-4	0.85	30
✓ 1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
~~tris (2,3-Dibromopropyl) phosphate~~	~~126-72-1~~	~~0.11~~	~~0.10~~
✓ Vinyl chloride	75-01-4	0.27	6.0
✓ Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Inorganic Constituents			
Antimony	7440-36-0	1.9	1.15 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	21 mg/l TCLP
Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) ⁴	57-12-5	1.2	590
Cyanides (Amenable) ⁴	57-12-5	0.86	30
Fluoride ⁵	16984-48-8	35	NA
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury - Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury - All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium ⁷	7782-49-2	0.82	5.7 mg/l TCLP
Silver	7440-22-4	0.43	0.14 mg/l TCLP
Sulfide ⁵	18496-25-8	14	NA

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Thallium	7440-28-0	1.4	0.20 mg/l TCLP
Vanadium ⁵	7440-62-2	4.3	1.6 mg/l TCLP
Zinc ⁵	7440-66-6	2.61	4.3 mg/l TCLP

Footnotes to Table UTS

CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at § 268.2(i).

[Reserved]

This constituent is not an underlying hazardous constituent as defined at § 268.2(i) of this Part because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.

This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004-D011 only.

[59 FR 48103, Sept. 19, 1994, as amended at 60 FR 302, Jan. 3, 1995; 61 FR 15654, Apr. 8, 1996; 61 FR 33690, June 28, 1996; 62 FR 7596, Feb. 19, 1997; 63 FR 24626, May 4, 1998; 63 FR 28739, May 26, 1998; 63 FR 47417, Sept. 4, 1998; 64 FR 25417, May 11, 1999; 65 FR 14475, Mar. 17, 2000; 70 FR 34590, June 14, 2005; 70 FR 9178, Feb. 24, 2005; 71 FR 40279, July 14, 2006; 75 FR 13008, Mar. 18, 2010; 76 FR 34156, June 13, 2011]



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PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
YUKON-RO-101717	7J18185-01	Solid	Composite	10/17/17 10:58	10/18/17 17:53
YUKON-RO-101717	7J18185-02	Solid	Grab	10/17/17 10:37	10/18/17 17:53

7J18185: Qualifier added to semi-volatiles. This report replaces report issued 11/29/17 1133. 12/5/17rsr

7J18185: Compounds added per client request. This report replaces report issued 12/11/17 kjd/mlf

7J18185: TCLP SVOC list revised. This report replaces report issued 12/14/17. 012518 kjd/mlf

7J18185 Report revised, additional QA/QC summaries added. This report replaces the report printed 01/26/18 08:43.
03/28/18 mlf

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by Prep Method EPA 3050B

Silver	12.8	1.95	6.50	mg/kg dry	10/24/17 14:55	EPA 6010B/2.0	sr	
Aluminum	17200		3250	mg/kg dry	10/24/17 15:01	EPA 6010B/2.0	sr	
Arsenic	389	5.20	13.0	mg/kg dry	10/24/17 14:56	EPA 6010B/2.0	sr	
Barium	3930	97.6	325	mg/kg dry	10/24/17 15:01	EPA 6010B/2.0	sr	
Beryllium	0.977 J	0.390	3.25	mg/kg dry	10/24/17 14:55	EPA 6010B/2.0	sr	
Cadmium	32.2	0.781	6.50	mg/kg dry	10/24/17 14:56	EPA 6010B/2.0	sr	
Cobalt	32.2		16.3	mg/kg dry	10/24/17 14:56	EPA 6010B/2.0	sr	
Chromium	781	15.3	163	mg/kg dry	10/24/17 15:03	EPA 6010B/2.0	sr	
Copper	662		16.3	mg/kg dry	10/24/17 14:55	EPA 6010B/2.0	sr	
Iron	49400		1300	mg/kg dry	10/24/17 15:01	EPA 6010B/2.0	sr	
Manganese	1360		16.3	mg/kg dry	10/24/17 14:55	EPA 6010B/2.0	sr	

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State Certifications: MD 275, WV 364

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by Prep Method EPA 3050B

Nickel	291	2.60	81.3	mg/kg dry	10/24/17 14:56	EPA 6010B/2.0	sr	
Lead	2410	35.8	260	mg/kg dry	10/24/17 15:03	EPA 6010B/2.0	sr	
Antimony	73.9	14.5	16.3	mg/kg dry	10/24/17 14:56	EPA 6010B/2.0	sr	
Selenium	33.9	13.3	32.5	mg/kg dry	10/24/17 14:56	EPA 6010B/2.0	sr	
Thallium	<4.72	4.72	32.5	mg/kg dry	10/24/17 14:56	EPA 6010B/2.0	sr	
Vanadium	82.9	3.90	32.5	mg/kg dry	10/24/17 14:55	EPA 6010B/2.0	sr	
Zinc	7490		650	mg/kg dry	10/24/17 14:58	EPA 6010B/2.0	SR	

Analyses to be performed immediately upon sampling. See Definition indicated by: #

# pH @ 21°C	8.69		pH Units	10/19/17 15:25	SW846-9045 D	elb	

Calculated Analytes

Amenable Cyanide	3.05	0.407	1.70	mg/kg dry	10/24/17 09:33	SM20-4500 CN-C+E+G	caa	

Chlorinated Herbicides by EPA Method 8151A

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Chlorinated Herbicides by EPA Method 8151A

2,4-D	<12.6	12.6	18.5	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D, F
Acifluorfen	<12.6	12.6	18.5	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D
2,4-DB	<11.9	11.9	18.5	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D
2,4,5-T	<9.50	9.50	18.5	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D
2,4,5-TP (Silvex)	<10.7	10.7	18.5	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D
Dalapon	<61.2	61.2	185	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D
Dicamba	<9.67	9.67	18.5	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D
Dichloroprop	<11.2	11.2	18.5	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D
Dinoseb	<4.57	4.57	18.5	ug/kg dry	10/25/17 17:26	EPA 8151A	cdb	D
Surrogate: 2,4-DCAA		56 %	40.6-150		10/25/17 17:26	EPA 8151A	cdb	

Conventional Chemistry Parameters by SM/EPA Methods

Fluoride	83.6 J	3.99	157	mg/kg dry	10/25/17 05:02	EPA 9056A	bdw	
% Solids	27.0		0.100	%	10/19/17 20:00	SM 2540 G-97	pra	
Sulfide	<6.29	6.29	66.7	mg/kg dry	10/21/17 12:00	EPA SW846 9030/9034	pra	

Cyanide by Preparation Method EPA 9010

Cyanide (total)	20.0	0.407	1.70	mg/kg dry	10/24/17 09:33	EPA 9014	caa	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by EPA 6000/7000 Series Methods

Mercury	0.409	0.0392	0.0923	mg/kg dry	10/24/17 11:04	EPA 7471B	jks

Organochlorine Pesticides by EPA Extraction Method 3541

Aldrin	<14.4	14.4	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
alpha-BHC	<10.4	10.4	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	D
beta-BHC	<52.5	52.5	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
delta-BHC	<12.1	12.1	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	D
gamma-BHC (Lindane)	<72.7	72.7	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	D
Chlordane (tech)	<1440	1440	5770	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
4,4'-DDD	<31.7	31.7	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	D
4,4'-DDE	<14.4	14.4	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
4,4'-DDT	<34.6	34.6	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
Dieldrin	<13.8	13.8	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
Endosulfan I	<12.7	12.7	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
Endosulfan II	<16.2	16.2	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
Endosulfan sulfate	<46.1	46.1	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
Endrin	<19.6	19.6	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	D
Endrin aldehyde	<21.9	21.9	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
Heptachlor	<12.1	12.1	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Organochlorine Pesticides by EPA Extraction Method 3541

Heptachlor epoxide	<14.4	14.4	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
Methoxychlor	<25.4	25.4	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	D
Toxaphene	<2410	2410	5770	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
alpha-Chlordane	<48.5	48.5	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
gamma-Chlordane	<46.1	46.1	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	
Endrin ketone	<56.5	56.5	115	ug/kg dry	10/24/17 16:55	EPA 8081B	CDB	D
Surrogate: Tetrachloro-meta-xylene	181 %		40-157		10/24/17 16:55	EPA 8081B	CDB	O
Surrogate: Decachlorobiphenyl	279 %		57.1-153		10/24/17 16:55	EPA 8081B	CDB	O

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.031	0.031	0.074	mg/kg dry	10/23/17 23:10	EPA 8082	cdb	
PCB-1221	<0.043	0.043	0.074	mg/kg dry	10/23/17 23:10	EPA 8082	cdb	
PCB-1232	<0.033	0.033	0.074	mg/kg dry	10/23/17 23:10	EPA 8082	cdb	
PCB-1242	<0.011	0.011	0.074	mg/kg dry	10/23/17 23:10	EPA 8082	cdb	
PCB-1248	<0.022	0.022	0.074	mg/kg dry	10/23/17 23:10	EPA 8082	cdb	
PCB-1254	<0.048	0.048	0.074	mg/kg dry	10/23/17 23:10	EPA 8082	cdb	
PCB-1260	<0.036	0.036	0.074	mg/kg dry	10/23/17 23:10	EPA 8082	cdb	
Surrogate: Tetrachloro-meta-xylene	101 %		11-140		10/23/17 23:10	EPA 8082	cdb	
Surrogate: Decachlorobiphenyl	102 %		24.4-140		10/23/17 23:10	EPA 8082	cdb	

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Benzidine	<2.51	2.51	35.8	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Diphenylamine	<0.860	0.860	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Pyridine	<3.72	3.72	14.3	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Acenaphthene	<0.501	0.501	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Acenaphthylene	<0.573	0.573	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Anthracene	<0.358	0.358	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Benzoic acid	<3.08	3.08	71.6	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Benzo (a) anthracene	0.931 J	0.358	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Benzo (b) fluoranthene	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Benzo (k) fluoranthene	<0.501	0.501	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Benzo (g,h,i) perylene	<0.573	0.573	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Benzo (a) pyrene	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Benzyl alcohol	1.43 J	1.00	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Bis(2-chloroethoxy)methane	<1.00	1.00	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	A9, G
Bis(2-chloroethyl)ether	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Bis(2-chloroisopropyl)ether	<0.430	0.430	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	A9, G
Bis(2-ethylhexyl)phthalate	2.72 J	2.15	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
4-Bromophenyl phenyl ether	<0.501	0.501	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Butyl benzyl phthalate	<0.860	0.860	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
4-Chloroaniline	<0.931	0.931	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
4-Chloro-3-methylphenol	<0.645	0.645	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
2-Chloronaphthalene	<0.430	0.430	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
2-Chlorophenol	<0.358	0.358	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
4-Chlorophenyl phenyl ether	<0.931	0.931	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Chrysene	0.358 J	0.358	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Dibenz (a,h) anthracene	<0.501	0.501	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Dibenzofuran	0.430 J	0.215	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Di-n-butyl phthalate	2.01 J	1.50	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
1,2-Dichlorobenzene	<0.645	0.645	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
1,3-Dichlorobenzene	<0.358	0.358	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
1,4-Dichlorobenzene	<0.358	0.358	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
3,3'-Dichlorobenzidine	<0.645	0.645	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
2,4-Dichlorophenol	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Diethyl phthalate	<0.716	0.716	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
2,4-Dimethylphenol	<0.573	0.573	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Dimethyl phthalate	<0.430	0.430	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	

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651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

4,6-Dinitro-2-methylphenol	<2.29	2.29	35.8	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
2,4-Dinitrophenol	<1.86	1.86	35.8	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
2,4-Dinitrotoluene	<1.50	1.50	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
2,6-Dinitrotoluene	<1.36	1.36	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Di-n-octyl phthalate	0.573 J	0.501	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Aniline	<0.501	0.501	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Naphthalene	<0.430	0.430	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
N-Nitrosodimethylamine	<0.931	0.931	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Acetophenone	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
3 & 4-Methylphenol	<0.645	0.645	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
1,2-Diphenylhydrazine	<0.287	0.287	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Fluoranthene	0.430 J	0.358	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Fluorene	<0.287	0.287	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Hexachlorobenzene	<0.860	0.860	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Hexachlorobutadiene	<0.931	0.931	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Hexachlorocyclopentadiene	<1.79	1.79	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Hexachloroethane	<0.860	0.860	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Indeno (1,2,3-cd) pyrene	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Isophorone	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
2-Methylnaphthalene	<0.573	0.573	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
2-Methylphenol	<1.15	1.15	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
2-Nitroaniline	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
3-Nitroaniline	<2.01	2.01	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
4-Nitroaniline	<1.65	1.65	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Nitrobenzene	<0.931	0.931	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
2-Nitrophenol	<1.07	1.07	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
4-Nitrophenol	<1.79	1.79	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
N-Nitrosodi-n-propylamine	<0.716	0.716	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Pentachlorophenol	<1.79	1.79	35.8	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Phenanthrene	0.358 J	0.358	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
Phenol	<0.931	0.931	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Pyrene	0.573 J	0.501	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
1,2,4-Trichlorobenzene	<0.788	0.788	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
2,4,5-Trichlorophenol	<1.22	1.22	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	
2,4,6-Trichlorophenol	<1.15	1.15	7.16	mg/kg dry	10/24/17 16:58	EPA 8270D	cdb	G
Surrogate: 2-Fluorophenol		104 %	10-169		10/24/17 16:58	EPA 8270D	cdb	

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Surrogate: Phenol-d6	104 %	10-166	10/24/17 16:58	EPA 8270D	cdb
Surrogate: Nitrobenzene-d5	109 %	18.8-170	10/24/17 16:58	EPA 8270D	cdb
Surrogate: 2-Fluorobiphenyl	104 %	35.1-154	10/24/17 16:58	EPA 8270D	cdb
Surrogate: 2,4,6-Tribromophenol	97 %	20-158	10/24/17 16:58	EPA 8270D	cdb
Surrogate: Terphenyl-d14	113 %	52.1-160	10/24/17 16:58	EPA 8270D	cdb

TCLP Extraction by EPA 1311

# pH @ 19.5°C	8.30	pH Units	10/24/17 09:23	EPA 1311	spp

TCLP Metals extracted by EPA 1311

Silver	<0.00600	0.00600	0.0200	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr
Aluminum	<0.500		0.500	mg/l	10/30/17 15:58	EPA 6010B/2.0	sr
Arsenic	0.0793	0.0160	0.0400	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr
Barium	0.231	0.0150	0.0500	mg/l	10/30/17 15:58	EPA 6010B/2.0	sr
Beryllium	<0.00120	0.00120	0.0100	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr
Cadmium	<0.00245	0.00245	0.0200	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
TCLP Metals extracted by EPA 1311								
Cobalt	<0.0500		0.0500	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Chromium	<0.000750	0.000750	0.0250	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Copper	<0.0500		0.0500	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Iron	<0.200		0.200	mg/l	10/30/17 15:58	EPA 6010B/2.0	sr	
Mercury	<0.000590	0.000590	0.00200	mg/l	10/24/17 15:03	EPA 7471B	jks	Q
Manganese	0.481		0.0500	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Nickel	0.0293 J	0.0120	0.250	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Lead	<0.0120	0.0120	0.0400	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Antimony	0.0779	0.0190	0.0500	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Selenium	0.0315 J	0.0145	0.100	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Thallium	<0.00900	0.00900	0.100	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	
Vanadium	<0.0130	0.0130	0.100	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Metals extracted by EPA 1311

Zinc	<0.0110	0.0110	0.100	mg/l	10/30/17 16:00	EPA 6010B/2.0	sr	

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

Benzidine	<11.0	11.0	250	ug/l	11/24/17 11:55	EPA 8270D	rsr	F
Pyridine	<13.5	13.5	100	ug/l	11/24/17 11:55	EPA 8270D	rsr	
1,4-Dichlorobenzene	<4.00	4.00	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
2,4-Dinitrotoluene	<8.50	8.50	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
3 & 4-Methylphenol	<4.50	4.50	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
Hexachlorobenzene	<9.00	9.00	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
Hexachlorobutadiene	<8.00	8.00	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
Hexachloroethane	<5.50	5.50	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
2-Methylphenol	<6.50	6.50	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
Nitrobenzene	<6.00	6.00	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
Pentachlorophenol	<13.5	13.5	250	ug/l	11/24/17 11:55	EPA 8270D	rsr	
2,4,5-Trichlorophenol	<6.00	6.00	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
2,4,6-Trichlorophenol	<6.00	6.00	50.0	ug/l	11/24/17 11:55	EPA 8270D	rsr	
Surrogate: 2-Fluorophenol	46.2 %		30.6-66.8		11/24/17 11:55	EPA 8270D	rsr	
Surrogate: Phenol-d6	31.8 %		17.9-51.5		11/24/17 11:55	EPA 8270D	rsr	
Surrogate: Nitrobenzene-d5	95.7 %		30.6-140		11/24/17 11:55	EPA 8270D	rsr	

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:58

Laboratory Sample ID: 7J18185-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

B2

Surrogate: 2-Fluorobiphenyl	92.5 %	40.6-121	11/24/17 11:55	EPA 8270D	rsr
Surrogate: 2,4,6-Tribromophenol	97.0 %	50.4-131	11/24/17 11:55	EPA 8270D	rsr
Surrogate: Terphenyl-d14	108 %	10-185	11/24/17 11:55	EPA 8270D	rsr

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:37

Laboratory Sample ID: 7J18185-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

Acetone	<0.373	0.373	2.40	mg/kg dry	10/23/17 21:07	EPA 8260B	mtc
Benzene	<0.0003	0.0003	0.0044	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Toluene	<0.0003	0.0003	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Ethylbenzene	0.0024 J	0.0005	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Xylenes (total)	0.0117 J	0.0014	0.0221	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Isopropylbenzene	<0.0009	0.0009	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Methyl tert-butyl ether	<0.0003	0.0003	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Naphthalene	<0.0005	0.0005	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Acrolein	<0.0095	0.0095	0.111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Acrylonitrile	<0.0010	0.0010	0.0221	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Bromodichloromethane	<0.0012	0.0012	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Bromoform	<0.0010	0.0010	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Bromomethane	<0.0004	0.0004	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
2-Butanone	0.0599	0.0033	0.0221	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Carbon disulfide	0.0149	0.0011	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Carbon tetrachloride	<0.0012	0.0012	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Chlorobenzene	<0.0002	0.0002	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Chloroethane	<0.0010	0.0010	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:37

Laboratory Sample ID: 7J18185-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

15

2-Chloroethylvinyl ether	<0.0015	0.0015	0.111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
Chloroform	<0.0007	0.0007	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
Chloromethane	<0.0004	0.0004	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
1,2-Dibromo-3-chloropropane	<0.0006	0.0006	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
Dibromochloromethane	<0.0004	0.0004	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
1,2-Dibromoethane (EDB)	<0.0009	0.0009	0.0044	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
Dibromomethane	<0.0008	0.0008	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
1,2-Dichlorobenzene	<0.0008	0.0008	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
1,4-Dichlorobenzene	<0.0009	0.0009	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
1,3-Dichlorobenzene	<0.0007	0.0007	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
Dichlorodifluoromethane	<0.0010	0.0010	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	E
1,2-Dichloroethane	<0.0004	0.0004	0.0044	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
1,1-Dichloroethane	<0.0004	0.0004	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
trans-1,2-Dichloroethene	<0.0004	0.0004	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
cis-1,2-Dichloroethene	<0.0003	0.0003	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
1,1-Dichloroethene	<0.0004	0.0004	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
1,2-Dichloropropane	<0.0003	0.0003	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	
trans-1,3-Dichloropropene	<0.0003	0.0003	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc	

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:37

Laboratory Sample ID: 7J18185-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

15

cis-1,3-Dichloropropene	<0.0004	0.0004	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Hexachlorobutadiene	<0.0010	0.0010	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
2-Hexanone	<0.0007	0.0007	0.0221	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Iodomethane	<0.0008	0.0008	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Methylene chloride	<0.0011	0.0011	0.0442	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
4-Methyl-2-pentanone	0.0060 J	0.0003	0.0221	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Styrene	<0.0003	0.0003	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
1,1,2,2-Tetrachloroethane	<0.0008	0.0008	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
1,1,1,2-Tetrachloroethane	<0.0003	0.0003	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Tetrachloroethene	<0.0007	0.0007	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
1,2,4-Trichlorobenzene	<0.0013	0.0013	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
1,1,1-Trichloroethane	<0.0007	0.0007	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
1,1,2-Trichloroethane	<0.0006	0.0006	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Trichloroethene	<0.0005	0.0005	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Trichlorofluoromethane	<0.0007	0.0007	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
1,2,3-Trichloropropane	<0.0004	0.0004	0.0111	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc
Vinyl chloride	<0.0005	0.0005	0.0044	mg/kg dry	10/20/17 18:14	EPA 8260B	mtc

Surrogate: 4-Bromofluorobenzene	92 %	70-130	10/20/17 18:14	EPA 8260B	mtc

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Client Sample ID: YUKON-RO-101717

Date/Time Sampled: 10/17/17 10:37

Laboratory Sample ID: 7J18185-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

15

Surrogate: 1,2-Dichloroethane-d4	97 %	70-130	10/20/17 18:14	EPA 8260B	mtc
Surrogate: Fluorobenzene	95 %	70-130	10/20/17 18:14	EPA 8260B	mtc

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	28.0	0.100	%	10/19/17 20:00	SM 2540 G-97	pra

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control

Metals by Prep Method EPA 3050B

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7292041 - EPA 3050B									
Blank (7292041-BLK1)									
					Prepared: 10/19/17 Analyzed: 10/24/17				
Antimony	ND		0.954	mg/kg wet					
Arsenic	ND		0.763	mg/kg wet					
Barium	ND		0.954	mg/kg wet					
Beryllium	ND		0.191	mg/kg wet					
Cadmium	ND		0.382	mg/kg wet					
Chromium	ND		0.477	mg/kg wet					
Lead	ND		0.763	mg/kg wet					
Nickel	ND		4.77	mg/kg wet					
Selenium	ND		1.91	mg/kg wet					
Silver	ND		0.382	mg/kg wet					
Thallium	ND		1.91	mg/kg wet					
Vanadium	ND		1.91	mg/kg wet					



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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7292041 - EPA 3050B (Continued)									
LCS (7292041-BS1)									
Prepared: 10/19/17 Analyzed: 10/24/17									
Antimony	199		4.90	mg/kg wet	196		101 80-120		200
Arsenic	74.8		3.92	mg/kg wet	78.4		95 80-120		200
Barium	196		4.90	mg/kg wet	196		100 80-120		200
Beryllium	18.8		0.981	mg/kg wet	19.6		96 80-120		200
Cadmium	37.8		1.96	mg/kg wet	39.2		96 80-120		200
Chromium	19.2		2.45	mg/kg wet	19.6		98 80-120		200
Lead	77.5		3.92	mg/kg wet	78.4		99 80-120		200
Nickel	192		24.5	mg/kg wet	196		98 80-120		200
Selenium	186		9.81	mg/kg wet	196		95 80-120		200
Silver	36.5		1.96	mg/kg wet	39.2		93 80-120		200
Thallium	67.4		9.81	mg/kg wet	78.4		86 80-120		200
Vanadium	189		9.81	mg/kg wet	196		96 80-120		200

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7292041 - EPA 3050B (Continued)									
Duplicate (7292041-DUP1)			Source: 7J18186-01		Prepared: 10/19/17 Analyzed: 10/24/17				
Antimony	ND		13.6	mg/kg dry		ND			20
Arsenic	12.0		10.8	mg/kg dry		13.1		9	20
Barium	6620		271	mg/kg dry		7310		10	20
Beryllium	6.29		2.71	mg/kg dry		6.54		4	20
Cadmium	4.46	J	5.42	mg/kg dry		4.72		6	20
Chromium	170		6.78	mg/kg dry		178		5	20
Lead	114		10.8	mg/kg dry		118		4	20
Nickel	599		67.8	mg/kg dry		629		5	20
Selenium	ND		27.1	mg/kg dry		12.9		200	20
Silver	ND		5.42	mg/kg dry		ND			20
Thallium	ND		27.1	mg/kg dry		ND			20
Vanadium	51.7		27.1	mg/kg dry		55.0		6	20

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7292041 - EPA 3050B (Continued)									
Matrix Spike (7292041-MS1)		Source: 7J18186-01		Prepared: 10/19/17 Analyzed: 10/24/17					
Antimony	238		14.1	mg/kg dry	565	ND	42	75-125	200
Arsenic	214		11.3	mg/kg dry	226	13.1	89	75-125	200
Barium	7630		283	mg/kg dry	565	7310	55	75-125	200
Beryllium	56.2		2.83	mg/kg dry	56.5	6.54	88	75-125	200
Cadmium	104		5.65	mg/kg dry	113	4.72	88	75-125	200
Chromium	227		7.06	mg/kg dry	56.5	178	86	75-125	200
Lead	313		11.3	mg/kg dry	226	118	86	75-125	200
Nickel	1060		70.6	mg/kg dry	565	629	77	75-125	200
Selenium	506		28.3	mg/kg dry	565	12.9	87	75-125	200
Silver	104		5.65	mg/kg dry	113	ND	92	75-125	200
Thallium	153		28.3	mg/kg dry	226	ND	68	75-125	200
Vanadium	535		28.3	mg/kg dry	565	55.0	85	75-125	200

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Quality Control
(Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit



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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296045 - Volatiles										
Blank (7296045-BLK1)					Prepared & Analyzed: 10/20/17					
Benzene	ND		0.0040	mg/kg wet						
Toluene	ND		0.0100	mg/kg wet						
Ethylbenzene	ND		0.0100	mg/kg wet						
Xylenes (total)	ND		0.0200	mg/kg wet						
Naphthalene	ND		0.0100	mg/kg wet						
Acetone	ND		0.0200	mg/kg wet						
Acrolein	ND		0.100	mg/kg wet						
Acrylonitrile	ND		0.0200	mg/kg wet						
Bromodichloromethane	ND		0.0100	mg/kg wet						
Bromoform	ND		0.0100	mg/kg wet						
Bromomethane	ND		0.0100	mg/kg wet						
2-Butanone	ND		0.0200	mg/kg wet						
Carbon disulfide	ND		0.0100	mg/kg wet						
Carbon tetrachloride	ND		0.0100	mg/kg wet						
Chlorobenzene	ND		0.0100	mg/kg wet						
Chloroethane	ND		0.0100	mg/kg wet						
2-Chloroethylvinyl ether	ND		0.100	mg/kg wet						
Chloroform	ND		0.0100	mg/kg wet						
1,2-Dibromo-3-chloropropane	ND		0.0100	mg/kg wet						
Dibromochloromethane	ND		0.0100	mg/kg wet						
1,2-Dibromoethane (EDB)	ND		0.0040	mg/kg wet						
Dibromomethane	ND		0.0100	mg/kg wet						
1,2-Dichlorobenzene	ND		0.0100	mg/kg wet						
1,4-Dichlorobenzene	ND		0.0100	mg/kg wet						
1,3-Dichlorobenzene	ND		0.0100	mg/kg wet						

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296045 - Volatiles (Continued)										
Blank (7296045-BLK1)					Prepared & Analyzed: 10/20/17					
Dichlorodifluoromethane	ND		0.0100	mg/kg wet						
1,2-Dichloroethane	ND		0.0040	mg/kg wet						
1,1-Dichloroethane	ND		0.0100	mg/kg wet						
trans-1,2-Dichloroethene	ND		0.0100	mg/kg wet						
1,1-Dichloroethene	ND		0.0100	mg/kg wet						
1,2-Dichloropropane	ND		0.0100	mg/kg wet						
trans-1,3-Dichloropropene	ND		0.0100	mg/kg wet						
cis-1,3-Dichloropropene	ND		0.0100	mg/kg wet						
Hexachlorobutadiene	ND		0.0100	mg/kg wet						
Iodomethane	ND		0.0100	mg/kg wet						
Methylene chloride	ND		0.0400	mg/kg wet						
4-Methyl-2-pentanone	ND		0.0200	mg/kg wet						
1,1,2,2-Tetrachloroethane	ND		0.0100	mg/kg wet						
1,1,1,2-Tetrachloroethane	ND		0.0100	mg/kg wet						
Tetrachloroethene	ND		0.0100	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.0100	mg/kg wet						
1,1,1-Trichloroethane	ND		0.0100	mg/kg wet						
1,1,2-Trichloroethane	ND		0.0100	mg/kg wet						
Trichloroethene	ND		0.0100	mg/kg wet						
Trichlorofluoromethane	ND		0.0100	mg/kg wet						
1,2,3-Trichloropropane	ND		0.0100	mg/kg wet						
Vinyl chloride	ND		0.0040	mg/kg wet						
Surrogate: 4-Bromofluorobenzene			0.182	mg/kg wet	0.200		91	70-130		
Surrogate: 1,2-Dichloroethane-d4			0.168	mg/kg wet	0.200		84	70-130		
Surrogate: Fluorobenzene			0.182	mg/kg wet	0.200		91	70-130		

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296045 - Volatiles (Continued)										
LCS (7296045-BS1)					Prepared: 10/20/17 Analyzed: 10/23/17					
Benzene	0.047		0.0020	mg/kg wet	0.0500		94	70-130		200
Toluene	0.043		0.0050	mg/kg wet	0.0500		86	70-130		200
Ethylbenzene	0.047		0.0050	mg/kg wet	0.0500		93	70-130		200
Xylenes (total)	0.141		0.0100	mg/kg wet	0.150		94	70-130		200
Naphthalene	0.046		0.0050	mg/kg wet	0.0500		91	70-130		200
Acetone	0.097		0.0100	mg/kg wet	0.0500		194	70-130		200
Acrylonitrile	0.045		0.0100	mg/kg wet	0.0500		91	70-130		200
Bromodichloromethane	0.049		0.0050	mg/kg wet	0.0500		98	70-130		200
Bromoform	0.061		0.0050	mg/kg wet	0.0500		121	70-130		200
Bromomethane	0.048		0.0050	mg/kg wet	0.0500		95	70-130		200
2-Butanone	0.063		0.0100	mg/kg wet	0.0500		125	70-130		200
Carbon disulfide	0.048		0.0050	mg/kg wet	0.0500		97	70-130		200
Carbon tetrachloride	0.049		0.0050	mg/kg wet	0.0500		99	70-130		200
Chlorobenzene	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
Chloroethane	0.051		0.0050	mg/kg wet	0.0500		102	70-130		200
Chloroform	0.043		0.0050	mg/kg wet	0.0500		86	70-130		200
1,2-Dibromo-3-chloropropane	0.049		0.0050	mg/kg wet	0.0500		98	70-130		200
Dibromochloromethane	0.050		0.0050	mg/kg wet	0.0500		101	70-130		200
1,2-Dibromoethane (EDB)	0.047		0.0020	mg/kg wet	0.0500		94	70-130		200
Dibromomethane	0.049		0.0050	mg/kg wet	0.0500		99	70-130		200
1,2-Dichlorobenzene	0.047		0.0050	mg/kg wet	0.0500		94	70-130		200
1,4-Dichlorobenzene	0.047		0.0050	mg/kg wet	0.0500		94	70-130		200
1,3-Dichlorobenzene	0.049		0.0050	mg/kg wet	0.0500		99	70-130		200
Dichlorodifluoromethane	0.054		0.0050	mg/kg wet	0.0500		108	70-130		200

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296045 - Volatiles (Continued)										
LCS (7296045-BS1)										
Prepared: 10/20/17 Analyzed: 10/23/17										
1,2-Dichloroethane	0.042		0.0020	mg/kg wet	0.0500		83	70-130		200
1,1-Dichloroethane	0.047		0.0050	mg/kg wet	0.0500		93	70-130		200
trans-1,2-Dichloroethene	0.046		0.0050	mg/kg wet	0.0500		92	70-130		200
1,1-Dichloroethene	0.050		0.0050	mg/kg wet	0.0500		101	70-130		200
1,2-Dichloropropane	0.047		0.0050	mg/kg wet	0.0500		95	70-130		200
trans-1,3-Dichloropropene	0.047		0.0050	mg/kg wet	0.0500		93	70-130		200
cis-1,3-Dichloropropene	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
Hexachlorobutadiene	0.052		0.0050	mg/kg wet	0.0500		105	70-130		200
Iodomethane	0.054		0.0050	mg/kg wet				70-130		200
Methylene chloride	0.047		0.0200	mg/kg wet	0.0500		94	70-130		200
4-Methyl-2-pentanone	0.043		0.0100	mg/kg wet	0.0500		85	70-130		200
1,1,2,2-Tetrachloroethane	0.045		0.0050	mg/kg wet	0.0500		90	70-130		200
1,1,1,2-Tetrachloroethane	0.053		0.0050	mg/kg wet	0.0500		106	70-130		200
Tetrachloroethene	0.056		0.0050	mg/kg wet	0.0500		112	70-130		200
1,2,4-Trichlorobenzene	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
1,1,1-Trichloroethane	0.048		0.0050	mg/kg wet	0.0500		96	70-130		200
1,1,2-Trichloroethane	0.045		0.0050	mg/kg wet	0.0500		89	70-130		200
Trichloroethene	0.051		0.0050	mg/kg wet	0.0500		102	70-130		200
Trichlorofluoromethane	0.054		0.0050	mg/kg wet	0.0500		108	70-130		200
1,2,3-Trichloropropane	0.044		0.0050	mg/kg wet	0.0500		88	70-130		200
Vinyl chloride	0.051		0.0020	mg/kg wet	0.0500		102	70-130		200
Surrogate: 4-Bromofluorobenzene			0.0919	mg/kg wet	0.100		92	70-130		
Surrogate: 1,2-Dichloroethane-d4			0.0828	mg/kg wet	0.100		83	70-130		
Surrogate: Fluorobenzene			0.0910	mg/kg wet	0.100		91	70-130		

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296045 - Volatiles (Continued)										
Duplicate (7296045-DUP1)		Source: 7J20060-04			Prepared & Analyzed: 10/20/17					
Benzene	ND		0.0024	mg/kg dry		ND				20
Toluene	ND		0.0061	mg/kg dry		ND				20
Ethylbenzene	ND		0.0061	mg/kg dry		ND				20
Xylenes (total)	ND		0.0122	mg/kg dry		ND				20
Naphthalene	ND		0.0061	mg/kg dry		ND				20
Acetone	ND		0.0122	mg/kg dry		ND				20
Acrolein	ND		0.0609	mg/kg dry		ND				20
Acrylonitrile	ND		0.0122	mg/kg dry		ND				20
Bromodichloromethane	ND		0.0061	mg/kg dry		ND				20
Bromoform	ND		0.0061	mg/kg dry		ND				20
Bromomethane	ND		0.0061	mg/kg dry		ND				20
2-Butanone	ND		0.0122	mg/kg dry		ND				20
Carbon disulfide	ND		0.0061	mg/kg dry		ND				20
Carbon tetrachloride	ND		0.0061	mg/kg dry		ND				20
Chlorobenzene	ND		0.0061	mg/kg dry		ND				20
Chloroethane	ND		0.0061	mg/kg dry		ND				20
2-Chloroethylvinyl ether	ND		0.0609	mg/kg dry		ND				20
Chloroform	ND		0.0061	mg/kg dry		ND				20
1,2-Dibromo-3-chloropropane	ND		0.0061	mg/kg dry		ND				20
Dibromochloromethane	ND		0.0061	mg/kg dry		ND				20
1,2-Dibromoethane (EDB)	ND		0.0024	mg/kg dry		ND				20
Dibromomethane	ND		0.0061	mg/kg dry		ND				20
1,2-Dichlorobenzene	ND		0.0061	mg/kg dry		ND				20
1,4-Dichlorobenzene	ND		0.0061	mg/kg dry		ND				20
1,3-Dichlorobenzene	ND		0.0061	mg/kg dry		ND				20

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NELAP: PA 07-062, VA 460212

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296045 - Volatiles (Continued)										
Duplicate (7296045-DUP1)		Source: 7J20060-04			Prepared & Analyzed: 10/20/17					
Dichlorodifluoromethane	ND		0.0061	mg/kg dry		ND				20
1,2-Dichloroethane	ND		0.0024	mg/kg dry		ND				20
1,1-Dichloroethane	ND		0.0061	mg/kg dry		ND				20
trans-1,2-Dichloroethene	ND		0.0061	mg/kg dry		ND				20
1,1-Dichloroethene	ND		0.0061	mg/kg dry		ND				20
1,2-Dichloropropane	ND		0.0061	mg/kg dry		ND				20
trans-1,3-Dichloropropene	ND		0.0061	mg/kg dry		ND				20
cis-1,3-Dichloropropene	ND		0.0061	mg/kg dry		ND				20
Hexachlorobutadiene	ND		0.0061	mg/kg dry		ND				20
Iodomethane	ND		0.0061	mg/kg dry		ND				20
Methylene chloride	ND		0.0243	mg/kg dry		0.001			200	20
4-Methyl-2-pentanone	ND		0.0122	mg/kg dry		ND				20
1,1,2,2-Tetrachloroethane	ND		0.0061	mg/kg dry		ND				20
1,1,1,2-Tetrachloroethane	ND		0.0061	mg/kg dry		ND				20
Tetrachloroethene	ND		0.0061	mg/kg dry		ND				20
1,2,4-Trichlorobenzene	ND		0.0061	mg/kg dry		ND				20
1,1,1-Trichloroethane	ND		0.0061	mg/kg dry		ND				20
1,1,2-Trichloroethane	ND		0.0061	mg/kg dry		ND				20
Trichloroethene	ND		0.0061	mg/kg dry		ND				20
Trichlorofluoromethane	ND		0.0061	mg/kg dry		ND				20
1,2,3-Trichloropropane	ND		0.0061	mg/kg dry		ND				20
Vinyl chloride	ND		0.0024	mg/kg dry		ND				20
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>0.115</i>	<i>mg/kg dry</i>	<i>0.122</i>		<i>95</i>	<i>70-130</i>		
<i>Surrogate: 1,2-Dichloroethane-d4</i>			<i>0.122</i>	<i>mg/kg dry</i>	<i>0.122</i>		<i>100</i>	<i>70-130</i>		
<i>Surrogate: Fluorobenzene</i>			<i>0.112</i>	<i>mg/kg dry</i>	<i>0.122</i>		<i>92</i>	<i>70-130</i>		

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296045 - Volatiles (Continued)										
Matrix Spike (7296045-MS1)		Source: 7J20060-06			Prepared & Analyzed: 10/20/17					
Benzene	0.049		0.0022	mg/kg dry	0.0560	ND	88	70-130		200
Toluene	0.051		0.0056	mg/kg dry	0.0560	ND	92	70-130		200
Ethylbenzene	0.047		0.0056	mg/kg dry	0.0560	ND	84	70-130		200
Xylenes (total)	0.139		0.0112	mg/kg dry	0.168	ND	83	70-130		200
Naphthalene	0.062		0.0056	mg/kg dry	0.0560	ND	111	70-130		200
Acetone	0.056		0.0112	mg/kg dry	0.0560	ND	100	70-130		200
Acrylonitrile	0.045		0.0112	mg/kg dry	0.0560	ND	81	70-130		200
Bromodichloromethane	0.049		0.0056	mg/kg dry	0.0560	ND	88	70-130		200
Bromoform	0.062		0.0056	mg/kg dry	0.0560	ND	111	70-130		200
Bromomethane	0.043		0.0056	mg/kg dry	0.0560	ND	77	70-130		200
2-Butanone	0.055		0.0112	mg/kg dry	0.0560	ND	98	70-130		200
Carbon disulfide	0.050		0.0056	mg/kg dry	0.0560	ND	90	70-130		200
Carbon tetrachloride	0.049		0.0056	mg/kg dry	0.0560	ND	87	70-130		200
Chlorobenzene	0.049		0.0056	mg/kg dry	0.0560	ND	88	70-130		200
Chloroethane	0.048		0.0056	mg/kg dry	0.0560	ND	85	70-130		200
Chloroform	0.044		0.0056	mg/kg dry	0.0560	ND	79	70-130		200
1,2-Dibromo-3-chloropropane	0.068		0.0056	mg/kg dry	0.0560	ND	121	70-130		200
Dibromochloromethane	0.056		0.0056	mg/kg dry	0.0560	ND	101	70-130		200
1,2-Dibromoethane (EDB)	0.060		0.0022	mg/kg dry	0.0560	ND	106	70-130		200
Dibromomethane	0.053		0.0056	mg/kg dry	0.0560	ND	95	70-130		200
1,2-Dichlorobenzene	0.047		0.0056	mg/kg dry	0.0560	ND	84	70-130		200
1,4-Dichlorobenzene	0.044		0.0056	mg/kg dry	0.0560	ND	79	70-130		200
1,3-Dichlorobenzene	0.047		0.0056	mg/kg dry	0.0560	ND	85	70-130		200
Dichlorodifluoromethane	0.034		0.0056	mg/kg dry	0.0560	ND	60	70-130		200

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296045 - Volatiles (Continued)										
Matrix Spike (7296045-MS1)		Source: 7J20060-06			Prepared & Analyzed: 10/20/17					
1,2-Dichloroethane	0.045		0.0022	mg/kg dry	0.0560	ND	80	70-130		200
1,1-Dichloroethane	0.046		0.0056	mg/kg dry	0.0560	ND	82	70-130		200
trans-1,2-Dichloroethene	0.046		0.0056	mg/kg dry	0.0560	ND	83	70-130		200
1,1-Dichloroethene	0.050		0.0056	mg/kg dry	0.0560	ND	89	70-130		200
1,2-Dichloropropane	0.048		0.0056	mg/kg dry	0.0560	ND	87	70-130		200
trans-1,3-Dichloropropene	0.050		0.0056	mg/kg dry	0.0560	ND	89	70-130		200
cis-1,3-Dichloropropene	0.051		0.0056	mg/kg dry	0.0560	ND	91	70-130		200
Hexachlorobutadiene	0.051		0.0056	mg/kg dry	0.0560	ND	91	70-130		200
Iodomethane	0.053		0.0056	mg/kg dry		ND		70-130		200
Methylene chloride	0.047		0.0224	mg/kg dry	0.0560	0.002	80	70-130		200
4-Methyl-2-pentanone	0.063		0.0112	mg/kg dry	0.0560	ND	112	70-130		200
1,1,2,2-Tetrachloroethane	0.057		0.0056	mg/kg dry	0.0560	ND	102	70-130		200
1,1,1,2-Tetrachloroethane	0.051		0.0056	mg/kg dry	0.0560	ND	91	70-130		200
Tetrachloroethene	0.058		0.0056	mg/kg dry	0.0560	ND	104	70-130		200
1,2,4-Trichlorobenzene	0.043		0.0056	mg/kg dry	0.0560	ND	77	70-130		200
1,1,1-Trichloroethane	0.049		0.0056	mg/kg dry	0.0560	ND	88	70-130		200
1,1,2-Trichloroethane	0.058		0.0056	mg/kg dry	0.0560	ND	103	70-130		200
Trichloroethene	0.054		0.0056	mg/kg dry	0.0560	ND	96	70-130		200
Trichlorofluoromethane	0.052		0.0056	mg/kg dry	0.0560	ND	93	70-130		200
1,2,3-Trichloropropane	0.053		0.0056	mg/kg dry	0.0560	ND	94	70-130		200
Vinyl chloride	0.042		0.0022	mg/kg dry	0.0560	ND	76	70-130		200
Surrogate: 4-Bromofluorobenzene			0.106	mg/kg dry	0.112		95	70-130		
Surrogate: 1,2-Dichloroethane-d4			0.105	mg/kg dry	0.112		93	70-130		
Surrogate: Fluorobenzene			0.102	mg/kg dry	0.112		91	70-130		

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Quality Control (Continued)

Analyses to be performed immediately upon sampling. See Definition indicated by: #

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7292026 - General Prep									
Duplicate (7292026-DUP1)			Source: 7J16027-01			Prepared & Analyzed: 10/19/17			
# pH	7.96			pH Units		7.72		3.06	10
Duplicate (7292026-DUP2)			Source: 7J16032-01			Prepared & Analyzed: 10/19/17			
# pH	7.13			pH Units		6.99		1.98	10

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296078 - EPA 8151A									
Blank (7296078-BLK1)					Prepared: 10/23/17 Analyzed: 10/25/17				
2,4-D	ND		3.33	ug/kg wet					
Acifluorfen	ND		3.33	ug/kg wet					
2,4-DB	ND		3.33	ug/kg wet					
2,4,5-T	ND		3.33	ug/kg wet					
2,4,5-TP (Silvex)	ND		3.33	ug/kg wet					
Dalapon	ND		33.3	ug/kg wet					
Dicamba	ND		3.33	ug/kg wet					
Dichloroprop	ND		3.33	ug/kg wet					
Dinoseb	ND		3.33	ug/kg wet					
Surrogate: 2,4-DCAA			0.165	mg/l	0.100		165	40.6-150	
LCS (7296078-BS1)					Prepared: 10/23/17 Analyzed: 10/25/17				
2,4-D	0.000104			mg/l	0.0000800		130	42.5-122	200
Acifluorfen	0.0000841			mg/l	0.0000800		105	16.8-144	200
2,4-DB	0.0000728			mg/l	0.0000800		91	17.6-149	200
2,4,5-T	0.0000917			mg/l	0.0000800		115	25.9-138	200
2,4,5-TP (Silvex)	0.0000765			mg/l	0.0000800		96	23.5-121	200
Dalapon	0.000381			mg/l	0.000800		48	10-173	200
Dicamba	0.0000791			mg/l	0.0000800		99	12.6-122	200
Dichloroprop	0.0000808			mg/l	0.0000800		101	10-151	200
Dinoseb	0.0000229			mg/l	0.0000800		29	10-86.5	200
Surrogate: 2,4-DCAA			0.163	mg/l	0.100		163	40.6-150	
Matrix Spike (7296078-MS1)					Prepared: 10/23/17 Analyzed: 10/25/17				
2,4-D	0.0000983			mg/l	0.0000800	0.00	123	17.1-157	47.4

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Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296078 - EPA 8151A (Continued)									
Matrix Spike (7296078-MS1)		Source: 7J17001-01		Prepared: 10/23/17 Analyzed: 10/25/17					
Acifluorfen	0.000122			mg/l	0.0000800	0.00	153	10-193	72.9
2,4-DB	0.000143			mg/l	0.0000800	0.00	179	15.3-156	42.3
2,4,5-T	0.000109			mg/l	0.0000800	0.00	136	10-156	58.3
2,4,5-TP (Silvex)	0.0000849			mg/l	0.0000800	0.00	106	10-138	46.5
Dalapon	0.000525			mg/l	0.000800	0.00	66	10-156	38
Dicamba	0.0000924			mg/l	0.0000800	0.00	116	10-130	46
Dichloroprop	0.000179			mg/l	0.0000800	0.00	224	14.1-137	60
Dinoseb	0.0000352			mg/l	0.0000800	0.00	44	10-165	39.1
<i>Surrogate: 2,4-DCAA</i>			<i>0.168</i>	<i>mg/l</i>	<i>0.100</i>		<i>168</i>	<i>40.6-150</i>	



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Quality Control
(Continued)

Conventional Chemistry Parameters by SM/EPA Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7292087 - General Prep									
Blank (7292087-BLK1)					Prepared & Analyzed: 10/19/17				
% Solids	ND		0.100	%					
Blank (7292087-BLK2)					Prepared & Analyzed: 10/19/17				
% Solids	ND		0.100	%					
Duplicate (7292087-DUP1)		Source: 7J18186-02			Prepared & Analyzed: 10/19/17				
% Solids	26.6		0.100	%		27.2		2.12	5
Duplicate (7292087-DUP2)		Source: 7J19082-03			Prepared & Analyzed: 10/19/17				
% Solids	27.2		0.100	%		1.02		186	5
Batch: 7294007 - General Preparation									
Blank (7294007-BLK1)					Prepared & Analyzed: 10/21/17				
Sulfide	ND		20.0	mg/kg wet					
LCS (7294007-BS1)					Prepared & Analyzed: 10/21/17				
Sulfide	240		80.0	mg/kg wet	206		117	80-120	200
Duplicate (7294007-DUP1)		Source: 7J20097-01			Prepared & Analyzed: 10/21/17				
Sulfide	ND		19.7	mg/kg dry		ND			10
Matrix Spike (7294007-MS1)		Source: 7J20097-01			Prepared & Analyzed: 10/21/17				
Sulfide	240		75.0	mg/kg dry	193	ND	124	80-120	200

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Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

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Number of Containers: 6

Reported:

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Quality Control
(Continued)

Cyanide by Preparation Method EPA 9010

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7297019 - General Prep										
Blank (7297019-BLK1)										
Cyanide (total)	ND		0.489	mg/kg wet						
Prepared & Analyzed: 10/24/17										
LCS (7297019-BS1)										
Cyanide (total)	9.91		0.488	mg/kg wet	9.77		102	85-115		200
Prepared & Analyzed: 10/24/17										
Duplicate (7297019-DUP1)										
Cyanide (total)	0.913		0.571	mg/kg dry		1.85			68.0	10
Source: 7J20184-02										
Prepared & Analyzed: 10/24/17										



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Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

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Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7293060 - EPA 7471A									
Blank (7293060-BLK1)									
Mercury	ND		0.0299	mg/kg wet					
Prepared: 10/20/17 Analyzed: 10/24/17									
LCS (7293060-BS1)									
Mercury	0.3100		0.0301	mg/kg wet	0.304		102 85-115		200
Prepared: 10/20/17 Analyzed: 10/24/17									
Matrix Spike (7293060-MS1)									
Mercury	0.2015		0.0336	mg/kg dry	0.170	0.03026	101 70-130		20
Prepared: 10/20/17 Analyzed: 10/24/17									
Matrix Spike Dup (7293060-MSD1)									
Mercury	0.2025		0.0337	mg/kg dry	0.170	0.03026	101 70-130	0.478	20
Prepared: 10/20/17 Analyzed: 10/24/17									
Reference (7293060-SRM1)									
Mercury	0.3402		0.0330	mg/kg wet	0.333		102 90-110		
Prepared: 10/20/17 Analyzed: 10/24/17									

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296013 - EPA 3541									
Blank (7296013-BLK1)					Prepared: 10/20/17 Analyzed: 10/24/17				
Hexachlorobenzene	ND		2.00	ug/kg wet					
Hexachlorocyclopentadiene	ND		2.00	ug/kg wet					
Aldrin	ND		2.00	ug/kg wet					
alpha-BHC	ND		2.00	ug/kg wet					
beta-BHC	ND		2.00	ug/kg wet					
delta-BHC	ND		2.00	ug/kg wet					
gamma-BHC (Lindane)	ND		2.00	ug/kg wet					
Chlordane (tech)	ND		100	ug/kg wet					
4,4'-DDD	ND		2.00	ug/kg wet					
4,4'-DDE	ND		2.00	ug/kg wet					
4,4'-DDT	ND		2.00	ug/kg wet					
Dieldrin	ND		2.00	ug/kg wet					
Endosulfan I	ND		2.00	ug/kg wet					
Endosulfan II	ND		2.00	ug/kg wet					
Endosulfan sulfate	ND		2.00	ug/kg wet					
Endrin	ND		2.00	ug/kg wet					
Endrin aldehyde	ND		2.00	ug/kg wet					
Heptachlor	ND		2.00	ug/kg wet					
Heptachlor epoxide	ND		2.00	ug/kg wet					
Methoxychlor	ND		2.00	ug/kg wet					
Toxaphene	ND		100	ug/kg wet					
alpha-Chlordane	ND		2.00	ug/kg wet					
gamma-Chlordane	ND		2.00	ug/kg wet					
Endrin ketone	ND		2.00	ug/kg wet					
Surrogate: Tetrachloro-meta-xylene			17.6	ug/l	20.0		87.8	40-157	

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NELAP: PA 07-062, VA 460212

89 Kristi Road
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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control (Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296013 - EPA 3541 (Continued)									
Blank (7296013-BLK1)					Prepared: 10/20/17 Analyzed: 10/24/17				
Surrogate: Decachlorobiphenyl	24.6	ug/l	20.0		123	57.1-153			
Matrix Spike (7296013-MS1)					Source: 7J17001-01 Prepared: 10/20/17 Analyzed: 10/24/17				
Hexachlorocyclopentadiene	10.5			ug/l	12.0	0.00	87.5	10-148	155
Hexachlorobenzene	17.6			ug/l	12.0	0.00	147	40.7-105	32.7
Aldrin	13.9			ug/l	12.0	0.00	116	35.7-85.2	25.9
alpha-BHC	16.3			ug/l	12.0	0.00	135	26.7-121	22.5
beta-BHC	18.1			ug/l	12.0	0.00	151	37.5-131	24.3
delta-BHC	12.8			ug/l	12.0	0.00	107	10.6-118	25.8
gamma-BHC (Lindane)	13.5			ug/l	12.0	0.00	112	49.8-92.5	23.1
Chlordane (tech)	ND		3360	ug/kg dry		ND		80-120	200
4,4'-DDD	11.7			ug/l	12.0	0.00	97.7	42.3-103	18.1
4,4'-DDE	11.8			ug/l	12.0	0.00	98.7	47.8-100	18
4,4'-DDT	14.0			ug/l	12.0	0.00	117	45.9-110	15.6
Dieldrin	11.6			ug/l	12.0	0.00	96.4	44-107	21.3
Endosulfan I	12.8			ug/l	12.0	0.00	107	30.5-113	27.5
Endosulfan II	13.8			ug/l	12.0	0.00	115	19.2-124	49.2
Endosulfan sulfate	22.3			ug/l	12.0	0.00	185	53.8-99.6	27.6
Endrin	13.6			ug/l	12.0	0.00	113	46.8-117	27
Endrin aldehyde	13.1			ug/l	12.0	0.00	109	37.4-125	29.4
Heptachlor	11.6			ug/l	12.0	0.00	96.8	33.8-157	19.9
Heptachlor epoxide	18.6			ug/l	12.0	0.00	155	44.2-103	18.6
Methoxychlor	22.0			ug/l	12.0	0.00	183	53.3-134	24
Toxaphene	ND		3360	ug/kg dry		ND		80-120	200
alpha-Chlordane	15.9			ug/l	12.0	0.00	132	44.7-93.3	18.3

