June 29, 2021

Mr. Andrew Zwack
Assistant Engineer
New York State Dept. of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Response to June 1, 2021 Comment Letter
Tecumseh Redevelopment Inc., Lackawanna, NY Site
ATP SWMU Group ECM
Annual Monitoring & Maintenance Summary Report
Reporting Period January 1-December 31, 2020

Dear Mr. Zwack:

On behalf of our client, Tecumseh Redevelopment Inc. (Tecumseh), TurnKey Environmental Restoration, LLC (TurnKey) has prepared the following responses to the Department's June 1, 2021 comments concerning the above-referenced report:

Comment 1. Section 4.0, Groundwater Quality Monitoring: Groundwater samples were also analyzed for 1,4 Dioxane by 8270D-SIM (MWS-02, MWS-18A/C, MWS-23A/B), Pesticides/PCBs (MWS-02, MWS-18A/C, MWS-23A/B), and PFAS compounds (MWS-02). The results will be discussed in this section and tabulated in a separate Table;

Response:
Acknowledged. The separate table has been included with the revised Annual Report and results are discussed in Section 4.0.

Comment 2. Section 5.0, Cover System Monitoring: Concrete vaults associated with the extraction wells were damaged to facilitate re-development and re-installation activities in 2019. The concrete vaults will be repaired and the manhole covers re-installed;

Response:
Acknowledged. The manhole collars and covers have been reinstalled and the holes in the top of the vaults adjacent to the manholes have been covered with steel plates (see attached photo).

Comment 3. Table 1, Groundwater Elevation Summary: There is a significant elevation difference within the well pair MWS-23A and MWS-23B. The revised summary report will provide an explanation for the difference and the approach taken in generating the groundwater contours within the area of the well pair;

Response:
The significant groundwater elevation difference between MWS-23A and MWS-23B is likely due to a zone of very dense material located between the screened zones of these two wells. When reviewing the boring log for MWS-23B (attached) you will observe that the zone just above the sand layer is very dense with drilling blow counts of greater than 50 blows to advance 0.4 feet. We believe this very dense layer is acting as an aquitard and causing a localized perched water table. The screened interval of MWS-23A is located above the dense layer and is able to observe the localized perch water table. The screened zone for MWS-23B is located below the dense layer and not subject to the localized perched water table.

The approach used for generating the groundwater contours at paired wells is to use the well that is screened in the sand layer. At monitoring locations with paired wells we used the wells screened in the sand layer because the extraction wells and piezometers are all screened in the sand layer. We have used wells screened in the fill layer (i.e., MWS-02, MWS-03, MWS-15, and MWS-29A) located further from the containment cell to expand the view and "fill in" data points for the isopotential map where wells completed in the sand layer are fewer or farther apart. In most cases (with the notable exception at MWS-23) the groundwater elevations in the sand and fill wells are very close.

Comment 4. Figure 1: This Figure will be revised to include the location of MWS-02;

Response:
Acknowledged. Figure 1 has been revised to include the location of MWS-02.

Comment 5. Figures 2 and 3: The piezometer elevations associated with the northern portion of the ATP containment unit show an outward gradient. Elevations in this area for the latter portion of 2020 show re-establishment of the required inward gradient. The flow directional arrows and Section 2.0 will be revised accordingly;

Response:
We acknowledge that the March and May 2020 groundwater elevations at P-61D are slightly lower than those at P-62D, which subsequently reversed in July and November. This transient and delicate hydraulic condition along the northern portion of the slurry wall is due to: the steep topographic drop toward Smokes Creek; variable water levels in the Creek; and pumping from exterior pumping well PW-2, which depresses groundwater elevation at the P-61D monitoring location outside of the containment cell. The slurry wall must also be considered when depicting and interpreting groundwater contours, because groundwater does not easily or quickly move through the slurry wall. With pumping wells on both side of the slurry wall drawing groundwater towards them, it is likely that the groundwater elevation will be highest at the slurry wall between P-61D and P-62D. Based on these considerations we believe that

the contour lines between P-61D and P-62D are shown correctly on Figure 2 and Figure 3 and indicative of an inward gradient.

Comment 6. Attachment 4: The last page indicates photographs are to be attached. These photos will be included in the revised submission.

Response:
Acknowledged. Photographs have been included in the revised Annual Report.
The annual report has been revised to incorporate the above-referenced changes.

Please contact us if you have questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Brock Greene
Senior Project Environmental Scientist

ec: S. Radon, (NYSDEC)
K. Nagel, (Tecumseh)
P. Werthman, (TurnKey)

PHOTOS

SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: EW-3R vault without manhole cover (Looking east)

Photo 2: EW-3R vault with manhole cover and steel plate anchored (Looking northwest)

Photo 3: EW-3R vault with manhole cover and steel plate anchored (Looking north)

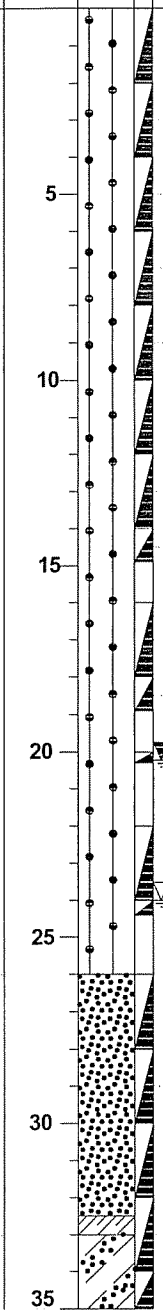
Photo 4: EW-2 vault with manhole cover and steel plate anchored (Looking west)

MWS-23B BORING LOG

GEOLOGIC DRILL LOG

PROJECT: Bethlehem Steel Corp., RFI	PROJECT NUMBER: 00120-186-152	SHEET NO.: 1 of 2	HOLE NUMBER: MWS-23B	
SITE: Lackawanna, NY	COORDINATES: S57+78.57 / W18+31.01	LOGGED BY: B. Phillips	CHECKED BY: J. Boyd	
BEGUN: 8/03/95	COMPLETED: 8/03/95	DRILLER: SJB Svs Inc./J. Leavell	DRILLING EQUIPMENT: CME 55, 4-1/4" HS Augers	BORING DIA.: 8"
TOTAL DEPTH: 38				
CORE RECOVERY (FT./%): /	CORE BOXES:	SAMPLES: 19	CASING STICKUP: 3.02	GROUND ELEV.: 596.32 Plant
DEPTH/ ELEV. GROUND WATER: 24 / 572.3 ▼ 20.22 / 576.1	DEPTH/ ELEV. TOP OF ROCK: NA /			
SAMPLE TYPE: 2" x 2' Standard Split Spoon	CASING DIA/LENGTH: 6"SQ/4.5	NOTES: Units = Feet HNu bkg=1.0ppmv		

SAMPLE NUMBER	LENGTH/RECOV. (inches)	BLOWS PER FOOT	HNu (ppm)	LAYER Elev. Depth	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
1	24/20	90	6.3		BROWN GRADES TO PURPLE GRADES TO LIGHT AND DARK BROWN FINE TO COARSE SAND AND GRAVEL (dry) (very dense) [FILL] (dry)	
2	24/18	7	3.5		DARK GREY FINE TO COARSE SAND (dry) (loose) [FILL]	
3	24/20	19	5.7		BROWN GRADES TO DARK GREY FINE TO COARSE SAND some gravel (dry) (medium dense) [FILL]	
4	24/8	18	11.2		DARK BROWN AND DARK GREY FINE TO COARSE SAND AND GRAVEL (dry) (medium dense) [FILL]	
5	24/20	32	7.6		YELLOWISH RED FINE TO COARSE SAND AND GRAVEL (dry) (dense) [FILL]	
6	24/24	34	3.8		RUST BROWN, GREY, DARK GREY, LITTLE WHITE FINE TO COARSE SAND AND GRAVEL (dry) (dense) [FILL]	
7	24/14	25	2.7		YELLOWISH BROWN, RED, SOME GREEN FINE TO COARSE SAND AND GRAVEL some silt (moist) (medium dense) [FILL]	
8	11/11	50/.4	4.1		DARK GREY TO BLACK FINE TO COARSE SAND AND GRAVEL (wet) (dense) [FILL]	
9	24/20	60	3.4		BROWN, LIGHT BROWN, TRACE GREEN FINE TO COARSE SAND AND GRAVEL (wet) (very dense) [FILL]	
10	11/11	50/.4	4.0		BROWN AND DARK GREY FINE TO COARSE SAND AND GRAVEL (wet) (very dense) [FILL]	
11	4/4	50/.3	25		BROWN, YELLOWISH BROWN, AND DARK GREY FINE TO COARSE SAND AND GRAVEL (wet) (very dense) [FILL]	
12	24/20	63	28		DARK GREY TO BLACK FINE TO COARSE SAND AND GRAVEL (wet) (petroleum odor) (very dense) [FILL]	
13	5/4	50/.4	12.5		DARK GREY TO BLACK FINE TO COARSE SAND AND GRAVEL (wet) (petroleum odor) (very dense) [FILL]	
				570.3 26.0		
14	24/24	25	3.3		DARK GREY GRADES TO GREY FINE TO MED. SAND (wet) (medium dense)	
15	24/24	30	2.6		GREY AND LIGHT GREY FINE TO COARSE SAND trace gravel, trace black wood (wet) (medium dense)	
16	24/12	18	2.7		GREY FINE TO MEDIUM SAND GRADES TO FINE TO COARSE SAND (wet) (medium dense)	
17	24/20	8	2.4	563.8 562.3 33.0	GREY ORGANIC CLAY (some wood) GRADES TO GREY CLAYEY SILTY SAND (medium stiff) (moist)	



MWS-23A Screened Zone (9-19')

MWS-23B Screened Zone (26-36')

Dames & Moore

GEOLOGIC DRILL LOG

PROJECT	PROJECT NUMBER	SHEET NO.	HOLE NUMBER
Bethlehem Steel Corp., RFI	00120-186-152	2 of 2	MWS-23B

continuation

SAMPLE NUMBER	LENGTH/RECOV. (inches)	BLOWS PER FOOT	HNu (ppm)	LAYER Elev. Depth	DEPTH	GRAPHIC LOG	SAMPLE	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
18	24/20	4	2.3	560.8 35.5				GREY CLAYEY SILTY SAND GRADES TO SILTY CLAY GRADES TO CLAY (moist) (soft)	
19	24/20	14	2.1					GREY SILTY CLAY (stiff)	
				558.3 38.0				Boring completed at 38' on 8/03/95 at 1120 am	
					40				
					45				
					50				
					55				
					60				
					65				
					70				
					75				

Dames & Moore

June 29, 2021

Mr. Andrew Zwack
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2915

Re: Tecumseh Redevelopment Inc., Lackawanna, NY Site
ATP SWMU Group ECM
Revised Annual Monitoring & Maintenance Summary Report
Reporting Period January 1- December 31, 2020

Dear Mr. Zwack:

On behalf of Tecumseh Redevelopment Inc., TurnKey Environmental Restoration, LLC (TurnKey) is herein providing a Revised Annual Monitoring and Maintenance Summary Report for the Acid Tar Pits (ATP) Solid Waste Management Unit (SWMU) Group Expedited Corrective Measure (ECM) for calendar year 2020. This summary report has been prepared in accordance with the monitoring requirements contained in the Operation, Maintenance, and Monitoring (OM&M) Plan (May 2017) and your comment letter dated June 1, 2021.

1.0 BACKGROUND

The ATP-ECM is comprised of three remedial components: a soil-bentonite slurry wall keyed into native confining soils; a cover system; and a groundwater collection and pretreatment system. The approximately 40-foot deep soil-bentonite slurry wall (the lateral component of the containment cell), was completed in the fall of 2011 and surrounds SWMUs S-11 and S-22 (see Figure 1).

In 2012, waste/fill from SWMU S-24 was excavated, transported, and consolidated within the containment cell, and partially covered with a final low-permeability multi-layer geosynthetic around the perimeter with just a temporary soil cover in the center to allow addition wastes to be subsequently consolidated there. Groundwater/leachate extraction wells EW-1 and EW-2, installed within the containment cell, were activated in December 2012 (see Figure 1 for locations). Groundwater/leachate is extracted from these wells via submersible pumps and conveyed to an onsite pretreatment system incorporating oil/water separation, filtration, pH adjustment and air stripping unit processes. The pretreated water is discharged to the plant sanitary sewer and ultimately the publicly operated sewerage system under a discharge permit with Erie County Sewer District No. 6. A third extraction well (EW-3) originally installed within the northern portion of the containment cell was not used due to localized groundwater quality (e.g., low pH, foaming) and other waste fill characteristics (e.g., low hydraulic conductivity) proximate to the well screen. A replacement well for EW-3, deemed "EW-3R," was installed in the northwestern portion of the cell near piezometer P-62D (see Figure 1) and became operational in August 2015.

Final waste consolidation and cover system construction was completed in late 2015. This phase of the remedial work, deemed Operable Units (OU) 2 and 3 respectively, is detailed in the January 2016 Construction Completion Report (CCR) prepared by Benchmark Environmental Engineering & Science, PLLC (Benchmark) in association with TurnKey.

Downgradient Pumping Well Installation

The results of the RCRA Corrective Measures Study (CMS) indicated that prior to the construction of the ATP-ECM containment cell, contamination from the Acid Tar Pits area had migrated northerly towards Smokes Creek. Although significant improvement in groundwater quality was observed following containment cell construction, downgradient concentrations in groundwater outside the ATP containment cell remained at levels significantly above NY Groundwater Quality Standards. TurnKey prepared a conceptual remedial approach for this groundwater in a report titled "Engineering Report for Acid Tar Pit (ATP) SWMU Group Operable Unit OU-2[1] - External Groundwater Corrective Measure" dated April 2014 which was approved for implementation by the NYSDEC.

The external groundwater corrective measure called for installation of four groundwater pumping wells (PW-1 through PW-4) between the containment cell and Smokes Creek, with discharge from the external pumping wells directed via a new force main to the ATP pretreatment system. The new wells were installed and placed into service in Fall of 2015. Details of the pumping well and force main construction were provided to the Department in an April 2016 amendment to the February 2013 ATP SWMU Group Phase III Construction Completion Report. Both interior and exterior pumping well set-point elevations are controlled from the pretreatment building and are operated to maintain a delicate balance between slight drawdown from static conditions in exterior pumping wells while maintaining an inward gradient across the containment wall.

Interior Extraction Well Maintenance and Replacement

Indications of screen clogging were observed in early 2019 at the extraction wells within the containment cell. Well redevelopment work was performed in June 2019. The post-redevelopment recovery rates were similar to those observed when EW-1 and EW-3R were first installed (5 gpm and 0.4 gpm, respectively), but the recovery rate measured at EW-2 (0.2 gpm in June 2019) was nearly an order of magnitude below initial recovery rate (1.4 gpm).

Based upon the significant drop in the recovery rate at EW-2 and the comparatively low recovery rate at EW-3R, Tecumseh elected to replace those wells via over-drilling and install replacement wells with an improved screen/sand pack design at the same locations. Between the period of August - September 2019, EW-2 and EW-3R wells were over-drilled and reinstalled with replacement Schedule 80 PVC wells fitted with 20-foot PVC wedge wire (aka V-wire) screens. The wedge wire design and increased screen length[2] was designed to improve recovery performance by allowing a larger, more direct path for groundwater to enter the well. Wedge wire screens are also

[1] OU-2 was re-designated by the NYSDEC to OU-3 in April 2015.

[2] Original wells were fitted with 5-foot conventional slotted screen.

more resistant to clogging/fouling than conventional slotted screen, thereby providing greater long-term reliability.

The wells were built with one-foot sumps in the bottom followed by the 20-foot screen, with the PVC riser extending into the manhole. Sand was placed around the sump, screen and the bottom 4-feet of the riser followed by two-feet of bentonite and soil cuttings up to the bottom of the manhole. The new wells were developed using a surge and purge method employing the drill rig for surging.

Groundwater recovery rates were measured following purging. The recovery rate at EW-2 increased significantly, climbing from 0.2 gpm to 6 gpm following replacement. The recovery rate at well EW-3R increased by approximately 75% from 0.4 gpm to 0.7 gpm.

2.0 GROUNDWATER CAPTURE SYSTEM PERFORMANCE

During the current monitoring period EW-1 and EW-3R pump operating setpoints were set to energize at elevation 573 FMSL and de-energize 572 FMSL. Extraction well EW-2 pump operating setpoints were slowly and progressively lowered during 2020 to balance the total flow within the operating limits of the pretreatment system. In January 2020, pump operating setpoints were set to energize at elevation 574.8 FMSL and de-energize 573 FMSL. On September 20, 2020, EW-2 pump operating setpoints were set to energize at elevation 573 FMSL and de-energize at elevation 572 FMSL, the same as the setpoints as EW-1 and EW-3R.

2020 Isopotential Maps

During 2020, the groundwater elevations in the network of wells and piezometers within and surrounding the ATP containment cell was monitored on a minimum quarterly basis per the OM&M Plan. Table 1 presents groundwater elevation data obtained on March 26, May 28, July 28, and November 10, 2020. Isopotential maps corresponding to each of these events are presented as Figures 2 through 5. When generating the groundwater contours at paired wells, the well that is screened in the sand layer is used because the extraction wells and piezometers are all screened in the sand layer. We have used wells screened in the fill layer (i.e., MWS-02, MWS-03, MWS-15, and MWS-29A) to expand the view and "fill in" data points for the isopotential map where wells completed in the sand layer are fewer or farther apart.

The isopotential maps all illustrate pronounced inward gradient toward the extraction wells within the interior of the containment cell reflecting active removal of contained groundwater from contained saturated soil/fill porous media. An inward gradient across the slurry wall was achieved after the replacement wells were installed and placed back into service. This reflects effective hydraulic control being achieved by the combined effects of: the lateral low-permeability slurry wall barrier in combination with the low infiltration through the geocomposite cover system; in combination with improved interior groundwater extraction resulting from the redevelopment of interior groundwater extraction well EW-1 and the replacement of interior groundwater extraction wells EW-2 and EW-3R.

The isopotential maps also clearly indicate that the exterior groundwater pumping wells (ATP- PW1, -PW2, -PW3, and -PW4) are effectively capturing impacted groundwater that escaped the ATP SWMU Group prior to implementation of the final ATP-ECM remedy.

Table 1 shows a significant elevation difference between the well pair MWS-23A and MWS-23B. The significant groundwater elevation difference between MWS-23A and MWS-23B is likely due to a zone of very dense material located between the screened zones of these two wells. When reviewing the boring log for MWS-23B there is a zone just above the sand layer that is very dense with drilling blow counts of greater than 50 blows to advance 0.4 feet. We believe this very dense layer is acting as an aquitard and causing a localized perched water table. The screened interval of MWS-23A is located above the dense layer and is able to observe the localized perch water table. The screened zone for MWS-23B is located below the dense layer and not subject to the localized perched water table.

3.0 GROUNDWATER PRETREATMENT SYSTEM PERFORMANCE

The groundwater pretreatment system was generally operated without interruption during the current monitoring period except for short-duration shutdowns related to routine maintenance (e.g., cleaning of the air stripper, changing out bag filters, etc.).

Groundwater Pretreatment System Maintenance

Major routine and non-routine maintenance events as well as alarm conditions/corrective actions taken during the reporting period are listed on Table 2. The recorded hours of operation and cycle counts for 2020 are presented for each of the extraction and pumping wells on Table 3.

Groundwater Pretreatment System Effluent Monitoring

Attachment 1 includes the April 2020 and October 2020 Semi-Annual Reports submitted to Erie County Sewer District No. 6. As presented in these reports, the pretreatment system effluent flow, pH, and regulated parameter concentrations were conformant with the permitted discharge limits during both events.

Groundwater Extraction Volumes

The pretreatment system process flow rate and total gallons treated are monitored on the process discharge line via a flow sensor and transmitter. The total flow through the pretreatment system during the period of December 27, 2019 through December 27, 2020 was approximately 759,000 gallons. For that same period, approximately 391,000 gallons of groundwater was collected by the interior extraction wells based upon the newly installed flow meter readings. Table 4 provides a summary of the pretreatment system flow readings with monthly and yearly totals. During the current monitoring period, the interior groundwater extraction well volume was measured to be approximately 52% of the total flow processed through the pretreatment system, with the remaining 48% produced by the exterior groundwater extraction wells. As the containment cell dewatered the ratio has shifted, with the interior extraction wells producing lesser amounts and the exterior extraction wells staying roughly the same with some seasonal variation. The monthly flow rate from the extraction wells has been decreasing every month except on months that were affected by changing setpoints for EW-2. The interior extraction wells produced a monthly maximum of approximately 49,900 gallons for May 2020 (in response to EW-2 setpoints being lowered) and the monthly minimum of approximately 20,100 gallons for November 2020.

In accordance with NYSDEC's request, Table 5 presents a summary of the volume of groundwater processed through the pretreatment system and the estimated breakdown between interior and

exterior extraction well volumes beginning in 2016. Annual rainfall precipitation amounts are also summarized for this period on Table 5. While reviewing this Table please consider that distribution or ratio between interior and exterior flows is only accurate following the installation of the interior extraction well flow meter in November 2019. In prior years, the estimated total flows from the interior extraction wells were determined by multiplying the cycle counts by the approximate volume of water removed between on and off setpoints, which was assumed to include the volume of water within the well casing and surrounding sand pack.

4.0 GROUNDWATER QUALITY MONITORING

In accordance with the approved OM&M Plan, monitoring wells MWS-02, MWS-18A, MWS-18C, MWS-19A, MWS-19B, MWS-20A, and MWS-20B located downgradient of the containment cell are sampled annually in April for analysis of Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), arsenic, barium, chromium, lead, and cyanide. Metals analyses are also repeated for the filtered (soluble) fraction if the samples exhibit elevated turbidity. The primary constituents of concern (COCs) that are historically prevalent in groundwater in and around the ATP at concentrations in excess of the groundwater quality standards (GWQS) are benzene, phenolics, PAHs and cyanide.

Sample results from April 2020 are summarized on Table 6 along with historical data from prior sampling events. The groundwater monitoring laboratory analytical data package is included in Attachment 2. Time versus concentration plots for BTEX (sum of benzene, toluene, ethylbenzene, and xylene) and cyanide are in Attachment 3. The data have been entered into the NYSDEC's EQuIS database.

The BTEX plot and Table 6 clearly illustrate that since the initial phase (i.e., slurry wall) of remedial measures were first completed nearly ten years ago, that concentrations of these COCs in the most impacted groundwater monitoring wells (i.e., MWS-18A/C and MWS-19A/B) has decreased by 96-99+ percent. Further evaluation of the same data shows a continuing downward trend over the past year. Table 6 also shows that BTEX concentrations in groundwater monitoring wells MWS-02 and MWS-20A/B that are not directly downgradient of the ATP are historically not significantly above GWQS and have a neutral or sightly decreasing trend.

Phenolic concentrations in ATP area groundwater show downward trends similar to BTEX with all downgradient monitoring wells near or below groundwater quality standards except at MWS-18C which has trended upwards over the past 3 years.

The cyanide concentrations have been trending downward and are approaching or below the GWQS in all downgradient monitoring wells except MWS-02 where concentrations remain above GWQS and have trended downward the last two years but have been somewhat erratic previously.

Wells MWS-02, MWS-18A, MWS-18C, MWS-23A and MWS-23B were also sampled for 1,4-Dioxane, PCBs, and Pesticides as part of the CMS sampling and is tabulated Table 7. With the exception of 1,4-Dioxane at MWS-23B all the results were either non-detect or less than action levels. MWS-02 was also sampled for PFAS compounds and the results were either non-detect or less than action levels with the exception of the compound PFOA that was slightly above the action level.

5.0 COVER SYSTEM MONITORING

A completed Post-Closure Field Inspection Report is included in Attachment 4. As presented in Attachment 4, the cover system, stormwater pond, and conveyance piping are in good condition and no corrective actions are required at this time.

6.0 HAZARDOUS WASTE AUDIT

On December 17, 2020, a representative from the NYSDEC conducted an inspection to determine if the Tecumseh Site (included the ATP Pretreatment System) is in compliance with the New York State Hazardous Waste Regulations (6 NYCCR Parts 370-374 and 376). As a result, the ATP Pretreatment System now has labels on the oil/water separator, EQ tank, bag filters and air stripper indicating that they contain hazardous waste. Additionally, a Hazardous Waste Contingency Plan has been developed for use at the ATP Pretreatment System and is available in the ATP building.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The groundwater pretreatment system is functioning as intended and in compliance with discharge permit limits. Significant improvement in interior extraction well performance occurred following redevelopment of EW-1 and replacement of EW-2 and EW-3R. The containment cell inward gradient was re-established across the slurry wall perimeter. The exterior groundwater extraction wells are performing as designed to control impacted groundwater immediately downgradient of the containment cell.

Please contact us if you have any questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Brock Greene
Senior Project Environmental Scientist

ec: S. Radon, (NYSDEC – Region 9)
K. Nagel (Tecumseh)
P. Werthman (TurnKey)

TABLES

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 1
ATP GROUNDWATER PRETREATMENT SYSTEM
GROUNDWATER ELEVATION SUMMARY [1,2,3]

ATP ECM 2020 ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Well Designation	Hydrogeologic Unit	03/26/20	05/28/20	07/28/20	11/10/20
MWS-02	F	575.3	575.4	575.6	575.6
MWS-03	F	574.2	574.5	574.7	574.7
MWS-10	F	576.4	576.3	576.5	576.5
MWS-10B	S	576.4	576.3	576.4	576.5
MWS-11A	S	574.7	574.7	574.8	574.8
MWS-12A	F	575.7	575.6	575.8	575.8
MWS-12B	F,S	575.7	575.6	575.8	575.9
MWS-13	F,S	575.2	575.1	575.3	575.4
MWS-14	F,S	575.8	575.8	576.0	575.9
MWS-14B	S	576.8	576.7	576.0	576.0
MWS-15		574.8	574.9	575.0	575.0
MWS-18A	F	575.0	575.0	575.0	575.1
MWS-18C	S,CS	575.2	575.2	575.1	575.3
MWS-19A	F	573.8	574.4	574.4	574.5
MWS-19B	S	574.0	574.4	574.4	574.5
MWS-20A	S	576.2	576.0	576.0	576.1
MWS-20B	S,CS	576.0	575.9	575.9	576.0
MWS-21A	F,S	576.0	576.0	576.2	576.1
MWS-21B	S	576.1	576.1	576.1	576.2
MWS-23A	F	582.4	582.0	581.5	581.3
MWS-23B	S	576.2	576.1	576.4	576.3
MWS-24AR	F,S	576.3	576.2	576.4	576.4
MWS-24B	S,C	575.4	575.5	575.6	575.5
MWS-25A	F,S	576.0	576.0	576.1	576.1
MWS-25B	F,S	575.8	576.0	576.1	576.1
MWS-29A	F	577.4	577.5	577.5	577.5
MWS-2U1B		574.8	574.8	575.0	575.0
P-61D	S	574.2	574.6	574.5	574.7
P-62D	S	575.0	574.8	574.2	574.3
P-63D	S	576.0	575.9	575.8	576.0
P-64D	S	574.9	574.7	574.4	574.2
EW-1	S	572.5	572.5	572.5	572.5
EW-2	S	573.9	572.8	572.8	572.5
EW-3[4]	S	575.5	575.2	574.8	574.8
EW-3R	S	572.5	572.5	572.5	572.5
PW-1	S	572.0	572.0	572.0	572.0
PW-2	S	570.0	572.0	572.0	572.0
PW-3	S	572.0	572.0	572.0	572.0
PW-4	S	574.0	573.0	573.0	573.0
SG-02	--	574.0	574.4	574.5	574.6
Lake Erie (average) [5]	--	574.0	574.4	574.4	572.9

Notes:

1. Elevation is measured in feet; distance above mean sea level (fmsl).
2. Groundwater elevation corrected based on the presence of free product (i.e., LNAPL), if applicable.
3. Groundwater elevations for extraction wells EW-1, EW-2, EW-3R, PW-1, PW-2, PW-3, and PW-4 presented in the table are reflective of the average of "pump on" and "pump off" elevations.
4. Extraction well EW-3 is utilized as a monitoring well not as a pumping extraction well.
5. Lake Erie Elevation is an average elevation for the day and is taken from NOAA's Buffalo NY station 9063020.

