de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

Via Fedex

August 2, 2021

Ms. Patricia Pierre
Central New York Remedial Section
New York Remediation Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region II
20th Floor, 290 Broadway
New York, New York 10007

Subject: ***Annual Progress Report for July 2020 through June 2021***
Operations, Maintenance and Long Term-Monitoring Activities
Pollution Abatement Services (PAS) Site, Oswego, NY

Dear Patricia:

This Annual Progress Report (Annual Report) is submitted pursuant to *Consent Decree 98-CV0112-NPMGJD (Consent Decree)* and details the operation, maintenance, and long-term monitoring activities at the Pollution Abatement Services (PAS) Site (Site) in Oswego, NY. This Annual Report covers the period July 1, 2020 through June 30, 2021 and is consistent with the requirements of Paragraph 30 of the Consent Decree. Our next annual progress report will be submitted on or before July 31, 2022 and will document work completed between the period July 1, 2021 and June 30, 2022.

The data for this report are presented in three attachments as discussed below. Attachment I presents graphs, figures and tables documenting long-term monitoring trends for the Site. Figures showing the Site, the long-term monitoring wells, the groundwater potentiometric surface contours and vertical hydraulic gradients are included in Section I-A. Graphs showing groundwater elevations at the slurry wall well pairs are presented in Section I-B. Semi-annual groundwater and leachate sampling results are included in Section I-C. Tables showing the leachate volume removed from the Site LCW wells, the performance standards and additional Site well sample results are provided in Section I-D. Attachment II of this report contains a description of the actions completed under the Consent Decree for each quarter of this reporting period. Site maintenance and monitoring records and leachate removal and disposal records for each quarter of the reporting period are also included in Attachment II. The PAS Site Institutional Control Implementation Plan Annual Certification is provided in Section B-6 of Attachment II and documents that the requirements of the Institutional Control Plan were satisfied during this reporting period. Finally, Attachment III of this report provides a description and schedule of the actions planned during the next reporting period (July 2021 - June 2022).

de maximis, inc.

SUMMARY OF LEACHATE REMOVAL ACTIVITIES

During this reporting period (July 2020 – June 2021) PAS leachate was treated and disposed at the City of Oswego POTW. A total of 180,000 gallons were removed from the containment system and discharged to the City of Oswego POTW. (Attachment I-D, Table 1).

HYDRAULIC CONTROL OF SLURRY WALL CONTAINMENT SYSTEM

The effectiveness of the hydraulic control of the slurry wall containment system is evaluated based on a review of water level elevations used to determine hydraulic gradients, both horizontal and vertical, around and beneath the containment system. Its effectiveness is also evaluated by determining whether the water level elevations are maintained below the top of the slurry wall at its downgradient extent. Horizontal gradients around the containment system are calculated using quarterly water level elevations recorded at the SWW-series monitoring wells which are located around the perimeter of the slurry wall as shown in Attachment I-B. Vertical gradients beneath the containment system are calculated based on the difference in the water level potentiometric surface in the overburden and the bedrock monitoring wells located in the vicinity of the containment system. Figures showing the potentiometric water surfaces for both the bedrock and overburden monitoring wells for each of the quarterly water level monitoring events are presented in Attachment I-A (Set 3).

The water level data for the upgradient SWW wells SWW-1/2 and SWW-3/4 show the regional groundwater elevation has increased slightly over the past few years. The horizontal gradients at well pairs SWW-5/6 and SWW-11/12 are influenced by both leachate pumping and seasonal regional water level elevations, while horizontal gradients at other SWW well pairs are primarily affected by regional water level elevations outside the containment system. During the reporting period, the water levels at SWW-5 remained stable and showed the continued inward gradient pattern of recent years. SWW-11 showed the continued pattern of inward gradients during the winter and spring and outward gradients during the summer and fall due to low regional water levels. Generally, the charts indicate that leachate pumping at the rates prescribed effectively maintains hydraulic control to the degree practicable, although seasonal levels outside the containment system influence the gradients.

The vertical gradient figures shown in Attachment I-A indicate that vertical gradients are also seasonally affected by the regional water levels outside the containment system. The vertical hydraulic gradient plots presented show upward gradient trends over most of the Site during the winter and spring. Downward gradients were observed over the entire site during the summer with upward gradients returning to the LCW1, LCW2 and LCW4 areas in the fall. This is consistent with the historic trends of vertical gradients typically trending downward during late summer when regional water levels are relatively low.

The routine elevation monitoring conducted during this reporting period indicates hydraulic control of the slurry wall containment system is maintained through routine operation of the

leachate collection system. This observation remains consistent with the observations reported in previous annual reports.

LONG-TERM GROUNDWATER MONITORING RESULTS

The long-term groundwater quality monitoring results and trends for the downgradient monitoring wells LR-8 and M-21 are presented graphically for the period from May 2001 to May 2021 in Attachment I-C. LR-6 was last sampled in 2017 and indicated concentrations remained below the performance standards with only 1,1 dichloroethane detected consistent with historical concentrations in LR-6. The historical VOC concentrations at these wells are also presented in tabular format in Figure 2 in Attachment I-A. Semi-annual groundwater quality monitoring results indicate that VOC-concentrations (mainly chlorobenzene) continue to fluctuate at low part per billion levels in the downgradient monitoring wells LR-8 and M-21. In accordance with the prior annual reports, LR-6 was not sampled during this reporting period and will be sampled again in 2022 prior to the next EPA 5-year review. Monitoring results at LR-8, the long-term monitoring well located closest to the downgradient extent of the slurry wall, remained low during the 2020-2021 period. Chlorobenzene concentrations in LR-8 were detected at 15.3 ug/L in November 2020 and Benzene was detected at 2.45 ug/L. These detections were above the respective performance standards of 5 ug/L for Chlorobenzene and 0.7 ug/L for Benzene. However, all constituents were ND in May 2021. Monitoring results for downgradient well M-21, which is located south of Mitchell Street and north of the slurry wall containment system, were at or near ND for all constituents except chlorobenzene which was detected below the performance standard at 1.09 ug/L in November 2020 and 3.25 ug/L in May 2021. The results for LR-8 and M-21 are consistent with past trends.

Well OD-3 was not sampled for the Consent Decree performance standards in this period. As with LR-6, OD-3 will be sampled again in November 2022. The current data along with historic data is provided in Table 3.

Graphs showing leachate concentrations at LCW-2 and LCW-4 during the period May 2020 to May 2021 are also included in Attachment I-C. Leachate VOC concentrations in leachate collection well LCW-2, located in the downgradient collection trench, and well LCW-4, located in the central collection trench, showed leachate quality results consistent with historic concentrations. LCW-4 VOC concentrations continued to be higher than VOC concentrations reported at LCW-2. Consistent with historical trends, Xylene continued to be the performance parameter with the highest concentration in the LCW-4 location. Benzene was the constituent with the highest concentration in LCW-2 over the period. Concentrations at both LCW locations, inside the containment area, remained above the concentrations of wells outside the containment area and the performance parameters. The concentrations seen at LCW-4 were consistently higher than the concentrations at LCW-2.

Although some constituents including chlorobenzene fluctuated near the performance standard in the downgradient wells, the long-term monitoring results continued to support the findings that hydraulic control of the containment system controls VOC concentrations downgradient of the slurry wall containment system and that the Site remedies continue to be protective of human health and the environment.

If you have any questions, please call me at (865) 691-5052.

Sincerely,
de maximis, inc

Clay McClarnon

CMC/dsr

Attachments

cc: PAS Oswego Steering Committee
Marla Weider, Esq. USEPA
Payson Long, NYSDEC, Div. of Hazardous Waste Remediation
Brian Rogers, NYSDEC Region 7 Office
Ian Ushe, NYDOH, Office of Public Health

ANNUAL PROGRESS REPORT

PAS OSWEGO SUPERFUND SITE

OSWEGO, NEW YORK

July 2021

Submitted By:

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052

LIST OF ATTACHMENTS

II – C 1st Quarter 2021

C-1 Groundwater Elevation Data
C-2 Site Inspection Checklist
C-3 Leachate Disposal Checklist
C-4 Quarterly POTW Discharge Reports – 1st Quarter 2021

II – D 2nd Quarter 2021

D-1 Groundwater Elevation Data
D-2 Site Inspection Checklist
D-3 Leachate Disposal Checklist
D-4 Semi-Annual Leachate and Groundwater Monitoring Data (May 2021)
D-5 Quarterly POTW Discharge Reports – 2nd Quarter 2021

ATTACHMENT III – *ACTIONS PLANNED*

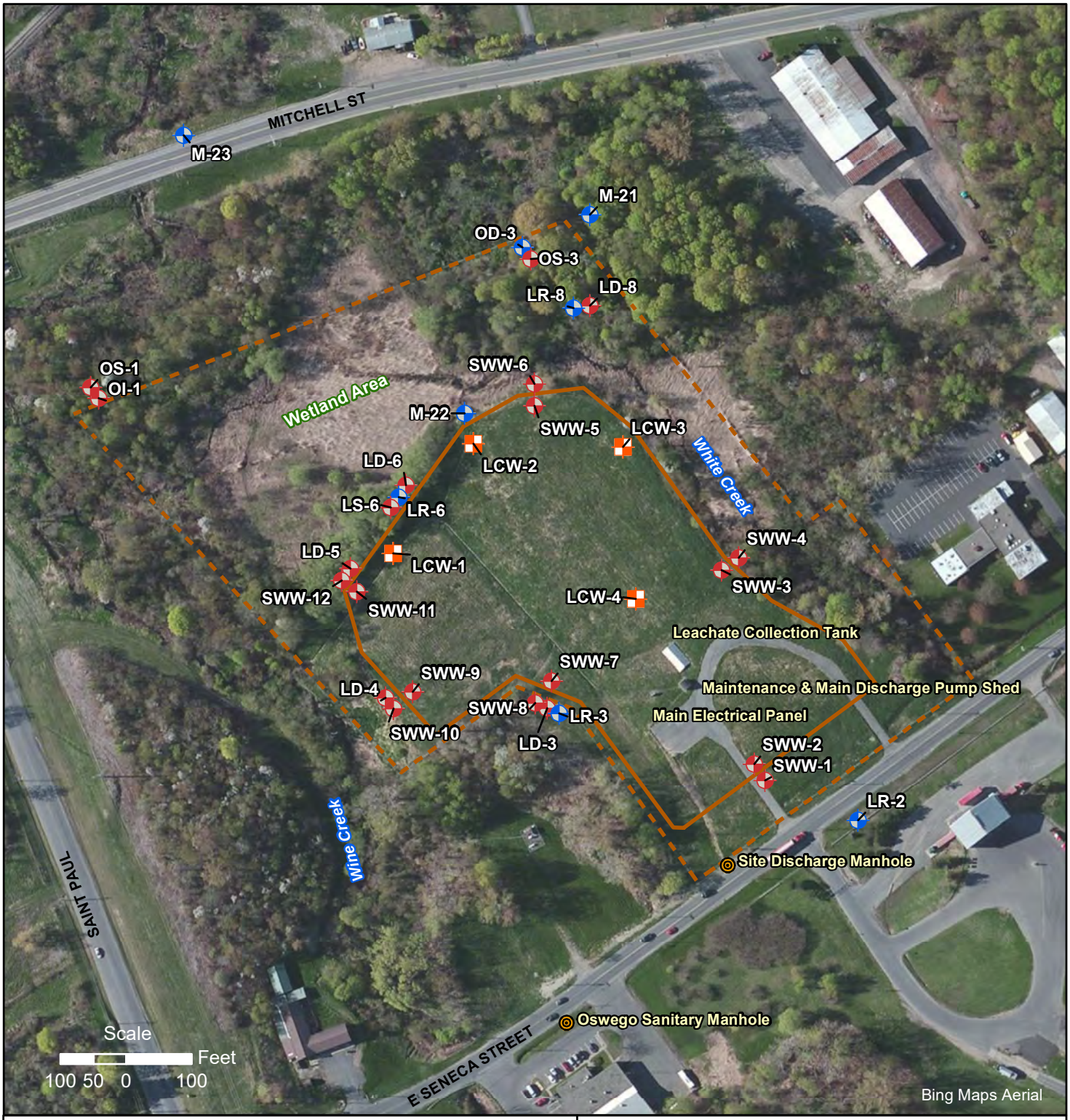
III – Future Report

ATTACHMENT I

FIGURES, TABLES AND GRAPHS

I-A

FIGURES



LEGEND

Sample Locations

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Manhole
- Fence (Site Boundary)
- Slurry Wall