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296013 - EPA 3541 (Continued)									
Matrix Spike (7296013-MS1)		Source: 7J17001-01		Prepared: 10/20/17 Analyzed: 10/24/17					
gamma-Chlordane	17.8			ug/l	12.0	0.00	148 47-151		21.2
Endrin ketone	14.4			ug/l	12.0	0.00	120 48-115		26.6
Surrogate: Tetrachloro-meta-xylene			15.1	ug/l	20.0		75.5 40-157		
Surrogate: Decachlorobiphenyl			23.5	ug/l	20.0		117 57.1-153		

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control (Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7292014 - EPA 3541									
Blank (7292014-BLK1)					Prepared: 10/18/17 Analyzed: 10/23/17				
PCB-1016	ND		0.010	mg/kg wet					
PCB-1221	ND		0.010	mg/kg wet					
PCB-1232	ND		0.010	mg/kg wet					
PCB-1242	ND		0.010	mg/kg wet					
PCB-1248	ND		0.010	mg/kg wet					
PCB-1254	ND		0.010	mg/kg wet					
PCB-1260	ND		0.010	mg/kg wet					
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.105	mg/l	0.100		105	11-140	
<i>Surrogate: Decachlorobiphenyl</i>			0.109	mg/l	0.100		109	24.4-140	
LCS (7292014-BS1)					Prepared: 10/18/17 Analyzed: 10/23/17				
PCB-1016	ND		0.010	mg/kg wet			60.9-137		200
PCB-1221	ND		0.010	mg/kg wet			60.3-143		200
PCB-1232	ND		0.010	mg/kg wet			56.2-138		200
PCB-1242	ND		0.010	mg/kg wet			55.1-135		200
PCB-1248	0.088			mg/l	0.100		88.1	57.8-140	200
PCB-1254	ND		0.010	mg/kg wet			69.4-134		200
PCB-1260	ND		0.010	mg/kg wet			58.1-140		200
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.108	mg/l	0.100		108	11-140	
<i>Surrogate: Decachlorobiphenyl</i>			0.114	mg/l	0.100		114	24.4-140	
Matrix Spike (7292014-MS1)					Source: 7J18034-01 Prepared: 10/18/17 Analyzed: 10/23/17				
PCB-1016	ND		0.098	mg/kg dry		ND	27.6-156		38.1
PCB-1221	ND		0.098	mg/kg dry		ND	10-187		46.3
PCB-1232	ND		0.098	mg/kg dry		ND	54.6-146		47.4

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control (Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7292014 - EPA 3541 (Continued)										
Matrix Spike (7292014-MS1)		Source: 7J18034-01		Prepared: 10/18/17 Analyzed: 10/23/17						
PCB-1242	ND		0.098	mg/kg dry		ND		38.6-147		37.1
PCB-1248	0.295			mg/l	0.100	0.00	295	32.1-157		35.4
PCB-1254	ND		0.098	mg/kg dry		ND		20.5-174		30.1
PCB-1260	ND		0.098	mg/kg dry		ND		32.7-155		22.9
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0928	mg/l	0.100		92.8	11-140		
<i>Surrogate: Decachlorobiphenyl</i>			0.0880	mg/l	0.100		88.0	24.4-140		
Matrix Spike Dup (7292014-MSD1)		Source: 7J18034-01		Prepared: 10/18/17 Analyzed: 10/23/17						
PCB-1016	ND		0.093	mg/kg dry		ND		27.6-156		38.1
PCB-1221	ND		0.093	mg/kg dry		ND		10-187		46.3
PCB-1232	ND		0.093	mg/kg dry		ND		54.6-146		47.4
PCB-1242	ND		0.093	mg/kg dry		ND		38.6-147		37.1
PCB-1248	0.243			mg/l	0.100	0.00	243	32.1-157	19.5	35.4
PCB-1254	ND		0.093	mg/kg dry		ND		20.5-174		30.1
PCB-1260	ND		0.093	mg/kg dry		ND		32.7-155		22.9
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0948	mg/l	0.100		94.8	11-140		
<i>Surrogate: Decachlorobiphenyl</i>			0.0890	mg/l	0.100		89.0	24.4-140		

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PaDEP: PA 41-04684



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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541										
Blank (7296080-BLK1)					Prepared: 10/23/17 Analyzed: 10/24/17					
Benzidine	ND		1.67	mg/kg wet						
Diphenylamine	ND		0.333	mg/kg wet						
Pyridine	ND		0.667	mg/kg wet						
Acenaphthene	ND		0.333	mg/kg wet						
Acenaphthylene	ND		0.333	mg/kg wet						
Anthracene	ND		0.333	mg/kg wet						
Benzoic acid	ND		3.33	mg/kg wet						
Benzo (a) anthracene	ND		0.333	mg/kg wet						
Benzo (b) fluoranthene	ND		0.333	mg/kg wet						
Benzo (k) fluoranthene	ND		0.333	mg/kg wet						
Benzo (g,h,i) perylene	ND		0.333	mg/kg wet						
Benzo (a) pyrene	ND		0.333	mg/kg wet						
Benzyl alcohol	ND		0.333	mg/kg wet						
Bis(2-chloroethoxy)methane	ND		0.333	mg/kg wet						
Bis(2-chloroethyl)ether	ND		0.333	mg/kg wet						
Bis(2-chloroisopropyl)ether	ND		0.333	mg/kg wet						
Bis(2-ethylhexyl)phthalate	ND		0.333	mg/kg wet						
4-Bromophenyl phenyl ether	ND		0.333	mg/kg wet						
Butyl benzyl phthalate	ND		0.333	mg/kg wet						
4-Chloroaniline	ND		0.333	mg/kg wet						
4-Chloro-3-methylphenol	ND		0.333	mg/kg wet						
2-Chloronaphthalene	ND		0.333	mg/kg wet						
2-Chlorophenol	ND		0.333	mg/kg wet						
4-Chlorophenyl phenyl ether	ND		0.333	mg/kg wet						
Chrysene	ND		0.333	mg/kg wet						

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PaDEP: PA 41-04684



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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)									
Blank (7296080-BLK1)					Prepared: 10/23/17 Analyzed: 10/24/17				
Dibenz (a,h) anthracene	ND		0.333	mg/kg wet					
Dibenzofuran	ND		0.333	mg/kg wet					
Di-n-butyl phthalate	0.113	J	0.333	mg/kg wet					
1,2-Dichlorobenzene	ND		0.333	mg/kg wet					
1,3-Dichlorobenzene	ND		0.333	mg/kg wet					
1,4-Dichlorobenzene	ND		0.333	mg/kg wet					
3,3'-Dichlorobenzidine	ND		0.333	mg/kg wet					
2,4-Dichlorophenol	ND		0.333	mg/kg wet					
Diethyl phthalate	ND		0.333	mg/kg wet					
2,4-Dimethylphenol	ND		0.333	mg/kg wet					
Dimethyl phthalate	ND		0.333	mg/kg wet					
4,6-Dinitro-2-methylphenol	ND		1.67	mg/kg wet					
2,4-Dinitrophenol	ND		1.67	mg/kg wet					
2,4-Dinitrotoluene	ND		0.333	mg/kg wet					
2,6-Dinitrotoluene	ND		0.333	mg/kg wet					
Di-n-octyl phthalate	ND		0.333	mg/kg wet					
Aniline	ND		0.333	mg/kg wet					
Naphthalene	ND		0.333	mg/kg wet					
N-Nitrosodimethylamine	ND		0.333	mg/kg wet					
3 & 4-Methylphenol	ND		0.333	mg/kg wet					
Acetophenone	ND		0.333	mg/kg wet					
1,2-Diphenylhydrazine	ND		0.333	mg/kg wet					
Fluoranthene	ND		0.333	mg/kg wet					
Fluorene	ND		0.333	mg/kg wet					
Hexachlorobenzene	ND		0.333	mg/kg wet					

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)										
Blank (7296080-BLK1)			Prepared: 10/23/17 Analyzed: 10/24/17							
Hexachlorobutadiene	ND		0.333	mg/kg wet						
Hexachlorocyclopentadiene	ND		0.333	mg/kg wet						
Hexachloroethane	ND		0.333	mg/kg wet						
Indeno (1,2,3-cd) pyrene	ND		0.333	mg/kg wet						
Isophorone	ND		0.333	mg/kg wet						
2-Methylnaphthalene	ND		0.333	mg/kg wet						
2-Methylphenol	ND		0.333	mg/kg wet						
2-Nitroaniline	ND		0.333	mg/kg wet						
3-Nitroaniline	ND		0.333	mg/kg wet						
4-Nitroaniline	ND		0.333	mg/kg wet						
Nitrobenzene	ND		0.333	mg/kg wet						
2-Nitrophenol	ND		0.333	mg/kg wet						
4-Nitrophenol	ND		0.333	mg/kg wet						
N-Nitrosodi-n-propylamine	ND		0.333	mg/kg wet						
Pentachlorophenol	ND		1.67	mg/kg wet						
Phenanthrene	ND		0.333	mg/kg wet						
Phenol	ND		0.333	mg/kg wet						
Pyrene	ND		0.333	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.333	mg/kg wet						
2,4,5-Trichlorophenol	ND		0.333	mg/kg wet						
2,4,6-Trichlorophenol	ND		0.333	mg/kg wet						
Surrogate: 2-Fluorophenol			40.3	mg/l	40.0		101	10-169		
Surrogate: Phenol-d6			40.8	mg/l	40.0		102	10-166		
Surrogate: Nitrobenzene-d5			22.2	mg/l	20.0		111	18.8-170		
Surrogate: 2-Fluorobiphenyl			21.8	mg/l	20.0		109	35.1-154		

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)										
Blank (7296080-BLK1)					Prepared: 10/23/17 Analyzed: 10/24/17					
Surrogate: 2,4,6-Tribromophenol	36.6			mg/l	40.0		91	20-158		
Surrogate: Terphenyl-d14	22.6			mg/l	20.0		113	52.1-160		
LCS (7296080-BS1)					Prepared: 10/23/17 Analyzed: 10/24/17					
Benzidine	11.0			mg/l	50.0		22	10-35		10
Pyridine	0.320			mg/l	50.0		0.6	10-137		10
Diphenylamine	41.0			mg/l	50.0		82	56-103		10
Acenaphthene	32.0			mg/l	50.0		64	63-126		10
Acenaphthylene	31.7			mg/l	50.0		63	63-132		10
Anthracene	43.0			mg/l	50.0		86	68-124		10
Benzoic acid	23.2			mg/l	50.0		46	31-104		10
Benzo (a) anthracene	50.2			mg/l	50.0		100	70-124		10
Benzo (b) fluoranthene	52.8			mg/l	50.0		106	76-125		10
Benzo (k) fluoranthene	49.7			mg/l	50.0		99	71-125		10
Benzo (g,h,i) perylene	40.0			mg/l	50.0		80	73-127		10
Benzo (a) pyrene	48.4			mg/l	50.0		97	71-127		10
Benzyl alcohol	9.04			mg/l	50.0		18	34-138		10
Bis(2-chloroethoxy)methane	11.9			mg/l	50.0		24	39-131		10
Bis(2-chloroethyl)ether	2.31			mg/l	50.0		5	11-149		10
Bis(2-chloroisopropyl)ether	2.79			mg/l	50.0		6	17-154		10
Bis(2-ethylhexyl)phthalate	51.4			mg/l	50.0		103	63-115		10
4-Bromophenyl phenyl ether	37.4			mg/l	50.0		75	68-121		10
Butyl benzyl phthalate	17.2		0.333	mg/kg wet				62-122		10
4-Chloroaniline	18.8			mg/l	50.0		38	34-103		10
4-Chloro-3-methylphenol	31.0			mg/l	50.0		62	62-123		10

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NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)									
LCS (7296080-BS1)					Prepared: 10/23/17 Analyzed: 10/24/17				
2-Chloronaphthalene	24.0			mg/l	50.0		48 57-124		10
2-Chlorophenol	2.75			mg/l	50.0		6 24-142		10
4-Chlorophenyl phenyl ether	37.0			mg/l	50.0		74 65-122		10
Chrysene	47.5			mg/l	50.0		95 71-125		10
Dibenz (a,h) anthracene	53.4			mg/l	50.0		107 74-128		10
Dibenzofuran	34.5			mg/l	50.0		69 63-118		10
Di-n-butyl phthalate	45.2			mg/l	50.0		90 72-123		10
1,2-Dichlorobenzene	1.64			mg/l	50.0		3 10-151		10
1,3-Dichlorobenzene	1.06			mg/l	50.0		2 10-156		10
1,4-Dichlorobenzene	1.23			mg/l	50.0		2 10-154		10
3,3'-Dichlorobenzidine	42.2			mg/l	50.0		84 48-107		10
2,4-Dichlorophenol	15.9			mg/l	50.0		32 50-130		10
Diethyl phthalate	40.8			mg/l	50.0		82 67-124		10
2,4-Dimethylphenol	15.4			mg/l	50.0		31 40-111		10
Dimethyl phthalate	38.4			mg/l	50.0		77 66-121		10
4,6-Dinitro-2-methylphenol	34.5			mg/l	50.0		69 10-111		10
2,4-Dinitrophenol	29.6			mg/l	50.0		59 10-111		10
2,4-Dinitrotoluene	38.9			mg/l	50.0		78 66-112		10
2,6-Dinitrotoluene	36.4			mg/l	50.0		73 57-128		10
Di-n-octyl phthalate	53.2			mg/l	50.0		106 56-119		10
Aniline	4.69			mg/l	50.0		9 16-99		10
Naphthalene	7.23			mg/l	50.0		14 32-140		10
N-Nitrosodimethylamine	0.720			mg/l	50.0		1 10-156		10
Carbazole	24.1			mg/l	50.0		48 34-61		10
Acetophenone	7.72			mg/l	50.0		15 27-142		10

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)									
LCS (7296080-BS1)									
Prepared: 10/23/17 Analyzed: 10/24/17									
3 & 4-Methylphenol	4.06		0.333	mg/kg wet			41-118		10
1,2-Diphenylhydrazine	13.5		0.333	mg/kg wet			60-127		10
2,3,4,6-Tetrachlorophenol	37.5			mg/l	50.0	75	72-140		10
Fluoranthene	49.3			mg/l	50.0	99	71-128		10
Fluorene	39.0			mg/l	50.0	78	69-122		10
Hexachlorobenzene	37.5			mg/l	50.0	75	69-118		10
Hexachlorobutadiene	3.25			mg/l	50.0	6	18-146		10
Hexachlorocyclopentadiene	2.10			mg/l	50.0	4	22-155		10
Hexachloroethane	1.36			mg/l	50.0	3	10-154		10
Indeno (1,2,3-cd) pyrene	53.8			mg/l	50.0	108	73-130		10
Isophorone	20.1			mg/l	50.0	40	42-131		10
2-Methylnaphthalene	15.0			mg/l	50.0	30	47-131		10
2-Methylphenol	7.04			mg/l	50.0	14	35-119		10
2-Nitroaniline	36.7			mg/l	50.0	73	57-128		10
3-Nitroaniline	35.0			mg/l	50.0	70	60-112		10
4-Nitroaniline	39.1			mg/l	50.0	78	44-127		10
Nitrobenzene	6.50			mg/l	50.0	13	28-138		10
2-Nitrophenol	7.86			mg/l	50.0	16	31-144		10
4-Nitrophenol	40.5			mg/l	50.0	81	50-118		10
N-Nitrosodiphenylamine	13.7		0.333	mg/kg wet			54-104		10
N-Nitrosodi-n-propylamine	13.0			mg/l	50.0	26	34-135		10
Pentachlorophenol	40.7			mg/l	50.0	81	56-126		10
Phenanthrene	39.2			mg/l	50.0	78	68-118		10
Phenol	4.65			mg/l	50.0	9	32-129		10
Pyrene	46.3			mg/l	50.0	93	70-126		10

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)										
LCS (7296080-BS1)					Prepared: 10/23/17 Analyzed: 10/24/17					
1,2,4-Trichlorobenzene	5.50			mg/l	50.0		11	24-141		10
2,4,5-Trichlorophenol	32.4			mg/l	50.0		65	63-138		10
2,4,6-Trichlorophenol	30.9			mg/l	50.0		62	64-128		10
Surrogate: 2-Fluorophenol			1.11	mg/l	40.0		3	35-115		
Surrogate: Phenol-d6			3.71	mg/l	40.0		9	35-115		
Surrogate: Nitrobenzene-d5			2.84	mg/l	20.0		14	35-115		
Surrogate: 2-Fluorobiphenyl			9.60	mg/l	20.0		48	40-120		
Surrogate: 2,4,6-Tribromophenol			30.1	mg/l	40.0		75	40-120		
Surrogate: Terphenyl-d14			19.3	mg/l	20.0		97	40-120		
Matrix Spike (7296080-MS1)					Source: 7J18186-01 Prepared: 10/23/17 Analyzed: 10/24/17					
Pyridine	37.7			mg/l	50.0	0.00	75	70-130		200
Benzidine	ND		16.5	mg/kg dry		ND		70-130		200
Diphenylamine	57.5			mg/l	50.0	0.00	115	70-130		200
Acenaphthene	52.6			mg/l	50.0	0.00	105	70-130		200
Acenaphthylene	56.9			mg/l	50.0	0.00	114	70-130		200
Anthracene	56.1			mg/l	50.0	0.00	112	70-130		200
Benzoic acid	24.6	J	33.1	mg/kg dry		ND		70-130		200
Benzo (a) anthracene	54.1			mg/l	50.0	0.0961	108	70-130		200
Benzo (b) fluoranthene	58.0			mg/l	50.0	0.0865	116	70-130		200
Benzo (k) fluoranthene	51.7			mg/l	50.0	0.00	103	70-130		200
Benzo (g,h,i) perylene	42.4			mg/l	50.0	0.0576	85	70-130		200
Benzo (a) pyrene	51.7			mg/l	50.0	0.0576	103	70-130		200
Benzyl alcohol	51.2			mg/l	50.0	0.135	102	70-130		200
Bis(2-chloroethoxy)methane	51.9			mg/l	50.0	0.00	104	70-130		200

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)										
Matrix Spike (7296080-MS1)		Source: 7J18186-01		Prepared: 10/23/17 Analyzed: 10/24/17						
Bis(2-chloroethyl)ether	48.4			mg/l	50.0	0.00	97	70-130		200
Bis(2-chloroisopropyl)ether	46.9			mg/l	50.0	0.00	94	70-130		200
Bis(2-ethylhexyl)phthalate	56.0			mg/l	50.0	0.317	111	70-130		200
4-Bromophenyl phenyl ether	52.6			mg/l	50.0	0.00	105	70-130		200
Butyl benzyl phthalate	189		3.31	mg/kg dry		ND		70-130		200
4-Chloroaniline	51.4			mg/l	50.0	0.00	103	70-130		200
4-Chloro-3-methylphenol	54.6			mg/l	50.0	0.00	109	70-130		200
2-Chloronaphthalene	52.1			mg/l	50.0	0.00	104	70-130		200
2-Chlorophenol	51.3			mg/l	50.0	0.00	103	70-130		200
4-Chlorophenyl phenyl ether	52.8			mg/l	50.0	0.00	106	70-130		200
Chrysene	51.0			mg/l	50.0	0.0576	102	70-130		200
Dibenz (a,h) anthracene	56.4			mg/l	50.0	0.00	113	70-130		200
Dibenzofuran	52.0			mg/l	50.0	0.00	104	70-130		200
Di-n-butyl phthalate	55.6			mg/l	50.0	0.624	110	70-130		200
1,2-Dichlorobenzene	47.7			mg/l	50.0	0.00	95	70-130		200
1,3-Dichlorobenzene	44.6			mg/l	50.0	0.00	89	70-130		200
1,4-Dichlorobenzene	46.4			mg/l	50.0	0.00	93	70-130		200
3,3'-Dichlorobenzidine	ND		3.31	mg/kg dry		ND		70-130		200
2,4-Dichlorophenol	56.6			mg/l	50.0	0.00	113	70-130		200
Diethyl phthalate	55.4			mg/l	50.0	0.0865	111	70-130		200
2,4-Dimethylphenol	56.2			mg/l	50.0	0.00	112	70-130		200
Dimethyl phthalate	53.6			mg/l	50.0	0.00	107	70-130		200
4,6-Dinitro-2-methylphenol	44.5			mg/l	50.0	0.00	89	70-130		200
2,4-Dinitrophenol	37.4			mg/l	50.0	0.00	75	70-130		200
2,4-Dinitrotoluene	51.5			mg/l	50.0	0.00	103	70-130		200

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PaDEP: PA 41-04684



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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)									
Matrix Spike (7296080-MS1)		Source: 7J18186-01		Prepared: 10/23/17 Analyzed: 10/24/17					
2,6-Dinitrotoluene	51.3			mg/l	50.0	0.00	103	70-130	200
Di-n-octyl phthalate	58.1			mg/l	50.0	0.0576	116	70-130	200
Aniline	48.5			mg/l	50.0	0.00	97	70-130	200
Naphthalene	51.4			mg/l	50.0	0.0480	103	70-130	200
N-Nitrosodimethylamine	53.5			mg/l	50.0	0.00	107	70-130	200
3 & 4-Methylphenol	177		3.31	mg/kg dry		ND		70-130	200
Acetophenone	45.8			mg/l	50.0	0.00	92	70-130	200
Total Cresol	342		6.62	mg/kg dry		ND		70-130	200
2,3,4,6-Tetrachlorophenol	52.0			mg/l	50.0	0.00	104	40-120	200
Fluoranthene	57.5			mg/l	50.0	0.0769	115	70-130	200
Fluorene	54.6			mg/l	50.0	0.00	109	70-130	200
Hexachlorobenzene	50.9			mg/l	50.0	0.00	102	70-130	200
Hexachlorobutadiene	48.9			mg/l	50.0	0.00	98	70-130	200
Hexachlorocyclopentadiene	44.2			mg/l	50.0	0.00	88	70-130	200
Hexachloroethane	47.6			mg/l	50.0	0.00	95	70-130	200
Indeno (1,2,3-cd) pyrene	57.4			mg/l	50.0	0.00	115	70-130	200
Isophorone	54.5			mg/l	50.0	0.163	109	70-130	200
2-Methylnaphthalene	49.3			mg/l	50.0	0.00	99	70-130	200
2-Methylphenol	49.9			mg/l	50.0	0.00	100	70-130	200
2-Nitroaniline	53.8			mg/l	50.0	0.00	108	70-130	200
3-Nitroaniline	50.4			mg/l	50.0	0.00	101	70-130	200
4-Nitroaniline	52.0			mg/l	50.0	0.00	104	70-130	200
Nitrobenzene	52.7			mg/l	50.0	0.00	105	70-130	200
2-Nitrophenol	53.4			mg/l	50.0	0.00	107	70-130	200
4-Nitrophenol	51.3			mg/l	50.0	0.00	103	70-130	200

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)									
Matrix Spike (7296080-MS1)		Source: 7J18186-01		Prepared: 10/23/17 Analyzed: 10/24/17					
N-Nitrosodiphenylamine	190		3.31	mg/kg dry		ND	70-130		200
N-Nitrosodi-n-propylamine	54.6			mg/l	50.0	0.00	109	70-130	200
Pentachlorophenol	51.1			mg/l	50.0	0.00	102	70-130	200
Phenanthrene	50.9			mg/l	50.0	0.0576	102	70-130	200
Phenol	49.2			mg/l	50.0	0.173	98	70-130	200
Pyrene	53.6			mg/l	50.0	0.0769	107	70-130	200
1,2,4-Trichlorobenzene	50.8			mg/l	50.0	0.00	102	70-130	200
2,4,5-Trichlorophenol	51.4			mg/l	50.0	0.00	103	70-130	200
2,4,6-Trichlorophenol	55.7			mg/l	50.0	0.00	111	70-130	200
Surrogate: 2-Fluorophenol			40.6	mg/l	40.0		102	35-115	
Surrogate: Phenol-d6			41.3	mg/l	40.0		103	35-115	
Surrogate: Nitrobenzene-d5			22.4	mg/l	20.0		112	35-115	
Surrogate: 2-Fluorobiphenyl			21.1	mg/l	20.0		106	40-120	
Surrogate: 2,4,6-Tribromophenol			43.2	mg/l	40.0		108	40-120	
Surrogate: Terphenyl-d14			21.2	mg/l	20.0		106	40-120	
Matrix Spike Dup (7296080-MSD1)		Source: 7J18186-01		Prepared: 10/23/17 Analyzed: 10/24/17					
Benzidine	ND		15.7	mg/kg dry		ND	70-130		200
Pyridine	2.59			mg/l	50.0	0.00	5	70-130	174
Diphenylamine	46.9			mg/l	50.0	0.00	94	70-130	20
Acenaphthene	40.8			mg/l	50.0	0.00	82	70-130	25
Acenaphthylene	40.4			mg/l	50.0	0.00	81	70-130	34
Anthracene	47.7			mg/l	50.0	0.00	95	70-130	16
Benzoic acid	ND		31.5	mg/kg dry		ND	70-130	200	200
Benzo (a) anthracene	50.0			mg/l	50.0	0.101	100	70-130	8

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)										
Matrix Spike Dup (7296080-MSD1)			Source: 7J18186-01		Prepared: 10/23/17 Analyzed: 10/24/17					
Benzo (b) fluoranthene	53.0			mg/l	50.0	0.0909	106	70-130	9	200
Benzo (k) fluoranthene	48.6			mg/l	50.0	0.00	97	70-130	6	200
Benzo (g,h,i) perylene	39.2			mg/l	50.0	0.0606	78	70-130	8	200
Benzo (a) pyrene	47.8			mg/l	50.0	0.0606	96	70-130	8	200
Benzyl alcohol	25.9			mg/l	50.0	0.141	52	70-130	66	200
Bis(2-chloroethoxy)methane	30.2			mg/l	50.0	0.00	60	70-130	53	200
Bis(2-chloroethyl)ether	12.3			mg/l	50.0	0.00	25	70-130	119	200
Bis(2-chloroisopropyl)ether	14.8			mg/l	50.0	0.00	30	70-130	104	200
Bis(2-ethylhexyl)phthalate	52.7			mg/l	50.0	0.333	105	70-130	6	200
4-Bromophenyl phenyl ether	43.1			mg/l	50.0	0.00	86	70-130	20	200
Butyl benzyl phthalate	170		3.15	mg/kg dry		ND		70-130	11	200
4-Chloroaniline	31.3			mg/l	50.0	0.00	63	70-130	49	200
4-Chloro-3-methylphenol	41.6			mg/l	50.0	0.00	83	70-130	27	200
2-Chloronaphthalene	37.8			mg/l	50.0	0.00	76	70-130	32	200
2-Chlorophenol	16.9			mg/l	50.0	0.00	34	70-130	101	200
4-Chlorophenyl phenyl ether	42.9			mg/l	50.0	0.00	86	70-130	21	200
Chrysene	47.8			mg/l	50.0	0.0606	95	70-130	6	200
Dibenz (a,h) anthracene	52.3			mg/l	50.0	0.00	105	70-130	8	200
Dibenzofuran	41.6			mg/l	50.0	0.00	83	70-130	22	200
Di-n-butyl phthalate	50.4			mg/l	50.0	0.656	99	70-130	10	200
1,2-Dichlorobenzene	8.82			mg/l	50.0	0.00	18	70-130	138	200
1,3-Dichlorobenzene	5.76			mg/l	50.0	0.00	12	70-130	154	200
1,4-Dichlorobenzene	6.59			mg/l	50.0	0.00	13	70-130	150	200
3,3'-Dichlorobenzidine	ND		3.15	mg/kg dry		ND		70-130		200
2,4-Dichlorophenol	36.3			mg/l	50.0	0.00	73	70-130	44	200

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(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)										
Matrix Spike Dup (7296080-MSD1)			Source: 7J18186-01		Prepared: 10/23/17 Analyzed: 10/24/17					
Diethyl phthalate	46.0			mg/l	50.0	0.0909	92	70-130	19	200
2,4-Dimethylphenol	30.1			mg/l	50.0	0.00	60	70-130	60	200
Dimethyl phthalate	43.3			mg/l	50.0	0.00	87	70-130	21	200
4,6-Dinitro-2-methylphenol	40.8			mg/l	50.0	0.00	82	70-130	9	200
2,4-Dinitrophenol	36.4			mg/l	50.0	0.00	73	70-130	3	200
2,4-Dinitrotoluene	44.2			mg/l	50.0	0.00	88	70-130	15	200
2,6-Dinitrotoluene	42.2			mg/l	50.0	0.00	84	70-130	19	200
Di-n-octyl phthalate	54.4			mg/l	50.0	0.0606	109	70-130	7	200
Aniline	16.5			mg/l	50.0	0.00	33	70-130	98	200
Naphthalene	25.6			mg/l	50.0	0.0505	51	70-130	67	200
N-Nitrosodimethylamine	4.56			mg/l	50.0	0.00	9	70-130	169	200
Acetophenone	23.8			mg/l	50.0	0.00	48	70-130	63	200
3 & 4-Methylphenol	98.6		3.15	mg/kg dry		ND		70-130	57	200
Total Cresol	180		6.30	mg/kg dry		ND		70-130	62	200
2,3,4,6-Tetrachlorophenol	43.1			mg/l	50.0	0.00	86	40-120	19	200
Fluoranthene	53.1			mg/l	50.0	0.0808	106	70-130	8	200
Fluorene	44.4			mg/l	50.0	0.00	89	70-130	20	200
Hexachlorobenzene	42.8			mg/l	50.0	0.00	86	70-130	17	200
Hexachlorobutadiene	17.1			mg/l	50.0	0.00	34	70-130	96	200
Hexachlorocyclopentadiene	6.44			mg/l	50.0	0.00	13	70-130	149	200
Hexachloroethane	7.06			mg/l	50.0	0.00	14	70-130	148	200
Indeno (1,2,3-cd) pyrene	52.8			mg/l	50.0	0.00	106	70-130	8	200
Isophorone	35.1			mg/l	50.0	0.172	70	70-130	43	200
2-Methylnaphthalene	31.8			mg/l	50.0	0.00	64	70-130	43	200
2-Methylphenol	25.7			mg/l	50.0	0.00	51	70-130	64	200

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7296080 - EPA 3541 (Continued)										
Matrix Spike Dup (7296080-MSD1)		Source: 7J18186-01		Prepared: 10/23/17 Analyzed: 10/24/17						
2-Nitroaniline	43.8			mg/l	50.0	0.00	88	70-130	20	200
3-Nitroaniline	40.0			mg/l	50.0	0.00	80	70-130	23	200
4-Nitroaniline	43.2			mg/l	50.0	0.00	86	70-130	18	200
Nitrobenzene	24.2			mg/l	50.0	0.00	48	70-130	74	200
2-Nitrophenol	27.5			mg/l	50.0	0.00	55	70-130	64	200
4-Nitrophenol	44.1			mg/l	50.0	0.00	88	70-130	15	200
N-Nitrosodiphenylamine	148		3.15	mg/kg dry		ND		70-130	25	200
N-Nitrosodi-n-propylamine	30.8			mg/l	50.0	0.00	62	70-130	56	200
Pentachlorophenol	45.7			mg/l	50.0	0.00	91	70-130	11	200
Phenanthrene	43.8			mg/l	50.0	0.0606	87	70-130	15	200
Phenol	21.6			mg/l	50.0	0.182	43	70-130	78	200
Pyrene	48.6			mg/l	50.0	0.0808	97	70-130	10	200
1,2,4-Trichlorobenzene	22.1			mg/l	50.0	0.00	44	70-130	79	200
2,4,5-Trichlorophenol	40.6			mg/l	50.0	0.00	81	70-130	23	200
2,4,6-Trichlorophenol	42.5			mg/l	50.0	0.00	85	70-130	27	200
Surrogate: 2-Fluorophenol			7.48	mg/l	40.0		19	35-115		
Surrogate: Phenol-d6			18.1	mg/l	40.0		45	35-115		
Surrogate: Nitrobenzene-d5			10.6	mg/l	20.0		53	35-115		
Surrogate: 2-Fluorobiphenyl			15.6	mg/l	20.0		78	40-120		
Surrogate: 2,4,6-Tribromophenol			36.9	mg/l	40.0		92	40-120		
Surrogate: Terphenyl-d14			20.1	mg/l	20.0		101	40-120		

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Quality Control
(Continued)

TCLP Extraction by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7296019 - General Preparation									
Blank (7296019-BLK1)									
# pH	4.84			pH Units					
Duplicate (7296019-DUP1)									
# pH	5.61		Source: 7J18003-01	pH Units		5.27		6.25	200

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Quality Control (Continued)

TCLP Metals extracted by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7293066 - EPA 200 Series									
Blank (7293066-BLK1)									
Mercury	ND		0.000200	mg/l					
Prepared: 10/20/17 Analyzed: 10/24/17									
Matrix Spike (7293066-MS1)									
Mercury	0.009374		0.00200	mg/l	0.0100	ND	93.7 70-130		10
Prepared: 10/20/17 Analyzed: 10/24/17									
Matrix Spike Dup (7293066-MSD1)									
Mercury	0.009367		0.00200	mg/l	0.0100	ND	93.7 70-130	0.0798	10
Prepared: 10/20/17 Analyzed: 10/24/17									
Batch: 7297041 - EPA 3010A TCLP/SPLP									
Blank (7297041-BLK1)									
Antimony	0.0332	J	0.0500	mg/l					
Arsenic	ND		0.0400	mg/l					
Barium	ND		0.0500	mg/l					
Beryllium	ND		0.0100	mg/l					
Cadmium	ND		0.0200	mg/l					
Chromium	ND		0.0250	mg/l					
Lead	ND		0.0400	mg/l					
Nickel	ND		0.250	mg/l					
Selenium	0.0238	J	0.100	mg/l					
Silver	ND		0.0200	mg/l					
Thallium	ND		0.100	mg/l					
Vanadium	0.0277	J	0.100	mg/l					
Zinc	ND		0.100	mg/l					
Prepared: 10/24/17 Analyzed: 10/26/17									
Duplicate (7297041-DUP1)									
Source: 7J24010-02									
Prepared: 10/24/17 Analyzed: 10/30/17									

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Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7297041 - EPA 3010A TCLP/SPLP (Continued)									
Duplicate (7297041-DUP1)			Source: 7J24010-02		Prepared: 10/24/17 Analyzed: 10/30/17				
Antimony	0.0259	J	0.0500	mg/l		0.0274		5	20
Arsenic	ND		0.0400	mg/l		ND			20
Barium	0.427		0.0500	mg/l		0.423		0.9	20
Beryllium	ND		0.0100	mg/l		ND			20
Cadmium	ND		0.0200	mg/l		ND			20
Chromium	ND		0.0250	mg/l		ND			20
Lead	ND		0.0400	mg/l		ND			20
Nickel	0.0162	J	0.250	mg/l		0.0152		6	20
Selenium	0.0150	J	0.100	mg/l		0.0240		46	20
Silver	ND		0.0200	mg/l		ND			20
Thallium	ND		0.100	mg/l		ND			20
Vanadium	0.0145	J	0.100	mg/l		0.0154		6	20
Zinc	ND		0.100	mg/l		ND			20
Matrix Spike (7297041-MS1)			Source: 7J24010-01		Prepared: 10/24/17 Analyzed: 10/30/17				
Antimony	2.20		0.0500	mg/l	2.00	0.0197	109	75-125	200
Arsenic	0.844		0.0400	mg/l	0.800	ND	106	75-125	200
Barium	2.14		0.0500	mg/l	2.00	ND	107	75-125	200
Beryllium	0.211		0.0100	mg/l	0.200	ND	105	75-125	200
Cadmium	0.425		0.0200	mg/l	0.400	ND	106	75-125	200
Chromium	0.188		0.0250	mg/l	0.200	ND	94	75-125	200
Lead	0.836		0.0400	mg/l	0.800	ND	105	75-125	200
Nickel	2.10		0.250	mg/l	2.00	ND	105	75-125	200
Selenium	2.10		0.100	mg/l	2.00	0.0174	104	75-125	200
Silver	0.415		0.0200	mg/l	0.400	ND	104	75-125	200

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7297041 - EPA 3010A TCLP/SPLP (Continued)										
Matrix Spike (7297041-MS1)		Source: 7J24010-01		Prepared: 10/24/17 Analyzed: 10/30/17						
Thallium	0.777		0.100	mg/l	0.800	ND	97	75-125		200
Vanadium	2.12		0.100	mg/l	2.00	ND	106	75-125		200
Zinc	2.10		0.100	mg/l	2.00	ND	105	75-125		200
Matrix Spike (7297041-MS2)		Source: 7J24010-02		Prepared: 10/24/17 Analyzed: 10/30/17						
Antimony	2.05		0.0500	mg/l	2.00	0.0274	101	75-125		200
Arsenic	0.836		0.0400	mg/l	0.800	ND	104	75-125		200
Barium	2.40		0.0500	mg/l	2.00	0.423	99	75-125		200
Beryllium	0.197		0.0100	mg/l	0.200	ND	99	75-125		200
Cadmium	0.399		0.0200	mg/l	0.400	ND	100	75-125		200
Chromium	0.174		0.0250	mg/l	0.200	ND	87	75-125		200
Lead	0.777		0.0400	mg/l	0.800	ND	97	75-125		200
Nickel	2.06		0.250	mg/l	2.00	0.0152	102	75-125		200
Selenium	2.05		0.100	mg/l	2.00	0.0240	101	75-125		200
Silver	0.413		0.0200	mg/l	0.400	ND	103	75-125		200
Thallium	0.742		0.100	mg/l	0.800	ND	93	75-125		200
Vanadium	2.03		0.100	mg/l	2.00	0.0154	101	75-125		200
Zinc	1.97		0.100	mg/l	2.00	ND	99	75-125		200

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Max Environmental

Project: CLARIFIER SLUDGE

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

03/28/18 12:18

Project Manager: Carl Spadaro

Number of Containers: 6

Quality Control
(Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7326034 - EPA 3510C									
Blank (7326034-BLK1)					Prepared: 11/22/17 Analyzed: 11/24/17				
Pyridine	ND		2.00	ug/l					
Benzidine	ND		5.00	ug/l					
2,4-Dinitrotoluene	ND		1.00	ug/l					
3 & 4-Methylphenol	ND		1.00	ug/l					
Hexachlorobenzene	ND		1.00	ug/l					
Hexachlorobutadiene	ND		1.00	ug/l					
Hexachloroethane	ND		1.00	ug/l					
2-Methylphenol	ND		1.00	ug/l					
Nitrobenzene	ND		1.00	ug/l					
Pentachlorophenol	ND		5.00	ug/l					
2,4,5-Trichlorophenol	ND		1.00	ug/l					
2,4,6-Trichlorophenol	ND		1.00	ug/l					
Surrogate: 2-Fluorophenol			20.4	ug/l	40.0		51.1	30.6-66.8	
Surrogate: Phenol-d6			14.6	ug/l	40.0		36.4	17.9-51.5	
Surrogate: Nitrobenzene-d5			17.7	ug/l	20.0		88.6	30.6-140	
Surrogate: 2-Fluorobiphenyl			17.3	ug/l	20.0		86.7	40.6-121	
Surrogate: 2,4,6-Tribromophenol			38.5	ug/l	40.0		96.2	50.4-131	
Surrogate: Terphenyl-d14			18.3	ug/l	20.0		91.4	10-185	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Notes

- A9 This result is intended for end user internal monitoring purposes only. This analyte does not appear on the FLI scope of accreditation.
- B2 This sample was extracted outside the EPA holding time.
- D A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered above the acceptance range for the noted analyte.
- E A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered below the acceptance range for the noted analyte.
- F The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered above the acceptance range for the noted analyte.
- G The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered below the acceptance range for the noted analyte.
- I5 The vial provided contained preservative for 5 grams of sample; however, the vial was received with greater than 130% of this amount of sample.
- J Detected between the Method Detection Limit (MDL) and the Reporting Limit (RL); therefore, the result is an estimated value.
- O The noted surrogate value was above the acceptance range.
- Q Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.



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NELAP: PA 07-062, VA 460212

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Pennsdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Carl Spadaro

Project: CLARIFIER SLUDGE

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

03/28/18 12:18

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

* G indicates analysis performed by Fairway Laboratories, Inc. at the Greensburg location PaDEP: 65-00392. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

Fairway Laboratories, Inc.

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Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved,

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Chain of Custody Receiving Document

Receiver: Al

Date/Time of this check: 10-18-17 7:05 PM Client: Max

Lab # 7518185

Received on ICE? ☒ * Sample Temperature when delivered to the Lab: 1 Acceptable? ☒ * or In cool down process? ☐ *

(Not applicable for WV/commence)

*** (Not applicable for WV compliance) ***

Custody Seals? ✓ Intact? ✓

COC/Labels on bottles agree? ☒ *

Correct containers for all the analysis requested? ☒ *

Matrix: Solid

[illegible]

*** DEVIATION PRESENT:**

CLIENT CALLED:

YES ()

By Whom:

(C) No Ice ()
 (D) Not at Proper Temperature ()
 (E) Wrong Container ()
 (F) Missing Information: ()

Date: _____

CLIENT RESPONSE:

Proceed with analysis; qualify data	()
Will Resample	()
Provided Information	()
No Response; Proceed and qualified	()

Client Contact: _____ **Date:** _____

***Comments:**

TABLE 1
TARGET ANALYTES
MAX ENVIRONMENTAL TECHNOLOGIES, INC.
YUKON and BULGER, PA

7J18185 #3

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	Method Detection Limit ⁽²⁾
pH (9045D)			
pH	SU	-	
Pesticides (8081B)			
4,4'-DDD	mg/kg	0.087	0.041
4,4'-DDE	mg/kg	0.087	0.041
4,4'-DDT	mg/kg	0.087	0.041
Aldrin	mg/kg	0.066	0.041
alpha-BHC	mg/kg	0.066	0.041
alpha-Chlordane	mg/kg	0.26	0.041
beta-BHC	mg/kg	0.066	0.041
Chlordane (tech)	mg/kg	0.26	2.05
delta-BHC	mg/kg	0.066	0.041
Dieldrin	mg/kg	0.13	0.041
Endosulfan I	mg/kg	0.066	0.041
Endosulfan II	mg/kg	0.13	0.041
Endosulfan sulfate	mg/kg	0.13	0.041
Endrin	mg/kg	0.13	0.041
Endrin aldehyde	mg/kg	0.13	0.041
Endrin ketone	mg/kg	-	0.041
gamma-BHC (Lindane)	mg/kg	0.066	0.041
gamma-Chlordane	mg/kg	0.26	0.041
Heptachlor	mg/kg	0.066	0.041
Heptachlor epoxide	mg/kg	0.066	0.041
Methoxychlor	mg/kg	0.18	0.041
Toxaphene	mg/kg	2.6	2.05
Polychlorinated Biphenyls (8082)			
PCB-1016	mg/kg	10 ⁽³⁾	0.023
PCB-1221	mg/kg	10 ⁽³⁾	0.033
PCB-1232	mg/kg	10 ⁽³⁾	0.034
PCB-1242	mg/kg	10 ⁽³⁾	0.011
PCB-1248	mg/kg	10 ⁽³⁾	0.007
PCB-1254	mg/kg	10 ⁽³⁾	0.025
PCB-1260	mg/kg	10 ⁽³⁾	0.024
Chlorinated Herbicides (8151A)			
2,4-D	mg/kg	10	0.0157
2,4,5-T	mg/kg	7.9	0.0157
2,4,5-TP (Silvex)	mg/kg	7.9	0.0157
2,4-DB	mg/kg	-	0.0157
Acifluorfen	mg/kg	-	0.0157
Dalapon	mg/kg	-	0.158
Dicamba	mg/kg	-	0.0157
Dichloroprop	mg/kg	-	0.0157
Dinoseb	mg/kg	2.5	0.0157

TABLE 1
TARGET ANALYTES
MAX ENVIRONMENTAL TECHNOLOGIES, INC.
YUKON and BULGER, PA

7/18/85 #4

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	Method Detection Limit ⁽²⁾
Volatile Organic Compounds (8260B)			
1,1,1,2-Tetrachloroethane	mg/kg	6	
1,1,1-Trichloroethane	mg/kg	6	
1,1,2,2-Tetrachloroethane	mg/kg	6	
1,1,2-Trichloroethane	mg/kg	6	
1,1-Dichloroethane	mg/kg	6	
1,1-Dichloroethene	mg/kg	6	
1,2,3-Trichloropropane	mg/kg	30	
1,2,4-Trichlorobenzene	mg/kg	19	
1,2-Dibromo-3-chloropropane	mg/kg	15	
1,2-Dibromoethane (EDB)	mg/kg	15	
1,2-Dichlorobenzene	mg/kg	6	
1,2-Dichloroethane	mg/kg	6	
1,2-Dichloropropane	mg/kg	18	
1,3-Dichlorobenzene	mg/kg	6	
1,4-Dichlorobenzene	mg/kg	6	
2-Butanone	mg/kg	36	
2-Hexanone	mg/kg	-	
2-Chloroethylvinyl ether	mg/kg	-	
4-Methyl-2-pentanone	mg/kg	33	
Acetone	mg/kg	160	
Acrolein	mg/kg	-	
Acrylonitrile	mg/kg	84	
Benzene	mg/kg	10	
Bromodichloromethane	mg/kg	15	
Bromoform	mg/kg	15	
Bromomethane	mg/kg	-	
Carbon disulfide	mg/kg	-	
Carbon tetrachloride	mg/kg	6	
Chlorobenzene	mg/kg	6	
Chloroethane	mg/kg	6	
Chloromethane	mg/kg	-	
Chloroform	mg/kg	6	
Chloromethane	mg/kg	-	
cis-1,2-Dichloroethene	mg/kg	-	
cis-1,3-Dichloropropene	mg/kg	18	
Dibromochloromethane	mg/kg	-	
Dibromomethane	mg/kg	15	
Dichlorodifluoromethane	mg/kg	7.2	
Ethylbenzene	mg/kg	10	
Hexachlorobutadiene	mg/kg	5.6	
Iodomethane	mg/kg	65	
Isopropylbenzene	mg/kg	-	
Methyl tert-butyl ether	mg/kg	-	
Methylene chloride	mg/kg	30	
Naphthalene	mg/kg	5.6	
Styrene	mg/kg	-	

TABLE 1
TARGET ANALYTES
MAX ENVIRONMENTAL TECHNOLOGIES, INC.
YUKON and BULGER, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	Method Detection Limit ⁽²⁾
Volatile Organic Compounds (8260B)			
Tetrachloroethene	mg/kg	6	
Toluene	mg/kg	10	
trans-1,2-Dichloroethene	mg/kg	30	
trans-1,3-Dichloropropene	mg/kg	18	
Trichloroethene	mg/kg	6	
Trichlorofluoromethane	mg/kg	30	
Vinyl chloride	mg/kg	6	
Xylenes (total)	mg/kg	30	
Semivolatile Organic Compounds (8270D)			
1,2,4-Trichlorobenzene	mg/kg	19	
1,2-Dichlorobenzene	mg/kg	6	
1,2-Diphenylhydrazine	mg/kg	-	
1,3-Dichlorobenzene	mg/kg	6	
1,4-Dichlorobenzene	mg/kg	6	
2,4,5-Trichlorophenol	mg/kg	7.4	
2,4,6-Trichlorophenol	mg/kg	7.4	
2,4-Dichlorophenol	mg/kg	14	
2,4-Dimethylphenol	mg/kg	14	
2,4-Dinitrophenol	mg/kg	160	
2,4-Dinitrotoluene	mg/kg	140	
2,6-Dinitrotoluene	mg/kg	28	
2-Chloronaphthalene	mg/kg	5.6	
2-Chlorophenol	mg/kg	5.7	
2-Methylnaphthalene	mg/kg	-	
2-Methylphenol	mg/kg	5.6	
2-Nitroaniline	mg/kg	-	
2-Nitrophenol	mg/kg	-	
3 & 4-Methylphenol	mg/kg	5.6	
3,3'-Dichlorobenzidine	mg/kg	-	
3-Nitroaniline	mg/kg	-	
4,6-Dinitro-2-methylphenol	mg/kg	160	
4-Bromophenyl phenyl ether	mg/kg	15	
4-Chloro-3-methylphenol	mg/kg	14	
4-Chloroaniline	mg/kg	16	
4-Chlorophenyl phenyl ether	mg/kg	-	
4-Nitroaniline	mg/kg	28	
4-Nitrophenol	mg/kg	29	
Acenaphthene	mg/kg	43.4	
Acenaphthylene	mg/kg	3	
Acetophenone	mg/kg	9.7	
Aniline	mg/kg	14	
Anthracene	mg/kg	3.4	
Benzidine	mg/kg	-	
Benzo (a) anthracene	mg/kg	3.4	
Benzo (a) pyrene	mg/kg	3.4	
Benzo (b) fluoranthene	mg/kg	6.8	

7/18/85 #6

TABLE 1
TARGET ANALYTES
MAX ENVIRONMENTAL TECHNOLOGIES, INC.
YUKON and BULGER, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	Method Detection Limit ⁽²⁾
Semivolatile Organic Compounds (8270D)			
Benzo (g,h,i) perylene	mg/kg	1.8	
Benzo (k) fluoranthene	mg/kg	6.8	
Benzoic acid	mg/kg	-	
Benzyl alcohol	mg/kg	-	
Bis(2-chloroethoxy)methane	mg/kg	7.2	
Bis(2-chloroethyl)ether	mg/kg	6	
Bis(2-chloroisopropyl)ether	mg/kg	7.2	
Bis(2-ethylhexyl)phthalate	mg/kg	28	
Butyl benzyl phthalate	mg/kg	28	
Chrysene	mg/kg	3.4	
Dibenz (a,h) anthracene	mg/kg	8.2	
Dibenzofuran	mg/kg	-	
Diethyl phthalate	mg/kg	28	
Dimethyl phthalate	mg/kg	28	
Di-n-butyl phthalate	mg/kg	28	
Di-n-octyl phthalate	mg/kg	28	
Diphenylamine	mg/kg	-	
Fluoranthene	mg/kg	3.4	
Fluorene	mg/kg	3.4	
Hexachlorobenzene	mg/kg	10	
Hexachlorobutadiene	mg/kg	5.6	
Hexachlorocyclopentadiene	mg/kg	2.4	
Hexachloroethane	mg/kg	30	
Indeno (1,2,3-cd) pyrene	mg/kg	3.4	
Isophorone	mg/kg	-	
Naphthalene	mg/kg	5.6	
Nitrobenzene	mg/kg	14	
N-Nitrosodimethylamine	mg/kg	-	
N-Nitrosodi-n-propylamine	mg/kg	-	
Pentachlorophenol	mg/kg	7.4	
Phenanthrene	mg/kg	5.6	
Phenol	mg/kg	6.2	
Pyrene	mg/kg	8.2	
Pyridine	mg/kg	16	
Total Cyanide (9014)			
Cyanide (total)	mg/kg	-	
Fluoride (9056A)			
Fluoride	mg/kg	-	
Sulfide (9030/9034)			
Sulfide	mg/kg	-	
% Solids (2540G)			
% Solids	%	-	
Amenable Cyanide (4500)			
Amenable Cyanide	mg/kg	-	

7516085 47

TABLE 1
TARGET ANALYTES
MAX ENVIRONMENTAL TECHNOLOGIES, INC.
YUKON and BULGER, PA

Analyte and Method	Units	Universal Treatment Standard ⁽¹⁾	Method Detection Limit ⁽²⁾
Metals (6010B/7471B)			
Antimony	mg/kg	-- ⁽⁴⁾	0.5
Arsenic	mg/kg	-- ⁽⁴⁾	0.4
Barium	mg/kg	-- ⁽⁴⁾	1
Beryllium	mg/kg	-- ⁽⁴⁾	0.1
Cadmium	mg/kg	-- ⁽⁴⁾	0.2
Chromium	mg/kg	-- ⁽⁴⁾	0.1
Lead	mg/kg	-- ⁽⁴⁾	0.2
Mercury	mg/kg	-- ⁽⁴⁾	0.02
Nickel	mg/kg	-- ⁽⁴⁾	5
Selenium	mg/kg	-- ⁽⁴⁾	0.5
Silver	mg/kg	-- ⁽⁴⁾	0.4
Thallium	mg/kg	-- ⁽⁴⁾	0.4
Vanadium	mg/kg	-- ⁽⁴⁾	1
Zinc	mg/kg	-- ⁽⁴⁾	1
TCLP Metals (1311/6010B/7471B)			
Antimony	mg/l	1.15	0.005
Arsenic	mg/l	5	0.0040
Barium	mg/l	21	0.01
Beryllium	mg/l	-	0.0010
Cadmium	mg/l	0.11	0.0020
Chromium	mg/l	0.6	0.0010
Lead	mg/l	0.75	0.0020
Mercury	mg/l	0.25	0.0002
Nickel	mg/l	11	0.050
Selenium	mg/l	5.7	0.005
Silver	mg/l	0.14	0.0040
Thallium	mg/l	-	0.004
Vanadium	mg/l	-	0.010
Zinc	mg/l	-	0.010
pH (1311)			
pH	SU	-	

NOTES

(1) 40 CFR 268.40 Universal Treatment Standards For Non-Wastewaters. Analytes for which no UTS is available are indicated with "--".

(2) Laboratory Method Detection Limits do not account for percent moisture or potential matrix interference effects. Dilutions will affect sample-specific method detection limits.

(3) UTS for PCB is the sum of all PCB Isomers

(4) No UTS for Total Metals. See TCLP results

SU - Standard units



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State Certifications: MD 275, WV 364

Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
YUKON-CLARIFIER-12 13 17	7L15058-01	Solid	Composite	12/13/17 14:40	12/14/17 18:38

Refer to receiving document. CB

Subcontracted Organic Prep

Method 8151A: 7L15058-01 (180-73583-1) required filtration to reduce matrix interferences.