Definitions:

fbTOR = feet below top of riser or reference elevation.
fmsl = feet above mean sea level.
Hydrogeologic Unit = as identified in the RFI & CMS
NM = not measured
NP = no product was observed
NA = not applicable

TABLE 2
ATP GROUNDWATER PRETREATMENT SYSTEM
SUMMARY OF MAJOR AND NON-ROUTINE SYSTEM O&M EVENTS

ATP ECM 2020 ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Date	Alarm Condition	Cause	Response/Corrective Measure
1/16/20	None	Routine maintenance	Cleaned PW-4 pump
1/22/20	None	Routine maintenance	Cleaned air stripper
2/18/20	None	Routine maintenance	Cleaned effluent flow meter and effluent pipe
2/19/20	None	Routine maintenance	Cleaned out air stripper sump
3/1/20	High Air Stripper Sump Alarm	In line strainer clogged	Cleaned strainer and restart system
3/3/20	None	Routine maintenance	Cleaned air stripper
3/17/20	None	Routine maintenance	Installed new pH probe
3/18/20	None	Routine maintenance	Cleaned EW-2 and PW-4 pump
4/3/20	None	Sewer backup	System off because of sewer backup
4/7/20	None	Sewer drained	System turned back on
4/8/20	None	Sewer backup	System off because of sewer backup
4/9/20	None	Sewer has drained out slowly	System on with EW-1, EW-2, and EW-3 only because of sewer
4/10/20	None	Sewer cleaned out	System on with all wells running after sewer cleaning
4/14/20	None	Routine maintenance	Cleaned air stripper
4/22/20	None	Routine maintenance	Jetted out effluent line from building to manhole
5/5/20	None	Routine maintenance	Cleaned EW-2 and PW-4 pump
6/8/20	High Air Stripper Sump Alarm	Transfer pump lost prime	Primed transfer pump and restarted system
6/9/20	None	Routine maintenance	Cleaned oil water separator, transfer pump, and piping
6/12/20	None	Routine maintenance	Cleaned air stripper
6/18/20	None	Routine maintenance	Replace pH probe
6/24/20	None	Routine maintenance	Cleaned EW-2 pump
6/26/20	None	EW-2 has a clogged pipe	Checked EW-2 pump. Appears to have a flow restriction in pipe to building. EW-2 off for now.
7/13/20	None	Routine maintenance	EW forcemain jetted and EW-2 turned back on
7/14/20	None	Routine maintenance	Jetted out effluent line from building to manhole
7/22/20	None	Routine maintenance	Cleaned EQ tank
9/15/20	None	Routine maintenance	Cleaned PW-4 pump
9/18/20	None	pH sensor not reading properly	Replaced pH probe and restart system
9/25/20	None	pH sensor not reading properly	Shut off system waiting for pH sensor parts
9/30/20	None	pH sensor working	Replaced bad pH sensor parts and restarted system
10/6/20	None	Routine maintenance	Cleaned air stripper
11/17/20	None	Routine maintenance	Cleaned EW-2 pump and repaired electric wire
11/27/20	None	Routine maintenance	Cleaned PW-4 pump

TABLE 3
ATP GROUNDWATER PRETREATMENT SYSTEM
EXTRACTION AND PUMPING WELL OPERATION SUMMARY

ATP ECM 2020 ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Date	EW-1 Hours	EW-1 Cycles	EW-2 Hours	EW-2 Cycles	EW-3R Hours	EW-3R Cycles	PW-1 Hours	PW-1 Cycles	PW-2 Hours	PW-2 Cycles	PW-3 Hours	PW-3 Cycles	PW-4 Hours	PW-4 Cycles
1/3/2020	2139.58	364739	1427.92	4650	2420.36	92089	3468.55	666952	2792.40	204551	228.66	34939	5181.44	70494
1/10/2020	2158.40	368641	1529.09	5696	2423.44	92376	3480.80	671155	2800.78	206324	229.17	35087	5348.86	70506
1/17/2020	2176.32	372401	1640.62	6261	2426.46	92667	3490.92	674918	2807.31	207857	229.58	35203	5493.11	70613
1/24/2020	2192.15	375800	1723.87	7212	2428.88	92896	3500.92	678667	2814.24	209406	229.99	35296	5495.20	71293
1/31/2020	2211.52	378845	1795.51	7407	2432.00	93182	3511.17	682537	2821.38	211026	230.27	35383	5497.83	72081
2/7/2020	2233.74	384092	1820.57	7407	2435.37	93487	3518.26	685317	2826.97	212306	230.46	35432	5500.38	72753
2/14/2020	2255.19	388232	1855.09	9378	2438.59	93795	3525.48	688139	2832.82	213636	230.70	35492	5502.85	73310
2/21/2020	2272.80	392145	1902.13	11291	2441.33	94059	3532.88	691021	2838.66	214968	230.96	35556	5506.36	73936
2/28/2020	2290.59	396136	1965.39	12855	2443.62	94288	3541.68	694409	2845.29	216462	231.28	35635	5512.59	74639
3/6/2020	2300.90	399249	2014.70	14242	2445.54	94578	3550.48	697777	2851.36	217825	231.70	35740	5520.27	75359
3/13/2020	2311.99	403059	2093.79	15424	2448.17	94916	3558.86	701031	2857.27	219181	232.02	35817	5532.25	76121
3/20/2020	2324.06	407329	2171.90	15962	2450.38	95203	3567.96	704594	2863.86	220695	232.46	35925	5563.99	76753
3/28/2020	2343.08	412361	2191.42	15962	2453.48	95527	3577.25	708203	2870.86	222309	232.60	36004	5566.73	77525
4/3/2020	2364.34	416364	2212.50	17898	2458.27	95945	3584.98	711197	2876.52	223615	233.10	36072	5569.72	78252
4/11/2020	2375.64	418546	2230.99	18688	2460.51	96146	3587.99	712335	2878.25	223970	233.24	36102	5571.74	78550
4/17/2020	2396.25	423093	2276.54	19841	2464.24	96496	3597.01	715753	2881.73	224563	233.65	36192	5576.60	79514
4/24/2020	2418.92	428318	2342.60	20518	2468.53	96984	3605.61	718975	2885.26	225178	234.11	36310	5582.47	80420
5/1/2020	2445.68	434848	2445.86	20518	2472.93	97449	3614.49	722606	2888.84	225796	234.61	36424	5643.35	81147
5/8/2020	2466.99	440388	2524.59	20518	2476.93	97805	3621.83	725593	2891.61	226279	234.99	36509	5718.08	81615
5/15/2020	2491.13	445437	2558.89	22180	2480.59	98241	3631.46	729311	2895.52	226959	235.48	36612	5721.71	82626
5/22/2020	2512.32	450000	2597.92	23529	2483.10	98506	3639.22	732384	2898.43	227473	235.80	36695	5725.47	83526
5/29/2020	2531.94	454287	2653.42	24564	2485.15	98725	3647.18	735593	2901.50	228017	236.32	36783	5730.13	84427
6/6/2020	2549.26	457973	2734.36	25282	2487.21	98941	3656.06	739115	2905.18	228653	236.87	36886	5737.24	85428
6/12/2020	2559.55	461286	2818.73	25338	2488.47	99140	3663.67	742093	2908.02	229109	237.33	36970	5747.00	86357
6/19/2020	2569.21	465005	2910.99	25339	2490.12	99471	3671.01	745060	2910.56	229546	237.81	37058	5759.54	87229
6/26/2020	2576.80	468801	3068.21	25340	2492.73	99937	3679.14	748546	2913.83	230089	238.40	37167	5785.87	88049
7/3/2020	2582.53	472012	3068.30	25348	2493.87	100283	3686.51	751767	2916.83	230588	238.97	37268	5874.95	88486
7/10/2020	2585.39	473625	3068.34	25353	2494.25	100483	3691.06	753772	2918.68	230901	239.34	37334	5917.33	88738
7/17/2020	2590.21	476323	3073.19	26608	2538.59	100559	3689.59	756938	2921.65	231395	239.90	37427	5921.07	89828
7/24/2020	2594.53	478780	3080.23	28313	2538.76	100636	3705.44	759829	2924.40	231817	240.51	37526	5924.66	90750
7/31/2020	2599.34	481537	3088.58	30059	2539.03	100768	3713.15	763072	2927.46	232224	241.19	37636	5928.95	91681
8/7/2020	2604.01	484223	3097.70	31646	2539.32	100915	3720.33	766150	2930.37	232661	241.88	37742	5934.14	92548
8/14/2020	2608.65	486885	3107.56	33105	2539.62	101063	3726.81	768928	2932.83	233037	242.51	37836	5941.27	93379
8/21/2020	2613.29	489564	3116.89	34491	2540.18	101348	3732.55	771419	2934.92	233386	243.08	37919	5949.54	94115
8/28/2020	2617.72	492123	3125.78	35860	2540.63	101573	3738.31	773979	2937.20	233749	243.70	38008	5960.96	94801
9/4/2020	2621.91	494544	3135.77	38004	2540.97	101745	3744.04	776645	2939.74	234147	244.37	38104	5992.49	95416
9/11/2020	2625.97	496898	3145.09	40272	2541.27	101898	3749.76	779340	2942.47	234593	245.47	38207	6151.38	95469
9/18/2020	2629.89	499168	3154.36	42477	2541.62	102075	3755.25	781919	2945.13	235068	245.85	38307	6250.13	95756
9/25/2020	2630.03	499245	3154.74	42567	2541.64	102081	3755.43	781996	2945.21	235083	245.89	38311	6250.13	95778
10/2/2020	2631.45	500044	3158.53	43447	2541.77	102145	3757.99	783100	2948.58	235294	246.24	38357	6251.19	96072
10/9/2020	2635.53	502375	3168.07	45843	2542.09	102306	3764.37	785935	2949.75	235792	247.10	38471	6254.89	97037
10/16/2020	2639.60	504679	3176.83	48048	2542.43	102477	3769.82	788374	2952.27	236199	247.86	38567	6258.67	97908
10/23/2020	2643.42	506846	3185.13	50231	2542.80	102667	3775.52	790923	2955.10	236662	248.70	38669	6263.21	98798
10/30/2020	2647.26	508968	3193.12	52386	2543.17	102851	3780.41	793109	2957.22	236987	249.44	38755	6271.38	100015
11/6/2020	2651.06	511079	3200.75	54496	2543.44	102986	3786.95	796005	2960.89	237542	250.58	38880	6282.48	101163
11/13/2020	2654.92	513218	3208.16	56580	2543.72	103128	3792.97	798654	2964.25	238098	251.82	39002	6294.56	102200
11/20/2020	2658.64	515318	3242.22	57224	2543.97	103236	3800.22	801839	2968.73	238860	253.62	39148	6317.70	103319
11/27/2020	2662.65	517602	3247.45	57235	2544.23	103387	3808.18	805476	2973.81	239787	256.73	39312	6412.32	104036
12/4/2020	2666.74	519932	3252.56	59341	2544.57	103564	3815.62	808747	2978.19	240598	261.80	39459	6417.23	105471
12/11/2020	2670.56	522106	3257.77	61363	2544.87	103718	3823.20	812054	2982.87	241459	269.75	39611	6424.42	107142
12/27/2020	2679.10	526860	3269.90	65900	2545.90	104247	3840.57	819623	2993.93	243529	299.91	39956	6454.33	111029

TABLE 4
ATP GROUNDWATER COLLECTION
AND PRETREATMENT SYSTEM
SUMMARY OF PROCESS FLOW DATA

ATP ECM 2020 ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Date	Effluent Totalizer (gallons)	Monthly Total Flow (gallons)	EW Totalizer (gallons)	EW Monthly Flow (gallons)	Calculated PW Monthly Flow (gallons)
12/27/2019	10110198	--	63811	--	--
1/3/2020	10126721		75921		
1/10/2020	10140477	**51,194**	87241	**43,478**	**7,716**
1/17/2020	10151427		97844		
1/24/2020	10161392		107289		
2/7/2020	10172113		128155		
2/14/2020	10173499	**37,661 U**	138205	**49,614**	**-11,953 U**
2/21/2020	10181589		147508		
2/28/2020	10199053		156903		
3/6/2020	10214726		164422		
3/13/2020	10230647	**68,942**	173000	**35,479**	**33,463**
3/20/2020	10248480		182935		
3/28/2020	10267995		192382.0		
4/3/2020	10284436		201173.0		
4/11/2020	10289953	**60,162**	207301	**33,076**	**27,086**
4/17/2020	10307277		216746		
4/24/2020	10328157		225458		
5/1/2020	10348605		236434		
5/8/2020	10365398		245891		
5/15/2020	10385394	**94,206**	255936	**49,923**	**44,283**
5/22/2020	10403849		265693		
5/29/2020	10422363		275381		
6/6/2020	10441312		284766		
6/12/2020	10459345	**64,104**	292982	**34,288**	**29,816**
6/19/2020	10467044		301693		
6/26/2020	10486467		309669		
7/3/2020	10501354		313620		
7/10/2020	10509223		316085		
7/17/2020	10526508	**79,666**	322760	**28,563**	**51,103**
7/24/2020	10543710		330363		
7/31/2020	10566133		338232		
8/7/2020	10586675		345584.0		
8/14/2020	10603819	**63,435**	352562	**27,441**	**35,994**
8/21/2020	10616718		359204		
8/28/2020	10629568		365673		
9/4/2020	10643193		372314		
9/11/2020	10655607	**38,849**	378763	**20,684**	**18,165**
9/18/2020	10667844		384917		
9/25/2020	10668417		386357		
10/2/2020	10673501		389531		
10/9/2020	10688506		396071		
10/16/2020	10701637	**61,053**	402172	**27,496**	**33,557**
10/23/2020	10715400		408095		
10/30/2020	10729470		413853		
11/6/2020	10745059		419177		
11/13/2020	10760209	**64,890**	424248	**20,134**	**44,756**
11/20/2020	10775974		428790		
11/27/2020	10794360		433987		
12/4/2020	10812354		439244		
12/11/2020	10829491	**74,551**	444366	**21,247**	**53,304**
12/18/2020	10848392		NA		
12/27/2020	10868911		455234		
Total Volume Treated 12/27/2019 - 12/27/20	**758,713**	**758,713**	**391,423**	**391,423**	**367,290**

Notes:
U = Under reported flow due to dirty flow meter.
2/18/20 cleaned effluent flow meter.

TABLE 5
ATP GROUNDWATER TREATMENT VS. ANNUAL PRECIPITATION

ATP ECM 2020 ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Year	Annual Precipitation (inches) [1]	Total Annual Volume Treated (gallons)	Annual Volume from Extraction Wells (gallons)	Annual Volume from Pumping Wells (gallons)
2016 [2]	33.87	2,422,004	788,500	1,633,500
2017 [2]	48.48	1,616,120	360,674	1,255,446
2018 [2]	41.64	925,430	288,160	637,270
2019 [2]	47.82	1,150,231	743,800	406,431
2020	39.67	758,713	391,423	367,290

Note:
1. Annual precipitation data from National Weather Service, Buffalo, NY historical data (https://www.weather.gov/buf/BuffaloPcpn)
2. Annual volume amounts from extraction and pumping wells for 2016-2018 and a portion of 2019 are incaccurate estimates prior to installation of the flow meter on the incoming force main from the interior extraction wells in November 2019.

TABLE 6
ATP GROUNDWATER COLLECTION AND PRETREATMENT SYSTEM
GOUNDWATER ANALYTICAL SUMMARY[1]

ATP ECM ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Parameter	CAS No.	GWQS/GV [2]	Units	Monitoring Well Location and Sample Date(s)																
				MWS-02 [3,4]									MWS-18A							
				11/8/1999	2/28/2012	4/10/2014	4/28/2015	4/7/2016	4/11/2017	4/17/2018	4/9/2019	4/10/2020	11/9/1999	2/28/2012	4/10/2014	4/28/2015	4/8/2016	4/11/2017	4/17/2018	4/9/2019	4/9/2020
Field Measurements																				
Dissolved Oxygen	NA	-	MG/L	1.4	4.06	NA	1.85	3.6	2.27	3.66	2.44	1.3	0.4	2.5	NA	3.63	2.08	2.77	2.1	1.56	1.56
Field pH	NA	6.5 - 8.5	S.U	11.07	10.99	10.30	10.75	10.67	11.41	10.68	11.19	11.30	9.03	9.28	9.47	8.85	8.73	10.34	9.84	8.95	9.38
Redox Potential	NA	-	mV	-156	-156	205	210	-81	-245	221	-243	-191	-474	-103	-104	-54	-92	-1.23	-120	-178	-136
Specific Conductance	NA	-	UMHOS/CM	2,590	2280	2053	1905	1803	2096	1639	2016	1830	4,700	3323	2649	2623	2767	2470	2725	3042	2717
Temperature	NA	-	DEG C	14.8	10.1	13.1	13.6	11.3	12.9	7.9	10.4	11.5	15.3	12.2	13.7	13.7	9.1	13.2	8.4	9.3	10.9
Turbidity	NA	-	NTU	18	14.6	1.96	8.9	8.0	4.2	1.3	3.86	2.92	91	17.4	16.4	30	14.6	5.64	3.4	4.86	10.3
Volatile Organics (Method 8260B) (STARS List parameters in blue)																				
1,1-Dichloroethane	75-34-3	5	ug/l	8.3	9.8	1.1 J	1 J	1.2 J	3	ND	1.1 J	0.93 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	-	ND	-	-	-	1 J	-	-	ND	-	ND	-	-	-	ND	-	-	ND
1,2-Dichloroethane	107-06-2	0.6	ug/l	ND	1.7	ND	0.43 J	0.91	2.6	0.21 J	0.99	0.82	ND	ND	ND	ND	ND	110	ND	ND	ND
1,3,5-Trimethylbenzene	108-67-8	5	ug/l	-	0.54 J	-	-	-	ND	-	-	ND	-	ND	-	-	-	ND	-	-	ND
1,4-Diethylbenzene	105-05-5	-	ug/l	-	0.55 J	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-
Acetone	67-64-1	50	ug/l	-	ND	7.2	14	2	5.1	7.8	4.7 J	2.5 J	-	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	71-43-2	1	ug/l	14	0.49 J	2.1	8.5	4.1	12	1	6.8	7.2	140000	39000 D	4200 D	7100 D	7000 D	4600 D	1900 D	7500 D2	5000
Bromomethane	74-83-9	5	ug/l	ND	ND	ND	1.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	75-15-0	60	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	74-87-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	156-59-2	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	110-82-7	-	ug/l	-	0.37 J	0.4 J	0.84 J	0.93 J	1.5 J	ND	0.97 J	0.77 J	-	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	100-41-4	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	98-82-8	5	ug/l	-	ND	ND	2.3 J	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Methyl cyclohexane	108-87-2	-	ug/l	-	ND	2.2 J	3.6 J	3.3 J	8.7 J	1 J	6.9 J	4.4 J	-	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	127-18-4	5	ug/l	ND	0.38 J	ND	ND	0.3 J	0.52 J	ND	0.35 J	0.25 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	108-88-3	5	ug/l	1.2 J	ND	ND	1.3 J	ND	1.1 J	ND	ND	0.76 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	79-01-6	5	ug/l	ND	0.57	ND	0.32 J	0.4 J	1	ND	ND	0.42 J	ND	ND	ND	ND	ND	ND	ND	ND	7.2 J
Vinyl chloride	75-01-4	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, m/p	179601-23-1	5	ug/l	-	ND	ND	ND	ND	0.85 J	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, o	95-47-6	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	1330-20-7	5	ug/l	1.9 J	ND	ND	ND	ND	0.85 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL BTEX	**NA**	**NA**	**ug/l**	**17.1**	**0.49**	**2.1**	**9.8**	**4.1**	**13.95**	**1**	**6.8**	**7.96**	**140000**	**39000**	**4200**	**7100**	**7000**	**4600**	**1900**	**7500**	**5000**
Semivolatile Organics (Method 8270C) (Base-Neutrals in black, Acid Extractables in blue and PAHs in red)																				
2,4-Dimethylphenol	105-67-9	50	ug/l	R	-	ND	ND	ND	ND	ND	ND	ND	21 J	-	1.8 J	0.81 J	ND	ND	ND	ND	ND
2-Chloronaphthalene	91-58-7	10	ug/l	ND	ND	ND	ND	0.79	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	91-57-6	-	ug/l	-	0.16 J	0.65	0.21 J	1.9	2.4	0.27	1.4	1.3	-	0.12 J	0.08 J	0.09 J	0.19 J	0.15 J	0.11	0.37	0.21
2-Methylphenol (o-Cresol)	95-48-7	1 *	ug/l	R	-	ND	ND	ND	ND	ND	ND	ND	31	-	6.8	3.5 J	1.6 J	ND	ND	ND	ND
3-Methylphenol (m-Cresol) / 4-Methylphenol (p-Cresol)	108-39-4/106-44-5	1 *	ug/l	R	-	ND	ND	ND	ND	ND	ND	ND	ND	-	1.8 J	8.4	1.6 J	ND	ND	ND	ND
Acenaphthene	83-32-9	20	ug/l	-	0.29	0.15 J	ND	0.46	0.53	0.1	0.36	0.33	-	0.1 J	0.08 J	0.08 J	ND	0.09 J	0.06 J	0.18	0.14
Acenaphthylene	208-96-8	-	ug/l	ND	0.7	0.47	ND	1.5	1.8	0.32	0.95	1	ND	0.05 J	ND	ND	ND	0.06 J	0.05 J	0.12	0.07 J
Acetophenone	98-86-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	48	1.9 J	1.1 J	ND	ND	ND	ND	ND
Anthracene	120-12-7	50	ug/l	ND	0.18 J	0.36	0.19 J	1.3 J	1.3	0.13	0.67	0.61	ND	ND	0.07 J	0.07 J	ND	0.04 J	0.04 J	0.06 J	0.02 J
Benzo(a)anthracene	56-55-3	0.002	ug/l	ND	ND	ND	ND	ND	ND	ND	0.03 J	0.03 J	ND	ND	ND	ND	ND	ND	ND	0.05 J	ND
Benzo(a)pyrene	50-32-8	0 (ND)	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	0.04 J	ND
Benzo(ghi)perylene	191-24-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Benzoic Acid	65-85-0	-	ug/l	-	-	ND	9.1 J	-	-	-	-	-	-	-	ND	8.2 J	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	5	ug/l	3.8 J	ND	ND	2.3 J	ND	ND	3.9	ND	3.3	ND	ND	1.3 J	11	ND	ND	ND	ND	ND
Caprolactam	34876-18-1	-	ug/l	-	-	ND	2.7 J	3.9 J	ND	ND	ND	ND	-	-	ND	ND	ND	ND	ND	ND	28
Carbazole	86-74-8	-	ug/l	-	ND	0.5 J	ND	1.1 J	1.1 J	ND	0.96 J	0.79 J	-	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	0.002	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	0.01 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	132-64-9	-	ug/l	-	ND	0.81 J	ND	2.2	ND	ND	1.7 J	1.6 J	-	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	206-44-0	50	ug/l	2.2 J	1.3	0.38	0.11 J	1.4 J	1.2	0.18	0.91	0.77	ND	ND	0.05 J	ND	ND	ND	ND	0.12	0.03 J
Fluorene	86-73-7	50	ug/l	8.6 J	1.2	1.5	0.24	4.9	4.7	0.59	2.7	2.9	ND	ND	ND	ND	ND	ND	ND	ND	0.03 J
Hexachloroethane	67-72-1	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	91-20-3	10	ug/l	25	0.27	2.2	0.87	6	9.1	0.94	5.5	5.8	ND	1.4	1.2	1.4	2.9	2.8	2.3	4.8	3.3
Pentachlorophenol	87-86-5	1 *	ug/l	R	-	ND	ND	ND	1.1	ND	0.52 J	0.25 J	ND	-	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	85-01-8	50	ug/l	14	0.2	2.6	0.27	9.5	8.4	0.49	4.7	4.8	ND	0.16 J	0.12 J	0.09 J	ND	0.06 J	0.03 J	0.18	0.14
Phenol	108-95-2	1 *	ug/l	R	-	ND	2.5 J	ND	ND	ND	ND	ND	110	-	1.4 J	12	4.2 J	ND	ND	ND	1.1 J
Pyrene	129-00-0	50	ug/l	1.3 J	0.88	0.26	0.11 J	0.72	ND	0.15	0.56	0.44	ND	ND	ND	ND	ND	ND	ND	0.09 J	ND
Pyridine	110-86-1	50	ug/l	ND	-	-	-	-	-	-	-	-	150 J	-	-	-	-	-	-	-	-
TOTAL PAHs	**NA**	**NA**	**ug/l**	**51.1**	**5.18**	**8.57**	**2**	**27.68**	**29.43**	**3.17**	**17.78**	**17.99**	**ND**	**3.83**	**1.6**	**1.73**	**3.09**	**3.2**	**2.59**	**6.01**	**3.94**
TOTAL Phenolic Compounds	**NA**	**1**	**ug/l**	**ND**	**ND**	**ND**	**2.5**	**ND**	**1.1**	**ND**	**0.52**	**0.25**	**162**	**-**	**11.8**	**24.71**	**7.4**	**ND**	**ND**	**ND**	**1.1**
Total Metals																				
Arsenic, Total	7440-38-2	25	ug/l	2.3 B	4 J	1.33	1.88	4.4 J	6.19	1.33	1.53	1.28	7.7 B	4 J	3.71	3.95	7.5	3.57	5.43	3.75	3.21
Barium, Total	7440-39-3	1000	ug/l	37.6 B	41	42.29	38.94	33	18.5	31.95	34.31	33.92	40.6 B	24	26.03	27.56	24.7	19.76	17.41	21.82	23.54
Cadmium, Total	7440-43-9	5	ug/l	ND	-	-	-	-	-	-	-	ND	ND	-	-	-	-	-	-	-	ND
Chromium, Total	7440-47-3	50	ug/l	7.1	3 J	8.24	18.14 J	16 J	9.59	20.12	4.9	2.99	53.1	5 J	9.89	8.34	ND	3.96	6.77	0.54 J	1.75
Lead, Total	7439-92-1	25	ug/l	ND	3 J	0.27 J	0.8 J	ND	23.79	ND	ND	ND	7.3	4 J	2.09	1.24	ND	3.44	ND	ND	0.46 J
Selenium, Total	7782-49-2	10	ug/l	8	-	-	-	-	-	-	-	5.16	ND	-	-	-	-	-	-	-	ND
Dissolved Metals																				
Arsenic, Dissolved	7440-38-2	25	ug/l	2.2 B	-	-	-	-	-	-	-	-	6.1 B	-	-	-	-	-	-	-	-
Barium, Dissolved	7440-39-3	1000	ug/l	35.9 B	-	-	-	-	-	-	-	-	20.1 B	-	-	-	-	-	-	-	-
Cadmium, Dissolved	7440-43-9	5	ug/l	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-
Chromium, Dissolved	7440-47-3	50	ug/l	0.56 B	-	-	-	-	-	-	-	-	2.8 B	-	-	-	-	-	-	-	-
Lead, Dissolved	7439-92-1	25	ug/l	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-
Selenium, Dissolved	7782-49-2	10	ug/l	5.8	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-
General Chemistry																				
Cyanide, Total	57-12-5	200	ug/l	1200	1850	8250	8140	1860	92	6440	3780	1850	530 J	445	417	330	382	332	249	162	348
Total Recoverable Phenolics (TRP)	NONE	-	ug/l	ND	20 J	-	-	-	-	-	-	-	130	250	-	-	-	-	-	-	-

TABLE 6
ATP GROUNDWATER COLLECTION AND PRETREATMENT SYSTEM
GOUNDWATER ANALYTICAL SUMMARY[1]