EXISTING SITE WELLS

PAS Site, Oswego, New York

Figure 1

N

Project No.: 3131
Plot Date: 4 May 2012
Arc Operator: BJAR
Reviewed by:

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1217 Bandana Boulevard North
Saint Paul, Minnesota 55108
Main Phone: (651) 842-4224
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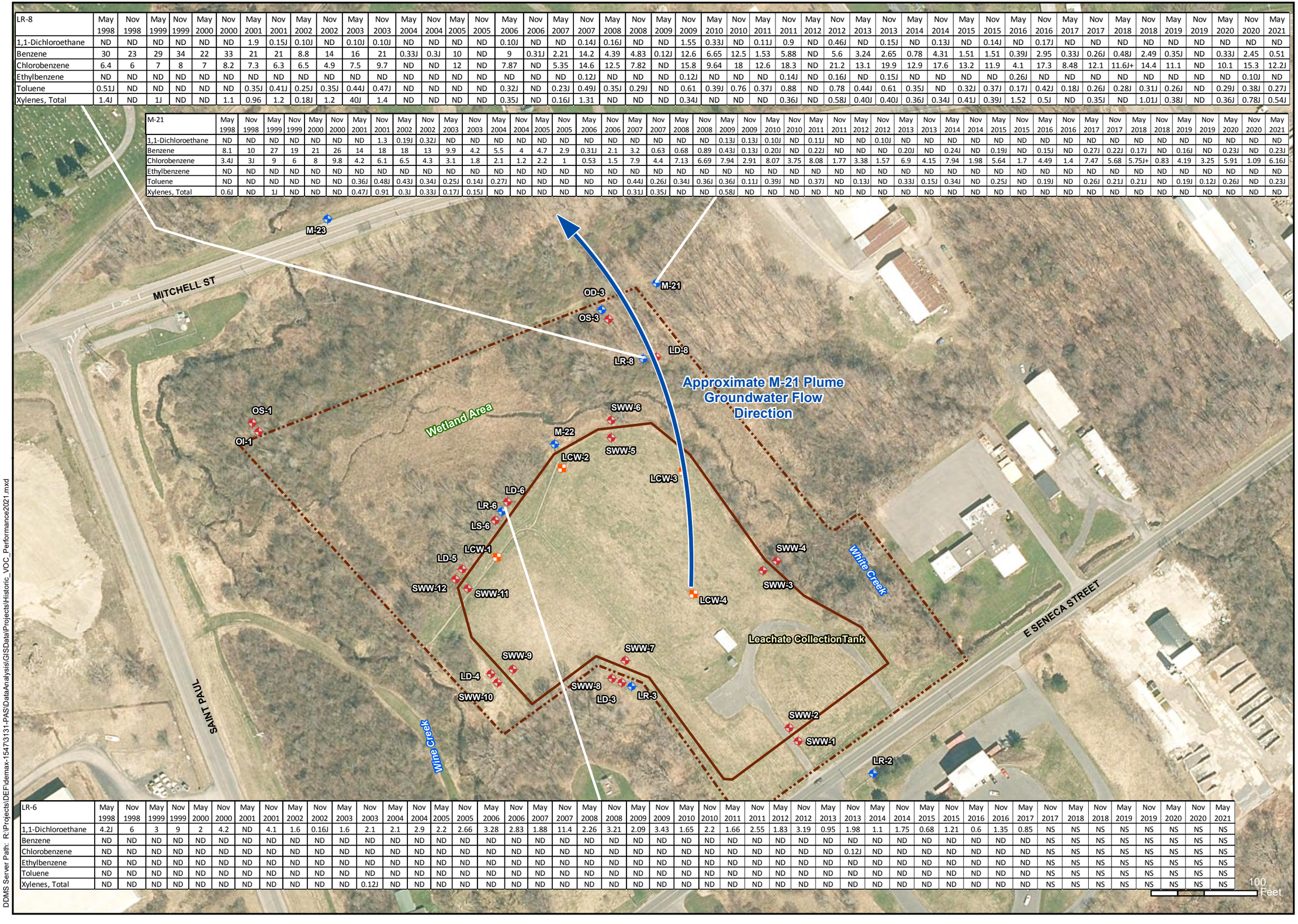
R:\Projects\DEF\demax-1547\3131-PAS\DataAnalysis\GISData\Projects\120504_SiteMap.mxd

LR-8	May 1998	Nov 1998	May 1999	Nov 1999	May 2000	Nov 2000	May 2001	Nov 2001	May 2002	Nov 2002	May 2003	Nov 2003	May 2004	Nov 2004	May 2005	Nov 2005	May 2006	Nov 2006	May 2007	Nov 2007	May 2008	Nov 2008	May 2009	Nov 2009	May 2010	Nov 2010	May 2011	Nov 2011	May 2012	Nov 2012	May 2013	Nov 2013	May 2014	Nov 2014	May 2015	Nov 2015	May 2016	Nov 2016	May 2017	Nov 2017	May 2018	Nov 2018	May 2019	Nov 2019	May 2020	Nov 2020	May 2021
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	1.9	0.15J	0.10J	ND	0.10J	0.10J	ND	ND	ND	ND	0.10J	ND	ND	0.14J	0.16J	ND	ND	1.55	0.33J	ND	0.11J	0.9	ND	0.46J	ND	0.15J	ND	0.13J	ND	0.14J	ND	0.17J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	30	23	29	34	22	33	21	21	8.8	14	16	21	0.33J	0.3J	10	ND	9	0.31J	2.21	14.2	4.39	4.83	0.12J	12.6	6.65	12.5	1.53	5.88	ND	5.6	3.24	2.65	0.78	4.31	1.51	1.51	0.39J	2.95	0.33J	0.26J	0.48J	2.49	0.35J	ND	0.33J	2.45	0.51
Chlorobenzene	6.4	6	7	8	7	8.2	7.3	6.3	6.5	4.9	7.5	9.7	ND	ND	12	ND	7.87	ND	5.35	14.6	12.5	7.82	ND	15.8	9.64	18	12.6	18.3	ND	21.2	13.1	19.9	12.9	17.6	13.2	11.9	4.1	17.3	8.48	12.1	11.6J+	14.4	11.1	ND	10.1	15.3	12.2J
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12J	ND	ND	ND	0.12J	ND	ND	ND	0.14J	ND	0.16J	ND	0.15J	ND	ND	ND	ND	0.26J	ND	ND	ND	ND	ND	ND	ND	ND	0.10J	ND
Toluene	0.51J	ND	ND	ND	ND	ND	0.35J	0.41J	0.25J	0.35J	0.44J	0.47J	ND	ND	ND	ND	0.32J	ND	0.23J	0.49J	0.35J	0.29J	ND	0.61	0.39J	0.76	0.37J	0.88	ND	0.78	0.44J	0.61	0.35J	ND	0.32J	0.37J	0.17J	0.42J	0.18J	0.26J	0.28J	0.31J	0.26J	ND	0.29J	0.38J	0.27J
Xylenes, Total	1.4J	ND	1J	ND	ND	1.1	0.96	1.2	0.18J	1.2	40J	1.4	ND	ND	ND	ND	0.35J	ND	0.16J	1.31	ND	ND	ND	0.34J	ND	ND	ND	0.36J	ND	0.58J	0.40J	0.40J	0.36J	0.34J	0.41J	0.39J	1.52	0.5J	ND	0.35J	ND	1.01J	0.38J	ND	0.36J	0.78J	0.54J

M-21	May 1998	Nov 1998	May 1999	Nov 1999	May 2000	Nov 2000	May 2001	Nov 2001	May 2002	Nov 2002	May 2003	Nov 2003	May 2004	Nov 2004	May 2005	Nov 2005	May 2006	Nov 2006	May 2007	Nov 2007	May 2008	Nov 2008	May 2009	Nov 2009	May 2010	Nov 2010	May 2011	Nov 2011	May 2012	Nov 2012	May 2013	Nov 2013	May 2014	Nov 2014	May 2015	Nov 2015	May 2016	Nov 2016	May 2017	Nov 2017	May 2018	Nov 2018	May 2019	Nov 2019	May 2020	Nov 2020	May 2021
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	1.3	0.19J	0.32J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.13J	0.13J	0.10J	ND	0.11J	ND	ND	0.10J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	8.1	10	27	19	21	26	14	18	18	13	9.9	4.2	5.5	4	4.7	2.9	0.31J	2.1	3.2	0.63	0.68	0.89	0.43J	0.13J	0.20J	ND	0.22J	ND	ND	ND	0.20J	ND	0.24J	ND	0.19J	ND	0.15J	ND	0.27J	0.22J	0.17J	ND	0.16J	ND	0.23J	ND	0.23J
Chlorobenzene	3.4J	3J	9	6	8	9.8	4.2	6.1	6.5	4.3	3.1	1.8	2.1	1.2	2.2	1	0.53	1.5	7.9	4.4	7.13	6.69	7.94	2.91	8.07	3.75	8.08	1.77	3.38	1.57	6.9	4.15	7.94	1.98	5.64	1.7	4.49	1.4	7.47	5.68	5.75J+	0.83	4.19	3.25	5.91	1.09	6.16J
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	0.36J	0.48J	0.43J	0.34J	0.25J	0.14J	0.27J	ND	ND	ND	ND	ND	ND	0.44J	0.26J	0.34J	0.36J	0.36J	0.11J	0.39J	ND	0.37J	ND	0.13J	ND	0.33J	0.15J	0.34J	ND	0.25J	ND	0.19J	ND	0.26J	0.21J	0.21J	ND	0.19J	0.12J	0.26J	ND	0.23J
Xylenes, Total	0.6J	ND	1J	ND	ND	ND	0.47J	0.91	0.3J	0.33J	0.17J	0.15J	ND	ND	ND	ND	ND	ND	ND	0.31J	0.35J	ND	ND	0.58J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND



LR-6	May 1998	Nov 1998	May 1999	Nov 1999	May 2000	Nov 2000	May 2001	Nov 2001	May 2002	Nov 2002	May 2003	Nov 2003	May 2004	Nov 2004	May 2005	Nov 2005	May 2006	Nov 2006	May 2007	Nov 2007	May 2008	Nov 2008	May 2009	Nov 2009	May 2010	Nov 2010	May 2011	Nov 2011	May 2012	Nov 2012	May 2013	Nov 2013	May 2014	Nov 2014	May 2015	Nov 2015	May 2016	Nov 2016	May 2017	Nov 2017	May 2018	Nov 2018	May 2019	Nov 2019	May 2020	Nov 2020	May 2021
1,1-Dichloroethane	4.2J	6	3	9	2	4.2	ND	4.1	1.6	0.16J	1.6	2.1	2.1	2.9	2.2	2.66	3.28	2.83	1.88	11.4	2.26	3.21	2.09	3.43	1.65	2.2	1.66	2.55	1.83	3.19	0.95	1.98	1.1	1.75	0.68	1.21	0.6	1.35	0.85	NS	NS	NS	NS	NS	NS	NS	NS
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12J	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS

DDMS Server Path: R:\Projects\DEF\demax-1547\3131-PAS\DataAnalysis\GISData\Projects\Historic_VOC_Performance2021.mxd

Map Legend:

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Fence (Site Boundary)
- Slurry Wall

N

Notes:
VOC concentration values displayed in tables are measured in ug/L.