7L15058 Results reported to the MDL and VOC, SVOC, and Metal compounds added. This report replaces the report issued on 1/4/18 15:32. 1/26/18smc/mlf

7L15058 Report revised, additional QA/QC summaries added. This report replaces the report printed on 01/26/18 15:57. 03/28/18 mlf

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Client Sample ID: YUKON-CLARIFIER-12 13 17

Date/Time Sampled: 12/13/17 14:40

Laboratory Sample ID: 7L15058-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by Prep Method EPA 3050B

Silver	9.77	0.245	0.817	mg/kg dry	12/22/17 19:30	EPA 6010B/2.0	sr	
Aluminum	4960	53.1	409	mg/kg dry	12/22/17 19:35	EPA 6010B/2.0	sr	
Arsenic	38.1	0.654	1.63	mg/kg dry	12/22/17 19:30	EPA 6010B/2.0	sr	
Barium	1010	12.3	40.9	mg/kg dry	12/22/17 19:35	EPA 6010B/2.0	sr	
Beryllium	0.139 J	0.0490	0.409	mg/kg dry	12/22/17 19:29	EPA 6010B/2.0	sr	
Calcium	56000	61.3	2040	mg/kg dry	12/22/17 19:35	EPA 6010B/2.0	sr	
Cadmium	5.56	0.0981	0.817	mg/kg dry	12/22/17 19:30	EPA 6010B/2.0	sr	
Cobalt	7.41	0.470	2.04	mg/kg dry	12/22/17 19:30	EPA 6010B/2.0	sr	
Chromium	117	1.92	20.4	mg/kg dry	12/22/17 19:37	EPA 6010B/2.0	sr	
Copper	176	0.572	2.04	mg/kg dry	12/22/17 19:29	EPA 6010B/2.0	sr	
Iron	16400	73.6	163	mg/kg dry	12/22/17 19:35	EPA 6010B/2.0	sr	T

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Client Sample ID: YUKON-CLARIFIER-12 13 17

Date/Time Sampled: 12/13/17 14:40

Laboratory Sample ID: 7L15058-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Metals by Prep Method EPA 3050B								
Potassium	1010	19.4	40.9	mg/kg dry	12/22/17 19:28	EPA 6010B/2.0	sr	
Magnesium	6970	192	817	mg/kg dry	12/22/17 19:35	EPA 6010B/2.0	sr	
Manganese	368	1.14	2.04	mg/kg dry	12/22/17 19:29	EPA 6010B/2.0	sr	
Sodium	1200	46.8	204	mg/kg dry	12/22/17 19:28	EPA 6010B/2.0	sr	
Nickel	64.8	0.327	10.2	mg/kg dry	12/22/17 19:30	EPA 6010B/2.0	sr	
Lead	645	4.49	32.7	mg/kg dry	12/22/17 19:37	EPA 6010B/2.0	sr	
Antimony	6.74	1.82	2.04	mg/kg dry	12/22/17 19:30	EPA 6010B/2.0	sr	
Selenium	11.5	1.68	4.09	mg/kg dry	12/22/17 19:30	EPA 6010B/2.0	sr	
Thallium	<0.592	0.592	4.09	mg/kg dry	12/22/17 19:30	EPA 6010B/2.0	sr	
Vanadium	19.5	0.490	4.09	mg/kg dry	12/22/17 19:29	EPA 6010B/2.0	sr	
Zinc	944	11.4	81.7	mg/kg dry	12/22/17 19:37	EPA 6010B/2.0	sr	L

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

14

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89 Kristi Road
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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Client Sample ID: YUKON-CLARIFIER-12 13 17

Date/Time Sampled: 12/13/17 14:40

Laboratory Sample ID: 7L15058-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

14

1,3,5-Trimethylbenzene	<0.0417	0.0417	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	0.0946 J	0.0371	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Benzene	<0.0121	0.0121	0.185	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Toluene	<0.0111	0.0111	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Ethylbenzene	0.141 J	0.0223	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Xylenes (total)	0.195 J	0.0593	0.927	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Isopropylbenzene	<0.0380	0.0380	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.0130	0.0130	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Naphthalene	<0.0204	0.0204	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Acetone	<0.144	0.144	0.927	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Acrolein	<0.399	0.399	4.64	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	AAa
Acrylonitrile	<0.0417	0.0417	0.927	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Bromobenzene	<0.0158	0.0158	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Bromochloromethane	<0.0195	0.0195	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Bromodichloromethane	<0.0491	0.0491	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Bromoform	<0.0408	0.0408	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
Bromomethane	<0.0176	0.0176	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
2-Butanone	<0.139	0.139	0.927	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D

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Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

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sec-Butylbenzene	<0.0297	0.0297	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
tert-Butylbenzene	<0.0287	0.0287	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
n-Butylbenzene	<0.0343	0.0343	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Carbon disulfide	<0.0473	0.0473	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Carbon tetrachloride	<0.0501	0.0501	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Chlorobenzene	<0.0102	0.0102	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Chloroethane	<0.0426	0.0426	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
2-Chloroethylvinyl ether	<0.0630	0.0630	4.64	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	AAa
Chloroform	<0.0287	0.0287	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Chloromethane	<0.0167	0.0167	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
4-Chlorotoluene	<0.0324	0.0324	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
2-Chlorotoluene	<0.0334	0.0334	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2-Dibromo-3-chloropropane	<0.0269	0.0269	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
Dibromochloromethane	<0.0148	0.0148	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2-Dibromoethane (EDB)	<0.0362	0.0362	0.185	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Dibromomethane	<0.0324	0.0324	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
trans-1,4-Dichloro-2-butene	<0.0324	0.0324	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2-Dichlorobenzene	<0.0315	0.0315	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	

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Project Number: [none]

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14

1,4-Dichlorobenzene	<0.0371	0.0371	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,3-Dichlorobenzene	<0.0306	0.0306	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Dichlorodifluoromethane	<0.0399	0.0399	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2-Dichloroethane	<0.0185	0.0185	0.185	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,1-Dichloroethane	<0.0148	0.0148	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
trans-1,2-Dichloroethene	<0.0176	0.0176	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
cis-1,2-Dichloroethene	<0.0130	0.0130	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,1-Dichloroethene	<0.0176	0.0176	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
2,2-Dichloropropane	<0.0324	0.0324	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
1,3-Dichloropropane	<0.0121	0.0121	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2-Dichloropropane	<0.0130	0.0130	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
trans-1,3-Dichloropropene	<0.0139	0.0139	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
1,1-Dichloropropene	<0.0176	0.0176	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
cis-1,3-Dichloropropene	<0.0185	0.0185	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Hexachlorobutadiene	<0.0417	0.0417	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
2-Hexanone	<0.0297	0.0297	0.927	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Iodomethane	<0.0352	0.0352	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
p-Isopropyltoluene	<0.0315	0.0315	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	

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Project Number: [none]

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Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

14

Methylene chloride	<0.0482	0.0482	1.85	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
4-Methyl-2-pentanone	<0.0139	0.0139	0.927	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
n-Propylbenzene	<0.0306	0.0306	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Styrene	0.485	0.0111	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,1,2,2-Tetrachloroethane	<0.0343	0.0343	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,1,1,2-Tetrachloroethane	<0.0139	0.0139	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
Tetrachloroethene	<0.0287	0.0287	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2,4-Trichlorobenzene	<0.0538	0.0538	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2,3-Trichlorobenzene	<0.0482	0.0482	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,1,1-Trichloroethane	<0.0287	0.0287	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	D
1,1,2-Trichloroethane	<0.0241	0.0241	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Trichloroethene	<0.0195	0.0195	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Trichlorofluoromethane	<0.0278	0.0278	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
1,2,3-Trichloropropane	<0.0158	0.0158	0.464	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Vinyl chloride	<0.0195	0.0195	0.185	mg/kg dry	12/20/17 02:17	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	98 %		70-130		12/20/17 02:17	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	117 %		70-130		12/20/17 02:17	EPA 8260B	mtc	
Surrogate: Fluorobenzene	107 %		70-130		12/20/17 02:17	EPA 8260B	mtc	

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Project: YUKON SLUDGE SAMPLING

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Analyses to be performed immediately upon sampling. See Definition indicated by: #

# pH @ 20.6°C	8.38			pH Units	12/19/17 11:09	SW846-9045 D	elb	

Calculated Analytes

Amenable Cyanide	<0.141	0.141	0.588	mg/kg dry	12/26/17 14:53	SM20-4500 CN-C+E+G	caa	

Conventional Chemistry Parameters by SM/EPA Methods

Fluoride	22.4 J	1.34	52.7	mg/kg dry	12/21/17 06:42	EPA 9056A	bdw	
% Solids	83.7		0.100	%	12/19/17 19:00	SM 2540 G-97	pra	

Cyanide by Preparation Method EPA 9010

Cyanide (total)	2.21	0.141	0.588	mg/kg dry	12/19/17 13:19	EPA 9014	caa	

Metals by EPA 6000/7000 Series Methods

Mercury	0.336	0.00797	0.0188	mg/kg dry	12/22/17 09:37	EPA 7471B	jks	

Organochlorine Pesticides by EPA Extraction Method 3541

Aldrin	<48.2	48.2	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	F
alpha-BHC	<34.7	34.7	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
beta-BHC	<175	175	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
delta-BHC	<40.4	40.4	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	D

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Organochlorine Pesticides by EPA Extraction Method 3541

AA

gamma-BHC (Lindane)	<243	243	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
Chlordane (tech)	<4820	4820	19300	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
4,4'-DDD	<106	106	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
4,4'-DDE	<48.2	48.2	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
4,4'-DDT	<116	116	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	F
Dieldrin	<46.2	46.2	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
Endosulfan I	<42.4	42.4	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	F
Endosulfan II	<53.9	53.9	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	F
Endosulfan sulfate	<154	154	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	D, F
Endrin	<65.5	65.5	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
Endrin aldehyde	<73.2	73.2	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	D
Heptachlor	<40.4	40.4	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
Heptachlor epoxide	<48.2	48.2	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
Methoxychlor	<84.7	84.7	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	D, F
Toxaphene	<8030	8030	19300	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
alpha-Chlordane	<162	162	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
gamma-Chlordane	<154	154	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
Isodrin	<38.5	38.5	385	ug/kg dry	12/27/17 15:17	EPA 8081B	CDB	

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Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

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Organochlorine Pesticides by EPA Extraction Method 3541

AA

Endrin ketone	<189	189	385	ug/kg dry	12/27/17 15:17	EPA 8081B	RSR	
Surrogate: Tetrachloro-meta-xylene	88.0 %		40-157		12/27/17 15:17	EPA 8081B	RSR	
Surrogate: Decachlorobiphenyl	142 %		57.1-153		12/27/17 15:17	EPA 8081B	RSR	

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.037	0.037	0.090	mg/kg dry	12/27/17 19:02	EPA 8082	rsr	
PCB-1221	<0.052	0.052	0.090	mg/kg dry	12/27/17 19:02	EPA 8082	rsr	
PCB-1232	<0.040	0.040	0.090	mg/kg dry	12/27/17 19:02	EPA 8082	rsr	
PCB-1242	<0.013	0.013	0.090	mg/kg dry	12/27/17 19:02	EPA 8082	rsr	
PCB-1248	<0.028	0.028	0.090	mg/kg dry	12/27/17 19:02	EPA 8082	rsr	
PCB-1254	<0.059	0.059	0.090	mg/kg dry	12/27/17 19:02	EPA 8082	rsr	
PCB-1260	<0.044	0.044	0.090	mg/kg dry	12/27/17 19:02	EPA 8082	rsr	
Surrogate: Tetrachloro-meta-xylene	103 %		11-140		12/27/17 19:02	EPA 8082	rsr	
Surrogate: Decachlorobiphenyl	105 %		24.4-140		12/27/17 19:02	EPA 8082	rsr	

Semivolatile Organic Compounds by EPA Extraction Method 3541

Benzidine	<0.275	0.275	3.93	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	F
Pyridine	<0.409	0.409	1.57	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Diphenylamine	<0.0943	0.0943	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	F
Acenaphthene	<0.0550	0.0550	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	

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(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Client Sample ID: YUKON-CLARIFIER-12 13 17

Date/Time Sampled: 12/13/17 14:40

Laboratory Sample ID: 7L15058-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Acenaphthylene	<0.0628	0.0628	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Anthracene	<0.0393	0.0393	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Benzoic acid	<0.338	0.338	7.86	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Benzo (a) anthracene	0.141 J	0.0393	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Benzo (b) fluoranthene	0.110 J	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Benzo (k) fluoranthene	<0.0550	0.0550	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Benzo (g,h,i) perylene	<0.0628	0.0628	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Benzo (a) pyrene	0.110 J	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Benzyl alcohol	<0.110	0.110	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Bis(2-chloroethoxy)methane	<0.110	0.110	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	A9
Bis(2-chloroethyl)ether	<0.0864	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Bis(2-chloroisopropyl)ether	<0.0471	0.0471	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	A9
Bis(2-ethylhexyl)phthalate	1.27	0.236	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
4-Bromophenyl phenyl ether	<0.0550	0.0550	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Butyl benzyl phthalate	<0.0943	0.0943	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
4-Chloroaniline	<0.102	0.102	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
4-Chloro-3-methylphenol	<0.0707	0.0707	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2-Chloronaphthalene	<0.0471	0.0471	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	

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Key Environmental

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Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

2-Chlorophenol	<0.0393	0.0393	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
4-Chlorophenyl phenyl ether	<0.102	0.102	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Chrysene	0.0786 J	0.0393	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Dibenz (a,h) anthracene	<0.0550	0.0550	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Dibenzofuran	<0.0236	0.0236	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Di-n-butyl phthalate	0.306 J	0.165	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
1,2-Dichlorobenzene	<0.0707	0.0707	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
1,3-Dichlorobenzene	<0.0393	0.0393	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
1,4-Dichlorobenzene	<0.0393	0.0393	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
3,3'-Dichlorobenzidine	<0.0707	0.0707	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2,4-Dichlorophenol	<0.0864	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Diethyl phthalate	<0.0786	0.0786	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2,4-Dimethylphenol	<0.0628	0.0628	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Dimethyl phthalate	<0.0471	0.0471	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
4,6-Dinitro-2-methylphenol	<0.251	0.251	3.93	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2,4-Dinitrophenol	<0.204	0.204	3.93	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2,4-Dinitrotoluene	<0.165	0.165	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2,6-Dinitrotoluene	<0.149	0.149	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	

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State Certifications: MD 275, WV 364

Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

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Laboratory Sample ID: 7L15058-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Di-n-octyl phthalate	0.134 J	0.0550	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Aniline	0.0864 J	0.0550	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Naphthalene	0.0707 J	0.0471	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
N-Nitrosodimethylamine	<0.102	0.102	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
3 & 4-Methylphenol	<0.0707	0.0707	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Acetophenone	<0.0864	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
1,2-Diphenylhydrazine	<0.0314	0.0314	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Fluoranthene	0.181 J	0.0393	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Fluorene	0.0471 J	0.0314	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Hexachlorobenzene	<0.0943	0.0943	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Hexachlorobutadiene	<0.102	0.102	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Hexachlorocyclopentadiene	<0.196	0.196	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Hexachloroethane	<0.0943	0.0943	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Indeno (1,2,3-cd) pyrene	<0.0864	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Isophorone	<0.0864	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2-Methylnaphthalene	0.0786 J	0.0628	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2-Methylphenol	<0.126	0.126	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2-Nitroaniline	<0.0864	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

3-Nitroaniline	<0.220	0.220	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
4-Nitroaniline	<0.181	0.181	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Nitrobenzene	<0.102	0.102	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2-Nitrophenol	<0.118	0.118	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
4-Nitrophenol	<0.196	0.196	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
N-Nitrosodi-n-propylamine	<0.0786	0.0786	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Pentachlorophenol	<0.196	0.196	3.93	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Phenanthrene	0.149 J	0.0393	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Phenol	0.471 J	0.102	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Pyrene	0.141 J	0.0550	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
1,2,4-Trichlorobenzene	<0.0864	0.0864	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2,4,5-Trichlorophenol	<0.134	0.134	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
2,4,6-Trichlorophenol	<0.126	0.126	0.786	mg/kg dry	12/22/17 06:44	EPA 8270D	rsr	
Surrogate: 2-Fluorophenol	91 %		10-169		12/22/17 06:44	EPA 8270D	rsr	
Surrogate: Phenol-d6	90 %		10-166		12/22/17 06:44	EPA 8270D	rsr	
Surrogate: Nitrobenzene-d5	88 %		18.8-170		12/22/17 06:44	EPA 8270D	rsr	
Surrogate: 2-Fluorobiphenyl	91 %		35.1-154		12/22/17 06:44	EPA 8270D	rsr	
Surrogate: 2,4,6-Tribromophenol	86 %		20-158		12/22/17 06:44	EPA 8270D	rsr	
Surrogate: Terphenyl-d14	99 %		52.1-160		12/22/17 06:44	EPA 8270D	rsr	

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Extraction by EPA 1311

# pH @ 20.4°C	7.05			pH Units	12/27/17 08:42	EPA 1311	cjw

TCLP Metals extracted by EPA 1311

Silver	<0.00600	0.00600	0.0200	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr
Aluminum	0.101 J	0.0650	0.500	mg/l	12/31/17 12:51	EPA 6010B/2.0	sr
Arsenic	0.0280 J	0.0160	0.0400	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr
Barium	0.762	0.0150	0.0500	mg/l	12/31/17 12:51	EPA 6010B/2.0	sr
Beryllium	<0.00120	0.00120	0.0100	mg/l	12/31/17 12:52	EPA 6010B/2.0	sr
Cadmium	<0.00245	0.00245	0.0200	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr
Cobalt	<0.00700	0.00700	0.0500	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr
Chromium	<0.000750	0.000750	0.0250	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr
Copper	0.0123 J	0.00650	0.0500	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr
Iron	0.172 J	0.0250	0.200	mg/l	12/31/17 12:51	EPA 6010B/2.0	sr

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Metals extracted by EPA 1311

Mercury	<0.0000590	0.0000590	0.000200	mg/l	12/28/17 14:33	EPA 7471B	jks	Q
Manganese	3.37	0.0105	0.0500	mg/l	12/31/17 12:52	EPA 6010B/2.0	sr	
Nickel	0.223 J	0.0120	0.250	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr	
Lead	<0.0120	0.0120	0.0400	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr	
Antimony	0.0661	0.0190	0.0500	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr	
Selenium	0.0174 J	0.0145	0.100	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr	
Thallium	<0.00900	0.00900	0.100	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr	
Vanadium	0.0795 J	0.0130	0.100	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr	
Zinc	0.258	0.0110	0.100	mg/l	12/31/17 12:53	EPA 6010B/2.0	sr	

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

Benzidine	<11.0	11.0	250	ug/l	01/03/18 19:27	EPA 8270D	CDB	G
Pyridine	<13.5	13.5	100	ug/l	01/03/18 19:27	EPA 8270D	CDB	
1,4-Dichlorobenzene	<4.00	4.00	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

2,4-Dinitrotoluene	<8.50	8.50	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
3 & 4-Methylphenol	<4.50	4.50	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
Hexachlorobenzene	<9.00	9.00	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
Hexachlorobutadiene	<8.00	8.00	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
Hexachloroethane	<5.50	5.50	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
2-Methylphenol	<6.50	6.50	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
Nitrobenzene	<6.00	6.00	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
Pentachlorophenol	<13.5	13.5	250	ug/l	01/03/18 19:27	EPA 8270D	CDB	
2,4,5-Trichlorophenol	<6.00	6.00	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
2,4,6-Trichlorophenol	<6.00	6.00	50.0	ug/l	01/03/18 19:27	EPA 8270D	CDB	
Surrogate: 2-Fluorophenol	32.9 %		30.6-66.8		01/03/18 19:27	EPA 8270D	CDB	
Surrogate: Phenol-d6	26.0 %		17.9-51.5		01/03/18 19:27	EPA 8270D	CDB	
Surrogate: Nitrobenzene-d5	62.6 %		30.6-140		01/03/18 19:27	EPA 8270D	CDB	
Surrogate: 2-Fluorobiphenyl	75.0 %		40.6-121		01/03/18 19:27	EPA 8270D	CDB	
Surrogate: 2,4,6-Tribromophenol	75.3 %		50.4-131		01/03/18 19:27	EPA 8270D	CDB	
Surrogate: Terphenyl-d14	43.1 %		10-185		01/03/18 19:27	EPA 8270D	CDB	

Subcontracted General Chemistry

Sulfide	<72	72	72	mg/kg dry	12/20/17 16:00	SM 4500-S2F	sub	C1a

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Client Sample ID: YUKON-CLARIFIER-12 13 17

Date/Time Sampled: 12/13/17 14:40

Laboratory Sample ID: 7L15058-01 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Subcontracted General Chemistry

Solids, % Total	27.8		1.0	%	12/26/17 14:36	SM 2540 G	sub	G-12, C1a

Subcontracted SW 846 8151A Herbicides (GC)

2,4,5-T	<25.6	25.6	81.1	ug/Kg dry	12/21/17 23:11	SW 846 EPA 8151A	sub	C1
Silvex (2,4,5-TP)	<26.9	26.9	81.1	ug/Kg dry	12/21/17 23:11	SW 846 EPA 8151A	sub	C1
2,4-D	<106	106	324	ug/Kg dry	12/21/17 23:11	SW 846 EPA 8151A	sub	C1
Dicamba	<67.5	67.5	162	ug/Kg dry	12/21/17 23:11	SW 846 EPA 8151A	sub	C1
Dinoseb	<49.1	49.1	52.7	ug/Kg dry	12/21/17 23:11	SW 846 EPA 8151A	sub	C1
Dichlorprop	<110	110	324	ug/Kg dry	12/21/17 23:11	SW 846 EPA 8151A	sub	C1
2,4-DB	<188	188	324	ug/Kg dry	12/21/17 23:11	SW 846 EPA 8151A	sub	C1
Dalapon	<209	209	365	ug/Kg dry	12/21/17 23:11	SW 846 EPA 8151A	sub	C1
<i>Surrogate: 2,4-Dichlorophenylacetic acid</i>		52 %	29-100		12/21/17 23:11	SW 846 EPA 8151A	sub	C1

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control

Metals by Prep Method EPA 3050B

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7349059 - EPA 3050B										
Blank (7349059-BLK1)										
Prepared: 12/21/17 Analyzed: 12/22/17										
Manganese	ND		0.999	mg/kg wet						
Aluminum	5.07	J	9.99	mg/kg wet						
Antimony	ND		0.999	mg/kg wet						
Arsenic	ND		0.799	mg/kg wet						
Barium	0.367	J	0.999	mg/kg wet						
Beryllium	ND		0.200	mg/kg wet						
Cadmium	0.0665	J	0.400	mg/kg wet						
Calcium	18.8	J	49.9	mg/kg wet						
Chromium	ND		0.499	mg/kg wet						
Cobalt	ND		0.999	mg/kg wet						
Copper	0.358	J	0.999	mg/kg wet						
Iron	2.15	J	4.00	mg/kg wet						
Lead	ND		0.799	mg/kg wet						
Magnesium	ND		20.0	mg/kg wet						
Nickel	ND		4.99	mg/kg wet						
Potassium	16.4	J	20.0	mg/kg wet						
Selenium	ND		2.00	mg/kg wet						
Silver	ND		0.400	mg/kg wet						
Sodium	ND		99.9	mg/kg wet						
Thallium	ND		2.00	mg/kg wet						
Zinc	4.63		2.00	mg/kg wet						
Vanadium	ND		2.00	mg/kg wet						

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Key Environmental
200 3rd Avenue
Carnegie PA, 15106
Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING
Project Number: [none]
Collector: CLIENT
Number of Containers: 5
Reported: 03/28/18 12:39

Quality Control (Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7349059 - EPA 3050B (Continued)										
LCS (7349059-BS1)			Prepared: 12/21/17 Analyzed: 12/22/17							
Manganese	201		4.98	mg/kg wet	199		101	80-120		200
Aluminum	1040		49.8	mg/kg wet	995		105	80-120		200
Antimony	178		4.98	mg/kg wet	199		90	80-120		200
Arsenic	78.3		3.98	mg/kg wet	79.6		98	80-120		200
Barium	213		4.98	mg/kg wet	199		107	80-120		200
Beryllium	19.9		0.995	mg/kg wet	19.9		100	80-120		200
Cadmium	40.3		1.99	mg/kg wet	39.8		101	80-120		200
Calcium	2120		249	mg/kg wet	1990		106	80-120		200
Chromium	20.4		2.49	mg/kg wet	19.9		103	80-120		200
Cobalt	203		4.98	mg/kg wet	199		102	80-120		200
Copper	199		4.98	mg/kg wet	199		100	80-120		200
Iron	418		19.9	mg/kg wet	398		105	80-120		200
Lead	82.4		3.98	mg/kg wet	79.6		104	80-120		200
Magnesium	2100		99.5	mg/kg wet	1990		105	80-120		200
Nickel	203		24.9	mg/kg wet	199		102	80-120		200
Potassium	4110		99.5	mg/kg wet	3980		103	80-120		200
Selenium	199		9.95	mg/kg wet	199		100	80-120		200
Silver	38.8		1.99	mg/kg wet	39.8		97	80-120		200
Sodium	4200		498	mg/kg wet	3980		106	80-120		200
Thallium	78.9		9.95	mg/kg wet	79.6		99	80-120		200
Zinc	208		9.95	mg/kg wet	199		104	80-120		200
Vanadium	196		9.95	mg/kg wet	199		98	80-120		200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7349059 - EPA 3050B (Continued)									
Duplicate (7349059-DUP1)			Source: 7L15193-01		Prepared: 12/21/17 Analyzed: 12/22/17				
Aluminum	2980		60.1	mg/kg dry		3320		11	20
Manganese	697		6.01	mg/kg dry		645		8	20
Antimony	ND		6.01	mg/kg dry		ND			20
Arsenic	3.25	J	4.81	mg/kg dry		4.75		37	20
Barium	121		6.01	mg/kg dry		123		2	20
Beryllium	ND		1.20	mg/kg dry		ND			20
Cadmium	ND		2.40	mg/kg dry		0.396		200	20
Calcium	64000		6010	mg/kg dry		89100		33	20
Chromium	15.6		3.00	mg/kg dry		16.7		7	20
Cobalt	1.87	J	6.01	mg/kg dry		1.94		4	20
Copper	107		6.01	mg/kg dry		97.7		9	20
Iron	19200		481	mg/kg dry		17900		7	20
Lead	15.5		4.81	mg/kg dry		17.0		9	20
Magnesium	1280		120	mg/kg dry		1630		24	20
Nickel	6.58	J	30.0	mg/kg dry		7.44		12	20
Potassium	853		120	mg/kg dry		986		14	20
Selenium	ND		12.0	mg/kg dry		ND			20
Silver	1.05	J	2.40	mg/kg dry		1.51		36	20
Sodium	213	J	601	mg/kg dry		227		6	20
Thallium	ND		12.0	mg/kg dry		ND			20
Zinc	286		12.0	mg/kg dry		413		36	20
Vanadium	6.86	J	12.0	mg/kg dry		10.1		38	20

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PaDEP: PA 41-04684



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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7349059 - EPA 3050B (Continued)									
Matrix Spike (7349059-MS1)		Source: 7L15189-04		Prepared: 12/21/17 Analyzed: 12/22/17					
Aluminum	14500		1040	mg/kg dry	1040	10200	410	75-125	200
Manganese	2140		104	mg/kg dry	207	789	653	75-125	200
Antimony	45.1		5.19	mg/kg dry	207	ND	22	75-125	200
Arsenic	96.9		4.15	mg/kg dry	83.0	11.4	103	75-125	200
Barium	348		5.19	mg/kg dry	207	120	110	75-125	200
Beryllium	21.4		1.04	mg/kg dry	20.7	0.386	101	75-125	200
Cadmium	41.6		2.07	mg/kg dry	41.5	0.582	99	75-125	200
Calcium	35100		5190	mg/kg dry	2070	16800	883	75-125	200
Chromium	45.7		2.59	mg/kg dry	20.7	19.3	127	75-125	200
Cobalt	222		5.19	mg/kg dry	207	9.95	102	75-125	200
Copper	251		5.19	mg/kg dry	207	33.4	105	75-125	200
Iron	32500		415	mg/kg dry	415	25800	NR	75-125	200
Lead	158		4.15	mg/kg dry	83.0	55.9	123	75-125	200
Magnesium	9820		104	mg/kg dry	2070	3710	294	75-125	200
Nickel	237		25.9	mg/kg dry	207	17.9	106	75-125	200
Potassium	5430		104	mg/kg dry	4150	1360	98	75-125	200
Selenium	212		10.4	mg/kg dry	207	5.66	99	75-125	200
Silver	41.4		2.07	mg/kg dry	41.5	ND	100	75-125	200
Sodium	4700		519	mg/kg dry	4150	238	108	75-125	200
Thallium	66.4		10.4	mg/kg dry	83.0	ND	80	75-125	200
Zinc	290		10.4	mg/kg dry	207	66.3	108	75-125	200
Vanadium	232		10.4	mg/kg dry	207	25.9	99	75-125	200

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Key Environmental

Project: YUKON SLUDGE SAMPLING

200 3rd Avenue

Project Number: [none]

Reported:

Carnegie PA, 15106

Collector: CLIENT

03/28/18 12:39

Project Manager: Bert Hubbard

Number of Containers: 5

Quality Control
(Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7349059 - EPA 3050B (Continued)									
Matrix Spike (7349059-MS2)		Source: 7L15193-01		Prepared: 12/21/17 Analyzed: 12/22/17					
Aluminum	4550		59.2	mg/kg dry	1180	3320	104	75-125	200
Manganese	932		5.92	mg/kg dry	237	645	121	75-125	200
Antimony	149		5.92	mg/kg dry	237	ND	63	75-125	200
Arsenic	101		4.74	mg/kg dry	94.7	4.75	102	75-125	200
Barium	371		5.92	mg/kg dry	237	123	105	75-125	200
Beryllium	24.0		1.18	mg/kg dry	23.7	ND	101	75-125	200
Cadmium	47.3		2.37	mg/kg dry	47.4	0.396	99	75-125	200
Calcium	67300		5920	mg/kg dry	2370	89100	NR	75-125	200
Chromium	42.1		2.96	mg/kg dry	23.7	16.7	107	75-125	200
Cobalt	238		5.92	mg/kg dry	237	1.94	100	75-125	200
Copper	351		5.92	mg/kg dry	237	97.7	107	75-125	200
Iron	21100		474	mg/kg dry	474	17900	682	75-125	200
Lead	116		4.74	mg/kg dry	94.7	17.0	104	75-125	200
Magnesium	3790		118	mg/kg dry	2370	1630	91	75-125	200
Nickel	258		29.6	mg/kg dry	237	7.44	106	75-125	200
Potassium	5690		118	mg/kg dry	4740	986	99	75-125	200
Selenium	245		11.8	mg/kg dry	237	ND	103	75-125	200
Silver	47.1		2.37	mg/kg dry	47.4	1.51	96	75-125	200
Sodium	5100		592	mg/kg dry	4740	227	103	75-125	200
Thallium	88.3		11.8	mg/kg dry	94.7	ND	93	75-125	200
Zinc	748		11.8	mg/kg dry	237	413	141	75-125	200
Vanadium	248		11.8	mg/kg dry	237	10.1	101	75-125	200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit



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Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control

(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7353052 - Volatiles										
Blank (7353052-BLK1)										
					Prepared: 12/19/17 Analyzed: 12/20/17					
1,3,5-Trimethylbenzene	ND		0.0050	mg/kg wet						
1,2,4-Trimethylbenzene	ND		0.0050	mg/kg wet						
Benzene	ND		0.0020	mg/kg wet						
Toluene	ND		0.0050	mg/kg wet						
Ethylbenzene	ND		0.0050	mg/kg wet						
Isopropylbenzene	ND		0.0050	mg/kg wet						
Methyl tert-butyl ether	ND		0.0050	mg/kg wet						
Naphthalene	ND		0.0050	mg/kg wet						
Acrylonitrile	ND		0.0100	mg/kg wet						
Bromobenzene	ND		0.0050	mg/kg wet						
Bromochloromethane	ND		0.0050	mg/kg wet						
Bromodichloromethane	ND		0.0050	mg/kg wet						
Bromoform	ND		0.0050	mg/kg wet						
Bromomethane	ND		0.0050	mg/kg wet						
sec-Butylbenzene	ND		0.0050	mg/kg wet						
tert-Butylbenzene	ND		0.0050	mg/kg wet						
n-Butylbenzene	ND		0.0050	mg/kg wet						
Carbon disulfide	ND		0.0050	mg/kg wet						
Chlorobenzene	ND		0.0050	mg/kg wet						
Chloroethane	ND		0.0050	mg/kg wet						
Chloroform	ND		0.0050	mg/kg wet						
Chloromethane	ND		0.0050	mg/kg wet						
4-Chlorotoluene	ND		0.0050	mg/kg wet						
2-Chlorotoluene	ND		0.0050	mg/kg wet						
1,2-Dibromo-3-chloropropane	ND		0.0050	mg/kg wet						

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Key Environmental

Project: YUKON SLUDGE SAMPLING

200 3rd Avenue

Project Number: [none]

Reported:

Carnegie PA, 15106

Collector: CLIENT

03/28/18 12:39

Project Manager: Bert Hubbard

Number of Containers: 5

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7353052 - Volatiles (Continued)										
Blank (7353052-BLK1)										
Prepared: 12/19/17 Analyzed: 12/20/17										
Dibromochloromethane	ND		0.0050	mg/kg wet						
1,2-Dibromoethane (EDB)	ND		0.0020	mg/kg wet						
Dibromomethane	ND		0.0050	mg/kg wet						
trans-1,4-Dichloro-2-butene	ND		0.0050	mg/kg wet						
1,2-Dichlorobenzene	ND		0.0050	mg/kg wet						
1,4-Dichlorobenzene	ND		0.0050	mg/kg wet						
1,3-Dichlorobenzene	ND		0.0050	mg/kg wet						
Dichlorodifluoromethane	ND		0.0050	mg/kg wet						
1,2-Dichloroethane	ND		0.0020	mg/kg wet						
1,1-Dichloroethane	ND		0.0050	mg/kg wet						
trans-1,2-Dichloroethene	ND		0.0050	mg/kg wet						
cis-1,2-Dichloroethene	ND		0.0050	mg/kg wet						
1,1-Dichloroethene	ND		0.0050	mg/kg wet						
2,2-Dichloropropane	ND		0.0050	mg/kg wet						
1,3-Dichloropropane	ND		0.0050	mg/kg wet						
1,2-Dichloropropane	ND		0.0050	mg/kg wet						
trans-1,3-Dichloropropene	ND		0.0050	mg/kg wet						
1,1-Dichloropropene	ND		0.0050	mg/kg wet						
cis-1,3-Dichloropropene	ND		0.0050	mg/kg wet						
Hexachlorobutadiene	ND		0.0050	mg/kg wet						
p-Isopropyltoluene	ND		0.0050	mg/kg wet						
Methylene chloride	ND		0.0200	mg/kg wet						
n-Propylbenzene	ND		0.0050	mg/kg wet						
Styrene	ND		0.0050	mg/kg wet						
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/kg wet						

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Key Environmental
200 3rd Avenue
Carnegie PA, 15106
Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING
Project Number: [none]
Collector: CLIENT
Number of Containers: 5
Reported: 03/28/18 12:39

Quality Control (Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7353052 - Volatiles (Continued)									
Blank (7353052-BLK1)					Prepared: 12/19/17 Analyzed: 12/20/17				
1,1,1,2-Tetrachloroethane	ND		0.0050	mg/kg wet					
Tetrachloroethene	ND		0.0050	mg/kg wet					
1,2,4-Trichlorobenzene	ND		0.0050	mg/kg wet					
1,2,3-Trichlorobenzene	ND		0.0050	mg/kg wet					
1,1,1-Trichloroethane	ND		0.0050	mg/kg wet					
1,1,2-Trichloroethane	ND		0.0050	mg/kg wet					
Trichloroethene	ND		0.0050	mg/kg wet					
Trichlorofluoromethane	ND		0.0050	mg/kg wet					
1,2,3-Trichloropropane	ND		0.0050	mg/kg wet					
Vinyl chloride	ND		0.0020	mg/kg wet					
o-Xylene	ND		0.0050	mg/kg wet					
m,p-Xylene	ND		0.0050	mg/kg wet					
<i>Surrogate: 4-Bromofluorobenzene</i>			0.101	mg/kg wet	0.100		101	70-130	
<i>Surrogate: 1,2-Dichloroethane-d4</i>			0.123	mg/kg wet	0.100		123	70-130	
<i>Surrogate: Fluorobenzene</i>			0.109	mg/kg wet	0.100		109	70-130	
LCS (7353052-BS1)					Prepared: 12/19/17 Analyzed: 12/20/17				
1,3,5-Trimethylbenzene	0.053		0.0050	mg/kg wet	0.0500		107	70-130	200
1,2,4-Trimethylbenzene	0.051		0.0050	mg/kg wet	0.0500		101	70-130	200
Benzene	0.052		0.0020	mg/kg wet	0.0500		105	70-130	200
Toluene	0.050		0.0050	mg/kg wet	0.0500		100	70-130	200
Ethylbenzene	0.053		0.0050	mg/kg wet	0.0500		105	70-130	200
Isopropylbenzene	0.053		0.0050	mg/kg wet	0.0500		106	70-130	200
Methyl tert-butyl ether	0.058		0.0050	mg/kg wet	0.0500		115	70-130	200
Naphthalene	0.050		0.0050	mg/kg wet	0.0500		100	70-130	200

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7353052 - Volatiles (Continued)										
LCS (7353052-BS1)										
Prepared: 12/19/17 Analyzed: 12/20/17										
Acrylonitrile	0.052		0.0100	mg/kg wet	0.0500		104	70-130		200
Bromobenzene	0.056		0.0050	mg/kg wet	0.0500		112	70-130		200
Bromochloromethane	0.051		0.0050	mg/kg wet	0.0500		102	70-130		200
Bromodichloromethane	0.057		0.0050	mg/kg wet	0.0500		115	70-130		200
Bromoform	0.051		0.0050	mg/kg wet	0.0500		103	70-130		200
Bromomethane	0.052		0.0050	mg/kg wet	0.0500		103	70-130		200
sec-Butylbenzene	0.054		0.0050	mg/kg wet	0.0500		108	70-130		200
tert-Butylbenzene	0.050		0.0050	mg/kg wet	0.0500		100	70-130		200
n-Butylbenzene	0.052		0.0050	mg/kg wet	0.0500		103	70-130		200
Carbon disulfide	0.049		0.0050	mg/kg wet	0.0500		97	70-130		200
Chlorobenzene	0.052		0.0050	mg/kg wet	0.0500		104	70-130		200
Chloroethane	0.052		0.0050	mg/kg wet	0.0500		104	70-130		200
Chloroform	0.054		0.0050	mg/kg wet	0.0500		108	70-130		200
Chloromethane	0.048		0.0050	mg/kg wet	0.0500		95	70-130		200
4-Chlorotoluene	0.052		0.0050	mg/kg wet	0.0500		105	70-130		200
2-Chlorotoluene	0.052		0.0050	mg/kg wet	0.0500		104	70-130		200
1,2-Dibromo-3-chloropropane	0.049		0.0050	mg/kg wet	0.0500		98	70-130		200
Dibromochloromethane	0.055		0.0050	mg/kg wet	0.0500		110	70-130		200
1,2-Dibromoethane (EDB)	0.055		0.0020	mg/kg wet	0.0500		109	70-130		200
Dibromomethane	0.052		0.0050	mg/kg wet	0.0500		103	70-130		200
trans-1,4-Dichloro-2-butene	0.051		0.0050	mg/kg wet	0.0500		102	70-130		200
1,2-Dichlorobenzene	0.049		0.0050	mg/kg wet	0.0500		99	70-130		200
1,4-Dichlorobenzene	0.048		0.0050	mg/kg wet	0.0500		96	70-130		200
1,3-Dichlorobenzene	0.051		0.0050	mg/kg wet	0.0500		101	70-130		200
Dichlorodifluoromethane	0.057		0.0050	mg/kg wet	0.0500		115	70-130		200

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Key Environmental

Project: YUKON SLUDGE SAMPLING

200 3rd Avenue

Project Number: [none]

Reported:

Carnegie PA, 15106

Collector: CLIENT

03/28/18 12:39

Project Manager: Bert Hubbard

Number of Containers: 5

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7353052 - Volatiles (Continued)									
LCS (7353052-BS1)									
Prepared: 12/19/17 Analyzed: 12/20/17									
1,2-Dichloroethane	0.057		0.0020	mg/kg wet	0.0500		115 70-130		200
1,1-Dichloroethane	0.056		0.0050	mg/kg wet	0.0500		112 70-130		200
trans-1,2-Dichloroethene	0.056		0.0050	mg/kg wet	0.0500		112 70-130		200
cis-1,2-Dichloroethene	0.057		0.0050	mg/kg wet	0.0500		114 70-130		200
1,1-Dichloroethane	0.057		0.0050	mg/kg wet	0.0500		114 70-130		200
2,2-Dichloropropane	0.055		0.0050	mg/kg wet	0.0500		110 70-130		200
1,3-Dichloropropane	0.056		0.0050	mg/kg wet	0.0500		111 70-130		200
1,2-Dichloropropane	0.058		0.0050	mg/kg wet	0.0500		115 70-130		200
trans-1,3-Dichloropropene	0.054		0.0050	mg/kg wet	0.0500		107 70-130		200
1,1-Dichloropropene	0.051		0.0050	mg/kg wet	0.0500		102 70-130		200
cis-1,3-Dichloropropene	0.055		0.0050	mg/kg wet	0.0500		110 70-130		200
Hexachlorobutadiene	0.050		0.0050	mg/kg wet	0.0500		100 70-130		200
p-Isopropyltoluene	0.053		0.0050	mg/kg wet	0.0500		106 70-130		200
Methylene chloride	0.055		0.0200	mg/kg wet	0.0500		111 70-130		200
n-Propylbenzene	0.053		0.0050	mg/kg wet	0.0500		106 70-130		200
Styrene	0.053		0.0050	mg/kg wet	0.0500		105 70-130		200
1,1,2,2-Tetrachloroethane	0.056		0.0050	mg/kg wet	0.0500		111 70-130		200
1,1,1,2-Tetrachloroethane	0.053		0.0050	mg/kg wet	0.0500		105 70-130		200
Tetrachloroethene	0.045		0.0050	mg/kg wet	0.0500		91 70-130		200
1,2,4-Trichlorobenzene	0.052		0.0050	mg/kg wet	0.0500		104 70-130		200
1,2,3-Trichlorobenzene	0.048		0.0050	mg/kg wet	0.0500		95 70-130		200
1,1,1-Trichloroethane	0.055		0.0050	mg/kg wet	0.0500		110 70-130		200
1,1,2-Trichloroethane	0.051		0.0050	mg/kg wet	0.0500		101 70-130		200
Trichloroethene	0.049		0.0050	mg/kg wet	0.0500		99 70-130		200
Trichlorofluoromethane	0.061		0.0050	mg/kg wet	0.0500		121 70-130		200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7353052 - Volatiles (Continued)									
LCS (7353052-BS1)					Prepared: 12/19/17 Analyzed: 12/20/17				
1,2,3-Trichloropropane	0.060		0.0050	mg/kg wet	0.0500		121 70-130		200
Vinyl chloride	0.044		0.0020	mg/kg wet	0.0500		87 70-130		200
o-Xylene	0.053		0.0050	mg/kg wet	0.0500		105 70-130		200
m,p-Xylene	0.106		0.0050	mg/kg wet	0.100		106 70-130		200
Surrogate: 4-Bromofluorobenzene			0.101	mg/kg wet	0.100		101 70-130		
Surrogate: 1,2-Dichloroethane-d4			0.116	mg/kg wet	0.100		116 70-130		
Surrogate: Fluorobenzene			0.110	mg/kg wet	0.100		110 70-130		

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Analyses to be performed immediately upon sampling. See Definition indicated by: #

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7352010 - General Prep									
Duplicate (7352010-DUP1)									
# pH	9.73		Source: 7L14040-02	pH Units		Prepared: 12/18/17 Analyzed: 12/19/17 9.17		5.93	10
Duplicate (7352010-DUP2)									
# pH	8.60		Source: 7L15024-05	pH Units		Prepared: 12/18/17 Analyzed: 12/19/17 8.78		2.07	10

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Conventional Chemistry Parameters by SM/EPA Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7353019 - General Prep									
Blank (7353019-BLK1)									
% Solids	ND		0.100	%					
Prepared & Analyzed: 12/19/17									
Blank (7353019-BLK2)									
% Solids	ND		0.100	%					
Prepared & Analyzed: 12/19/17									
Duplicate (7353019-DUP1)		Source: 7L13059-01							
% Solids	23.1		0.100	%		28.7		21.6	5
Prepared & Analyzed: 12/19/17									
Duplicate (7353019-DUP2)		Source: 7L15191-01							
% Solids	86.8		0.100	%		91.8		5.58	5
Prepared & Analyzed: 12/19/17									

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Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Cyanide by Preparation Method EPA 9010

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7353029 - General Prep									
Blank (7353029-BLK1)									
Cyanide (total)	ND		0.471	mg/kg wet					
Prepared & Analyzed: 12/19/17									
LCS (7353029-BS1)									
Cyanide (total)	9.28		0.460	mg/kg wet	9.20		101 85-115		200
Prepared & Analyzed: 12/19/17									
Duplicate (7353029-DUP1)									
Cyanide (total)	ND		0.511	mg/kg dry		ND			10
Source: 7L15024-05									
Prepared & Analyzed: 12/19/17									



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Carnegie PA, 15106

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Project: YUKON SLUDGE SAMPLING

Project Number: [none]

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Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7354088 - EPA 7471A									
Blank (7354088-BLK1)									
Mercury	ND		0.0313	mg/kg wet					
Prepared: 12/20/17 Analyzed: 12/22/17									
LCS (7354088-BS1)									
Mercury	0.3037		0.0316	mg/kg wet	0.320		95.0 85-115		200
Prepared: 12/20/17 Analyzed: 12/22/17									
Matrix Spike (7354088-MS1)									
Mercury	0.2068		0.0318	mg/kg dry	0.161	0.04674	99.6 70-130		20
Prepared: 12/20/17 Analyzed: 12/22/17									
Matrix Spike (7354088-MS2)									
Mercury	0.5089		0.0353	mg/kg dry	0.179	0.3404	94.4 70-130		20
Prepared: 12/20/17 Analyzed: 12/22/17									
Matrix Spike Dup (7354088-MSD2)									
Mercury	0.4718		0.0346	mg/kg dry	0.175	0.3404	75.1 70-130	7.56	20
Prepared: 12/20/17 Analyzed: 12/22/17									

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Key Environmental

Project: YUKON SLUDGE SAMPLING

200 3rd Avenue

Project Number: [none]

Reported:

Carnegie PA, 15106

Collector: CLIENT

03/28/18 12:39

Project Manager: Bert Hubbard

Number of Containers: 5

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7361016 - EPA 3541									
Blank (7361016-BLK1)					Prepared: 12/26/17 Analyzed: 12/27/17				
Aldrin	ND		2.00	ug/kg wet					
alpha-BHC	ND		2.00	ug/kg wet					
beta-BHC	ND		2.00	ug/kg wet					
delta-BHC	ND		2.00	ug/kg wet					
gamma-BHC (Lindane)	ND		2.00	ug/kg wet					
Chlordane (tech)	ND		100	ug/kg wet					
4,4'-DDD	ND		2.00	ug/kg wet					
4,4'-DDE	ND		2.00	ug/kg wet					
4,4'-DDT	ND		2.00	ug/kg wet					
Dieldrin	ND		2.00	ug/kg wet					
Endosulfan I	ND		2.00	ug/kg wet					
Endosulfan II	ND		2.00	ug/kg wet					
Endosulfan sulfate	ND		2.00	ug/kg wet					
Endrin	ND		2.00	ug/kg wet					
Endrin aldehyde	ND		2.00	ug/kg wet					
Heptachlor	ND		2.00	ug/kg wet					
Heptachlor epoxide	ND		2.00	ug/kg wet					
Methoxychlor	ND		2.00	ug/kg wet					
Toxaphene	ND		100	ug/kg wet					
alpha-Chlordane	ND		2.00	ug/kg wet					
gamma-Chlordane	ND		2.00	ug/kg wet					
Endrin ketone	ND		2.00	ug/kg wet					
Surrogate: Tetrachloro-meta-xylene			18.7	ug/l	20.0		93.6	40-157	
Surrogate: Decachlorobiphenyl			22.8	ug/l	20.0		114	57.1-153	

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200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7361016 - EPA 3541 (Continued)									
LCS (7361016-BS1)					Prepared: 12/26/17 Analyzed: 12/27/17				
Hexachlorocyclopentadiene	1.98	J	2.00	ug/kg wet	12.0	16.5	10-136		200
Hexachlorobenzene	12.3		2.00	ug/kg wet	12.0	102	21.9-123		200
Aldrin	12.4		2.00	ug/kg wet	12.0	103	30.3-98.1		200
alpha-BHC	9.80		2.00	ug/kg wet	12.0	81.7	35.2-102		200
beta-BHC	14.0		2.00	ug/kg wet	12.0	117	35.2-126		200
delta-BHC	14.3		2.00	ug/kg wet	12.0	119	10-129		200
gamma-BHC (Lindane)	12.0		2.00	ug/kg wet	12.0	99.6	40.5-107		200
Chlordane (tech)	ND		100	ug/kg wet			80-120		200
4,4'-DDD	11.0		2.00	ug/kg wet	12.0	91.3	39-114		200
4,4'-DDE	11.5		2.00	ug/kg wet	12.0	95.5	44.7-112		200
4,4'-DDT	16.9		2.00	ug/kg wet	12.0	141	36.1-126		200
Dieldrin	11.9		2.00	ug/kg wet	12.0	99.5	42.2-116		200
Endosulfan I	11.8		2.00	ug/kg wet	12.0	98.0	10-79.2		200
Endosulfan II	15.9		2.00	ug/kg wet	12.0	132	10-63.3		200
Endosulfan sulfate	21.8		2.00	ug/kg wet	12.0	181	49.1-111		200
Endrin	13.5		2.00	ug/kg wet	12.0	113	41.7-127		200
Endrin aldehyde	13.1		2.00	ug/kg wet	12.0	109	45.3-128		200
Heptachlor	9.99		2.00	ug/kg wet	12.0	83.2	32.6-143		200
Heptachlor epoxide	11.4		2.00	ug/kg wet	12.0	94.8	43.8-111		200
Methoxychlor	17.1		2.00	ug/kg wet	12.0	142	52.8-131		200
Toxaphene	ND		100	ug/kg wet			80-120		200
alpha-Chlordane	9.95		2.00	ug/kg wet	12.0	82.9	38.6-106		200
gamma-Chlordane	11.5		2.00	ug/kg wet	12.0	95.9	45.3-152		200
Endrin ketone	15.2		2.00	ug/kg wet	12.0	127	46-128		200
Surrogate: Tetrachloro-meta-xylene			22.3	ug/l	20.0	112	40-157		

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Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7361016 - EPA 3541 (Continued)									
LCS (7361016-BS1)					Prepared: 12/26/17 Analyzed: 12/27/17				
Surrogate: Decachlorobiphenyl			26.2	ug/l	20.0	131	57.1-153		

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Key Environmental
200 3rd Avenue
Carnegie PA, 15106
Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING
Project Number: [none]
Collector: CLIENT
Number of Containers: 5
Reported: 03/28/18 12:39

Quality Control (Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7356012 - EPA 3541									
Blank (7356012-BLK1)					Prepared: 12/22/17 Analyzed: 12/27/17				
PCB-1016	ND		0.010	mg/kg wet					
PCB-1221	ND		0.010	mg/kg wet					
PCB-1232	ND		0.010	mg/kg wet					
PCB-1242	ND		0.010	mg/kg wet					
PCB-1248	ND		0.010	mg/kg wet					
PCB-1254	ND		0.010	mg/kg wet					
PCB-1260	ND		0.010	mg/kg wet					
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0917	mg/l	0.100		91.7	11-140	
<i>Surrogate: Decachlorobiphenyl</i>			0.103	mg/l	0.100		103	24.4-140	
LCS (7356012-BS1)					Prepared: 12/22/17 Analyzed: 12/27/17				
PCB-1016	ND		0.010	mg/kg wet			60.9-137		200
PCB-1221	0.098			mg/l	0.100		98.4	60.3-143	200
PCB-1232	ND		0.010	mg/kg wet			56.2-138		200
PCB-1242	ND		0.010	mg/kg wet			55.1-135		200
PCB-1248	ND		0.010	mg/kg wet			57.8-140		200
PCB-1254	0.089			mg/l	0.100		89.2	69.4-134	200
PCB-1260	ND		0.010	mg/kg wet			58.1-140		200
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.104	mg/l	0.100		104	11-140	
<i>Surrogate: Decachlorobiphenyl</i>			0.115	mg/l	0.100		115	24.4-140	
Matrix Spike (7356012-MS1)			Source: 7L14055-01		Prepared: 12/22/17 Analyzed: 12/27/17				
PCB-1016	ND		0.012	mg/kg dry		ND	27.6-156		38.1
PCB-1221	0.182			mg/l	0.100	0.00	182	10-187	46.3
PCB-1232	ND		0.012	mg/kg dry		ND	54.6-146		47.4

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Key Environmental

Project: YUKON SLUDGE SAMPLING

200 3rd Avenue

Project Number: [none]

Reported:

Carnegie PA, 15106

Collector: CLIENT

03/28/18 12:39

Project Manager: Bert Hubbard

Number of Containers: 5

Quality Control (Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7356012 - EPA 3541 (Continued)										
Matrix Spike (7356012-MS1)			Source: 7L14055-01		Prepared: 12/22/17 Analyzed: 12/27/17					
PCB-1242	ND		0.012	mg/kg dry		ND		38.6-147		37.1
PCB-1248	ND		0.012	mg/kg dry		ND		32.1-157		35.4
PCB-1254	0.066			mg/l	0.100	0.00	66.3	20.5-174		30.1
PCB-1260	ND		0.012	mg/kg dry		ND		32.7-155		22.9
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0898	mg/l	0.100		89.8	11-140		
<i>Surrogate: Decachlorobiphenyl</i>			0.0838	mg/l	0.100		83.8	24.4-140		
Matrix Spike Dup (7356012-MSD1)			Source: 7L14055-01		Prepared: 12/22/17 Analyzed: 12/27/17					
PCB-1016	ND		0.012	mg/kg dry		ND		27.6-156		38.1
PCB-1221	0.226			mg/l	0.100	0.00	226	10-187	21.6	46.3
PCB-1232	ND		0.012	mg/kg dry		ND		54.6-146		47.4
PCB-1242	ND		0.012	mg/kg dry		ND		38.6-147		37.1
PCB-1248	ND		0.012	mg/kg dry		ND		32.1-157		35.4
PCB-1254	0.074			mg/l	0.100	0.00	74.1	20.5-174	11.2	30.1
PCB-1260	ND		0.012	mg/kg dry		ND		32.7-155		22.9
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0904	mg/l	0.100		90.4	11-140		
<i>Surrogate: Decachlorobiphenyl</i>			0.0842	mg/l	0.100		84.2	24.4-140		

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C									
Blank (7355009-BLK1)					Prepared: 12/21/17 Analyzed: 12/22/17				
Pyridine	ND		2.00	mg/kg wet					
Diphenylamine	ND		1.00	mg/kg wet					
Benzidine	ND		5.00	mg/kg wet					
Acenaphthene	ND		1.00	mg/kg wet					
Acenaphthylene	ND		1.00	mg/kg wet					
Anthracene	ND		1.00	mg/kg wet					
Benzoic acid	ND		10.0	mg/kg wet					
Benzo (a) anthracene	0.120	J	1.00	mg/kg wet					
Benzo (b) fluoranthene	ND		1.00	mg/kg wet					
Benzo (k) fluoranthene	ND		1.00	mg/kg wet					
Benzo (g,h,i) perylene	ND		1.00	mg/kg wet					
Benzo (a) pyrene	ND		1.00	mg/kg wet					
Benzyl alcohol	ND		1.00	mg/kg wet					
Bis(2-chloroethyl)ether	ND		1.00	mg/kg wet					
Bis(2-ethylhexyl)phthalate	ND		1.00	mg/kg wet					
4-Bromophenyl phenyl ether	ND		1.00	mg/kg wet					
Butyl benzyl phthalate	ND		1.00	mg/kg wet					
4-Chloroaniline	ND		1.00	mg/kg wet					
4-Chloro-3-methylphenol	ND		1.00	mg/kg wet					
2-Chloronaphthalene	ND		1.00	mg/kg wet					
2-Chlorophenol	ND		1.00	mg/kg wet					
4-Chlorophenyl phenyl ether	ND		1.00	mg/kg wet					
Chrysene	0.0700	J	1.00	mg/kg wet					
Dibenz (a,h) anthracene	ND		1.00	mg/kg wet					
Dibenzofuran	ND		1.00	mg/kg wet					

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PaDEP: PA 41-04684



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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
Blank (7355009-BLK1)					Prepared: 12/21/17 Analyzed: 12/22/17				
Di-n-butyl phthalate	ND		1.00	mg/kg wet					
1,2-Dichlorobenzene	ND		1.00	mg/kg wet					
1,3-Dichlorobenzene	ND		1.00	mg/kg wet					
1,4-Dichlorobenzene	0.0600	J	1.00	mg/kg wet					
3,3'-Dichlorobenzidine	ND		1.00	mg/kg wet					
2,4-Dichlorophenol	ND		1.00	mg/kg wet					
Diethyl phthalate	ND		1.00	mg/kg wet					
2,4-Dimethylphenol	ND		1.00	mg/kg wet					
Dimethyl phthalate	ND		1.00	mg/kg wet					
4,6-Dinitro-2-methylphenol	ND		5.00	mg/kg wet					
2,4-Dinitrophenol	ND		5.00	mg/kg wet					
2,4-Dinitrotoluene	ND		1.00	mg/kg wet					
2,6-Dinitrotoluene	ND		1.00	mg/kg wet					
Di-n-octyl phthalate	ND		1.00	mg/kg wet					
Aniline	ND		1.00	mg/kg wet					
Naphthalene	ND		1.00	mg/kg wet					
N-Nitrosodimethylamine	ND		1.00	mg/kg wet					
Acetophenone	ND		1.00	mg/kg wet					
3 & 4-Methylphenol	ND		1.00	mg/kg wet					
1,2-Diphenylhydrazine	ND		1.00	mg/kg wet					
Fluoranthene	0.0800	J	1.00	mg/kg wet					
Fluorene	ND		1.00	mg/kg wet					
Hexachlorobenzene	ND		1.00	mg/kg wet					
Hexachlorobutadiene	ND		1.00	mg/kg wet					
Hexachlorocyclopentadiene	ND		1.00	mg/kg wet					

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)										
Blank (7355009-BLK1)										
Prepared: 12/21/17 Analyzed: 12/22/17										
Hexachloroethane	ND		1.00	mg/kg wet						
Indeno (1,2,3-cd) pyrene	ND		1.00	mg/kg wet						
Isophorone	ND		1.00	mg/kg wet						
2-Methylnaphthalene	ND		1.00	mg/kg wet						
2-Methylphenol	ND		1.00	mg/kg wet						
2-Nitroaniline	ND		1.00	mg/kg wet						
3-Nitroaniline	ND		1.00	mg/kg wet						
4-Nitroaniline	ND		1.00	mg/kg wet						
Nitrobenzene	ND		1.00	mg/kg wet						
2-Nitrophenol	ND		1.00	mg/kg wet						
4-Nitrophenol	ND		1.00	mg/kg wet						
N-Nitrosodi-n-propylamine	ND		1.00	mg/kg wet						
Pentachlorophenol	ND		5.00	mg/kg wet						
Phenanthrene	ND		1.00	mg/kg wet						
Phenol	ND		1.00	mg/kg wet						
Pyrene	ND		1.00	mg/kg wet						
1,2,4-Trichlorobenzene	ND		1.00	mg/kg wet						
2,4,5-Trichlorophenol	ND		1.00	mg/kg wet						
2,4,6-Trichlorophenol	ND		1.00	mg/kg wet						
Surrogate: 2-Fluorophenol			40.3	mg/l	40.0		101	10-169		
Surrogate: Phenol-d6			39.5	mg/l	40.0		99	10-166		
Surrogate: Nitrobenzene-d5			22.4	mg/l	20.0		112	18.8-170		
Surrogate: 2-Fluorobiphenyl			21.6	mg/l	20.0		108	35.1-154		
Surrogate: 2,4,6-Tribromophenol			34.9	mg/l	40.0		87	20-158		
Surrogate: Terphenyl-d14			22.8	mg/l	20.0		114	52.1-160		

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)										
LCS (7355009-BS1)					Prepared: 12/21/17 Analyzed: 12/22/17					
Pyridine	37.6			mg/l	50.0		75	10-137		10
Diphenylamine	52.2			mg/l	50.0		104	56-103		10
Benzidine	36.4			mg/l	50.0		73	10-35		10
Acenaphthene	47.0			mg/l	50.0		94	63-126		10
Acenaphthylene	51.8			mg/l	50.0		104	63-132		10
Anthracene	51.3			mg/l	50.0		103	68-124		10
Benzoic acid	38.2			mg/l	50.0		76	31-104		10
Benzo (a) anthracene	50.0			mg/l	50.0		100	70-124		10
Benzo (b) fluoranthene	60.4			mg/l	50.0		121	76-125		10
Benzo (k) fluoranthene	54.8			mg/l	50.0		110	71-125		10
Benzo (g,h,i) perylene	59.2			mg/l	50.0		118	73-127		10
Benzo (a) pyrene	55.3			mg/l	50.0		111	71-127		10
Benzyl alcohol	44.3			mg/l	50.0		89	34-138		10
Bis(2-chloroethoxy)methane	48.5			mg/l	50.0		97	39-131		10
Bis(2-chloroethyl)ether	44.7			mg/l	50.0		89	11-149		10
Bis(2-chloroisopropyl)ether	44.5			mg/l	50.0		89	17-154		10
Bis(2-ethylhexyl)phthalate	51.7			mg/l	50.0		103	63-115		10
4-Bromophenyl phenyl ether	48.6			mg/l	50.0		97	68-121		10
Butyl benzyl phthalate	52.6		1.00	mg/kg wet				62-122		10
4-Chloroaniline	36.4			mg/l	50.0		73	34-103		10
4-Chloro-3-methylphenol	49.2			mg/l	50.0		98	62-123		10
2-Chloronaphthalene	47.2			mg/l	50.0		94	57-124		10
2-Chlorophenol	47.1			mg/l	50.0		94	24-142		10
4-Chlorophenyl phenyl ether	48.4			mg/l	50.0		97	65-122		10

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
LCS (7355009-BS1)					Prepared: 12/21/17 Analyzed: 12/22/17				
Chrysene	47.1			mg/l	50.0		94 71-125		10
Dibenz (a,h) anthracene	60.3			mg/l	50.0		121 74-128		10
Dibenzofuran	47.4			mg/l	50.0		95 63-118		10
Di-n-butyl phthalate	49.9			mg/l	50.0		100 72-123		10
1,2-Dichlorobenzene	45.2			mg/l	50.0		90 10-151		10
1,3-Dichlorobenzene	43.6			mg/l	50.0		87 10-156		10
1,4-Dichlorobenzene	45.1			mg/l	50.0		90 10-154		10
3,3'-Dichlorobenzidine	37.6			mg/l	50.0		75 48-107		10
2,4-Dichlorophenol	53.1			mg/l	50.0		106 50-130		10
Diethyl phthalate	50.6			mg/l	50.0		101 67-124		10
2,4-Dimethylphenol	50.7			mg/l	50.0		101 40-111		10
Dimethyl phthalate	49.1			mg/l	50.0		98 66-121		10
4,6-Dinitro-2-methylphenol	38.3			mg/l	50.0		77 10-111		10
2,4-Dinitrophenol	31.4			mg/l	50.0		63 10-111		10
2,4-Dinitrotoluene	47.8			mg/l	50.0		96 66-112		10
2,6-Dinitrotoluene	48.2			mg/l	50.0		96 57-128		10
Di-n-octyl phthalate	59.6			mg/l	50.0		119 56-119		10
Aniline	35.9			mg/l	50.0		72 16-99		10
Naphthalene	47.0			mg/l	50.0		94 32-140		10
N-Nitrosodimethylamine	53.4			mg/l	50.0		107 10-156		10
Acetophenone	43.5			mg/l	50.0		87 27-142		10
3 & 4-Methylphenol	49.8		1.00	mg/kg wet			41-118		10
1,2-Diphenylhydrazine	51.6		1.00	mg/kg wet			60-127		10
Fluoranthene	52.0			mg/l	50.0		104 71-128		10
Fluorene	49.9			mg/l	50.0		100 69-122		10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
LCS (7355009-BS1)					Prepared: 12/21/17 Analyzed: 12/22/17				
Hexachlorobenzene	45.8			mg/l	50.0		92 69-118		10
Hexachlorobutadiene	46.9			mg/l	50.0		94 18-146		10
Hexachlorocyclopentadiene	43.6			mg/l	50.0		87 22-155		10
Hexachloroethane	46.7			mg/l	50.0		93 10-154		10
Indeno (1,2,3-cd) pyrene	61.1			mg/l	50.0		122 73-130		10
Isophorone	50.6			mg/l	50.0		101 42-131		10
2-Methylnaphthalene	45.0			mg/l	50.0		90 47-131		10
2-Methylphenol	47.2			mg/l	50.0		94 35-119		10
2-Nitroaniline	49.7			mg/l	50.0		99 57-128		10
3-Nitroaniline	37.4			mg/l	50.0		75 60-112		10
4-Nitroaniline	46.6			mg/l	50.0		93 44-127		10
Nitrobenzene	49.2			mg/l	50.0		98 28-138		10
2-Nitrophenol	49.8			mg/l	50.0		100 31-144		10
4-Nitrophenol	45.6			mg/l	50.0		91 50-118		10
N-Nitrosodi-n-propylamine	51.5			mg/l	50.0		103 34-135		10
Pentachlorophenol	44.9			mg/l	50.0		90 56-126		10
Phenanthrene	46.1			mg/l	50.0		92 68-118		10
Phenol	44.6			mg/l	50.0		89 32-129		10
Pyrene	48.9			mg/l	50.0		98 70-126		10
1,2,4-Trichlorobenzene	47.9			mg/l	50.0		96 24-141		10
2,4,5-Trichlorophenol	47.3			mg/l	50.0		95 63-138		10
2,4,6-Trichlorophenol	51.2			mg/l	50.0		102 64-128		10
Surrogate: 2-Fluorophenol			41.8	mg/l	40.0		104 35-115		
Surrogate: Phenol-d6			39.5	mg/l	40.0		99 35-115		
Surrogate: Nitrobenzene-d5			23.0	mg/l	20.0		115 35-115		

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
LCS (7355009-BS1)					Prepared: 12/21/17 Analyzed: 12/22/17				
Surrogate: 2-Fluorobiphenyl			21.8	mg/l	20.0		109	40-120	
Surrogate: 2,4,6-Tribromophenol			42.2	mg/l	40.0		106	40-120	
Surrogate: Terphenyl-d14			21.5	mg/l	20.0		107	40-120	
Matrix Spike (7355009-MS1)					Source: 7L15042-01 Prepared: 12/21/17 Analyzed: 12/22/17				
Pyridine	43.0			mg/l	50.0		86	70-130	200
Diphenylamine	57.6			mg/l	50.0		115	70-130	200
Benzidine	ND	1.86		mg/kg dry				70-130	200
Acenaphthene	51.7			mg/l	50.0		103	70-130	200
Acenaphthylene	56.9			mg/l	50.0		114	70-130	200
Anthracene	56.6			mg/l	50.0		113	70-130	200
Benzoic acid	ND	3.73		mg/kg dry				70-130	200
Benzo (a) anthracene	58.7			mg/l	50.0		117	70-130	200
Benzo (b) fluoranthene	68.3			mg/l	50.0		137	70-130	200
Benzo (k) fluoranthene	58.9			mg/l	50.0		118	70-130	200
Benzo (g,h,i) perylene	69.7			mg/l	50.0		139	70-130	200
Benzo (a) pyrene	62.2			mg/l	50.0		124	70-130	200
Benzyl alcohol	48.6			mg/l	50.0		97	70-130	200
Bis(2-chloroethoxy)methane	53.7			mg/l	50.0		107	70-130	200
Bis(2-chloroethyl)ether	50.4			mg/l	50.0		101	70-130	200
Bis(2-chloroisopropyl)ether	49.6			mg/l	50.0		99	70-130	200
Bis(2-ethylhexyl)phthalate	61.2			mg/l	50.0		122	70-130	200
4-Bromophenyl phenyl ether	52.0			mg/l	50.0		104	70-130	200
Butyl benzyl phthalate	23.7	0.373		mg/kg dry				70-130	200
4-Chloroaniline	48.9			mg/l	50.0		98	70-130	200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
Matrix Spike (7355009-MS1)		Source: 7L15042-01		Prepared: 12/21/17 Analyzed: 12/22/17					
4-Chloro-3-methylphenol	55.8			mg/l	50.0		112 70-130		200
2-Chloronaphthalene	52.1			mg/l	50.0		104 70-130		200
2-Chlorophenol	52.5			mg/l	50.0		105 70-130		200
4-Chlorophenyl phenyl ether	53.2			mg/l	50.0		106 70-130		200
Chrysene	53.0			mg/l	50.0		106 70-130		200
Dibenz (a,h) anthracene	67.1			mg/l	50.0		134 70-130		200
Dibenzofuran	53.1			mg/l	50.0		106 70-130		200
Di-n-butyl phthalate	57.7			mg/l	50.0		115 70-130		200
1,2-Dichlorobenzene	48.9			mg/l	50.0		98 70-130		200
1,3-Dichlorobenzene	47.0			mg/l	50.0		94 70-130		200
1,4-Dichlorobenzene	48.4			mg/l	50.0		97 70-130		200
3,3'-Dichlorobenzidine	ND		0.373	mg/kg dry			70-130		200
2,4-Dichlorophenol	58.1			mg/l	50.0		116 70-130		200
Diethyl phthalate	57.7			mg/l	50.0		115 70-130		200
2,4-Dimethylphenol	55.1			mg/l	50.0		110 70-130		200
Dimethyl phthalate	53.9			mg/l	50.0		108 70-130		200
4,6-Dinitro-2-methylphenol	45.1			mg/l	50.0		90 70-130		200
2,4-Dinitrophenol	36.3			mg/l	50.0		73 70-130		200
2,4-Dinitrotoluene	54.3			mg/l	50.0		109 70-130		200
2,6-Dinitrotoluene	53.6			mg/l	50.0		107 70-130		200
Di-n-octyl phthalate	71.0			mg/l	50.0		142 70-130		200
Aniline	46.2			mg/l	50.0		92 70-130		200
Naphthalene	54.6			mg/l	50.0		109 70-130		200
N-Nitrosodimethylamine	58.2			mg/l	50.0		116 70-130		200
Acetophenone	47.4			mg/l	50.0		95 70-130		200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

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Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
Matrix Spike (7355009-MS1)		Source: 7L15042-01		Prepared: 12/21/17 Analyzed: 12/22/17					
3 & 4-Methylphenol	19.7		0.373	mg/kg dry			70-130		200
Fluoranthene	64.5			mg/l	50.0	129	70-130		200
Fluorene	55.3			mg/l	50.0	111	70-130		200
Hexachlorobenzene	50.0			mg/l	50.0	100	70-130		200
Hexachlorobutadiene	52.0			mg/l	50.0	104	70-130		200
Hexachlorocyclopentadiene	40.1			mg/l	50.0	80	70-130		200
Hexachloroethane	45.5			mg/l	50.0	91	70-130		200
Indeno (1,2,3-cd) pyrene	71.2			mg/l	50.0	142	70-130		200
Isophorone	58.1			mg/l	50.0	116	70-130		200
2-Methylnaphthalene	53.2			mg/l	50.0	106	70-130		200
2-Methylphenol	51.5			mg/l	50.0	103	70-130		200
2-Nitroaniline	58.0			mg/l	50.0	116	70-130		200
3-Nitroaniline	50.4			mg/l	50.0	101	70-130		200
4-Nitroaniline	50.7			mg/l	50.0	101	70-130		200
Nitrobenzene	54.9			mg/l	50.0	110	70-130		200
2-Nitrophenol	56.1			mg/l	50.0	112	70-130		200
4-Nitrophenol	51.8			mg/l	50.0	104	70-130		200
N-Nitrosodi-n-propylamine	56.3			mg/l	50.0	113	70-130		200
Pentachlorophenol	52.7			mg/l	50.0	105	70-130		200
Phenanthrene	55.5			mg/l	50.0	111	70-130		200
Phenol	50.8			mg/l	50.0	102	70-130		200
Pyrene	60.8			mg/l	50.0	122	70-130		200
1,2,4-Trichlorobenzene	52.2			mg/l	50.0	104	70-130		200
2,4,5-Trichlorophenol	52.7			mg/l	50.0	105	70-130		200
2,4,6-Trichlorophenol	54.8			mg/l	50.0	110	70-130		200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

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Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
Matrix Spike (7355009-MS1)		Source: 7L15042-01		Prepared: 12/21/17 Analyzed: 12/22/17					
Surrogate: 2-Fluorophenol			42.2	mg/l	40.0		106	10-169	
Surrogate: Phenol-d6			42.0	mg/l	40.0		105	10-166	
Surrogate: Nitrobenzene-d5			24.0	mg/l	20.0		120	18.8-170	
Surrogate: 2-Fluorobiphenyl			21.6	mg/l	20.0		108	35.1-154	
Surrogate: 2,4,6-Tribromophenol			41.9	mg/l	40.0		105	20-158	
Surrogate: Terphenyl-d14			22.2	mg/l	20.0		111	52.1-160	
Matrix Spike Dup (7355009-MSD1)		Source: 7L15042-01		Prepared: 12/21/17 Analyzed: 12/22/17					
Benzidine	ND		1.87	mg/kg dry			70-130		200
Diphenylamine	57.5			mg/l	50.0	115	70-130	0.1	200
Pyridine	40.5			mg/l	50.0	81	70-130	6	200
Acenaphthene	51.7			mg/l	50.0	103	70-130	0.08	200
Acenaphthylene	56.2			mg/l	50.0	112	70-130	1	200
Anthracene	55.4			mg/l	50.0	111	70-130	2	200
Benzoic acid	ND		3.75	mg/kg dry			70-130		200
Benzo (a) anthracene	56.6			mg/l	50.0	113	70-130	4	200
Benzo (b) fluoranthene	66.0			mg/l	50.0	132	70-130	3	200
Benzo (k) fluoranthene	56.2			mg/l	50.0	112	70-130	5	200
Benzo (g,h,i) perylene	71.6			mg/l	50.0	143	70-130	3	200
Benzo (a) pyrene	60.5			mg/l	50.0	121	70-130	3	200
Benzyl alcohol	50.5			mg/l	50.0	101	70-130	4	200
Bis(2-chloroethoxy)methane	52.8			mg/l	50.0	106	70-130	2	200
Bis(2-chloroethyl)ether	48.4			mg/l	50.0	97	70-130	4	200
Bis(2-chloroisopropyl)ether	49.1			mg/l	50.0	98	70-130	1	200
Bis(2-ethylhexyl)phthalate	60.7			mg/l	50.0	121	70-130	0.9	200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
Matrix Spike Dup (7355009-MSD1)		Source: 7L15042-01		Prepared: 12/21/17 Analyzed: 12/22/17					
4-Bromophenyl phenyl ether	52.2			mg/l	50.0	104	70-130	0.4	200
Butyl benzyl phthalate	24.8		0.375	mg/kg dry			70-130	5	200
4-Chloroaniline	48.3			mg/l	50.0	97	70-130	1	200
4-Chloro-3-methylphenol	54.9			mg/l	50.0	110	70-130	2	200
2-Chloronaphthalene	51.5			mg/l	50.0	103	70-130	1	200
2-Chlorophenol	51.1			mg/l	50.0	102	70-130	3	200
4-Chlorophenyl phenyl ether	52.2			mg/l	50.0	104	70-130	2	200
Chrysene	51.9			mg/l	50.0	104	70-130	2	200
Dibenz (a,h) anthracene	69.6			mg/l	50.0	139	70-130	4	200
Dibenzofuran	52.4			mg/l	50.0	105	70-130	1	200
Di-n-butyl phthalate	57.4			mg/l	50.0	115	70-130	0.5	200
1,2-Dichlorobenzene	46.6			mg/l	50.0	93	70-130	5	200
1,3-Dichlorobenzene	44.6			mg/l	50.0	89	70-130	5	200
1,4-Dichlorobenzene	46.2			mg/l	50.0	92	70-130	5	200
3,3'-Dichlorobenzidine	0.0375	J	0.375	mg/kg dry			70-130	200	200
2,4-Dichlorophenol	56.4			mg/l	50.0	113	70-130	3	200
Diethyl phthalate	55.9			mg/l	50.0	112	70-130	3	200
2,4-Dimethylphenol	54.7			mg/l	50.0	109	70-130	0.7	200
Dimethyl phthalate	53.4			mg/l	50.0	107	70-130	1	200
4,6-Dinitro-2-methylphenol	42.4			mg/l	50.0	85	70-130	6	200
2,4-Dinitrophenol	28.4			mg/l	50.0	57	70-130	25	200
2,4-Dinitrotoluene	52.1			mg/l	50.0	104	70-130	4	200
2,6-Dinitrotoluene	52.6			mg/l	50.0	105	70-130	2	200
Di-n-octyl phthalate	69.9			mg/l	50.0	140	70-130	2	200
Aniline	43.4			mg/l	50.0	87	70-130	6	200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)									
Matrix Spike Dup (7355009-MSD1)		Source: 7L15042-01		Prepared: 12/21/17 Analyzed: 12/22/17					
Naphthalene	54.0			mg/l	50.0		108 70-130	1	200
N-Nitrosodimethylamine	54.2			mg/l	50.0		108 70-130	7	200
3 & 4-Methylphenol	19.4		0.375	mg/kg dry			70-130	1	200
Acetophenone	46.8			mg/l	50.0		94 70-130	1	200
Fluoranthene	60.0			mg/l	50.0		120 70-130	7	200
Fluorene	53.8			mg/l	50.0		108 70-130	3	200
Hexachlorobenzene	49.6			mg/l	50.0		99 70-130	0.8	200
Hexachlorobutadiene	50.0			mg/l	50.0		100 70-130	4	200
Hexachlorocyclopentadiene	36.6			mg/l	50.0		73 70-130	9	200
Hexachloroethane	47.9			mg/l	50.0		96 70-130	5	200
Indeno (1,2,3-cd) pyrene	72.6			mg/l	50.0		145 70-130	2	200
Isophorone	56.8			mg/l	50.0		114 70-130	2	200
2-Methylnaphthalene	53.2			mg/l	50.0		106 70-130	0.02	200
2-Methylphenol	49.6			mg/l	50.0		99 70-130	4	200
2-Nitroaniline	57.8			mg/l	50.0		116 70-130	0.3	200
3-Nitroaniline	49.8			mg/l	50.0		100 70-130	1	200
4-Nitroaniline	48.5			mg/l	50.0		97 70-130	5	200
Nitrobenzene	55.2			mg/l	50.0		110 70-130	0.4	200
2-Nitrophenol	55.4			mg/l	50.0		111 70-130	1	200
4-Nitrophenol	51.4			mg/l	50.0		103 70-130	0.9	200
N-Nitrosodi-n-propylamine	55.6			mg/l	50.0		111 70-130	1	200
Pentachlorophenol	50.4			mg/l	50.0		101 70-130	4	200
Phenanthrene	53.0			mg/l	50.0		106 70-130	5	200
Phenol	47.9			mg/l	50.0		96 70-130	6	200
Pyrene	57.5			mg/l	50.0		115 70-130	6	200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit
Batch: 7355009 - EPA 3510C (Continued)										
Matrix Spike Dup (7355009-MSD1)			Source: 7L15042-01		Prepared: 12/21/17 Analyzed: 12/22/17					
1,2,4-Trichlorobenzene	51.1			mg/l	50.0		102	70-130	2	200
2,4,5-Trichlorophenol	51.8			mg/l	50.0		104	70-130	2	200
2,4,6-Trichlorophenol	56.1			mg/l	50.0		112	70-130	2	200
Surrogate: 2-Fluorophenol			42.6	mg/l	40.0		107	10-169		
Surrogate: Phenol-d6			41.9	mg/l	40.0		105	10-166		
Surrogate: Nitrobenzene-d5			25.4	mg/l	20.0		127	18.8-170		
Surrogate: 2-Fluorobiphenyl			22.3	mg/l	20.0		112	35.1-154		
Surrogate: 2,4,6-Tribromophenol			43.7	mg/l	40.0		109	20-158		
Surrogate: Terphenyl-d14			23.7	mg/l	20.0		119	52.1-160		



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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

TCLP Metals extracted by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7361015 - EPA 3010A TCLP/SPLP									
Blank (7361015-BLK1)					Prepared: 12/27/17 Analyzed: 12/31/17				
Arsenic	ND		0.0400	mg/l					
Barium	ND		0.0500	mg/l					
Cadmium	ND		0.0200	mg/l					
Chromium	ND		0.0250	mg/l					
Copper	ND		0.0500	mg/l					
Lead	ND		0.0400	mg/l					
Nickel	ND		0.250	mg/l					
Selenium	ND		0.100	mg/l					
Silver	ND		0.0200	mg/l					
Zinc	ND		0.100	mg/l					
Duplicate (7361015-DUP1)					Source: 7L15190-02 Prepared: 12/27/17 Analyzed: 12/31/17				
Arsenic	ND		0.0400	mg/l		ND			20
Barium	3.12		0.0500	mg/l		2.92		7	20
Cadmium	ND		0.0200	mg/l		ND			20
Chromium	ND		0.0250	mg/l		ND			20
Copper	0.0107	J	0.0500	mg/l		0.0117		9	20
Lead	ND		0.0400	mg/l		ND			20
Nickel	ND		0.250	mg/l		ND			20
Selenium	ND		0.100	mg/l		ND			20
Silver	ND		0.0200	mg/l		ND			20
Zinc	0.111		0.100	mg/l		0.104		6	20
Matrix Spike (7361015-MS1)					Source: 7L15190-02 Prepared: 12/27/17 Analyzed: 12/31/17				
Arsenic	0.797		0.0400	mg/l	0.800	ND	100	75-125	200
Barium	4.94		0.0500	mg/l	2.00	2.92	101	75-125	200

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 7361015 - EPA 3010A TCLP/SPLP (Continued)									
Matrix Spike (7361015-MS1)		Source: 7L15190-02		Prepared: 12/27/17 Analyzed: 12/31/17					
Cadmium	0.388		0.0200	mg/l	0.400	ND	97	75-125	200
Chromium	0.170		0.0250	mg/l	0.200	ND	85	75-125	200
Copper	2.02		0.0500	mg/l	2.00	0.0117	100	75-125	200
Lead	0.773		0.0400	mg/l	0.800	ND	97	75-125	200
Nickel	1.96		0.250	mg/l	2.00	ND	98	75-125	200
Selenium	1.92		0.100	mg/l	2.00	ND	96	75-125	200
Silver	0.390		0.0200	mg/l	0.400	ND	97	75-125	200
Zinc	2.05		0.100	mg/l	2.00	0.104	98	75-125	200

Batch: 7361032 - EPA 200 Series

Blank (7361032-BLK1)				Prepared: 12/27/17 Analyzed: 12/28/17					
Mercury	ND		0.000200	mg/l					
Matrix Spike (7361032-MS1)		Source: 7L15024-02		Prepared: 12/27/17 Analyzed: 12/28/17					
Mercury	0.0009082		0.000200	mg/l	0.00100	ND	90.8	70-130	10
Matrix Spike (7361032-MS2)		Source: 7L21233-01		Prepared: 12/27/17 Analyzed: 12/28/17					
Mercury	0.0009387		0.000200	mg/l	0.00100	ND	93.9	70-130	10
Matrix Spike Dup (7361032-MSD2)		Source: 7L21233-01		Prepared: 12/27/17 Analyzed: 12/28/17					
Mercury	0.0009710		0.000200	mg/l	0.00100	ND	97.1	70-130	3.39 10

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Key Environmental
200 3rd Avenue
Carnegie PA, 15106
Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING
Project Number: [none] **Reported:**
Collector: CLIENT 03/28/18 12:39
Number of Containers: 5

Quality Control (Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8002005 - EPA 3510C									
Blank (8002005-BLK1)					Prepared: 12/29/17 Analyzed: 01/03/18				
Pyridine	ND		2.00	ug/l					
1,4-Dichlorobenzene	ND		1.00	ug/l					
2,4-Dinitrotoluene	ND		1.00	ug/l					
3 & 4-Methylphenol	ND		1.00	ug/l					
Hexachlorobenzene	ND		1.00	ug/l					
Hexachlorobutadiene	ND		1.00	ug/l					
Hexachloroethane	ND		1.00	ug/l					
2-Methylphenol	ND		1.00	ug/l					
Nitrobenzene	ND		1.00	ug/l					
Pentachlorophenol	ND		5.00	ug/l					
2,4,5-Trichlorophenol	ND		1.00	ug/l					
2,4,6-Trichlorophenol	ND		1.00	ug/l					
Surrogate: 2-Fluorophenol			13.7	ug/l	40.0		34.2 30.6-66.8		
Surrogate: Phenol-d6			9.47	ug/l	40.0		23.7 17.9-51.5		
Surrogate: Nitrobenzene-d5			9.79	ug/l	20.0		49.0 30.6-140		
Surrogate: 2-Fluorobiphenyl			11.3	ug/l	20.0		56.7 40.6-121		
Surrogate: 2,4,6-Tribromophenol			26.4	ug/l	40.0		66.1 50.4-131		
Surrogate: Terphenyl-d14			15.0	ug/l	20.0		75.0 10-185		
LCS (8002005-BS1)					Prepared: 12/29/17 Analyzed: 01/03/18				
Pyridine	12.5			ug/l	50.0		25.1 10-71		10
1,4-Dichlorobenzene	23.1			ug/l	50.0		46.1 21-65		10
2,4-Dinitrotoluene	40.3			ug/l	50.0		80.6 76-149		10
3 & 4-Methylphenol	32.5		1.00	ug/l			39-78		10
Hexachlorobenzene	40.6			ug/l	50.0		81.2 60-108		10

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control
(Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8002005 - EPA 3510C (Continued)										
LCS (8002005-BS1)					Prepared: 12/29/17 Analyzed: 01/03/18					
Hexachlorobutadiene	27.2			ug/l	50.0		54.3	28-78		10
Hexachloroethane	21.0			ug/l	50.0		42.0	17-64		10
2-Methylphenol	31.0			ug/l	50.0		62.1	42-79		10
Nitrobenzene	33.6			ug/l	50.0		67.2	46-92		10
Pentachlorophenol	45.0			ug/l	50.0		90.0	47-127		10
2,4,5-Trichlorophenol	40.9			ug/l	50.0		81.8	57-116		10
2,4,6-Trichlorophenol	39.6			ug/l	50.0		79.3	55-125		10
Surrogate: 2-Fluorophenol			12.8	ug/l	40.0		31.9	30.6-66.8		
Surrogate: Phenol-d6			9.49	ug/l	40.0		23.7	17.9-51.5		
Surrogate: Nitrobenzene-d5			11.1	ug/l	20.0		55.7	30.6-140		
Surrogate: 2-Fluorobiphenyl			12.7	ug/l	20.0		63.3	40.6-121		
Surrogate: 2,4,6-Tribromophenol			29.7	ug/l	40.0		74.3	50.4-131		
Surrogate: Terphenyl-d14			11.0	ug/l	20.0		55.2	10-185		
Matrix Spike (8002005-MS1)					Source: 7L20051-01 Prepared: 12/29/17 Analyzed: 01/03/18					
Pyridine	18.9			ug/l	50.0	0.00	37.8	13.2-70.5		49.4
1,4-Dichlorobenzene	32.7			ug/l	50.0	0.00	65.5	16.4-76.7		54.2
2,4-Dinitrotoluene	44.1			ug/l	50.0	0.00	88.1	64-115		20.6
3 & 4-Methylphenol	34.5		1.00	ug/l		ND		31.3-86.6		34.3
Hexachlorobenzene	45.1			ug/l	50.0	0.00	90.1	41.4-132		23.1
Hexachlorobutadiene	37.2			ug/l	50.0	0.00	74.4	21.8-94.1		42.9
Hexachloroethane	30.4			ug/l	50.0	0.00	60.8	14.1-74.4		58.3
2-Methylphenol	33.2			ug/l	50.0	0.00	66.5	38.5-85		32.5
Nitrobenzene	41.4			ug/l	50.0	0.00	82.8	37.8-106		28.9
Pentachlorophenol	47.0			ug/l	50.0	0.00	94.0	60.9-128		23.6

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PaDEP: PA 41-04684



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Key Environmental
200 3rd Avenue
Carnegie PA, 15106
Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING
Project Number: [none] **Reported:**
Collector: CLIENT 03/28/18 12:39
Number of Containers: 5

Quality Control (Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8002005 - EPA 3510C (Continued)									
Matrix Spike (8002005-MS1)		Source: 7L20051-01		Prepared: 12/29/17 Analyzed: 01/03/18					
2,4,5-Trichlorophenol	45.3			ug/l	50.0	0.00	90.6 67.7-115		21.9
2,4,6-Trichlorophenol	45.2			ug/l	50.0	0.00	90.3 60.2-107		22.7
Surrogate: 2-Fluorophenol			18.9	ug/l	40.0		47.2 30.6-66.8		
Surrogate: Phenol-d6			13.8	ug/l	40.0		34.5 17.9-51.5		
Surrogate: Nitrobenzene-d5			18.2	ug/l	20.0		90.9 30.6-140		
Surrogate: 2-Fluorobiphenyl			18.8	ug/l	20.0		94.2 40.6-121		
Surrogate: 2,4,6-Tribromophenol			41.0	ug/l	40.0		102 50.4-131		
Surrogate: Terphenyl-d14			18.3	ug/l	20.0		91.6 10-185		
Matrix Spike Dup (8002005-MSD1)		Source: 7L20051-01		Prepared: 12/29/17 Analyzed: 01/03/18					
Pyridine	18.6			ug/l	50.0	0.00	37.1 13.2-70.5	1.66	49.4
1,4-Dichlorobenzene	29.6			ug/l	50.0	0.00	59.2 16.4-76.7	10.0	54.2
2,4-Dinitrotoluene	41.5			ug/l	50.0	0.00	83.0 64-115	6.03	20.6
3 & 4-Methylphenol	34.0		1.00	ug/l		ND	31.3-86.6	1.46	34.3
Hexachlorobenzene	41.1			ug/l	50.0	0.00	82.2 41.4-132	9.22	23.1
Hexachlorobutadiene	32.8			ug/l	50.0	0.00	65.7 21.8-94.1	12.5	42.9
Hexachloroethane	28.6			ug/l	50.0	0.00	57.2 14.1-74.4	5.97	58.3
2-Methylphenol	32.8			ug/l	50.0	0.00	65.5 38.5-85	1.48	32.5
Nitrobenzene	37.3			ug/l	50.0	0.00	74.5 37.8-106	10.5	28.9
Pentachlorophenol	45.0			ug/l	50.0	0.00	89.9 60.9-128	4.48	23.6
2,4,5-Trichlorophenol	40.7			ug/l	50.0	0.00	81.5 67.7-115	10.6	21.9
2,4,6-Trichlorophenol	40.9			ug/l	50.0	0.00	81.8 60.2-107	9.93	22.7
Surrogate: 2-Fluorophenol			18.4	ug/l	40.0		46.0 30.6-66.8		
Surrogate: Phenol-d6			13.4	ug/l	40.0		33.5 17.9-51.5		
Surrogate: Nitrobenzene-d5			16.2	ug/l	20.0		81.0 30.6-140		

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Key Environmental

200 3rd Avenue

Carnegie PA, 15106

Project Manager: Bert Hubbard

Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

Quality Control (Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8002005 - EPA 3510C (Continued)									
Matrix Spike Dup (8002005-MSD1)		Source: 7L20051-01		Prepared: 12/29/17 Analyzed: 01/03/18					
Surrogate: 2-Fluorobiphenyl			17.1	ug/l	20.0		85.7 40.6-121		
Surrogate: 2,4,6-Tribromophenol			38.0	ug/l	40.0		95.0 50.4-131		
Surrogate: Terphenyl-d14			17.0	ug/l	20.0		84.8 10-185		

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Project Number: [none]

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Reported:

03/28/18 12:39

Notes

- A9 This result is intended for end user internal monitoring purposes only. This analyte does not appear on the FLI scope of accreditation.
- AA Due to the dilution required by the nature of the sample matrix, the matrix spike is not recoverable for this sample.
- AAa Estimated. Result is for end user monitoring purposes only. A Continuing Calibration Verification Sample and Laboratory Control Samples were not analyzed for this compound.
- C1 This Sample was subcontracted to Laboratory ID# 02-00416
- C1a This Sample was subcontracted to Laboratory ID# 06-00003
- D A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered above the acceptance range for the noted analyte.
- F The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered above the acceptance range for the noted analyte.
- G The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered below the acceptance range for the noted analyte.
- G-12 Sample was analyzed beyond the recommended holding time by 13 days.
- I4 Vials were prepared at the laboratory from the received container.
- J Detected between the Method Detection Limit (MDL) and the Reporting Limit (RL); therefore, the result is an estimated value.
- L The noted analyte was detected in the method blank.
- Q Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.
- T Result was over the calibration range, but within the linear dynamic range of the instrument for the noted analyte.



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Project: YUKON SLUDGE SAMPLING
Project Number: [none]
Collector: CLIENT
Number of Containers: 5
Reported:
03/28/18 12:39

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

* G indicates analysis performed by Fairway Laboratories, Inc. at the Greensburg location PaDEP: 65-00392. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Project: YUKON SLUDGE SAMPLING

Project Number: [none]

Collector: CLIENT

Number of Containers: 5

Reported:

03/28/18 12:39

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Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved,

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Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

Please print. See back of COC for instructions/terms and conditions.

COOLIDGE

[illegible]

Document
Page 2 of 2

Lab # 7615058 #2

(Not applicable for WV compliance)

S/uds

[illegible]

*** DEVIATION PRESENT:**

Ⓐ No Ice	()
Ⓑ Not at Proper Temperature	()
Ⓒ Wrong Container	()
Ⓓ Missing Information:	()

CLIENT CALLED: YES ☒ LEFT VOICEMAIL
By Whom: [redacted]

Date: 12/13/17

CLIENT RESPONSE: *Not*

Proceed with analysis; quality data ☒ ()

Will Resample ()

Provided Information ()

No Response; Proceed and qualified ()

Client Contact: *12/19/98*

Date: *12/19/98*

Client Contact: *Best + Moore*
Date: *12/19/17*

Received vial - cannot use vials overfitted.

Or to make wads as the job by 12/19/17



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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
YUKON-TH-01-030118	8C02121-01	Solid	Grab	03/01/18 09:30	03/02/18 17:30
YUKON-TH-02-030118	8C02121-02	Solid	Grab	03/01/18 10:00	03/02/18 17:30
YUKON-TH-01-030118	8C02121-03	Solid	Composite	03/01/18 09:45	03/02/18 17:30
YUKON-TH-02-030118	8C02121-04	Solid	Composite	03/01/18 10:15	03/02/18 17:30

Per client, add % solids to 8C02121-02 and 8C02121-04. mf 03/29/18

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Max Environmental
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Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:30

Laboratory Sample ID: 8C02121-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

Acetone	<0.849	0.849	5.47	mg/kg dry	03/12/18 13:14	EPA 8260B	mtc	D
1,3,5-Trimethylbenzene	<0.0025	0.0025	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	0.0220 J	0.0022	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Benzene	<0.0007	0.0007	0.0112	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Toluene	0.0175 J	0.0007	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Ethylbenzene	0.0121 J	0.0013	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Xylenes (total)	0.0374 J	0.0036	0.0558	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Isopropylbenzene	<0.0023	0.0023	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.0008	0.0008	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Naphthalene	<0.0012	0.0012	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Acrolein	<0.0240	0.0240	0.279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Acrylonitrile	<0.0025	0.0025	0.0558	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Bromobenzene	<0.0009	0.0009	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Bromochloromethane	<0.0012	0.0012	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Bromodichloromethane	<0.0030	0.0030	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Bromoform	<0.0025	0.0025	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Bromomethane	<0.0011	0.0011	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
2-Butanone	0.245	0.0084	0.0558	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	

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Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:30

Laboratory Sample ID: 8C02121-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

sec-Butylbenzene	<0.0018	0.0018	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
tert-Butylbenzene	<0.0017	0.0017	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
n-Butylbenzene	<0.0021	0.0021	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	E
Carbon disulfide	0.0553	0.0028	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Carbon tetrachloride	<0.0030	0.0030	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Chlorobenzene	<0.0006	0.0006	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Chloroethane	<0.0026	0.0026	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
2-Chloroethylvinyl ether	<0.0038	0.0038	0.279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Chloroform	<0.0017	0.0017	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Chloromethane	<0.0010	0.0010	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
4-Chlorotoluene	<0.0020	0.0020	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
2-Chlorotoluene	<0.0020	0.0020	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,2-Dibromo-3-chloropropane	<0.0016	0.0016	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Dibromochloromethane	<0.0009	0.0009	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,2-Dibromoethane (EDB)	<0.0022	0.0022	0.0112	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Dibromomethane	<0.0020	0.0020	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
trans-1,4-Dichloro-2-butene	<0.0020	0.0020	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,2-Dichlorobenzene	<0.0019	0.0019	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	

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651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:30

Laboratory Sample ID: 8C02121-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

1,4-Dichlorobenzene	<0.0022	0.0022	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
1,3-Dichlorobenzene	<0.0018	0.0018	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
Dichlorodifluoromethane	<0.0024	0.0024	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
1,2-Dichloroethane	<0.0011	0.0011	0.0112	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
1,1-Dichloroethane	<0.0009	0.0009	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
trans-1,2-Dichloroethene	<0.0011	0.0011	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
cis-1,2-Dichloroethene	<0.0008	0.0008	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
1,1-Dichloroethene	<0.0011	0.0011	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
2,2-Dichloropropane	<0.0020	0.0020	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
1,3-Dichloropropane	<0.0007	0.0007	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
1,2-Dichloropropane	<0.0008	0.0008	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
trans-1,3-Dichloropropene	<0.0008	0.0008	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
1,1-Dichloropropene	<0.0011	0.0011	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
cis-1,3-Dichloropropene	<0.0011	0.0011	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
Hexachlorobutadiene	<0.0025	0.0025	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
2-Hexanone	<0.0018	0.0018	0.0558	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
Iodomethane	<0.0021	0.0021	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc
p-Isopropyltoluene	<0.0019	0.0019	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc

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651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:30

Laboratory Sample ID: 8C02121-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

Methylene chloride	<0.0029	0.0029	0.112	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
4-Methyl-2-pentanone	0.0719	0.0008	0.0558	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
n-Propylbenzene	<0.0018	0.0018	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Styrene	0.0183 J	0.0007	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,1,2,2-Tetrachloroethane	<0.0021	0.0021	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,1,1,2-Tetrachloroethane	<0.0008	0.0008	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Tetrachloroethene	<0.0017	0.0017	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,2,4-Trichlorobenzene	<0.0032	0.0032	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,2,3-Trichlorobenzene	<0.0029	0.0029	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,1,1-Trichloroethane	<0.0017	0.0017	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,1,2-Trichloroethane	<0.0014	0.0014	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Trichloroethene	<0.0012	0.0012	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Trichlorofluoromethane	<0.0017	0.0017	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
1,2,3-Trichloropropane	<0.0009	0.0009	0.0279	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Vinyl chloride	<0.0012	0.0012	0.0112	mg/kg dry	03/09/18 22:31	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	98 %		70-130		03/09/18 22:31	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	105 %		70-130		03/09/18 22:31	EPA 8260B	mtc	
Surrogate: Fluorobenzene	99 %		70-130		03/09/18 22:31	EPA 8260B	mtc	

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Pittsburgh PA, 15220

Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:30

Laboratory Sample ID: 8C02121-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	18.6	0.100	%	03/03/18 09:30	SM 2540 G-97	pra

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Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:00

Laboratory Sample ID: 8C02121-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

1,3,5-Trimethylbenzene	<0.0020	0.0020	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
1,2,4-Trimethylbenzene	0.0120 J	0.0018	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Benzene	<0.0006	0.0006	0.0090	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Toluene	0.0128 J	0.0005	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Ethylbenzene	0.0073 J	0.0011	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Xylenes (total)	0.0239 J	0.0029	0.0450	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Isopropylbenzene	<0.0018	0.0018	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Methyl tert-butyl ether	<0.0006	0.0006	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Naphthalene	<0.0010	0.0010	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Acetone	0.480	0.0070	0.0450	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Acrolein	<0.0193	0.0193	0.225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Acrylonitrile	<0.0020	0.0020	0.0450	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Bromobenzene	<0.0008	0.0008	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Bromochloromethane	<0.0009	0.0009	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Bromodichloromethane	<0.0024	0.0024	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Bromoform	<0.0020	0.0020	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Bromomethane	<0.0009	0.0009	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
2-Butanone	0.0628	0.0067	0.0450	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc

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NELAP: PA 07-062, VA 460212

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:00

Laboratory Sample ID: 8C02121-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

sec-Butylbenzene	<0.0014	0.0014	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
tert-Butylbenzene	<0.0014	0.0014	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
n-Butylbenzene	<0.0017	0.0017	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	E
Carbon disulfide	<0.0023	0.0023	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Carbon tetrachloride	<0.0024	0.0024	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Chlorobenzene	<0.0005	0.0005	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Chloroethane	<0.0021	0.0021	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
2-Chloroethylvinyl ether	<0.0031	0.0031	0.225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Chloroform	<0.0014	0.0014	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Chloromethane	<0.0008	0.0008	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
4-Chlorotoluene	<0.0016	0.0016	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
2-Chlorotoluene	<0.0016	0.0016	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,2-Dibromo-3-chloropropane	<0.0013	0.0013	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Dibromochloromethane	<0.0007	0.0007	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,2-Dibromoethane (EDB)	<0.0018	0.0018	0.0090	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Dibromomethane	<0.0016	0.0016	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
trans-1,4-Dichloro-2-butene	<0.0016	0.0016	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,2-Dichlorobenzene	<0.0015	0.0015	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

1,4-Dichlorobenzene	<0.0018	0.0018	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
1,3-Dichlorobenzene	<0.0015	0.0015	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Dichlorodifluoromethane	<0.0019	0.0019	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
1,2-Dichloroethane	<0.0009	0.0009	0.0090	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
1,1-Dichloroethane	<0.0007	0.0007	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
trans-1,2-Dichloroethene	<0.0009	0.0009	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
cis-1,2-Dichloroethene	<0.0006	0.0006	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
1,1-Dichloroethene	<0.0009	0.0009	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
2,2-Dichloropropane	<0.0016	0.0016	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
1,3-Dichloropropane	<0.0006	0.0006	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
1,2-Dichloropropane	<0.0006	0.0006	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
trans-1,3-Dichloropropene	<0.0007	0.0007	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
1,1-Dichloropropene	<0.0009	0.0009	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
cis-1,3-Dichloropropene	<0.0009	0.0009	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Hexachlorobutadiene	<0.0020	0.0020	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
2-Hexanone	<0.0014	0.0014	0.0450	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
Iodomethane	<0.0017	0.0017	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc
p-Isopropyltoluene	<0.0015	0.0015	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc

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04/09/18 09:12

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Date/Time Sampled: 03/01/18 10:00

Laboratory Sample ID: 8C02121-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

Methylene chloride	<0.0023	0.0023	0.0900	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
4-Methyl-2-pentanone	0.0463	0.0007	0.0450	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
n-Propylbenzene	<0.0015	0.0015	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Styrene	0.0101 J	0.0005	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,1,2,2-Tetrachloroethane	<0.0017	0.0017	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,1,1,2-Tetrachloroethane	<0.0007	0.0007	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Tetrachloroethene	<0.0014	0.0014	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,2,4-Trichlorobenzene	<0.0026	0.0026	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,2,3-Trichlorobenzene	<0.0023	0.0023	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,1,1-Trichloroethane	<0.0014	0.0014	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,1,2-Trichloroethane	<0.0012	0.0012	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Trichloroethene	<0.0009	0.0009	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Trichlorofluoromethane	<0.0013	0.0013	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
1,2,3-Trichloropropane	<0.0008	0.0008	0.0225	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Vinyl chloride	<0.0009	0.0009	0.0090	mg/kg dry	03/09/18 23:08	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	102 %		70-130		03/09/18 23:08	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	102 %		70-130		03/09/18 23:08	EPA 8260B	mtc	
Surrogate: Fluorobenzene	99 %		70-130		03/09/18 23:08	EPA 8260B	mtc	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:00

Laboratory Sample ID: 8C02121-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	21.5		0.100	%	03/29/18 17:00	SM 2540 G-97	pra	B5

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Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by Prep Method EPA 3050B

Silver	18.8	0.947	3.16	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Aluminum	16100	10.3	78.9	mg/kg dry	03/06/18 18:57	EPA 6010B/2.0	sr	T
Arsenic	126	2.53	6.32	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Barium	3150	2.37	7.89	mg/kg dry	03/06/18 18:57	EPA 6010B/2.0	sr	T
Beryllium	0.695 J	0.189	1.58	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Cadmium	18.1	0.379	3.16	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Cobalt	22.0	1.82	7.89	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Chromium	461	0.371	3.95	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Copper	503	2.21	7.89	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Iron	35400	14.2	31.6	mg/kg dry	03/06/18 18:56	EPA 6010B/2.0	sr	T
Potassium	3580	75.0	158	mg/kg dry	03/06/18 18:57	EPA 6010B/2.0	sr	

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04/09/18 09:12

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Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by Prep Method EPA 3050B

Manganese	1250	4.42	7.89	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Nickel	194	1.26	39.5	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Lead	2000	0.868	6.32	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	T
Antimony	27.0	7.03	7.89	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Selenium	26.0	6.47	15.8	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Thallium	4.92 J	2.29	15.8	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Vanadium	57.5	1.89	15.8	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	
Zinc	2710	2.21	15.8	mg/kg dry	03/06/18 18:58	EPA 6010B/2.0	sr	T

Analyses to be performed immediately upon sampling. See Definition indicated by: #

# pH @ 20.5°C	8.52		pH Units	03/06/18 12:27	SW846-9045 D	elb	

Calculated Analytes

Amenable Cyanide	6.97	0.445	1.85	mg/kg dry	03/06/18 08:53	SM20-4500 CN-C+E+G	caa	

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Date/Time Sampled: 03/01/18 09:45

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Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Chlorinated Herbicides by EPA Method 8151A

2,4-D	<40.0	40.0	48.9	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
Acifluorfen	<5.26	5.26	24.5	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
2,4-DB	<38.6	38.6	48.9	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
2,4,5-T	<25.1	25.1	48.9	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
2,4,5-TP (Silvex)	<31.4	31.4	48.9	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
Dalapon	<138	138	245	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
Dicamba	<20.3	20.3	24.5	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
Dichloroprop	<30.3	30.3	48.9	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
Dinoseb	<33.0	33.0	48.9	ug/kg dry	03/08/18 13:24	EPA 8151A	rsr	
Surrogate: 2,4-DCAA		77 %	40.6-150		03/08/18 13:24	EPA 8151A	rsr	