ATP ECM ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Parameter	CAS No.	GWQS/GV [2]	Units	Monitoring Well Location and Sample Date(s)																
				MWS-18C									MWS-19A							
				12/19,28/00	2/28/2012	4/10/2014	4/28/2015	4/8/2016	4/11/2017	4/17/2018	4/9/2019	4/9/2020	11/8/1999	2/28/2012	4/10/2014	4/28/2015	4/7/2016	4/11/2017	4/17/2018	4/9/2019	4/17/2020
Field Measurements																				
Dissolved Oxygen	NA	-	MG/L	NA	3.76	NA	1.57	1.83	2.03	1.84	1.11	1.33	0.5	1.71	NA	1.33	1.68	1.60	2.80	2.09	2.24
Field pH	NA	6.5 - 8.5	S.U	6.93	4.57	6.40	6.62	4.48	4.71	6.84	5.28	4.82	8.45	7.29	7.60	7.65	7.76	7.51	7.92	7.62	7.75
Redox Potential	NA	-	mV	-73	33	-83	-86	144	140	-78	-36	72	-310	-159	-147	-163	-125	-96	-57	-116	-117
Specific Conductance	NA	-	UMHOS/CM	4,100	6634	3369	2746	7342	4660	3012	4110	4496	4,450	2743	1957	2121	2064	2055	1612	2475	1825
Temperature	NA	-	DEG C	11.2	12.1	13.0	12.4	10.8	13.1	9.0	9.8	11.9	13.3	10.4	15.4	13.1	11.6	12.7	9.6	11.2	10.9
Turbidity	NA	-	NTU	233	39.6	107	112	73.9	124	16.6	45.6	268	72	10.6	2.55	3.55	6.0	6.31	49.1	3.0	3.1
Volatile Organics (Method 8260B) (STARS List parameters in blue)																				
1,1-Dichloroethane	75-34-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4 J	ND	1 J	1.5 J	1 J	ND	1.4 J	ND
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	-	ND	-	-	-	ND	-	-	ND	-	ND	-	-	-	ND	-	-	ND
1,2-Dichloroethane	107-06-2	0.6	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17 J	ND
1,3,5-Trimethylbenzene	108-67-8	5	ug/l	-	ND	-	-	-	ND	-	-	ND	-	ND	-	-	-	ND	-	-	ND
1,4-Diethylbenzene	105-05-5	-	ug/l	-	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-
Acetone	67-64-1	50	ug/l	-	ND	ND	ND	ND	ND	ND	19 D J	15 J	-	ND	ND	ND	ND	ND	ND	1.7 J	ND
Benzene	71-43-2	1	ug/l	65000 D	9600	340	910	4400	1400	43	1200 D	470	1200	ND	34	70	56	40	13	150	25
Bromomethane	74-83-9	5	ug/l	R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	75-15-0	60	ug/l	-	660	6.3 J	24 J	480	140 J	ND	250 D	53	-	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	74-87-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	4.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	156-59-2	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	0.77 J	ND	ND	1.1 J	ND
Cyclohexane	110-82-7	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	0.47 J	ND	ND	ND	ND
Ethylbenzene	100-41-4	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	98-82-8	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	2.2 J	ND	ND	ND	ND	ND
Methyl cyclohexane	108-87-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	5	ug/l	1.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	127-18-4	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	108-88-3	5	ug/l	340 J	51 J	ND	11 J	140 J	72 J	ND	38 D	16	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	79-01-6	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	75-01-4	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.84 J	ND	0.42 J	ND	0.32 J	0.21 J	0.6 J	0.09 J
Xylenes, m/p	179601-23-1	5	ug/l	-	85 J	ND	9.3 J	150	54 J	ND	44 D	13	-	2.6	ND	1.5 J	1.4 J	0.78 J	ND	0.92 J	ND
Xylenes, o	95-47-6	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	1330-20-7	5	ug/l	500 J	85 J	ND	9.3 J	150	54 J	ND	44	13	13 J	2.6	ND	1.5	1.4 J	0.78 J	ND	ND	ND
TOTAL BTEX	**NA**	**NA**	**ug/l**	**65840**	**9736**	**340**	**930.3**	**4690**	**1526**	**43**	**1282**	**499**	**1213**	**2.6**	**34**	**71.5**	**57.4**	**40.78**	**13**	**150**	**25.09**
Semivolatile Organics (Method 8270C) (Base-Neutrals in black, Acid Extractables in blue and PAHs																				
2,4-Dimethylphenol	105-67-9	50	ug/l	20 J	-	1.8 J	5.4	12	4.8 J	ND	5.4	7.1	10	-	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	91-58-7	10	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.08 J	ND	ND	ND
2-Methylnaphthalene	91-57-6	-	ug/l	-	0.23	ND	ND	ND	0.07 J	ND	0.06 J	0.05 J	-	ND	ND	ND	ND	0.09 J	ND	ND	0.03 J
2-Methylphenol (o-Cresol)	95-48-7	1 *	ug/l	19 J	-	ND	2.3 J	8.2	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND
3-Methylphenol (m-Cresol) / 4-Methylphenol (p-Cresol)	108-39-4/106-44-5	1 *	ug/l	40 J	-	ND	9.5	31	9.9	ND	12	18	ND	-	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	83-32-9	20	ug/l	-	ND	ND	ND	0.09 J	ND	ND	0.07 J	ND	-	0.09 J	ND	0.07 J	ND	0.1	0.04 J	0.05 J	0.04 J
Acenaphthylene	208-96-8	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	0.03 J	ND	ND	ND	ND	ND	0.07 J	ND	ND	ND
Acetophenone	98-86-2	-	ug/l	-	4.6 J	2.9 J	9.3	43	11	ND	17	7.5	-	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	120-12-7	50	ug/l	ND	0.07 J	0.12 J	0.08 J	0.14 J	0.06 J	0.06 J	0.06 J	0.07 J	ND	0.07 J	0.07 J	0.09 J	ND	0.04 J	0.09 J	ND	0.03 J
Benzo(a)anthracene	56-55-3	0.002	ug/l	ND	ND	ND	ND	ND	ND	ND	0.03 J	ND	ND	ND	ND	ND	ND	ND	0.16	0.02 J	ND
Benzo(a)pyrene	50-32-8	0 (ND)	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.14	ND	ND
Benzo(b)fluoranthene	205-99-2	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	0.02 J	ND	-	0.16 J	ND	ND	ND	ND	0.18	ND	ND
Benzo(ghi)perylene	191-24-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	0.09 J	ND	ND
Benzo(k)fluoranthene	207-08-9	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	0.08 J	ND	ND
Benzoic Acid	65-85-0	-	ug/l	-	-	ND	62	-	-	-	-	-	-	-	ND	ND	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	5	ug/l	ND	ND	ND	15	ND	ND	5.8	ND	1.8 J	4.4 J	ND	ND	6.4	ND	ND	3.6	ND	ND
Caprolactam	34876-18-1	-	ug/l	-	-	22	16	ND	ND	ND	ND	ND	-	-	ND	ND	ND	ND	ND	ND	ND
Carbazole	86-74-8	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	0.002	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND
Dibenzo(a,h)anthracene	53-70-3	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	0.04 J	ND	ND
Dibenzofuran	132-64-9	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	206-44-0	50	ug/l	ND	ND	0.14 J	ND	ND	ND	ND	0.05 J	0.04 J	ND	0.08 J	ND	ND	ND	ND	0.24	ND	0.02 J
Fluorene	86-73-7	50	ug/l	ND	ND	ND	ND	ND	ND	ND	0.04 J	0.04 J	ND	ND	ND	ND	ND	0.06 J	0.08 J	ND	0.14
Hexachloroethane	67-72-1	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.07 J	ND
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	0.1	ND	ND
Naphthalene	91-20-3	10	ug/l	ND	0.42	0.17 J	0.23	0.53	0.21	ND	0.36	0.16	ND	ND	ND	ND	ND	0.08 J	0.05 J	ND	0.39
Pentachlorophenol	87-86-5	1 *	ug/l	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	85-01-8	50	ug/l	ND	ND	0.08 J	ND	ND	0.04 J	ND	0.04 J	0.08 J	ND	0.07 J	ND	ND	ND	ND	0.18	0.02 J	0.05 J
Phenol	108-95-2	1 *	ug/l	280 J	-	3.6 J	20	76	27	ND	25	51	19	-	ND	ND	ND	ND	ND	ND	ND
Pyrene	129-00-0	50	ug/l	ND	ND	0.11 J	ND	ND	ND	ND	ND	0.03 J	ND	0.07 J	ND	ND	ND	ND	0.2	ND	0.02 J
Pyridine	110-86-1	50	ug/l	18000 D	-	-	-	-	-	-	-	-	5.6 J	-	-	-	-	-	-	-	-
TOTAL PAHs	**NA**	**NA**	**ug/l**	**ND**	**0.72**	**0.62**	**0.31**	**0.76**	**0.38**	**0.06**	**0.73**	**0.5**	**ND**	**0.54**	**0.07**	**0.16**	**ND**	**0.44**	**1.83**	**0.16**	**0.72**
TOTAL Phenolic Compounds	**NA**	**1**	**ug/l**	**359**	**-**	**5.4**	**37.2**	**127.2**	**41.7**	**ND**	**42.4**	**76.1**	**29**	**-**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Total Metals																				
Arsenic, Total	7440-38-2	25	ug/l	16.1	5	6.88	9.23	118	8.98	4.47	7.49	4.1	5.9 B	7	3.45	3.5	7.1	3.01	2.76	3.42	2.48
Barium, Total	7440-39-3	1000	ug/l	31.7 B	17	22.22	19.19	15.4	13.99	16.3	18.03	21.84	35.4 B	24	20.53	25.73	25.2	22.58	20	29.26	22.79
Cadmium, Total	7440-43-9	5	ug/l	1.9 B	-	-	-	-	-	-	-	ND	1.4 B	-	-	-	-	-	-	-	-
Chromium, Total	7440-47-3	50	ug/l	27.4	230	30.8	358.3	240	260.6	6.05	48.75	159.4	4.5 B	ND	2.91	2.93	2.6 J	1.58	8.02	2.11	1.03
Lead, Total	7439-92-1	25	ug/l	9.7	25	1.98 J	ND	ND	3.38 J	ND	0.35 J	ND	2.3 B	3 J	0.52 J	0.59 J	ND	0.77 J	10.73	0.42 J	ND
Selenium, Total	7782-49-2	10	ug/l	ND	-	-	-	-	-	-	-	4.98 J	2.8 B	-	-	-	-	-	-	-	-
Dissolved Metals																				
Arsenic, Dissolved	7440-38-2	25	ug/l	15.5	-	-	10.68	128	10.56	-	-	-	4.9 B	-	-	-	-	-	-	-	-
Barium, Dissolved	7440-39-3	1000	ug/l	32.3 B	-	-	20.5	21.7	18.58	-	-	-	35.4 B	-	-	-	-	-	-	-	-
Cadmium, Dissolved	7440-43-9	5	ug/l	2.3 B	-	-	-	-	-	-	-	-	0.38 B	-	-	-	-	-	-	-	-
Chromium, Dissolved	7440-47-3	50	ug/l	15.3	-	-	838.5	160	166.2	-	-	-	2.4 B	-	-	-	-	-	-	-	-
Lead, Dissolved	7439-92-1	25	ug/l	7.7	-	-	ND	ND	4.96 J	-	-	-	ND	-	-	-	-	-	-	-	-
Selenium, Dissolved	7782-49-2	10	ug/l	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-
General Chemistry																				
Cyanide, Total	57-12-5	200	ug/l	2400 J	621	612	446	272	1050	484	1050	406	500	271	118	173	62	142	97	121	138
Total Recoverable Phenolics (TRP)	NONE	-	ug/l	360	400	-	-	-	-	-	-	-	6	10 J	-	-	-	-	-	-	-

TABLE 6
ATP GROUNDWATER COLLECTION AND PRETREATMENT SYSTEM
GOUNDWATER ANALYTICAL SUMMARY[1]

ATP ECM ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Parameter	CAS No.	GWQS/GV [2]	Units	Monitoring Well Location and Sample Date(s)																
				MWS-19B									MWS-20A							
				11/8/1999	2/28/2012	4/10/2014	4/28/2015	4/8/2016	4/11/2017	4/17/2018	4/9/2019	4/17/2020	11/9/1999	2/28/2012	4/10/2014	4/28/2015	4/8/2016	4/11/2017	4/17/2018	4/9/2019	4/17/2020
Field Measurements																				
Dissolved Oxygen	NA	-	MG/L	0.4	1.53	NA	1.06	0.92	1.44	1.33	1.25	0.81	1.1	2.04	NA	3.7	4.12	2.55	2.4	2.9	1.3
Field pH	NA	6.5 - 8.5	S.U	5.84	5.66	6.22	6.21	6.67	6.99	7.65	6.90	6.95	9.02	9.20	9.37	9.47	9.66	9.78	10.09	9.63	9.56
Redox Potential	NA	-	mV	-136	-95	-43	-47	-67	-109	-141	-103	-110	416	0	-89	51	194	111	-57	58	12
Specific Conductance	NA	-	UMHOS/CM	1,030	7966	5077	4529	4433	3394	3175	4317	4188	2,130	985.9	926	656	895.2	1183	1193	915	949.5
Temperature	NA	-	DEG C	13.1	10.4	15.1	13.3	12.0	12.8	8.3	12.2	11.5	15.9	10.5	12.5	10.6	10.6	12.0	9.2	9.8	10.1
Turbidity	NA	-	NTU	430	25.7	22.4	30	88	128	8.3	9.4	17.2	0.1	5.23	1.69	256	7.19	5.08	2.28	2.9	2.6
Volatile Organics (Method 8260B) (STARS List parameters in blue)																				
1,1-Dichloroethane	75-34-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	-	ND	-	-	-	ND	-	-	ND	-	ND	-	-	-	ND	-	-	ND
1,2-Dichloroethane	107-06-2	0.6	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	108-67-8	5	ug/l	-	ND	-	-	-	ND	-	-	ND	-	ND	-	-	-	ND	-	-	ND
1,4-Diethylbenzene	105-05-5	-	ug/l	-	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-
Acetone	67-64-1	50	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	71-43-2	1	ug/l	27000	18000	2800 D	390 D	1500 D	5800 D	520	500 D	480	33	ND	ND	ND	0.22 J	0.63	ND	0.17 J	0.41 J
Bromomethane	74-83-9	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	75-15-0	60	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	74-87-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	156-59-2	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	110-82-7	-	ug/l	-	ND	ND	1.3 J	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	100-41-4	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	98-82-8	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Methyl cyclohexane	108-87-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	127-18-4	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	108-88-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	79-01-6	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	75-01-4	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, m/p	179601-23-1	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, o	95-47-6	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	1330-20-7	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL BTEX	**NA**	**NA**	**ug/l**	**27000**	**18000**	**2800**	**390**	**1500**	**5800**	**520**	**500**	**480**	**34.2**	**ND**	**ND**	**ND**	**0.22**	**0.63**	**ND**	**0.17**	**0.41**
Semivolatile Organics (Method 8270C) (Base-Neutrals in black, Acid Extractables in blue and PAHs in red)																				
2,4-Dimethylphenol	105-67-9	50	ug/l	73 J	-	19	14	ND	ND	ND	2 J	2 J	ND	-	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	91-58-7	10	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	91-57-6	-	ug/l	-	ND	0.09 J	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol (o-Cresol)	95-48-7	1 *	ug/l	150 J	-	ND	ND	ND	ND	ND	ND	0.52 J	ND	-	ND	ND	ND	ND	ND	ND	ND
3-Methylphenol (m-Cresol) / 4-Methylphenol (p-Cresol)	108-39-4/106-44-5	1 *	ug/l	200 J	-	2.6 J	2.3 J	ND	ND	ND	ND	2.7 J	ND	-	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	83-32-9	20	ug/l	-	0.19 J	0.12 J	ND	0.11 J	0.1	0.05 J	0.1	0.06 J	-	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	208-96-8	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	98-86-2	-	ug/l	-	8.4	ND	ND	ND	ND	ND	ND	0.65 J	-	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	120-12-7	50	ug/l	ND	ND	ND	ND	ND	0.05 J	0.04 J	0.04 J	0.03 J	ND	0.07 J	0.12 J	ND	0.21	0.08 J	0.1 J	0.07 J	0.04 J
Benzo(a)anthracene	56-55-3	0.002	ug/l	ND	ND	ND	ND	ND	0.04 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	50-32-8	0 (ND)	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	0.002	ug/l	-	ND	ND	ND	ND	0.05 J	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene	191-24-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Benzoic Acid	65-85-0	-	ug/l	-	-	ND	ND	-	-	-	-	-	-	-	ND	ND	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	5	ug/l	ND	ND	ND	11	ND	ND	3.4	0.93 J	ND	ND	ND	ND	4.2	ND	ND	4	ND	ND
Caprolactam	34876-18-1	-	ug/l	-	-	ND	ND	ND	ND	ND	ND	9.8 J	-	-	ND	ND	ND	ND	ND	ND	ND
Carbazole	86-74-8	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	0.002	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	132-64-9	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	206-44-0	50	ug/l	ND	ND	ND	ND	ND	0.07 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	86-73-7	50	ug/l	ND	ND	0.09 J	ND	0.12 J	0.09 J	0.1	0.1	0.06 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	67-72-1	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	91-20-3	10	ug/l	ND	0.61	0.52	0.39	ND	0.05 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	87-86-5	1 *	ug/l	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	85-01-8	50	ug/l	ND	ND	0.12 J	0.09 J	ND	0.05 J	ND	ND	ND	ND	ND	ND	ND	ND	0.03 J	ND	ND	ND
Phenol	108-95-2	1 *	ug/l	2100 D	-	1.2 J	0.59 J	ND	ND	ND	ND	1.1 J	ND	-	ND	ND	ND	ND	ND	ND	ND
Pyrene	129-00-0	50	ug/l	ND	ND	ND	ND	ND	0.06 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyridine	110-86-1	50	ug/l	3200 D	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-
TOTAL PAHs	**NA**	**NA**	**ug/l**	**ND**	**0.8**	**0.94**	**0.48**	**0.23**	**0.56**	**0.19**	**0.24**	**0.15**	**ND**	**0.07**	**0.12**	**ND**	**0.21**	**0.11**	**0.1**	**0.07**	**0.04**
TOTAL Phenolic Compounds	**NA**	**1**	**ug/l**	**2523**	**-**	**22.8**	**16.89**	**ND**	**ND**	**ND**	**2**	**6.32**	**ND**	**-**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Total Metals																				
Arsenic, Total	7440-38-2	25	ug/l	21.9 J	ND	4.76	3.99	18.3	6.41	5.36	5.36	4.86	ND	5	4.05	5.03	7.2	4.23	3.06	3.8	3.85
Barium, Total	7440-39-3	1000	ug/l	55.4 B	18	17.7	23.02	19	17.83	17.87	18.57	18.49	27.1 B	21	16.78	12.42	17.1	21.06	20.54	17.26	20.63
Cadmium, Total	7440-43-9	5	ug/l	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-
Chromium, Total	7440-47-3	50	ug/l	398 J	10	9.21	11.21	7.5 J	9.38	1.48	2.03	2.06	7.6	10	17.84	23.62	1.9	23.32	15.48	17.06	10.45
Lead, Total	7439-92-1	25	ug/l	54	17	1.57 J	1.3 J	ND	22.76	1.34	1.1	ND	ND	ND	ND	ND	ND	0.41 J	ND	ND	ND
Selenium, Total	7782-49-2	10	ug/l	ND	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-
Dissolved Metals																				
Arsenic, Dissolved	7440-38-2	25	ug/l	3.5 B	-	-	-	15.8	2.9	-	-	-	-	-	-	-	-	-	-	-	-
Barium, Dissolved	7440-39-3	1000	ug/l	21.9 B	-	-	-	23.6	16.22	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium, Dissolved	7440-43-9	5	ug/l	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Dissolved	7440-47-3	50	ug/l	87.8	-	-	-	3.1 J	0.24 J	-	-	-	-	-	-	-	-	-	-	-	-
Lead, Dissolved	7439-92-1	25	ug/l	11.3 B	-	-	-	ND	4.54 J	-	-	-	-	-	-	-	-	-	-	-	-
Selenium, Dissolved	7782-49-2	10	ug/l	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																				
Cyanide, Total	57-12-5	200	ug/l	820	774	468	568	317	419	266	284	407	120 J	-	75	29	34	124	88	33	52
Total Recoverable Phenolics (TRP)	NONE	-	ug/l	3700	290	-	-	-	-	-	-	-	ND	20 J	-	-	-	-	-	-	-

TABLE 6
ATP GROUNDWATER COLLECTION AND PRETREATMENT SYSTEM
GOUNDWATER ANALYTICAL SUMMARY[1]

ATP ECM ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Parameter	CAS No.	GWQS/GV [2]	Units	Monitoring Well Location and Sample Date(s) MWS-20B 11/9/1999	2/28/2012	4/10/2014	4/28/2015	4/8/2016	4/11/2017	4/17/2018	4/9/2019	4/17/2020
Field Measurements												
Dissolved Oxygen	NA	-	MG/L	0.4	2.11	NA	0.85	2.04	1.81	2.01	1.83	0.85
Field pH	NA	6.5 - 8.5	S.U	7.29	7.38	7.63	7.63	7.49	7.23	8.48	7.58	7.35
Redox Potential	NA	-	mV	204	-150	-170	-180	-118	-58	-196	-167	-129
Specific Conductance	NA	-	UMHOS/CM	2,500	1329	1447	1076	1375	1275	1058	1385	1480
Temperature	NA	-	DEG C	13.2	10.7	13.5	10.9	10.2	12.7	9.6	10.7	11.0
Turbidity	NA	-	NTU	146	11.1	26.6	3.92	20.4	9.52	22.2	3.02	20.2
Volatile Organics (Method 8260B) (STARS List parameters in blue)												
1,1-Dichloroethane	75-34-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	-	ND	-	-	-	ND	-	-	ND
1,2-Dichloroethane	107-06-2	0.6	ug/l	ND	ND	2.5	2.2	2.2	2.8	1.4	2.3	1.8
1,3,5-Trimethylbenzene	108-67-8	5	ug/l	-	ND	-	-	-	ND	-	-	ND
1,4-Diethylbenzene	105-05-5	-	ug/l	-	ND	-	-	-	-	-	-	-
Acetone	67-64-1	50	ug/l	-	ND	ND	ND	1.7 J	ND	1.6 J	2.1 J	ND
Benzene	71-43-2	1	ug/l	ND	ND	0.28 J	0.63 J	0.32 J	0.5	0.23 J	0.28 J	0.26 J
Bromomethane	74-83-9	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	75-15-0	60	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	74-87-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	156-59-2	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	110-82-7	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	100-41-4	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	98-82-8	5	ug/l	-	ND	ND	2.3 J	ND	ND	ND	ND	ND
Methyl cyclohexane	108-87-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	127-18-4	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	108-88-3	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	79-01-6	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	75-01-4	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, m/p	179601-23-1	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, o	95-47-6	5	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	1330-20-7	5	ug/l	2.5 J	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL BTEX	**NA**	**NA**	**ug/l**	**2.5**	**ND**	**0.28**	**0.63**	**0.32**	**0.5**	**0.23**	**0.28**	**0.26**
Semivolatile Organics (Method 8270C) (Base-Neutrals in black, Acid Extractables in blue and PAHs												
2,4-Dimethylphenol	105-67-9	50	ug/l	ND	-	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	91-58-7	10	ug/l	ND	-	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	91-57-6	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	0.04 J
2-Methylphenol (o-Cresol)	95-48-7	1 *	ug/l	ND	-	ND	ND	ND	ND	ND	ND	ND
3-Methylphenol (m-Cresol) / 4-Methylphenol (p-Cresol)	108-39-4/106-44-5	1 *	ug/l	ND	-	ND	ND	1.3 J	ND	ND	ND	ND
Acenaphthene	83-32-9	20	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	208-96-8	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	98-86-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	120-12-7	50	ug/l	ND	0.09 J	0.17 J	0.07 J	0.23 J	0.05 J	0.1 J	ND	0.09 J
Benzo(a)anthracene	56-55-3	0.002	ug/l	ND	ND	ND	ND	ND	0.02 J	0.02 J	ND	0.06 J
Benzo(a)pyrene	50-32-8	0 (ND)	ug/l	ND	ND	0.11 J	ND	ND	ND		ND	0.04 J
Benzo(b)fluoranthene	205-99-2	0.002	ug/l	-	ND	0.08 J	ND	ND	ND	ND	ND	0.06 J
Benzo(ghi)perylene	191-24-2	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	0.03 J
Benzo(k)fluoranthene	207-08-9	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	0.02 J
Benzoic Acid	65-85-0	-	ug/l	-	-	ND	ND	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	5	ug/l	ND	ND	ND	5.6	ND	ND	ND	ND	ND
Caprolactam	34876-18-1	-	ug/l	-	-	ND	ND	ND	ND	24	ND	ND
Carbazole	86-74-8	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	0.002	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	0.04 J
Dibenzo(a,h)anthracene	53-70-3	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	132-64-9	-	ug/l	-	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	206-44-0	50	ug/l	ND	ND	0.09 J	ND	0.07 J	ND	ND	ND	0.08 J
Fluorene	86-73-7	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	0.03 J
Hexachloroethane	67-72-1	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	ug/l	-	ND	ND	ND	ND	ND	ND	ND	0.03 J
Naphthalene	91-20-3	10	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	87-86-5	1 *	ug/l	ND	-	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	85-01-8	50	ug/l	ND	ND	ND	ND	ND	0.02 J	ND	ND	0.05 J
Phenol	108-95-2	1 *	ug/l	ND	-	ND	ND	ND	ND	ND	ND	ND
Pyrene	129-00-0	50	ug/l	ND	ND	0.09 J	ND	0.06 J	ND	ND	ND	0.07 J
Pyridine	110-86-1	50	ug/l	ND	-	-	-	-	-	-	-	-
TOTAL PAHs	**NA**	**NA**	**ug/l**	**ND**	**0.09**	**0.54**	**0.07**	**0.36**	**0.09**	**0.12**	**ND**	**0.64**
TOTAL Phenolic Compounds	**NA**	**1**	**ug/l**	**ND**	**-**	**ND**	**ND**	**1.3**	**ND**	**ND**	**ND**	**ND**
Total Metals												
Arsenic, Total	7440-38-2	25	ug/l	3.9 B	7	3.71	3.59	6.6	2.87	2.93	3.2	3.22
Barium, Total	7440-39-3	1000	ug/l	54.7 B	31	39.08	24.7	39	33.75	30.93	34.84	56.76
Cadmium, Total	7440-43-9	5	ug/l	ND	-	-	-	-	-	-	-	-
Chromium, Total	7440-47-3	50	ug/l	37.6	3 J	10.49	1.57	5.3	1.23	3.36	0.59 J	5.36
Lead, Total	7439-92-1	25	ug/l	10.2	ND	4.43	0.14	ND	0.35 J	1.23 J	ND	1.94
Selenium, Total	7782-49-2	10	ug/l	ND	-	-	-	-	-	-	-	-
Dissolved Metals												
Arsenic, Dissolved	7440-38-2	25	ug/l	3.1 B	-	-	-	-	-	-	-	-
Barium, Dissolved	7440-39-3	1000	ug/l	34.6 B	-	-	-	-	-	-	-	-
Cadmium, Dissolved	7440-43-9	5	ug/l	ND	-	-	-	-	-	-	-	-
Chromium, Dissolved	7440-47-3	50	ug/l	ND	-	-	-	-	-	-	-	-
Lead, Dissolved	7439-92-1	25	ug/l	ND	-	-	-	-	-	-	-	-
Selenium, Dissolved	7782-49-2	10	ug/l	ND	-	-	-	-	-	-	-	-
General Chemistry												
Cyanide, Total	57-12-5	200	ug/l	44 J	-	47	48	38	68	47	28	51
Total Recoverable Phenolics (TRP)	NONE	-	ug/l	ND	40	-	-	-	-	-	-	-

Notes:
1. Only those compounds detected above the method detection limit at a minimum of one sample location are reported in this table.
2. NYSDEC Class "GA" Groundwater Quality Standards/Guldance Values (GWQS/GV) as per 6 NYCRR Part 703.
3. Acid extractables for recent groundwater were analyzed via Method 8270 in August 2013.
4. Surrogate recoveries for SVOC Acid Extractables were below acceptance criteria, re-extraction was performed outside holding time of 7 days, but within 14 days for analysis. Therefore, re-extracted results are presented as estimated (J qualified).

Qualifier Key:
B = The analyte was detected above the reporting limit in the associated method blank.
J = Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs)
ND = Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
R = Sample result was rejected by a third party validator.
D = Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- = Not analyzed for this parameter
* = The general standard of 1.0 ug/L for phenolic compounds was used.

Color Code:
= concentration exceeds the GWQS/GV, but is less than 10 times the GWQS/GV
= concentration exceeds 10 times the GWQS/GV, but is less than 100 times the GWQS/GV
= concentration exceeds 100 times the GWQS/GV

TABLE 7
ATP GROUNDWATER COLLECTION AND PRETREATMENT SYSTEM
GOUNDWATER ANALYTICAL SUMMARY[1]

ATP ECM ANNUAL REPORT
TECUMSEH REDEVELOPMENT, INC.

Parameter	GWQS/GV/ GWAL [2]	Units	Monitoring Well Location and Sample Date(s)				
			MWS-02	MWS-18A	MWS-18C	MWS-23A	MWS-23B
			4/10/2020	4/9/2020	4/9/2020	4/10/2020	4/10/2020
1,4-Dioxane (Method 8270-SIM) - ug/L							
1,4-Dioxane	1	ug/l	0.311	0.458	0.868	ND	2.45
Polychlorinated Biphenyls - ug/L							
Total PCBs	0.09	ug/l	ND	ND	ND	ND	ND
Pesticides - ug/L							
Pesticides	-	ug/l	ND	ND	ND	ND	ND
Perfluorinated Alkyl Acids (Modified 537) - ug/L							
Perfluorobutanoic Acid (PFBA)	-	ug/l	0.00855	-	-	-	-
Perfluoropentanoic Acid (PFPeA)	-	ug/l	0.00425	-	-	-	-
Perfluorobutanesulfonic Acid (PFBS)	-	ug/l	0.00127 J	-	-	-	-
Perfluorohexanoic Acid (PFHxA)	-	ug/l	0.00349	-	-	-	-
Perfluoroheptanoic Acid (PFHpA)	-	ug/l	0.00316	-	-	-	-
Perfluorohexanesulfonic Acid (PFHxS)	-	ug/l	0.0018 J	-	-	-	-
Perfluorooctanoic Acid (PFOA)	0.01	ug/l	0.0164	-	-	-	-
1H,1H,2H,2H-Perfluorooctanesulfonic	-	ug/l	ND	-	-	-	-
Perfluoroheptanesulfonic Acid (PFHpS)	-	ug/l	ND	-	-	-	-
Perfluorononanoic Acid (PFNA)	-	ug/l	0.00088 J	-	-	-	-
Perfluorooctanesulfonic Acid (PFOS)	0.01	ug/l	0.00573	-	-	-	-
Perfluorodecanoic Acid (PFDA)	-	ug/l	0.00032 J	-	-	-	-
1H,1H,2H,2H-Perfluorodecanesulfonic	-	ug/l	ND	-	-	-	-
N-Methyl Perfluorooctanesulfonamidoacetic	-	ug/l	ND	-	-	-	-
Perfluoroundecanoic Acid (PFUnA)	-	ug/l	ND	-	-	-	-
Perfluorodecanesulfonic Acid (PFDS)	-	ug/l	ND	-	-	-	-
Perfluorooctanesulfonamide (FOSA)	-	ug/l	ND	-	-	-	-
N-Ethyl Perfluorooctanesulfonamidoacetic	-	ug/l	ND	-	-	-	-
Perfluorododecanoic Acid (PFDoA)	-	ug/l	ND	-	-	-	-
Perfluorotridecanoic Acid (PFTrDA)	-	ug/l	ND	-	-	-	-
Perfluorotetradecanoic Acid (PFTA)	-	ug/l	ND	-	-	-	-
PFOA/PFOS, Total	0.07	ug/l	0.0221	-	-	-	-
PFAS, Total	0.5	ug/l	0.0459	-	-	-	-

Notes:
1. Only those compounds detected above the method detection limit at a minimum of one sample location are reported in this table.
2. Groundwater Action Levels per NYSDEC guidance for sampling and analysis of PFAS and 1,4-dioxane.