Data Qualifier Definitions:
ND = Not detected
NS = Not Sampled
J = Estimated concentration (less than sample quantitation limit)
J+ = Estimated, may be biased high

Basemap Source: esri World Imagery

Spatial Projection:

Coordinate System:
UTM Zone 18N
Units: Meters
Datum: NAD83

Plot Info:

Created For: PAS
Project No.: 1547-3131
Plot Date: 7/22/2021
Arc Operator: JNR
Reviewed by: BF

Figure 2

Historical Concentrations of VOCs of Concern Detected in Consent Decree Wells (1998-2021)

Pollution Abatement Servcies Site
Oswego, New York

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St. Paul, Minnesota 55107
Main Phone: (651) 842-4224
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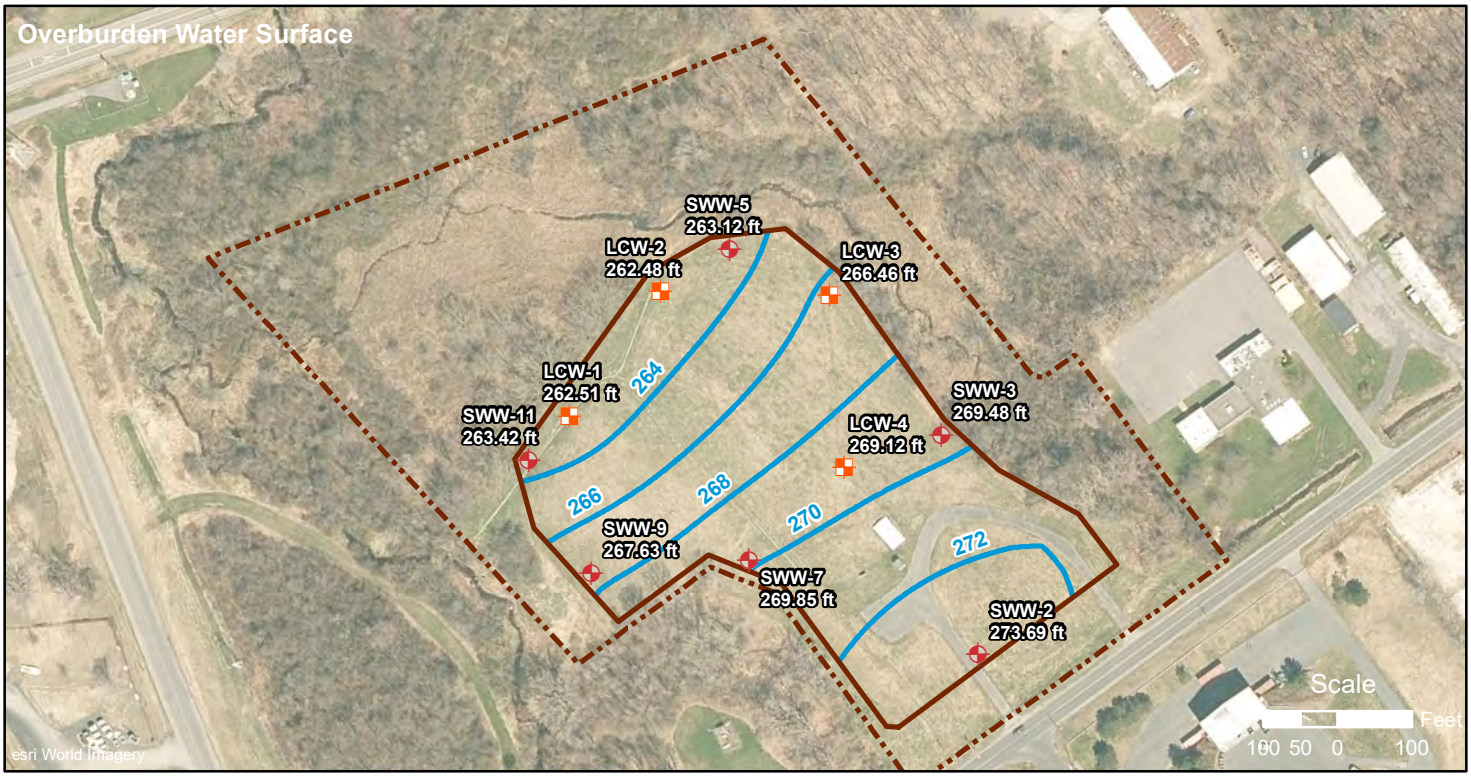
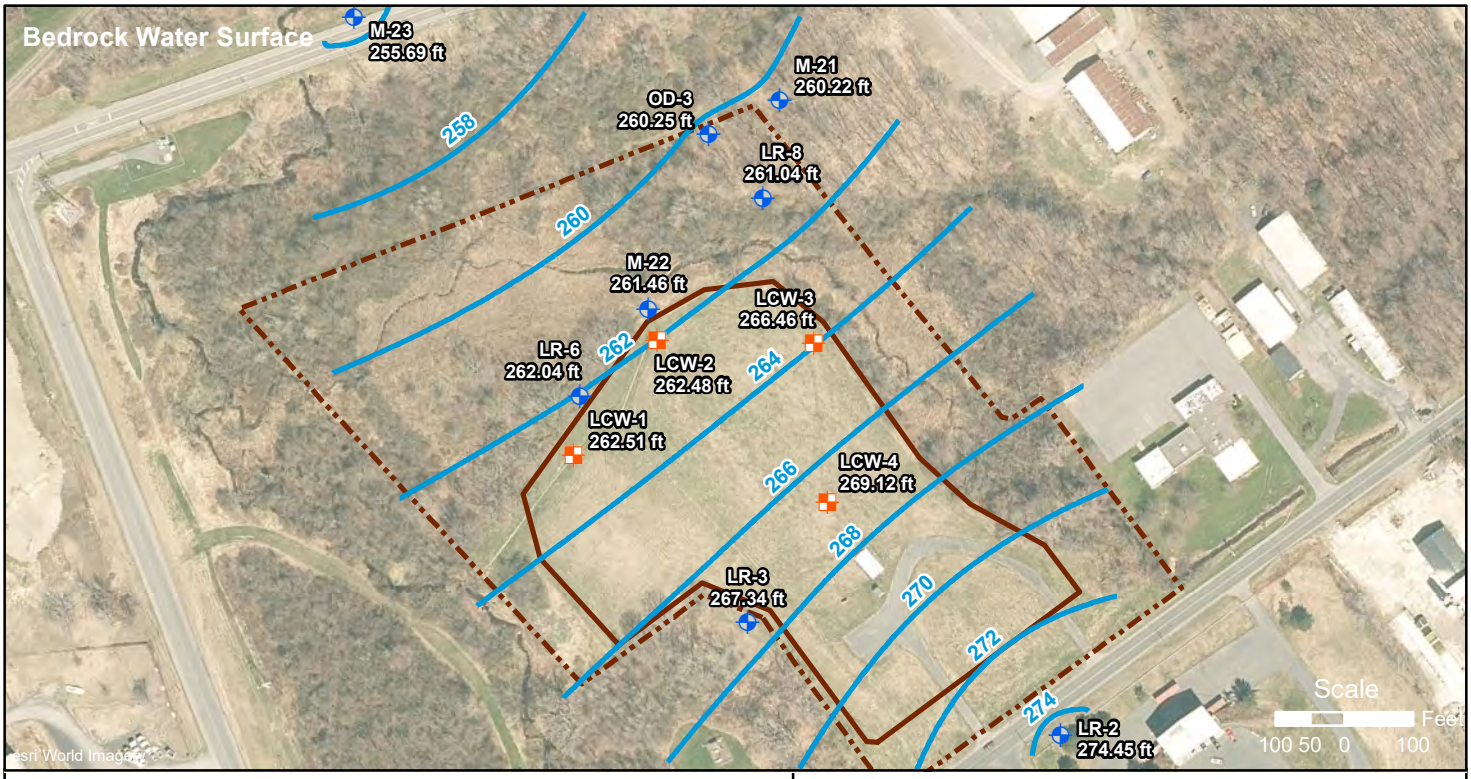
FIGURE SET 3

HYDRAULIC GRADIENT





LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Potentiometric Surface Contours (ft)
- Fence (Site Boundary)
- Slurry Wall

Notes: LCW wells labeled on Bedrock Water Surface map for reference only and were not used in creation of the potentiometric surface.

Linear kriging was used to determine both potentiometric surfaces. Bedrock contours within the containment system are inferred from the identified bedrock wells.

POTENTIOMETRIC SURFACES
August 4, 2020
PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 7/8/2021
Arc Operator: JNR
Reviewed by: BF

Figure 2020-Q3-A

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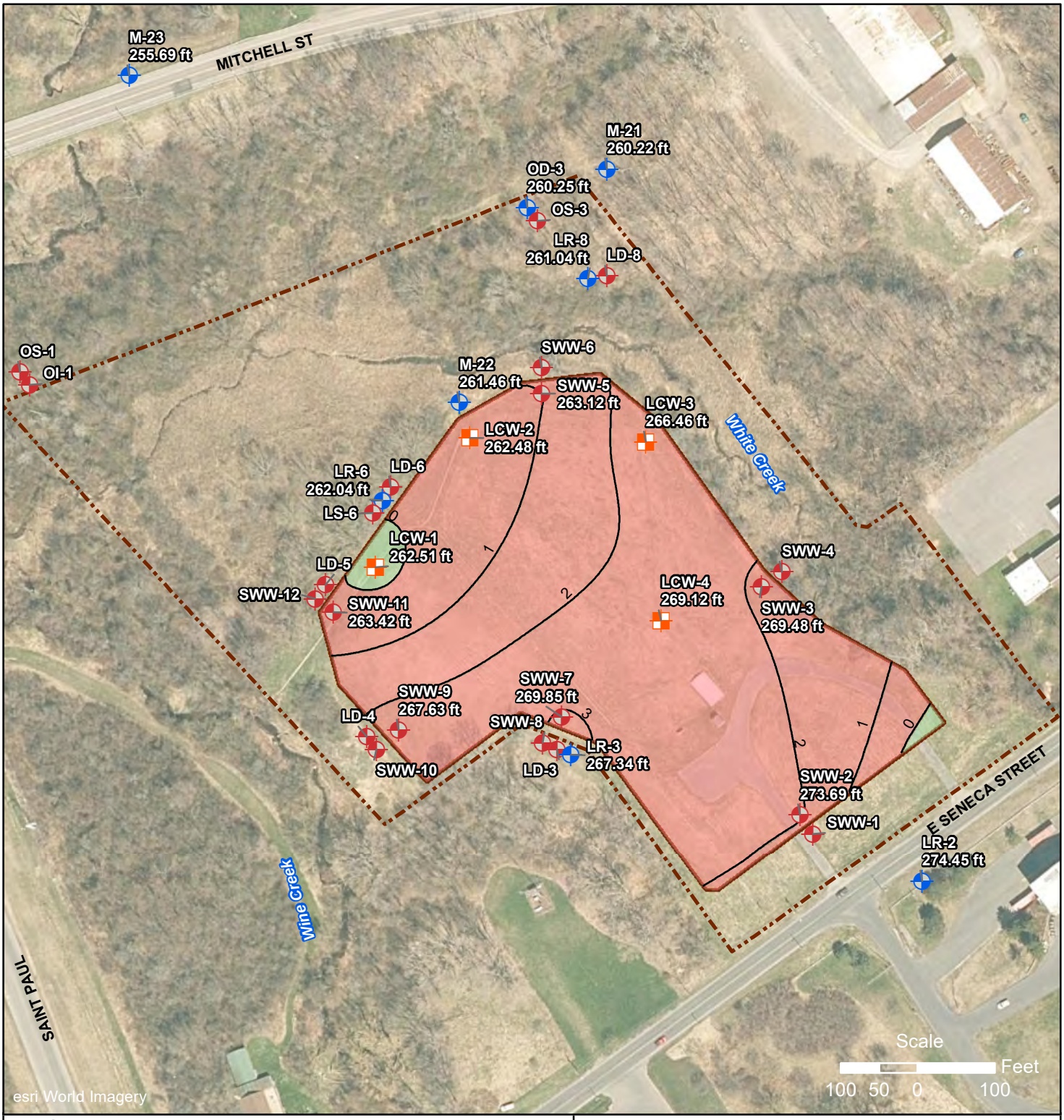
R:\Projects\DEF\demax-1547\3131-PAS\DataAnalysis\GISData\Projects\PotentiometricSurfaces_2020Q3.mxd



LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Fence (Site Boundary)
- Line of Potentiometric Surface Difference (ft)
- Upward Vertical Hydraulic Gradient
- Downward Vertical Hydraulic Gradient
- Slurry Wall

Notes:
Overburden wells within the slurry wall were used to calculate the overburden potentiometric surface. Bedrock wells outside the slurry wall were used to calculate bedrock potentiometric surface. The bedrock potentiometric surface was subtracted from the overburden surface to produce the inferred vertical hydraulic gradient.