Conventional Chemistry Parameters by SM/EPA Methods

Fluoride	80.0 J	4.43	174	mg/kg dry	03/07/18 03:33	EPA 9056A	bdw	
% Solids	25.9		0.100	%	03/03/18 10:30	SM 2540 G-97	pra	
Sulfide	<7.00	7.00	74.2	mg/kg dry	03/06/18 13:25	EPA SW846 9030/9034	pra	

Cyanide by Preparation Method EPA 9010

Cyanide (total)	15.8	0.445	1.85	mg/kg dry	03/06/18 08:53	EPA 9014	caa	

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Project Number: [none]
Collector: CLIENT
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04/09/18 09:12

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Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by EPA 6000/7000 Series Methods

Mercury	0.570	0.0349	0.0823	mg/kg dry	03/06/18 12:40	EPA 7471B	jks	AA

Organochlorine Pesticides by EPA Extraction Method 3541

Aldrin	<63.7	63.7	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
alpha-BHC	<45.9	45.9	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
beta-BHC	<232	232	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
delta-BHC	<53.5	53.5	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
gamma-BHC (Lindane)	<321	321	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Chlordane (tech)	<6380	6380	25500	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
4,4'-DDD	<140	140	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
4,4'-DDE	<63.7	63.7	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
4,4'-DDT	<153	153	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Dieldrin	<61.2	61.2	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	D
Endosulfan I	<56.1	56.1	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Endosulfan II	<71.4	71.4	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	F
Endosulfan sulfate	<204	204	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Endrin	<86.6	86.6	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Endrin aldehyde	<96.8	96.8	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Heptachlor	<53.5	53.5	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	

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Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Organochlorine Pesticides by EPA Extraction Method 3541

AA

Heptachlor epoxide	<63.7	63.7	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Methoxychlor	<112	112	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Toxaphene	<10600	10600	25500	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
alpha-Chlordane	<214	214	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Isodrin	<51.0	51.0	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
gamma-Chlordane	<204	204	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
Endrin ketone	<250	250	510	ug/kg dry	03/08/18 04:20	EPA 8081B	RSR	
<i>Surrogate: Tetrachloro-meta-xylene</i>		153 %	40-157		03/08/18 04:20	EPA 8081B	RSR	
<i>Surrogate: Decachlorobiphenyl</i>		133 %	57.1-153		03/08/18 04:20	EPA 8081B	RSR	

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.069	0.069	0.167	mg/kg dry	03/07/18 22:07	EPA 8082	rsr	
PCB-1221	<0.097	0.097	0.167	mg/kg dry	03/07/18 22:07	EPA 8082	rsr	F
PCB-1232	<0.074	0.074	0.167	mg/kg dry	03/07/18 22:07	EPA 8082	rsr	
PCB-1242	<0.025	0.025	0.167	mg/kg dry	03/07/18 22:07	EPA 8082	rsr	
PCB-1248	<0.051	0.051	0.167	mg/kg dry	03/07/18 22:07	EPA 8082	rsr	
PCB-1254	<0.109	0.109	0.167	mg/kg dry	03/07/18 22:07	EPA 8082	rsr	
PCB-1260	<0.081	0.081	0.167	mg/kg dry	03/07/18 22:07	EPA 8082	rsr	
<i>Surrogate: Tetrachloro-meta-xylene</i>		95.5 %	11-140		03/07/18 22:07	EPA 8082	rsr	

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Polychlorinated Biphenyls by EPA Extraction Method 3541

Surrogate: Decachlorobiphenyl	93.1 %	24.4-140	03/07/18 22:07	EPA 8082	rsr

Semivolatile Organic Compounds by EPA Extraction Method 3541

Benzidine	<6.47	6.47	92.4	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	F
Pyridine	<9.61	9.61	36.9	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Diphenylamine	<2.22	2.22	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Acenaphthene	<1.29	1.29	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Acenaphthylene	<1.48	1.48	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Anthracene	<0.924	0.924	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Benzoic acid	<7.94	7.94	185	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Benzo (a) anthracene	<0.924	0.924	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Benzo (b) fluoranthene	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Benzo (k) fluoranthene	<1.29	1.29	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Benzo (g,h,i) perylene	<1.48	1.48	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	F
Benzo (a) pyrene	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Benzyl alcohol	<2.59	2.59	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Bis(2-chloroethoxy)methane	<2.59	2.59	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Bis(2-chloroethyl)ether	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Bis(2-chloroisopropyl)ether	<1.11	1.11	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	

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Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Bis(2-ethylhexyl)phthalate	5.91 J	5.54	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
4-Bromophenyl phenyl ether	<1.29	1.29	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Butyl benzyl phthalate	<2.22	2.22	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
4-Chloroaniline	<2.40	2.40	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
4-Chloro-3-methylphenol	<1.66	1.66	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2-Chloronaphthalene	<1.11	1.11	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2-Chlorophenol	<0.924	0.924	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
4-Chlorophenyl phenyl ether	<2.40	2.40	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Chrysene	1.48 J	0.924	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Dibenz (a,h) anthracene	<1.29	1.29	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Dibenzofuran	<0.554	0.554	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Di-n-butyl phthalate	<3.88	3.88	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
1,2-Dichlorobenzene	<1.66	1.66	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
1,3-Dichlorobenzene	<0.924	0.924	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
1,4-Dichlorobenzene	<0.924	0.924	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
3,3'-Dichlorobenzidine	<1.66	1.66	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2,4-Dichlorophenol	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Diethyl phthalate	<1.85	1.85	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	

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Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

2,4-Dimethylphenol	<1.48	1.48	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Dimethyl phthalate	<1.11	1.11	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
4,6-Dinitro-2-methylphenol	<5.91	5.91	92.4	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2,4-Dinitrophenol	<4.80	4.80	92.4	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2,4-Dinitrotoluene	<3.88	3.88	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2,6-Dinitrotoluene	<3.51	3.51	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Di-n-octyl phthalate	<1.29	1.29	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Aniline	<1.29	1.29	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Naphthalene	<1.11	1.11	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
N-Nitrosodimethylamine	<2.40	2.40	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Acetophenone	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
3 & 4-Methylphenol	<1.66	1.66	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
1,2-Diphenylhydrazine	<0.739	0.739	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Fluoranthene	<0.924	0.924	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Fluorene	<0.739	0.739	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Hexachlorobenzene	<2.22	2.22	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Hexachlorobutadiene	<2.40	2.40	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Hexachlorocyclopentadiene	<4.62	4.62	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	

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04/09/18 09:12

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Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Hexachloroethane	<2.22	2.22	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Indeno (1,2,3-cd) pyrene	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Isophorone	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2-Methylnaphthalene	<1.48	1.48	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2-Methylphenol	<2.96	2.96	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2-Nitroaniline	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
3-Nitroaniline	<5.17	5.17	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
4-Nitroaniline	<4.25	4.25	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Nitrobenzene	<2.40	2.40	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2-Nitrophenol	<2.77	2.77	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
4-Nitrophenol	<4.62	4.62	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
N-Nitrosodiphenylamine	<2.96	2.96	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
N-Nitrosodi-n-propylamine	<1.85	1.85	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Pentachlorophenol	<4.62	4.62	92.4	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Phenanthrene	<0.924	0.924	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Phenol	<2.40	2.40	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Pyrene	<1.29	1.29	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
1,2,4-Trichlorobenzene	<2.03	2.03	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	

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Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

2,4,5-Trichlorophenol	<3.14	3.14	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
2,4,6-Trichlorophenol	<2.96	2.96	18.5	mg/kg dry	03/07/18 06:22	EPA 8270D	CDB	
Surrogate: 2-Fluorophenol		91 %	10-169		03/07/18 06:22	EPA 8270D	CDB	
Surrogate: Phenol-d6		84 %	10-166		03/07/18 06:22	EPA 8270D	CDB	
Surrogate: Nitrobenzene-d5		111 %	18.8-170		03/07/18 06:22	EPA 8270D	CDB	
Surrogate: 2-Fluorobiphenyl		86 %	35.1-154		03/07/18 06:22	EPA 8270D	CDB	
Surrogate: 2,4,6-Tribromophenol		92 %	20-158		03/07/18 06:22	EPA 8270D	CDB	
Surrogate: Terphenyl-d14		94 %	52.1-160		03/07/18 06:22	EPA 8270D	CDB	

TCLP Extraction by EPA 1311

# pH @ 21.5°C	7.31			pH Units	03/06/18 08:20	EPA 1311	cjw	

TCLP Metals extracted by EPA 1311

Silver	0.00783 J	0.00600	0.0200	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Aluminum	<0.0650	0.0650	0.500	mg/l	03/07/18 22:13	EPA 6010B/2.0	sr	
Arsenic	<0.0160	0.0160	0.0400	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Barium	0.854	0.0150	0.0500	mg/l	03/07/18 22:13	EPA 6010B/2.0	sr	
Beryllium	<0.00120	0.00120	0.0100	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	

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Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
TCLP Metals extracted by EPA 1311								
Cadmium	<0.00245	0.00245	0.0200	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Cobalt	<0.00700	0.00700	0.0500	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Chromium	<0.000750	0.000750	0.0250	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Copper	0.00826 J	0.00650	0.0500	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Iron	<0.0250	0.0250	0.200	mg/l	03/07/18 22:13	EPA 6010B/2.0	sr	
Mercury	<0.000590	0.000590	0.00200	mg/l	03/07/18 15:38	EPA 7471B	jks	Q
Potassium	26.65113	0.37	1	mg/l	03/19/18 17:38	EPA 6010B/2.0	sr	L
Manganese	3.43	0.0105	0.0500	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Nickel	0.182 J	0.0120	0.250	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Lead	<0.0120	0.0120	0.0400	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Antimony	0.0535	0.0190	0.0500	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Selenium	0.0224 J	0.0145	0.100	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	

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Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Metals extracted by EPA 1311

Thallium	0.0363 J	0.00900	0.100	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Vanadium	0.0432 J	0.0130	0.100	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	
Zinc	0.135	0.0110	0.100	mg/l	03/07/18 22:15	EPA 6010B/2.0	sr	

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

Pyridine	<13.5	13.5	100	ug/l	03/07/18 00:09	EPA 8270D	CDB	
Benzidine	<11.0	11.0	250	ug/l	03/07/18 00:09	EPA 8270D	CDB	F
1,4-Dichlorobenzene	<4.00	4.00	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	F
2,4-Dinitrotoluene	<8.50	8.50	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	
3 & 4-Methylphenol	<4.50	4.50	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	
Hexachlorobenzene	<9.00	9.00	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	
Hexachlorobutadiene	<8.00	8.00	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	
Hexachloroethane	<5.50	5.50	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	F
2-Methylphenol	<6.50	6.50	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	
Nitrobenzene	<6.00	6.00	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	
Pentachlorophenol	<13.5	13.5	250	ug/l	03/07/18 00:09	EPA 8270D	CDB	
2,4,5-Trichlorophenol	<6.00	6.00	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Client Sample ID: YUKON-TH-01-030118

Date/Time Sampled: 03/01/18 09:45

Laboratory Sample ID: 8C02121-03 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

2,4,6-Trichlorophenol	<6.00	6.00	50.0	ug/l	03/07/18 00:09	EPA 8270D	CDB	
Surrogate: 2-Fluorophenol	43.4 %		30.6-66.8		03/07/18 00:09	EPA 8270D	CDB	
Surrogate: Phenol-d6	30.2 %		17.9-51.5		03/07/18 00:09	EPA 8270D	CDB	
Surrogate: Nitrobenzene-d5	82.2 %		30.6-140		03/07/18 00:09	EPA 8270D	CDB	
Surrogate: 2-Fluorobiphenyl	67.4 %		40.6-121		03/07/18 00:09	EPA 8270D	CDB	
Surrogate: 2,4,6-Tribromophenol	93.2 %		50.4-131		03/07/18 00:09	EPA 8270D	CDB	
Surrogate: Terphenyl-d14	76.1 %		10-185		03/07/18 00:09	EPA 8270D	CDB	

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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by Prep Method EPA 3050B

Silver	15.8	0.795	2.65	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Aluminum	13500	8.61	66.2	mg/kg dry	03/06/18 19:03	EPA 6010B/2.0	sr	T
Arsenic	105	2.12	5.30	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Barium	4340	1.99	6.62	mg/kg dry	03/06/18 19:03	EPA 6010B/2.0	sr	T
Beryllium	0.597 J	0.159	1.32	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Cadmium	15.5	0.318	2.65	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Cobalt	18.9	1.52	6.62	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Chromium	386	0.311	3.31	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	T
Copper	426	1.85	6.62	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Iron	29800	11.9	26.5	mg/kg dry	03/06/18 19:03	EPA 6010B/2.0	sr	T
Potassium	3080	62.9	132	mg/kg dry	03/06/18 19:03	EPA 6010B/2.0	sr	

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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none] **Reported:**
Collector: CLIENT 04/09/18 09:12
Number of Containers: 6

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by Prep Method EPA 3050B

Manganese	1060	3.71	6.62	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Nickel	165	1.06	33.1	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Lead	1660	0.728	5.30	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	T
Antimony	25.6	5.89	6.62	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Selenium	22.1	5.43	13.2	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Thallium	4.65 J	1.92	13.2	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Vanadium	47.5	1.59	13.2	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	
Zinc	2360	1.85	13.2	mg/kg dry	03/06/18 19:05	EPA 6010B/2.0	sr	T

Analyses to be performed immediately upon sampling. See Definition indicated by: #

# pH @ 20.4°C	8.61		pH Units	03/06/18 12:27	SW846-9045 D	elb	

Calculated Analytes

Amenable Cyanide	<0.392	0.392	1.63	mg/kg dry	03/06/18 08:53	SM20-4500 CN-C+E+G	caa	

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Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Chlorinated Herbicides by EPA Method 8151A

2,4-D	<33.7	33.7	41.2	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
Acifluorfen	<4.43	4.43	20.6	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
2,4-DB	<32.5	32.5	41.2	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
2,4,5-T	<21.1	21.1	41.2	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
2,4,5-TP (Silvex)	<26.4	26.4	41.2	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
Dalapon	<116	116	206	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
Dicamba	<17.1	17.1	20.6	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
Dichloroprop	<25.5	25.5	41.2	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
Dinoseb	<27.8	27.8	41.2	ug/kg dry	03/08/18 13:57	EPA 8151A	rsr	
Surrogate: 2,4-DCAA		74 %	40.6-150		03/08/18 13:57	EPA 8151A	rsr	

Conventional Chemistry Parameters by SM/EPA Methods

Fluoride	61.3 J	2.92	115	mg/kg dry	03/07/18 03:49	EPA 9056A	bdw	
% Solids	29.6		0.100	%	03/29/18 17:00	SM 2540 G-97	pra	B5
Sulfide	13.4 J	6.31	67.0	mg/kg dry	03/06/18 13:25	EPA SW846 9030/9034	pra	

Cyanide by Preparation Method EPA 9010

Cyanide (total)	11.8	0.392	1.63	mg/kg dry	03/06/18 08:53	EPA 9014	caa	

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Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Metals by EPA 6000/7000 Series Methods

Mercury	0.458	0.0284	0.0668	mg/kg dry	03/06/18 12:42	EPA 7471B	jks

Organochlorine Pesticides by EPA Extraction Method 3541

Aldrin	<45.8	45.8	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
alpha-BHC	<33.0	33.0	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
beta-BHC	<167	167	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
delta-BHC	<38.5	38.5	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
gamma-BHC (Lindane)	<231	231	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Chlordane (tech)	<4590	4590	18300	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
4,4'-DDD	<101	101	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
4,4'-DDE	<45.8	45.8	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
4,4'-DDT	<110	110	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Dieldrin	<44.0	44.0	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	D
Endosulfan I	<40.3	40.3	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Endosulfan II	<51.3	51.3	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	F
Endosulfan sulfate	<147	147	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Endrin	<62.3	62.3	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Endrin aldehyde	<69.7	69.7	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Heptachlor	<38.5	38.5	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	

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651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Organochlorine Pesticides by EPA Extraction Method 3541

Heptachlor epoxide	<45.8	45.8	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Methoxychlor	<80.7	80.7	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Toxaphene	<7650	7650	18300	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
alpha-Chlordane	<154	154	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Isodrin	<36.7	36.7	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
gamma-Chlordane	<147	147	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
Endrin ketone	<180	180	367	ug/kg dry	03/08/18 05:55	EPA 8081B	RSR	
<i>Surrogate: Tetrachloro-meta-xylene</i>	159 %		40-157		03/08/18 05:55	EPA 8081B	RSR	O
<i>Surrogate: Decachlorobiphenyl</i>	163 %		57.1-153		03/08/18 05:55	EPA 8081B	RSR	O

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.036	0.036	0.087	mg/kg dry	03/07/18 22:39	EPA 8082	rsr	
PCB-1221	<0.050	0.050	0.087	mg/kg dry	03/07/18 22:39	EPA 8082	rsr	F
PCB-1232	<0.039	0.039	0.087	mg/kg dry	03/07/18 22:39	EPA 8082	rsr	
PCB-1242	<0.013	0.013	0.087	mg/kg dry	03/07/18 22:39	EPA 8082	rsr	
PCB-1248	<0.026	0.026	0.087	mg/kg dry	03/07/18 22:39	EPA 8082	rsr	
PCB-1254	<0.057	0.057	0.087	mg/kg dry	03/07/18 22:39	EPA 8082	rsr	
PCB-1260	<0.042	0.042	0.087	mg/kg dry	03/07/18 22:39	EPA 8082	rsr	
<i>Surrogate: Tetrachloro-meta-xylene</i>	80.2 %		11-140		03/07/18 22:39	EPA 8082	rsr	

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Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Polychlorinated Biphenyls by EPA Extraction Method 3541

<i>Surrogate: Decachlorobiphenyl</i>	84.1 %	24.4-140	03/07/18 22:39	EPA 8082	rsr			

Semivolatile Organic Compounds by EPA Extraction Method 3541

Diphenylamine	<1.53	1.53	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Pyridine	<6.61	6.61	25.4	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	I
Benzidine	<4.45	4.45	63.6	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	F
Acenaphthene	<0.890	0.890	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Acenaphthylene	<1.02	1.02	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Anthracene	<0.636	0.636	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Benzoic acid	<5.47	5.47	127	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Benzo (a) anthracene	1.27 J	0.636	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Benzo (b) fluoranthene	1.40 J	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Benzo (k) fluoranthene	<0.890	0.890	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Benzo (g,h,i) perylene	<1.02	1.02	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	F, H
Benzo (a) pyrene	<1.40	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Benzyl alcohol	<1.78	1.78	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Bis(2-chloroethoxy)methane	<1.78	1.78	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Bis(2-chloroethyl)ether	<1.40	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Bis(2-chloroisopropyl)ether	<0.763	0.763	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	

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Project Number: [none]
Collector: CLIENT
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04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Bis(2-ethylhexyl)phthalate	6.61 J	3.82	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
4-Bromophenyl phenyl ether	<0.890	0.890	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Butyl benzyl phthalate	<1.53	1.53	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
4-Chloroaniline	<1.65	1.65	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
4-Chloro-3-methylphenol	<1.14	1.14	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	H
2-Chloronaphthalene	<0.763	0.763	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
2-Chlorophenol	<0.636	0.636	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
4-Chlorophenyl phenyl ether	<1.65	1.65	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Chrysene	<0.636	0.636	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Dibenz (a,h) anthracene	<0.890	0.890	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Dibenzofuran	<0.382	0.382	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Di-n-butyl phthalate	<2.67	2.67	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
1,2-Dichlorobenzene	<1.14	1.14	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
1,3-Dichlorobenzene	<0.636	0.636	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
1,4-Dichlorobenzene	<0.636	0.636	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
3,3'-Dichlorobenzidine	<1.14	1.14	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
2,4-Dichlorophenol	<1.40	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	H
Diethyl phthalate	<1.27	1.27	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

2,4-Dimethylphenol	<1.02	1.02	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	H
Dimethyl phthalate	<0.763	0.763	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
4,6-Dinitro-2-methylphenol	<4.07	4.07	63.6	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	I
2,4-Dinitrophenol	<3.31	3.31	63.6	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	I
2,4-Dinitrotoluene	<2.67	2.67	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
2,6-Dinitrotoluene	<2.42	2.42	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Di-n-octyl phthalate	<0.890	0.890	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Aniline	<0.890	0.890	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Naphthalene	<0.763	0.763	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
N-Nitrosodimethylamine	<1.65	1.65	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Acetophenone	<1.40	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
3 & 4-Methylphenol	<1.14	1.14	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
1,2-Diphenylhydrazine	<0.509	0.509	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Fluoranthene	0.763 J	0.636	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Fluorene	<0.509	0.509	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Hexachlorobenzene	<1.53	1.53	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Hexachlorobutadiene	<1.65	1.65	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Hexachlorocyclopentadiene	<3.18	3.18	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	I

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Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

Hexachloroethane	<1.53	1.53	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Indeno (1,2,3-cd) pyrene	<1.40	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Isophorone	3.43 J	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
2-Methylnaphthalene	<1.02	1.02	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
2-Methylphenol	<2.03	2.03	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
2-Nitroaniline	<1.40	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
3-Nitroaniline	<3.56	3.56	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
4-Nitroaniline	<2.93	2.93	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Nitrobenzene	<1.65	1.65	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
2-Nitrophenol	<1.91	1.91	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	H
4-Nitrophenol	<3.18	3.18	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
N-Nitrosodiphenylamine	<2.03	2.03	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
N-Nitrosodi-n-propylamine	<1.27	1.27	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Pentachlorophenol	<3.18	3.18	63.6	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Phenanthrene	0.890 J	0.636	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Phenol	<1.65	1.65	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Pyrene	<0.890	0.890	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
1,2,4-Trichlorobenzene	<1.40	1.40	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	

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Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

Semivolatile Organic Compounds by EPA Extraction Method 3541

2,4,5-Trichlorophenol	<2.16	2.16	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
2,4,6-Trichlorophenol	<2.03	2.03	12.7	mg/kg dry	03/07/18 06:48	EPA 8270D	CDB	
Surrogate: 2-Fluorophenol		95 %	10-169		03/07/18 06:48	EPA 8270D	CDB	
Surrogate: Phenol-d6		88 %	10-166		03/07/18 06:48	EPA 8270D	CDB	
Surrogate: Nitrobenzene-d5		107 %	18.8-170		03/07/18 06:48	EPA 8270D	CDB	
Surrogate: 2-Fluorobiphenyl		87 %	35.1-154		03/07/18 06:48	EPA 8270D	CDB	
Surrogate: 2,4,6-Tribromophenol		94 %	20-158		03/07/18 06:48	EPA 8270D	CDB	
Surrogate: Terphenyl-d14		95 %	52.1-160		03/07/18 06:48	EPA 8270D	CDB	

TCLP Extraction by EPA 1311

# pH @ 21.1°C	7.30			pH Units	03/06/18 08:20	EPA 1311	cjw	

TCLP Metals extracted by EPA 1311

Silver	0.00792 J	0.00600	0.0200	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Aluminum	0.114 J	0.0650	0.500	mg/l	03/07/18 22:21	EPA 6010B/2.0	sr	
Arsenic	<0.0160	0.0160	0.0400	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Barium	0.842	0.0150	0.0500	mg/l	03/07/18 22:21	EPA 6010B/2.0	sr	
Beryllium	<0.00120	0.00120	0.0100	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	

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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
TCLP Metals extracted by EPA 1311								
Cadmium	<0.00245	0.00245	0.0200	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Cobalt	<0.00700	0.00700	0.0500	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Chromium	<0.000750	0.000750	0.0250	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Copper	0.0141 J	0.00650	0.0500	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Iron	<0.0250	0.0250	0.200	mg/l	03/07/18 22:21	EPA 6010B/2.0	sr	
Mercury	<0.000590	0.000590	0.00200	mg/l	03/07/18 15:40	EPA 7471B	jks	Q
Potassium	23.82994	0.37	1	mg/l	03/19/18 17:46	EPA 6010B/2.0	sr	L
Manganese	3.59	0.0105	0.0500	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Nickel	0.209 J	0.0120	0.250	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Lead	<0.0120	0.0120	0.0400	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Antimony	0.0483 J	0.0190	0.0500	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Selenium	0.0216 J	0.0145	0.100	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	

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Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Metals extracted by EPA 1311

Thallium	0.0251 J	0.00900	0.100	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Vanadium	0.0403 J	0.0130	0.100	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	
Zinc	0.216	0.0110	0.100	mg/l	03/07/18 22:23	EPA 6010B/2.0	sr	

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

Benzidine	<11.0	11.0	250	ug/l	03/07/18 00:36	EPA 8270D	CDB	F
Pyridine	<13.5	13.5	100	ug/l	03/07/18 00:36	EPA 8270D	CDB	
1,4-Dichlorobenzene	<4.00	4.00	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	F
2,4-Dinitrotoluene	<8.50	8.50	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	
3 & 4-Methylphenol	<4.50	4.50	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	
Hexachlorobenzene	<9.00	9.00	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	
Hexachlorobutadiene	<8.00	8.00	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	
Hexachloroethane	<5.50	5.50	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	F
2-Methylphenol	<6.50	6.50	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	
Nitrobenzene	<6.00	6.00	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	
Pentachlorophenol	<13.5	13.5	250	ug/l	03/07/18 00:36	EPA 8270D	CDB	
2,4,5-Trichlorophenol	<6.00	6.00	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	

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651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Client Sample ID: YUKON-TH-02-030118

Date/Time Sampled: 03/01/18 10:15

Laboratory Sample ID: 8C02121-04 (Solid/Composite)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

2,4,6-Trichlorophenol	<6.00	6.00	50.0	ug/l	03/07/18 00:36	EPA 8270D	CDB	
Surrogate: 2-Fluorophenol	48.9 %		30.6-66.8		03/07/18 00:36	EPA 8270D	CDB	
Surrogate: Phenol-d6	33.8 %		17.9-51.5		03/07/18 00:36	EPA 8270D	CDB	
Surrogate: Nitrobenzene-d5	96.7 %		30.6-140		03/07/18 00:36	EPA 8270D	CDB	
Surrogate: 2-Fluorobiphenyl	75.8 %		40.6-121		03/07/18 00:36	EPA 8270D	CDB	
Surrogate: 2,4,6-Tribromophenol	97.2 %		50.4-131		03/07/18 00:36	EPA 8270D	CDB	
Surrogate: Terphenyl-d14	80.3 %		10-185		03/07/18 00:36	EPA 8270D	CDB	

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Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Quality Control

Metals by Prep Method EPA 3050B

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8061082 - EPA 3050B										
Blank (8061082-BLK1)										
Prepared: 03/02/18 Analyzed: 03/06/18										
Aluminum	ND		48.6	mg/kg wet						
Manganese	ND		4.86	mg/kg wet						
Antimony	ND		4.86	mg/kg wet						
Arsenic	ND		3.89	mg/kg wet						
Barium	ND		4.86	mg/kg wet						
Beryllium	ND		0.972	mg/kg wet						
Cadmium	ND		1.94	mg/kg wet						
Chromium	ND		2.43	mg/kg wet						
Cobalt	ND		4.86	mg/kg wet						
Copper	ND		4.86	mg/kg wet						
Iron	ND		19.4	mg/kg wet						
Lead	ND		3.89	mg/kg wet						
Nickel	ND		24.3	mg/kg wet						
Potassium	ND		97.2	mg/kg wet						
Selenium	ND		9.72	mg/kg wet						
Silver	ND		1.94	mg/kg wet						
Thallium	ND		9.72	mg/kg wet						
Zinc	ND		9.72	mg/kg wet						
Vanadium	ND		9.72	mg/kg wet						



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Pittsburgh PA, 15220

Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Quality Control
(Continued)

Metals by Prep Method EPA 3050B (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit



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Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8068087 - Volatiles									
Blank (8068087-BLK1)					Prepared & Analyzed: 03/09/18				
1,3,5-Trimethylbenzene	ND		0.0050	mg/kg wet					
1,2,4-Trimethylbenzene	ND		0.0050	mg/kg wet					
Benzene	ND		0.0020	mg/kg wet					
Toluene	ND		0.0050	mg/kg wet					
Ethylbenzene	ND		0.0050	mg/kg wet					
Xylenes (total)	ND		0.0100	mg/kg wet					
Isopropylbenzene	ND		0.0050	mg/kg wet					
Methyl tert-butyl ether	ND		0.0050	mg/kg wet					
Naphthalene	ND		0.0050	mg/kg wet					
Acetone	ND		0.0100	mg/kg wet					
Acrolein	ND		0.0500	mg/kg wet					
Acrylonitrile	ND		0.0100	mg/kg wet					
Bromobenzene	ND		0.0050	mg/kg wet					
Bromochloromethane	ND		0.0050	mg/kg wet					
Bromodichloromethane	ND		0.0050	mg/kg wet					
Bromoform	ND		0.0050	mg/kg wet					
Bromomethane	ND		0.0050	mg/kg wet					
2-Butanone	ND		0.0100	mg/kg wet					
sec-Butylbenzene	ND		0.0050	mg/kg wet					
tert-Butylbenzene	ND		0.0050	mg/kg wet					
n-Butylbenzene	ND		0.0050	mg/kg wet					
Carbon disulfide	ND		0.0050	mg/kg wet					
Carbon tetrachloride	ND		0.0050	mg/kg wet					
Chlorobenzene	ND		0.0050	mg/kg wet					
Chloroethane	ND		0.0050	mg/kg wet					

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Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8068087 - Volatiles (Continued)										
Blank (8068087-BLK1)					Prepared & Analyzed: 03/09/18					
2-Chloroethylvinyl ether	ND		0.0500	mg/kg wet						
Chloroform	ND		0.0050	mg/kg wet						
Chloromethane	ND		0.0050	mg/kg wet						
4-Chlorotoluene	ND		0.0050	mg/kg wet						
2-Chlorotoluene	ND		0.0050	mg/kg wet						
1,2-Dibromo-3-chloropropane	ND		0.0050	mg/kg wet						
Dibromochloromethane	ND		0.0050	mg/kg wet						
1,2-Dibromoethane (EDB)	ND		0.0020	mg/kg wet						
Dibromomethane	ND		0.0050	mg/kg wet						
trans-1,4-Dichloro-2-butene	ND		0.0050	mg/kg wet						
1,2-Dichlorobenzene	ND		0.0050	mg/kg wet						
1,4-Dichlorobenzene	ND		0.0050	mg/kg wet						
1,3-Dichlorobenzene	ND		0.0050	mg/kg wet						
Dichlorodifluoromethane	ND		0.0050	mg/kg wet						
1,2-Dichloroethane	ND		0.0020	mg/kg wet						
1,1-Dichloroethane	ND		0.0050	mg/kg wet						
trans-1,2-Dichloroethene	ND		0.0050	mg/kg wet						
cis-1,2-Dichloroethene	ND		0.0050	mg/kg wet						
1,1-Dichloroethene	ND		0.0050	mg/kg wet						
2,2-Dichloropropane	ND		0.0050	mg/kg wet						
1,3-Dichloropropane	ND		0.0050	mg/kg wet						
1,2-Dichloropropane	ND		0.0050	mg/kg wet						
trans-1,3-Dichloropropene	ND		0.0050	mg/kg wet						
1,1-Dichloropropene	ND		0.0050	mg/kg wet						
cis-1,3-Dichloropropene	ND		0.0050	mg/kg wet						

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8068087 - Volatiles (Continued)										
Blank (8068087-BLK1)			Prepared & Analyzed: 03/09/18							
Hexachlorobutadiene	ND		0.0050	mg/kg wet						
2-Hexanone	ND		0.0100	mg/kg wet						
Iodomethane	ND		0.0050	mg/kg wet						
p-Isopropyltoluene	ND		0.0050	mg/kg wet						
Methylene chloride	ND		0.0200	mg/kg wet						
4-Methyl-2-pentanone	ND		0.0100	mg/kg wet						
n-Propylbenzene	ND		0.0050	mg/kg wet						
Styrene	ND		0.0050	mg/kg wet						
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/kg wet						
1,1,1,2-Tetrachloroethane	ND		0.0050	mg/kg wet						
Tetrachloroethene	ND		0.0050	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.0050	mg/kg wet						
1,2,3-Trichlorobenzene	ND		0.0050	mg/kg wet						
1,1,1-Trichloroethane	ND		0.0050	mg/kg wet						
1,1,2-Trichloroethane	ND		0.0050	mg/kg wet						
Trichloroethene	ND		0.0050	mg/kg wet						
Trichlorofluoromethane	ND		0.0050	mg/kg wet						
1,2,3-Trichloropropane	ND		0.0050	mg/kg wet						
Vinyl chloride	ND		0.0020	mg/kg wet						
Surrogate: 4-Bromofluorobenzene			0.0980	mg/kg wet	0.100		98	70-130		
Surrogate: 1,2-Dichloroethane-d4			0.0937	mg/kg wet	0.100		94	70-130		
Surrogate: Fluorobenzene			0.0945	mg/kg wet	0.100		95	70-130		
LCS (8068087-BS1)			Prepared: 03/09/18 Analyzed: 03/11/18							
1,3,5-Trimethylbenzene	0.044		0.0050	mg/kg wet	0.0500		87	70-130		200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8068087 - Volatiles (Continued)									
LCS (8068087-BS1)					Prepared: 03/09/18 Analyzed: 03/11/18				
1,2,4-Trimethylbenzene	0.043		0.0050	mg/kg wet	0.0500		86 70-130		200
Benzene	0.046		0.0020	mg/kg wet	0.0500		92 70-130		200
Toluene	0.046		0.0050	mg/kg wet	0.0500		93 70-130		200
Ethylbenzene	0.043		0.0050	mg/kg wet	0.0500		85 70-130		200
Xylenes (total)	0.129		0.0100	mg/kg wet	0.150		86 70-130		200
Isopropylbenzene	0.044		0.0050	mg/kg wet	0.0500		89 70-130		200
Methyl tert-butyl ether	0.052		0.0050	mg/kg wet	0.0500		104 70-130		200
Naphthalene	0.050		0.0050	mg/kg wet	0.0500		99 70-130		200
Acetone	0.050		0.0100	mg/kg wet	0.0500		101 70-130		200
Acrylonitrile	0.054		0.0100	mg/kg wet	0.0500		107 70-130		200
Bromobenzene	0.044		0.0050	mg/kg wet	0.0500		88 70-130		200
Bromochloromethane	0.048		0.0050	mg/kg wet	0.0500		97 70-130		200
Bromodichloromethane	0.047		0.0050	mg/kg wet	0.0500		95 70-130		200
Bromoform	0.051		0.0050	mg/kg wet	0.0500		102 70-130		200
Bromomethane	0.040		0.0050	mg/kg wet	0.0500		81 70-130		200
2-Butanone	0.048		0.0100	mg/kg wet	0.0500		97 70-130		200
sec-Butylbenzene	0.043		0.0050	mg/kg wet	0.0500		85 70-130		200
tert-Butylbenzene	0.044		0.0050	mg/kg wet	0.0500		89 70-130		200
n-Butylbenzene	0.036		0.0050	mg/kg wet	0.0500		71 70-130		200
Carbon disulfide	0.042		0.0050	mg/kg wet	0.0500		84 70-130		200
Carbon tetrachloride	0.044		0.0050	mg/kg wet	0.0500		89 70-130		200
Chlorobenzene	0.045		0.0050	mg/kg wet	0.0500		90 70-130		200
Chloroethane	0.043		0.0050	mg/kg wet	0.0500		86 70-130		200
Chloroform	0.044		0.0050	mg/kg wet	0.0500		89 70-130		200
Chloromethane	0.039		0.0050	mg/kg wet	0.0500		78 70-130		200

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Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8068087 - Volatiles (Continued)									
LCS (8068087-BS1)					Prepared: 03/09/18 Analyzed: 03/11/18				
4-Chlorotoluene	0.044		0.0050	mg/kg wet	0.0500		88 70-130		200
2-Chlorotoluene	0.043		0.0050	mg/kg wet	0.0500		87 70-130		200
1,2-Dibromo-3-chloropropane	0.051		0.0050	mg/kg wet	0.0500		102 70-130		200
Dibromochloromethane	0.050		0.0050	mg/kg wet	0.0500		101 70-130		200
1,2-Dibromoethane (EDB)	0.050		0.0020	mg/kg wet	0.0500		101 70-130		200
Dibromomethane	0.052		0.0050	mg/kg wet	0.0500		105 70-130		200
trans-1,4-Dichloro-2-butene	0.048		0.0050	mg/kg wet	0.0500		97 70-130		200
1,2-Dichlorobenzene	0.049		0.0050	mg/kg wet	0.0500		99 70-130		200
1,4-Dichlorobenzene	0.047		0.0050	mg/kg wet	0.0500		94 70-130		200
1,3-Dichlorobenzene	0.044		0.0050	mg/kg wet	0.0500		87 70-130		200
Dichlorodifluoromethane	0.037		0.0050	mg/kg wet	0.0500		74 70-130		200
1,2-Dichloroethane	0.049		0.0020	mg/kg wet	0.0500		98 70-130		200
1,1-Dichloroethane	0.048		0.0050	mg/kg wet	0.0500		95 70-130		200
trans-1,2-Dichloroethene	0.044		0.0050	mg/kg wet	0.0500		87 70-130		200
cis-1,2-Dichloroethene	0.047		0.0050	mg/kg wet	0.0500		93 70-130		200
1,1-Dichloroethene	0.041		0.0050	mg/kg wet	0.0500		82 70-130		200
2,2-Dichloropropane	0.048		0.0050	mg/kg wet	0.0500		96 70-130		200
1,3-Dichloropropane	0.048		0.0050	mg/kg wet	0.0500		96 70-130		200
1,2-Dichloropropane	0.046		0.0050	mg/kg wet	0.0500		93 70-130		200
trans-1,3-Dichloropropene	0.054		0.0050	mg/kg wet	0.0500		109 70-130		200
1,1-Dichloropropene	0.042		0.0050	mg/kg wet	0.0500		85 70-130		200
cis-1,3-Dichloropropene	0.051		0.0050	mg/kg wet	0.0500		101 70-130		200
Hexachlorobutadiene	0.044		0.0050	mg/kg wet	0.0500		87 70-130		200
2-Hexanone	0.049		0.0100	mg/kg wet	0.0500		99 70-130		200
Iodomethane	0.047		0.0050	mg/kg wet			70-130		200

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Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: 8068087 - Volatiles (Continued)										
LCS (8068087-BS1)			Prepared: 03/09/18 Analyzed: 03/11/18							
p-Isopropyltoluene	0.042		0.0050	mg/kg wet	0.0500		85	70-130		200
Methylene chloride	0.048		0.0200	mg/kg wet	0.0500		96	70-130		200
4-Methyl-2-pentanone	0.049		0.0100	mg/kg wet	0.0500		98	70-130		200
n-Propylbenzene	0.041		0.0050	mg/kg wet	0.0500		83	70-130		200
Styrene	0.047		0.0050	mg/kg wet	0.0500		93	70-130		200
1,1,2,2-Tetrachloroethane	0.049		0.0050	mg/kg wet	0.0500		98	70-130		200
1,1,1,2-Tetrachloroethane	0.048		0.0050	mg/kg wet	0.0500		96	70-130		200
Tetrachloroethene	0.042		0.0050	mg/kg wet	0.0500		84	70-130		200
1,2,4-Trichlorobenzene	0.039		0.0050	mg/kg wet	0.0500		78	70-130		200
1,2,3-Trichlorobenzene	0.048		0.0050	mg/kg wet	0.0500		96	70-130		200
1,1,1-Trichloroethane	0.043		0.0050	mg/kg wet	0.0500		87	70-130		200
1,1,2-Trichloroethane	0.051		0.0050	mg/kg wet	0.0500		103	70-130		200
Trichloroethene	0.045		0.0050	mg/kg wet	0.0500		90	70-130		200
Trichlorofluoromethane	0.041		0.0050	mg/kg wet	0.0500		82	70-130		200
1,2,3-Trichloropropane	0.047		0.0050	mg/kg wet	0.0500		93	70-130		200
Vinyl chloride	0.041		0.0020	mg/kg wet	0.0500		82	70-130		200
Surrogate: 4-Bromofluorobenzene			0.101	mg/kg wet	0.100		101	70-130		
Surrogate: 1,2-Dichloroethane-d4			0.0930	mg/kg wet	0.100		93	70-130		
Surrogate: Fluorobenzene			0.0955	mg/kg wet	0.100		95	70-130		

Batch: 8071041 - Volatiles

LCS (8071041-BS1)			Prepared: 03/12/18 Analyzed: 03/13/18							
Acetone	0.048		0.0100	mg/kg wet	0.0500		96	70-130		200

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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8065074 - EPA 8151A									
Blank (8065074-BLK1)					Prepared: 03/06/18 Analyzed: 03/08/18				
2,4-D	ND		6.66	ug/kg wet					
Acifluorfen	ND		3.33	ug/kg wet					
2,4-DB	ND		6.66	ug/kg wet					
2,4,5-T	ND		6.66	ug/kg wet					
2,4,5-TP (Silvex)	ND		6.66	ug/kg wet					
Dalapon	ND		33.3	ug/kg wet					
Dicamba	ND		3.33	ug/kg wet					
Dichloroprop	ND		6.66	ug/kg wet					
Dinoseb	ND		6.66	ug/kg wet					
<i>Surrogate: 2,4-DCAA</i>			<i>31.0</i>	<i>ug/kg wet</i>	<i>33.3</i>		<i>93</i>	<i>40.6-150</i>	
LCS (8065074-BS1)					Prepared: 03/06/18 Analyzed: 03/08/18				
2,4-D	24.3		6.66	ug/kg wet	26.7		91	42.5-122	200
Acifluorfen	7.58		3.33	ug/kg wet	26.7		28	16.8-144	200
2,4-DB	25.1		6.66	ug/kg wet	26.7		94	17.6-149	200
2,4,5-T	25.2		6.66	ug/kg wet	26.7		94	25.9-138	200
2,4,5-TP (Silvex)	25.4		6.66	ug/kg wet	26.7		95	23.5-121	200
Dalapon	272		33.3	ug/kg wet	267		102	10-173	200
Dicamba	25.1		3.33	ug/kg wet	26.7		94	12.6-122	200
Dichloroprop	21.6		6.66	ug/kg wet	26.7		81	10-151	200
Dinoseb	ND		6.66	ug/kg wet	26.7			10-86.5	200
<i>Surrogate: 2,4-DCAA</i>			<i>27.8</i>	<i>ug/kg wet</i>	<i>33.3</i>		<i>84</i>	<i>40.6-150</i>	
LCS (8065074-BS2)					Prepared: 03/06/18 Analyzed: 03/08/18				
2,4-D	24.8		6.66	ug/kg wet	26.7		93	42.5-122	200

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Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8065074 - EPA 8151A (Continued)									
LCS (8065074-BS2)					Prepared: 03/06/18 Analyzed: 03/08/18				
Acifluorfen	9.23		3.33	ug/kg wet	26.7		35 16.8-144		200
2,4-DB	26.0		6.66	ug/kg wet	26.7		97 17.6-149		200
2,4,5-T	27.0		6.66	ug/kg wet	26.7		101 25.9-138		200
2,4,5-TP (Silvex)	25.7		6.66	ug/kg wet	26.7		96 23.5-121		200
Dalapon	295		33.3	ug/kg wet	267		110 10-173		200
Dicamba	25.3		3.33	ug/kg wet	26.7		95 12.6-122		200
Dichloroprop	21.1		6.66	ug/kg wet	26.7		79 10-151		200
Dinoseb	5.93	J	6.66	ug/kg wet	26.7		22 10-86.5		200
<i>Surrogate: 2,4-DCAA</i>			31.0	ug/kg wet	33.3		93 40.6-150		
LCS (8065074-BS3)					Prepared: 03/06/18 Analyzed: 03/08/18				
2,4-D	23.8		6.66	ug/kg wet	26.7		89 42.5-122		200
Acifluorfen	6.15		3.33	ug/kg wet	26.7		23 16.8-144		200
2,4-DB	22.0		6.66	ug/kg wet	26.7		82 17.6-149		200
2,4,5-T	21.8		6.66	ug/kg wet	26.7		82 25.9-138		200
2,4,5-TP (Silvex)	21.9		6.66	ug/kg wet	26.7		82 23.5-121		200
Dalapon	234		33.3	ug/kg wet	267		88 10-173		200
Dicamba	22.6		3.33	ug/kg wet	26.7		85 12.6-122		200
Dichloroprop	21.5		6.66	ug/kg wet	26.7		81 10-151		200
Dinoseb	5.59	J	6.66	ug/kg wet	26.7		21 10-86.5		200
<i>Surrogate: 2,4-DCAA</i>			26.4	ug/kg wet	33.3		79 40.6-150		
Matrix Spike (8065074-MS1)					Source: 8C02121-04 Prepared: 03/06/18 Analyzed: 03/08/18				
2,4-D	162		40.1	ug/kg dry	161	ND	101 17.1-157		47.4
Acifluorfen	87.7		20.0	ug/kg dry	161	ND	55 10-193		72.9

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Project Number: [none]
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04/09/18 09:12

Quality Control
(Continued)

Chlorinated Herbicides by EPA Method 8151A (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8065074 - EPA 8151A (Continued)									
Matrix Spike (8065074-MS1)		Source: 8C02121-04		Prepared: 03/06/18 Analyzed: 03/08/18					
2,4-DB	162		40.1	ug/kg dry	161	ND	101 15.3-156		42.3
2,4,5-T	129		40.1	ug/kg dry	161	ND	80 10-156		58.3
2,4,5-TP (Silvex)	121		40.1	ug/kg dry	161	ND	76 10-138		46.5
Dalapon	1330		201	ug/kg dry	1610	ND	83 10-156		38
Dicamba	113		20.0	ug/kg dry	161	ND	70 10-130		46
Dichloroprop	161		40.1	ug/kg dry	161	ND	100 14.1-137		60
Dinoseb	70.8		40.1	ug/kg dry	161	ND	44 10-165		39.1
<i>Surrogate: 2,4-DCAA</i>			148	ug/kg dry	201		74 40.6-150		
Matrix Spike Dup (8065074-MSD1)		Source: 8C02121-04		Prepared: 03/06/18 Analyzed: 03/08/18					
2,4-D	163		40.7	ug/kg dry	163	ND	100 17.1-157	0.4	47.4
Acifluorfen	65.4		20.4	ug/kg dry	163	ND	40 10-193	29	72.9
2,4-DB	177		40.7	ug/kg dry	163	ND	109 15.3-156	9	42.3
2,4,5-T	133		40.7	ug/kg dry	163	ND	82 10-156	3	58.3
2,4,5-TP (Silvex)	138		40.7	ug/kg dry	163	ND	85 10-138	13	46.5
Dalapon	1280		204	ug/kg dry	1630	ND	78 10-156	4	38
Dicamba	111		20.4	ug/kg dry	163	ND	68 10-130	2	46
Dichloroprop	160		40.7	ug/kg dry	163	ND	98 14.1-137	0.7	60
Dinoseb	54.8		40.7	ug/kg dry	163	ND	34 10-165	25	39.1
<i>Surrogate: 2,4-DCAA</i>			148	ug/kg dry	204		73 40.6-150		



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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
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Quality Control
(Continued)

Conventional Chemistry Parameters by SM/EPA Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8062006 - General Preparation									
Blank (8062006-BLK1)						Prepared & Analyzed: 03/03/18			
% Solids	ND		0.100	%					
Blank (8062006-BLK2)						Prepared & Analyzed: 03/03/18			
% Solids	ND		0.100	%					
Batch: 8062008 - General Prep									
Blank (8062008-BLK1)						Prepared & Analyzed: 03/03/18			
% Solids	ND		0.100	%					
Batch: 8065027 - General Preparation									
Blank (8065027-BLK1)						Prepared & Analyzed: 03/06/18			
Sulfide	ND		20.0	mg/kg wet					
Batch: 8088089 - General Prep									
Blank (8088089-BLK1)						Prepared & Analyzed: 03/29/18			
% Solids	ND		0.100	%					
Blank (8088089-BLK2)						Prepared & Analyzed: 03/29/18			
% Solids	ND		0.100	%					

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Quality Control
(Continued)

Cyanide by Preparation Method EPA 9010

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8065020 - General Prep									
Blank (8065020-BLK1)									
Cyanide (total)	ND		0.479	mg/kg wet					

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Quality Control (Continued)

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8064031 - EPA 7471A									
Blank (8064031-BLK1)									
Mercury	ND		0.0308	mg/kg wet					
Prepared: 03/05/18 Analyzed: 03/06/18									

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Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8065072 - EPA 3541										
Blank (8065072-BLK1)			Prepared: 03/06/18 Analyzed: 03/08/18							
Aldrin	ND		2.00	ug/kg wet						
alpha-BHC	ND		2.00	ug/kg wet						
beta-BHC	ND		2.00	ug/kg wet						
delta-BHC	ND		2.00	ug/kg wet						
gamma-BHC (Lindane)	ND		2.00	ug/kg wet						
Chlordane (tech)	ND		100	ug/kg wet						
4,4'-DDD	ND		2.00	ug/kg wet						
4,4'-DDE	ND		2.00	ug/kg wet						
4,4'-DDT	ND		2.00	ug/kg wet						
Dieldrin	ND		2.00	ug/kg wet						
Endosulfan I	ND		2.00	ug/kg wet						
Endosulfan II	ND		2.00	ug/kg wet						
Endosulfan sulfate	ND		2.00	ug/kg wet						
Endrin	ND		2.00	ug/kg wet						
Endrin aldehyde	ND		2.00	ug/kg wet						
Heptachlor	ND		2.00	ug/kg wet						
Heptachlor epoxide	ND		2.00	ug/kg wet						
Methoxychlor	ND		2.00	ug/kg wet						
Toxaphene	ND		100	ug/kg wet						
alpha-Chlordane	ND		2.00	ug/kg wet						
Isodrin	ND		2.00	ug/kg wet						
gamma-Chlordane	ND		2.00	ug/kg wet						
Endrin ketone	ND		2.00	ug/kg wet						
<i>Surrogate: Tetrachloro-meta-xylene</i>			20.0	ug/l	20.0		99.9	40-157		
<i>Surrogate: Decachlorobiphenyl</i>			20.3	ug/l	20.0		101	57.1-153		

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Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8065072 - EPA 3541 (Continued)									
LCS (8065072-BS1)					Prepared: 03/06/18 Analyzed: 03/08/18				
Aldrin	10.3		2.00	ug/kg wet	12.0	85.8	30.3-98.1		200
alpha-BHC	7.67		2.00	ug/kg wet	12.0	63.9	35.2-102		200
beta-BHC	12.7		2.00	ug/kg wet	12.0	106	35.2-126		200
delta-BHC	9.19		2.00	ug/kg wet	12.0	76.6	10-129		200
gamma-BHC (Lindane)	8.73		2.00	ug/kg wet	12.0	72.8	40.5-107		200
Chlordane (tech)	ND		100	ug/kg wet			80-120		200
4,4'-DDD	9.11		2.00	ug/kg wet	12.0	75.9	39-114		200
4,4'-DDE	9.49		2.00	ug/kg wet	12.0	79.1	44.7-112		200
4,4'-DDT	9.48		2.00	ug/kg wet	12.0	79.0	36.1-126		200
Dieldrin	8.72		2.00	ug/kg wet	12.0	72.7	42.2-116		200
Endosulfan I	9.39		2.00	ug/kg wet	12.0	78.3	10-79.2		200
Endosulfan II	9.51		2.00	ug/kg wet	12.0	79.2	10-63.3		200
Endosulfan sulfate	11.8		2.00	ug/kg wet	12.0	98.0	49.1-111		200
Endrin	9.72		2.00	ug/kg wet	12.0	81.0	41.7-127		200
Endrin aldehyde	9.84		2.00	ug/kg wet	12.0	82.0	45.3-128		200
Heptachlor	9.05		2.00	ug/kg wet	12.0	75.5	32.6-143		200
Heptachlor epoxide	10.4		2.00	ug/kg wet	12.0	86.5	43.8-111		200
Methoxychlor	10.4		2.00	ug/kg wet	12.0	86.8	52.8-131		200
Toxaphene	ND		100	ug/kg wet			80-120		200
alpha-Chlordane	9.53		2.00	ug/kg wet	12.0	79.4	38.6-106		200
Isodrin	11.4		2.00	ug/kg wet	12.0	94.7	40-27.8		200
gamma-Chlordane	10.8		2.00	ug/kg wet	12.0	90.3	45.3-152		200
Endrin ketone	9.95		2.00	ug/kg wet	12.0	82.9	46-128		200
<i>Surrogate: Tetrachloro-meta-xylene</i>			22.2	ug/l	20.0	111	40-157		

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Number of Containers: 6

Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit

Batch: 8065072 - EPA 3541 (Continued)

LCS (8065072-BS1)

Prepared: 03/06/18 Analyzed: 03/08/18

Surrogate: Decachlorobiphenyl 18.0 ug/l 20.0 90.1 57.1-153

Matrix Spike (8065072-MS1)