Definitions
J = Estimated value.
D = Concentration of analyte was quantified from diluted analysis.
E = Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
ND = Not detected at the method detection limit.
- = No NYSDEC action level, or parameter was not analyzed for.
PFAS = Per- and Polyfluoroalkyl Substances

Color Code:
= concentration exceeds the GWQS/GV/GWAL, but is less than 10 times the GWQS/GV/GWAL

FIGURES

F:\CAD\TurnKey\Tecumseh Redevelopment\Corrective Measures\ATP-ECM\ATP Pretreatment System O&M\Performance Monitoring Reports\2020\Figure 1; ATP SWMU Group & ECM_updated.dwg, 6/7/2021 2:49:39 PM

SWMU S-02
SWMU S-01
SWMU S-27
SWMU S-05
SWMU S-08
SWMU S-07/S-20
SWMU S-06
SWMU S-11
SWMU S-22
MWS-15
MW-2U1
MW-2U1B
MWS-11A
MWS-13
MWS-14
MWS-14B
MWS-29A
MWS-12A
MWS-12B
MWS-21A
MWS-21B
MWS-19A
MWS-19B
P-61D
P-62D
575.8
EW-2
EW-3R
EW-3
EW-1
VHC
P-64D
MWS-10
MWS-10B
MWS-25B
MWS-25A
MWS-23A
MWS-23B
MWS-20A
MWS-20B
MWS-24B
MWS-24A
(obstruction)
MWS-18C
MWS-18A
P-36S
MWS-02
MWN-23B
MWN-11
MWN-24A
MWN-24B
MWS-03
SG-02
ATP-PW1
ATP-PW2
ATP-PW3
ATP-PW4
SMOKES CREEK
HIGHWAY 11
HIGHWAY 9

LEGEND:

- CMS AREA BOUNDARY
- APPROXIMATE BOUNDARY OF SWMU FROM RFI
- ATP-ECM CONTAINMENT CELL SLURRY WALL ALIGNMENT
- MWS-02 MONITORING WELL
- P-36S EXISTING PIEZOMETER
- EW-1 GROUNDWATER EXTRACTION WELL
- VHC VERTICAL HYDRAULIC CONDUIT
- ATP-PW2 PUMPING WELLS
- APPROXIMATE ALIGNMENT OF ATP-ECM FORCE MAIN
- APPROXIMATE ALIGNMENT ATP-ECM LEACHATE EXTRACTION LINE
- MH ATP-ECM MANHOLE
- ATP-ECM CLEAN-OUT

N

200' 0' 200' 400'

SCALE: 1 INCH = 200 FEET
SCALE IN FEET
(approximate)

DATE: FEBRUARY 2021
DRAFTED BY: CMC

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(716) 856-0635

TURNKEY ENVIRONMENTAL RESTORATION, LLC

JOB NO.:

ATP SWMU GROUP & ECM

ANNUAL MONITORING & MAINTENANCE SUMMARY REPORT

TECUMSEH LACKAWANNA SITE
LACKAWANNA, NEW YORK

PREPARED FOR
TECUMSEH REDEVELOPMENT INC.

FIGURE 1

F:\CAD\TurnKey\Tecumseh Redevelopment\Corrective Measures\ATP-ECM\ATP Pretreatment System O&M\Performance Monitoring Reports\2020\Figure 2; Isopotential Map (March 2020).dwg, 3/3/2021 4:02:52 PM

CITY OF LACKAWANNA

SWMU S-01
SWMU S-02
SWMU S-03
(HWMU 2)
SWMU S-04
SWMU S-05
SWMU S-06
SWMU S-07/S-20
SWMU S-08
(empty)
SWMU S-27

MWS-09
MW-2U1B 574.8
MW-2U1
MWS-11A 574.7
MWS-15 574.8
MWN-23B
MWS-02 575.3
MWS-13 575.2
MWS-14
MWS-14B 576.8
MWS-29A 577.4
MWS-12A
MWS-12B 575.7
MWN-11
MWS-21B 576.1
MWS-21A
ATP-PW1 572.0
MWS-19A
MWS-19B 574.0
P-61D 574.2
ATP-PW2 572.9
P-62D 575.0
EW-2 573.9
EW-3B 572.5
ATP CONTAINMENT CELL
(SWMUs S-11/S-22)
MWS-10
MWS-10B 576.4
MWS-25B 575.8
MWS-25A
EW-1 572.5
EW-4 575
P-64D 574.9
P-63D 576.0
MWS-18C 575.2
MWS-18A
ATP-PW3 575.0
ATP-PW4 574.0
MH-2A
MH-3A
MWN-94A
MWN-94B
MWS-23A
MWS-23B 576.2
MWS-20A
MH-4A
MWS-20B 576.0
MH-5
MH-5A
P-36S
MWS-24B 575.4
MWS-24AR
MWN-44A
MH-6
MH-6A
ATP TREATMENT BUILDING
MWS-03 574.2
SG-02 574.0
MWN-24A
MWN-24B
SMOKES CREEK
HIGHWAY 11
HIGHWAY 9
575
576
574
577

LEGEND:

- CMS AREA BOUNDARY
- APPROXIMATE BOUNDARY OF SWMU FROM RFI
- ATP-ECM CONTAINMENT CELL SLURRY WALL ALIGNMENT
- MWS-02 — MONITORING WELL
- P-36S — EXISTING PIEZOMETER
- EW-1 — GROUNDWATER EXTRACTION WELL (INTERIOR)
- ATP-PW2 — GROUNDWATER EXTRACTION WELL (EXTERIOR)
- VHC — VERTICAL HYDRAULIC CONDUIT
- MH — ATP-ECM MANHOLE
- 575 — GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER DEPRESSION CONTOUR CAUSED BY PUMPING
- GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1 INCH = 200 FEET
SCALE IN FEET
(approximate)

N

DATE: MARCH 2020
DRAFTED BY: CMC

2558 HAMBURG TURNPIKE
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TURNKEY ENVIRONMENTAL RESTORATION, LLC

JOB NO.: 0071-020-222

ISOPOTENTIAL MAP - MARCH 2020

ANNUAL MONITORING & MAINTENANCE SUMMARY REPORT

TECUMSEH LACKAWANNA SITE
LACKAWANNA, NEW YORK

PREPARED FOR
TECUMSEH REDEVELOPMENT INC.

FIGURE 2

F:\CAD\TurnKey\Tecumseh Redevelopment\Corrective Measures\ATP-ECM\ATP Pretreatment System O&M\Performance Monitoring Report\2020\Figure 3. Isopotential Map (May 2020).dwg, 3/3/2021 5:40:06 PM

CITY OF LACKAWANNA

SWMU S-01
SWMU S-02
SWMU S-03
(HWMU 2)
SWMU S-04
SWMU S-05
SWMU S-06
SWMU S-07/S-20
SWMU S-08
(empty)
SWMU S-27

MWS-09
MW-2U1B 574.8
MW-2U1
MWS-15 574.9
MWS-11A 574.7
MWS-02 575.4
MWN-23B
MWS-13 575.1
MWS-14
MWS-14B 576.7
MWS-29A 577.5
MWS-12A
MWS-12B 575.6
MWS-21B 576.1
MWS-21A
MWS-25B 576.1
MWS-25A
MWS-10
MWS-10B 576.3
MWS-23A
MWS-23B 576.1
MWS-24B 575.5
MWS-24AR
MWS-20A
MWS-20B 575.9
MWS-19A
MWS-19B 574.4
MWS-19C 575.2
MWS-18A
P-62D 574.8
P-61D 574.6
P-63D 575.9
P-64D 574.7
MWN-11
MWN-94A
MWN-94B
P-36S
MWN-44A
MWN-24A
MWN-24B
MWS-03 574.5
SG-02 574.4

ATP CONTAINMENT CELL
(SWMUs S-11/S-22)

EW-2 572.8
EW-1 572.8
EW-3 575.2
EW-4 572.8
ATP-PW1 572.0
ATP-PW2 572.0
ATP-PW3 572.4
ATP-PW4 576.0
VHC
MH-1A
MH-2A
MH-3A
MH-4
MH-4A
MH-5
MH-5A
MH-6
MH-6A
WELL

ATP TREATMENT BUILDING

HIGHWAY 11
HIGHWAY 9
SMOKES CREEK

575
576
577
574

LEGEND:

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- MH ATP-ECM MANHOLE
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- GROUNDWATER DEPRESSION CONTOUR CAUSED BY PUMPING
- GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1 INCH = 200 FEET
SCALE IN FEET
(approximate)

N

DATE: MARCH 2020
DRAFTED BY: CMC

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TURNKEY ENVIRONMENTAL RESTORATION, LLC

JOB NO.: 0071-020-222

ISOPOTENTIAL MAP - MAY 2020

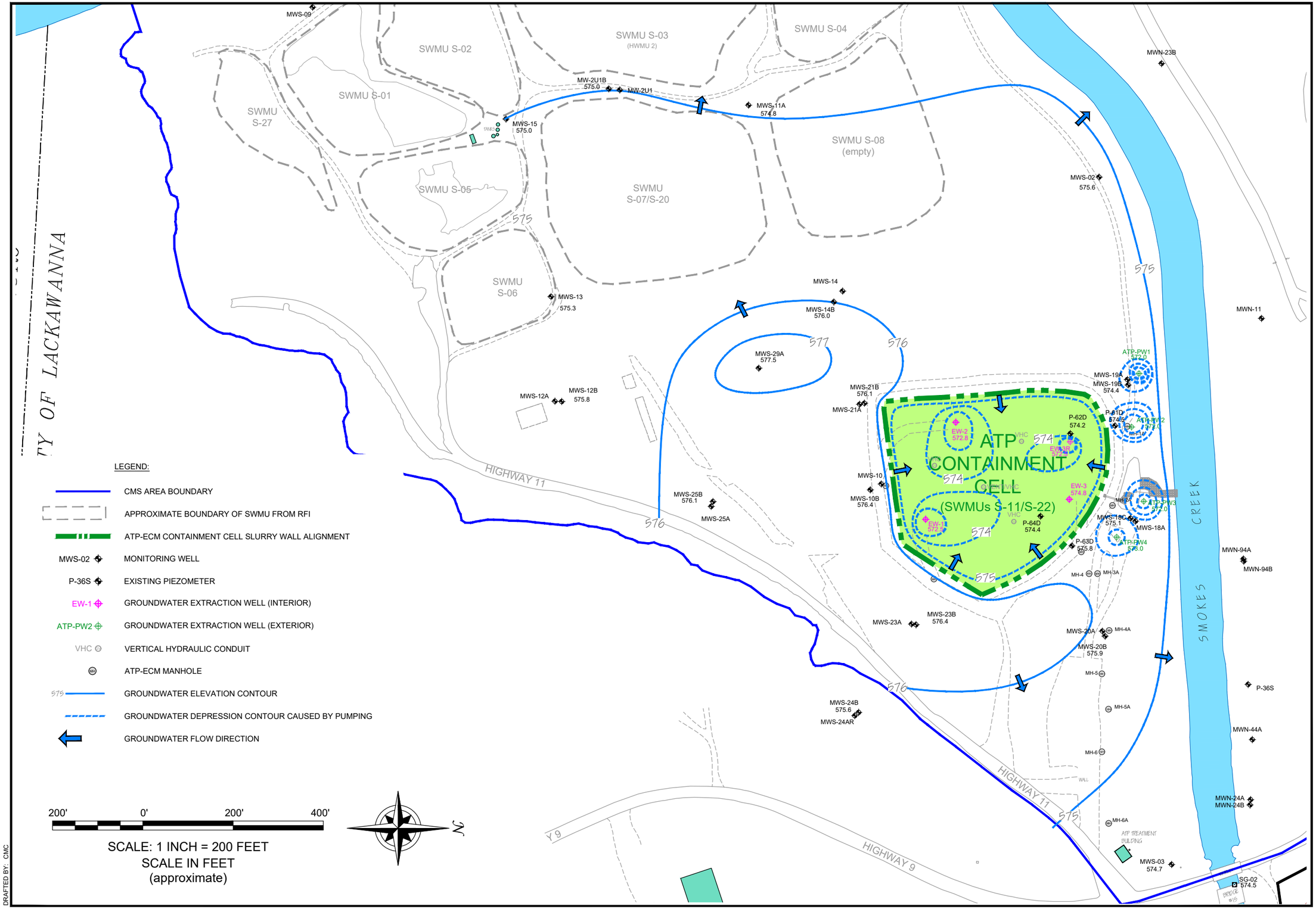
ANNUAL MONITORING & MAINTENANCE SUMMARY REPORT

TECUMSEH LACKAWANNA SITE
LACKAWANNA, NEW YORK

PREPARED FOR
TECUMSEH REDEVELOPMENT INC.

FIGURE 3

F:\CAD\TurnKey\Tecumseh Redevelopment\Corrective Measures\ATP-ECM\ATP Pretreatment System O&M\Performance Monitoring Reports\2020\Figure 4; Isopotential Map (July 2020).dwg, 3/3/2021 5:43:03 PM



LEGEND:

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200' 0' 200' 400'

SCALE: 1 INCH = 200 FEET
SCALE IN FEET
(approximate)

N

DATE: MARCH 2020
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JOB NO.: 0071-020-222

ISOPOTENTIAL MAP - JULY 2020

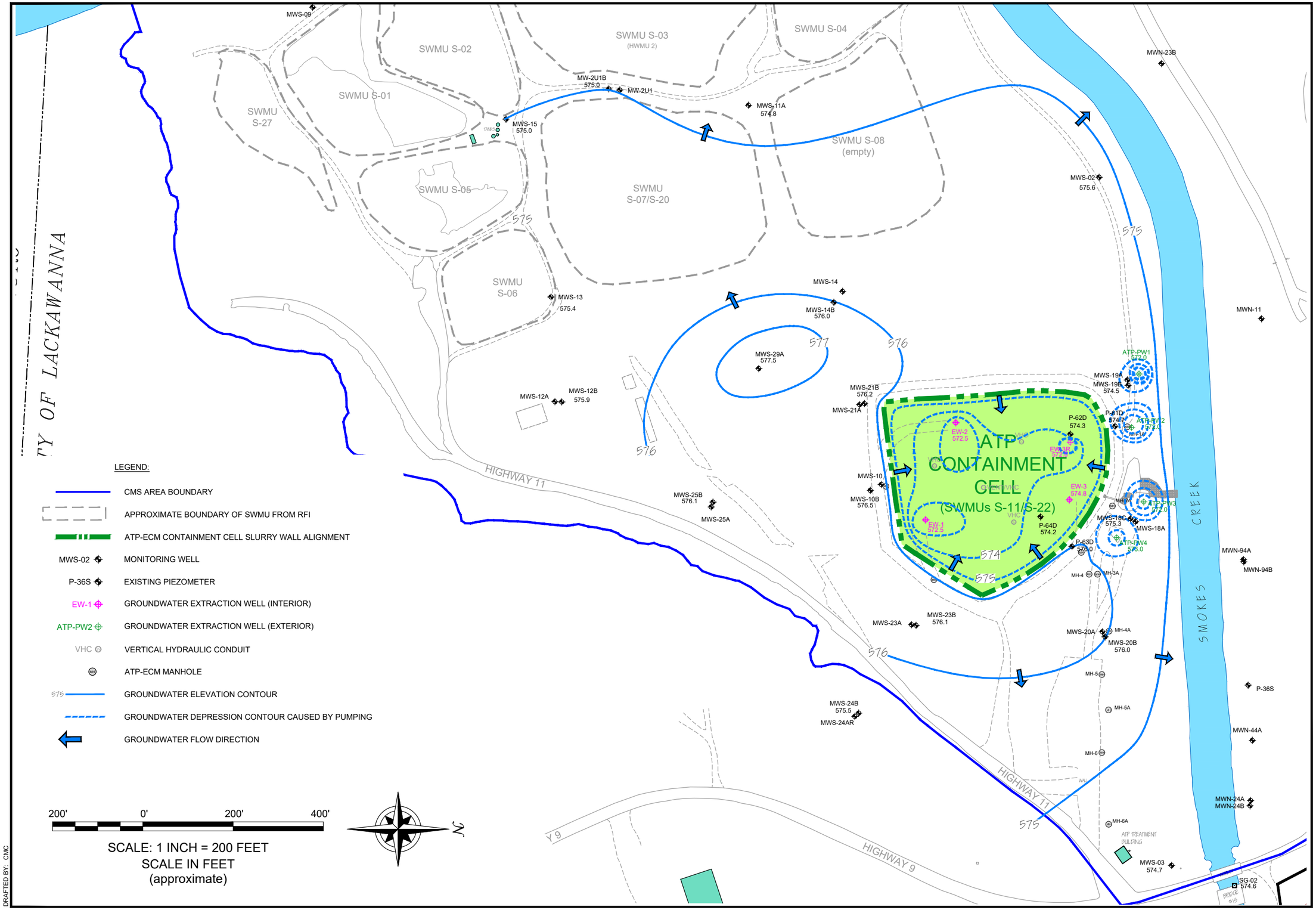
ANNUAL MONITORING & MAINTENANCE SUMMARY REPORT

TECUMSEH LACKAWANNA SITE
LACKAWANNA, NEW YORK

PREPARED FOR
TECUMSEH REDEVELOPMENT INC.

FIGURE 4

F:\CAD\TurnKey\Tecumseh Redevelopment\Corrective Measures\ATP-ECM\ATP Pretreatment System O&M\Performance Monitoring Reports\2020\Figure 5, Isopotential Map (November 2020).dwg, 3/3/2021 5:44:54 PM



LEGEND:

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200' 0' 200' 400'

SCALE: 1 INCH = 200 FEET
SCALE IN FEET
(approximate)

DATE: MARCH 2020
DRAFTED BY: CMC

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TURNKEY ENVIRONMENTAL RESTORATION, LLC

JOB NO.: 0071-020-222

ISOPOTENTIAL MAP - NOVEMBER 2020

ANNUAL MONITORING & MAINTENANCE SUMMARY REPORT

TECUMSEH LACKAWANNA SITE
LACKAWANNA, NEW YORK

PREPARED FOR
TECUMSEH REDEVELOPMENT INC.

FIGURE 5

ATTACHMENT 1

2020 REPORTS TO ERIE COUNTY SEWER DISTRICT NO. 6

TURNKEY

April 28, 2020

Ms. Laura Surdej
Erie County Sewer/Southtown's Sewage Treatment Plant
2060 Lehigh St
Lackawanna, NY 14218

Re: ECSD No.6 Discharge Permit LA-03 –Semi-Annual Report (October 2019 – April 2020)
Lackawanna, New York

Dear Ms. Surdej:

TurnKey Environmental Restoration, LLC (TurnKey) has prepared this correspondence on behalf of our client, Tecumseh Redevelopment Inc., in accordance with Erie County Sewer District No. 6 (ECSD No. 6) Permit No. LA-03, effective July 1, 2018. As required by the permit, this semi-annual report summarizes flow, pH and compliance sample results for the report period from October 30, 2019 through April 2020.

Turnkey personnel recorded totalizer (total gallons) and pH readings weekly during the reporting period. Table 1 summarizes the total volume (gallons), calculated daily flow (gallons per day) and pH readings.

On April 17, 2020 TurnKey personnel collected an effluent (outfall) water sample and submitted the sample under chain-of-custody command to Alpha Analytical for laboratory analysis in accordance with the discharge permit. Table 2 summarizes the analytical results; Attachment 1 contains the Laboratory Analytical Report. As indicated on Table 2 all parameter detections meet corresponding permitted discharge limits.

As of April 24, 2020 a total of 10,328,157 gallons of water has been pre-treated and discharged to the ECSD No.6 collection and conveyance system. The calculated daily flow for the reporting period has ranged between 198 and 6,471 GPD, well below permitted flows of up to 45,000 GPD. The pH readings have been between 5.77 and 7.19 standard units, with a permitted operating range of 5 and 12 standard units.

Please contact us if you have any questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Thomas H. Forbes, P.E.
Principal Engineer

File: 0071-019-222

TABLES

TABLE 1

SUMMARY OF EFFLUENT FLOW AND pH

ATP GROUNDWATER PRE-TREATMENT SYSTEM
Tecumseh Redevelopment, Inc.
Lackawanna, New York

Date	Totalizer (gallons)	Total Gallons this event	Calculated GPD (gallons/day)	pH
Permit Limits:			**45,000 GPD**	**5-12**
10/25/19	9,870,574	44,402	6,343	6.15
11/1/19	9,902,192	31,618	5,270	6.38
11/8/19	9,947,492	45,300	6,471	6.59
11/15/19	9,983,387	35,895	5,128	6.43
11/22/19	10,018,483	35,096	5,014	6.53
11/29/19	10,049,859	31,376	4,482	6.37
12/5/19	10,066,786	16,927	2,821	6.31
12/14/19	10,083,495	16,709	1,857	6.04
12/20/19	10,092,044	8,549	1,425	6.30
12/27/19	10,110,198	18,154	2,593	6.06
1/3/20	10,126,721	16,523	2,754	6.02
1/10/20	10,140,477	13,756	1,965	6.03
1/17/20	10,151,427	10,950	1,564	5.97
1/24/20	10,161,392	9,965	1,424	6.35
1/31/20	10,169,748	18,321	2,617	6.08
2/7/20	10,172,113	2,365	338	5.94
2/14/20	10,173,499	1,386	198	5.91
2/21/20	10,181,589	8,090	1,156	5.79
2/28/20	10,199,053	17,464	2,495	5.77
3/6/20	10,214,726	15,673	1,959	6.95
3/13/20	10,230,647	15,921	2,274	5.99
3/20/20	10,248,480	17,833	2,548	6.78
3/28/20	10,267,995	19,515	2,439	6.57
4/3/20	10,284,436	16,441	3,288	7.19
4/11/20	10,289,953	5,517	690	7.15
4/16/20	10,307,277	17,324	3,465	6.93
4/24/20	10,328,157	20,880	2,610	6.99

TABLE 2

SUMMARY OF EFFLUENT WATER ANALYTICAL DATA

ATP GROUNDWATER PRE-TREATMENT SYSTEM
Tecumseh Redevelopment, Inc.
Lackawanna, New York

Parameter [1]	Effluent	Discharge Permit Limitations [2]
	04/17/20	
Volatile Organic Compounds (VOCs - Method 624) - mg/L		
2-Butanone	0.0012 J	--
4-Methyl-2-pentanone	0.00033 J	--
Acetone	0.009 J	--
Benzene	0.0013	--
TOTAL VOCs (mg/L)	**0.01183**	--
Metal Compounds (Method 200.7 Rev 4.4) - mg/L [3]		
Arsenic	0.01	**Monitor**
Barium	0.027	**Monitor**
Chromium	0.008 J	**Monitor**
Copper	0.002 J	**Monitor**
Iron	63.1	**Monitor**
Nickel	0.004 J	**Monitor**
General Chemistry - mg/L		
Cyanide, Total	0.469	**Monitor**
Ammonia (as N)	39.5	**Monitor**
Phenolics, Total Recoverable	0.088	**Monitor**
Sulfate	1700	**Monitor**
pH	6	**5-12**
Total Toxic Organic Pollutants (TTO) [4]	0.0118	**2.13**

Notes:

1. Only those parameters detected are presented in this table; all others were reported as non-detect.
2. Per Erie County Sewer District No. 6 Discharge Permit LA-03 (July 2018)
3. Metals include Ag, As, Ba, Be, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Sb, Se, Ti, and Zn
4. TTO is determined by totaling the reported compound concentrations detected via EPA Method 624.1

Definitions:

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

ATTACHMENT 1

Laboratory Data

TURNKEY

ANALYTICAL REPORT

Lab Number:	L2016281
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	ATP PRETREATMENT SYSTEM
Project Number:	T0071-020-222
Report Date:	04/24/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ATP PRETREATMENT SYSTEM
Project Number: T0071-020-222

Lab Number: L2016281
Report Date: 04/24/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2016281-01	EFFLUENT	WATER	BUFFALO,NY	04/17/20 10:00	04/17/20

Project Name:	ATP PRETREATMENT SYSTEM	**Lab Number:**	L2016281
Project Number:	T0071-020-222	**Report Date:**	04/24/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	ATP PRETREATMENT SYSTEM	**Lab Number:**	L2016281
Project Number:	T0071-020-222	**Report Date:**	04/24/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 04/24/20

ORGANICS

VOLATILES

Project Name: ATP PRETREATMENT SYSTEM **Lab Number:** L2016281

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016281-01
Client ID: EFFLUENT
Sample Location: BUFFALO,NY

Date Collected: 04/17/20 10:00
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/20/20 14:29
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
Trichlorofluoromethane	ND		ug/l	5.0	0.28	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	1.3		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17	1

Project Name: ATP PRETREATMENT SYSTEM **Lab Number:** L2016281

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016281-01 Date Collected: 04/17/20 10:00

Client ID: EFFLUENT Date Received: 04/17/20

Sample Location: BUFFALO,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
p/m-Xylene	ND		ug/l	2.0	0.30	1
o-xylene	ND		ug/l	1.0	0.34	1
Xylenes, Total	ND		ug/l	1.0	0.30	1
Styrene	ND		ug/l	1.0	0.37	1
Acetone	9.0	J	ug/l	10	2.4	1
Carbon disulfide	ND		ug/l	5.0	0.28	1
2-Butanone	1.2	J	ug/l	10	1.0	1
Vinyl acetate	ND		ug/l	10	0.41	1
4-Methyl-2-pentanone	0.33	J	ug/l	10	0.19	1
2-Hexanone	ND		ug/l	10	0.55	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1
Dibromomethane	ND		ug/l	1.0	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	102		60-140
Fluorobenzene	101		60-140
4-Bromofluorobenzene	99		60-140

Project Name: ATP PRETREATMENT SYSTEM **Lab Number:** L2016281

Project Number: T0071-020-222 **Report Date:** 04/24/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 04/20/20 12:07
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1363076-4					
Methylene chloride	ND		ug/l	1.0	0.56
1,1-Dichloroethane	ND		ug/l	1.5	0.40
Chloroform	ND		ug/l	1.0	0.38
Carbon tetrachloride	ND		ug/l	1.0	0.24
1,2-Dichloropropane	ND		ug/l	3.5	0.46
Dibromochloromethane	ND		ug/l	1.0	0.27
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34
2-Chloroethylvinyl ether	ND		ug/l	10	0.35
Tetrachloroethene	ND		ug/l	1.0	0.26
Chlorobenzene	ND		ug/l	3.5	0.30
Trichlorofluoromethane	ND		ug/l	5.0	0.28
1,2-Dichloroethane	ND		ug/l	1.5	0.47
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29
Bromodichloromethane	ND		ug/l	1.0	0.28
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34
Bromoform	ND		ug/l	1.0	0.22
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20
Benzene	ND		ug/l	1.0	0.38
Toluene	ND		ug/l	1.0	0.31
Ethylbenzene	ND		ug/l	1.0	0.28
Chloromethane	ND		ug/l	5.0	1.0
Bromomethane	ND		ug/l	5.0	1.2
Vinyl chloride	ND		ug/l	1.0	0.38
Chloroethane	ND		ug/l	2.0	0.37
1,1-Dichloroethene	ND		ug/l	1.0	0.31
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17
Trichloroethene	ND		ug/l	1.0	0.33

Project Name: ATP PRETREATMENT SYSTEM **Lab Number:** L2016281

Project Number: T0071-020-222 **Report Date:** 04/24/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 04/20/20 12:07
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1363076-4					
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29
p/m-Xylene	ND		ug/l	2.0	0.30
o-xylene	ND		ug/l	1.0	0.34
Xylenes, Total	ND		ug/l	1.0	0.30
Styrene	ND		ug/l	1.0	0.37
Acetone	ND		ug/l	10	2.4
Carbon disulfide	ND		ug/l	5.0	0.28
2-Butanone	ND		ug/l	10	1.0
Vinyl acetate	ND		ug/l	10	0.41
4-Methyl-2-pentanone	ND		ug/l	10	0.19
2-Hexanone	ND		ug/l	10	0.55
Acrolein	ND		ug/l	8.0	1.8
Acrylonitrile	ND		ug/l	10	0.33
Dibromomethane	ND		ug/l	1.0	0.23

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	103		60-140
Fluorobenzene	101		60-140
4-Bromofluorobenzene	99		60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM

Project Number: T0071-020-222

Lab Number: L2016281

Report Date: 04/24/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1363076-3								
Methylene chloride	100		-		60-140	-		28
1,1-Dichloroethane	95		-		50-150	-		49
Chloroform	100		-		70-135	-		54
Carbon tetrachloride	105		-		70-130	-		41
1,2-Dichloropropane	100		-		35-165	-		55
Dibromochloromethane	100		-		70-135	-		50
1,1,2-Trichloroethane	100		-		70-130	-		45
2-Chloroethylvinyl ether	90		-		1-225	-		71
Tetrachloroethene	110		-		70-130	-		39
Chlorobenzene	100		-		65-135	-		53
Trichlorofluoromethane	100		-		50-150	-		84
1,2-Dichloroethane	100		-		70-130	-		49
1,1,1-Trichloroethane	110		-		70-130	-		36
Bromodichloromethane	105		-		65-135	-		56
trans-1,3-Dichloropropene	100		-		50-150	-		86
cis-1,3-Dichloropropene	100		-		25-175	-		58
Bromoform	100		-		70-130	-		42
1,1,2,2-Tetrachloroethane	105		-		60-140	-		61
Benzene	105		-		65-135	-		61
Toluene	110		-		70-130	-		41
Ethylbenzene	110		-		60-140	-		63
Chloromethane	90		-		1-205	-		60
Bromomethane	80		-		15-185	-		61

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM

Project Number: T0071-020-222

Lab Number: L2016281

Report Date: 04/24/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1363076-3								
Vinyl chloride	95		-		5-195	-		66
Chloroethane	105		-		40-160	-		78
1,1-Dichloroethene	100		-		50-150	-		32
trans-1,2-Dichloroethene	105		-		70-130	-		45
cis-1,2-Dichloroethene	110		-		60-140	-		30
Trichloroethene	105		-		65-135	-		48
1,2-Dichlorobenzene	100		-		65-135	-		57
1,3-Dichlorobenzene	100		-		70-130	-		43
1,4-Dichlorobenzene	100		-		65-135	-		57
p/m-Xylene	112		-		60-140	-		30
o-xylene	105		-		60-140	-		30
Styrene	110		-		60-140	-		30
Acetone	94		-		40-160	-		30
Carbon disulfide	95		-		60-140	-		30
2-Butanone	94		-		60-140	-		30
Vinyl acetate	122		-		60-140	-		30
4-Methyl-2-pentanone	104		-		60-140	-		30
2-Hexanone	106		-		60-140	-		30
Acrolein	98		-		60-140	-		30
Acrylonitrile	100		-		60-140	-		60
Dibromomethane	95		-		70-130	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM

Project Number: T0071-020-222

Lab Number: L2016281

Report Date: 04/24/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1363076-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	108				60-140
Fluorobenzene	103				60-140
4-Bromofluorobenzene	104				60-140

METALS

Project Name: ATP PRETREATMENT SYSTEM **Lab Number:** L2016281

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016281-01 Date Collected: 04/17/20 10:00

Client ID: EFFLUENT Date Received: 04/17/20

Sample Location: BUFFALO,NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.864		mg/l	0.100	0.032	1	04/19/20 11:30	04/24/20 07:59	EPA 3005A	19,200.7	LC
Antimony, Total	ND		mg/l	0.050	0.007	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Arsenic, Total	0.010		mg/l	0.005	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Barium, Total	0.027		mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Beryllium, Total	ND		mg/l	0.005	0.001	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Calcium, Total	570		mg/l	0.100	0.035	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Chromium, Total	0.008	J	mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Cobalt, Total	0.004	J	mg/l	0.020	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Copper, Total	0.002	J	mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Iron, Total	63.1		mg/l	0.050	0.009	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Lead, Total	ND		mg/l	0.010	0.003	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Magnesium, Total	96.2		mg/l	0.100	0.015	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Manganese, Total	9.23		mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Mercury, Total	ND		mg/l	0.00020	0.00009	1	04/19/20 12:15	04/20/20 11:45	EPA 245.1	3,245.1	GD
Nickel, Total	0.004	J	mg/l	0.025	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Potassium, Total	102		mg/l	2.50	0.237	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Selenium, Total	ND		mg/l	0.010	0.004	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Silver, Total	ND		mg/l	0.007	0.003	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Sodium, Total	172		mg/l	2.00	0.120	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Thallium, Total	ND		mg/l	0.020	0.003	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Vanadium, Total	0.009	J	mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC
Zinc, Total	ND		mg/l	0.050	0.002	1	04/19/20 11:30	04/23/20 10:37	EPA 3005A	19,200.7	LC

Project Name: ATP PRETREATMENT SYSTEM **Lab Number:** L2016281

Project Number: T0071-020-222 **Report Date:** 04/24/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1362452-1										
Aluminum, Total	ND		mg/l	0.100	0.032	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Antimony, Total	ND		mg/l	0.050	0.007	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Arsenic, Total	ND		mg/l	0.005	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Barium, Total	ND		mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Beryllium, Total	ND		mg/l	0.005	0.001	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Calcium, Total	ND		mg/l	0.100	0.035	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Chromium, Total	ND		mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Cobalt, Total	ND		mg/l	0.020	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Copper, Total	ND		mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Iron, Total	ND		mg/l	0.050	0.009	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Lead, Total	ND		mg/l	0.010	0.003	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Magnesium, Total	ND		mg/l	0.100	0.015	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Manganese, Total	ND		mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Nickel, Total	ND		mg/l	0.025	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Potassium, Total	ND		mg/l	2.50	0.237	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Selenium, Total	ND		mg/l	0.010	0.004	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Silver, Total	ND		mg/l	0.007	0.003	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Sodium, Total	ND		mg/l	2.00	0.120	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Thallium, Total	ND		mg/l	0.020	0.003	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Vanadium, Total	ND		mg/l	0.010	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC
Zinc, Total	ND		mg/l	0.050	0.002	1	04/19/20 11:30	04/23/20 08:24	19,200.7	LC

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1362454-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	04/19/20 12:15	04/20/20 11:41	3,245.1	GD

Project Name: ATP PRETREATMENT SYSTEM **Lab Number:** L2016281

Project Number: T0071-020-222 **Report Date:** 04/24/20

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM

Project Number: T0071-020-222

Lab Number: L2016281

Report Date: 04/24/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1362452-2								
Aluminum, Total	108		-		85-115	-		
Antimony, Total	102		-		85-115	-		
Arsenic, Total	110		-		85-115	-		
Barium, Total	102		-		85-115	-		
Beryllium, Total	104		-		85-115	-		
Cadmium, Total	105		-		85-115	-		
Calcium, Total	107		-		85-115	-		
Chromium, Total	104		-		85-115	-		
Cobalt, Total	103		-		85-115	-		
Copper, Total	98		-		85-115	-		
Iron, Total	112		-		85-115	-		
Lead, Total	106		-		85-115	-		
Magnesium, Total	108		-		85-115	-		
Manganese, Total	98		-		85-115	-		
Nickel, Total	102		-		85-115	-		
Potassium, Total	108		-		85-115	-		
Selenium, Total	115		-		85-115	-		
Silver, Total	103		-		85-115	-		
Sodium, Total	109		-		85-115	-		
Thallium, Total	106		-		85-115	-		
Vanadium, Total	103		-		85-115	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM

Project Number: T0071-020-222

Lab Number: L2016281

Report Date: 04/24/20

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1362452-2					
Zinc, Total	108	-	85-115	-	
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1362454-2					
Mercury, Total	105	-	85-115	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM
Project Number: T0071-020-222

Lab Number: L2016281
Report Date: 04/24/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362452-3 QC Sample: L2016311-01 Client ID: MS Sample												
Aluminum, Total	9.41	2	11.6	110		-	-		75-125	-		20
Antimony, Total	0.020J	0.5	0.470	94		-	-		75-125	-		20
Arsenic, Total	0.005J	0.12	0.135	112		-	-		75-125	-		20
Barium, Total	0.207	2	2.17	98		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.052	103		-	-		75-125	-		20
Cadmium, Total	0.008	0.051	0.059	100		-	-		75-125	-		20
Calcium, Total	83.0	10	93.7	107		-	-		75-125	-		20
Chromium, Total	0.056	0.2	0.255	99		-	-		75-125	-		20
Cobalt, Total	0.013J	0.5	0.510	102		-	-		75-125	-		20
Copper, Total	0.673	0.25	0.916	97		-	-		75-125	-		20
Iron, Total	24.5	1	24.2	**0**	Q	-	-		75-125	-		20
Lead, Total	0.636	0.51	1.15	101		-	-		75-125	-		20
Magnesium, Total	11.4	10	21.5	101		-	-		75-125	-		20
Manganese, Total	0.686	0.5	1.15	93		-	-		75-125	-		20
Nickel, Total	0.096	0.5	0.587	98		-	-		75-125	-		20
Potassium, Total	17.9	10	28.8	109		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.120	100		-	-		75-125	-		20
Silver, Total	ND	0.05	0.052	103		-	-		75-125	-		20
Sodium, Total	74.0	10	85.4	114		-	-		75-125	-		20
Thallium, Total	ND	0.12	0.118	98		-	-		75-125	-		20
Vanadium, Total	0.033	0.5	0.536	101		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM
Project Number: T0071-020-222

Lab Number: L2016281
Report Date: 04/24/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362452-3 QC Sample: L2016311-01 Client ID: MS Sample									
Zinc, Total	2.21	0.5	2.70	98	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM
Project Number: T0071-020-222

Lab Number: L2016281
Report Date: 04/24/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362452-7 QC Sample: L2016311-02 Client ID: MS Sample										
Aluminum, Total	15.6	2	19.4	**190**	Q	-	-	75-125	-	20
Antimony, Total	0.019J	0.5	0.396	79		-	-	75-125	-	20
Arsenic, Total	0.011	0.12	0.125	95		-	-	75-125	-	20
Barium, Total	0.313	2	2.27	98		-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.051	101		-	-	75-125	-	20
Cadmium, Total	0.017	0.051	0.068	99		-	-	75-125	-	20
Calcium, Total	73.4	10	84.1	107		-	-	75-125	-	20
Chromium, Total	0.095	0.2	0.301	103		-	-	75-125	-	20
Cobalt, Total	0.025	0.5	0.513	98		-	-	75-125	-	20
Copper, Total	1.40	0.25	1.70	120		-	-	75-125	-	20
Iron, Total	40.2	1	45.0	**480**	Q	-	-	75-125	-	20
Lead, Total	1.43	0.51	1.96	104		-	-	75-125	-	20
Magnesium, Total	12.1	10	23.1	110		-	-	75-125	-	20
Manganese, Total	1.02	0.5	1.52	100		-	-	75-125	-	20
Nickel, Total	0.169	0.5	0.658	98		-	-	75-125	-	20
Potassium, Total	15.2	10	26.2	110		-	-	75-125	-	20
Selenium, Total	ND	0.12	0.104	87		-	-	75-125	-	20
Silver, Total	0.003J	0.05	0.050	101		-	-	75-125	-	20
Sodium, Total	49.9	10	60.7	108		-	-	75-125	-	20
Thallium, Total	ND	0.12	0.115	96		-	-	75-125	-	20
Vanadium, Total	0.049	0.5	0.547	100		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM
Project Number: T0071-020-222

Lab Number: L2016281
Report Date: 04/24/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362452-7 QC Sample: L2016311-02 Client ID: MS Sample									
Zinc, Total	4.89	0.5	5.45	112	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362454-3 QC Sample: L2016281-01 Client ID: EFFLUENT									
Mercury, Total	ND	0.005	0.00487	98	-	-	70-130	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM

Project Number: T0071-020-222

Lab Number: L2016281

Report Date: 04/24/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362452-4 QC Sample: L2016311-01 Client ID: DUP Sample						
Aluminum, Total	9.41	9.41	mg/l	0		20
Iron, Total	24.5	24.6	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362452-8 QC Sample: L2016311-02 Client ID: DUP Sample						
Iron, Total	40.2	48.6	mg/l	19		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362452-8 QC Sample: L2016311-02 Client ID: DUP Sample						
Aluminum, Total	15.6	18.8	mg/l	19		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1362454-4 QC Sample: L2016281-01 Client ID: EFFLUENT						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: ATP PRETREATMENT SYSTEM
Project Number: T0071-020-222
Lab Number: L2016281
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016281-01
Client ID: EFFLUENT
Sample Location: BUFFALO,NY
Sample Depth:
Matrix: Water

Date Collected: 04/17/20 10:00
Date Received: 04/17/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.469		mg/l	0.005	0.001	1	04/20/20 11:10	04/20/20 14:01	121,4500CN-CE	LH
pH (H)	6.0		SU	-	NA	1	-	04/20/20 12:09	121,4500H+-B	AA
Nitrogen, Ammonia	39.5		mg/l	0.750	0.240	10	04/20/20 09:43	04/21/20 21:23	121,4500NH3-BH	AT
Sulfate	1700		mg/l	500	68.	50	04/20/20 10:11	04/20/20 10:11	121,4500SO4-E	MV
Phenolics, Total	0.088		mg/l	0.030	0.006	1	04/20/20 05:10	04/20/20 08:38	4,420.1	MV

Project Name: ATP PRETREATMENT SYSTEM **Lab Number:** L2016281

Project Number: T0071-020-222 **Report Date:** 04/24/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1362538-1										
Phenolics, Total	ND		mg/l	0.030	0.006	1	04/20/20 05:10	04/20/20 08:06	4,420.1	MV
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1362541-1										
Sulfate	1.4	J	mg/l	10	1.4	1	04/20/20 10:11	04/20/20 10:11	121,4500SO4-E	MV
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1362597-1										
Nitrogen, Ammonia	0.035	J	mg/l	0.075	0.024	1	04/20/20 09:43	04/21/20 20:46	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1362639-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/20/20 11:10	04/20/20 13:11	121,4500CN-CE	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM

Project Number: T0071-020-222

Lab Number: L2016281

Report Date: 04/24/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1362538-2								
Phenolics, Total	88		-		70-130	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1362541-2								
Sulfate	95		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1362597-2								
Nitrogen, Ammonia	96		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1362639-2								
Cyanide, Total	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1362677-2								
pH	100		-		99-101	-		5

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM
Project Number: T0071-020-222

Lab Number: L2016281
Report Date: 04/24/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362538-4 QC Sample: L2016131-01 Client ID: MS Sample												
Phenolics, Total	0.009J	0.4	0.34	85		-	-		70-130	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362541-4 QC Sample: L2016278-01 Client ID: MS Sample												
Sulfate	37.	40	76	98		-	-		55-147	-		14
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362597-4 QC Sample: L2016168-07 Client ID: MS Sample												
Nitrogen, Ammonia	0.052J	4	3.66	92		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362639-5 QC Sample: L2016292-02 Client ID: MS Sample												
Cyanide, Total	0.006	0.2	0.206	100		-	-		90-110	-		30

Lab Duplicate Analysis

Batch Quality Control

Project Name: ATP PRETREATMENT SYSTEM

Project Number: T0071-020-222

Lab Number: L2016281

Report Date: 04/24/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362538-3 QC Sample: L2016131-01 Client ID: DUP Sample						
Phenolics, Total	0.009J	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362541-3 QC Sample: L2016278-01 Client ID: DUP Sample						
Sulfate	37.	36	mg/l	3		14
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362597-3 QC Sample: L2016168-07 Client ID: DUP Sample						
Nitrogen, Ammonia	0.052J	0.066J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362639-4 QC Sample: L2016292-01 Client ID: DUP Sample						
Cyanide, Total	0.010	0.015	mg/l	**38**	Q	30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1362677-1 QC Sample: L2016281-01 Client ID: EFFLUENT						
pH (H)	6.0	6.0	SU	0		5

Project Name: ATP PRETREATMENT SYSTEM
Project Number: T0071-020-222

Lab Number: L2016281
Report Date: 04/24/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2016281-01A	Vial Na2S2O3 preserved	A	NA		6.0	Y	Absent		624.1(3)
L2016281-01B	Vial Na2S2O3 preserved	A	NA		6.0	Y	Absent		624.1(3)
L2016281-01C	Vial Na2S2O3 preserved	A	NA		6.0	Y	Absent		624.1(3)
L2016281-01D	Plastic 250ml HNO3 preserved	A	<2	<2	6.0	Y	Absent		BA-UI(180),SB-UI(180),NI-UI(180),AG-UI(180),CA-UI(180),ZN-UI(180),K-UI(180),CO-UI(180),FE-UI(180),SE-UI(180),MG-UI(180),HG-U(28),CD-UI(180),AL-UI(180),NA-UI(180),BE-UI(180),CR-UI(180),MN-UI(180),PB-UI(180),V-UI(180),CU-UI(180),AS-UI(180),TL-UI(180)
L2016281-01E	Plastic 250ml NaOH preserved	A	>12	>12	6.0	Y	Absent		TCN-4500(14)
L2016281-01F	Plastic 500ml unpreserved	A	7	7	6.0	Y	Absent		SO4-4500(28),PH-4500(.01)
L2016281-01G	Plastic 500ml H2SO4 preserved	A	<2	<2	6.0	Y	Absent		NH3-4500(28)
L2016281-01H	Amber 1000ml H2SO4 preserved	A	<2	<2	6.0	Y	Absent		NY-TPHENOL-420(28)

*Values in parentheses indicate holding time in days

Project Name:	ATP PRETREATMENT SYSTEM	**Lab Number:**	L2016281
Project Number:	T0071-020-222	**Report Date:**	04/24/20

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP PRETREATMENT SYSTEM	**Lab Number:**	L2016281
Project Number:	T0071-020-222	**Report Date:**	04/24/20

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP PRETREATMENT SYSTEM	**Lab Number:**	L2016281
Project Number:	T0071-020-222	**Report Date:**	04/24/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP PRETREATMENT SYSTEM	**Lab Number:**	L2016281
Project Number:	T0071-020-222	**Report Date:**	04/24/20

REFERENCES

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 4/18/20

ALPHA Job #: L2016281

Client Information
Client: Turnkey Environmental
Address: 2558 Hamburg Turnpike, Buffalo NY
Phone: 716-856-0599
Fax:
Email: bgreene@hm-tk.com

Project Information
Project Name: ATP Pretreatment System
Project Location: Buffalo, NY
Project # T0071-020-222
(Use Project name as Project #)
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard [X] Due Date:
Rush (only if pre approved) [ ] # of Days:

Deliverables
[ ] ASP-A [ ] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement
[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information
[ ] Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	624.1	NH_3	Total Hg Total Metals	pH, SO_4	TCN	TPhenol			Sample Specific Comments	Total Bottle
16281-01	Effluent	4-17-20	1000	Water	CEH	X	X	X	X	X	X				9

Container Type	V	P	P	P	P	A		
Preservative	H	D	C	A	E	D		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4-17-20 1200	[signature]	4/17/20 1600
[signature]	4/17/20 1630	[signature]	4/18/20 08:40

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

October 30, 2020

Ms. Laura Surdej
Erie County Sewer/Southtown's Sewage Treatment Plant
260 Lehigh Ave
Lackawanna, NY 14218

Re: ECSD No.6 Discharge Permit LA-03 –Semi-Annual Report (May 2020 – October 2020) Lackawanna, New York

Dear Ms. Surdej:

TurnKey Environmental Restoration, LLC (TurnKey) has prepared this correspondence on behalf of our client, Tecumseh Redevelopment Inc., in accordance with Erie County Sewer District No. 6 (ECSD No. 6) Permit No. LA-03, effective July 1, 2018. As required by the permit, this semi-annual report summarizes flow, pH, and compliance sample results for the report period from May 1, 2020 through October 2020.

Turnkey personnel recorded totalizer (total gallons) and pH readings weekly during the reporting period. Table 1 summarizes the total volume (gallons), calculated daily flow (gallons per day) and pH readings measured from the date of our last semi-annual report to present. On September 18, 2020, it was determined that the pH probe was malfunctioning, so the system was de-energized pending procurement of a new probe. The system was restarted on September 25, 2020 but required further adjustment and was temporarily shut down until September 30, 2020, at which time it was restarted and has been operating properly ever since.

On October 13, 2020 TurnKey personnel collected an effluent (outfall) water sample and submitted the sample under chain-of-custody command to Alpha Analytical for laboratory analysis in accordance with the discharge permit. It was noted that the bottle set did not include oil and grease, therefore on October 26, 2020 TurnKey personnel collected an effluent (outfall) water sample for the missing oil and grease analyte and submitted the sample under chain-of-custody command to Alpha Analytical for laboratory analysis in accordance with the discharge permit. Table 2 summarizes the analytical results; Attachment 1 contains the Laboratory Analytical Reports. As indicated, all parameters meet corresponding permitted discharge limits.

As of October 23, 2020, a total of 10,715,400 gallons of water has been pre-treated and discharged to the ECSD No.6 collection and conveyance system. The calculated daily flow for the subject reporting period has ranged between 726 and 6,471 GPD, well below permitted flows of up to 45,000 GPD. The flow meter was subjected to third party annual calibration on August 12, 2020. The calibration certificate is presented as Attachment 2. The

pH readings have been between 5.7 and 7.9 standard units, with a permitted operating range of 5 and 12 standard units.

Please contact us if you have any questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Thomas H. Forbes, P.E.
Principal Engineer

File: 0071-020-222

TABLES

TABLE 1

SUMMARY OF EFFLUENT FLOW AND pH

ATP GROUNDWATER PRE-TREATMENT SYSTEM
Tecumseh Redevelopment, Inc.
Lackawanna, New York

Date	Totalizer (gallons)	Total Gallons this event	Calculated GPD (gallons/day)	pH
Permit Limits:			**45,000 GPD**	**5-12**
5/1/20	10,348,605	20,448	2,921	6.90
5/8/20	10,365,398	16,793	2,399	6.96
5/15/20	10,385,394	19,996	2,857	6.99
5/22/20	10,403,849	18,455	2,636	6.91
5/29/20	10,422,363	18,514	2,645	7.03
6/6/20	10,441,312	18,949	2,707	6.99
6/12/20	10,459,345	18,033	3,006	6.57
6/19/20	10,467,044	7,699	1,100	7.10
6/26/20	10,486,467	19,423	2,775	7.25
7/3/20	10,501,354	14,887	2,127	7.54
7/10/20	10,509,223	7,869	1,124	7.79
7/17/20	10,526,508	17,285	2,469	7.17
7/24/20	10,543,710	17,202	2,457	6.25
7/31/20	10,566,133	22,423	3,203	6.40
8/7/20	10,586,675	42,965	6,138	6.01
8/14/20	10,603,819	17,144	2,449	5.87
8/21/20	10,616,718	12,899	1,843	6.42
8/28/20	10,629,568	12,850	1,836	5.71
9/4/20	10,643,193	13,625	2,271	6.43
9/11/20	10,655,607	12,414	1,773	5.79
9/18/20	10,667,844	12,237	1,748	NA
9/25/20	10,668,417	573	82	5.80
10/2/20	10,673,501	5,084	363	6.10
10/9/20	10,688,506	15,005	2,144	5.60
10/16/20	10,701,637	13,131	1,876	5.72
10/26/20	10,715,400	13,763	1,376	5.70

System was shutdown for a week after 9/18/20 awaiting a new pH probe.

TABLE 2

SUMMARY OF EFFLUENT WATER ANALYTICAL DATA

ATP GROUNDWATER PRE-TREATMENT SYSTEM
Tecumseh Redevelopment, Inc.
Lackawanna, New York

Parameter [1]	Effluent 10/13/20	Discharge Permit Limitations [2]
Volatile Organic Compounds (VOCs - Method 624) - mg/L		
Acetone	0.0049 J	--
TOTAL VOCs (mg/L)	**0.0049**	--
Semi-Volatile Organic Compounds (SVOCs - Method 625) - mg/L		
2,4-Dimethylphenol	0.00654	--
Phenol	0.00728	--
Naphthalene	0.00175 J	--
TOTAL SVOCs (mg/L)	**0.01557 J**	--
Polychlorinated Biphenyls (PCBs) (Method 608)- mg/L		
All Compounds Non-Detect		--
Organochlorine Pesticide Compounds (Method 608) - mg/L		
All Compounds Non-Detect		--
Metal Compounds (Method 200.7 Rev 4.4) - mg/L [3]		
Arsenic	0.008	**Monitor**
Barium	0.027	**Monitor**
Cadmium	0.002 J	**Monitor**
Chromium	0.005 J	**Monitor**
Iron	60.8	**Monitor**
Selenium	0.007 J	**Monitor**
Titanium	0.006 J	**Monitor**
General Chemistry - mg/L		
Cyanide, Total	0.668	**Monitor**
Ammonia (as N)	35.3	**Monitor**
Phenolics, Total Recoverable	0.24	**Monitor**
Sulfate	1710	**Monitor**
Oil & Grease	6.2	**100**
pH[4]	6.9	**5-12**
Total Toxic Organic Pollutants (TTO) [5]	0.02	**2.13**

Notes:

1. Only those parameters detected are presented in this table; all others were reported as non-detect.
2. Per the July 2018 Erie County Sewer District No. 6 Discharge Permit LA-03
3. Metals include Ag, As, Ba, Be, Cd, Cr, Fe, Cu, Hg, Ni, Pb, Sb, Se, Ti, and Zn
4. The original lab pH data analyzed on 10/14/20 was reported as 12.9, which was highly inconsistent with system in-line pH meter reading of 5.7 and a portable field meter reading of 6.0. The lab same sample was reanalyzed on 10/21/20 with a result of 6.9 which is deemed correct based upon the highly anomalous nature of the initial result.
5. TTO is determined by totaling the reported compound concentrations detected via EPA Methods 608, 624, & 625.

Definitions:

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

ATTACHMENT 1

Laboratory Data

ANALYTICAL REPORT

Lab Number:	L2043913
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Tom Forbes
Phone:	(716) 856-0599
Project Name:	ATP PRE-TREATMENT OM&M
Project Number:	T007-019-222
Report Date:	10/20/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222

Lab Number: L2043913
Report Date: 10/20/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2043913-01	EFFLUENT	WATER	1951 HAMBURG TURNPIKE	10/13/20 13:30	10/13/20

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2043913
Project Number:	T007-019-222	**Report Date:**	10/20/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2043913
Project Number:	T007-019-222	**Report Date:**	10/20/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

PCBs

L2043913-01: The surrogate recoveries were outside the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (335%) and decachlorobiphenyl (34%); however, re-extraction achieved similar results: 2,4,5,6-tetrachloro-m-xylene (286%) and decachlorobiphenyl (29%,24%). The results of both extractions are reported.

Pesticides

L2043913-01: The surrogate recoveries were outside the acceptance criteria for decachlorobiphenyl (29% ; 28%); however, the recoveries were confirmed by the PCB analysis performed on this sample: 2,4,5,6-tetrachloro-m-xylene (286%) and decachlorobiphenyl (29% ; 24%); therefore, re-extraction was not required.