Negative gradient values indicate an upward hydraulic gradient.

INFERRED VERTICAL HYDRAULIC GRADIENT - August 4th, 2020

PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 7/8/2021
Arc Operator: JNR
Reviewed by: RF

Figure 2020-Q3-B

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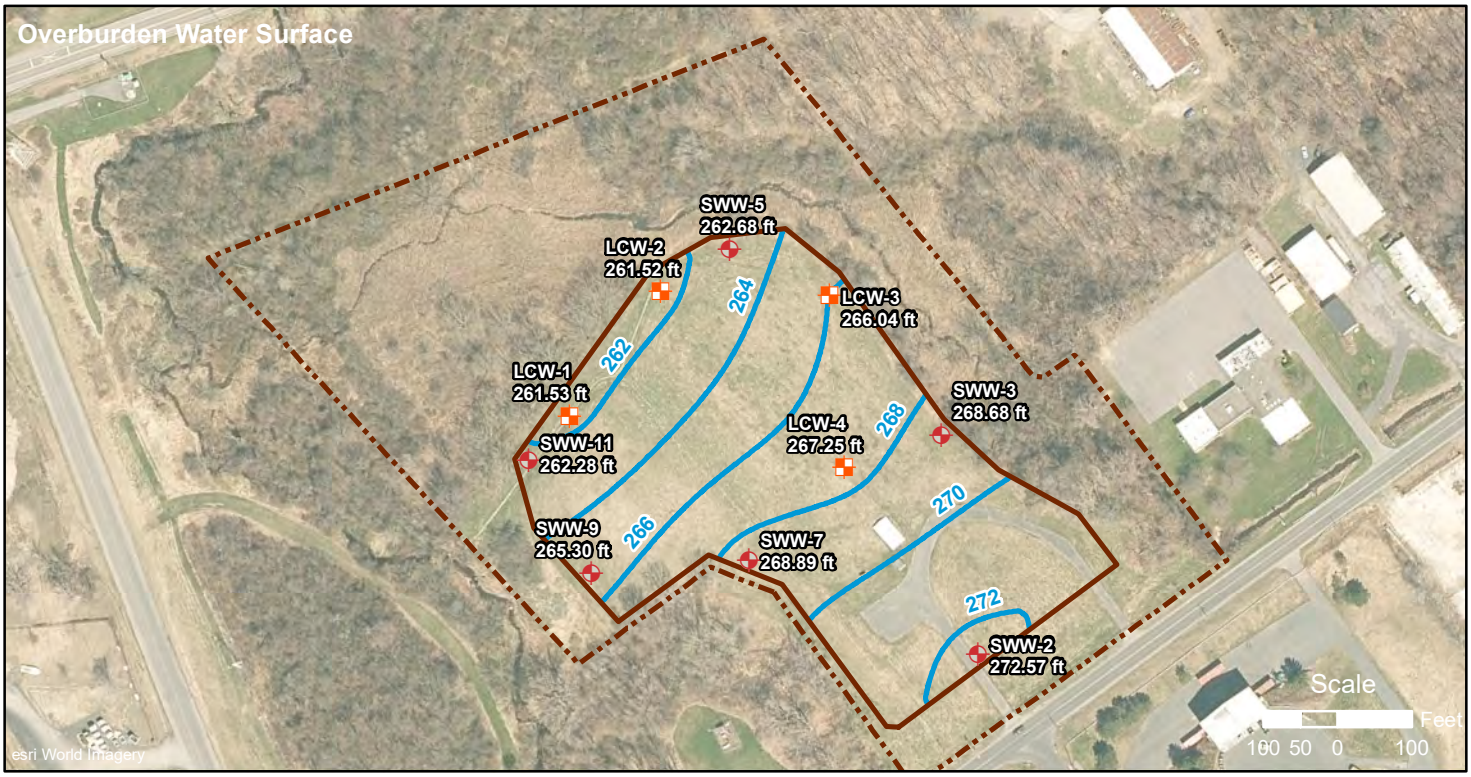
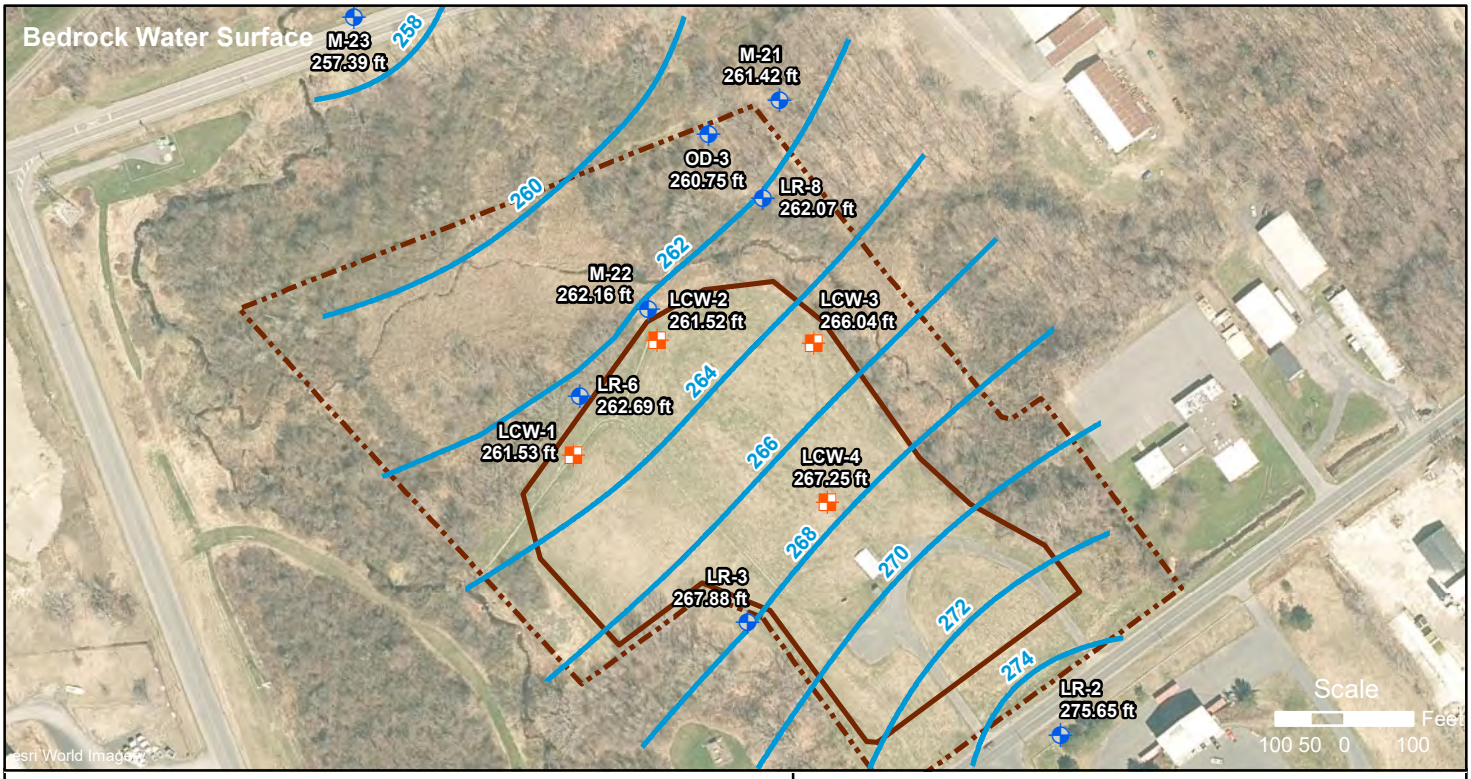
R:\Projects\DEF\demax-1547\3131-PAS\DataAnalysis\GISData\Projects\VerticalHydraulicGradient_202008Q3.mxd





LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Potentiometric Surface Contours (ft)
- Fence (Site Boundary)
- Slurry Wall

Notes: LCW wells labeled on Bedrock Water Surface map for reference only and were not used in creation of the potentiometric surface.

Linear kriging was used to determine both potentiometric surfaces. Bedrock contours within the containment system are inferred from the identified bedrock wells.

POTENTIOMETRIC SURFACES
November 2, 2020
PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 7/8/2021
Arc Operator: JNR
Reviewed by: BF

Figure 2020-Q4-A

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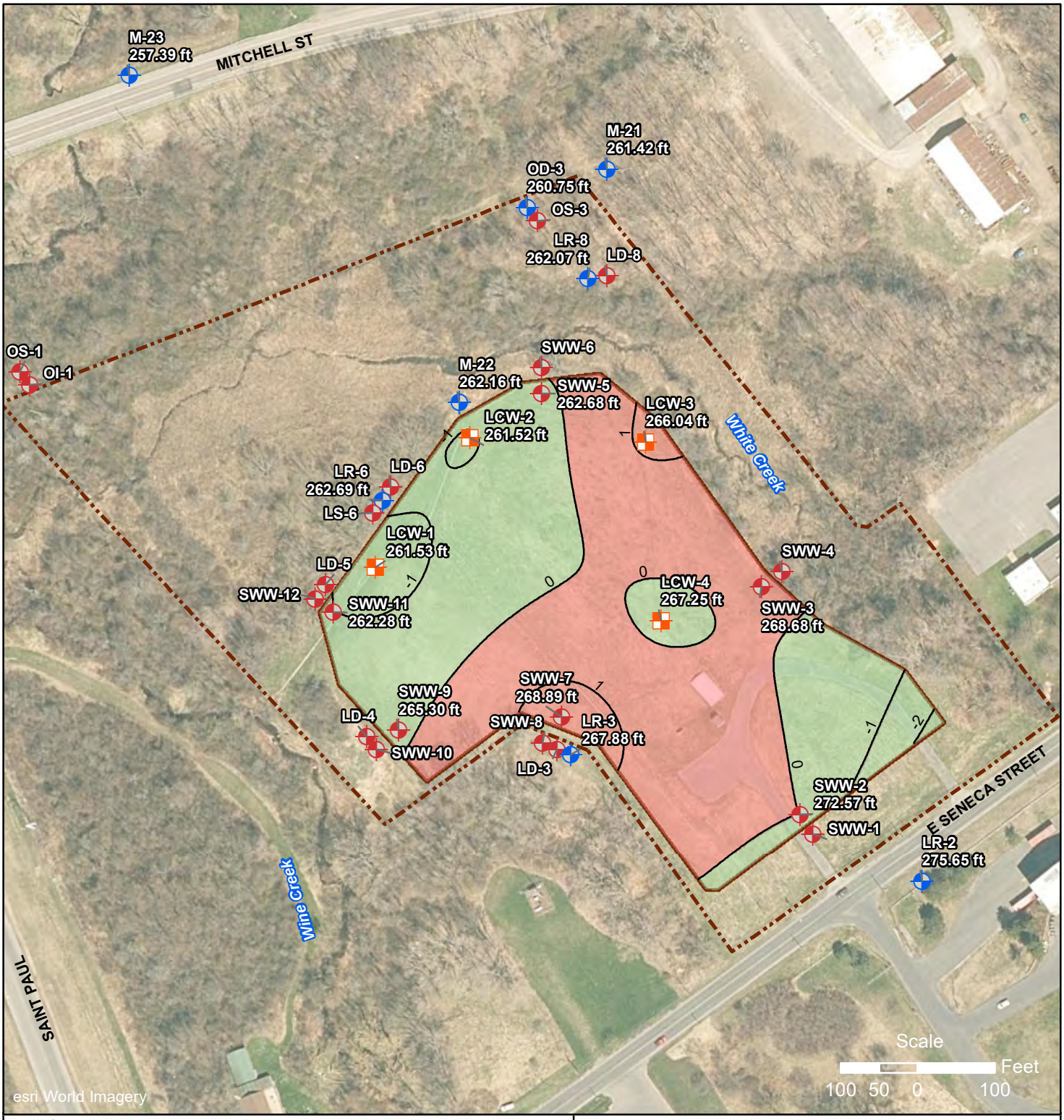
R:\Projects\DEF\demax-1547\3131-PAS\DataAnalysis\GISData\Projects\PotentiometricSurfaces_2020Q4.mxd



LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Fence (Site Boundary)
- Line of Potentiometric Surface Difference (ft)
- Upward Vertical Hydraulic Gradient
- Downward Vertical Hydraulic Gradient
- Slurry Wall

Notes:
Overburden wells within the slurry wall were used to calculate the overburden potentiometric surface. Bedrock wells outside the slurry wall were used to calculate bedrock potentiometric surface. The bedrock potentiometric surface was subtracted from the overburden surface to produce the inferred vertical hydraulic gradient.