Source: 8C02121-03

Prepared: 03/06/18 Analyzed: 03/08/18

Aldrin	ND		383	ug/kg dry	115	ND	35.7-85.2		25.9
alpha-BHC	ND		383	ug/kg dry	115	ND	26.7-121		22.5
beta-BHC	ND		383	ug/kg dry	115	ND	37.5-131		24.3
delta-BHC	ND		383	ug/kg dry	115	ND	10.6-118		25.8
gamma-BHC (Lindane)	ND		383	ug/kg dry	115	ND	49.8-92.5		23.1
Chlordane (tech)	ND		19200	ug/kg dry		ND	80-120		200
4,4'-DDD	ND		383	ug/kg dry	115	ND	42.3-103		18.1
4,4'-DDE	ND		383	ug/kg dry	115	ND	47.8-100		18
4,4'-DDT	ND		383	ug/kg dry	115	ND	45.9-110		15.6
Dieldrin	ND		383	ug/kg dry	115	ND	44-107		21.3
Endosulfan I	ND		383	ug/kg dry	115	ND	30.5-113		27.5
Endosulfan II	ND		383	ug/kg dry	115	ND	19.2-124		49.2
Endosulfan sulfate	ND		383	ug/kg dry	115	ND	53.8-99.6		27.6
Endrin	ND		383	ug/kg dry	115	ND	46.8-117		27
Endrin aldehyde	ND		383	ug/kg dry	115	ND	37.4-125		29.4
Heptachlor	ND		383	ug/kg dry	115	ND	33.8-157		19.9
Heptachlor epoxide	ND		383	ug/kg dry	115	ND	44.2-103		18.6
Methoxychlor	ND		383	ug/kg dry	115	ND	53.3-134		24
Toxaphene	ND		19200	ug/kg dry		ND	80-120		200
alpha-Chlordane	ND		383	ug/kg dry	115	ND	44.7-93.3		18.3
gamma-Chlordane	ND		383	ug/kg dry	115	ND	47-151		21.2
Isodrin	ND		383	ug/kg dry	115	ND	29.7-124		27.8

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Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8065072 - EPA 3541 (Continued)									
Matrix Spike (8065072-MS1)		Source: 8C02121-03		Prepared: 03/06/18 Analyzed: 03/08/18					
Endrin ketone	ND		383	ug/kg dry	115	ND	48-115		26.6
<i>Surrogate: Tetrachloro-meta-xylene</i>			48.9	ug/l	20.0		244 40-157		
<i>Surrogate: Decachlorobiphenyl</i>			34.5	ug/l	20.0		172 57.1-153		
Matrix Spike Dup (8065072-MSD1)		Source: 8C02121-03		Prepared: 03/06/18 Analyzed: 03/08/18					
Aldrin	ND		401	ug/kg dry	120	ND	35.7-85.2		25.9
alpha-BHC	ND		401	ug/kg dry	120	ND	26.7-121		22.5
beta-BHC	ND		401	ug/kg dry	120	ND	37.5-131		24.3
delta-BHC	ND		401	ug/kg dry	120	ND	10.6-118		25.8
gamma-BHC (Lindane)	ND		401	ug/kg dry	120	ND	49.8-92.5		23.1
Chlordane (tech)	ND		20100	ug/kg dry		ND	80-120		200
4,4'-DDD	ND		401	ug/kg dry	120	ND	42.3-103		18.1
4,4'-DDE	ND		401	ug/kg dry	120	ND	47.8-100		18
4,4'-DDT	ND		401	ug/kg dry	120	ND	45.9-110		15.6
Dieldrin	ND		401	ug/kg dry	120	ND	44-107		21.3
Endosulfan I	ND		401	ug/kg dry	120	ND	30.5-113		27.5
Endosulfan II	ND		401	ug/kg dry	120	ND	19.2-124		49.2
Endosulfan sulfate	ND		401	ug/kg dry	120	ND	53.8-99.6		27.6
Endrin	ND		401	ug/kg dry	120	ND	46.8-117		27
Endrin aldehyde	ND		401	ug/kg dry	120	ND	37.4-125		29.4
Heptachlor	ND		401	ug/kg dry	120	ND	33.8-157		19.9
Heptachlor epoxide	ND		401	ug/kg dry	120	ND	44.2-103		18.6
Methoxychlor	ND		401	ug/kg dry	120	ND	53.3-134		24
Toxaphene	ND		20100	ug/kg dry		ND	80-120		200
alpha-Chlordane	ND		401	ug/kg dry	120	ND	44.7-93.3		18.3

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Project: Clarifier Sludge 2018

Project Number: [none]

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Quality Control
(Continued)

Organochlorine Pesticides by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8065072 - EPA 3541 (Continued)									
Matrix Spike Dup (8065072-MSD1)		Source: 8C02121-03		Prepared: 03/06/18 Analyzed: 03/08/18					
Isodrin	ND		401	ug/kg dry	120	ND	29.7-124		27.8
gamma-Chlordane	ND		401	ug/kg dry	120	ND	47-151		21.2
Endrin ketone	ND		401	ug/kg dry	120	ND	48-115		26.6
<i>Surrogate: Tetrachloro-meta-xylene</i>			93.2	ug/l	20.0		466 40-157		
<i>Surrogate: Decachlorobiphenyl</i>			31.9	ug/l	20.0		160 57.1-153		

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Project Number: [none]

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Project Manager: Angela G

Number of Containers: 6

Quality Control (Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8064081 - EPA 3541									
Blank (8064081-BLK1)					Prepared: 03/05/18 Analyzed: 03/07/18				
PCB-1016	ND		0.010	mg/kg wet					
PCB-1221	ND		0.010	mg/kg wet					
PCB-1232	ND		0.010	mg/kg wet					
PCB-1242	ND		0.010	mg/kg wet					
PCB-1248	ND		0.010	mg/kg wet					
PCB-1254	ND		0.010	mg/kg wet					
PCB-1260	ND		0.010	mg/kg wet					
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.100	mg/l	0.100		100	11-140	
<i>Surrogate: Decachlorobiphenyl</i>			0.104	mg/l	0.100		104	24.4-140	
LCS (8064081-BS1)					Prepared: 03/05/18 Analyzed: 03/07/18				
PCB-1016	ND		0.010	mg/kg wet			60.9-137		200
PCB-1221	0.050		0.010	mg/kg wet	0.100		49.7	60.3-143	200
PCB-1232	ND		0.010	mg/kg wet				56.2-138	200
PCB-1242	ND		0.010	mg/kg wet				55.1-135	200
PCB-1248	ND		0.010	mg/kg wet				57.8-140	200
PCB-1254	0.075		0.010	mg/kg wet	0.100		74.6	69.4-134	200
PCB-1260	ND		0.010	mg/kg wet				58.1-140	200
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.102	mg/l	0.100		102	11-140	
<i>Surrogate: Decachlorobiphenyl</i>			0.109	mg/l	0.100		109	24.4-140	
Matrix Spike (8064081-MS1)					Source: 8C02055-01 Prepared: 03/05/18 Analyzed: 03/07/18				
PCB-1016	ND		0.010	mg/kg wet		ND	27.6-156		38.1
PCB-1221	0.534		0.010	mg/kg wet	0.100	ND	534	10-187	46.3
PCB-1232	ND		0.010	mg/kg wet		ND	54.6-146		47.4

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

Polychlorinated Biphenyls by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064081 - EPA 3541 (Continued)										
Matrix Spike (8064081-MS1)			Source: 8C02055-01		Prepared: 03/05/18 Analyzed: 03/07/18					
PCB-1242	ND		0.010	mg/kg wet		ND		38.6-147		37.1
PCB-1248	ND		0.010	mg/kg wet		ND		32.1-157		35.4
PCB-1254	0.067		0.010	mg/kg wet	0.100	ND	66.5	20.5-174		30.1
PCB-1260	ND		0.010	mg/kg wet		ND		32.7-155		22.9
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0677	mg/l	0.100		67.7	11-140		
<i>Surrogate: Decachlorobiphenyl</i>			0.0588	mg/l	0.100		58.8	24.4-140		
Matrix Spike Dup (8064081-MSD1)			Source: 8C02055-01		Prepared: 03/05/18 Analyzed: 03/07/18					
PCB-1016	ND		0.010	mg/kg wet		ND		27.6-156		38.1
PCB-1221	0.199		0.010	mg/kg wet	0.100	ND	199	10-187	91.4	46.3
PCB-1232	ND		0.010	mg/kg wet		ND		54.6-146		47.4
PCB-1242	ND		0.010	mg/kg wet		ND		38.6-147		37.1
PCB-1248	ND		0.010	mg/kg wet		ND		32.1-157		35.4
PCB-1254	0.066		0.010	mg/kg wet	0.100	ND	66.0	20.5-174	0.754	30.1
PCB-1260	ND		0.010	mg/kg wet		ND		32.7-155		22.9
<i>Surrogate: Tetrachloro-meta-xylene</i>			0.0697	mg/l	0.100		69.7	11-140		
<i>Surrogate: Decachlorobiphenyl</i>			0.0685	mg/l	0.100		68.5	24.4-140		



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Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541										
Blank (8064048-BLK1)					Prepared: 03/05/18 Analyzed: 03/07/18					
Diphenylamine	ND		0.333	mg/kg wet						
Benzidine	ND		1.67	mg/kg wet						
Pyridine	ND		0.667	mg/kg wet						
Acenaphthene	ND		0.333	mg/kg wet						
Acenaphthylene	ND		0.333	mg/kg wet						
Anthracene	ND		0.333	mg/kg wet						
Benzoic acid	ND		3.33	mg/kg wet						
Benzo (a) anthracene	ND		0.333	mg/kg wet						
Benzo (b) fluoranthene	ND		0.333	mg/kg wet						
Benzo (k) fluoranthene	ND		0.333	mg/kg wet						
Benzo (g,h,i) perylene	ND		0.333	mg/kg wet						
Benzo (a) pyrene	ND		0.333	mg/kg wet						
Benzyl alcohol	ND		0.333	mg/kg wet						
Bis(2-chloroethoxy)methane	ND		0.333	mg/kg wet						
Bis(2-chloroethyl)ether	ND		0.333	mg/kg wet						
Bis(2-chloroisopropyl)ether	ND		0.333	mg/kg wet						
Bis(2-ethylhexyl)phthalate	ND		0.333	mg/kg wet						
4-Bromophenyl phenyl ether	ND		0.333	mg/kg wet						
Butyl benzyl phthalate	ND		0.333	mg/kg wet						
4-Chloroaniline	ND		0.333	mg/kg wet						
4-Chloro-3-methylphenol	ND		0.333	mg/kg wet						
2-Chloronaphthalene	ND		0.333	mg/kg wet						
2-Chlorophenol	ND		0.333	mg/kg wet						
4-Chlorophenyl phenyl ether	ND		0.333	mg/kg wet						
Chrysene	ND		0.333	mg/kg wet						

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Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)									
Blank (8064048-BLK1)					Prepared: 03/05/18 Analyzed: 03/07/18				
Dibenz (a,h) anthracene	ND		0.333	mg/kg wet					
Dibenzofuran	ND		0.333	mg/kg wet					
Di-n-butyl phthalate	ND		0.333	mg/kg wet					
1,2-Dichlorobenzene	ND		0.333	mg/kg wet					
1,3-Dichlorobenzene	ND		0.333	mg/kg wet					
1,4-Dichlorobenzene	ND		0.333	mg/kg wet					
3,3'-Dichlorobenzidine	ND		0.333	mg/kg wet					
2,4-Dichlorophenol	ND		0.333	mg/kg wet					
Diethyl phthalate	ND		0.333	mg/kg wet					
2,4-Dimethylphenol	ND		0.333	mg/kg wet					
Dimethyl phthalate	ND		0.333	mg/kg wet					
4,6-Dinitro-2-methylphenol	ND		1.67	mg/kg wet					
2,4-Dinitrophenol	ND		1.67	mg/kg wet					
2,4-Dinitrotoluene	ND		0.333	mg/kg wet					
2,6-Dinitrotoluene	ND		0.333	mg/kg wet					
Di-n-octyl phthalate	ND		0.333	mg/kg wet					
Aniline	ND		0.333	mg/kg wet					
Naphthalene	ND		0.333	mg/kg wet					
N-Nitrosodimethylamine	ND		0.333	mg/kg wet					
3 & 4-Methylphenol	ND		0.333	mg/kg wet					
Acetophenone	ND		0.333	mg/kg wet					
1,2-Diphenylhydrazine	ND		0.333	mg/kg wet					
Fluoranthene	ND		0.333	mg/kg wet					
Fluorene	ND		0.333	mg/kg wet					
Hexachlorobenzene	ND		0.333	mg/kg wet					

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Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
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Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
Blank (8064048-BLK1)			Prepared: 03/05/18 Analyzed: 03/07/18							
Hexachlorobutadiene	ND		0.333	mg/kg wet						
Hexachlorocyclopentadiene	ND		0.333	mg/kg wet						
Hexachloroethane	ND		0.333	mg/kg wet						
Indeno (1,2,3-cd) pyrene	ND		0.333	mg/kg wet						
Isophorone	ND		0.333	mg/kg wet						
2-Methylnaphthalene	ND		0.333	mg/kg wet						
2-Methylphenol	ND		0.333	mg/kg wet						
2-Nitroaniline	ND		0.333	mg/kg wet						
3-Nitroaniline	ND		0.333	mg/kg wet						
4-Nitroaniline	ND		0.333	mg/kg wet						
Nitrobenzene	ND		0.333	mg/kg wet						
2-Nitrophenol	ND		0.333	mg/kg wet						
4-Nitrophenol	ND		0.333	mg/kg wet						
N-Nitrosodiphenylamine	ND		0.333	mg/kg wet						
N-Nitrosodi-n-propylamine	ND		0.333	mg/kg wet						
Pentachlorophenol	ND		1.67	mg/kg wet						
Phenanthrene	ND		0.333	mg/kg wet						
Phenol	ND		0.333	mg/kg wet						
Pyrene	ND		0.333	mg/kg wet						
1,2,4-Trichlorobenzene	ND		0.333	mg/kg wet						
2,4,5-Trichlorophenol	ND		0.333	mg/kg wet						
2,4,6-Trichlorophenol	ND		0.333	mg/kg wet						
Surrogate: 2-Fluorophenol			42.9	mg/l	40.0		107	10-169		
Surrogate: Phenol-d6			39.4	mg/l	40.0		99	10-166		
Surrogate: Nitrobenzene-d5			24.4	mg/l	20.0		122	18.8-170		

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Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control (Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
Blank (8064048-BLK1)					Prepared: 03/05/18 Analyzed: 03/07/18					
Surrogate: 2-Fluorobiphenyl			19.8	mg/l	20.0		99	35.1-154		
Surrogate: 2,4,6-Tribromophenol			40.8	mg/l	40.0		102	20-158		
Surrogate: Terphenyl-d14			21.2	mg/l	20.0		106	52.1-160		
LCS (8064048-BS1)					Prepared: 03/05/18 Analyzed: 03/07/18					
Benidine	7.45		1.67	mg/kg wet	16.7		45	10-35		10
Diphenylamine	17.0		0.333	mg/kg wet	16.7		102	56-103		10
Pyridine	12.1		0.667	mg/kg wet	16.7		72	10-137		10
Acenaphthene	15.6		0.333	mg/kg wet	16.7		93	63-126		10
Acenaphthylene	17.5		0.333	mg/kg wet	16.7		105	63-132		10
Anthracene	17.2		0.333	mg/kg wet	16.7		103	68-124		10
Benzoic acid	17.1		3.33	mg/kg wet	16.7		102	31-104		10
Benzo (a) anthracene	16.9		0.333	mg/kg wet	16.7		101	70-124		10
Benzo (b) fluoranthene	16.0		0.333	mg/kg wet	16.7		96	76-125		10
Benzo (k) fluoranthene	16.4		0.333	mg/kg wet	16.7		99	71-125		10
Benzo (g,h,i) perylene	22.6		0.333	mg/kg wet	16.7		136	73-127		10
Benzo (a) pyrene	16.0		0.333	mg/kg wet	16.7		96	71-127		10
Benzyl alcohol	16.2		0.333	mg/kg wet	16.7		97	34-138		10
Bis(2-chloroethoxy)methane	16.1		0.333	mg/kg wet	16.7		96	39-131		10
Bis(2-chloroethyl)ether	12.4		0.333	mg/kg wet	16.7		75	11-149		10
Bis(2-chloroisopropyl)ether	14.2		0.333	mg/kg wet	16.7		85	17-154		10
Bis(2-ethylhexyl)phthalate	17.6		0.333	mg/kg wet	16.7		106	63-115		10
4-Bromophenyl phenyl ether	16.7		0.333	mg/kg wet	16.7		100	68-121		10
Butyl benzyl phthalate	16.9		0.333	mg/kg wet				62-122		10
4-Chloroaniline	10.7		0.333	mg/kg wet	16.7		64	34-103		10

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Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
LCS (8064048-BS1)										
Prepared: 03/05/18 Analyzed: 03/07/18										
4-Chloro-3-methylphenol	17.2		0.333	mg/kg wet	16.7		103	62-123		10
2-Chloronaphthalene	15.3		0.333	mg/kg wet	16.7		92	57-124		10
2-Chlorophenol	16.0		0.333	mg/kg wet	16.7		96	24-142		10
4-Chlorophenyl phenyl ether	16.0		0.333	mg/kg wet	16.7		96	65-122		10
Chrysene	15.6		0.333	mg/kg wet	16.7		94	71-125		10
Dibenz (a,h) anthracene	19.1		0.333	mg/kg wet	16.7		114	74-128		10
Dibenzofuran	15.6		0.333	mg/kg wet	16.7		94	63-118		10
Di-n-butyl phthalate	15.4		0.333	mg/kg wet	16.7		92	72-123		10
1,2-Dichlorobenzene	14.9		0.333	mg/kg wet	16.7		90	10-151		10
1,3-Dichlorobenzene	14.6		0.333	mg/kg wet	16.7		87	10-156		10
1,4-Dichlorobenzene	14.8		0.333	mg/kg wet	16.7		89	10-154		10
3,3'-Dichlorobenzidine	12.0		0.333	mg/kg wet	16.7		72	48-107		10
2,4-Dichlorophenol	16.6		0.333	mg/kg wet	16.7		99	50-130		10
Diethyl phthalate	15.4		0.333	mg/kg wet	16.7		92	67-124		10
2,4-Dimethylphenol	16.4		0.333	mg/kg wet	16.7		98	40-111		10
Dimethyl phthalate	17.1		0.333	mg/kg wet	16.7		102	66-121		10
4,6-Dinitro-2-methylphenol	14.2		1.67	mg/kg wet	16.7		85	10-111		10
2,4-Dinitrophenol	7.77		1.67	mg/kg wet	16.7		47	10-111		10
2,4-Dinitrotoluene	16.8		0.333	mg/kg wet	16.7		101	66-112		10
2,6-Dinitrotoluene	15.5		0.333	mg/kg wet	16.7		93	57-128		10
Di-n-octyl phthalate	17.4		0.333	mg/kg wet	16.7		104	56-119		10
Aniline	12.4		0.333	mg/kg wet	16.7		75	16-99		10
Naphthalene	15.6		0.333	mg/kg wet	16.7		94	32-140		10
N-Nitrosodimethylamine	14.9		0.333	mg/kg wet	16.7		89	10-156		10
Acetophenone	11.9		0.333	mg/kg wet	16.7		71	27-142		10

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Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
LCS (8064048-BS1)										
Prepared: 03/05/18 Analyzed: 03/07/18										
3 & 4-Methylphenol	15.4		0.333	mg/kg wet				41-118		10
1,2-Diphenylhydrazine	15.2		0.333	mg/kg wet				60-127		10
Fluoranthene	16.9		0.333	mg/kg wet	16.7		101	71-128		10
Fluorene	16.0		0.333	mg/kg wet	16.7		96	69-122		10
Hexachlorobenzene	15.7		0.333	mg/kg wet	16.7		94	69-118		10
Hexachlorobutadiene	15.7		0.333	mg/kg wet	16.7		94	18-146		10
Hexachlorocyclopentadiene	12.8		0.333	mg/kg wet	16.7		77	22-155		10
Hexachloroethane	15.3		0.333	mg/kg wet	16.7		92	10-154		10
Indeno (1,2,3-cd) pyrene	17.7		0.333	mg/kg wet	16.7		106	73-130		10
Isophorone	15.6		0.333	mg/kg wet	16.7		93	42-131		10
2-Methylnaphthalene	16.1		0.333	mg/kg wet	16.7		97	47-131		10
2-Methylphenol	16.1		0.333	mg/kg wet	16.7		96	35-119		10
2-Nitroaniline	15.9		0.333	mg/kg wet	16.7		96	57-128		10
3-Nitroaniline	12.8		0.333	mg/kg wet	16.7		77	60-112		10
4-Nitroaniline	14.3		0.333	mg/kg wet	16.7		86	44-127		10
Nitrobenzene	16.5		0.333	mg/kg wet	16.7		99	28-138		10
2-Nitrophenol	17.5		0.333	mg/kg wet	16.7		105	31-144		10
4-Nitrophenol	14.5		0.333	mg/kg wet	16.7		87	50-118		10
N-Nitrosodiphenylamine	17.0		0.333	mg/kg wet				54-104		10
N-Nitrosodi-n-propylamine	15.7		0.333	mg/kg wet	16.7		94	34-135		10
Pentachlorophenol	15.4		1.67	mg/kg wet	16.7		92	56-126		10
Phenanthrene	15.4		0.333	mg/kg wet	16.7		93	68-118		10
Phenol	13.1		0.333	mg/kg wet	16.7		78	32-129		10
Pyrene	16.1		0.333	mg/kg wet	16.7		97	70-126		10
1,2,4-Trichlorobenzene	15.8		0.333	mg/kg wet	16.7		95	24-141		10

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Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)									
LCS (8064048-BS1)									
					Prepared: 03/05/18 Analyzed: 03/07/18				
2,4,5-Trichlorophenol	15.1		0.333	mg/kg wet	16.7		91	63-138	10
2,4,6-Trichlorophenol	17.7		0.333	mg/kg wet	16.7		106	64-128	10
Surrogate: 2-Fluorophenol			37.9	mg/l	40.0		95	35-115	
Surrogate: Phenol-d6			36.5	mg/l	40.0		91	35-115	
Surrogate: Nitrobenzene-d5			18.3	mg/l	20.0		92	35-115	
Surrogate: 2-Fluorobiphenyl			17.9	mg/l	20.0		90	40-120	
Surrogate: 2,4,6-Tribromophenol			39.4	mg/l	40.0		98	40-120	
Surrogate: Terphenyl-d14			17.5	mg/l	20.0		88	40-120	
Matrix Spike (8064048-MS1)									
			Source: 8C02121-04		Prepared: 03/05/18 Analyzed: 03/07/18				
Pyridine	450		29.0	mg/kg dry	726	ND	62	70-130	200
Benzidine	ND		72.6	mg/kg dry		ND		70-130	200
Diphenylamine	754		14.5	mg/kg dry	726	ND	104	70-130	200
Acenaphthene	679		14.5	mg/kg dry	726	ND	93	70-130	200
Acenaphthylene	762		14.5	mg/kg dry	726	ND	105	70-130	200
Anthracene	750		14.5	mg/kg dry	726	ND	103	70-130	200
Benzoic acid	ND		145	mg/kg dry		ND		70-130	200
Benzo (a) anthracene	761		14.5	mg/kg dry	726	1.27	105	70-130	200
Benzo (b) fluoranthene	699		14.5	mg/kg dry	726	ND	96	70-130	200
Benzo (k) fluoranthene	711		14.5	mg/kg dry	726	ND	98	70-130	200
Benzo (g,h,i) perylene	954		14.5	mg/kg dry	726	ND	131	70-130	200
Benzo (a) pyrene	697		14.5	mg/kg dry	726	ND	96	70-130	200
Benzyl alcohol	710		14.5	mg/kg dry	726	ND	98	70-130	200
Bis(2-chloroethoxy)methane	911		14.5	mg/kg dry	726	ND	126	70-130	200
Bis(2-chloroethyl)ether	608		14.5	mg/kg dry	726	ND	84	70-130	200

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
Matrix Spike (8064048-MS1)			Source: 8C02121-04		Prepared: 03/05/18 Analyzed: 03/07/18					
Bis(2-chloroisopropyl)ether	612		14.5	mg/kg dry	726	ND	84	70-130		200
Bis(2-ethylhexyl)phthalate	850		14.5	mg/kg dry	726	6.61	116	70-130		200
4-Bromophenyl phenyl ether	738		14.5	mg/kg dry	726	ND	102	70-130		200
Butyl benzyl phthalate	773		14.5	mg/kg dry	726	ND		70-130		200
4-Chloroaniline	772		14.5	mg/kg dry	726	ND	106	70-130		200
4-Chloro-3-methylphenol	978		14.5	mg/kg dry	726	ND	135	70-130		200
2-Chloronaphthalene	680		14.5	mg/kg dry	726	ND	94	70-130		200
2-Chlorophenol	703		14.5	mg/kg dry	726	ND	97	70-130		200
4-Chlorophenyl phenyl ether	700		14.5	mg/kg dry	726	ND	96	70-130		200
Chrysene	691		14.5	mg/kg dry	726	ND	95	70-130		200
Dibenz (a,h) anthracene	751		14.5	mg/kg dry	726	ND	104	70-130		200
Dibenzofuran	675		14.5	mg/kg dry	726	ND	93	70-130		200
Di-n-butyl phthalate	697		14.5	mg/kg dry	726	ND	96	70-130		200
1,2-Dichlorobenzene	623		14.5	mg/kg dry	726	ND	86	70-130		200
1,3-Dichlorobenzene	613		14.5	mg/kg dry	726	ND	84	70-130		200
1,4-Dichlorobenzene	616		14.5	mg/kg dry	726	ND	85	70-130		200
3,3'-Dichlorobenzidine	1.45	J	14.5	mg/kg dry	726	ND		70-130		200
2,4-Dichlorophenol	949		14.5	mg/kg dry	726	ND	131	70-130		200
Diethyl phthalate	682		14.5	mg/kg dry	726	ND	94	70-130		200
2,4-Dimethylphenol	975		14.5	mg/kg dry	726	ND	134	70-130		200
Dimethyl phthalate	734		14.5	mg/kg dry	726	ND	101	70-130		200
4,6-Dinitro-2-methylphenol	403		72.6	mg/kg dry	726	ND	56	70-130		200
2,4-Dinitrophenol	163		72.6	mg/kg dry	726	ND	23	70-130		200
2,4-Dinitrotoluene	737		14.5	mg/kg dry	726	ND	102	70-130		200
2,6-Dinitrotoluene	678		14.5	mg/kg dry	726	ND	93	70-130		200

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Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
Matrix Spike (8064048-MS1)		Source: 8C02121-04		Prepared: 03/05/18 Analyzed: 03/07/18						
Di-n-octyl phthalate	788		14.5	mg/kg dry	726	ND	109	70-130		200
Aniline	608		14.5	mg/kg dry	726	ND	84	70-130		200
Naphthalene	886		14.5	mg/kg dry	726	ND	122	70-130		200
N-Nitrosodimethylamine	634		14.5	mg/kg dry	726	ND	87	70-130		200
Acetophenone	516		14.5	mg/kg dry	726	ND	71	70-130		200
3 & 4-Methylphenol	710		14.5	mg/kg dry		ND		70-130		200
Fluoranthene	767		14.5	mg/kg dry	726	0.763	106	70-130		200
Fluorene	702		14.5	mg/kg dry	726	ND	97	70-130		200
Hexachlorobenzene	660		14.5	mg/kg dry	726	ND	91	70-130		200
Hexachlorobutadiene	887		14.5	mg/kg dry	726	ND	122	70-130		200
Hexachlorocyclopentadiene	379		14.5	mg/kg dry	726	ND	52	70-130		200
Hexachloroethane	638		14.5	mg/kg dry	726	ND	88	70-130		200
Indeno (1,2,3-cd) pyrene	764		14.5	mg/kg dry	726	ND	105	70-130		200
Isophorone	895		14.5	mg/kg dry	726	3.43	123	70-130		200
2-Methylnaphthalene	933		14.5	mg/kg dry	726	ND	128	70-130		200
2-Methylphenol	714		14.5	mg/kg dry	726	ND	98	70-130		200
2-Nitroaniline	720		14.5	mg/kg dry	726	ND	99	70-130		200
3-Nitroaniline	637		14.5	mg/kg dry	726	ND	88	70-130		200
4-Nitroaniline	684		14.5	mg/kg dry	726	ND	94	70-130		200
Nitrobenzene	935		14.5	mg/kg dry	726	ND	129	70-130		200
2-Nitrophenol	1010		14.5	mg/kg dry	726	ND	139	70-130		200
4-Nitrophenol	635		14.5	mg/kg dry	726	ND	87	70-130		200
N-Nitrosodiphenylamine	754		14.5	mg/kg dry		ND		70-130		200
N-Nitrosodi-n-propylamine	697		14.5	mg/kg dry	726	ND	96	70-130		200
Pentachlorophenol	635		72.6	mg/kg dry	726	ND	88	70-130		200

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Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
Matrix Spike (8064048-MS1)		Source: 8C02121-04		Prepared: 03/05/18 Analyzed: 03/07/18						
Phenanthrene	675		14.5	mg/kg dry	726	0.890	93	70-130		200
Phenol	577		14.5	mg/kg dry	726	ND	79	70-130		200
Pyrene	733		14.5	mg/kg dry	726	ND	101	70-130		200
1,2,4-Trichlorobenzene	890		14.5	mg/kg dry	726	ND	123	70-130		200
2,4,5-Trichlorophenol	667		14.5	mg/kg dry	726	ND	92	70-130		200
2,4,6-Trichlorophenol	798		14.5	mg/kg dry	726	ND	110	70-130		200
Surrogate: 2-Fluorophenol			37.1	mg/l	40.0		93	10-169		
Surrogate: Phenol-d6			36.9	mg/l	40.0		92	10-166		
Surrogate: Nitrobenzene-d5			21.9	mg/l	20.0		109	18.8-170		
Surrogate: 2-Fluorobiphenyl			17.8	mg/l	20.0		89	35.1-154		
Surrogate: 2,4,6-Tribromophenol			40.6	mg/l	40.0		102	20-158		
Surrogate: Terphenyl-d14			18.1	mg/l	20.0		91	52.1-160		
Matrix Spike Dup (8064048-MSD1)		Source: 8C02121-04		Prepared: 03/05/18 Analyzed: 03/07/18						
Pyridine	405		27.1	mg/kg dry	677	ND	60	70-130	11	200
Diphenylamine	682		13.5	mg/kg dry	677	ND	101	70-130	10	200
Benzidine	ND		67.7	mg/kg dry		ND		70-130		200
Acenaphthene	623		13.5	mg/kg dry	677	ND	92	70-130	9	200
Acenaphthylene	711		13.5	mg/kg dry	677	ND	105	70-130	7	200
Anthracene	680		13.5	mg/kg dry	677	ND	100	70-130	10	200
Benzoic acid	ND		135	mg/kg dry		ND		70-130		200
Benzo (a) anthracene	684		13.5	mg/kg dry	677	1.27	101	70-130	11	200
Benzo (b) fluoranthene	635		13.5	mg/kg dry	677	ND	94	70-130	10	200
Benzo (k) fluoranthene	643		13.5	mg/kg dry	677	ND	95	70-130	10	200
Benzo (g,h,i) perylene	590		13.5	mg/kg dry	677	ND	87	70-130	47	200

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Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

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Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
Matrix Spike Dup (8064048-MSD1)		Source: 8C02121-04		Prepared: 03/05/18 Analyzed: 03/07/18						
Benzo (a) pyrene	630		13.5	mg/kg dry	677	ND	93	70-130	10	200
Benzyl alcohol	640		13.5	mg/kg dry	677	ND	95	70-130	10	200
Bis(2-chloroethoxy)methane	863		13.5	mg/kg dry	677	ND	127	70-130	5	200
Bis(2-chloroethyl)ether	557		13.5	mg/kg dry	677	ND	82	70-130	9	200
Bis(2-chloroisopropyl)ether	559		13.5	mg/kg dry	677	ND	83	70-130	9	200
Bis(2-ethylhexyl)phthalate	760		13.5	mg/kg dry	677	6.61	111	70-130	11	200
4-Bromophenyl phenyl ether	670		13.5	mg/kg dry	677	ND	99	70-130	10	200
Butyl benzyl phthalate	700		13.5	mg/kg dry		ND		70-130	10	200
4-Chloroaniline	736		13.5	mg/kg dry	677	ND	109	70-130	5	200
4-Chloro-3-methylphenol	920		13.5	mg/kg dry	677	ND	136	70-130	6	200
2-Chloronaphthalene	629		13.5	mg/kg dry	677	ND	93	70-130	8	200
2-Chlorophenol	649		13.5	mg/kg dry	677	ND	96	70-130	8	200
4-Chlorophenyl phenyl ether	638		13.5	mg/kg dry	677	ND	94	70-130	9	200
Chrysene	629		13.5	mg/kg dry	677	ND	93	70-130	9	200
Dibenz (a,h) anthracene	671		13.5	mg/kg dry	677	ND	99	70-130	11	200
Dibenzofuran	623		13.5	mg/kg dry	677	ND	92	70-130	8	200
Di-n-butyl phthalate	638		13.5	mg/kg dry	677	ND	94	70-130	9	200
1,2-Dichlorobenzene	569		13.5	mg/kg dry	677	ND	84	70-130	9	200
1,3-Dichlorobenzene	558		13.5	mg/kg dry	677	ND	83	70-130	9	200
1,4-Dichlorobenzene	559		13.5	mg/kg dry	677	ND	83	70-130	10	200
3,3'-Dichlorobenzidine	ND		13.5	mg/kg dry		ND		70-130	200	200
2,4-Dichlorophenol	898		13.5	mg/kg dry	677	ND	133	70-130	6	200
Diethyl phthalate	625		13.5	mg/kg dry	677	ND	92	70-130	9	200
2,4-Dimethylphenol	884		13.5	mg/kg dry	677	ND	131	70-130	10	200
Dimethyl phthalate	678		13.5	mg/kg dry	677	ND	100	70-130	8	200

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Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
Matrix Spike Dup (8064048-MSD1)		Source: 8C02121-04		Prepared: 03/05/18 Analyzed: 03/07/18						
4,6-Dinitro-2-methylphenol	373		67.7	mg/kg dry	677	ND	55	70-130	8	200
2,4-Dinitrophenol	127		67.7	mg/kg dry	677	ND	19	70-130	25	200
2,4-Dinitrotoluene	670		13.5	mg/kg dry	677	ND	99	70-130	10	200
2,6-Dinitrotoluene	639		13.5	mg/kg dry	677	ND	94	70-130	6	200
Di-n-octyl phthalate	718		13.5	mg/kg dry	677	ND	106	70-130	9	200
Aniline	557		13.5	mg/kg dry	677	ND	82	70-130	9	200
Naphthalene	831		13.5	mg/kg dry	677	ND	123	70-130	6	200
N-Nitrosodimethylamine	583		13.5	mg/kg dry	677	ND	86	70-130	8	200
Acetophenone	478		13.5	mg/kg dry	677	ND	71	70-130	8	200
3 & 4-Methylphenol	646		13.5	mg/kg dry		ND		70-130	9	200
Fluoranthene	692		13.5	mg/kg dry	677	0.763	102	70-130	10	200
Fluorene	647		13.5	mg/kg dry	677	ND	96	70-130	8	200
Hexachlorobenzene	605		13.5	mg/kg dry	677	ND	89	70-130	9	200
Hexachlorobutadiene	831		13.5	mg/kg dry	677	ND	123	70-130	6	200
Hexachlorocyclopentadiene	358		13.5	mg/kg dry	677	ND	53	70-130	6	200
Hexachloroethane	579		13.5	mg/kg dry	677	ND	86	70-130	10	200
Indeno (1,2,3-cd) pyrene	690		13.5	mg/kg dry	677	ND	102	70-130	10	200
Isophorone	842		13.5	mg/kg dry	677	3.43	124	70-130	6	200
2-Methylnaphthalene	874		13.5	mg/kg dry	677	ND	129	70-130	6	200
2-Methylphenol	645		13.5	mg/kg dry	677	ND	95	70-130	10	200
2-Nitroaniline	662		13.5	mg/kg dry	677	ND	98	70-130	8	200
3-Nitroaniline	594		13.5	mg/kg dry	677	ND	88	70-130	7	200
4-Nitroaniline	612		13.5	mg/kg dry	677	ND	90	70-130	11	200
Nitrobenzene	883		13.5	mg/kg dry	677	ND	130	70-130	6	200
2-Nitrophenol	913		13.5	mg/kg dry	677	ND	135	70-130	10	200

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Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

Semivolatile Organic Compounds by EPA Extraction Method 3541 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit
Batch: 8064048 - EPA 3541 (Continued)										
Matrix Spike Dup (8064048-MSD1)		Source: 8C02121-04		Prepared: 03/05/18 Analyzed: 03/07/18						
4-Nitrophenol	600		13.5	mg/kg dry	677	ND	89	70-130	6	200
N-Nitrosodiphenylamine	682		13.5	mg/kg dry	677	ND		70-130	10	200
N-Nitrosodi-n-propylamine	633		13.5	mg/kg dry	677	ND	94	70-130	10	200
Pentachlorophenol	577		67.7	mg/kg dry	677	ND	85	70-130	10	200
Phenanthrene	614		13.5	mg/kg dry	677	0.890	91	70-130	9	200
Phenol	510		13.5	mg/kg dry	677	ND	75	70-130	12	200
Pyrene	662		13.5	mg/kg dry	677	ND	98	70-130	10	200
1,2,4-Trichlorobenzene	831		13.5	mg/kg dry	677	ND	123	70-130	7	200
2,4,5-Trichlorophenol	606		13.5	mg/kg dry	677	ND	90	70-130	10	200
2,4,6-Trichlorophenol	732		13.5	mg/kg dry	677	ND	108	70-130	9	200
Surrogate: 2-Fluorophenol			36.5	mg/l	40.0		91	10-169		
Surrogate: Phenol-d6			36.0	mg/l	40.0		90	10-166		
Surrogate: Nitrobenzene-d5			21.8	mg/l	20.0		109	18.8-170		
Surrogate: 2-Fluorobiphenyl			17.3	mg/l	20.0		86	35.1-154		
Surrogate: 2,4,6-Tribromophenol			39.1	mg/l	40.0		98	20-158		
Surrogate: Terphenyl-d14			17.7	mg/l	20.0		88	52.1-160		

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental
651 Holiday Drive Foster Plaza #5
Pittsburgh PA, 15220
Project Manager: Angela G

Project: Clarifier Sludge 2018
Project Number: [none]
Collector: CLIENT
Number of Containers: 6
Reported:
04/09/18 09:12

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8065029 - EPA 3010A TCLP/SPLP									
Blank (8065029-BLK1)					Prepared: 03/06/18 Analyzed: 03/07/18				
Aluminum	ND		0.500	mg/l					
Antimony	ND		0.0500	mg/l					
Arsenic	ND		0.0400	mg/l					
Barium	ND		0.0500	mg/l					
Beryllium	ND		0.0100	mg/l					
Cadmium	ND		0.0200	mg/l					
Chromium	ND		0.0250	mg/l					
Cobalt	ND		0.0500	mg/l					
Copper	ND		0.0500	mg/l					
Iron	ND		0.200	mg/l					
Lead	ND		0.0400	mg/l					
Manganese	ND		0.0500	mg/l					
Nickel	ND		0.250	mg/l					
Selenium	ND		0.100	mg/l					
Silver	ND		0.0200	mg/l					
Thallium	ND		0.100	mg/l					
Vanadium	ND		0.100	mg/l					
Zinc	ND		0.100	mg/l					

Batch: 8065045 - EPA 200 Series

Blank (8065045-BLK1)					Prepared: 03/06/18 Analyzed: 03/07/18				
Mercury	ND		0.000200	mg/l					

Batch: 8068069 - EPA 3010A TCLP/SPLP

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Project Number: [none]
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04/09/18 09:12

Quality Control
(Continued)

TCLP Metals extracted by EPA 1311 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Blank (8068069-BLK1)					Prepared: 03/09/18 Analyzed: 03/19/18				
Potassium	1.460066		1	mg/l					
Blank (8068069-BLK2)					Prepared: 03/09/18 Analyzed: 03/19/18				
Potassium	1.052919		1	mg/l					

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04/09/18 09:12

Quality Control
(Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8064046 - EPA 3510C									
Blank (8064046-BLK1)					Prepared: 03/05/18 Analyzed: 03/06/18				
Pyridine	ND		2.00	ug/l					
Benzidine	ND		5.00	ug/l					
1,4-Dichlorobenzene	ND		1.00	ug/l					
2,4-Dinitrotoluene	ND		1.00	ug/l					
3 & 4-Methylphenol	ND		1.00	ug/l					
Hexachlorobenzene	ND		1.00	ug/l					
Hexachlorobutadiene	ND		1.00	ug/l					
Hexachloroethane	ND		1.00	ug/l					
2-Methylphenol	ND		1.00	ug/l					
Nitrobenzene	ND		1.00	ug/l					
Pentachlorophenol	ND		5.00	ug/l					
2,4,5-Trichlorophenol	ND		1.00	ug/l					
2,4,6-Trichlorophenol	ND		1.00	ug/l					
Surrogate: 2-Fluorophenol			17.1	ug/l	40.0		42.7 30.6-66.8		
Surrogate: Phenol-d6			11.1	ug/l	40.0		27.7 17.9-51.5		
Surrogate: Nitrobenzene-d5			15.5	ug/l	20.0		77.4 30.6-140		
Surrogate: 2-Fluorobiphenyl			13.8	ug/l	20.0		68.8 40.6-121		
Surrogate: 2,4,6-Tribromophenol			33.1	ug/l	40.0		82.8 50.4-131		
Surrogate: Terphenyl-d14			18.6	ug/l	20.0		93.0 10-185		
LCS (8064046-BS1)					Prepared: 03/05/18 Analyzed: 03/06/18				
Pyridine	19.6			ug/l	50.0		39.1 10-71		10
1,4-Dichlorobenzene	34.6			ug/l	50.0		69.2 21-65		10
2,4-Dinitrotoluene	49.9			ug/l	50.0		99.8 76-149		10
3 & 4-Methylphenol	37.3		1.00	ug/l			39-78		10

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064046 - EPA 3510C (Continued)										
LCS (8064046-BS1)					Prepared: 03/05/18 Analyzed: 03/06/18					
Hexachlorobenzene	44.9			ug/l	50.0		89.7	60-108		10
Hexachlorobutadiene	35.8			ug/l	50.0		71.5	28-78		10
Hexachloroethane	33.6			ug/l	50.0		67.2	17-64		10
2-Methylphenol	38.7			ug/l	50.0		77.5	42-79		10
Nitrobenzene	45.7			ug/l	50.0		91.3	46-92		10
Pentachlorophenol	46.0			ug/l	50.0		91.9	47-127		10
2,4,5-Trichlorophenol	44.7			ug/l	50.0		89.3	57-116		10
2,4,6-Trichlorophenol	51.2			ug/l	50.0		102	55-125		10
Surrogate: 2-Fluorophenol			19.6	ug/l	40.0		49.0	30.6-66.8		
Surrogate: Phenol-d6			15.0	ug/l	40.0		37.5	17.9-51.5		
Surrogate: Nitrobenzene-d5			16.9	ug/l	20.0		84.4	30.6-140		
Surrogate: 2-Fluorobiphenyl			17.4	ug/l	20.0		87.2	40.6-121		
Surrogate: 2,4,6-Tribromophenol			39.8	ug/l	40.0		99.6	50.4-131		
Surrogate: Terphenyl-d14			16.9	ug/l	20.0		84.5	10-185		
Matrix Spike (8064046-MS1)			Source: 8C02084-02		Prepared: 03/05/18 Analyzed: 03/06/18					
Pyridine	21.5			ug/l	50.0	0.00	43.0	13.2-70.5		49.4
1,4-Dichlorobenzene	31.2			ug/l	50.0	0.00	62.5	16.4-76.7		54.2
2,4-Dinitrotoluene	45.8			ug/l	50.0	0.00	91.6	64-115		20.6
3 & 4-Methylphenol	35.3		1.00	ug/l		86.5		31.3-86.6		34.3
Hexachlorobenzene	41.1			ug/l	50.0	0.00	82.1	41.4-132		23.1
Hexachlorobutadiene	42.7			ug/l	50.0	0.00	85.4	21.8-94.1		42.9
Hexachloroethane	31.2			ug/l	50.0	0.00	62.4	14.1-74.4		58.3
2-Methylphenol	35.6			ug/l	50.0	0.00	71.3	38.5-85		32.5
Nitrobenzene	51.2			ug/l	50.0	0.00	102	37.8-106		28.9

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PaDEP: PA 41-04684



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Max Environmental

Project: Clarifier Sludge 2018

651 Holiday Drive Foster Plaza #5

Project Number: [none]

Reported:

Pittsburgh PA, 15220

Collector: CLIENT

04/09/18 09:12

Project Manager: Angela G

Number of Containers: 6

Quality Control
(Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 8064046 - EPA 3510C (Continued)										
Matrix Spike (8064046-MS1)		Source: 8C02084-02		Prepared: 03/05/18 Analyzed: 03/06/18						
Pentachlorophenol	42.8			ug/l	50.0	0.00	85.7	60.9-128		23.6
2,4,5-Trichlorophenol	39.1			ug/l	50.0	0.00	78.2	67.7-115		21.9
2,4,6-Trichlorophenol	46.4			ug/l	50.0	0.00	92.7	60.2-107		22.7
Surrogate: 2-Fluorophenol			17.8	ug/l	40.0		44.5	30.6-66.8		
Surrogate: Phenol-d6			12.9	ug/l	40.0		32.2	17.9-51.5		
Surrogate: Nitrobenzene-d5			19.0	ug/l	20.0		95.2	30.6-140		
Surrogate: 2-Fluorobiphenyl			14.4	ug/l	20.0		71.8	40.6-121		
Surrogate: 2,4,6-Tribromophenol			32.9	ug/l	40.0		82.2	50.4-131		
Surrogate: Terphenyl-d14			16.8	ug/l	20.0		84.0	10-185		
Matrix Spike Dup (8064046-MSD1)		Source: 8C02084-02		Prepared: 03/05/18 Analyzed: 03/06/18						
Pyridine	21.1			ug/l	50.0	0.00	42.3	13.2-70.5	1.64	49.4
1,4-Dichlorobenzene	32.3			ug/l	50.0	0.00	64.6	16.4-76.7	3.37	54.2
2,4-Dinitrotoluene	49.6			ug/l	50.0	0.00	99.1	64-115	7.84	20.6
3 & 4-Methylphenol	37.0		1.00	ug/l		86.5		31.3-86.6	4.90	34.3
Hexachlorobenzene	42.9			ug/l	50.0	0.00	85.8	41.4-132	4.36	23.1
Hexachlorobutadiene	44.6			ug/l	50.0	0.00	89.2	21.8-94.1	4.38	42.9
Hexachloroethane	33.1			ug/l	50.0	0.00	66.3	14.1-74.4	5.97	58.3
2-Methylphenol	36.2			ug/l	50.0	0.00	72.3	38.5-85	1.50	32.5
Nitrobenzene	53.6			ug/l	50.0	0.00	107	37.8-106	4.56	28.9
Pentachlorophenol	45.1			ug/l	50.0	0.00	90.3	60.9-128	5.25	23.6
2,4,5-Trichlorophenol	40.1			ug/l	50.0	0.00	80.2	67.7-115	2.55	21.9
2,4,6-Trichlorophenol	49.3			ug/l	50.0	0.00	98.6	60.2-107	6.15	22.7
Surrogate: 2-Fluorophenol			18.3	ug/l	40.0		45.8	30.6-66.8		
Surrogate: Phenol-d6			13.4	ug/l	40.0		33.5	17.9-51.5		

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(570) 494-6380
PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Max Environmental

651 Holiday Drive Foster Plaza #5

Pittsburgh PA, 15220

Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Quality Control
(Continued)

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: 8064046 - EPA 3510C (Continued)									
Matrix Spike Dup (8064046-MSD1)		Source: 8C02084-02		Prepared: 03/05/18 Analyzed: 03/06/18					
Surrogate: Nitrobenzene-d5			19.8	ug/l	20.0		98.8 30.6-140		
Surrogate: 2-Fluorobiphenyl			15.4	ug/l	20.0		77.2 40.6-121		
Surrogate: 2,4,6-Tribromophenol			34.5	ug/l	40.0		86.2 50.4-131		
Surrogate: Terphenyl-d14			17.9	ug/l	20.0		89.4 10-185		



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Notes

- AA Due to the dilution required by the nature of the sample matrix, the matrix spike could not be recovered for this sample.
- B5 Analysis was requested after the EPA holding time had elapsed.
- D A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered above the acceptance range for the noted analyte.
- E A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered below the acceptance range for the noted analyte.
- F The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered above the acceptance range for the noted analyte.
- H The spike recovery was above the acceptance range for the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- I The spike recovery was below the acceptance range for the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
- J Detected between the Method Detection Limit (MDL) and the Reporting Limit (RL); therefore, the result is an estimated value.
- L The noted analyte was detected in the method blank.
- O The noted surrogate value was above the acceptance range.
- Q Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.
- T Result was over the calibration range, but within the linear dynamic range of the instrument for the noted analyte.



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Project Number: [none]

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Reported:

04/09/18 09:12

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

* G indicates analysis performed by Fairway Laboratories, Inc. at the Greensburg location PaDEP: 65-00392. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Project Manager: Angela G

Project: Clarifier Sludge 2018

Project Number: [none]

Collector: CLIENT

Number of Containers: 6

Reported:

04/09/18 09:12

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved,

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.



2019 9th Ave.
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Alltoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

Client Name: MAX ENVIRONMENTAL
Address: 233 Oak Ln Yukon, PA 15098

Contact: _____
Phone #: _____
Fax #: _____

Project Name: Yukon Sludge Sampling
Quote/PO #: _____

TAT: Normal ☐ Rush ☐
Rush TAT subject to pre-approval and surcharge
Date Required: / /

Sample Description/Location

GRAB ☐ Composite ☐

Received on ice? Y N

Sample Temp: _____

Reportable to PADEP? Yes ☐ No ☐

PWSID # _____

GRAB -or- Composite

Composite Start

Start Date

Start Time

End Date

End Time

Solid

Water

Other

of Containers

VOCs

SVOCs, PCBs, Pest. and Herb

Amenable Metals, Total and Cyanide

pH, Fluoride, Sulfide

% Solids

TCLP SVOCs and Metals, pH

LAB USE ONLY

Work Order # 2021

Attach # 1

FLI Page # 1 of 2

Tracking # _____

Bottle Type/Comments

Remarks

Sampled by: [Signature] Date: 3/1/18 Time:

Received by: [Signature] Date: 3/2/18 Time: 1345

Relinquished by: [Signature] Date: 3/2/18 Time: 1230

Received by: [Signature] Date: 3-2-18 Time: 1300

Relinquished by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File

Canary - FLI Copy

Pink - Customer Receipt Copy

Chain of Custody Receiving Document

Receiver: #1

Page 2 of 2

Date/Time of this check: 3-7-18 1823

Client: Max Enrico

Lab # 8607121

Received on ICE? ☒ * Sample Temperature when delivered to the Lab: 3.3 Acceptable? ☒ * or In cool down process? ☐ *

*** (Not applicable for WV compliance) ***

Custody Seals? NO Intact? NA

COC/Labels on bottles agree? ☒ *

Correct containers for all the analysis requested? ☒ * Matrix: Solid

[illegible]

*** DEVIATION PRESENT:**

CLIENT CALLED:

CLIENT RESPONSE:

- ③ No Ice ()
- ③ Not at Proper Temperature ()
- ③ Wrong Container ()
- ③ Missing Information: ()

YES ()
By Whom:

Date:

Proceed with analysis; qualify data	()
Will Resample	()
Provided Information	()
No Response: Proceed and qualified	()

Client Contact: _____ **Date:** _____

***Comments:**

Key Environmental, Inc.

DATE: December 18, 2017

FROM: Kendra Chintella

SUBJECT: Max Environmental Clarifier Sludge

SAMPLE DELIVERY GROUP (SDG): 7J18185

SAMPLES: YUKON-RO-101717

ANALYSES: Method 9045 (pH), 4500-CN (Amenable Cyanide), 8151A (Herbicides), 9056A (Fluoride) 9030/9034 (Sulfide), 2540 (Percent Solids), 9014 (Total Cyanide), 6010B/7471B (Metals/TCLP Metals), 8081B (Pesticides), 8082 (PCBs), 8270D (SVOCs/TCLP SVOCs), 1311 (TCLP pH), 8260B (VOCs)

LABORATORY: Fairway Laboratories, Altoona

The data contained in this SDG were evaluated with regard to the following parameters:

- ☐ Data Completeness
Noncompliances: No laboratory control samples were provided for pesticides, TCLP mercury, TCLP metals, or TCLP SVOCs from the laboratory.
- ☐ Holding Times
Noncompliances: None
- ☐ Laboratory Blank Contamination
Noncompliances: Di-n-butyl phthalate, antimony, selenium, and vanadium were detected in the method blank. See page 2 for details.
- ☐ Surrogate Recovery
Noncompliances: The surrogate recoveries of tetrachloro-meta-xylene and decachlorobiphenyl were above the recovery limits in sample YUKON-RO-101717. No action was taken on this basis.
- ☐ Matrix Spike/Matrix Spike Duplicate
Noncompliances: The MS and/or MSD recoveries of sulfide, barium, antimony, thallium, dichlorodifluoromethane, pyridine, benzyl alcohol, bis(2-chloroethoxy)methane, bis(2-chloroethyl)ether, bis(2-chloroisopropyl)ether, 4-chloroaniline, 2-chlorophenol, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2,4-dimethylphenol, aniline, naphthalene, n-nitrosodimethylamine, acetophenone, hexachlorobutadiene, hexachlorocyclopentadiene, hexachloroethane, 2-methylnaphthalene, 2-methylphenol, nitrobenzene, 2-nitrophenol, n-nitrosodimethylamine, phenol, 1,2,4-trichlorobenzene, hexachlorobenzene, aldrin, alpha-BHC, beta-BHC, gamma-BHC, 4,4'-DDT, endosulfan sulfate, heptachlor epoxide, methoxychlor, alpha-chlordane, endrin ketone, 2,4-DB, dichloroprop, and PCB-1248 were outside the recovery limits. No action was taken on this basis.
- ☐ Laboratory Control Sample
Noncompliances: The LCS recoveries of pyridine, benzyl alcohol, bis(2-chloroethoxy)methane, bis(2-chloroethyl)ether, bis(2-chloroisopropyl)ether, 2-chloronaphthalene, 2-chlorophenol, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2,4-dichlorophenol, 2,4-dimethylphenol, aniline, naphthalene, n-nitrosodimethylamine, acetophenone, hexachlorobutadiene, hexachlorocyclopentadiene, hexachloroethane, isophorone, 2-methylnaphthalene, 2-methylphenol,

nitrobenzene, 2-nitrophenol, n-nitrosodi-n-propylamine, phenol, 1,2,4-trichlorobenzene, and 2,4,6-trichlorophenol fell below the recovery limits. The LCS recoveries of acetone and 2,4-D were above the recovery limits. No action was taken on this basis.