Phenolics, Total

The WG1422267-3 Laboratory Duplicate RPD for phenolics, total (40%), performed on L2043913-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1422267-4 MS recovery, performed on L2043913-01, is outside the acceptance criteria for phenolics, total (57%); however, the associated LCS recovery is within criteria. No further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative Date: 10/20/20

ORGANICS

VOLATILES

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01
Client ID: EFFLUENT
Sample Location: 1951 HAMBURG TURNPIKE

Date Collected: 10/13/20 13:30
Date Received: 10/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 10/14/20 16:35
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
Trichlorofluoromethane	ND		ug/l	5.0	0.28	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17	1

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01 Date Collected: 10/13/20 13:30

Client ID: EFFLUENT Date Received: 10/13/20

Sample Location: 1951 HAMBURG TURNPIKE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
p/m-Xylene	ND		ug/l	2.0	0.30	1
o-xylene	ND		ug/l	1.0	0.34	1
Xylenes, Total	ND		ug/l	1.0	0.30	1
Styrene	ND		ug/l	1.0	0.37	1
Acetone	4.9	J	ug/l	10	2.4	1
Carbon disulfide	ND		ug/l	5.0	0.28	1
2-Butanone	ND		ug/l	10	1.0	1
Vinyl acetate	ND		ug/l	10	0.41	1
4-Methyl-2-pentanone	ND		ug/l	10	0.19	1
2-Hexanone	ND		ug/l	10	0.55	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1
Dibromomethane	ND		ug/l	1.0	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	101		60-140
Fluorobenzene	121		60-140
4-Bromofluorobenzene	91		60-140

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 10/14/20 10:54
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1421910-12					
Methylene chloride	ND		ug/l	1.0	0.56
1,1-Dichloroethane	ND		ug/l	1.5	0.40
Chloroform	ND		ug/l	1.0	0.38
Carbon tetrachloride	ND		ug/l	1.0	0.24
1,2-Dichloropropane	ND		ug/l	3.5	0.46
Dibromochloromethane	ND		ug/l	1.0	0.27
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34
2-Chloroethylvinyl ether	ND		ug/l	10	0.35
Tetrachloroethene	ND		ug/l	1.0	0.26
Chlorobenzene	ND		ug/l	3.5	0.30
Trichlorofluoromethane	ND		ug/l	5.0	0.28
1,2-Dichloroethane	ND		ug/l	1.5	0.47
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29
Bromodichloromethane	ND		ug/l	1.0	0.28
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34
Bromoform	ND		ug/l	1.0	0.22
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20
Benzene	ND		ug/l	1.0	0.38
Toluene	ND		ug/l	1.0	0.31
Ethylbenzene	ND		ug/l	1.0	0.28
Chloromethane	ND		ug/l	5.0	1.0
Bromomethane	ND		ug/l	5.0	1.2
Vinyl chloride	ND		ug/l	1.0	0.38
Chloroethane	ND		ug/l	2.0	0.37
1,1-Dichloroethene	ND		ug/l	1.0	0.31
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17
Trichloroethene	ND		ug/l	1.0	0.33

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 10/14/20 10:54
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1421910-12					
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29
p/m-Xylene	ND		ug/l	2.0	0.30
o-xylene	ND		ug/l	1.0	0.34
Xylenes, Total	ND		ug/l	1.0	0.30
Styrene	ND		ug/l	1.0	0.37
Acetone	ND		ug/l	10	2.4
Carbon disulfide	ND		ug/l	5.0	0.28
2-Butanone	ND		ug/l	10	1.0
Vinyl acetate	ND		ug/l	10	0.41
4-Methyl-2-pentanone	ND		ug/l	10	0.19
2-Hexanone	ND		ug/l	10	0.55
Acrolein	ND		ug/l	8.0	1.8
Acrylonitrile	ND		ug/l	10	0.33
Dibromomethane	ND		ug/l	1.0	0.23

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	98		60-140
Fluorobenzene	120		60-140
4-Bromofluorobenzene	90		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222

Lab Number: L2043913
Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1421910-11								
Methylene chloride	100		-		60-140	-		28
1,1-Dichloroethane	100		-		50-150	-		49
Chloroform	105		-		70-135	-		54
Carbon tetrachloride	120		-		70-130	-		41
1,2-Dichloropropane	130		-		35-165	-		55
Dibromochloromethane	95		-		70-135	-		50
1,1,2-Trichloroethane	95		-		70-130	-		45
2-Chloroethylvinyl ether	110		-		1-225	-		71
Tetrachloroethene	95		-		70-130	-		39
Chlorobenzene	90		-		65-135	-		53
Trichlorofluoromethane	85		-		50-150	-		84
1,2-Dichloroethane	130		-		70-130	-		49
1,1,1-Trichloroethane	120		-		70-130	-		36
Bromodichloromethane	100		-		65-135	-		56
trans-1,3-Dichloropropene	95		-		50-150	-		86
cis-1,3-Dichloropropene	105		-		25-175	-		58
Bromoform	80		-		70-130	-		42
1,1,2,2-Tetrachloroethane	95		-		60-140	-		61
Benzene	130		-		65-135	-		61
Toluene	105		-		70-130	-		41
Ethylbenzene	95		-		60-140	-		63
Chloromethane	65		-		1-205	-		60
Bromomethane	50		-		15-185	-		61

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1421910-11								
Vinyl chloride	55		-		5-195	-		66
Chloroethane	85		-		40-160	-		78
1,1-Dichloroethene	95		-		50-150	-		32
trans-1,2-Dichloroethene	100		-		70-130	-		45
cis-1,2-Dichloroethene	100		-		60-140	-		30
Trichloroethene	120		-		65-135	-		48
1,2-Dichlorobenzene	90		-		65-135	-		57
1,3-Dichlorobenzene	85		-		70-130	-		43
1,4-Dichlorobenzene	85		-		65-135	-		57
p/m-Xylene	88		-		60-140	-		30
o-xylene	85		-		60-140	-		30
Styrene	85		-		60-140	-		30
Acetone	100		-		40-160	-		30
Carbon disulfide	90		-		60-140	-		30
2-Butanone	118		-		60-140	-		30
Vinyl acetate	98		-		60-140	-		30
4-Methyl-2-pentanone	116		-		60-140	-		30
2-Hexanone	120		-		60-140	-		30
Acrolein	140		-		60-140	-		30
Acrylonitrile	112		-		60-140	-		60
Dibromomethane	105		-		70-130	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1421910-11								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	101				60-140
Fluorobenzene	124				60-140
4-Bromofluorobenzene	88				60-140

SEMIVOLATILES

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01
Client ID: EFFLUENT
Sample Location: 1951 HAMBURG TURNPIKE

Date Collected: 10/13/20 13:30
Date Received: 10/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 10/15/20 13:47
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 10/14/20 20:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/l	2.00	0.407	1
Benzidine[1]	ND		ug/l	20.0	12.1	1
1,2,4-Trichlorobenzene	ND		ug/l	5.00	1.49	1
Hexachlorobenzene	ND		ug/l	2.00	0.952	1
Bis(2-chloroethyl)ether	ND		ug/l	2.00	0.600	1
2-Chloronaphthalene	ND		ug/l	2.00	0.319	1
3,3'-Dichlorobenzidine	ND		ug/l	5.00	0.457	1
2,4-Dinitrotoluene	ND		ug/l	5.00	0.636	1
2,6-Dinitrotoluene	ND		ug/l	5.00	0.631	1
Azobenzene[1]	ND		ug/l	2.00	0.889	1
Fluoranthene	ND		ug/l	2.00	0.736	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.00	0.371	1
4-Bromophenyl phenyl ether	ND		ug/l	2.00	0.447	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.00	0.822	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.00	0.585	1
Hexachlorobutadiene	ND		ug/l	2.00	0.921	1
Hexachlorocyclopentadiene[1]	ND		ug/l	10.0	1.36	1
Hexachloroethane	ND		ug/l	2.00	0.973	1
Isophorone	ND		ug/l	5.00	0.546	1
Naphthalene	1.75	J	ug/l	2.00	0.896	1
Nitrobenzene	ND		ug/l	2.00	0.788	1
NDPA/DPA[1]	ND		ug/l	2.00	0.783	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.00	0.630	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	1.70	1
Butyl benzyl phthalate	ND		ug/l	5.00	0.670	1
Di-n-butylphthalate	ND		ug/l	5.00	0.631	1
Di-n-octylphthalate	ND		ug/l	5.00	0.633	1
Diethyl phthalate	ND		ug/l	5.00	0.717	1

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01 Date Collected: 10/13/20 13:30

Client ID: EFFLUENT Date Received: 10/13/20

Sample Location: 1951 HAMBURG TURNPIKE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/l	5.00	1.40	1
Benzo(a)anthracene	ND		ug/l	2.00	0.665	1
Benzo(a)pyrene	ND		ug/l	2.00	0.610	1
Benzo(b)fluoranthene	ND		ug/l	2.00	0.741	1
Benzo(k)fluoranthene	ND		ug/l	2.00	0.739	1
Chrysene	ND		ug/l	2.00	0.668	1
Acenaphthylene	ND		ug/l	2.00	0.930	1
Anthracene	ND		ug/l	2.00	0.791	1
Benzo(ghi)perylene	ND		ug/l	2.00	0.672	1
Fluorene	ND		ug/l	2.00	0.927	1
Phenanthrene	ND		ug/l	2.00	0.818	1
Dibenzo(a,h)anthracene	ND		ug/l	2.00	0.687	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.00	0.633	1
Pyrene	ND		ug/l	2.00	0.728	1
n-Nitrosodimethylamine[1]	ND		ug/l	2.00	0.407	1
2,4,6-Trichlorophenol	ND		ug/l	5.00	0.607	1
p-Chloro-m-cresol[1]	ND		ug/l	2.00	0.533	1
2-Chlorophenol	ND		ug/l	2.00	0.513	1
2,4-Dichlorophenol	ND		ug/l	5.00	0.554	1
2,4-Dimethylphenol	6.54		ug/l	5.00	0.851	1
2-Nitrophenol	ND		ug/l	5.00	0.604	1
4-Nitrophenol	ND		ug/l	10.0	0.834	1
2,4-Dinitrophenol	ND		ug/l	20.0	1.21	1
4,6-Dinitro-o-cresol	ND		ug/l	10.0	1.20	1
Pentachlorophenol	ND		ug/l	5.00	0.622	1
Phenol	7.28		ug/l	5.00	0.262	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		25-87
Phenol-d6	32		16-65
Nitrobenzene-d5	85		42-122
2-Fluorobiphenyl	82		46-121
2,4,6-Tribromophenol	102		45-128
4-Terphenyl-d14	76		47-138

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 10/15/20 08:02
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 10/14/20 07:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1421845-1					
Acenaphthene	ND		ug/l	2.00	0.407
Benzidine[1]	ND		ug/l	20.0	12.1
1,2,4-Trichlorobenzene	ND		ug/l	5.00	1.49
Hexachlorobenzene	ND		ug/l	2.00	0.952
Bis(2-chloroethyl)ether	ND		ug/l	2.00	0.600
2-Chloronaphthalene	ND		ug/l	2.00	0.319
3,3'-Dichlorobenzidine	ND		ug/l	5.00	0.457
2,4-Dinitrotoluene	ND		ug/l	5.00	0.636
2,6-Dinitrotoluene	ND		ug/l	5.00	0.631
Azobenzene[1]	ND		ug/l	2.00	0.889
Fluoranthene	ND		ug/l	2.00	0.736
4-Chlorophenyl phenyl ether	ND		ug/l	2.00	0.371
4-Bromophenyl phenyl ether	ND		ug/l	2.00	0.447
Bis(2-chloroisopropyl)ether	ND		ug/l	2.00	0.822
Bis(2-chloroethoxy)methane	ND		ug/l	5.00	0.585
Hexachlorobutadiene	ND		ug/l	2.00	0.921
Hexachlorocyclopentadiene[1]	ND		ug/l	10.0	1.36
Hexachloroethane	ND		ug/l	2.00	0.973
Isophorone	ND		ug/l	5.00	0.546
Naphthalene	ND		ug/l	2.00	0.896
Nitrobenzene	ND		ug/l	2.00	0.788
NDPA/DPA[1]	ND		ug/l	2.00	0.783
n-Nitrosodi-n-propylamine	ND		ug/l	5.00	0.630
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	1.70
Butyl benzyl phthalate	ND		ug/l	5.00	0.670
Di-n-butylphthalate	1.03	J	ug/l	5.00	0.631
Di-n-octylphthalate	ND		ug/l	5.00	0.633
Diethyl phthalate	ND		ug/l	5.00	0.717
Dimethyl phthalate	ND		ug/l	5.00	1.40

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 10/15/20 08:02
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 10/14/20 07:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1421845-1					
Benzo(a)anthracene	ND		ug/l	2.00	0.665
Benzo(a)pyrene	ND		ug/l	2.00	0.610
Benzo(b)fluoranthene	ND		ug/l	2.00	0.741
Benzo(k)fluoranthene	ND		ug/l	2.00	0.739
Chrysene	ND		ug/l	2.00	0.668
Acenaphthylene	ND		ug/l	2.00	0.930
Anthracene	ND		ug/l	2.00	0.791
Benzo(ghi)perylene	ND		ug/l	2.00	0.672
Fluorene	ND		ug/l	2.00	0.927
Phenanthrene	ND		ug/l	2.00	0.818
Dibenzo(a,h)anthracene	ND		ug/l	2.00	0.687
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.00	0.633
Pyrene	ND		ug/l	2.00	0.728
n-Nitrosodimethylamine[1]	ND		ug/l	2.00	0.407
2,4,6-Trichlorophenol	ND		ug/l	5.00	0.607
p-Chloro-m-cresol[1]	ND		ug/l	2.00	0.533
2-Chlorophenol	ND		ug/l	2.00	0.513
2,4-Dichlorophenol	ND		ug/l	5.00	0.554
2,4-Dimethylphenol	ND		ug/l	5.00	0.851
2-Nitrophenol	ND		ug/l	5.00	0.604
4-Nitrophenol	ND		ug/l	10.0	0.834
2,4-Dinitrophenol	ND		ug/l	20.0	1.21
4,6-Dinitro-o-cresol	ND		ug/l	10.0	1.20
Pentachlorophenol	ND		ug/l	5.00	0.622
Phenol	ND		ug/l	5.00	0.262

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222
Lab Number: L2043913
Report Date: 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 10/15/20 08:02
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 10/14/20 07:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1421845-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		25-87
Phenol-d6	31		16-65
Nitrobenzene-d5	69		42-122
2-Fluorobiphenyl	70		46-121
2,4,6-Tribromophenol	74		45-128
4-Terphenyl-d14	77		47-138

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1421845-3								
Acenaphthene	80		-		60-132	-		48
Benzidine[1]	4		-		0-70	-		30
1,2,4-Trichlorobenzene	72		-		57-130	-		50
Hexachlorobenzene	86		-		8-142	-		55
Bis(2-chloroethyl)ether	81		-		43-126	-		108
2-Chloronaphthalene	82		-		65-120	-		24
3,3'-Dichlorobenzidine	34		-		8-213	-		108
2,4-Dinitrotoluene	108		-		48-127	-		42
2,6-Dinitrotoluene	105		-		68-137	-		48
Azobenzene[1]	86		-		44-115	-		23
Fluoranthene	90		-		43-121	-		66
4-Chlorophenyl phenyl ether	88		-		38-145	-		61
4-Bromophenyl phenyl ether	96		-		65-120	-		43
Bis(2-chloroisopropyl)ether	70		-		63-139	-		76
Bis(2-chloroethoxy)methane	87		-		49-165	-		54
Hexachlorobutadiene	68		-		38-120	-		62
Hexachlorocyclopentadiene[1]	74		-		7-118	-		35
Hexachloroethane	63		-		55-120	-		52
Isophorone	83		-		47-180	-		93
Naphthalene	73		-		36-120	-		65
Nitrobenzene	88		-		54-158	-		62
NDPA/DPA[1]	91		-		45-112	-		36
n-Nitrosodi-n-propylamine	86		-		14-198	-		87

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1421845-3								
Bis(2-ethylhexyl)phthalate	123		-		29-137	-		82
Butyl benzyl phthalate	120		-		1-140	-		60
Di-n-butylphthalate	106		-		8-120	-		47
Di-n-octylphthalate	121		-		19-132	-		69
Diethyl phthalate	93		-		1-120	-		100
Dimethyl phthalate	92		-		1-120	-		183
Benzo(a)anthracene	86		-		42-133	-		53
Benzo(a)pyrene	94		-		32-148	-		72
Benzo(b)fluoranthene	92		-		42-140	-		71
Benzo(k)fluoranthene	90		-		25-146	-		63
Chrysene	83		-		44-140	-		87
Acenaphthylene	85		-		54-126	-		74
Anthracene	87		-		43-120	-		66
Benzo(ghi)perylene	87		-		1-195	-		97
Fluorene	86		-		70-120	-		38
Phenanthrene	83		-		65-120	-		39
Dibenzo(a,h)anthracene	90		-		1-200	-		126
Indeno(1,2,3-cd)pyrene	92		-		1-151	-		99
Pyrene	87		-		70-120	-		49
n-Nitrosodimethylamine[1]	53		-		15-68	-		17
2,4,6-Trichlorophenol	104		-		52-129	-		58
p-Chloro-m-cresol[1]	100		-		68-130	-		73
2-Chlorophenol	88		-		36-120	-		61

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1421845-3								
2,4-Dichlorophenol	101		-		53-122	-		50
2,4-Dimethylphenol	80		-		42-120	-		58
2-Nitrophenol	112		-		45-167	-		55
4-Nitrophenol	75		-		13-129	-		131
2,4-Dinitrophenol	99		-		1-173	-		132
4,6-Dinitro-o-cresol	112		-		56-130	-		203
Pentachlorophenol	109		-		38-152	-		86
Phenol	50		-		17-120	-		64

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	71				25-87
Phenol-d6	49				16-65
Nitrobenzene-d5	91				42-122
2-Fluorobiphenyl	84				46-121
2,4,6-Tribromophenol	101				45-128
4-Terphenyl-d14	92				47-138

PCBS

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01
Client ID: EFFLUENT
Sample Location: 1951 HAMBURG TURNPIKE

Date Collected: 10/13/20 13:30
Date Received: 10/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 10/15/20 10:49
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 10/14/20 23:31
Cleanup Method: EPA 3665A
Cleanup Date: 10/15/20
Cleanup Method: EPA 3660B
Cleanup Date: 10/15/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.050	0.008	1	A
Aroclor 1221	ND		ug/l	0.050	0.011	1	A
Aroclor 1232	ND		ug/l	0.050	0.023	1	A
Aroclor 1242	ND		ug/l	0.050	0.018	1	A
Aroclor 1248	ND		ug/l	0.050	0.023	1	A
Aroclor 1254	ND		ug/l	0.050	0.008	1	A
Aroclor 1260	ND		ug/l	0.050	0.017	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		37-123	A
Decachlorobiphenyl	41		38-114	A
2,4,5,6-Tetrachloro-m-xylene	**335**	Q	37-123	B
Decachlorobiphenyl	**34**	Q	38-114	B

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01 RE
Client ID: EFFLUENT
Sample Location: 1951 HAMBURG TURNPIKE

Date Collected: 10/13/20 13:30
Date Received: 10/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 10/16/20 11:34
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 10/15/20 23:20
Cleanup Method: EPA 3665A
Cleanup Date: 10/16/20
Cleanup Method: EPA 3660B
Cleanup Date: 10/16/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.050	0.008	1	A
Aroclor 1221	ND		ug/l	0.050	0.011	1	A
Aroclor 1232	ND		ug/l	0.050	0.023	1	A
Aroclor 1242	ND		ug/l	0.050	0.018	1	A
Aroclor 1248	ND		ug/l	0.050	0.023	1	A
Aroclor 1254	ND		ug/l	0.050	0.008	1	A
Aroclor 1260	ND		ug/l	0.050	0.017	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		37-123	A
Decachlorobiphenyl	**29**	Q	38-114	A
2,4,5,6-Tetrachloro-m-xylene	**286**	Q	37-123	B
Decachlorobiphenyl	**24**	Q	38-114	B

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222
Lab Number: L2043913
Report Date: 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 10/14/20 08:12
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 10/13/20 23:45
Cleanup Method: EPA 3665A
Cleanup Date: 10/14/20
Cleanup Method: EPA 3660B
Cleanup Date: 10/14/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1421756-1						
Aroclor 1016	ND		ug/l	0.050	0.008	A
Aroclor 1221	ND		ug/l	0.050	0.011	A
Aroclor 1232	ND		ug/l	0.050	0.023	A
Aroclor 1242	ND		ug/l	0.050	0.018	A
Aroclor 1248	ND		ug/l	0.050	0.023	A
Aroclor 1254	ND		ug/l	0.050	0.008	A
Aroclor 1260	ND		ug/l	0.050	0.017	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		37-123	A
Decachlorobiphenyl	61		38-114	A
2,4,5,6-Tetrachloro-m-xylene	74		37-123	B
Decachlorobiphenyl	69		38-114	B

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222
Lab Number: L2043913
Report Date: 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 10/16/20 11:19
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 10/15/20 23:20
Cleanup Method: EPA 3665A
Cleanup Date: 10/16/20
Cleanup Method: EPA 3660B
Cleanup Date: 10/16/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1422720-1						
Aroclor 1016	ND		ug/l	0.050	0.008	A
Aroclor 1221	ND		ug/l	0.050	0.011	A
Aroclor 1232	ND		ug/l	0.050	0.023	A
Aroclor 1242	ND		ug/l	0.050	0.018	A
Aroclor 1248	ND		ug/l	0.050	0.023	A
Aroclor 1254	ND		ug/l	0.050	0.008	A
Aroclor 1260	ND		ug/l	0.050	0.017	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		37-123	A
Decachlorobiphenyl	74		38-114	A
2,4,5,6-Tetrachloro-m-xylene	67		37-123	B
Decachlorobiphenyl	80		38-114	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1421756-2									
Aroclor 1016	83		-		50-140	-		36	A
Aroclor 1260	77		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66				37-123	A
Decachlorobiphenyl	56				38-114	A
2,4,5,6-Tetrachloro-m-xylene	61				37-123	B
Decachlorobiphenyl	59				38-114	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1422720-2									
Aroclor 1016	83		-		50-140	-		36	A
Aroclor 1260	76		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69				37-123	A
Decachlorobiphenyl	60				38-114	A
2,4,5,6-Tetrachloro-m-xylene	63				37-123	B
Decachlorobiphenyl	63				38-114	B

PESTICIDES

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222
Lab Number: L2043913
Report Date: 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01
Client ID: EFFLUENT
Sample Location: 1951 HAMBURG TURNPIKE

Date Collected: 10/13/20 13:30
Date Received: 10/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 10/16/20 13:32
Analyst: BM

Extraction Method: EPA 608.3
Extraction Date: 10/16/20 01:25
Cleanup Method: EPA 3620B
Cleanup Date: 10/16/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.003	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.009	1	A
Heptachlor	ND		ug/l	0.020	0.005	1	A
Aldrin	ND		ug/l	0.020	0.005	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.007	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.017	1	A
Endrin ketone[1]	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.003	1	A
4,4'-DDE	ND		ug/l	0.040	0.003	1	A
4,4'-DDD	ND		ug/l	0.040	0.008	1	A
4,4'-DDT	ND		ug/l	0.040	0.008	1	A
Endosulfan I	ND		ug/l	0.020	0.008	1	A
Endosulfan II	ND		ug/l	0.040	0.003	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.017	1	A
Methoxychlor[1]	ND		ug/l	0.100	0.008	1	A
Toxaphene	ND		ug/l	0.400	0.126	1	A
Chlordane	ND		ug/l	0.200	0.042	1	A
cis-Chlordane[1]	ND		ug/l	0.020	0.005	1	A
trans-Chlordane[1]	ND		ug/l	0.020	0.008	1	A

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01 Date Collected: 10/13/20 13:30

Client ID: EFFLUENT Date Received: 10/13/20

Sample Location: 1951 HAMBURG TURNPIKE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		47-124	A
Decachlorobiphenyl	**29**	Q	32-167	A
2,4,5,6-Tetrachloro-m-xylene	61		47-124	B
Decachlorobiphenyl	**28**	Q	32-167	B

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 10/16/20 14:18
Analyst: BM

Extraction Method: EPA 608.3
Extraction Date: 10/16/20 01:25
Cleanup Method: EPA 3620B
Cleanup Date: 10/16/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1422734-1						
Delta-BHC	ND		ug/l	0.020	0.005	A
Lindane	ND		ug/l	0.020	0.003	A
Alpha-BHC	ND		ug/l	0.020	0.004	A
Beta-BHC	ND		ug/l	0.020	0.009	A
Heptachlor	ND		ug/l	0.020	0.005	A
Aldrin	ND		ug/l	0.020	0.005	A
Heptachlor epoxide	ND		ug/l	0.020	0.007	A
Endrin	ND		ug/l	0.040	0.004	A
Endrin aldehyde	ND		ug/l	0.040	0.017	A
Endrin ketone[1]	ND		ug/l	0.040	0.005	A
Dieldrin	ND		ug/l	0.040	0.003	A
4,4'-DDE	ND		ug/l	0.040	0.003	A
4,4'-DDD	ND		ug/l	0.040	0.008	A
4,4'-DDT	ND		ug/l	0.040	0.008	A
Endosulfan I	ND		ug/l	0.020	0.008	A
Endosulfan II	ND		ug/l	0.040	0.003	A
Endosulfan sulfate	ND		ug/l	0.040	0.017	A
Methoxychlor[1]	ND		ug/l	0.100	0.008	A
Toxaphene	ND		ug/l	0.400	0.126	A
Chlordane	ND		ug/l	0.200	0.042	A
cis-Chlordane[1]	ND		ug/l	0.020	0.005	A
trans-Chlordane[1]	ND		ug/l	0.020	0.008	A

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222
Lab Number: L2043913
Report Date: 10/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 10/16/20 14:18
Analyst: BM

Extraction Method: EPA 608.3
Extraction Date: 10/16/20 01:25
Cleanup Method: EPA 3620B
Cleanup Date: 10/16/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1422734-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		47-124	A
Decachlorobiphenyl	60		32-167	A
2,4,5,6-Tetrachloro-m-xylene	59		47-124	B
Decachlorobiphenyl	73		32-167	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1422734-2									
Delta-BHC	71		-		19-140	-		52	A
Lindane	75		-		32-140	-		39	A
Alpha-BHC	75		-		37-140	-		36	A
Beta-BHC	83		-		17-147	-		44	A
Heptachlor	81		-		34-140	-		43	A
Aldrin	67		-		42-140	-		35	A
Heptachlor epoxide	77		-		37-142	-		26	A
Endrin	73		-		30-147	-		48	A
Endrin aldehyde	52		-		30-150	-		30	A
Endrin ketone[1]	58		-		30-150	-		30	A
Dieldrin	62		-		36-146	-		49	A
4,4'-DDE	63		-		30-145	-		35	A
4,4'-DDD	63		-		31-141	-		39	A
4,4'-DDT	72		-		25-160	-		42	A
Endosulfan I	69		-		45-153	-		28	A
Endosulfan II	69		-		1-202	-		53	A
Endosulfan sulfate	59		-		26-144	-		38	A
Methoxychlor[1]	73		-		30-150	-		30	A
cis-Chlordane[1]	61		-		45-140	-		35	A
trans-Chlordane[1]	67		-		45-140	-		35	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222

Lab Number: L2043913
Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1422734-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76				47-124	A
Decachlorobiphenyl	73				32-167	A
2,4,5,6-Tetrachloro-m-xylene	69				47-124	B
Decachlorobiphenyl	83				32-167	B

METALS

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01 Date Collected: 10/13/20 13:30

Client ID: EFFLUENT Date Received: 10/13/20

Sample Location: 1951 HAMBURG TURNPIKE Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.050	0.007	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Arsenic, Total	0.008		mg/l	0.005	0.002	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Barium, Total	0.027		mg/l	0.010	0.002	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Beryllium, Total	ND		mg/l	0.005	0.001	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Cadmium, Total	0.002	J	mg/l	0.005	0.001	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Chromium, Total	0.005	J	mg/l	0.010	0.002	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Copper, Total	ND		mg/l	0.010	0.002	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Iron, Total	60.8		mg/l	0.050	0.009	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Lead, Total	ND		mg/l	0.010	0.003	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Mercury, Total	ND		mg/l	0.00020	0.00009	1	10/15/20 12:07	10/15/20 17:23	EPA 245.1	3,245.1	AL
Nickel, Total	ND		mg/l	0.025	0.002	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Selenium, Total	0.007	J	mg/l	0.010	0.004	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Silver, Total	ND		mg/l	0.007	0.003	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Titanium, Total	0.006	J	mg/l	0.010	0.002	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV
Zinc, Total	ND		mg/l	0.050	0.002	1	10/15/20 07:20	10/19/20 20:22	EPA 3005A	19,200.7	BV

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1421958-1										
Antimony, Total	ND		mg/l	0.050	0.007	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Arsenic, Total	ND		mg/l	0.005	0.002	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Barium, Total	ND		mg/l	0.010	0.002	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Beryllium, Total	ND		mg/l	0.005	0.001	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Cadmium, Total	ND		mg/l	0.005	0.001	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Chromium, Total	ND		mg/l	0.010	0.002	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Copper, Total	ND		mg/l	0.010	0.002	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Iron, Total	ND		mg/l	0.050	0.009	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Lead, Total	0.003	J	mg/l	0.010	0.003	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Nickel, Total	ND		mg/l	0.025	0.002	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Selenium, Total	ND		mg/l	0.010	0.004	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Silver, Total	ND		mg/l	0.007	0.003	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Titanium, Total	ND		mg/l	0.010	0.002	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD
Zinc, Total	ND		mg/l	0.050	0.002	1	10/15/20 07:20	10/19/20 13:57	19,200.7	GD

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1421963-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	10/15/20 12:07	10/15/20 17:00	3,245.1	AL

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1421958-2								
Antimony, Total	108		-		85-115	-		
Arsenic, Total	112		-		85-115	-		
Barium, Total	102		-		85-115	-		
Beryllium, Total	99		-		85-115	-		
Cadmium, Total	109		-		85-115	-		
Chromium, Total	100		-		85-115	-		
Copper, Total	102		-		85-115	-		
Iron, Total	98		-		85-115	-		
Lead, Total	108		-		85-115	-		
Nickel, Total	98		-		85-115	-		
Selenium, Total	108		-		85-115	-		
Silver, Total	105		-		85-115	-		
Titanium, Total	101		-		85-115	-		
Zinc, Total	107		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1421963-2								
Mercury, Total	102		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222

Lab Number: L2043913
Report Date: 10/20/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1421958-3 QC Sample: L2043702-01 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.555	111		-	-		75-125	-		20
Arsenic, Total	0.002J	0.12	0.143	119		-	-		75-125	-		20
Barium, Total	0.028	2	2.14	106		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.051	102		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.059	115		-	-		75-125	-		20
Chromium, Total	0.003J	0.2	0.212	106		-	-		75-125	-		20
Copper, Total	0.017	0.25	0.288	108		-	-		75-125	-		20
Iron, Total	1.28	1	2.19	91		-	-		75-125	-		20
Lead, Total	0.036	0.51	0.610	112		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.518	104		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.134	112		-	-		75-125	-		20
Silver, Total	ND	0.05	0.054	108		-	-		75-125	-		20
Titanium, Total	0.027	1	1.08	105		-	-		75-125	-		20
Zinc, Total	0.154	0.5	0.707	111		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222