Negative gradient values indicate an upward hydraulic gradient.

INFERRED VERTICAL HYDRAULIC GRADIENT - Novemer 2nd, 2020

PAS Site, Oswego, New York

Figure 2020-Q4-B

N

Project No.: 3131
Plot Date: 7/8/2021
Arc Operator: JNR
Reviewed by: RF

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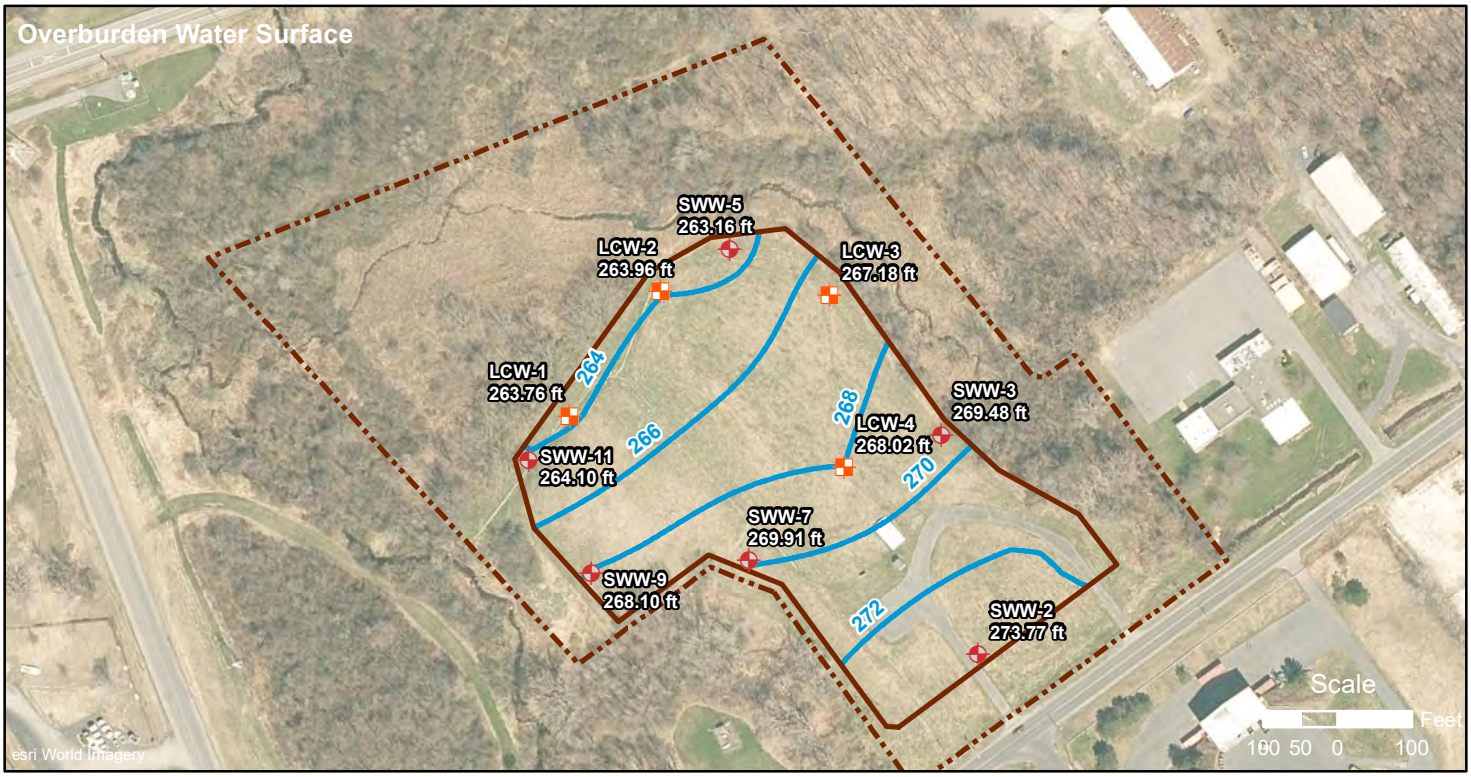

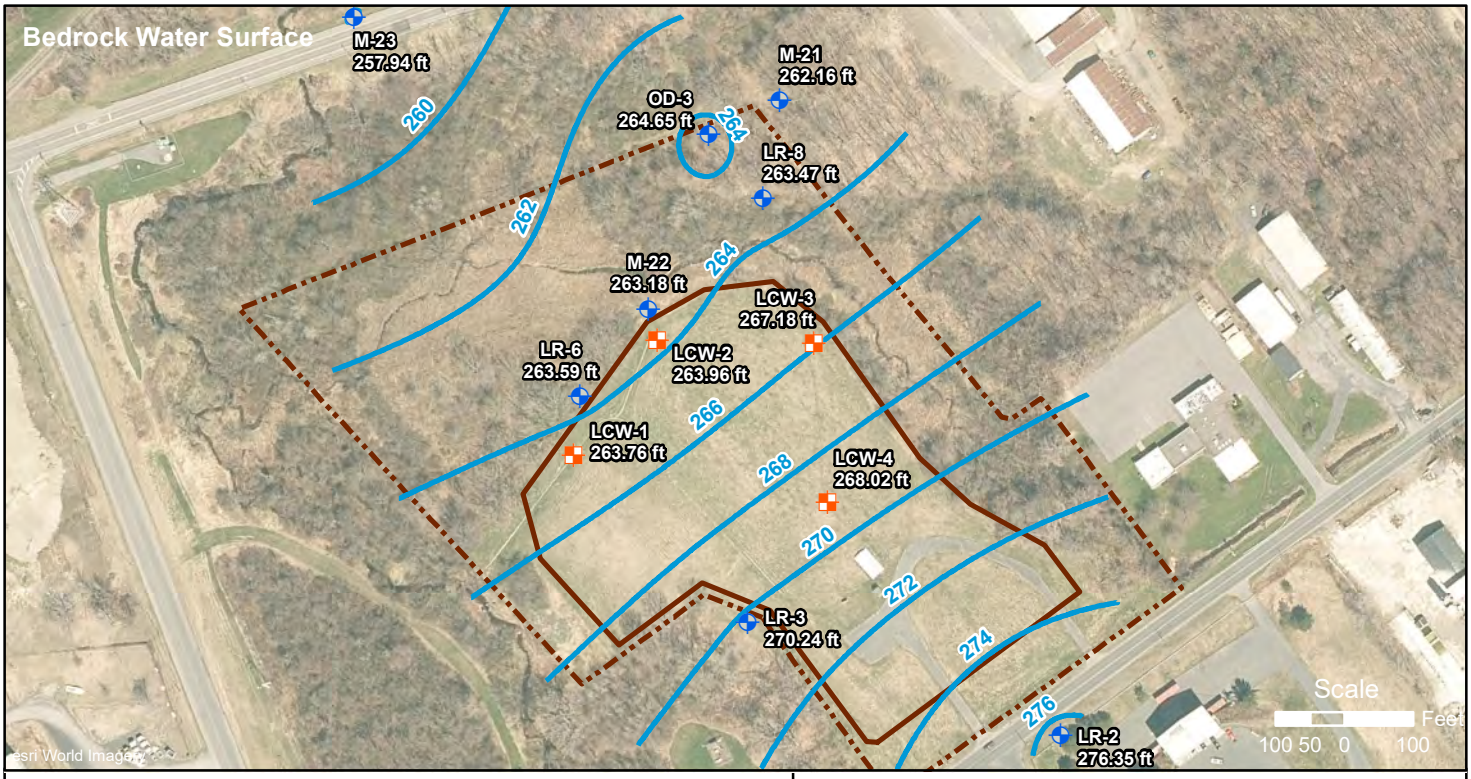

LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Potentiometric Surface Contours (ft)
- Fence (Site Boundary)
- Slurry Wall

Notes: LCW wells labeled on Bedrock Water Surface map for reference only and were not used in creation of the potentiometric surface.

Linear kriging was used to determine both potentiometric surfaces. Bedrock contours within the containment system are inferred from the identified bedrock wells.

POTENTIOMETRIC SURFACES
Febuary 9, 2021
PAS Site, Oswego, New York

Figure 2021-Q1-A

N

Project No.: 3131
Plot Date: 7/8/2021
Arc Operator: JNR
Reviewed by: BF

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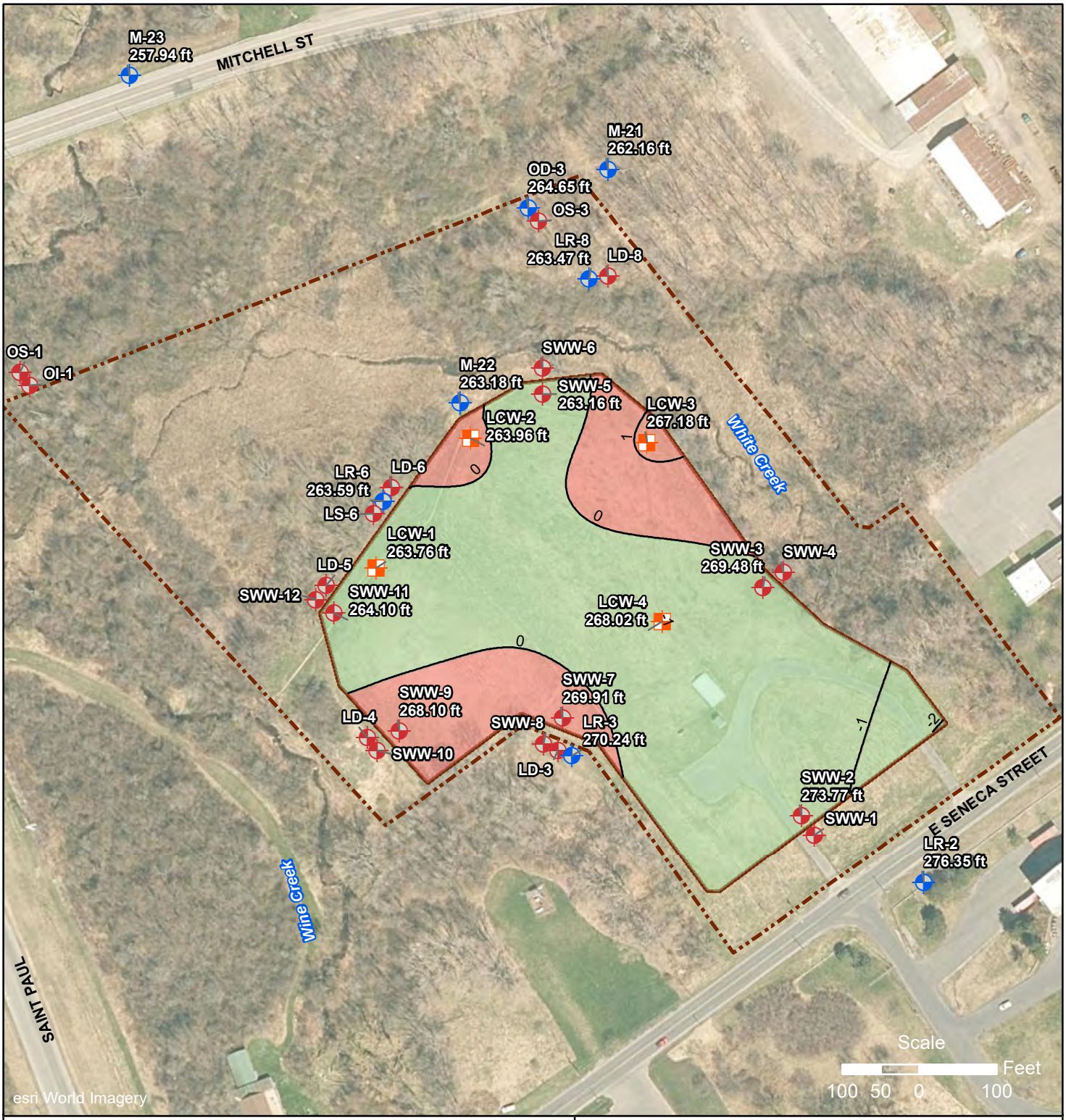

LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Fence (Site Boundary)
- Line of Potentiometric Surface Difference (ft)
- Upward Vertical Hydraulic Gradient
- Downward Vertical Hydraulic Gradient
- Slurry Wall

Notes:
Overburden wells within the slurry wall were used to calculate the overburden potentiometric surface. Bedrock wells outside the slurry wall were used to calculate bedrock potentiometric surface. The bedrock potentiometric surface was subtracted from the overburden surface to produce the inferred vertical hydraulic gradient.