- Laboratory Duplicate Sample
Noncompliances: The RPD for TCLP selenium was above the recovery limits. No data qualification was necessary as this is a batch laboratory duplicate sample and not associated with the reported sample results.

Laboratory Blank Contamination:

The following analytes were detected in the method blank at the following concentrations:

<u>Analyte</u>	<u>Maximum Concentration</u>	<u>Blank Action Level</u>
Di-n-butyl phthalate	0.113 J mg/kg	0.565 mg/kg
Antimony, TCLP	0.0332 J mg/l	0.166 mg/l
Selenium, TCLP	0.0238 J mg/l	0.119 mg/l
Vanadium, TCLP	0.0277 J mg/l	0.1385 mg/l

An action level of 5X the maximum concentration was used to evaluate the sample data for laboratory blank contamination. Associated samples with concentrations below the blank action level were qualified "U" for laboratory blank contamination.

Key Environmental, Inc.

DATE: April 13, 2018

FROM: Kendra Chintella

SUBJECT: Max Environmental Clarifier Sludge

SAMPLE DELIVERY GROUP (SDG): 7L15058

SAMPLES: YUKON-CLARIFIER-12 13 17

ANALYSES: Method 9045 (pH), 4500-CN (Amenable Cyanide), 8151A (Herbicides), 9056A (Fluoride) 4500-S2F (Sulfide), 2540 (Percent Solids), 9014 (Total Cyanide), 6010B/7471B (Metals/TCLP Metals), 8081B (Pesticides), 8082 (PCBs), 8270D (SVOCs/TCLP SVOCs), 1311 (TCLP pH), 8260B (VOCs)

LABORATORY: Fairway Laboratories, Altoona

The data contained in this SDG were evaluated with regard to the following parameters:

- ☐ Data Completeness
Noncompliances: No laboratory control samples were provided for TCLP mercury or TCLP metals from the laboratory. No laboratory QA/QC was provided for sulfide from the laboratory.
- ☐ Holding Times
Noncompliances: None
- ☐ Laboratory Blank Contamination
Noncompliances: Aluminum, barium, cadmium, calcium, copper, iron, potassium, zinc, benzo(a)anthracene, chrysene, 1,4-dichlorobenzene, and fluoranthene were detected in the method blank. See page 2 for details.
- ☐ Surrogate Recovery
Noncompliances: None
- ☐ Matrix Spike/Matrix Spike Duplicate
Noncompliances: The MS recoveries of aluminum, manganese, calcium, chromium, magnesium, iron, and zinc were above the recovery limits. The MS recovery of antimony fell below the recovery limits. The MSD recovery of PCB-1221 was above the recovery limits. The MS/MSD recoveries of benzo(b)fluoranthene, benzo(g,h,i)perylene, dibenz(a,h)anthracene, di-n-octyl phthalate, and indeno(1,2,3-cd)pyrene were above the recovery limits. The MSD recovery of 2,4-dinitrophenol fell below the recovery limits. No action was taken on this basis.
- ☐ Laboratory Control Sample
Noncompliances: The LCS recoveries of aldrin, 4,4'-DDT, endosulfan I, endosulfan II, endosulfan sulfate, methoxychlor, and diphenylamine were above the recovery limits. No action was taken on this basis.
- ☐ Laboratory Duplicate Sample
Noncompliances: The RPDs for arsenic, calcium, magnesium, silver, zinc, and vanadium were above the recovery limits. No data qualification was necessary as this is a batch laboratory duplicate sample and not associated with the reported sample results.

Laboratory Blank Contamination:

The following analytes were detected in the method blank at the following concentrations:

<u>Analyte</u>	<u>Maximum Concentration</u>	<u>Blank Action Level</u>
Aluminum	5.07 J mg/kg	25.35 mg/kg
Barium	0.367 J mg/kg	1.835 mg/kg
Cadmium	0.0665 J mg/kg	0.3325 mg/kg
Calcium	18.8 J mg/kg	94 mg/kg
Copper	0.358 J mg/kg	1.79 mg/kg
Iron	2.15 J mg/kg	10.75 mg/kg
Potassium	16.4 J mg/kg	82 mg/kg
Zinc	4.63 mg/kg	23.15 mg/kg
Benzo(a)anthracene	0.12 J mg/kg	0.6 mg/kg
Chrysene	0.07 J mg/kg	0.35 mg/kg
1,4-Dichlorobenzene	0.06 J mg/kg	0.3 mg/kg
Fluoranthene	0.08 J mg/kg	0.4 mg/kg

An action level of 5X the maximum concentration was used to evaluate the sample data for laboratory blank contamination. Associated samples with concentrations below the blank action level were qualified "U" for laboratory blank contamination.

Copper and potassium results were reported by the laboratory as a result of the use of Inductively Coupled Plasma, but potassium was not a target analyte for the project. These results is therefore irrelevant.

Key Environmental, Inc.

DATE: April 13, 2018

FROM: Kendra Chintella

SUBJECT: Max Environmental Clarifier Sludge

SAMPLE DELIVERY GROUP (SDG): 8C02121

SAMPLES: YUKON-TH-01-030118, YUKON-TH-02-030118(Duplicate of TH-01)

ANALYSES: Method 9045 (pH), 4500-CN (Amenable Cyanide), 8151A (Herbicides), 9056A (Fluoride) 9030/9034 (Sulfide), 2540 (Percent Solids), 9014 (Total Cyanide), 6010B/7471B (Metals/TCLP Metals), 8081B (Pesticides), 8082 (PCBs), 8270D (SVOCs/TCLP SVOCs), 1311 (TCLP pH), 8260B (VOCs)

LABORATORY: Fairway Laboratories, Altoona

The data contained in this SDG were evaluated with regard to the following parameters:

- ☐ Data Completeness
Noncompliances: No laboratory control samples were provided for metals, sulfide, cyanide, mercury, TCLP metals, or TCLP mercury from the laboratory.
- ☐ Holding Times
Noncompliances: None
- ☐ Laboratory Blank Contamination
Noncompliances: TCLP potassium was detected in the method blank. See page 2 for details.
- ☐ Field Duplicate Precision
Noncompliances: See page 2 for details.
- ☐ Surrogate Recovery
Noncompliances: The surrogate recoveries of tetrachloro-meta-xylene and decachlorobiphenyl were above the recovery limits in YUKON-TH-02. No action was taken on this basis.
- ☐ Matrix Spike/Matrix Spike Duplicate
Noncompliances: The MS/MSD recoveries of PCB-1221, 4-chloro-3-methylphenol, 2,4-dichlorophenol, 2,4-dimethylphenol, and 2-nitrophenol were above the recovery limits. The MS/MSD recoveries of pyridine, 4,6-dinitro-2-methylphenol, 2,4-dinitrophenol, and hexachlorocyclopentadiene fell below the recovery limits. The MS recovery of benzo(g,h,i)perylene was above the recovery limits. The MSD recovery of TCLP nitrobenzene was above the recovery limits. No action was taken on this basis.
- ☐ Laboratory Control Sample
Noncompliances: The LCS recoveries of endosulfan II, benzidine, benzo(g,h,i)perylene, TCLP 1,4-dichlorobenzene, and TCLP hexachloroethane were above the recovery limits. The LCS recovery of PCB-1221 fell below the recovery limits. No action was taken on this basis.
- ☐ Laboratory Duplicate Sample
Noncompliances: Laboratory duplicate samples were not provided from the laboratory.

Laboratory Blank Contamination:

The following analytes were detected in the method blank at the following concentrations:

<u>Analyte</u>	<u>Maximum Concentration</u>	<u>Blank Action Level</u>
Potassium, TCLP	1.46 mg/l	7.3 mg/l

Potassium results were reported by the laboratory as a result of the use of Inductively Coupled Plasma, but potassium was not a target analyte for the project. This result is therefore irrelevant.

The laboratory also measured 1,2,4-Trimethylbenzene but this analyte was not requested and thus this result is also irrelevant.

Field Duplicate Precision:

FIELD DUPLICATE PRECISION					
ANALYTE	TH-01	QUAL	TH-02	QUAL	RPD
1,2,4-Trimethylbenzene	0.022	J	0.012	J	58.82*
2-Butanone	0.245		0.0628		118.39*
4-Methyl-2-pentanone	0.0719		0.0463		43.32
Acetone	0.849	U	0.48		NC
Aluminum	16100		13500		17.57
Aluminum, TCLP	0.065	U	0.114	J	NC
Antimony	27		25.6		5.32
Antimony, TCLP	0.0535		0.0483	J	10.22
Arsenic	126		105		18.18
Barium	3150		4340		31.78
Barium, TCLP	0.854		0.842		1.42
Benzo(a)anthracene	0.924	U	1.27	J	NC
Benzo(b)fluoranthene	2.03	U	1.4	J	NC
Beryllium	0.695	J	0.597	J	15.17
bis(2-Ethylhexyl)phthalate	5.91	J	6.61	J	11.18
Cadmium	18.1		15.5		15.48
Carbon disulfide	0.0553		0.0023	U	NC
Chromium	461		386		17.71
Chrysene	1.48	J	0.636	U	NC
Cobalt	22		18.9		15.16
Copper	503		426		16.58
Copper, TCLP	0.00826	J	0.0141	J	52.24*
Cyanide, amenable	6.97		0.392	U	NC
Cyanide, total	15.8		11.8		28.99
Ethylbenzene	0.0121	J	0.0073	J	49.48
Fluoranthene	0.924	U	0.763	J	NC
Fluoride	80	J	61.3	J	26.47
Iron	35400		29800		17.18
Isophorone	2.03	U	3.43	J	NC
Lead	2000		1660		18.58
Manganese	1250		1060		16.45
Manganese, TCLP	3.43		3.59		4.56

Mercury	0.57		0.458		21.79
Nickel	194		165		16.16
Nickel, TCLP	0.182	J	0.209	J	13.81
pH	8.52		8.61		1.05
pH, TCLP	7.31		7.3		0.14
Phenanthrene	0.924	U	0.89	J	NC
Potassium	3580		3080		15.02
Potassium, TCLP	26.7		23.8		11.49
Selenium	26		22.1		16.22
Selenium, TCLP	0.0224	J	0.0216	J	3.64
Silver	18.8		15.8		17.34
Silver, TCLP	0.00783	J	0.00792	J	1.14
Styrene	0.0183	J	0.0101	J	57.75*
Sulfide	7	U	13.4	J	NC
Thallium	4.92	J	4.65	J	5.64
Thallium, TCLP	0.0363	J	0.0251	J	36.48
Toluene	0.0175	J	0.0128	J	31.02
Vanadium	57.5		47.5		19.05
Vanadium, TCLP	0.0432	J	0.0403	J	6.95
Xylenes, total	0.0374	J	0.0239	J	44.05
Zinc	2710		2360		13.81
Zinc, TCLP	0.135		0.216		46.15

NC – not calculated due to nondetect result

* - RPD is greater than 50%, associated samples are qualified as estimated, "J," due to laboratory or field sampling imprecision

APPENDIX G

LABORATORY EQUIPMENT LIST

Quality Assurance Manual

Departments:

Microbiology

Organics

Inorganics

FAIRWAY LABORATORIES

COPY

**Partial*

Company Headquarters
Main Laboratory
2019 9th Avenue
P. O. Box 1925
Altoona, PA 16603

Phone: (814)946-4306
Fax: (814)946-8791

Michael P. Tyler
President
Laboratory Director

Michelle Fye
QA Officer
Laboratory Supervisor

Signature/Date: _____

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Section I – Major Equipment/ Instrumentation

Equipment	Serial Number	Year
GCMS- Volatiles		
Agilent Technologies GC/MS HP 6890 Series	US00028872	1998
Agilent Technologies GC/MS HP 6890N Series	US10235072	2002
Agilent Technologies GC 6890 Series	US00042389	2013
Agilent Technologies 5973Network MS Detector	US21863858	2002
Agilent Technologies 5973 MS Detector	US91922602	1998
Agilent Technologies MS 5973N	US10461779	2013
OI Analytical Concentrator 4660	K617466039P	2016
OI Analytical Concentrator 4660	K442466216P	2016
OI Model 4660 Sample Concentrator	D535466018P	2006
OI Model 4660 Sample Concentrator	D535466019P	2006
OI Eclipse Model 4660 Sample Concentrator	H242466152P	2013
OI Eclipse Model 4660 Sample Concentrator	K617466039P	
EST Archon Autosampler	12969	1999
EST Archon Autosampler	13661	2002
EST Archon Autosampler	13684	2002
OI Analytical Autosampler	13879	2003
OI Model 4552 Autosampler	13513	2008
OI Archon Model 4552 Autosampler	US12350003	2013
OI 4100 Autosampler	C53841410	2016
Agilent Technologies GC 6890 N Series	US10322072	2008
Auto Sampler Turbomatrix 40	HS1111166	2011
Clarus 680	680S11111604	2011
Agilent Technologies GC 6890 N Series GRO	US10322072	2008
O-I Analytical 4552 Auto Sampler GRO	13513	2008
Tekmar Purge Trap/ Condensor System	T0692452490	2000

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GCMS- Semi Volatiles		
Perkin Elmer Autosystem XLGC	610N1100901	2002
Perkin Elmer Clarus 500	650N4022701	2003
Perkin Elmer Clarus 500 (Glycol)	650S09100504	2011
GlasCol combo-Mantle (soxlet)		1999
Foss Soxtec 2055	537220608	2006
DryVap-Horizon Technology	1077	2006
Agilent Technologies 5975 C	US83120181	2009
Agilent Technologies 7693 Auto Sampler	CN946502140	2009
Agilent Technologies GC 7890 Series	US10833011	2009
Agilent Technologies GC 7890B PCB1 (G3440B)	CN17493190	2018
Agilent Technologies GC 7890B Herb2 (G3440B)	CN17493191	2018

LabConco RapidVap	090199134	2010
Agilent (DRO2) GC/FID	CN15483035	2016
Agilent 7693 Auto Sampler	CN15240052	2016

Section I – Major Equipment/ Instrumentation, continued:

Equipment	Serial Number	Year	
METALS			
Perkin Elmer FIMS 100 Mercury analyzer	101S3020401	2004	
Perkin Elmer Optima 7300DV Inductively Coupled Plasma	077C1040701	2013	
Perkin Elmer SciEx Elon DRC II Inductively Coupled Plasma Mass Spec	AI00110504	2005	
CPI Mod Block		2000	
CPI Mod Block	SYST-0530-0000	2012	
SCP Mod Block	MSX0308300579	2008	
CPI Mod Block	51125602.17	2012	
Poly Science Chiller (ICP)	108600639		
Perkin Elmer Chiller (GFAA)	31955101702		
Perkin Elmer DRCII ICPMS	AI00110504	2016	
OG/TPH			
Horizon Spedex Controller	97-155	1999	
Horizon Spedex 4790 Analyzer	05-0600	2006	
Horizon Spedex 4790 Analyzer	05-0601	2006	
Horizon Spedex 4790	03-0435	2004	
Speed Vap-Horizon Technology	052075	2006	
Horizon SPE-DEX 4790 Analyzer	13-1916	2013	
Ion Chromatograph			
Dionex ICS-2100 Ion Chromatograph	Detector	064556	2010
	Machine	10110178	2010
AS40 Auto Sampler		08070204	2008
Dionex ICS-1500 Ion Chromatograph	Detector	08070182	2008
	Machine	08060950	2008
Dionex ICS-1100 Ion Chromatograph	Machine	12070730	2012
AS-AP Auto Sampler		15062369	2015
Balances			
Mettler AB204S Balance	1122453720	2003	
Scout Pro electronic balance 2000g	7122350254	2003	
Mettler PL 202-S Top Load Balance		2006	
Mettler ML204 (0.1mg)	B31137295	2013	
Fisher (0.01g)	B224010836	2013	
Precisa Balance XB220A SCS	5001139	2015	
Oven/Incubators/Cooler			
Fisher Isotemp 500 Hot Oven	485	1993	
Fisher Hot Oven 625G	912N0219	1999	
Bally (Walk in) 3678-4 Cooler	DX9103909-01	2002	

Thermo Scientific Precision Model 815 Incubator (BOD)	300193185	2018
Fisher ISOTEMP Model 304 Incubator (BOD)	FBDJ51274	2006
Barnstead Thermolyn A1300 Muffle Furnace	112430	2002
Tafco (Walk in) Cooler	10-872-TB	2011
Fisher Isotemp 600 Series Oven	610646-321	2011
Fisher ISOTEMP Model 3720A (BOD)	300054429	2016

MICRO

VWR 155 Incubator	0900198	1997
Quantitray Model 2x Sealer (IDEXX)	01628	2002
Precision Scientific Water Bath	603101847	2005
Market Forge Sterilomatic Autoclave		
Thermo Precision Water Bath 2860	205885-431	2010

Water Purification

Barnstead RoPure	1266100355182	2010
Barnstead Nanopore Diamond Analytical Ultrapure	1190031152057	2004

Miscellaneous Equipment

Gampe Custom Tumbler System (X2)		
Gelman Sciences ZHE System #15220	108324-003	2001
Genesy 10 Vis Spectrophotometer	205H007001	2004
Orion EA940 Expandable Ion Analyzer (Back-up Unit)	3102	2000
Teledyne Tekmar TOC Fusion TOC Analyzer	US17362026	2018
Turbidimeter Micro 100	603015	1999
YSI 5000 Series Dissolved Oxygen Meter	07K101751	2007
VWR Dylastir Magnetic Stir		
Frigidaire Ultra II Glass Washing Station	TH20142278	
YSI 3100 Conductivity Meter	02B0871	1999
Foss TKN Tecator Digestor Auto	520008333	2009
Foss TKN Tecator Digestor Auto	520042979	2010
VWR Ultrasonic Cleaner Model 50HT	01HS 38 220	2005
Compressor – Ingersoll 60 Gallon	1012270256	
Manitowac Q130 Ice Machine Model Qy0134A	020364913	2002
Koehler Instrument Company – Ignitability model K16200	R02291288	2004
Analog Heat Block – VWR (HAA)	060721029	2006
Glastron Enviro-MIDI Distillation Unit	2097	2003
Oakton ISE meter pH 2500 series	30156	1999
Bosch Automatic Dishwasher	11X513	2008
HACH BOD Meter HQ440d Multi Plus Probe	120300068709	2012
Orion Versa Star 4 Channels pH/ISE/Conductivity Meter	V01147	2012
BioScience COD Reactor	COD-B0270	2014
Mantech Titrasip AutoTitrator	MT-1B5-974	2016
Mantech Automax 73 AutoSampler	191G5107	2016

Section I – Major Equipment/ Instrumentation, continued:

Equipment		Serial Number	Year
Hoods			
Kewaunee Scientific Hood Air Flow - Air Alert 300	5'	Metals Hood 116600	
Kewaunee Scientific Hood Air Flow - Air Alert 300	5'	Phenol Hood	
Labconco Chemical Fume Hood	4'	TKN Hood	2010
Labconco Protector Laboratory Hood	6'	Semi Extraction 060960608	
Labconco Chemical Fume Hood	4'	Acid Wash	
Kewaunee Scientific Hood Air Flow	8'	Dry Vap R137894	2008

Minor Equipment

ISE Probes:
Cyanide
Ammonia
Fluoride
Nitrate
Automatic Pipeters (X7)

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APPENDIX H

DELISTING RISK ASSESSMENT SOFTWARE (DRAS) ANALYSIS

APPENDIX H: TOXICITY EVALUATION USING HAZARDOUS WASTE DELISTING RISK ASSESSMENT SOFTWARE (DRAS)

BACKGROUND

For this petition, the Hazardous Waste Delisting Risk Assessment Software (DRAS) was used to assess the toxicity of the Yukon Waste to human and environmental health. This software uses built-in fate and transport models in conjunction with established health-based metrics to produce site-specific benchmarks useful for delisting a given waste.

As a risk assessment tool, DRAS imparts many benefits. Primarily, it is a USEPA validated method specifically designed for delisting waste. Thus, the consistency and reliability of the software have already been established in prior testing. The software is also simple to use, requiring few user inputs which ultimately minimizes user-induced error. DRAS then clearly presents the results in a format that is directly applicable to delistings under Title 40 of the Code of Federal Regulations (CFR), Section 260.22. These results are presented in conjunction with the other waste properties to support the delisting of the Yukon waste.

The DRAS software used was version 3.035, downloaded from the EPA DRAS webpage (<https://www.epa.gov/hw/hazardous-waste-delisting-risk-assessment-software-dras>) in March 2018. The software was last updated in September 2010.

DATA PRE-PROCESSING

The average results of all the sampling events were used as input for DRAS. By calculating an average or expected chemical concentration, the DRAS calculation can produce a risk assessment that integrates seasonal and temporal variations in the chemical concentrations. Using the average also allows the integration of measurements that fall below the laboratory detection limit (non-detects) with those that were detected.

To calculate the average, all non-detects were assigned a value of the detection limit divided by 2. However, if the detection limit divided by 2 was greater than the maximum measured concentration, that particular value was determined to be a laboratory outlier and removed from subsequent analysis. The results for the duplicate samples collected on 3/1/2018 were averaged to give one value using one half the detection limit for non-detects, and then the mean of all the data from all seven dates was calculated. The resulting average concentrations are shown in Tables H-1 through H-6.

DRAS requires two values for each chemical: total concentrations (mg/kg) and toxicity characteristic leaching procedure (TCLP) concentrations (mg/L). Total concentrations of 19 metals, 119 organics (volatile and semivolatile organic compounds, polychlorinated biphenyls, pesticides, and chlorinated herbicides) and three select anions of the Yukon sludge were directly measured by using validated EPA methods. The averages of these values were calculated as described in the preceding paragraph and used as input in DRAS. All of the analyzed metals were detected in at least one of the sludge samples. On the other hand, only 29 volatile and semivolatile organic compounds were detected in the 8 samples taken. No pesticides, chlorinated herbicides or polychlorinated biphenyls were detected. These undetected organics were henceforth not considered chemicals of concern and were not included in the DRAS analysis.

TCLP analysis was performed for all 19 metals and 13 of the semivolatile organic compounds. TCLP analysis yielded detectable concentrations for all but two of the metals: for the remaining metals (cobalt and mercury) the average of TCLP detection limits divided by 2 was used for the DRAS model. None of the semivolatile organic compounds were detected by TCLP analysis. Because benzidine was detected in one sludge (total concentration) sample, the average of the TCLP detection limits divided by 2 was used for the DRAS model. The other 12 semivolatile organic compounds were not detected in the sludge (total concentration) sample. Because these compounds were not detected in any method, they are not expected to pose a risk to environmental health and so these were not included in the DRAS analysis.

Except for benzidine, the organic compounds detected in the sludge could not be subjected to TCLP analysis. Thus, the following conservative approach was used to estimate leachate concentrations based on the sludge total concentrations. In the TCLP analysis, the sludge sample is leached with an acid or alkaline solution at a 1:20 ratio of sample to solvent. Assuming 100% of the chemical is transferred to the solution, leachate concentrations of the organic compounds detected in the sludge matrix would be 20 times less than what was detected in the sludge. This assumption produces the worst-case leachate scenario and was thus most protective of environmental health. Therefore, for all organic compounds and anions for which there is no TCLP data, the TCLP concentration was determined to be $\frac{1}{20}$ th the average total concentration of each organic compound detected in the sludge samples. These values were entered as being at the laboratory detection limit and are noted as TCLP estimates in the results tables.

DRAS INPUTS

The Yukon facility was modeled as generating 80 cubic yards of waste each year for an active life of 20 years. The cancer risk level was 1E-6 and the Hazard Quotient (HQ) was set to 1. The default risk-based information was used for each chemical.

Although most compounds concentrations could be entered directly into DRAS, a few compounds required special notice:

- The mercury fish pathway concentrations were set equal to the mercury concentrations as required by DRAS. However, it must be noted that mercury was not detected in any of the TCLP analysis and so the TCLP mercury detection limit divided by 2 was used for both quantities.
- The laboratory analyses quantified both total cyanide and amenable cyanide. The higher of the two (total cyanide) was used in the analysis as it provided the worst case scenario.
- Aluminum and sulfide in the sludge were quantified by laboratory analysis. However, these compounds were not available in DRAS and are not present in concentrations likely to affect human health. Thus these compounds were not considered chemicals of concern and were not included in the DRAS analysis.

DRAS RESULTS AND DISCUSSION

Three sets of DRAS pathway-specific chemical risk analyses are presented in at the end of this chapter: (1) non-carcinogenic hazard quotients; (2) lifetime incremental cancer risks; and (3) maximum allowable chemical concentrations. DRAS calculates these values for both potential surface exposures using the measured chemical total concentrations and potential groundwater exposures using measured or estimated

TCLP concentrations. Thus, the results are 6 analyses, presented in Tables H-1 through H-6, and discussed below.

The non-carcinogenic risks for the surface and groundwater exposure pathways are presented in Tables H-1 and H-2 respectively. The maximum projected risks are noted below. These values are significantly below 1.0 and are thus not likely to present a risk to environmental health.

- Hazard index for surface exposure pathways (total concentrations): 4.78E-3
- Hazard index for groundwater exposure pathways (TCLP concentrations): 1.40E-2

The aggregate carcinogenic risks for the surface and groundwater pathways are presented in Tables H-3 and H-4. The aggregate values are summarized as follows. The risk associated with benzidine is also presented for comparison.

- Cancer risk for surface exposure pathways (total concentrations): 3.16E-8
- Cancer risk for groundwater exposure pathways (TCLP concentrations): 1.35E-5
- Benzidine cancer risk for surface exposure pathways (total concentration): 2.33E-9
- Benzidine cancer risk for groundwater pathways (TCLP detection limit): 1.32E-5

The incremental cancer risk for both surface and groundwater exposures are very low, less than 1E-5. One compound, benzidine accounts for 97% of the aggregate cancer risk. If benzidine is excluded from the calculation, the cancer risk for the groundwater exposure pathway falls even lower, to 3.49E-7.

The DRAS calculated maximum allowable sludge and leachate concentrations are shown in Tables H-5 and H-6. These values are based on all surface and groundwater pathways considered by DRAS. Except for a few exceptions, all metal, organic and anion maximum and average concentrations are significantly below the maximum allowable concentrations, often by several orders of magnitude. The data shows that these metals, organics and anions in the sludge samples are far below the EPA health-based criteria.

Benzidine, was flagged by DRAS as exceeding the calculated delisting level, but is unlikely to be present in significant concentrations in the Yukon sludge. Historically, benzidine, an aromatic amine, was used in the manufacture of dyes but due to its significant carcinogenicity (oral cancer slope factor of 230 per mg/kg/day), the compound has not been manufactured in the US since the 1970s, years before Impoundment 6 was first opened. The Yukon facility does not accept waste from dye manufacturing plants. The Yukon facility also does not accept wastes that are likely to transform into benzidine.

Benzidine was included in the DRAS analysis because it was identified in one sludge (total) sample at a concentration of 6.18 mg/kg. It was not detected in any of the other seven tested samples. TCLP analysis was requested for the latter 4 samples, and no benzidine was detected in the leachate. The complicated nature of the sludge samples resulted in a TCLP detection limit of 0.011 mg/L, which is higher than the delisting limit of 0.000428 mg/L. However, DRAS estimates the cancer risk for benzidine consumption via groundwater pathways as about 10^{-5} , which is within the EPA's generally acceptable risk range of 10^{-6} to 10^{-4} . Taken together, the sporadic detection of benzidine in total sludge samples and the nature of the waste contributing to the Yukon sludge suggest that benzidine is not likely to be present in the Yukon sludge at concentrations that threaten human health.

One arsenic TCLP data point measured 0.0793 mg/L, slightly above the delisting level of 0.0738 mg/L. However of the 8 samples taken over 12 months, arsenic was only detected in one other sample at a

concentration of 0.028 mg/L. Thus, the average arsenic leachate concentrations over time is expected to be far below the delisting levels.

CONCLUSIONS

As shown by the preceding information, only low concentrations of metals, organic constituents and cyanide were consistently detected in the analyses. Therefore, the data collected over a year indicates that the chemicals of concern in the Yukon sludge are significantly below the EPA standards that provide protection of human health and the environment under the described waste management program. For the aforementioned reasons, and others considered in this petition, Max Environmental has concluded that the Yukon sludge is suitable for disposal in a nonhazardous waste landfill.

Table H-1. Surface exposure non-carcinogenic risks as calculated by DRAS using sludge average total concentrations. The aggregate hazard quotient was determined to be 4.78E-3.

Chemical Name	Average Total Concentration (mg/kg)	Surface Pathway-Specific Hazard Quotients					Aggregate Hazard Quotient
		Water Ingestion	Particulate Inhalation	Fish Ingestion	Soil Ingestion	Volatile Inhalation	
Metals							
Antimony	2.96E+01	8.94E-08	---	3.68E-06	8.34E-07	---	4.61E-06
Arsenic	1.22E+02	4.91E-07	---	5.77E-05	4.58E-06	---	6.28E-05
Barium	4.10E+03	2.48E-08	4.85E-05	1.61E-05	2.31E-07	---	6.49E-05
Beryllium	5.96E-01	3.60E-10	1.76E-07	2.28E-08	3.36E-09	---	2.03E-07
Cadmium	1.65E+01	3.99E-08	---	3.72E-05	3.72E-07	---	3.76E-05
Chromium	3.85E+02	1.55E-07	---	1.60E-07	1.45E-06	---	1.76E-06
Cobalt	2.00E+01	8.06E-08	1.97E-05	---	7.51E-07	---	2.05E-05
Copper	4.34E+02	1.31E-08	---	9.59E-06	1.22E-07	---	9.72E-06
Iron	3.28E+04	1.32E-07	---	---	1.23E-06	---	1.36E-06
Lead	1.70E+03	---	---	---	---	---	---
Manganese	9.61E+02	4.84E-08	1.14E-04	---	4.51E-07	---	1.14E-04
Mercury (Fish Pathway Only)	6.36E-01	---	---	4.04E-03	---	---	4.04E-03
Mercury (Total)	6.36E-01	2.56E-09	1.25E-08	---	2.39E-08	1.14E-11	3.90E-08
Nickel	2.17E+02	1.31E-08	---	1.05E-06	1.22E-07	---	1.19E-06
Selenium	1.48E+01	3.58E-09	---	4.75E-07	3.33E-08	---	5.12E-07
Silver	1.77E+01	4.28E-09	---	3.87E-07	3.99E-08	---	4.31E-07
Thallium	2.10E+00	3.84E-08	---	3.96E-04	3.58E-07	---	3.96E-04
Vanadium	4.54E+01	1.10E-08	---	1.13E-08	1.02E-07	---	1.25E-07
Zinc	2.80E+03	1.13E-08	---	2.39E-05	1.05E-07	---	2.40E-05
Volatile Organic Compounds							
2-Butanone	1.04E-01	2.09E-13	1.25E-13	2.11E-13	1.95E-12	1.39E-11	1.64E-11
4-Methyl-2-pentanone	2.53E-02	3.82E-13	4.97E-14	2.30E-12	3.56E-12	1.69E-12	7.98E-12
Acetone	1.96E-01	2.63E-13	3.68E-13	1.08E-13	2.45E-12	1.05E-10	1.08E-10
Carbon disulfide	4.20E-02	5.08E-13	3.55E-13	9.18E-12	4.73E-12	1.99E-10	2.13E-10
Chloroform	1.89E-03	2.28E-13	1.12E-13	8.47E-13	2.13E-12	2.95E-11	3.28E-11
Ethylbenzene	3.24E-02	3.92E-13	1.91E-13	5.88E-11	3.65E-12	3.04E-12	6.61E-11

Methylene Chloride	6.43E-03	1.29E-13	3.59E-14	7.00E-13	1.21E-12	2.04E-11	2.25E-11
Styrene	1.65E-01	9.97E-13	9.61E-13	1.06E-10	9.29E-12	1.00E-11	1.27E-10
Toluene	9.80E-03	1.48E-13	1.16E-14	1.07E-11	1.38E-12	6.09E-13	1.28E-11
Xylenes (total)	5.71E-02	3.45E-13	3.32E-12	4.92E-11	3.22E-12	4.55E-11	1.02E-10
Semivolatile Organic Compounds							
2-Methylnaphthalene	2.15E-01	6.50E-11	---	---	6.06E-10	---	6.70E-10
Aniline	4.09E-02	7.06E-12	2.42E-10	2.07E-11	6.58E-11	2.26E-10	5.61E-10
Benzidine	1.75E+00	7.05E-10	9.85E-10	4.46E-09	6.57E-09	---	1.27E-08
Benzo (a) anthracene	2.42E-01	---	---	---	---	---	---
Benzo (a) pyrene	5.56E-02	---	---	---	---	---	---
Benzo (b) fluoranthene	3.79E-01	---	---	---	---	---	---
Benzyl alcohol	9.34E-01	2.26E-12	3.15E-12	9.40E-12	2.10E-11	5.21E-13	3.64E-11
Bis(2-ethylhexyl)phthalate	2.86E+00	1.73E-10	2.41E-10	1.64E-10	1.61E-09	1.68E-15	2.19E-09
Chrysene	2.77E-01	---	---	---	---	---	---
Dibenzofuran	1.21E-01	1.46E-10	2.04E-10	---	1.36E-09	---	1.71E-09
Di-n-butyl phthalate	7.39E-01	8.93E-12	---	2.52E-08	8.33E-11	---	2.53E-08
Di-n-octyl phthalate	3.32E-01	1.00E-11	1.40E-11	5.74E-10	9.35E-11	6.76E-17	6.92E-10
Fluoranthene	2.51E-01	7.58E-12	1.06E-11	1.55E-07	7.07E-11	9.98E-17	1.55E-07
Fluorene	2.26E-02	6.83E-13	9.54E-13	8.53E-10	6.37E-12	7.44E-16	8.61E-10
Isophorone	6.81E-01	4.11E-12	---	4.87E-11	3.84E-11	---	9.12E-11
Naphthalene	3.39E-02	2.05E-12	6.68E-11	4.00E-10	1.91E-11	9.35E-12	4.97E-10
Phenanthrene	2.57E-01	---	---	---	---	---	---
Phenol	2.82E-01	1.14E-12	---	8.87E-12	1.06E-11	---	2.06E-11
Pyrene	2.69E-01	1.08E-11	---	9.27E-08	1.01E-10	---	9.28E-08
Anions							
Cyanide	1.06E+01	6.40E-10	8.95E-10	4.18E-07	5.97E-09	3.68E-08	4.62E-07
Fluoride	5.42E+01	1.09E-09	---	---	1.02E-08	---	1.13E-08
TOTAL		1.16E-06	1.82E-04	4.59E-03	1.08E-05	3.75E-08	4.78E-03

Table H-2. Groundwater exposure non-carcinogenic risks as calculated by DRAS using average TCLP average concentrations or estimated TCLP values. The aggregate hazard quotient was determined to be 1.43E-2.

Chemical Name	TCLP Concentration (mg/L)		Groundwater Pathway-Specific Hazard Quotient				Aggregate Hazard Quotient
	Average	Estimated	Ingestion	Inhalation	Dermal Absorption - Adult	Dermal Absorption - Child	
	Metals						
Antimony	5.95E-02	---	2.50E-03	---	6.25E-06	1.56E-05	2.52E-03
Arsenic	2.36E-02	---	1.32E-03	---	3.30E-06	8.26E-06	1.33E-03
Barium	6.84E-01	---	5.72E-05	---	1.43E-07	3.58E-07	5.75E-05
Beryllium	5.32E-04	---	4.15E-06	---	1.04E-08	2.60E-08	4.17E-06
Cadmium	4.91E-03	---	1.62E-04	---	4.06E-07	1.02E-06	1.63E-04
Chromium	4.60E-03	---	1.44E-05	---	3.59E-08	8.98E-08	1.44E-05
Cobalt	1.07E-02	---	5.67E-04	---	1.42E-06	3.55E-06	5.71E-04
Copper	1.17E-02	---	3.12E-06	---	7.80E-09	1.95E-08	3.14E-06
Iron	9.48E-02	---	1.08E-09	---	2.69E-12	6.73E-12	1.08E-09
Lead	1.16E-02	---	---	---	---	---	---
Manganese	2.45E+00	---	1.73E-03	---	4.32E-06	1.08E-05	1.74E-03
Mercury (Fish Pathway Only)	2.06E-04	---	---	---	---	---	---
Mercury (Total)	2.06E-04	---	4.45E-06	3.46E-05	1.11E-08	2.78E-08	3.90E-05
Nickel	1.17E-01	---	9.83E-05	---	2.46E-07	6.15E-07	9.89E-05
Selenium	1.43E-02	---	4.68E-05	---	1.17E-07	2.93E-07	4.71E-05
Silver	4.27E-03	---	5.49E-06	---	1.37E-08	3.44E-08	5.53E-06
Thallium	1.60E-02	---	4.03E-03	---	1.01E-05	2.52E-05	4.06E-03
Vanadium	1.93E-02	---	4.52E-05	---	1.13E-07	2.83E-07	4.55E-05
Zinc	2.00E-01	---	1.07E-05	---	2.68E-08	6.72E-08	1.08E-05
	Volatile Organic Compounds						
2-Butanone	---	5.22E-03	1.72E-07	1.33E-08	1.28E-09	2.79E-09	1.88E-07
4-Methyl-2-pentanone	---	1.26E-03	3.11E-07	1.44E-08	8.52E-09	1.86E-08	3.44E-07
Acetone	---	9.80E-03	2.15E-07	3.29E-08	7.58E-10	1.65E-09	2.50E-07
Carbon disulfide	---	2.10E-03	3.59E-07	4.25E-07	4.22E-08	9.19E-08	8.76E-07
Chloroform	---	9.44E-05	1.81E-07	1.15E-07	1.42E-08	3.10E-08	3.26E-07

Ethylbenzene	---	1.62E-03	3.18E-07	1.93E-07	2.00E-07	4.37E-07	9.48E-07
Methylene Chloride	---	3.21E-04	1.03E-07	3.67E-08	3.45E-09	7.52E-09	1.47E-07
Styrene	---	8.26E-03	8.33E-07	9.54E-07	3.83E-07	8.34E-07	2.62E-06
Toluene	---	4.90E-04	1.23E-07	1.22E-08	4.54E-08	9.88E-08	2.34E-07
Xylenes (total)	---	2.85E-03	2.80E-07	3.41E-06	1.84E-07	4.00E-07	4.09E-06
Semi-volatile Organic Compounds							
2-Methylnaphthalene	---	1.08E-02	4.95E-05	---	7.80E-05	1.70E-04	2.19E-04
Aniline	---	2.04E-03	5.76E-06	2.18E-06	1.17E-07	2.55E-07	8.19E-06
Benzidine	5.50E-03	---	3.62E-05	7.66E-12	1.21E-06	2.63E-06	3.89E-05
Benzo (a) anthracene	---	1.21E-02	---	---	---	---	---
Benzo (a) pyrene	---	2.78E-03	---	---	---	---	---
Benzo (b) fluoranthene	---	1.89E-02	---	---	---	---	---
Benzyl alcohol	---	4.67E-02	1.85E-06	3.75E-09	4.19E-08	9.14E-08	1.94E-06
Bis(2-ethylhexyl)phthalate	---	1.43E-01	2.18E-33	1.11E-36	4.55E-33	9.91E-33	1.21E-32
Chrysene	---	1.39E-02	---	---	---	---	---
Dibenzofuran	---	6.07E-03	1.18E-04	5.12E-05	7.30E-04	1.40E-03	1.56E-03
Di-n-butyl phthalate	---	3.70E-02	3.78E-06	---	7.89E-06	1.72E-05	2.10E-05
Di-n-octyl phthalate	---	1.66E-02	1.26E-34	4.49E-37	3.36E-32	7.32E-32	7.33E-32
Fluoranthene	---	1.25E-02	3.28E-06	1.48E-07	2.66E-05	5.80E-05	6.15E-05
Fluorene	---	1.13E-03	5.12E-07	1.56E-07	1.21E-06	2.63E-06	3.30E-06
Isophorone	---	3.40E-02	3.36E-06	---	1.60E-07	3.48E-07	3.71E-06
Naphthalene	---	1.70E-03	1.67E-06	3.87E-05	1.29E-06	2.82E-06	4.32E-05
Phenanthrene	---	1.28E-02	---	---	---	---	---
Phenol	---	1.41E-02	9.29E-07	---	4.20E-08	9.16E-08	1.02E-06
Pyrene	---	1.35E-02	2.00E-06	---	1.59E-05	3.47E-05	3.67E-05
Anions							
Cyanide	---	5.31E-01	5.25E-04	---	---	---	5.25E-04
Fluoride	---	2.71E+00	7.67E-04	---	---	---	7.67E-04
TOTALS			1.21E-02	1.32E-04	8.92E-04	1.76E-03	1.40E-02

Table H-3. Surface exposure carcinogenic risks as calculated by DRAS using sludge average total concentrations. The aggregate cancer risk was determined to be 3.16E-8.

Chemical Name	Average Total Concentration (mg/kg)	Surface Pathway-Specific Lifetime Incremental Cancer Risks					Aggregate Cancer Risk
		Water Ingestion	Particulate Inhalation	Fish Ingestion	Soil Ingestion	Air Volatile Inhalation	
Metals							
Antimony	2.96E+01	---	---	---	---	---	---
Arsenic	1.22E+02	1.14E-10	1.54E-09	1.04E-08	2.33E-10	---	1.23E-08
Barium	4.10E+03	---	---	---	---	---	---
Beryllium	5.96E-01	---	4.21E-12	---	---	---	4.21E-12
Cadmium	1.65E+01	---	8.74E-11	---	---	---	8.74E-11
Chromium	3.85E+02	---	1.36E-08	---	---	---	1.36E-08
Cobalt	2.00E+01	---	5.3E-10	---	---	---	5.3E-10
Copper	4.34E+02	---	---	---	---	---	---
Iron	3.28E+04	---	---	---	---	---	---
Lead	1.70E+03	---	---	---	---	---	---
Manganese	9.61E+02	---	---	---	---	---	---
Mercury (Fish Pathway Only)	6.36E-01	---	---	---	---	---	---
Mercury (Total)	6.36E-01	---	---	---	---	---	---
Nickel	2.17E+02	---	1.53E-10	---	---	---	1.53E-10
Selenium	1.48E+01	---	---	---	---	---	---
Silver	1.77E+01	---	---	---	---	---	---
Thallium	2.10E+00	---	---	---	---	---	---
Vanadium	4.54E+01	---	---	---	---	---	---
Zinc	2.80E+03	---	---	---	---	---	---
Volatile Organic Compounds							
2-Butanone	1.04E-01	---	---	---	---	---	---
4-Methyl-2-pentanone	2.53E-02	---	---	---	---	---	---
Acetone	1.96E-01	---	---	---	---	---	---
Carbon disulfide	4.20E-02	---	---	---	---	---	---
Chloroform	1.89E-03	---	1.29E-16	---	---	3.37E-14	3.39E-14
Ethylbenzene	3.24E-02	---	---	---	---	---	---

Methylene Chloride	6.43E-03	2.99E-17	8.86E-18	1.26E-16	6.14E-17	5.04E-15	5.27E-15
Styrene	1.65E-01	---	---	---	---	---	---
Toluene	9.80E-03	---	---	---	---	---	---
Xylenes (total)	5.71E-02	---	---	---	---	---	---
Semivolatile Organic Compounds							
2-Methylnaphthalene	2.15E-01	---	---	---	---	---	---
Aniline	4.09E-02	1.45E-16	---	3.3E-16	2.97E-16	---	7.72E-16
Benzidine	1.75E+00	2.5E-10	3.38E-10	1.23E-09	5.12E-10	---	2.33E-09
Benzo (a) anthracene	2.42E-01	1.1E-13	6.31E-14	3.76E-10	2.25E-13	1.14E-20	3.76E-10
Benzo (a) pyrene	5.56E-02	2.52E-13	1.45E-13	1.16E-09	5.17E-13	8.11E-22	1.17E-09
Benzo (b) fluoranthene	3.79E-01	1.72E-13	9.88E-14	1.01E-09	3.52E-13	9.53E-21	1.01E-09
Benzyl alcohol	9.34E-01	---	---	---	---	---	---
Bis(2-ethylhexyl)phthalate	2.86E+00	2.48E-14	3.37E-14	1.84E-14	5.1E-14	2.34E-19	1.28E-13
Chrysene	2.77E-01	1.25E-15	7.22E-16	4.38E-12	2.57E-15	1.81E-18	4.39E-12
Dibenzofuran	1.21E-01	---	---	---	---	---	---
Di-n-butyl phthalate	7.39E-01	---	---	---	---	---	---
Di-n-octyl phthalate	3.32E-01	---	---	---	---	---	---
Fluoranthene	2.51E-01	---	---	---	---	---	---
Fluorene	2.26E-02	---	---	---	---	---	---
Isophorone	6.81E-01	4.23E-16	---	3.9E-15	8.67E-16	---	5.19E-15
Naphthalene	3.39E-02	---	9.97E-15	---	---	1.4E-15	1.14E-14
Phenanthrene	2.57E-01	---	---	---	---	---	---
Phenol	2.82E-01	---	---	---	---	---	---
Pyrene	2.69E-01	---	---	---	---	---	---
Anions							
Cyanide	1.06E+01	---	---	---	---	---	---
Fluoride	5.42E+01	---	---	---	---	---	---
TOTAL		3.65E-10	1.63E-08	1.42E-08	7.46E-10	4.01E-14	3.16E-08

Table H-4. Groundwater exposure carcinogenic risks as calculated by DRAS using average TCLP average concentrations or estimated TCLP values. The aggregate cancer risk was determined to be 1.35E-5.

Chemical Name	TCLP concentrations		Groundwater Pathway-Specific Lifetime Incremental Cancer Risk				Aggregate Cancer Risk
	Average	Estimated	Ingestion	Inhalation	Dermal Absorption – Adult	Dermal Absorption – Child	
Metals							
Antimony	5.95E-02	---	---	---	---	---	---
Arsenic	2.36E-02	---	3.19E-07	---	6.21E-10	3.11E-10	3.20E-07
Barium	6.84E-01	---	---	---	---	---	---
Beryllium	5.32E-04	---	---	---	---	---	---
Cadmium	4.91E-03	---	---	---	---	---	---
Chromium	4.60E-03	---	---	---	---	---	---
Cobalt	1.07E-02	---	---	---	---	---	---
Copper	1.17E-02	---	---	---	---	---	---
Iron	9.48E-02	---	---	---	---	---	---
Lead	1.16E-02	---	---	---	---	---	---
Manganese	2.45E+00	---	---	---	---	---	---
Mercury (Fish Pathway Only)	2.06E-04	---	---	---	---	---	---
Mercury (Total)	2.06E-04	---	---	---	---	---	---
Nickel	1.17E-01	---	---	---	---	---	---
Selenium	1.43E-02	---	---	---	---	---	---
Silver	4.27E-03	---	---	---	---	---	---
Thallium	1.60E-02	---	---	---	---	---	---
Vanadium	1.93E-02	---	---	---	---	---	---
Zinc	2.00E-01	---	---	---	---	---	---
Volatile Organic Compounds							
2-Butanone	---	5.22E-03	---	---	---	---	---
4-Methyl-2-pentanone	---	1.26E-03	---	---	---	---	---
Acetone	---	9.80E-03	---	---	---	---	---
Carbon disulfide	---	2.10E-03	---	---	---	---	---
Chloroform	---	9.44E-05	---	1.35E-10	---	---	1.35E-10

Ethylbenzene	---	1.62E-03	---	---	---	---	---
Methylene Chloride	---	3.21E-04	2.38E-11	9.34E-12	6.21E-13	2.71E-13	3.38E-11
Styrene	---	8.26E-03	---	---	---	---	---
Toluene	---	4.90E-04	---	---	---	---	---
Xylenes (total)	---	2.85E-03	---	---	---	---	---
Semivolatile Organic Compounds							
2-Methylnaphthalene	---	1.08E-02	---	---	---	---	---
Aniline	---	2.04E-03	1.18E-10	---	1.87E-12	8.14E-13	1.20E-10
Benzidine	5.50E-03	---	1.28E-05	2.71E-12	3.33E-07	1.45E-07	1.32E-05
Benzo (a) anthracene	---	1.21E-02	1.44E-09	1.07E-11	1.97E-08	8.59E-09	2.12E-08
Benzo (a) pyrene	---	2.78E-03	5.40E-13	9.29E-16	1.21E-11	5.26E-12	1.26E-11
Benzo (b) fluoranthene	---	1.89E-02	3.69E-13	4.64E-15	9.64E-12	4.20E-12	1.00E-11
Benzyl alcohol	---	4.67E-02	---	---	---	---	---
Bis(2-ethylhexyl)phthalate	---	1.43E-01	3.13E-37	1.59E-40	5.09E-37	2.22E-37	8.23E-37
Chrysene	---	1.39E-02	1.65E-11	4.16E-14	2.27E-10	9.87E-11	2.43E-10
Dibenzofuran	---	6.07E-03	---	---	---	---	---
Di-n-butyl phthalate	---	3.70E-02	---	---	---	---	---
Di-n-octyl phthalate	---	1.66E-02	---	---	---	---	---
Fluoranthene	---	1.25E-02	---	---	---	---	---
Fluorene	---	1.13E-03	---	---	---	---	---
Isophorone	---	3.40E-02	3.45E-10	---	1.28E-11	5.56E-12	3.58E-10
Naphthalene	---	1.70E-03	---	5.94E-09	---	---	5.94E-09
Phenanthrene	---	1.28E-02	---	---	---	---	---
Phenol	---	1.41E-02	---	---	---	---	---
Pyrene	---	1.35E-02	---	---	---	---	---
Anions							
Cyanide	---	5.31E-01	---	---	---	---	---
Fluoride	---	2.71E+00	---	---	---	---	---
TOTAL			1.31E-05	6.10E-09	3.54E-07	1.54E-07	1.35E-05

Table H-5. Maximum allowable (limiting) sludge concentrations as calculated by DRAS. The measured concentrations are provided for reference.