Lab Number: L2043913
Report Date: 10/20/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1421958-7 QC Sample: L2043702-02 Client ID: MS Sample									
Antimony, Total	ND	0.5	0.587	117	-	-	75-125	-	20
Arsenic, Total	ND	0.12	0.146	122	-	-	75-125	-	20
Barium, Total	0.023	2	2.14	106	-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.052	104	-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.055	108	-	-	75-125	-	20
Chromium, Total	0.008J	0.2	0.204	102	-	-	75-125	-	20
Copper, Total	0.123	0.25	0.393	108	-	-	75-125	-	20
Iron, Total	1.61	1	2.61	100	-	-	75-125	-	20
Lead, Total	0.036	0.51	0.570	105	-	-	75-125	-	20
Nickel, Total	0.019J	0.5	0.513	103	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.146	122	-	-	75-125	-	20
Silver, Total	ND	0.05	0.054	108	-	-	75-125	-	20
Titanium, Total	0.023	1	1.04	102	-	-	75-125	-	20
Zinc, Total	0.383	0.5	0.898	103	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1421963-3 QC Sample: L2043844-01 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00503	101	-	-	70-130	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1421958-4 QC Sample: L2043702-01 Client ID: DUP Sample						
Iron, Total	1.28	1.28	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1421958-8 QC Sample: L2043702-02 Client ID: DUP Sample						
Iron, Total	1.61	1.60	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1421963-4 QC Sample: L2043844-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222
Lab Number: L2043913
Report Date: 10/20/20

SAMPLE RESULTS

Lab ID: L2043913-01
Client ID: EFFLUENT
Sample Location: 1951 HAMBURG TURNPIKE
Sample Depth:
Matrix: Water

Date Collected: 10/13/20 13:30
Date Received: 10/13/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.668		mg/l	0.010	0.003	2	10/14/20 09:55	10/14/20 12:34	121,4500CN-CE	AG
pH (H)	12.9		SU	-	NA	1	-	10/14/20 08:50	121,4500H+-B	KP
Nitrogen, Ammonia	35.3		mg/l	0.750	0.240	10	10/14/20 12:57	10/14/20 20:22	121,4500NH3-BH	AT
Phenolics, Total	0.24		mg/l	0.030	0.016	1	10/15/20 04:45	10/15/20 09:28	4,420.1	MV
Anions by Ion Chromatography - Westborough Lab										
Sulfate	1710		mg/l	100	45.4	100	-	10/17/20 06:09	44,300.0	SH

Project Name: ATP PRE-TREATMENT OM&M **Lab Number:** L2043913

Project Number: T007-019-222 **Report Date:** 10/20/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1421887-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	10/14/20 09:55	10/14/20 13:02	121,4500CN-CE	AG
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1421967-1										
Nitrogen, Ammonia	ND		mg/l	0.075	0.024	1	10/14/20 12:57	10/14/20 20:04	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1422267-1										
Phenolics, Total	ND		mg/l	0.030	0.016	1	10/15/20 04:45	10/15/20 08:38	4,420.1	MV
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG1423162-1										
Sulfate	ND		mg/l	1.00	0.454	1	-	10/16/20 17:18	44,300.0	SH

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1421887-2								
Cyanide, Total	96		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1421923-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1421967-2								
Nitrogen, Ammonia	90		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1422267-2								
Phenolics, Total	106		-		70-130	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG1423162-2								
Sulfate	106		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222

Lab Number: L2043913
Report Date: 10/20/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1421887-4 QC Sample: L2042839-06 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.187	94		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1421967-4 QC Sample: L2043923-01 Client ID: MS Sample												
Nitrogen, Ammonia	0.639	4	3.80	**79**	Q	-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1422267-4 QC Sample: L2043913-01 Client ID: EFFLUENT												
Phenolics, Total	0.24	0.4	0.47	**57**	Q	-	-		70-130	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1423162-3 QC Sample: L2042730-01 Client ID: MS Sample												
Sulfate	33.3	8	39.6	**79**	Q	-	-		90-110	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T007-019-222

Lab Number: L2043913

Report Date: 10/20/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1421887-3 QC Sample: L2042839-05 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1421923-2 QC Sample: L2043851-01 Client ID: DUP Sample						
pH	8.2	8.2	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1421967-3 QC Sample: L2043923-01 Client ID: DUP Sample						
Nitrogen, Ammonia	0.639	0.629	mg/l	2		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1422267-3 QC Sample: L2043913-01 Client ID: EFFLUENT						
Phenolics, Total	0.24	0.36	mg/l	**40**	Q	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1423162-4 QC Sample: L2042730-01 Client ID: DUP Sample						
Sulfate	33.3	32.6	mg/l	2		20

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T007-019-222

Lab Number: L2043913
Report Date: 10/20/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2043913-01A	Vial Na2S2O3 preserved	A	NA		5.6	Y	Absent		624.1(3)
L2043913-01B	Vial Na2S2O3 preserved	A	NA		5.6	Y	Absent		624.1(3)
L2043913-01C	Vial Na2S2O3 preserved	A	NA		5.6	Y	Absent		624.1(3)
L2043913-01D	Plastic 250ml unpreserved	A	7	7	5.6	Y	Absent		SO4-300(28),PH-4500(.01)
L2043913-01E	Plastic 250ml NaOH preserved	A	>12	>12	5.6	Y	Absent		TCN-4500(14)
L2043913-01F	Plastic 250ml HNO3 preserved	A	<2	<2	5.6	Y	Absent		NI-UI(180),SB-UI(180),BA-UI(180),AG-UI(180),ZN-UI(180),TI-UI(180),SE-UI(180),FE-UI(180),HG-U(28),CD-UI(180),CR-UI(180),BE-UI(180),PB-UI(180),AS-UI(180),CU-UI(180)
L2043913-01G	Plastic 500ml H2SO4 preserved	A	<2	<2	5.6	Y	Absent		NH3-4500(28)
L2043913-01H	Amber 950ml H2SO4 preserved	A	<2	<2	5.6	Y	Absent		TPHENOL-420(28)
L2043913-01I	Amber 1000ml Na2S2O3	A	7	7	5.6	Y	Absent		625.1(7)
L2043913-01J	Amber 1000ml Na2S2O3	A	7	7	5.6	Y	Absent		625.1(7)
L2043913-01K	Amber 1000ml Na2S2O3	A	7	7	5.6	Y	Absent		PESTICIDE-608.3(7)
L2043913-01L	Amber 1000ml Na2S2O3	A	7	7	5.6	Y	Absent		PESTICIDE-608.3(7)
L2043913-01M	Amber 1000ml Na2S2O3	A	7	7	5.6	Y	Absent		NYPCB-608-2L(365)
L2043913-01N	Amber 1000ml Na2S2O3	A	7	7	5.6	Y	Absent		NYPCB-608-2L(365)
L2043913-01O	Amber 1000ml Na2S2O3	A	7	7	5.6	Y	Absent		NYPCB-608-2L(365)
L2043913-01P	Amber 1000ml Na2S2O3	A	7	7	5.6	Y	Absent		NYPCB-608-2L(365)

Container Comments

L2043913-01E

*Values in parentheses indicate holding time in days

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2043913
Project Number:	T007-019-222	**Report Date:**	10/20/20

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2043913
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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2043913
Project Number:	T007-019-222	**Report Date:**	10/20/20

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2043913
Project Number:	T007-019-222	**Report Date:**	10/20/20

REFERENCES

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

129 Method 625.1: Base/Neutrals and Acids by GC/MS, EPA 821-R-16-007, December 2016.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 10/14/20

ALPHA Job #: L2043913

Client Information

Client: Benchmark Environmental
Address: 2558 Hamburg Turnpike,Ste300
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: tforbes@benchmarkturnkey.com

Project Information

Project Name: ATP Pre-treatment OM&M
Project Location: 1951 Hamburg Turnpike
Project # T007-019-222
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other

Billing Information

☑ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☑ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Total Metals: Sb,As,Ba,Be,Cd,Cr,Cu,Fe,Pb,Hg,Ni,Se,Ag,Ti,Zn PCB has an RL of 65 ppt

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	624 PP List	Metals, Total	Ammonia	608 PEST/PCBs	Phenolics	625 PP List	Cyanide	pH,Sulfate	Sample Specific Comments	Total Bottles
L2043913-01	EFFLUENT	10-13-20	1330	Water	CEH	x	x	x	x	x	x	x	x		16

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	P	P	A	A	A	P	P
Preservative	H	C	D	H	D	H	E	A

Relinquished By:	Date/Time	Received By:	Date/Time
Chris Hardcastle	10-13-20 1500	ATL	10/13/20 1500
ATL	10/13/20 1520		10/14/20 01:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2046552
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	ATP PRE-TREATMENT OM&M
Project Number:	T0071-020-222
Report Date:	10/27/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T0071-020-222

Lab Number: L2046552
Report Date: 10/27/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2046552-01	EFFLUENT	WATER	BUFFALO, NY	10/26/20 12:00	10/26/20

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2046552
Project Number:	T0071-020-222	**Report Date:**	10/27/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2046552
Project Number:	T0071-020-222	**Report Date:**	10/27/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 10/27/20

INORGANICS
&
MISCELLANEOUS

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T0071-020-222

Lab Number: L2046552
Report Date: 10/27/20

SAMPLE RESULTS

Lab ID: L2046552-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY

Date Collected: 10/26/20 12:00
Date Received: 10/26/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	6.2		mg/l	2.0	0.46	1	10/27/20 15:30	10/27/20 18:30	74,1664A	TL

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T0071-020-222
Lab Number: L2046552
Report Date: 10/27/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1427122-1										
Oil & Grease, Hem-Grav	0.51	J	mg/l	2.0	0.46	1	10/27/20 15:30	10/27/20 18:30	74,1664A	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T0071-020-222

Lab Number: L2046552

Report Date: 10/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1427122-2								
Oil & Grease, Hem-Grav	94		-		78-114	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T0071-020-222

Lab Number: L2046552
Report Date: 10/27/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1427122-4 QC Sample: L2041865-231 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	38.1	29	**76**	Q	-	-		78-114	-		18

Lab Duplicate Analysis

Batch Quality Control

Project Name: ATP PRE-TREATMENT OM&M

Project Number: T0071-020-222

Lab Number: L2046552

Report Date: 10/27/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1427122-3 QC Sample: L2041865-230 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	0.76J	ND	mg/l	NC		18

Project Name: ATP PRE-TREATMENT OM&M
Project Number: T0071-020-222

Lab Number: L2046552
Report Date: 10/27/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2046552-01A	Amber 1000ml HCl preserved	A	NA		4.4	Y	Absent		NY-OG-1664-LOW(28)
L2046552-01B	Amber 1000ml HCl preserved	A	NA		4.4	Y	Absent		NY-OG-1664-LOW(28)

*Values in parentheses indicate holding time in days

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2046552
Project Number:	T0071-020-222	**Report Date:**	10/27/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2046552
Project Number:	T0071-020-222	**Report Date:**	10/27/20

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2046552
Project Number:	T0071-020-222	**Report Date:**	10/27/20

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP PRE-TREATMENT OM&M	**Lab Number:**	L2046552
Project Number:	T0071-020-222	**Report Date:**	10/27/20

REFERENCES

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 10/27/20

ALPHA Job #: L2046552

Client Information

Client: Turnkey Environmental
Address: 2558 Hamburg Turnpike
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: bgreene@bm-ek.com

Project Information

Project Name: ATP Pre-treatment O&M
Project Location: Buffalo, NY
Project # T0071-020-222
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date: 2 Day
Rush (only if pre approved) ☒ # of Days: TAT

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	0+G	Sample Specific Comments	Total Bottle
46552 -01	Effluent	10-26-20	1200	water	CEH	X		

Container Type	A							
Preservative	B							

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Client Courier	10-26-20 1330	[signature] MAL	10/26/20 1615
[signature] MAL	10/26/20 1615	[signature]	10/27/20 0435

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ATTACHMENT 2

Flow Meter Calibration Certificate

Cold Spring Environmental

3248 Buffalo Rd., Varysburg, N.Y. 14167
Ph: 716-863-7052

August 12, 2020

Ref: Flow Meter Calibration

Dear Mr. Greene

Calibration Date: August 12, 2020
Site location: Pretreatment Building
Equipment Model:Signet GF 8550
Equipment type: Closed Pipe impellor
Equipment S/N: 61009161010
Measuring device: 2 inch pipe
Output type: none
Totalizer multiplier: 1 gallon

Displayed level/flow rate: 0 GPM
Measured Level/flow rate: 0 GPM
Displayed level/flow rate: 17-18 GPM
Measured Level/flow rate: 15-16 GPM
Percent Difference: 12%
Adjustment: yes
Note: cleaned the impellor, measured the totalizer at 17 GPM and found it to be correct

Please contact me with any questions.

Sincerely, Jon Wolak

716-863-7052
jonwolak@yahoo.com

ATTACHMENT 2

GROUNDWATER MONITORING LABORATORY ANALYTICAL DATA PACKAGE

ANALYTICAL REPORT

Lab Number:	L2015435
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Mike Lesakowski
Phone:	(716) 856-0599
Project Name:	CMS GW SAMPLING EVENT
Project Number:	T0071-020-112
Report Date:	04/17/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

VOLATILES

Project Name: CMS GW SAMPLING EVENT
Project Number: T0071-020-112
Lab Number: L2015435
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY

Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/15/20 14:52
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	0.93	J	ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.25	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	0.82		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	7.2		ug/l	0.50	0.16	1
Toluene	0.76	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.42	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: CMS GW SAMPLING EVENT **Lab Number:** L2015435

Project Number: T0071-020-112 **Report Date:** 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01 Date Collected: 04/10/20 09:40

Client ID: MWS-02 Date Received: 04/10/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	0.77	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	4.4	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	102		70-130

SEMIVOLATILES

Project Name: CMS GW SAMPLING EVENT
Project Number: T0071-020-112
Lab Number: L2015435
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY

Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/16/20 10:16
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 04/15/20 18:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	3.3		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	1.6	J	ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: CMS GW SAMPLING EVENT
Lab Number: L2015435
Project Number: T0071-020-112
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY
Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	0.79	J	ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	50		23-120
2-Fluorobiphenyl	49		15-120
2,4,6-Tribromophenol	59		10-120
4-Terphenyl-d14	53		41-149

Project Name: CMS GW SAMPLING EVENT
Project Number: T0071-020-112
Lab Number: L2015435
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY

Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/16/20 14:08
Analyst: CB

Extraction Method: EPA 3510C
Extraction Date: 04/15/20 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.33		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.77		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	5.8		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	0.01	J	ug/l	0.10	0.01	1
Acenaphthylene	1.0		ug/l	0.10	0.01	1
Anthracene	0.61		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	2.9		ug/l	0.10	0.01	1
Phenanthrene	4.8		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.44		ug/l	0.10	0.02	1
2-Methylnaphthalene	1.3		ug/l	0.10	0.02	1
Pentachlorophenol	0.25	J	ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: CMS GW SAMPLING EVENT **Lab Number:** L2015435

Project Number: T0071-020-112 **Report Date:** 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01 Date Collected: 04/10/20 09:40

Client ID: MWS-02 Date Received: 04/10/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	71		41-149

Project Name: CMS GW SAMPLING EVENT
Lab Number: L2015435
Project Number: T0071-020-112
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY

Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/17/20 02:42
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/13/20 09:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	311.		ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	53		15-110

Project Name: CMS GW SAMPLING EVENT
Project Number: T0071-020-112
Lab Number: L2015435
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY

Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 04/14/20 20:13
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 04/13/20 08:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	8.55		ng/l	1.82	0.371	1
Perfluoropentanoic Acid (PFPeA)	4.25		ng/l	1.82	0.360	1
Perfluorobutanesulfonic Acid (PFBS)	1.27	J	ng/l	1.82	0.216	1
Perfluorohexanoic Acid (PFHxA)	3.49		ng/l	1.82	0.298	1
Perfluoroheptanoic Acid (PFHpA)	3.16		ng/l	1.82	0.205	1
Perfluorohexanesulfonic Acid (PFHxS)	1.80	J	ng/l	1.82	0.342	1
Perfluorooctanoic Acid (PFOA)	16.4		ng/l	1.82	0.214	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.82	1.21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.82	0.625	1
Perfluorononanoic Acid (PFNA)	0.880	J	ng/l	1.82	0.284	1
Perfluorooctanesulfonic Acid (PFOS)	5.73		ng/l	1.82	0.458	1
Perfluorodecanoic Acid (PFDA)	0.320	J	ng/l	1.82	0.276	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.82	1.10	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.82	0.589	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.82	0.236	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.82	0.891	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.82	0.527	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.82	0.731	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.82	0.338	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.82	0.297	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.82	0.225	1
PFOA/PFOS, Total	22.1		ng/l	1.82	0.214	1

Project Name: CMS GW SAMPLING EVENT **Lab Number:** L2015435

Project Number: T0071-020-112 **Report Date:** 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01 Date Collected: 04/10/20 09:40

Client ID: MWS-02 Date Received: 04/10/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	74		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	86		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	65		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	86		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	113		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	196		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	94		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	147		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	61		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	16		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	68		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	73		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	61		33-143

PCBS

Project Name: CMS GW SAMPLING EVENT
Lab Number: L2015435
Project Number: T0071-020-112
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY

Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/16/20 10:39
Analyst: AWS

Extraction Method: EPA 3510C
Extraction Date: 04/15/20 08:11
Cleanup Method: EPA 3665A
Cleanup Date: 04/15/20
Cleanup Method: EPA 3660B
Cleanup Date: 04/15/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	63		30-150	B

PESTICIDES

Project Name: CMS GW SAMPLING EVENT
Lab Number: L2015435
Project Number: T0071-020-112
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY

Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8081B
Analytical Date: 04/16/20 16:52
Analyst: SL

Extraction Method: EPA 3510C
Extraction Date: 04/15/20 21:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: CMS GW SAMPLING EVENT **Lab Number:** L2015435

Project Number: T0071-020-112 **Report Date:** 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01 Date Collected: 04/10/20 09:40

Client ID: MWS-02 Date Received: 04/10/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	124		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	102		30-150	B

METALS

Project Name: CMS GW SAMPLING EVENT
Lab Number: L2015435
Project Number: T0071-020-112
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY
Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0356		mg/l	0.0100	0.00327	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Antimony, Total	0.00084	J	mg/l	0.00400	0.00042	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00128		mg/l	0.00050	0.00016	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Barium, Total	0.03392		mg/l	0.00050	0.00017	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Calcium, Total	313.		mg/l	0.100	0.0394	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Chromium, Total	0.00299		mg/l	0.00100	0.00017	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00023	J	mg/l	0.00050	0.00016	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Copper, Total	0.00047	J	mg/l	0.00100	0.00038	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Iron, Total	0.801		mg/l	0.0500	0.0191	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Magnesium, Total	0.313		mg/l	0.0700	0.0242	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Manganese, Total	0.00338		mg/l	0.00100	0.00044	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	04/14/20 19:19	04/15/20 10:17	EPA 7470A	1,7470A	GD
Nickel, Total	ND		mg/l	0.00200	0.00055	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Potassium, Total	58.2		mg/l	0.100	0.0309	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Selenium, Total	0.00516		mg/l	0.00500	0.00173	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Sodium, Total	37.1		mg/l	0.100	0.0293	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Vanadium, Total	0.03386		mg/l	0.00500	0.00157	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	04/14/20 18:03	04/16/20 17:05	EPA 3005A	1,6020B	AM

INORGANICS
&
MISCELLANEOUS

Project Name: CMS GW SAMPLING EVENT
Project Number: T0071-020-112
Lab Number: L2015435
Report Date: 04/17/20

SAMPLE RESULTS

Lab ID: L2015435-01
Client ID: MWS-02
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water
Date Collected: 04/10/20 09:40
Date Received: 04/10/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	1.85		mg/l	0.050	0.018	10	04/14/20 11:30	04/15/20 12:19	1,9010C/9012B	LH

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 4/10/20

ALPHA Job #: L2015435

Client Information

Client: Benchmark Environmental
Address: 2558 Hamburg Turnpike,Ste300
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: bgillen@bmth.com

Project Information

Project Name: CMS GW Sampling Event
Project Location: Buffalo, NY
Project #: T0071-020-112
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☑ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

These samples have been previously analyzed by Alpha ☑

Other project specific requirements/comments:

Email results to:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOCs (8260C mod)	TCL SVOCs (8270D)	TCL PEST/ PCBs (8281/ 8082)	TAL METALS	1,4- Dioxane (8270 SIM)	PFAS (Modified 537)	Cyanide (9010/9012)	Total Bottles	Sample Specific Comments
L2015435-01	MWS-02	4/10/20	940	Water	CLB	X	X	X	X	X	X	X		
-02	MWS-03		1300	Water		X	X	X	X	X	X	X		
-03	MWS-03 MS		1300	Water		X	X	X	X	X	X	X		
-04	MWS-03 MSD		1300	Water		X	X	X	X	X	X	X		
-05	MWS-21A		1420	Water		X	X	X	X			X		
-06	MWS-23A		1100	Water		X	X	X	X	X				
-07	MWS-23B		1140	Water		X	X	X	X	X				
-08				Water										
				Water										
				Water										

Container Type: V A A P A P P
Preservative: B A A C A A E

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	4/10/20 1640		4/10/20 1550
	4/10/20 1700		4/10/20 2355

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2015305
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	TECUMSEH CMS GROUNDWATER 2020
Project Number:	T0071-020-112
Report Date:	04/16/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

VOLATILES

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03 D
Client ID: MWN-18A
Sample Location: TECUMSEH

Date Collected: 04/09/20 13:00
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/15/20 01:01
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	100	28.	40
1,1-Dichloroethane	ND		ug/l	100	28.	40
Chloroform	ND		ug/l	100	28.	40
Carbon tetrachloride	ND		ug/l	20	5.4	40
1,2-Dichloropropane	ND		ug/l	40	5.5	40
Dibromochloromethane	ND		ug/l	20	6.0	40
1,1,2-Trichloroethane	ND		ug/l	60	20.	40
Tetrachloroethene	ND		ug/l	20	7.2	40
Chlorobenzene	ND		ug/l	100	28.	40
Trichlorofluoromethane	ND		ug/l	100	28.	40
1,2-Dichloroethane	ND		ug/l	20	5.3	40
1,1,1-Trichloroethane	ND		ug/l	100	28.	40
Bromodichloromethane	ND		ug/l	20	7.7	40
trans-1,3-Dichloropropene	ND		ug/l	20	6.6	40
cis-1,3-Dichloropropene	ND		ug/l	20	5.8	40
Bromoform	ND		ug/l	80	26.	40
1,1,2,2-Tetrachloroethane	ND		ug/l	20	6.7	40
Benzene	5000		ug/l	20	6.4	40
Toluene	ND		ug/l	100	28.	40
Ethylbenzene	ND		ug/l	100	28.	40
Chloromethane	ND		ug/l	100	28.	40
Bromomethane	ND		ug/l	100	28.	40
Vinyl chloride	ND		ug/l	40	2.8	40
Chloroethane	ND		ug/l	100	28.	40
1,1-Dichloroethene	ND		ug/l	20	6.8	40
trans-1,2-Dichloroethene	ND		ug/l	100	28.	40
Trichloroethene	7.2	J	ug/l	20	7.0	40
1,2-Dichlorobenzene	ND		ug/l	100	28.	40

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03 D
Client ID: MWN-18A
Sample Location: TECUMSEH

Date Collected: 04/09/20 13:00
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	100	28.	40
1,4-Dichlorobenzene	ND		ug/l	100	28.	40
Methyl tert butyl ether	ND		ug/l	100	28.	40
p/m-Xylene	ND		ug/l	100	28.	40
o-Xylene	ND		ug/l	100	28.	40
cis-1,2-Dichloroethene	ND		ug/l	100	28.	40
Styrene	ND		ug/l	100	28.	40
Dichlorodifluoromethane	ND		ug/l	200	40.	40
Acetone	ND		ug/l	200	58.	40
Carbon disulfide	ND		ug/l	200	40.	40
2-Butanone	ND		ug/l	200	78.	40
4-Methyl-2-pentanone	ND		ug/l	200	40.	40
2-Hexanone	ND		ug/l	200	40.	40
Bromochloromethane	ND		ug/l	100	28.	40
1,2-Dibromoethane	ND		ug/l	80	26.	40
n-Butylbenzene	ND		ug/l	100	28.	40
sec-Butylbenzene	ND		ug/l	100	28.	40
1,2-Dibromo-3-chloropropane	ND		ug/l	100	28.	40
Isopropylbenzene	ND		ug/l	100	28.	40
p-Isopropyltoluene	ND		ug/l	100	28.	40
n-Propylbenzene	ND		ug/l	100	28.	40
1,2,3-Trichlorobenzene	ND		ug/l	100	28.	40
1,2,4-Trichlorobenzene	ND		ug/l	100	28.	40
1,3,5-Trimethylbenzene	ND		ug/l	100	28.	40
1,2,4-Trimethylbenzene	ND		ug/l	100	28.	40
Methyl Acetate	ND		ug/l	80	9.4	40
Cyclohexane	ND		ug/l	400	11.	40
1,4-Dioxane	ND		ug/l	10000	2400	40
Freon-113	ND		ug/l	100	28.	40
Methyl cyclohexane	ND		ug/l	400	16.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04 D
Client ID: MWS-18C
Sample Location: TECUMSEH

Date Collected: 04/09/20 15:05
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/14/20 00:51
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	470		ug/l	2.5	0.80	5
Toluene	16		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	4.6	J	ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Trichloroethene	ND		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04 D
Client ID: MWS-18C
Sample Location: TECUMSEH

Date Collected: 04/09/20 15:05
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	13		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	15	J	ug/l	25	7.3	5
Carbon disulfide	53		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	104		70-130

SEMIVOLATILES

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03
Client ID: MWN-18A
Sample Location: TECUMSEH

Date Collected: 04/09/20 13:00
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/15/20 19:31
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 04/14/20 08:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03 Date Collected: 04/09/20 13:00

Client ID: MWN-18A Date Received: 04/09/20

Sample Location: TECUMSEH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	1.1	J	ug/l	5.0	0.57	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	28.		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		21-120
Phenol-d6	67		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	57		15-120
2,4,6-Tribromophenol	85		10-120
4-Terphenyl-d14	64		41-149

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03
Client ID: MWN-18A
Sample Location: TECUMSEH

Date Collected: 04/09/20 13:00
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/15/20 18:00
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/14/20 08:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.14		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.03	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	3.3		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.07	J	ug/l	0.10	0.01	1
Anthracene	0.02	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.03	J	ug/l	0.10	0.01	1
Phenanthrene	0.14		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.21		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03 Date Collected: 04/09/20 13:00

Client ID: MWN-18A Date Received: 04/09/20

Sample Location: TECUMSEH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		21-120
Phenol-d6	72		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	81		15-120
2,4,6-Tribromophenol	102		10-120
4-Terphenyl-d14	101		41-149

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03
Client ID: MWN-18A
Sample Location: TECUMSEH

Date Collected: 04/09/20 13:00
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/16/20 00:43
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/10/20 20:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	458.		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	60		15-110

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04
Client ID: MWS-18C
Sample Location: TECUMSEH

Date Collected: 04/09/20 15:05
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/15/20 06:20
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 04/14/20 08:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	1.8	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	7.5		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04 Date Collected: 04/09/20 15:05

Client ID: MWS-18C Date Received: 04/09/20

Sample Location: TECUMSEH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	7.1		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	51.		ug/l	5.0	0.57	1
3-Methylphenol/4-Methylphenol	18.		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	14.		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		21-120
Phenol-d6	71		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	82		10-120
4-Terphenyl-d14	82		41-149

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04
Client ID: MWS-18C
Sample Location: TECUMSEH

Date Collected: 04/09/20 15:05
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/15/20 18:17
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/14/20 08:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.04	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.16		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.03	J	ug/l	0.10	0.01	1
Anthracene	0.07	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.04	J	ug/l	0.10	0.01	1
Phenanthrene	0.08	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.03	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.05	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04 Date Collected: 04/09/20 15:05

Client ID: MWS-18C Date Received: 04/09/20

Sample Location: TECUMSEH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		21-120
Phenol-d6	75		10-120
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	106		10-120
4-Terphenyl-d14	98		41-149

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04
Client ID: MWS-18C
Sample Location: TECUMSEH

Date Collected: 04/09/20 15:05
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/16/20 01:59
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/10/20 20:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	868.		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	59		15-110

PCBS

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03
Client ID: MWN-18A
Sample Location: TECUMSEH

Date Collected: 04/09/20 13:00
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/16/20 13:53
Analyst: JM

Extraction Method: EPA 3510C
Extraction Date: 04/14/20 23:50
Cleanup Method: EPA 3665A
Cleanup Date: 04/15/20
Cleanup Method: EPA 3660B
Cleanup Date: 04/15/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	0.068	JB	ug/l	0.083	0.034	1	B
PCBs, Total	0.068	JB	ug/l	0.083	0.032	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	61		30-150	B

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04
Client ID: MWS-18C
Sample Location: TECUMSEH

Date Collected: 04/09/20 15:05
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/16/20 15:01
Analyst: JM

Extraction Method: EPA 3510C
Extraction Date: 04/14/20 23:50
Cleanup Method: EPA 3665A
Cleanup Date: 04/15/20
Cleanup Method: EPA 3660B
Cleanup Date: 04/15/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	0.062	JB	ug/l	0.083	0.034	1	A
PCBs, Total	0.062	JB	ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	70		30-150	B