Negative gradient values indicate an upward hydraulic gradient.

INFERRED VERTICAL HYDRAULIC GRADIENT - Febuary 9th, 2021

PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 7/8/2021
Arc Operator: JNR
Reviewed by: RF

Figure 2021-Q1-B

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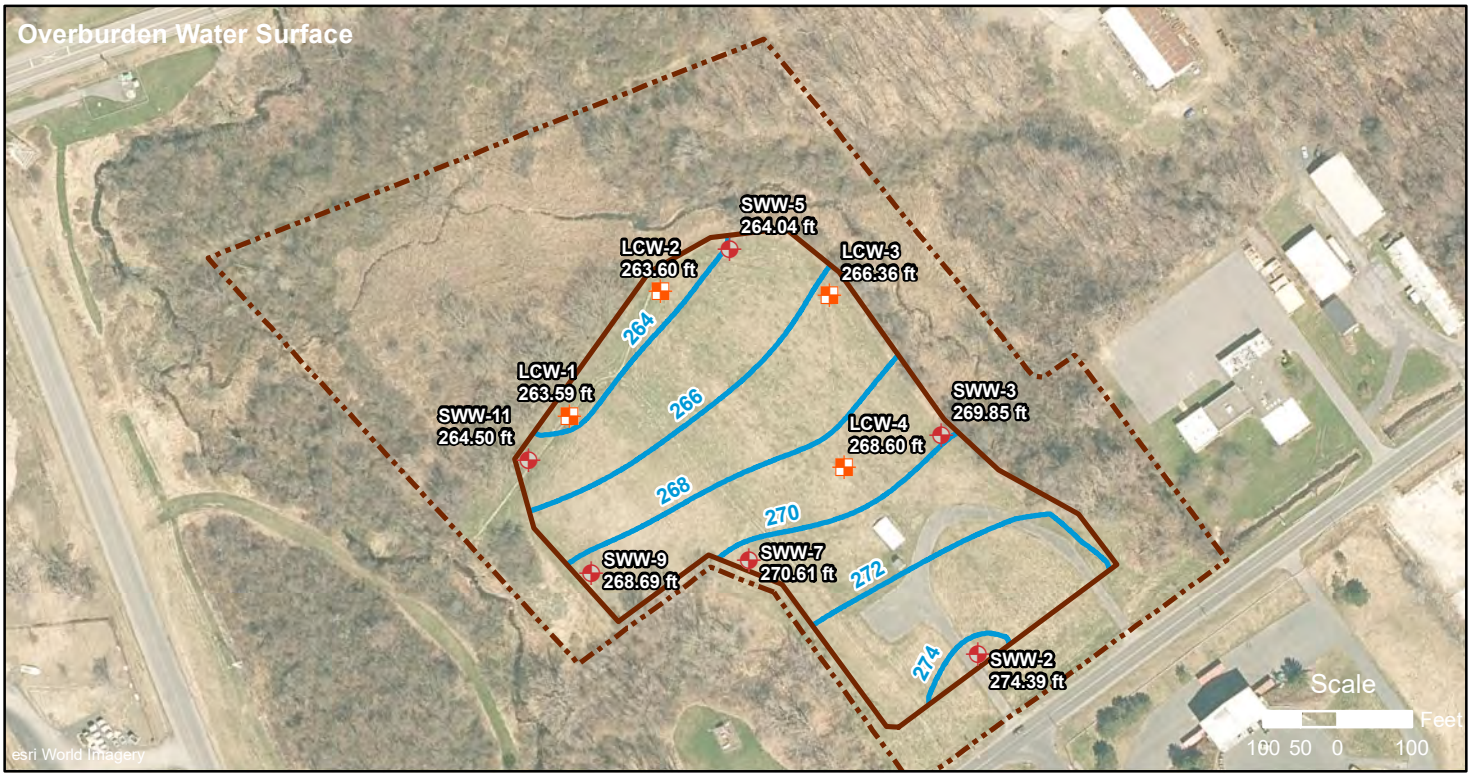

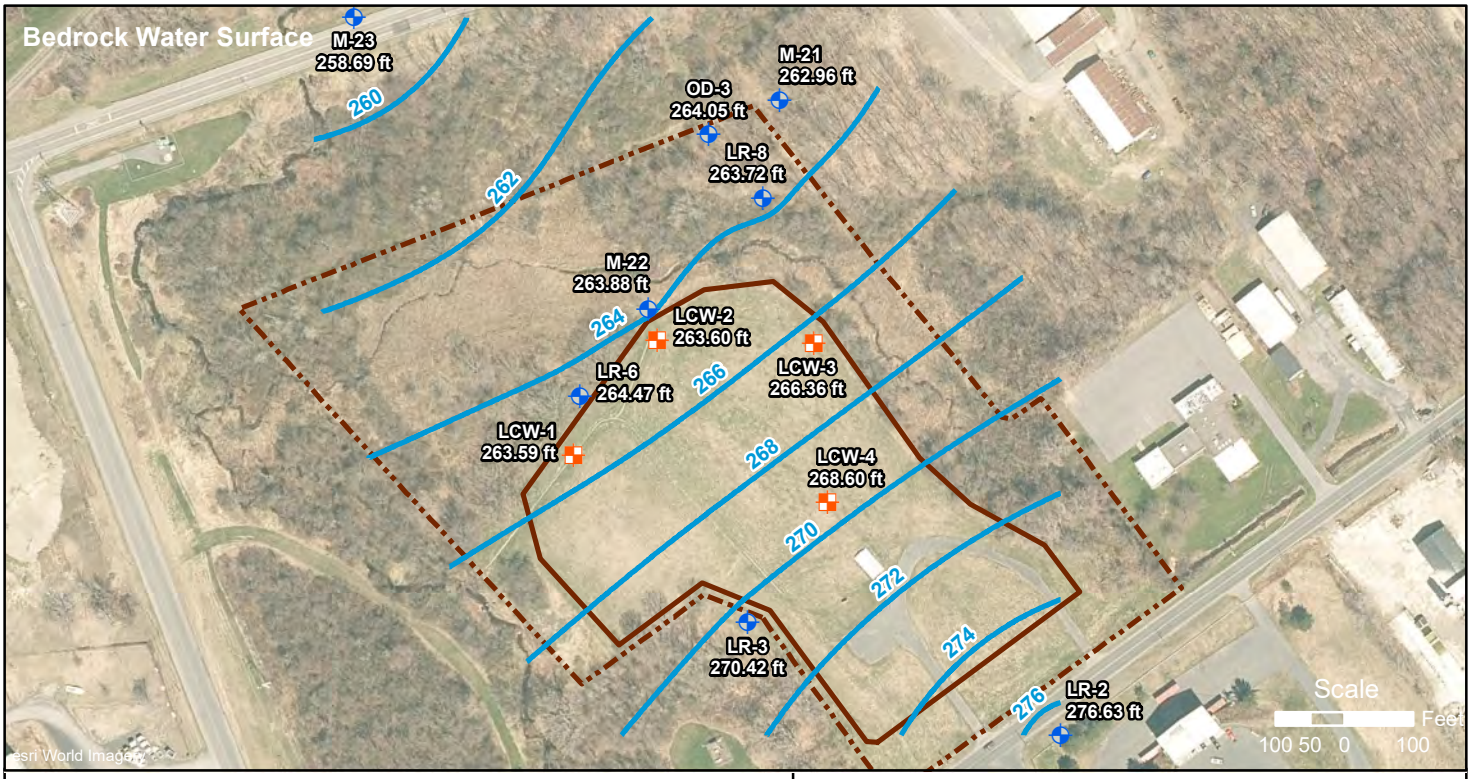

LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Potentiometric Surface Contours (ft)
- Fence (Site Boundary)
- Slurry Wall

Notes: LCW wells labeled on Bedrock Water Surface map for reference only and were not used in creation of the potentiometric surface.

Linear kriging was used to determine both potentiometric surfaces. Bedrock contours within the containment system are inferred from the identified bedrock wells.

POTENTIOMETRIC SURFACES
May 3, 2021
PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 7/8/2021
Arc Operator: JNR
Reviewed by: BF

Figure 2021-Q2-A

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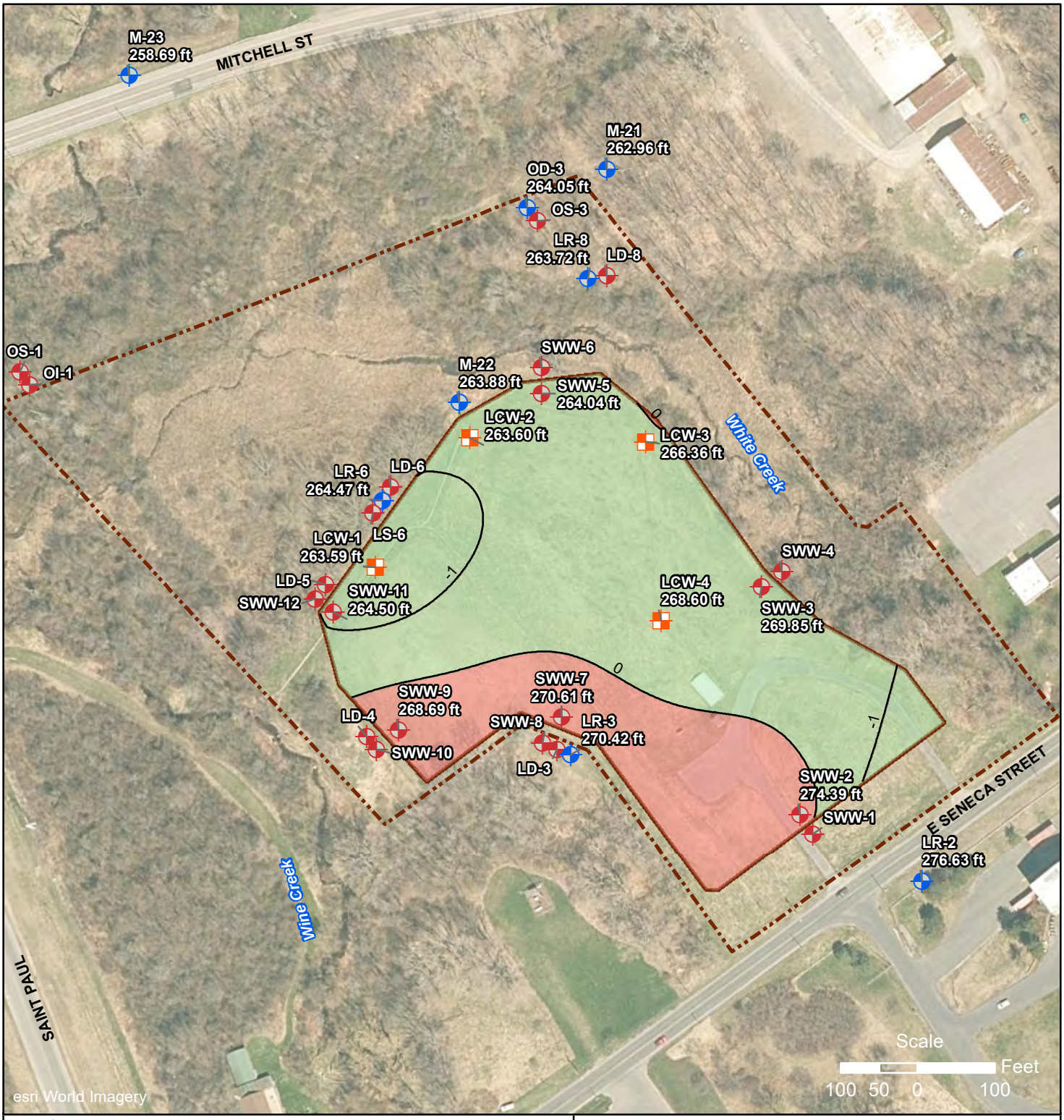

LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Fence (Site Boundary)
- Line of Potentiometric Surface Difference (ft)
- Upward Vertical Hydraulic Gradient
- Downward Vertical Hydraulic Gradient
- Slurry Wall

Notes:
Overburden wells within the slurry wall were used to calculate the overburden potentiometric surface. Bedrock wells outside the slurry wall were used to calculate bedrock potentiometric surface. The bedrock potentiometric surface was subtracted from the overburden surface to produce the inferred vertical hydraulic gradient.