Chemical Name	Total Concentration (mg/kg)		Surface Pathway-Specific Maximum Allowable Concentrations (mg/kg)					Limiting Concentration (mg/kg) ⁽¹⁾
	Maximum	Average	Water Ingestion	Particulate Inhalation	Fish Ingestion	Soil Ingestion	Volatile Inhalation	
Metals								
Antimony	7.39E+01	2.96E+01	3.31E+08	---	8.04E+06	3.55E+07	---	8.04E+06
Arsenic	3.89E+02	1.22E+02	1.07E+06	7.90E+04	1.17E+04	5.24E+05	---	1.17E+04
Barium	6.68E+03	4.10E+03	1.66E+11	8.46E+07	2.54E+08	1.78E+10	---	8.46E+07
Beryllium	9.77E-01	5.96E-01	1.66E+09	1.42E+05	2.61E+07	1.78E+08	---	1.42E+05
Cadmium	3.22E+01	1.65E+01	4.14E+08	1.89E+05	4.43E+05	4.44E+07	---	1.89E+05
Chromium	7.81E+02	3.85E+02	2.48E+09	2.83E+04	2.41E+09	2.66E+08	---	2.83E+04
Cobalt	3.22E+01	2.00E+01	2.48E+08	3.78E+04	---	2.66E+07	---	3.78E+04
Copper	6.62E+02	4.34E+02	3.31E+10	---	4.53E+07	3.55E+09	---	4.53E+07
Iron	4.94E+04	3.28E+04	2.48E+11	---	---	2.66E+10	---	2.66E+10
Lead	2.41E+03	1.70E+03	---	3.24E+07	---	1.13E+08	---	3.24E+07
Manganese	1.36E+03	9.61E+02	1.99E+10	8.46E+06	---	2.13E+09	---	8.46E+06
Mercury (Fish Pathway Only)	1.06E+00	6.36E-01	---	---	1.58E+02	---	---	1.58E+02
Mercury (Total)	4.12E+02	6.36E-01	2.48E+08	5.08E+07	---	2.66E+07	5.56E+10	2.66E+07
Nickel	3.39E+01	2.17E+02	1.66E+10	1.42E+06	2.06E+08	1.78E+09	---	1.42E+06
Selenium	3.10E+01	1.48E+01	4.14E+09	---	3.11E+07	4.44E+08	---	3.11E+07
Silver	4.92E+00	1.77E+01	4.14E+09	---	4.58E+07	4.44E+08	---	4.58E+07
Thallium	8.29E+01	2.10E+00	5.46E+07	---	5.30E+03	5.86E+06	---	5.30E+03
Vanadium	7.49E+03	4.54E+01	4.14E+09	---	4.02E+09	4.44E+08	---	4.44E+08
Zinc	7.39E+01	2.80E+03	2.48E+11	---	1.17E+08	2.66E+10	---	1.17E+08
Volatiles Organic Compounds								
2-Butanone	2.45E-01	1.04E-01	4.97E+11	8.29E+11	4.93E+11	5.33E+10	7.47E+09	7.47E+09
4-Methyl-2-pentanone	7.19E-02	2.53E-02	6.62E+10	5.09E+11	1.10E+10	7.10E+09	1.50E+10	7.10E+09
Acetone	4.80E-01	1.96E-01	7.45E+11	5.33E+11	1.81E+12	7.99E+10	1.87E+09	1.87E+09
Carbon disulfide	1.38E-01	4.20E-02	8.28E+10	1.18E+11	4.58E+09	8.88E+09	2.11E+08	2.11E+08
Chloroform	6.40E-03	1.89E-03	8.28E+09	1.47E+07	2.23E+09	8.88E+08	5.60E+04	5.60E+04
Ethylbenzene	1.41E-01	3.24E-02	8.28E+10	1.69E+11	5.51E+08	8.88E+09	1.07E+10	5.51E+08

Methylene Chloride	2.06E-02	6.43E-03	2.15E+08	7.25E+08	5.10E+07	1.05E+08	1.27E+06	1.27E+06
Styrene	4.85E-01	1.65E-01	1.66E+11	1.72E+11	1.56E+09	1.78E+10	1.64E+10	1.56E+09
Toluene	1.97E-02	9.80E-03	6.62E+10	8.46E+11	9.19E+08	7.10E+09	1.61E+10	9.19E+08
Xylenes (total)	1.95E-01	5.71E-02	1.66E+11	1.72E+10	1.16E+09	1.78E+10	1.25E+09	1.16E+09
Semivolatile Organic Compounds								
2-Methylnaphthalene	4.85E-01	2.15E-01	3.31E+09	---	---	3.55E+08	---	3.55E+08
Aniline	8.64E-02	4.09E-02	2.83E+08	1.69E+08	1.24E+08	1.38E+08	1.81E+08	1.24E+08
Benzidine	6.18E+00	1.75E+00	7.01E+03	5.17E+03	1.42E+03	3.42E+03	---	1.42E+03
Benzo (a) anthracene	1.27E+00	2.42E-01	2.21E+06	3.84E+06	6.44E+02	1.08E+06	2.12E+13	6.44E+02
Benzo (a) pyrene	1.10E-01	5.56E-02	2.21E+05	3.84E+05	4.78E+01	1.08E+05	6.86E+13	4.78E+01
Benzo (b) fluoranthene	1.40E+00	3.79E-01	2.21E+06	3.84E+06	3.76E+02	1.08E+06	3.98E+13	3.76E+02
Benzyl alcohol	3.62E+00	9.34E-01	4.14E+11	2.96E+11	9.94E+10	4.44E+10	1.79E+12	4.44E+10
Bis(2-ethylhexyl)phthalate	7.91E+00	2.86E+00	1.15E+08	8.50E+07	1.55E+08	5.61E+07	1.22E+13	5.61E+07
Chrysene	1.48E+00	2.77E-01	2.21E+08	3.84E+08	6.32E+04	1.08E+08	1.53E+11	6.32E+04
Dibenzofuran	4.30E-01	1.21E-01	8.28E+08	5.92E+08	---	8.88E+07	---	8.88E+07
Di-n-butyl phthalate	2.01E+00	7.39E-01	8.28E+10	---	2.93E+07	8.88E+09	---	2.93E+07
Di-n-octyl phthalate	6.85E-01	3.32E-01	3.31E+10	2.37E+10	5.78E+08	3.55E+09	4.91E+15	5.78E+08
Fluoranthene	7.63E-01	2.51E-01	3.31E+10	2.37E+10	1.62E+06	3.55E+09	2.52E+15	1.62E+06
Fluorene	4.71E-02	2.26E-02	3.31E+10	2.37E+10	2.65E+07	3.55E+09	3.04E+13	2.65E+07
Isophorone	3.43E+00	6.81E-01	1.61E+09	---	1.75E+08	7.86E+08	---	1.75E+08
Naphthalene	7.07E-02	3.39E-02	1.66E+10	3.40E+06	8.48E+07	1.78E+09	2.43E+07	3.40E+06
Phenanthrene	8.90E-01	2.57E-01	---	---	---	---	---	---
Phenol	4.71E-01	2.82E-01	2.48E+11	---	3.18E+10	2.66E+10	---	2.66E+10
Pyrene	5.73E-01	2.69E-01	2.48E+10	---	2.90E+06	2.66E+09	---	2.90E+06
Anions								
Cyanide	2.35E+01	1.06E+01	1.66E+10	1.18E+10	2.54E+07	1.78E+09	2.88E+08	2.54E+07
Fluoride	8.36E+01	5.42E+01	4.97E+10	---	---	5.33E+09	---	5.33E+09

⁽¹⁾ Where the DRAS-calculated delisting limit exceeds 1,000,000 mg/kg, the pure compound is assumed to fall below the delisting limit.

Table H-6. Maximum allowable (limiting) leachate concentrations as calculated by DRAS. Each measured or estimated TCLP concentration and DRAS calculated dilution attenuation factor (DAF) is provided for reference.

Chemical Name	TCLP Concentration (mg/L)			Groundwater Pathway-Specific Maximum Allowable Concentration (mg/L)				MCL (mg/L)	Limiting Concentration (mg/L)	Waste Volume Adjusted DAF	Delisting Level (mg/L) ⁽¹⁾
	Maximum	Average	Estimated	Ingestion	Inhalation	Dermal Absorption - Adult	Dermal Absorption - Child				
Metals											
Antimony	9.80E-02	5.95E-02	---	1.50E-02	---	6.01E+00	2.40E+00	6.00E-03	6.00E-03	1.57E+03	9.49E+00
Arsenic	7.93E-02	2.36E-02	---	4.87E-05	---	2.50E-02	5.00E-02	1.00E-02	4.87E-05	3.56E+03	7.38E-02
Barium	9.69E-01	6.84E-01	---	7.51E+00	---	3.00E+03	1.20E+03	2.00E+00	2.00E+00	1.57E+03	3.13E+03
Beryllium	8.32E-04	5.32E-04	---	7.51E-02	---	3.00E+01	1.20E+01	4.00E-03	4.00E-03	1.70E+03	6.47E+00
Cadmium	2.29E-02	4.91E-03	---	1.88E-02	---	7.51E+00	3.00E+00	5.00E-03	5.00E-03	1.59E+03	7.97E+00
Chromium	1.75E-02	4.60E-03	---	1.13E-01	---	4.51E+01	1.80E+01	1.00E-01	1.00E-01	1.56E+03	1.54E+02
Cobalt	U	1.07E-02	---	1.13E-02	---	4.51E+00	1.80E+00	---	1.13E-02	1.60E+03	1.79E+01
Copper	1.41E-02	1.17E-02	---	1.50E+00	---	6.01E+02	2.40E+02	1.30E+00	1.30E+00	1.57E+03	2.03E+03
Iron	1.72E-01	9.48E-02	---	1.13E+01	---	4.51E+03	1.80E+03	---	1.13E+01	7.82E+06	8.81E+07
Lead	3.80E-02	1.16E-02	---	1.50E-02	---	---	---	1.50E-02	1.50E-02	3.70E+03	4.53E+01
Manganese	3.59E+00	2.45E+00	---	9.01E-01	---	3.60E+02	1.44E+02	---	9.01E-01	1.56E+03	1.42E+03
Mercury (Fish Pathway Only)	U	2.06E-04	---	---	---	---	---	---	---	---	---
Mercury (Total)	2.46E-01	2.06E-04	---	1.13E-02	1.45E-03	4.51E+00	1.80E+00	2.00E-03	1.45E-03	4.10E+03	5.95E+00
Nickel	3.15E-02	1.17E-01	---	7.51E-01	---	3.00E+02	1.20E+02	---	7.51E-01	1.57E+03	1.17E+03
Selenium	7.92E-03	1.43E-02	---	1.88E-01	---	7.51E+01	3.00E+01	5.00E-02	5.00E-02	1.53E+03	7.65E+01
Silver	3.63E-02	4.27E-03	---	1.88E-01	---	7.51E+01	3.00E+01	---	1.88E-01	3.19E+03	5.49E+02
Thallium	7.95E-02	1.60E-02	---	2.48E-03	---	9.91E-01	3.96E-01	2.00E-03	2.00E-03	1.60E+03	3.19E+00
Vanadium	9.34E-01	1.93E-02	---	1.88E-01	---	7.51E+01	3.00E+01	---	1.88E-01	1.52E+03	2.86E+02
Zinc	9.80E-02	2.00E-01	---	1.13E+01	---	4.51E+03	1.80E+03	---	1.13E+01	1.58E+03	1.77E+04
Volatile Organic Compounds											
2-Butanone	---	---	5.22E-03	2.25E+01	2.91E+02	3.02E+03	1.39E+03	---	2.25E+01	1.35E+03	3.04E+04
4-Methyl-2-pentanone	---	---	1.26E-03	3.00E+00	6.48E+01	1.10E+02	5.04E+01	---	3.00E+00	1.35E+03	4.05E+03
Acetone	---	---	9.80E-03	3.38E+01	2.21E+02	9.59E+03	4.40E+03	---	3.38E+01	1.35E+03	4.55E+04
Carbon disulfide	---	---	2.10E-03	3.75E+00	3.17E+00	3.20E+01	1.47E+01	---	3.17E+00	1.56E+03	4.94E+03
Chloroform	---	---	9.44E-05	3.75E-01	5.03E-04	4.77E+00	2.19E+00	8.00E-02	5.03E-04	1.39E+03	7.01E-01

Ethylbenzene	---	---	1.62E-03	3.75E+00	6.18E+00	5.96E+00	2.74E+00	7.00E-01	7.00E-01	1.36E+03	9.49E+02
Methylene Chloride	---	---	3.21E-04	9.75E-03	2.48E-02	3.74E-01	8.58E-01	5.00E-03	5.00E-03	1.38E+03	6.91E+00
Styrene	---	---	8.26E-03	7.51E+00	6.55E+00	1.63E+01	7.49E+00	1.00E-01	1.00E-01	1.32E+03	1.32E+02
Toluene	---	---	4.90E-04	3.00E+00	3.04E+01	8.17E+00	3.75E+00	1.00E+00	1.00E+00	1.32E+03	1.32E+03
Xylenes (total)	---	---	2.85E-03	7.51E+00	6.17E-01	1.14E+01	5.26E+00	1.00E+01	6.17E-01	1.36E+03	8.37E+02
Semivolatile Organic Compounds											
2-Methylnaphthalene	---	---	1.08E-02	1.50E-01	---	9.54E-02	4.38E-02	---	4.38E-02	1.45E+03	6.36E+01
Aniline	---	---	2.04E-03	1.28E-02	6.95E-01	8.10E-01	1.86E+00	---	1.28E-02	1.35E+03	1.73E+01
Benzidine	U	5.50E-03	---	3.18E-07	1.51E+00	1.23E-05	2.81E-05	---	3.18E-07	1.35E+03	4.28E-04
Benzo (a) anthracene	---	---	1.21E-02	1.00E-04	1.34E-02	7.29E-06	1.67E-05	---	7.29E-06	8.41E+04	6.13E-01
Benzo (a) pyrene	---	---	2.78E-03	1.00E-05	5.81E-03	4.48E-07	1.03E-06	2.00E-04	4.48E-07	5.15E+08	2.30E+02
Benzo (b) fluoranthene	---	---	1.89E-02	1.00E-04	7.97E-03	3.84E-06	8.81E-06	---	3.84E-06	5.11E+08	1.96E+03
Benzyl alcohol	---	---	4.67E-02	1.88E+01	9.24E+03	8.26E+02	3.79E+02	---	1.88E+01	1.35E+03	2.53E+04
Bis(2-ethylhexyl)phthalate	---	---	1.43E-01	5.22E-03	1.03E+01	3.21E-03	7.36E-03	6.00E-03	3.21E-03	8.75E+31	2.81E+29
Chrysene	---	---	1.39E-02	1.00E-02	3.97E+00	7.29E-04	1.67E-03	---	7.29E-04	8.41E+04	6.13E+01
Dibenzofuran	---	---	6.07E-03	3.75E-02	8.64E-02	6.06E-03	4.73E-04	---	4.73E-04	1.37E+03	6.49E-01
Di-n-butyl phthalate	---	---	3.70E-02	3.75E+00	---	1.80E+00	8.26E-01	---	8.26E-01	2.61E+03	2.15E+03
Di-n-octyl phthalate	---	---	1.66E-02	1.50E+00	4.22E+02	5.65E-03	2.59E-03	---	2.59E-03	8.75E+31	2.27E+29
Fluoranthene	---	---	1.25E-02	1.50E+00	3.32E+01	1.85E-01	8.49E-02	---	8.49E-02	2.54E+03	2.15E+02
Fluorene	---	---	1.13E-03	1.50E+00	4.91E+00	6.36E-01	2.92E-01	---	2.92E-01	1.47E+03	4.29E+02
Isophorone	---	---	3.40E-02	7.31E-02	---	1.98E+00	4.54E+00	---	7.31E-02	1.35E+03	9.85E+01
Naphthalene	---	---	1.70E-03	7.51E-01	2.11E-04	9.69E-01	4.45E-01	---	2.11E-04	1.36E+03	2.86E-01
Phenanthrene	---	---	1.28E-02	---	---	---	---	---	---	---	---
Phenol	---	---	1.41E-02	1.13E+01	---	2.49E+02	1.14E+02	---	1.13E+01	1.35E+03	1.52E+04
Pyrene	---	---	1.35E-02	1.13E+00	---	1.42E-01	6.50E-02	---	6.50E-02	5.99E+03	3.89E+02
Anions											
Cyanide	---	---	5.31E-01	7.51E-01	---	---	---	2.00E-01	2.00E-01	1.35E+03	2.70E+02
Fluoride	---	---	2.71E+00	2.25E+00	---	---	---	4.00E+00	2.25E+00	1.53E+03	3.43E+03

⁽¹⁾ Where the DRAS-calculated delisting limit exceeds 1,000,000 mg/kg, the pure compound is assumed to fall below the delisting limit.

U – Compounds was analyzed for, but not detected

APPENDIX I

GROUNDWATER MONITORING FORMS (PROVIDED ON CD IN HARD COPY)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised

1/30/2018

DEP USE ONLY

Date Received

FORM 14R
RESIDUAL WASTE LANDFILLS
AND DISPOSAL IMPOUNDMENTS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: KISELICH

☒ Well ☐ Spring ☒ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: N/A

Longitude: N/A

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 2:30:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22029-05

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Residential Well

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: MSS-1

☐ Well ☒ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: N/A

Longitude: N/A

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 1 GPM

Sample Date(mm/dd/yy): 11/22/2017

Sample Collection Time: 10:00:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K24026-01

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
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BUREAU OF WASTE MANAGEMENT

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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PC-1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.3"

Longitude: 79D41'46.6"

Depth to Water Level: 50.82 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.98 ft.

Elevation of Water Level: 878.38 ft./MSL

Sampling Depth: 50.82 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 3.2

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/8/2017

Sample Collection Time: 10:55:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K09207-02

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PC-2

☒ Well ☐ Spring ☐ Stream ☐ Other

☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.3"

Longitude: 79D41'37.0"

Depth to Water Level: 53.32 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 3.2 ft.

Elevation of Water Level: 900.18 ft./MSL

Sampling Depth: 53.32 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 3.1

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/8/2017

Sample Collection Time: 12:10:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K09207-03

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PC-3

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'57.7"

Longitude: 79D41'55.1"

Depth to Water Level: 87.9 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.2 ft.

Elevation of Water Level: 831.50 ft./MSL

Sampling Depth: 87.94 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 2.2

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/9/2017

Sample Collection Time: 9:30:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K24025-01

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
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BUREAU OF WASTE MANAGEMENT

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PC-8

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.2"

Longitude: 79D41'49.0"

Depth to Water Level: 52.69 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.91 ft.

Elevation of Water Level: 859.91 ft./MSL

Sampling Depth: 54.76 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 2.2

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/8/2017

Sample Collection Time: 12:45:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K09207-04

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PC-9

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'1.8"

Longitude: 79D41'52.7"

Depth to Water Level: 65.43 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.91 ft.

Elevation of Water Level: 839.67 ft./MSL

Sampling Depth: 68.96 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 2.2

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/8/2017

Sample Collection Time: 9:30:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K09207-01

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PW-1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.1"

Longitude: 79D41'46.5"

Depth to Water Level: 46.09 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.27 ft.

Elevation of Water Level: 880.31 ft./MSL

Sampling Depth: 99.88 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 10/16/2017

Sample Collection Time: 9:15:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7J16103-01

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Open Mine Void

COMMONWEALTH OF PENNSYLVANIA
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Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: PW-1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.1"

Longitude: 79D41'46.5"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.27 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/9/2017

Sample Collection Time: 10:30:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K10117-01

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Open mine void

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PW-1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.1"

Longitude: 79D41'46.5"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.27 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 10:30:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22028-04

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Open Mine Void

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised

1/30/2018

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Date Received

FORM 14R
RESIDUAL WASTE LANDFILLS
AND DISPOSAL IMPOUNDMENTS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PW-2

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'55.3"

Longitude: 79D41'57.0"

Depth to Water Level: 99.02 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.96 ft.

Elevation of Water Level: 827.18 ft./MSL

Sampling Depth: 99.88 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 1.6

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 10/16/2017

Sample Collection Time: 10:40:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7J16103-02

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PW-2

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'55.3"

Longitude: 79D41'57.0"

Depth to Water Level: 98.43 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.96 ft.

Elevation of Water Level: 827.77 ft./MSL

Sampling Depth: 99.51 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.83

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/9/2017

Sample Collection Time: 10:20:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K10117-02

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PW-2

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'55.3"

Longitude: 79D41'57.0"

Depth to Water Level: 98.27 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.96 ft.

Elevation of Water Level: 827.93 ft./MSL

Sampling Depth: 98.34 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.41

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 10:05:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22028-03

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PW-3

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.9"

Longitude: 79D41'47.5"

Depth to Water Level: 43.16 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.98 ft.

Elevation of Water Level: 878.54 ft./MSL

Sampling Depth: 44.94 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 3

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 10/16/2017

Sample Collection Time: 10:15:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7J16103-03

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PW-3

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.9"

Longitude: 79D41'47.5"

Depth to Water Level: 56.72 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.98 ft.

Elevation of Water Level: 864.98 ft./MSL

Sampling Depth: 57.75 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 1.2

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/9/2017

Sample Collection Time: 11:30:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K10117-03

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: PW-3

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D13'0.9"

Longitude: 79D41'47.5"

Depth to Water Level: 53.11 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.98 ft.

Elevation of Water Level: 868.59 ft./MSL

Sampling Depth: 53.31 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.52

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 11:30:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22028-05

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: RC-1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'48.3"

Longitude: 79D41'54.0"

Depth to Water Level: 67.94 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.46 ft.

Elevation of Water Level: 941.06 ft./MSL

Sampling Depth: 70.36 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 3.1

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 10/16/2017

Sample Collection Time: 12:30:00 PM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7J16103-06

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: RC-1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'48.3"

Longitude: 79D41'54.0"

Depth to Water Level: 63.68 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.46 ft.

Elevation of Water Level: 945.32 ft./MSL

Sampling Depth: 67.52 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.2

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/9/2017

Sample Collection Time: 1:30:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K10117-04

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: RC-1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'48.3"

Longitude: 79D41'54.0"

Depth to Water Level: 62.51 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.46 ft.

Elevation of Water Level: 946.49 ft./MSL

Sampling Depth: 62.57 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 1.6

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 9:20:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22028-01

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: RC-2

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'42.7"

Longitude: 79D41'54.0"

Depth to Water Level: 86.16 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.9 ft.

Elevation of Water Level: 960.38 ft./MSL

Sampling Depth: 94.16 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 2.1

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 10/16/2017

Sample Collection Time: 2:00:00 PM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7J16103-07

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised

1/30/2018

DEP USE ONLY

Date Received

FORM 14R
RESIDUAL WASTE LANDFILLS
AND DISPOSAL IMPOUNDMENTS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: RC-2

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'42.7"

Longitude: 79D41'54.0"

Depth to Water Level: 89.91 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.9 ft.

Elevation of Water Level: 956.63 ft./MSL

Sampling Depth: 96.05 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 1.7

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/9/2017

Sample Collection Time: 1:45:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K10117-05

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: RC-2

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'42.7"

Longitude: 79D41'54.0"

Depth to Water Level: 80.42 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.9 ft.

Elevation of Water Level: 966.12 ft./MSL

Sampling Depth: 90.48 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 3.2

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 12:45:00 PM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22028-07

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: RC-6A

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'45.1"

Longitude: 79D42'4.4"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.29 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/22/2017

Sample Collection Time: 1:00:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K24026-08

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Permanent pump in well
25 gallons purged

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: RC-6A

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'45.1"

Longitude: 79D42'4.4"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.29 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 1:15:00 PM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22029-03

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: RC-6A

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'45.1"

Longitude: 79D42'4.4"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.29 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 1:15:00 PM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22028-08

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: REINSTADTLE

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: N/A

Longitude: N/A

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 2:15:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22029-04

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Residential Well

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: S-A

☐ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude:

Longitude:

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 30 GPM

Sample Date(mm/dd/yy): 11/22/2017

Sample Collection Time: 12:00:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis:

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K24026-07

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: S-B

☐ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude:

Longitude:

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 112 GPM

Sample Date(mm/dd/yy): 11/22/2017

Sample Collection Time: 11:50:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K24026-06

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: S-C

☐ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude:

Longitude:

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 45 GPM

Sample Date(mm/dd/yy): 11/22/2017

Sample Collection Time: 11:35:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K24026-05

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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SECTION B. FACILITY INFORMATION

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Monitoring Point Number: S-E

☐ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude:

Longitude:

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 60 GPM

Sample Date(mm/dd/yy): 11/22/2017

Sample Collection Time: 11:15:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K24026-03

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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SECTION B. FACILITY INFORMATION

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Monitoring Point Number: S-F

☐ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude:

Longitude:

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0.5 GPM

Sample Date(mm/dd/yy): 11/22/2017

Sample Collection Time: 11:30:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K24026-04

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
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FORM 14R
RESIDUAL WASTE LANDFILLS
AND DISPOSAL IMPOUNDMENTS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 288.254, 289.264

SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: W-10

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'40.5"

Longitude: 79D41'43.2"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.52 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/8/2017

Sample Collection Time: 3:15:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K09207-06

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Artesian Well

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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Facility ID (as issued by DEP): PAD004835146

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Monitoring Point Number: W-11

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'44.2"

Longitude: 79D41'42.4"

Depth to Water Level: 27.41 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.86 ft.

Elevation of Water Level: 930.63 ft./MSL

Sampling Depth: 61.48 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 3.1

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/8/2017

Sample Collection Time: 3:40:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K09207-07

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: W-12

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'47.0"

Longitude: 79D41'39.2"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 3.52 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 12:00:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22029-02

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD MM' SS.S")

Monitoring Point Number: W-2

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'51.0"

Longitude: 79D42'1.0"

Depth to Water Level: 26.35 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.31 ft.

Elevation of Water Level: 923.35 ft./MSL

Sampling Depth: 49.05 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 1.7

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 11/8/2017

Sample Collection Time: 2:10:00 PM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7K09207-05

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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SECTION A. SITE IDENTIFIER

Applicant/permittee: MAX Environmental Technologies, Inc.

Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: W-4

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'44.7"

Longitude: 79D41'51.7"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 0.98 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 10/16/2017

Sample Collection Time: 1:00:00 PM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7J16103-05

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Pumped dry prior to sampling
35 gallons purged

COMMONWEALTH OF PENNSYLVANIA
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Facility ID (as issued by DEP): PAD004835146

SECTION B. FACILITY INFORMATION

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Monitoring Point Number: W-4

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'44.7"

Longitude: 79D41'51.7"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 0.98 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☒ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 3:20:00 PM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22028-06

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

COMMONWEALTH OF PENNSYLVANIA
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Site Name: MAX Env. Tech., Inc. -- Yukon

Facility ID (as issued by DEP): PAD004835146

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Monitoring Point Number: W-5

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'58.2"

Longitude: 79D41'53.5"

Depth to Water Level: 45.6 ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.06 ft.

Elevation of Water Level: 876.00 ft./MSL

Sampling Depth: 112.81 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 2.1

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 11:15:00 AM

Sample Collectors Name: JT

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22029-01

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments:

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Monitoring Point Number: W-6

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'51.4"

Longitude: 79D42'1.0"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.97 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 10/16/2017

Sample Collection Time: 11:30:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7J16103-04

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Pumped dry prior to sampling
25 gallons purged

COMMONWEALTH OF PENNSYLVANIA
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Facility ID (as issued by DEP): PAD004835146

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Monitoring Point Number: W-6

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Westmoreland

Municipality: South Huntingdon Township

Sampling Point: Latitude: 40D12'51.4"

Longitude: 79D42'1.0"

Depth to Water Level: ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.97 ft.

Elevation of Water Level: ft./MSL

Sampling Depth: 0.00 ft.

Volume of Water Column: 0 gal.

Total Well Depth: 0.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☒ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 0

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Sample Lab Filtered? ☐ Yes ☒ No Lab Filter Pore Size: 0 microns

Spring Flow Rate: 0 GPM

Sample Date(mm/dd/yy): 12/20/2017

Sample Collection Time: 9:40:00 AM

Sample Collectors Name: TV

Sample Collector's Affiliation: Cribbs & Associates, Inc.

Laboratory(ies) Performing Analysis: Fairway Labs

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): 07-0062

Lab Sample Number: 7L22028-02

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form:

Comments: Pumped dry prior to sampling
30 gallons purged

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

0.932

I.D. No.	PAD004835146
Monitoring Point No.	KISELICH
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		29.1	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.932	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		7.45	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		235	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids		108	160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)		<77	9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

1.412

I.D. No.	PAD004835146
Monitoring Point No.	MSS-1
Sample Date	11/22/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		9.67	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		1.412	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		7.46	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1050	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

1.655

I.D. No.	PAD004835146
Monitoring Point No.	PC-1
Sample Date	11/8/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		0.978	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		168	9251
Fluoride		0.229	340.2
Iron, Total			6010
Iron, Dissolved		2.25	6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved		1050	6010
Nitrate-Nitrogen		1.655	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		3.62	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved		71.6	6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1490	9050
Sulfate		475	9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon		2.02	9060
Turbidity (NTU)			180.1
Cyanide (Total)		<0.01	
Total Organic Halogens (ug/l)		<30	9020
Phenolics		<0.02	
Nickel (Dissolved)		0.0845	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.248

I.D. No.	PAD004835146
Monitoring Point No.	PC-2
Sample Date	11/8/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		<0.1	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		2.16	9251
Fluoride		0.222	340.2
Iron, Total			6010
Iron, Dissolved		8.48	6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved		930	6010
Nitrate-Nitrogen		0.248	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		3	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved		5.53	6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1090	9050
Sulfate		396	9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon		1.55	9060
Turbidity (NTU)			180.1
Cyanide (Total)		<0.01	
Total Organic Halogens (ug/l)		34.9	9020
Phenolics		<0.02	
Nickel (Dissolved)		0.084	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

60.7

I.D. No.	PAD004835146
Monitoring Point No.	PC-3
Sample Date	11/9/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		3000	9251
Fluoride		1.56	340.2
Iron, Total			6010
Iron, Dissolved		7.19	6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved		12.6	6010
Nitrate-Nitrogen		60.7	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		8.5	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved		285	6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1490	9050
Sulfate		1610	9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)		0.559	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.53

I.D. No.	PAD004835146
Monitoring Point No.	PC-8
Sample Date	11/8/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		0.993	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		106	9251
Fluoride		0.225	340.2
Iron, Total			6010
Iron, Dissolved		4.96	6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved		958	6010
Nitrate-Nitrogen		0.53	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		7.02	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved		49	6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1330	9050
Sulfate		497	9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon		1.85	9060
Turbidity (NTU)			180.1
Cyanide (Total)		<0.01	
Total Organic Halogens (ug/l)		74.2	9020
Phenolics		<0.02	
Nickel (Dissolved)		0.0708	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.762

I.D. No.	PAD004835146
Monitoring Point No.	PC-9
Sample Date	11/8/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		<0.1	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		66.3	9251
Fluoride		0.111	340.2
Iron, Total			6010
Iron, Dissolved		0.295	6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved		<238	6010
Nitrate-Nitrogen		0.762	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved		31.8	6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1010	9050
Sulfate		361	9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon		2.19	9060
Turbidity (NTU)			180.1
Cyanide (Total)		<0.01	
Total Organic Halogens (ug/l)		158	9020
Phenolics		<0.02	
Nickel (Dissolved)		<0.05	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

5.552

I.D. No.	PAD004835146
Monitoring Point No. PW-1	
Sample Date	10/16/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		388	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		5.552	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		2.96	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		2750	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

3.134

I.D. No.	PAD004835146
Monitoring Point No. PW-1	
Sample Date	11/9/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		163	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		3.134	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		3.62	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1350	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

6.274

I.D. No.	PAD004835146
Monitoring Point No. PW-1	
Sample Date	12/20/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		381	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		6.274	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		2.99	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		2840	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.96

I.D. No.	PAD004835146
Monitoring Point No. PW-2	
Sample Date	10/16/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		8.53	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.96	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		6.53	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		712	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.34

I.D. No.	PAD004835146
Monitoring Point No. PW-2	
Sample Date	11/9/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		5.35	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.34	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		7.04	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		611	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.666

I.D. No.	PAD004835146
Monitoring Point No. PW-2	
Sample Date	12/20/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		7.21	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.666	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		6.64	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		473	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

5.54

I.D. No.	PAD004835146
Monitoring Point No. PW-3	
Sample Date	10/16/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		389	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		5.54	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		2.96	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		2750	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

1.856

I.D. No.	PAD004835146
Monitoring Point No. PW-3	
Sample Date	11/9/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		143	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		1.856	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		6.68	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1440	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.878

I.D. No.	PAD004835146
Monitoring Point No. PW-3	
Sample Date	12/20/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		267	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.878	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		5.7	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1960	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No.	RC-1
Sample Date	10/16/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		7.67	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		1360	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No.	RC-1
Sample Date	11/9/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		8.5	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		1490	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No.	RC-1
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		6.525	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		1450	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	10/16/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		10.5	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		541	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	11/9/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		6.605	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		549	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		4.495	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		524	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.574

I.D. No.	PAD004835146
Monitoring Point No.	RC-6A
Sample Date	11/22/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		0.273	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		23.4	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.574	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		8.5	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1490	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)		<0.01	
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.694

I.D. No.	PAD004835146
Monitoring Point No.	RC-6A
Sample Date	12/20/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		<0.1	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		25.4	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.694	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		8.38	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1570	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)		<0.01	
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No.	RC-6A
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		0.154	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride			9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

<0.033

I.D. No.	PAD004835146
Monitoring Point No.	REINSTADTLER
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		14.1	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		<0.033	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		8.18	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		877	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids		248	160.1
Total Organic Carbon		<0.5	9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)		<77	9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

1.252

I.D. No.	PAD004835146
Monitoring Point No. S-A	
Sample Date	11/22/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		13.7	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		1.252	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

1.994

I.D. No.	PAD004835146
Monitoring Point No. S-B	
Sample Date	11/22/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		64.8	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		1.994	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.9

I.D. No.	PAD004835146
Monitoring Point No. S-C	
Sample Date	11/22/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		34.9	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.9	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.77

I.D. No.	PAD004835146
Monitoring Point No. S-E	
Sample Date	11/22/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		34.9	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.77	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

0.934

I.D. No.	PAD004835146
Monitoring Point No. S-F	
Sample Date	11/22/2017

PARAMTERS

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen			350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		<2	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.934	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

<0.033

I.D. No.	PAD004835146
Monitoring Point No. W-10	
Sample Date	11/8/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen	32	0.265	350.1
Bicarbonate (as CaCO ₃)	609	551	310.1
Calcium, Total	270		6010
Calcium, Dissolved	237	2.09	6010
Chemical Oxygen Demand	50	<15	410.4
Chloride	250	18.9	9251
Fluoride	12	7.68	340.2
Iron, Total	2.1		6010
Iron, Dissolved	1.8	<0.04	6010
Magnesium, Total	40000		6010
Magnesium, Dissolved	32000	635	6010
Manganese (ug/l), Total	0.415		6010
Manganese (ug/l), Dissolved	0.36	24.3	6010
Nitrate-Nitrogen	10	<0.033	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory	6.4 - 9.4	8.67	9040
Potassium, Total	9.7		6010
Potassium, Dissolved	8.4	0.822	6010
Sodium, Total	390		6010
Sodium, Dissolved	338	279	6010
Specific Conductance (umhos/cm),Field	1718		9050
Specific Conductance (umhos/cm),Laboratory	1718	1170	9050
Sulfate	660	34.5	9038
Total Alkalinity	670	596	310.1
Total Dissolved Solids	1258	722	160.1
Total Organic Carbon	5.5	0.702	9060
Turbidity (NTU)	55	2.63	180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

<0.033

I.D. No.	PAD004835146
Monitoring Point No. W-11	
Sample Date	11/8/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen	32	1.024	350.1
Bicarbonate (as CaCO ₃)	609	344	310.1
Calcium, Total	270		6010
Calcium, Dissolved	237	19.8	6010
Chemical Oxygen Demand	50	<15	410.4
Chloride	250	23.1	9251
Fluoride	12	1.2	340.2
Iron, Total	2.1		6010
Iron, Dissolved	1.8	0.0588	6010
Magnesium, Total	40000		6010
Magnesium, Dissolved	32000	5250	6010
Manganese (ug/l), Total	0.415		6010
Manganese (ug/l), Dissolved	0.36	17.7	6010
Nitrate-Nitrogen	10	<0.033	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory	6.4 - 9.4	8.36	9040
Potassium, Total	9.7		6010
Potassium, Dissolved	8.4	1.24	6010
Sodium, Total	390		6010
Sodium, Dissolved	338	279	6010
Specific Conductance (umhos/cm),Field	1718		9050
Specific Conductance (umhos/cm),Laboratory	1718	861	9050
Sulfate	660	81.6	9038
Total Alkalinity	670	351	310.1
Total Dissolved Solids	1258	522	160.1
Total Organic Carbon	5.5	<0.5	9060
Turbidity (NTU)	55	2.51	180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

<0.033

I.D. No.	PAD004835146
Monitoring Point No. W-12	
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen	32	0.449	350.1
Bicarbonate (as CaCO ₃)	609	514	310.1
Calcium, Total	270		6010
Calcium, Dissolved	237	<2.5	6010
Chemical Oxygen Demand	50	61.2	410.4
Chloride	250	3.27	9251
Fluoride	12	3.67	340.2
Iron, Total	2.1		6010
Iron, Dissolved	1.8	<0.2	6010
Magnesium, Total	40000		6010
Magnesium, Dissolved	32000	<1000	6010
Manganese (ug/l), Total	0.415		6010
Manganese (ug/l), Dissolved	0.36	<50	6010
Nitrate-Nitrogen	10	<0.033	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory	6.4 - 9.4	8.55	9040
Potassium, Total	9.7		6010
Potassium, Dissolved	8.4	2.13	6010
Sodium, Total	390		6010
Sodium, Dissolved	338	244	6010
Specific Conductance (umhos/cm),Field	1718		9050
Specific Conductance (umhos/cm),Laboratory	1718	1050	9050
Sulfate	660	17.2	9038
Total Alkalinity	670	568	310.1
Total Dissolved Solids	1258	642	160.1
Total Organic Carbon	5.5	4.7	9060
Turbidity (NTU)	55	11.2	180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

0.356

I.D. No.	PAD004835146
Monitoring Point No. W-2	
Sample Date	11/8/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		0.293	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		22.7	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen		0.356	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		7.87	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		865	9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)		<0.01	
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No. W-4	
Sample Date	10/16/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		0.626	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride			9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No. W-4	
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		1.495	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride			9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

<0.033

I.D. No.	PAD004835146
Monitoring Point No. W-5	
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		0.339	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		4.09	9251
Fluoride		8.81	340.2
Iron, Total			6010
Iron, Dissolved		<0.2	6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved		<50	6010
Nitrate-Nitrogen		<0.033	9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory		8.46	9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved		416	6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory		1580	9050
Sulfate		<2	9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon		0.78	9060
Turbidity (NTU)			180.1
Cyanide (Total)		<0.01	
Total Organic Halogens (ug/l)		<77	9020
Phenolics		<0.02	
Nickel (Dissolved)		<0.25	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No. W-6	
Sample Date	10/16/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		2.721	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		543	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
QUARTERLY WATER QUALITY ANALYSES

PARAMTERS

I.D. No.	PAD004835146
Monitoring Point No. W-6	
Sample Date	12/20/2017

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen		1.453	350.1
Bicarbonate (as CaCO ₃)			310.1
Calcium, Total			6010
Calcium, Dissolved			6010
Chemical Oxygen Demand			410.4
Chloride		544	9251
Fluoride			340.2
Iron, Total			6010
Iron, Dissolved			6010
Magnesium, Total			6010
Magnesium, Dissolved			6010
Manganese (ug/l), Total			6010
Manganese (ug/l), Dissolved			6010
Nitrate-Nitrogen			9200
Nitrate-Nitrite			
pH (standard units), Field			
pH (standard units), Laboratory			9040
Potassium, Total			6010
Potassium, Dissolved			6010
Sodium, Total			6010
Sodium, Dissolved			6010
Specific Conductance (umhos/cm),Field			9050
Specific Conductance (umhos/cm),Laboratory			9050
Sulfate			9038
Total Alkalinity			310.1
Total Dissolved Solids			160.1
Total Organic Carbon			9060
Turbidity (NTU)			180.1
Cyanide (Total)			
Total Organic Halogens (ug/l)			9020
Phenolics			
Nickel (Dissolved)			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	KISELICH
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane		<1	8260
1,1-Dichloroethane		<1	8260
1,1-Dichloroethene		<1	8260
1,2-Dichloroethane		<1	8260
cis-1,2-Dichloroethene		<1	8260
trans-1,2-Dichloroethene		<1	8260
Ethyl Benzene			8260
Methylene chloride		<1	8260
Tetrachloroethene		<1	8260
Toluene			8260
1,1,1-Trichloroethane		<1	8260
Trichloroethene		<1	8260
Vinyl chloride		<1	8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	MSS-1
Sample Date	11/22/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PC-1	
Sample Date	11/8/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-2
Sample Date	11/8/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-3
Sample Date	11/9/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-8
Sample Date	11/8/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-9
Sample Date	11/8/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-1	
Sample Date	10/16/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-1	
Sample Date	11/9/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-1	
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-2	
Sample Date	10/16/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-2	
Sample Date	11/9/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-2	
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-3	
Sample Date	10/16/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-3	
Sample Date	11/9/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. PW-3	
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. RC-1	
Sample Date	10/16/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. RC-1	
Sample Date	11/9/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. RC-1	
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	10/16/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	11/9/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. RC-6A	
Sample Date	11/22/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. RC-6A	
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. RC-6A	
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	REINSTADTLER
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane		<1	8260
1,1-Dichloroethane		<1	8260
1,1-Dichloroethene		<1	8260
1,2-Dichloroethane		<1	8260
cis-1,2-Dichloroethene		<1	8260
trans-1,2-Dichloroethene		<1	8260
Ethyl Benzene			8260
Methylene chloride		<1	8260
Tetrachloroethene		<1	8260
Toluene			8260
1,1,1-Trichloroethane		<1	8260
Trichloroethene		<1	8260
Vinyl chloride		<1	8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. S-A	
Sample Date	11/22/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. S-B	
Sample Date	11/22/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. S-C	
Sample Date	11/22/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. S-E	
Sample Date	11/22/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. S-F	
Sample Date	11/22/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. W-10	
Sample Date	11/8/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:	5	<1	8260
1,2-Dibromoethane	2.5	<1	8260
1,1-Dichloroethane	2.5	<1	8260
1,1-Dichloroethene	7	<1	8260
1,2-Dichloroethane	5	<1	8260
cis-1,2-Dichloroethene	70	<1	8260
trans-1,2-Dichloroethene	100	<1	8260
Ethyl Benzene	700	<1	8260
Methylene chloride	5	<1	8260
Tetrachloroethene	5	<1	8260
Toluene	1000	<1	8260
1,1,1-Trichloroethane	200	<1	8260
Trichloroethene	5	<1	8260
Vinyl chloride	2.5	<1	8260
Xylene:	10000	<2	8260
Naphthalene		<1	
TPH-DRO		<0.3	
TPH-GRO		<0.1	

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. W-11	
Sample Date	11/8/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:	5	<1	8260
1,2-Dibromoethane	2.5	<1	8260
1,1-Dichloroethane	2.5	<1	8260
1,1-Dichloroethene	7	<1	8260
1,2-Dichloroethane	5	<1	8260
cis-1,2-Dichloroethene	70	<1	8260
trans-1,2-Dichloroethene	100	<1	8260
Ethyl Benzene	700	<1	8260
Methylene chloride	5	<1	8260
Tetrachloroethene	5	<1	8260
Toluene	1000	<1	8260
1,1,1-Trichloroethane	200	<1	8260
Trichloroethene	5	<1	8260
Vinyl chloride	2.5	<1	8260
Xylene:	10000	<2	8260
Naphthalene		<1	
TPH-DRO		<0.3	
TPH-GRO		<0.1	

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-12
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:	5	<1	8260
1,2-Dibromoethane	2.5	<1	8260
1,1-Dichloroethane	2.5	<1	8260
1,1-Dichloroethene	7	<1	8260
1,2-Dichloroethane	5	<1	8260
cis-1,2-Dichloroethene	70	<1	8260
trans-1,2-Dichloroethene	100	<1	8260
Ethyl Benzene	700	<1	8260
Methylene chloride	5	<1	8260
Tetrachloroethene	5	<1	8260
Toluene	1000	<1	8260
1,1,1-Trichloroethane	200	<1	8260
Trichloroethene	5	<1	8260
Vinyl chloride	2.5	<1	8260
Xylene:	10000	<2	8260
Naphthalene		<1	
TPH-DRO		0.52	
TPH-GRO		<0.1	

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. W-2	
Sample Date	11/8/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. W-4	
Sample Date	10/16/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. W-4	
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. W-5	
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No. W-6	
Sample Date	10/16/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-6
Sample Date	12/20/2017

PARAMTERS

1-A.. Organics (Enter all data in ug/l)

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Benzene:			8260
1,2-Dibromoethane			8260
1,1-Dichloroethane			8260
1,1-Dichloroethene			8260
1,2-Dichloroethane			8260
cis-1,2-Dichloroethene			8260
trans-1,2-Dichloroethene			8260
Ethyl Benzene			8260
Methylene chloride			8260
Tetrachloroethene			8260
Toluene			8260
1,1,1-Trichloroethane			8260
Trichloroethene			8260
Vinyl chloride			8260
Xylene:			8260
Naphthalene			
TPH-DRO			
TPH-GRO			

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	KISELICH
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	MSS-1
Sample Date	11/22/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-1
Sample Date	11/8/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		<8	6010
Barium, Total			6010
Barium, Dissolved		<10	6010
Cadmium, Total			6010
Cadmium, Dissolved		<4	6010
Chromium, Total			6010
Chromium, Dissolved		<5	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<8	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved		<20	6010
Silver, Total			6010
Silver, Dissolved		<4	6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-2
Sample Date	11/8/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		<8	6010
Barium, Total			6010
Barium, Dissolved		<10	6010
Cadmium, Total			6010
Cadmium, Dissolved		<4	6010
Chromium, Total			6010
Chromium, Dissolved		5.05	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<8	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved		<20	6010
Silver, Total			6010
Silver, Dissolved		<4	6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-3
Sample Date	11/9/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		15.1	6010
Barium, Total			6010
Barium, Dissolved		26.3	6010
Cadmium, Total			6010
Cadmium, Dissolved		9.31	6010
Chromium, Total			6010
Chromium, Dissolved		19.2	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<8	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved		<20	6010
Silver, Total			6010
Silver, Dissolved		15	6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-8
Sample Date	11/8/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		<8	6010
Barium, Total			6010
Barium, Dissolved		118	6010
Cadmium, Total			6010
Cadmium, Dissolved		<4	6010
Chromium, Total			6010
Chromium, Dissolved		<5	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<8	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved		<20	6010
Silver, Total			6010
Silver, Dissolved		<4	6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PC-9
Sample Date	11/8/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		<8	6010
Barium, Total			6010
Barium, Dissolved		<10	6010
Cadmium, Total			6010
Cadmium, Dissolved		<4	6010
Chromium, Total			6010
Chromium, Dissolved		<5	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<8	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved		<20	6010
Silver, Total			6010
Silver, Dissolved		<4	6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-1
Sample Date	10/16/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-1
Sample Date	11/9/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-1
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-2
Sample Date	10/16/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-2
Sample Date	11/9/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-2
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-3
Sample Date	10/16/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-3
Sample Date	11/9/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	PW-3
Sample Date	12/20/2017

- 2-A. **Metals** (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-1
Sample Date	10/16/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-1
Sample Date	11/9/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-1
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	10/16/2017

- 2-A. **Metals** (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	11/9/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved		2050	6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-2
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved		1870	6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-6A
Sample Date	11/22/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		<8	6010
Barium, Total			6010
Barium, Dissolved		132	6010
Cadmium, Total			6010
Cadmium, Dissolved		<4	6010
Chromium, Total			6010
Chromium, Dissolved		<5	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<8	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-6A
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		<40	6010
Barium, Total			6010
Barium, Dissolved		138	6010
Cadmium, Total			6010
Cadmium, Dissolved		<20	6010
Chromium, Total			6010
Chromium, Dissolved		<25	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<40	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	RC-6A
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	REINSTADTLER
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	S-A
Sample Date	11/22/2017

- 2-A. **Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.**

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	S-B
Sample Date	11/22/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	S-C
Sample Date	11/22/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	S-E
Sample Date	11/22/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	S-F
Sample Date	11/22/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-10
Sample Date	11/8/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	70		6010
Arsenic, Dissolved	50	<8	6010
Barium, Total	2000		6010
Barium, Dissolved	2000	102	6010
Cadmium, Total	5		6010
Cadmium, Dissolved	6	<4	6010
Chromium, Total	100		6010
Chromium, Dissolved	100	<5	6010
Copper, Total	1300		6010
Copper, Dissolved	1300	<10	6010
Lead, Total	45		6010
Lead, Dissolved	15	<8	6010
Mercury, Total			7470
Mercury, Dissolved	2	<0.2	7470
Selenium, Total	50		6010
Selenium, Dissolved	50	<20	6010
Silver, Total	100		6010
Silver, Dissolved	100	<4	6010
Zinc, Total	5000		6010
Zinc, Dissolved	5000	<20	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-11
Sample Date	11/8/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	70		6010
Arsenic, Dissolved	50	<8	6010
Barium, Total	2000		6010
Barium, Dissolved	2000	95.5	6010
Cadmium, Total	5		6010
Cadmium, Dissolved	6	<4	6010
Chromium, Total	100		6010
Chromium, Dissolved	100	<5	6010
Copper, Total	1300		6010
Copper, Dissolved	1300	<10	6010
Lead, Total	45		6010
Lead, Dissolved	15	<8	6010
Mercury, Total			7470
Mercury, Dissolved	2	<0.2	7470
Selenium, Total	50		6010
Selenium, Dissolved	50	<20	6010
Silver, Total	100		6010
Silver, Dissolved	100	<4	6010
Zinc, Total	5000		6010
Zinc, Dissolved	5000	<20	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-12
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	70		6010
Arsenic, Dissolved	50	<40	6010
Barium, Total	2000		6010
Barium, Dissolved	2000	<50	6010
Cadmium, Total	5		6010
Cadmium, Dissolved	6	<20	6010
Chromium, Total	100		6010
Chromium, Dissolved	100	<25	6010
Copper, Total	1300		6010
Copper, Dissolved	1300	<50	6010
Lead, Total	45		6010
Lead, Dissolved	15	<40	6010
Mercury, Total			7470
Mercury, Dissolved	2	<0.2	7470
Selenium, Total	50		6010
Selenium, Dissolved	50	<100	6010
Silver, Total	100		6010
Silver, Dissolved	100	<20	6010
Zinc, Total	5000		6010
Zinc, Dissolved	5000	<100	6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-2
Sample Date	11/8/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		<8	6010
Barium, Total			6010
Barium, Dissolved		14.8	6010
Cadmium, Total			6010
Cadmium, Dissolved		<4	6010
Chromium, Total			6010
Chromium, Dissolved		<5	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<8	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-4
Sample Date	10/16/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-4
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-5
Sample Date	12/20/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved		<40	6010
Barium, Total			6010
Barium, Dissolved		<50	6010
Cadmium, Total			6010
Cadmium, Dissolved		<20	6010
Chromium, Total			6010
Chromium, Dissolved		<25	6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved		<40	6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved		<100	6010
Silver, Total		<20	6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-6
Sample Date	10/16/2017

- 2-A. Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

FORM 14R
ANNUAL WATER QUALITY ANALYSES

I.D. No.	PAD004835146
Monitoring Point No.	W-6
Sample Date	12/20/2017

- 2-A. **Metals (Enter all data in ug/l). If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.**

ANALYTE	MANDATORY ABATEMENT TRIGGER LEVEL	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total			6010
Arsenic, Dissolved			6010
Barium, Total			6010
Barium, Dissolved			6010
Cadmium, Total			6010
Cadmium, Dissolved			6010
Chromium, Total			6010
Chromium, Dissolved			6010
Copper, Total			6010
Copper, Dissolved			6010
Lead, Total			6010
Lead, Dissolved			6010
Mercury, Total			7470
Mercury, Dissolved			7470
Selenium, Total			6010
Selenium, Dissolved			6010
Silver, Total			6010
Silver, Dissolved			6010
Zinc, Total			6010
Zinc, Dissolved			6010

Please indicate detection limit if analyte is not detected.

Outliers

Current Quarter Starting: 10/1/2017 Ending: 12/31/2017

<i>Well</i>	<i>Sample Date</i>	<i>Horizon</i>	<i>Outlier</i>	<i>Value</i>	<i>Well Ucl</i>	<i>Background UCL</i>	<i>MATL</i>	<i>Consent Order Level</i>
RC-1	10/16/2017	RC	Ammonia Nitrogen	7.67	444.24870		N/A	0.50
RC-1	10/16/2017	RC	Chloride	1360	10734.93000		N/A	125.00
RC-1	11/9/2017	RC	Ammonia Nitrogen	8.5	444.24870		N/A	0.50
RC-1	11/9/2017	RC	Chloride	1490	10734.93000		N/A	125.00
RC-1	12/20/2017	RC	Ammonia Nitrogen	6.525	444.24870		N/A	0.50
RC-1	12/20/2017	RC	Chloride	1450	10734.93000		N/A	125.00
RC-2	10/16/2017	RC	Ammonia Nitrogen	10.5	444.24870		N/A	0.50
RC-2	10/16/2017	RC	Chloride	541	10734.93000		N/A	125.00
RC-2	11/9/2017	RC	Ammonia Nitrogen	6.605	444.24870		N/A	0.50
RC-2	11/9/2017	RC	Barium Dissolved	2.05	37.86895		N/A	0.50
RC-2	11/9/2017	RC	Chloride	549	10734.93000		N/A	125.00
RC-2	12/20/2017	RC	Ammonia Nitrogen	4.495	444.24870		N/A	0.50
RC-2	12/20/2017	RC	Barium Dissolved	1.87	37.86895		N/A	0.50
RC-2	12/20/2017	RC	Chloride	524	10734.93000		N/A	125.00
W-10	11/8/2017	PL	Alkalinity	596	1531.83300	336.07960	670.00000	N/A
W-10	11/8/2017	PL	Alkalinity Bicarbonate	551	939.65320	308.50610	609.00000	N/A
W-10	11/8/2017	PL	PH Laboratory	8.67	82.85132	8.46555	6.4 - 9.4	N/A
W-10	11/8/2017	PL	Sodium Dissolved	279	482.31070	13.22773	338.00000	N/A
W-11	11/8/2017	PL	Alkalinity	351	1531.83300	336.07960	670.00000	N/A
W-11	11/8/2017	PL	Alkalinity Bicarbonate	344	939.65320	308.50610	609.00000	N/A
W-11	11/8/2017	PL	Chloride	23.1	10734.93000	20.05345	250.00000	N/A
W-11	11/8/2017	PL	Sodium Dissolved	279	308.13310	13.22773	338.00000	N/A
W-12	12/20/2017	PL	Alkalinity	568	1531.83300	336.07960	670.00000	N/A
W-12	12/20/2017	PL	Alkalinity Bicarbonate	514	939.65320	308.50610	609.00000	N/A
W-12	12/20/2017	PL	PH Laboratory	8.55	82.85132	8.46555	6.4 - 9.4	N/A
W-12	12/20/2017	PL	Sodium Dissolved	244	426.52110	13.22773	338.00000	N/A
W-12	12/20/2017	PL	Total Organic Carbon	4.7	56.19525	4.46510	5.50000	N/A

Notes:

All values are measured in mg/L except for the following:
pH - s.u. Conductance - µmhos Turbidity - NTU TOX and VOCs - µg/L

pH is compared to both Well UCL and LCL. The value printed is either the UCL or LCL, whichever value resulted in the statistical outlier.

<i>Well</i>	<i>Sample Date</i>	<i>Horizon</i>	<i>Outlier</i>	<i>Value</i>	<i>Well Ucl</i>	<i>Background UCL</i>	<i>MATL</i>	<i>Consent Order Level</i>
W-4	10/16/2017	PL	Ammonia Nitrogen	0.626	444.24870	5.91089	N/A	0.50
W-4	12/20/2017	PL	Ammonia Nitrogen	1.495	444.24870	5.91089	N/A	0.50
W-5	12/20/2017	PL	Sodium Dissolved	416	745.79140	13.22773	N/A	N/A
W-6	10/16/2017	PL	Ammonia Nitrogen	2.721	444.24870	5.91089	N/A	0.50
W-6	10/16/2017	PL	Chloride	543	10734.93000	20.05345	N/A	125.00
W-6	12/20/2017	PL	Ammonia Nitrogen	1.453	444.24870	5.91089	N/A	0.50
W-6	12/20/2017	PL	Chloride	544	10734.93000	20.05345	N/A	125.00

Notes:

All values are measured in mg/L except for the following:
pH - s.u. Conductance - µmhos Turbidity - NTU TOX and VOCs - µg/L

pH is compared to both Well UCL and LCL. The value printed is either the UCL or LCL, whichever value resulted in the statistical outlier.