PESTICIDES

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03
Client ID: MWN-18A
Sample Location: TECUMSEH

Date Collected: 04/09/20 13:00
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8081B
Analytical Date: 04/15/20 16:56
Analyst: SL

Extraction Method: EPA 3510C
Extraction Date: 04/14/20 23:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03 Date Collected: 04/09/20 13:00

Client ID: MWN-18A Date Received: 04/09/20

Sample Location: TECUMSEH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	52		30-150	B

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04
Client ID: MWS-18C
Sample Location: TECUMSEH

Date Collected: 04/09/20 15:05
Date Received: 04/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8081B
Analytical Date: 04/15/20 21:40
Analyst: SM

Extraction Method: EPA 3510C
Extraction Date: 04/14/20 23:53
Cleanup Method: EPA 3660B
Cleanup Date: 04/15/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04 Date Collected: 04/09/20 15:05

Client ID: MWS-18C Date Received: 04/09/20

Sample Location: TECUMSEH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	37		30-150	A
Decachlorobiphenyl	**26**	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	51		30-150	B

METALS

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03 Date Collected: 04/09/20 13:00

Client ID: MWN-18A Date Received: 04/09/20

Sample Location: TECUMSEH Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.106		mg/l	0.0100	0.00327	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Antimony, Total	0.00061	J	mg/l	0.00400	0.00042	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00321		mg/l	0.00050	0.00016	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Barium, Total	0.02354		mg/l	0.00050	0.00017	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Calcium, Total	558.		mg/l	0.100	0.0394	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Chromium, Total	0.00175		mg/l	0.00100	0.00017	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00509		mg/l	0.00050	0.00016	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Copper, Total	0.00058	J	mg/l	0.00100	0.00038	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Iron, Total	3.27		mg/l	0.100	0.0191	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Lead, Total	0.00046	J	mg/l	0.00100	0.00034	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Magnesium, Total	35.7		mg/l	0.0700	0.0242	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Manganese, Total	2.026		mg/l	0.00100	0.00044	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	04/11/20 06:55	04/11/20 10:27	EPA 7470A	1,7470A	AL
Nickel, Total	0.00060	J	mg/l	0.00200	0.00055	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Potassium, Total	73.3		mg/l	0.100	0.0309	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Sodium, Total	75.6		mg/l	0.100	0.0293	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00100	0.00014	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	04/11/20 05:00	04/16/20 10:10	EPA 3005A	1,6020B	AM

Project Name: TECUMSEH CMS GROUNDWATER 2020 **Lab Number:** L2015305

Project Number: T0071-020-112 **Report Date:** 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04 Date Collected: 04/09/20 15:05

Client ID: MWS-18C Date Received: 04/09/20

Sample Location: TECUMSEH Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	90.7		mg/l	0.0100	0.00327	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00410		mg/l	0.00050	0.00016	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Barium, Total	0.02184		mg/l	0.00050	0.00017	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Beryllium, Total	0.00395		mg/l	0.00050	0.00010	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Calcium, Total	524.		mg/l	0.100	0.0394	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Chromium, Total	0.1594		mg/l	0.00100	0.00017	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Cobalt, Total	0.01222		mg/l	0.00050	0.00016	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Iron, Total	801.		mg/l	10.0	1.91	100	04/11/20 05:00	04/16/20 12:28	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Magnesium, Total	220.		mg/l	0.0700	0.0242	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Manganese, Total	111.9		mg/l	0.1000	0.04400	100	04/11/20 05:00	04/16/20 12:28	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	04/11/20 06:55	04/11/20 10:49	EPA 7470A	1,7470A	AL
Nickel, Total	0.00940		mg/l	0.00200	0.00055	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Potassium, Total	90.4		mg/l	0.100	0.0309	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Selenium, Total	0.00498	J	mg/l	0.00500	0.00173	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Sodium, Total	103.		mg/l	0.100	0.0293	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00100	0.00014	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Vanadium, Total	0.01348		mg/l	0.00500	0.00157	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM
Zinc, Total	0.00765	J	mg/l	0.01000	0.00341	1	04/11/20 05:00	04/16/20 10:49	EPA 3005A	1,6020B	AM

INORGANICS
&
MISCELLANEOUS

Project Name: TECUMSEH CMS GROUNDWATER 2020
Project Number: T0071-020-112
Lab Number: L2015305
Report Date: 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-03
Client ID: MWN-18A
Sample Location: TECUMSEH
Sample Depth:
Matrix: Water

Date Collected: 04/09/20 13:00
Date Received: 04/09/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.348		mg/l	0.005	0.001	1	04/13/20 11:55	04/13/20 14:32	1,9010C/9012B	LH

Project Name: TECUMSEH CMS GROUNDWATER 2020
Project Number: T0071-020-112
Lab Number: L2015305
Report Date: 04/16/20

SAMPLE RESULTS

Lab ID: L2015305-04
Client ID: MWS-18C
Sample Location: TECUMSEH
Sample Depth:
Matrix: Water

Date Collected: 04/09/20 15:05
Date Received: 04/09/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.406		mg/l	0.005	0.001	1	04/13/20 11:55	04/13/20 14:35	1,9010C/9012B	LH

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 1 of 1

Date Rec'd in Lab: 4/10/20

ALPHA Job #: L2015305

Client Information
Client: Turnkey Environmental
Address: 2558 Hamburg Turnpike
Buffalo NY. 14218
Phone: 716-856-0599
Fax:
Email: bgreene@turnkeyenv.com

Project Information
Project Name: Tonawanda CMS Groundwater 2020
Project Location: Tonawanda.
Project #
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☒

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOCs (8260C) mod	TCL SVOCs (8270D)	TCL Pest/PCBs (8081B/8082A)	TAL Metals (6010C)	1-4 Dioxane (8270SIM)	Cyanide (9014/9012)			Sample Specific Comments	Total Bottle
1530501	MWN-21AR	4/9/20	950	Water	CB	X	X	X							
-02	MWN-07		1040					X	X						
-03	MWS-18A		1300			X	X	X	X	X	X				
-03 -04 CG	MWS-18A MS		1300			X	X	X	X	X	X				
-03	MWS-18A MSD		1300			X	X	X	X	X	X				
-04	MWS-18C		1505			X	X	X	X	X	X				
	MWDUP23A1					X	X	X	X	X					

Container Type: V A A P A P
Preservative: B A A C A E

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	4/9/20 1600		4/9/20 1600
	4/9/20 1700		4/10/20 0020

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2016275
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	ATP GROUNDWATER SAMPLING
Project Number:	T0071-020-222
Report Date:	04/24/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

VOLATILES

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-01
Client ID: MWS-19A
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 12:55
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/20 00:59
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	25		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.09	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-01 Date Collected: 04/17/20 12:55

Client ID: MWS-19A Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-02 D
Client ID: MWS-19B
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 13:50
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/20 02:08
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	ND		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	ND		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	480		ug/l	2.0	0.64	4
Toluene	ND		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	ND		ug/l	4.0	0.28	4
Chloroethane	ND		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4
Trichloroethene	ND		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-02 D
Client ID: MWS-19B
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 13:50
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	ND		ug/l	10	2.8	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	ND		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
Methyl Acetate	ND		ug/l	8.0	0.94	4
Cyclohexane	ND		ug/l	40	1.1	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	ND		ug/l	10	2.8	4
Methyl cyclohexane	ND		ug/l	40	1.6	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	99		70-130

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-03
Client ID: MWS-20A
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 11:10
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/20 01:22
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.41	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-03 Date Collected: 04/17/20 11:10

Client ID: MWS-20A Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-04
Client ID: MWS-20B
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 12:00
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/20 01:45
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	1.8		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.26	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-04 Date Collected: 04/17/20 12:00

Client ID: MWS-20B Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

SEMIVOLATILES

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-01
Client ID: MWS-19A
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 12:55
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/22/20 15:40
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 04/20/20 23:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-01 Date Collected: 04/17/20 12:55

Client ID: MWS-19A Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	60		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	60		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	70		41-149

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-01
Client ID: MWS-19A
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 12:55
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/21/20 13:48
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 04/20/20 23:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.04	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.02	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.39		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.14		ug/l	0.10	0.01	1
Phenanthrene	0.05	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.02	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.03	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-01 Date Collected: 04/17/20 12:55

Client ID: MWS-19A Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	109		10-120
4-Terphenyl-d14	101		41-149

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-02
Client ID: MWS-19B
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 13:50
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/22/20 16:07
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 04/20/20 23:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	0.65	J	ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-02 Date Collected: 04/17/20 13:50

Client ID: MWS-19B Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	2.0	J	ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	1.1	J	ug/l	5.0	0.57	1
2-Methylphenol	0.52	J	ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	2.7	J	ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	9.8	J	ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	48		23-120
2-Fluorobiphenyl	53		15-120
2,4,6-Tribromophenol	81		10-120
4-Terphenyl-d14	64		41-149

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-02
Client ID: MWS-19B
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 13:50
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/21/20 14:05
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 04/20/20 23:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.06	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.06	J	ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-02 Date Collected: 04/17/20 13:50

Client ID: MWS-19B Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	56		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	96		10-120
4-Terphenyl-d14	84		41-149

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-03
Client ID: MWS-20A
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 11:10
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/22/20 16:34
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 04/20/20 23:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-03 Date Collected: 04/17/20 11:10

Client ID: MWS-20A Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	51		23-120
2-Fluorobiphenyl	57		15-120
2,4,6-Tribromophenol	85		10-120
4-Terphenyl-d14	70		41-149

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-03
Client ID: MWS-20A
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 11:10
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/21/20 14:22
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 04/20/20 23:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.04	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-03 Date Collected: 04/17/20 11:10
Client ID: MWS-20A Date Received: 04/17/20
Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	102		10-120
4-Terphenyl-d14	91		41-149

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-04
Client ID: MWS-20B
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 12:00
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/22/20 17:02
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 04/20/20 23:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-04 Date Collected: 04/17/20 12:00

Client ID: MWS-20B Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	58		10-120
Nitrobenzene-d5	49		23-120
2-Fluorobiphenyl	60		15-120
2,4,6-Tribromophenol	94		10-120
4-Terphenyl-d14	79		41-149

Project Name: ATP GROUNDWATER SAMPLING
Lab Number: L2016275
Project Number: T0071-020-222
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-04
Client ID: MWS-20B
Sample Location: BUFFALO, NY

Date Collected: 04/17/20 12:00
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/21/20 14:38
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 04/20/20 23:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.08	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.06	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.04	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.06	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01	1
Chrysene	0.04	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.09	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.03	J	ug/l	0.10	0.01	1
Fluorene	0.03	J	ug/l	0.10	0.01	1
Phenanthrene	0.05	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.03	J	ug/l	0.10	0.01	1
Pyrene	0.07	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.04	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: ATP GROUNDWATER SAMPLING **Lab Number:** L2016275

Project Number: T0071-020-222 **Report Date:** 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-04 Date Collected: 04/17/20 12:00

Client ID: MWS-20B Date Received: 04/17/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	60		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	81		15-120
2,4,6-Tribromophenol	117		10-120
4-Terphenyl-d14	105		41-149

METALS

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-01
Client ID: MWS-19A
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 04/17/20 12:55
Date Received: 04/17/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00248		mg/l	0.00050	0.00016	1	04/19/20 13:15	04/23/20 11:42	EPA 3005A	1,6020B	AM
Barium, Total	0.02279		mg/l	0.00050	0.00017	1	04/19/20 13:15	04/23/20 11:42	EPA 3005A	1,6020B	AM
Chromium, Total	0.00103		mg/l	0.00100	0.00017	1	04/19/20 13:15	04/23/20 11:42	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	04/19/20 13:15	04/23/20 11:42	EPA 3005A	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	04/19/20 13:15	04/23/20 11:42	EPA 3005A	1,6020B	AM

Project Name: ATP GROUNDWATER SAMPLING
Lab Number: L2016275
Project Number: T0071-020-222
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-02
Client ID: MWS-19B
Sample Location: BUFFALO, NY
Date Collected: 04/17/20 13:50
Date Received: 04/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00486		mg/l	0.00050	0.00016	1	04/19/20 13:15	04/23/20 11:47	EPA 3005A	1,6020B	AM
Barium, Total	0.01849		mg/l	0.00250	0.00086	5	04/19/20 13:15	04/23/20 15:05	EPA 3005A	1,6020B	AM
Chromium, Total	0.00206		mg/l	0.00100	0.00017	1	04/19/20 13:15	04/23/20 11:47	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00500	0.00171	5	04/19/20 13:15	04/23/20 15:05	EPA 3005A	1,6020B	AM
Nickel, Total	0.00073	J	mg/l	0.00200	0.00055	1	04/19/20 13:15	04/23/20 11:47	EPA 3005A	1,6020B	AM

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-03
Client ID: MWS-20A
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 04/17/20 11:10
Date Received: 04/17/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00385		mg/l	0.00050	0.00016	1	04/19/20 13:15	04/23/20 11:57	EPA 3005A	1,6020B	AM
Barium, Total	0.02063		mg/l	0.00050	0.00017	1	04/19/20 13:15	04/23/20 11:57	EPA 3005A	1,6020B	AM
Chromium, Total	0.01045		mg/l	0.00100	0.00017	1	04/19/20 13:15	04/23/20 11:57	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	04/19/20 13:15	04/23/20 11:57	EPA 3005A	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	04/19/20 13:15	04/23/20 11:57	EPA 3005A	1,6020B	AM

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-04
Client ID: MWS-20B
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 04/17/20 12:00
Date Received: 04/17/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00322		mg/l	0.00050	0.00016	1	04/19/20 13:15	04/23/20 12:02	EPA 3005A	1,6020B	AM
Barium, Total	0.05676		mg/l	0.00050	0.00017	1	04/19/20 13:15	04/23/20 12:02	EPA 3005A	1,6020B	AM
Chromium, Total	0.00536		mg/l	0.00100	0.00017	1	04/19/20 13:15	04/23/20 12:02	EPA 3005A	1,6020B	AM
Lead, Total	0.00194		mg/l	0.00100	0.00034	1	04/19/20 13:15	04/23/20 12:02	EPA 3005A	1,6020B	AM
Nickel, Total	0.00220		mg/l	0.00200	0.00055	1	04/19/20 13:15	04/23/20 12:02	EPA 3005A	1,6020B	AM

INORGANICS
&
MISCELLANEOUS

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-01
Client ID: MWS-19A
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water
Date Collected: 04/17/20 12:55
Date Received: 04/17/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.138		mg/l	0.005	0.001	1	04/20/20 11:10	04/20/20 13:36	1,9010C/9012B	LH

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-02
Client ID: MWS-19B
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water
Date Collected: 04/17/20 13:50
Date Received: 04/17/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.407		mg/l	0.005	0.001	1	04/20/20 11:10	04/20/20 13:39	1,9010C/9012B	LH

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-03
Client ID: MWS-20A
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 04/17/20 11:10
Date Received: 04/17/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.052		mg/l	0.005	0.001	1	04/20/20 11:10	04/20/20 13:40	1,9010C/9012B	LH

Project Name: ATP GROUNDWATER SAMPLING
Project Number: T0071-020-222
Lab Number: L2016275
Report Date: 04/24/20

SAMPLE RESULTS

Lab ID: L2016275-04
Client ID: MWS-20B
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 04/17/20 12:00
Date Received: 04/17/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.051		mg/l	0.005	0.001	1	04/20/20 11:10	04/20/20 13:41	1,9010C/9012B	LH

Project Name:	ATP GROUNDWATER SAMPLING	**Lab Number:**	L2016275
Project Number:	T0071-020-222	**Report Date:**	04/24/20

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP GROUNDWATER SAMPLING	**Lab Number:**	L2016275
Project Number:	T0071-020-222	**Report Date:**	04/24/20

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: DU Report with 'J' Qualifiers

Project Name:	ATP GROUNDWATER SAMPLING	**Lab Number:**	L2016275
Project Number:	T0071-020-222	**Report Date:**	04/24/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 4/18/20

ALPHA Job #: L2016275

Client Information
Client: Turnkey Environmental
Address: 2558 Hamburg Turnpike, Buffalo NY
Phone: 716-856-0599
Fax:
Email: bgreene@bm-tk.com

Project Information
Project Name: ATP Groundwater Sampling
Project Location: Buffalo, NY
Project # T0071-020-222
(Use Project name as Project #)
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard [X] Due Date:
Rush (only if pre approved) [ ] # of Days:

Deliverables
[ ] ASP-A [ ] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement
[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information
[ ] Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL Volatiles - 8260C	NYTCL Semivolatiles 8270D	Total Cyanide Cyanide/Total 2B	Total Metals	Sample Specific Comments	Total Bottle
1627501	MWS-19A	4-17-20	1255	Water	CEH	X	X	X	X		
-02	MWS-19B	4-17-20	1350	Water	CEH	X	X	X	X		
-03	MWS-20A	4-17-20	1110	Water	CEH	X	X	X	X		
-04	MWS-20B	4-17-20	1200	Water	CEH	X	X	X	X		

Container Type	V	A	P	P
Preservative	B	A	E	C

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Chris Herbster	4-17-20/1500		
	4/17/20 1630		4/17/20 16:00

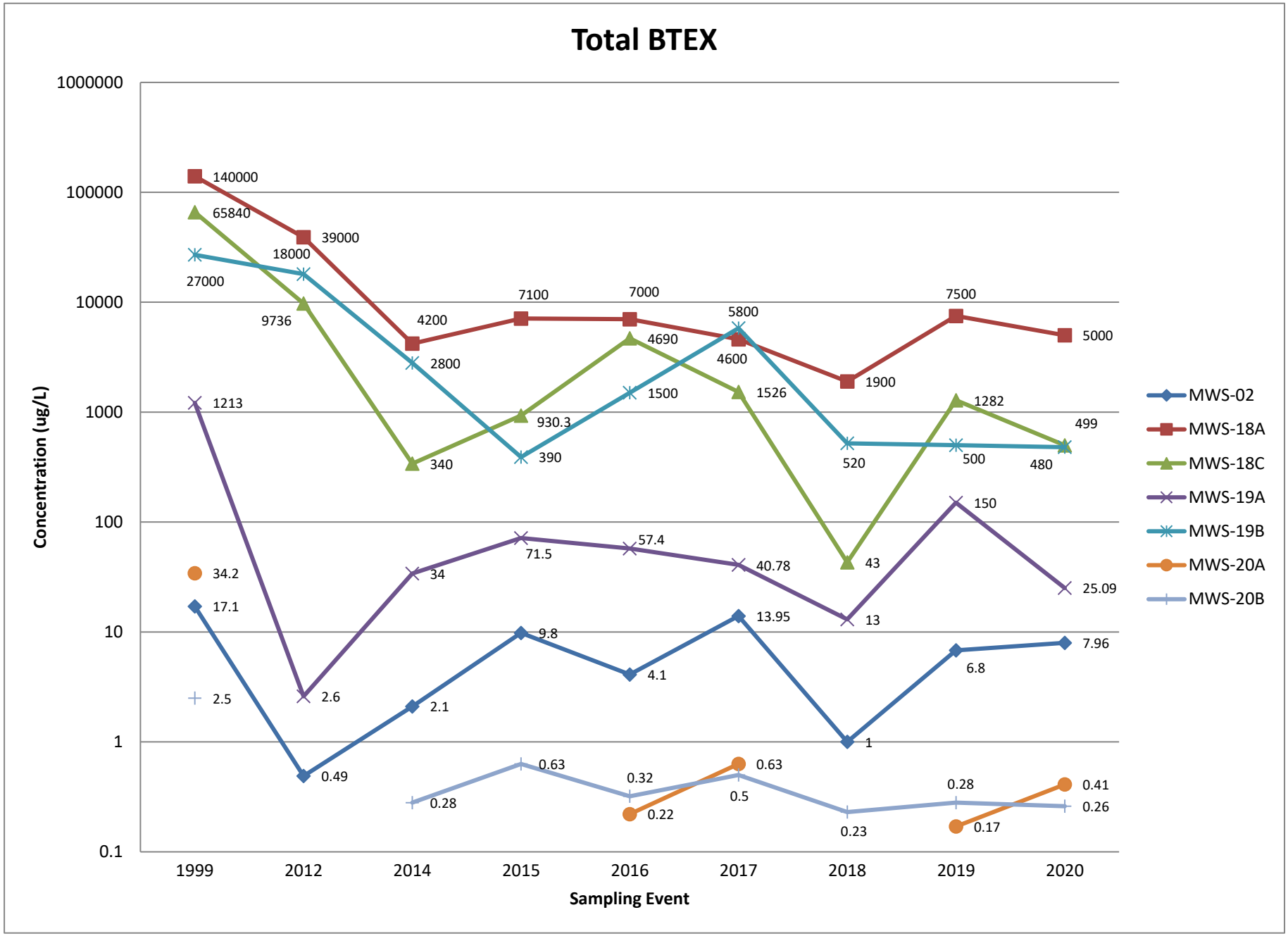
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

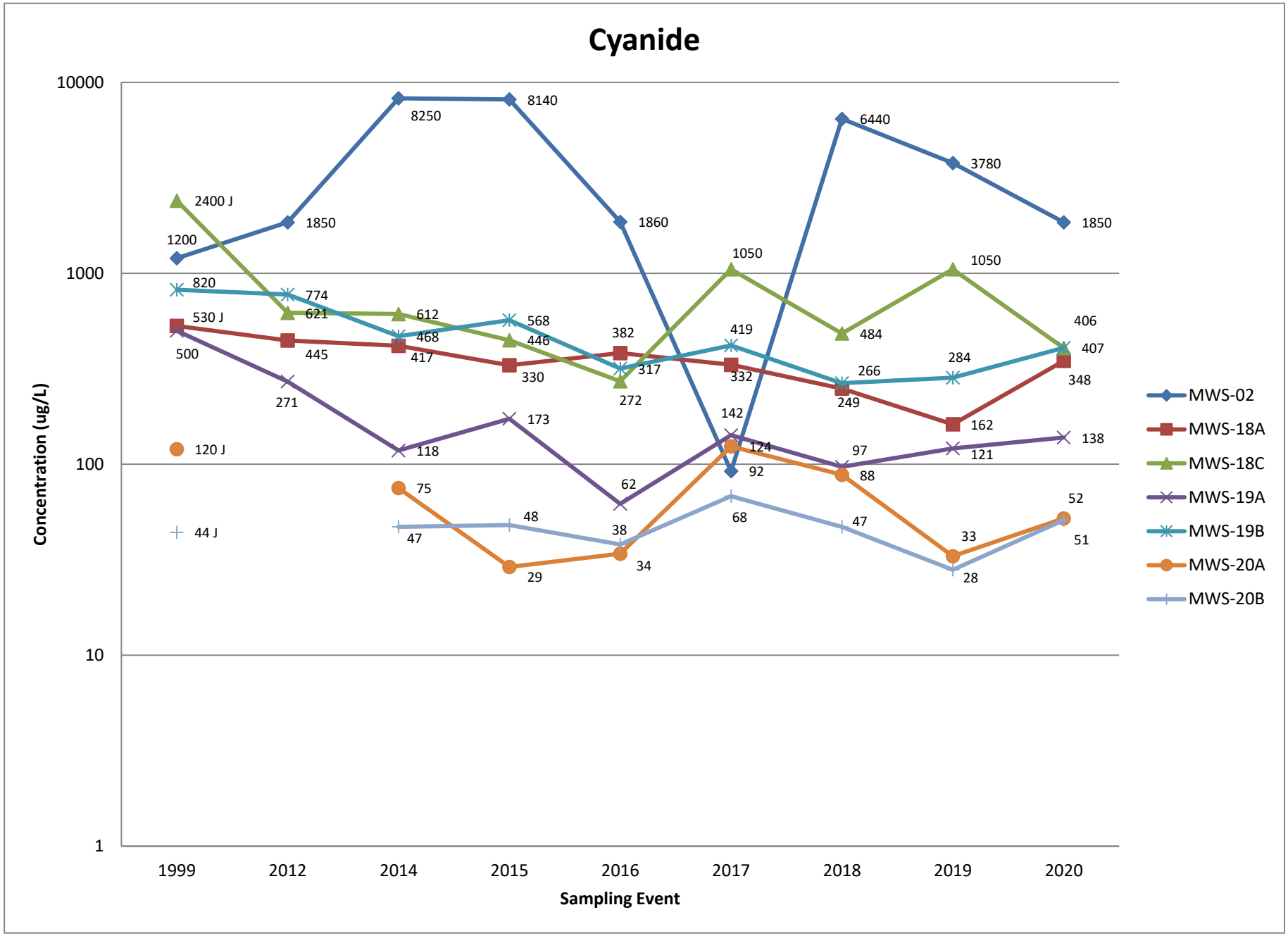
ATTACHMENT 3

CONCENTRATION PLOT

ATP AREA WELLS



ATP AREA WELLS



ATTACHMENT 4

POST-CLOSURE FIELD INSPECTION REPORT

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

Field Inspection Report
Post-Remedial Operation, Maintenance & Monitoring Plan

Property Name: ATP SWMU Group ECM Project No.: 0071-019-222

Client: Tecumseh Redevelopment, Inc.

Property Address: 1951 Hamburg Turnpike City, State: Lackawanna, NY Zip Code: 14218

Preparer's Name: Brock Greene Date/Time: 3-10-20

CERTIFICATION

The results of this inspection were discussed with the Site Manager. Any corrective actions required have been identified and noted in this report, and a supplemental Corrective Action Form has been completed. Proper implementation of these corrective actions have been discussed with the Site Manager, agreed upon, and scheduled.

Preparer / Inspector: Brock Greene **Date:** 3-10-20

Signature:

Next Scheduled Inspection Date: March 2021

ATP Containment Cell and Pretreatment Building Access

1. Is the access road in need of repair?	☐ yes	☑ no	☐ N/A
2. Sufficient signage posted (No Trespassing)?	☑ yes	☐ no	☐ N/A
3. Has there been any noted or reported trespassing?	☐ yes	☑ no	☐ N/A

Please note any irregularities/ changes in site access and security: None

Final Surface Cover / Vegetation

The integrity of the vegetative soil cover or other surface coverage (e.g., slag) over the entire Site must be maintained. The following documents the condition of the above.

1. Final Cover is in Place and in good condition?	☑ yes	☐ no	☐ N/A
Cover consists of (mainly): Grass			
2. Evidence of erosion?	☐ yes	☑ no	☐ N/A
3. Cracks visible in slag perimeter road?	☐ yes	☑ no	☐ N/A
4. Evidence of distressed vegetation/turf?	☐ yes	☑ no	☐ N/A
5. Evidence of unintended traffic and/or rutting?	☐ yes	☑ no	☐ N/A
6. Evidence of uneven settlement and/or ponding?	☐ yes	☑ no	☐ N/A

Field Inspection Report
Post-Remedial Operation, Maintenance & Monitoring Plan

Final Surface Cover / Vegetation

7. Damage to any surface coverage?	☐ yes	☑ no	☐ N/A
8. Extraction Well access roads (3) in stable condition?	☑ yes	☐ no	☐ N/A

Please provide more information below.

Cover is in good condition.

Storm Water Pond

1. Is there water accumulation in the pond?	☐ yes	☑ no	☐ N/A
2. Is there sign of erosion or loss of oversized slag on sideslopes of pond?	☐ yes	☑ no	☐ N/A
3. Are the inlet or outlet structures/pipes clogged with debris?	☐ yes	☑ no	☐ N/A
4. Is there sign of erosion on the emergency spillway and the down chute to Smokes Creek?	☐ yes	☑ no	☐ N/A

If yes to any questions 2 through 4 above, please provide more information below.

Gas Vent Monitoring and Maintenance

Are there signs of stressed vegetation around gas vents?	☐ yes	☑ no	☐ N/A
Is gas vent currently intact and operational?	☑ yes	☐ no	☐ N/A
Has regular maintenance and monitoring been documented and enclosed or referenced?	☑ yes	☐ no	☐ N/A

No maintenance has been required, vent remains intact and free of blockage

Field Inspection Report
Post-Remedial Operation, Maintenance & Monitoring Plan

Conveyance Piping Leak Detection

Are there signs of a groundwater/leachate leak in the cleanout manholes?	☐ yes	☑ no	☐ N/A
Is there evidence of a leak having occurred before this inspection date?	☐ yes	☑ no	☐ N/A

This space for Notes and Comments

Please include the following Attachments:

1. Photographs

SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: ATP Treatment Building (Looking west)

Photo 2: ATP Treatment Building (Looking northwest)

Photo 3: ATP control panel (Looking southeast)

Photo 4: EW well influent flow meter (Looking southwest)

SITE PHOTOGRAPHS

Photo 5:

Photo 6:

Photo 7:

Photo 8:

Photo 5: West side of containment cell (Looking north)

Photo 6: East side of containment cell (Looking north)

Photo 7: Containment cell cover with perimeter road in background (Looking south)

Photo 8: Top of containment cell cover (Looking north)

SITE PHOTOGRAPHS

Photo 9:

Photo 10:

Photo 11:

Photo 12:

Photo 9: Dry stormwater pond (Looking north)

Photo 10: Outlet structure for the stormwater pond (Looking south)

Photo 11: Inlet structure for the stormwater pond (Looking north)

Photo 12: Gas vent at the top of the containment cell (Looking northwest)