Negative gradient values indicate an upward hydraulic gradient.

INFERRED VERTICAL HYDRAULIC GRADIENT - May 3th, 2021

PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 7/8/2021
Arc Operator: JNR
Reviewed by: RF

Figure 2021-Q2-B

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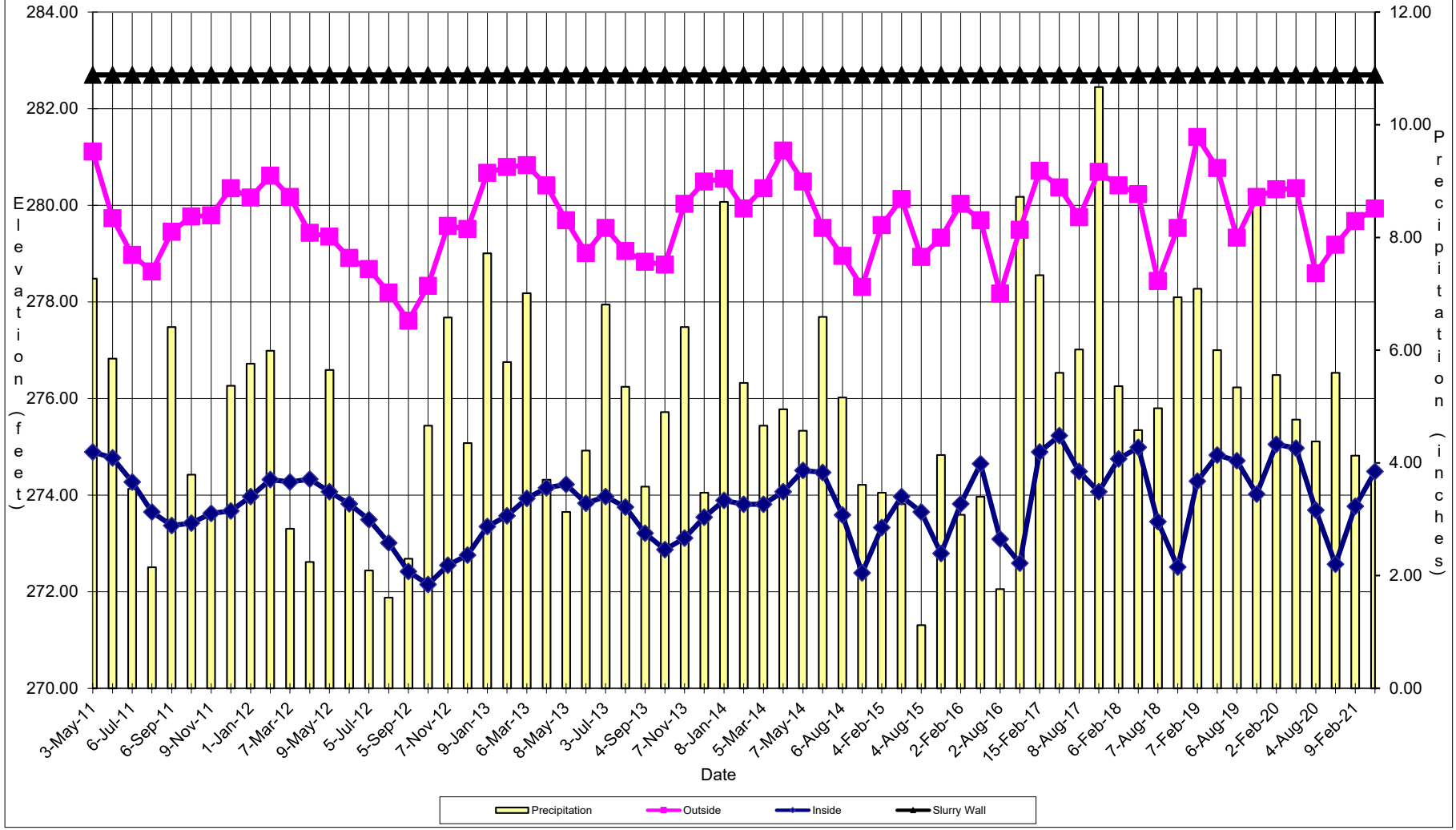
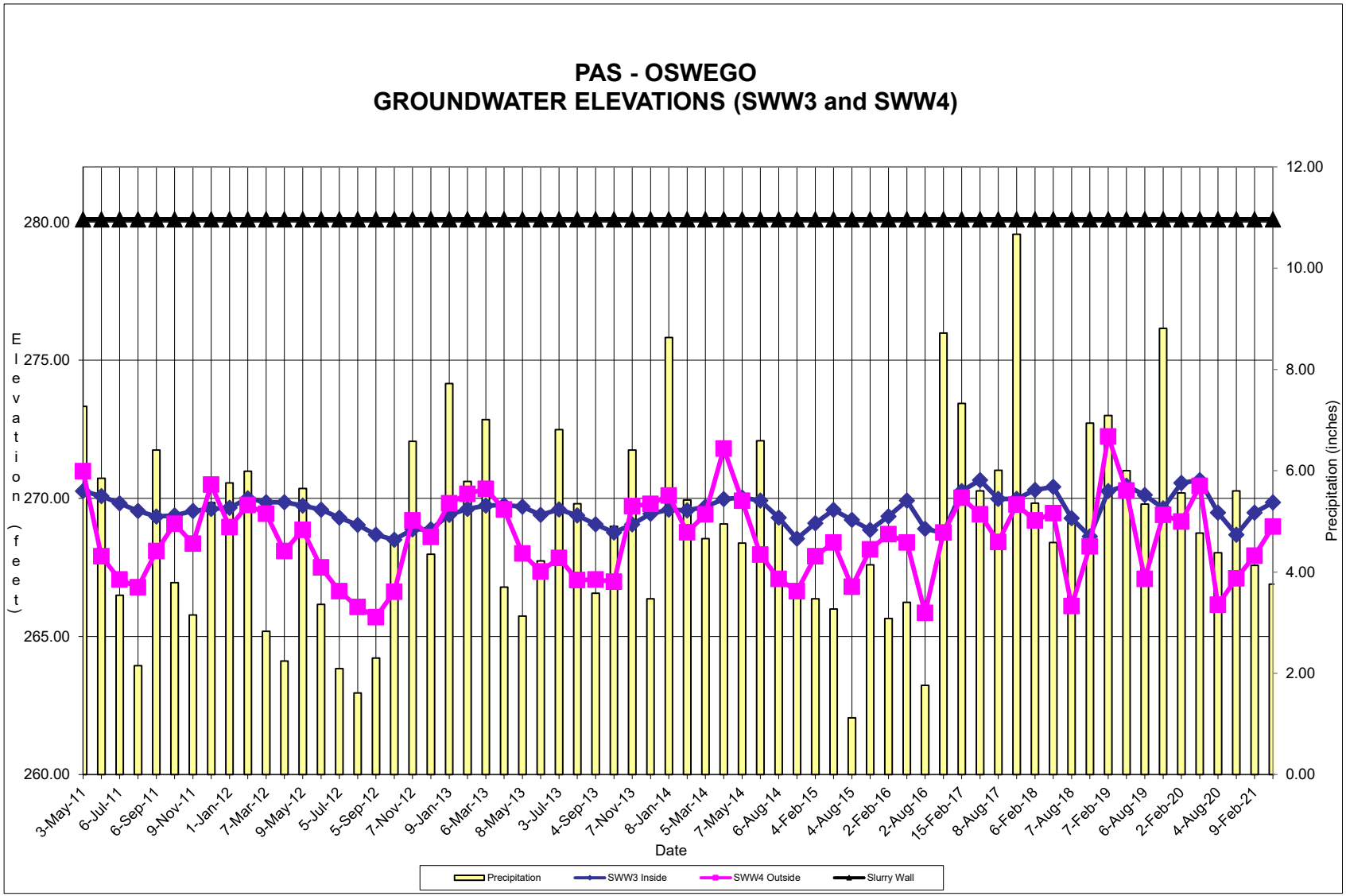
I-B

SLURRY WALL

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW1 and SWW2)

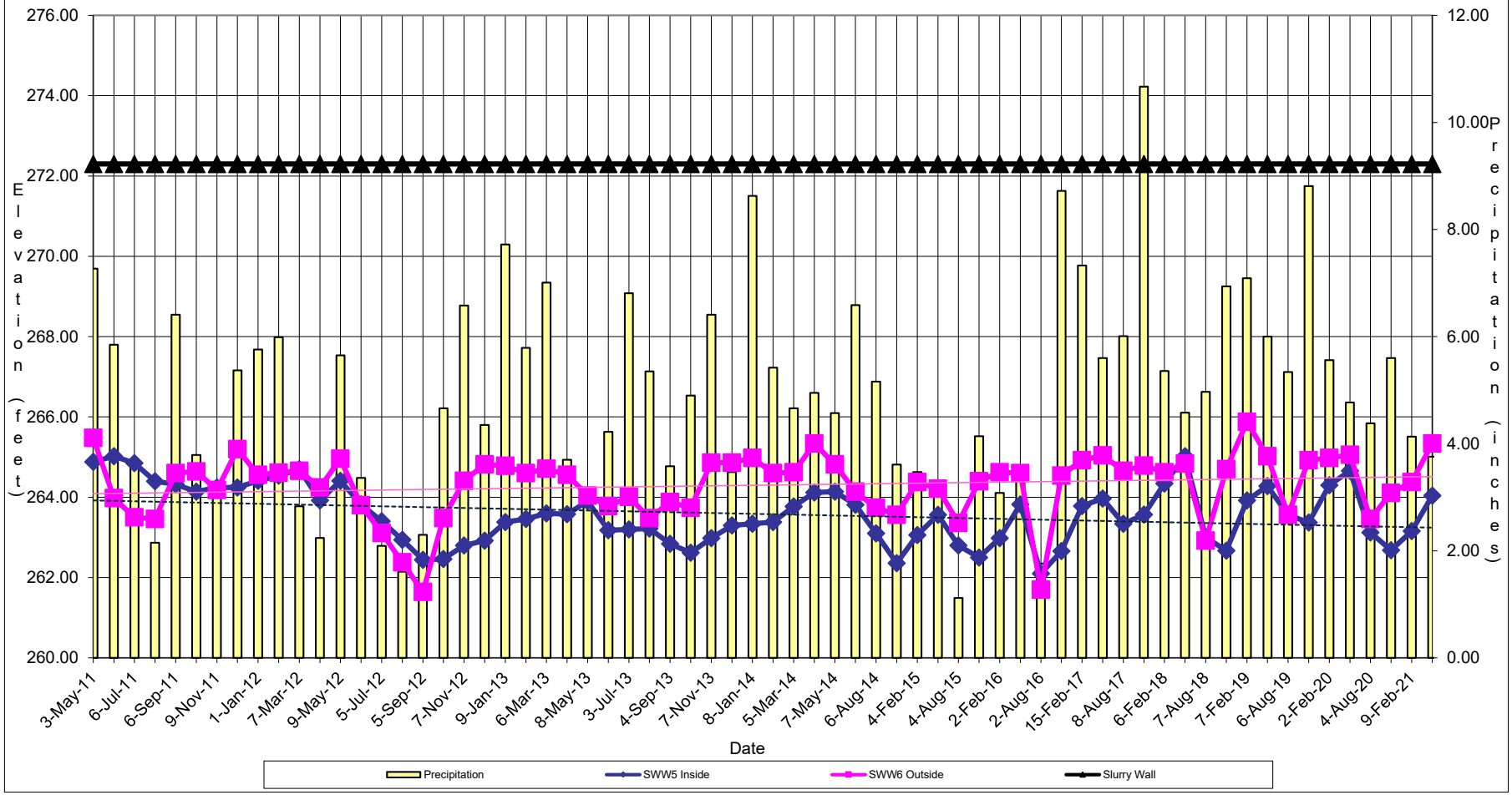


Prepared by de maximis, inc.
7/20/2021



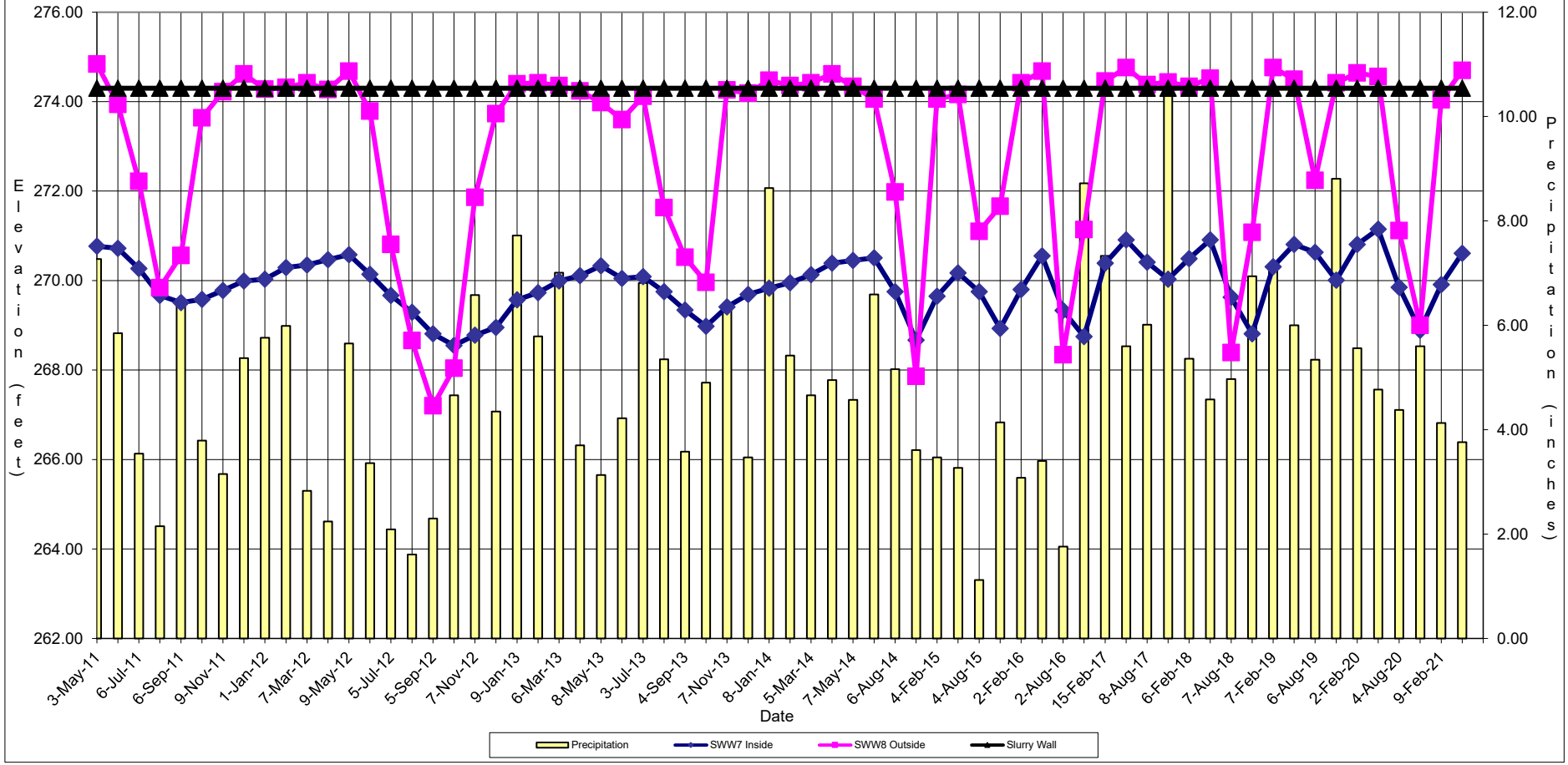
Prepared by de maximis, inc.
7/20/2021

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW5 & SWW6)



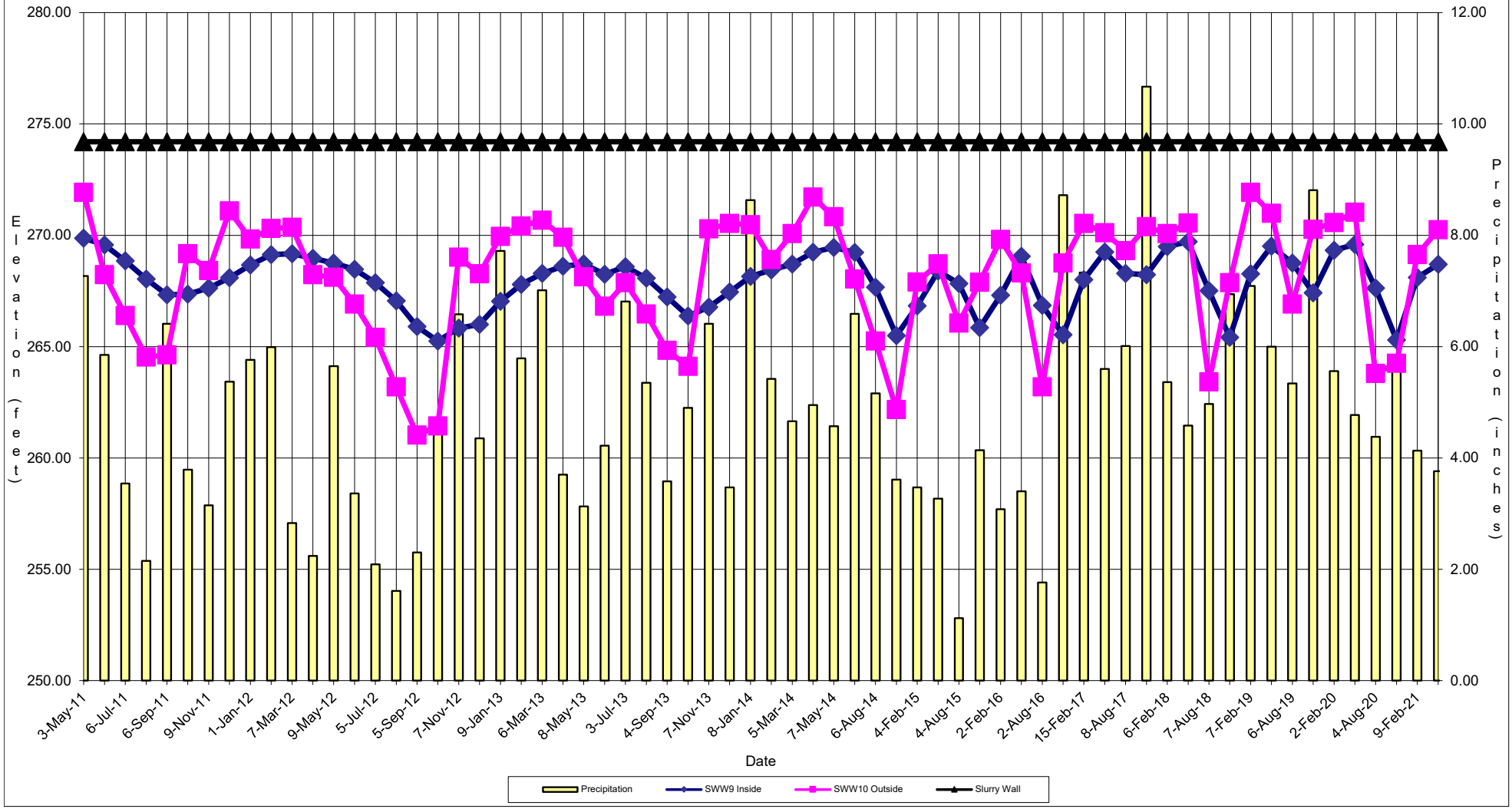
Prepared by de maximis, inc.
7/20/2021

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW7 and SWW8)



Prepared by de maximis, inc.
7/22/2021

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW9 and SWW10)



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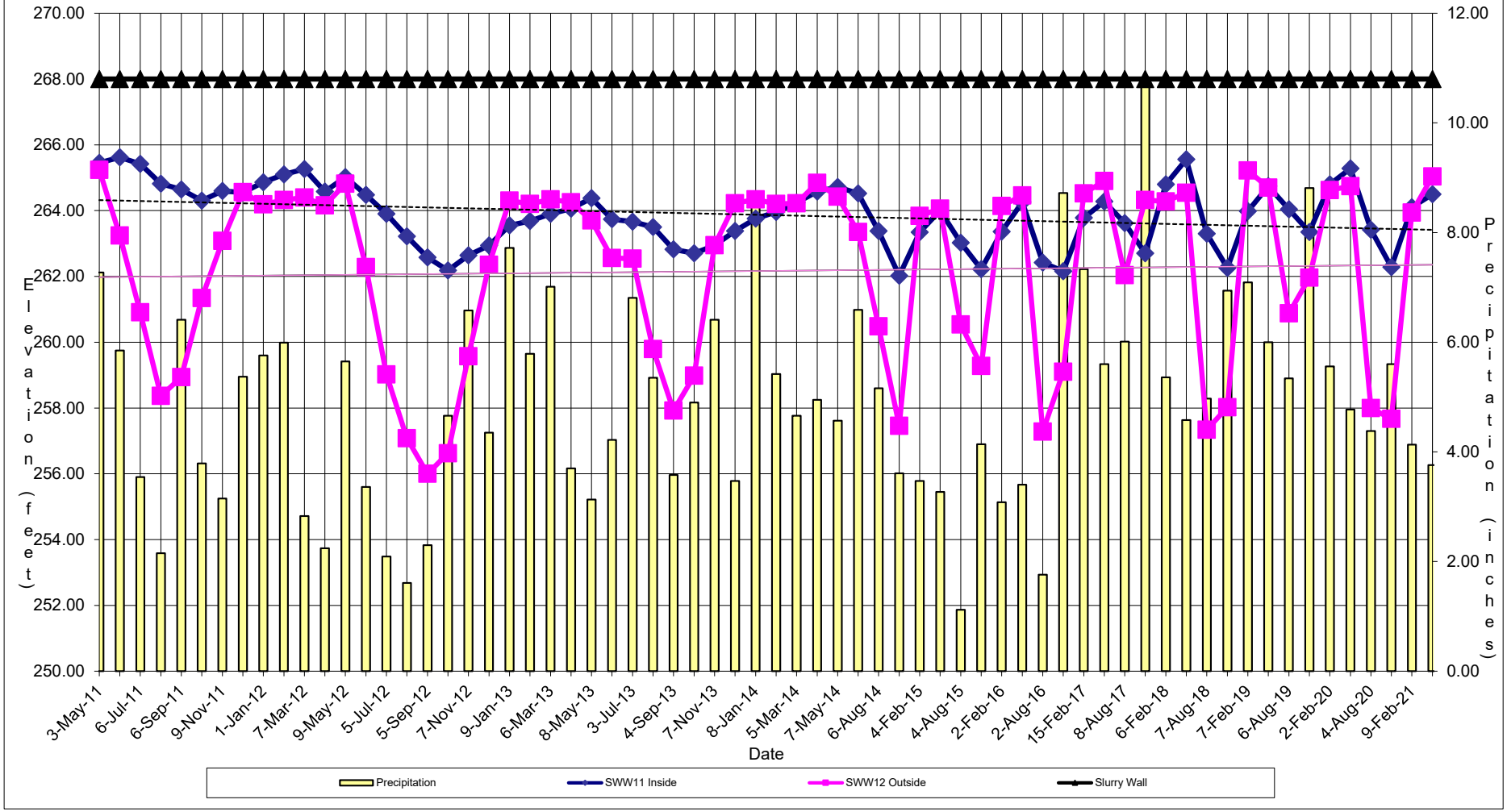
PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW11 & SWW12)

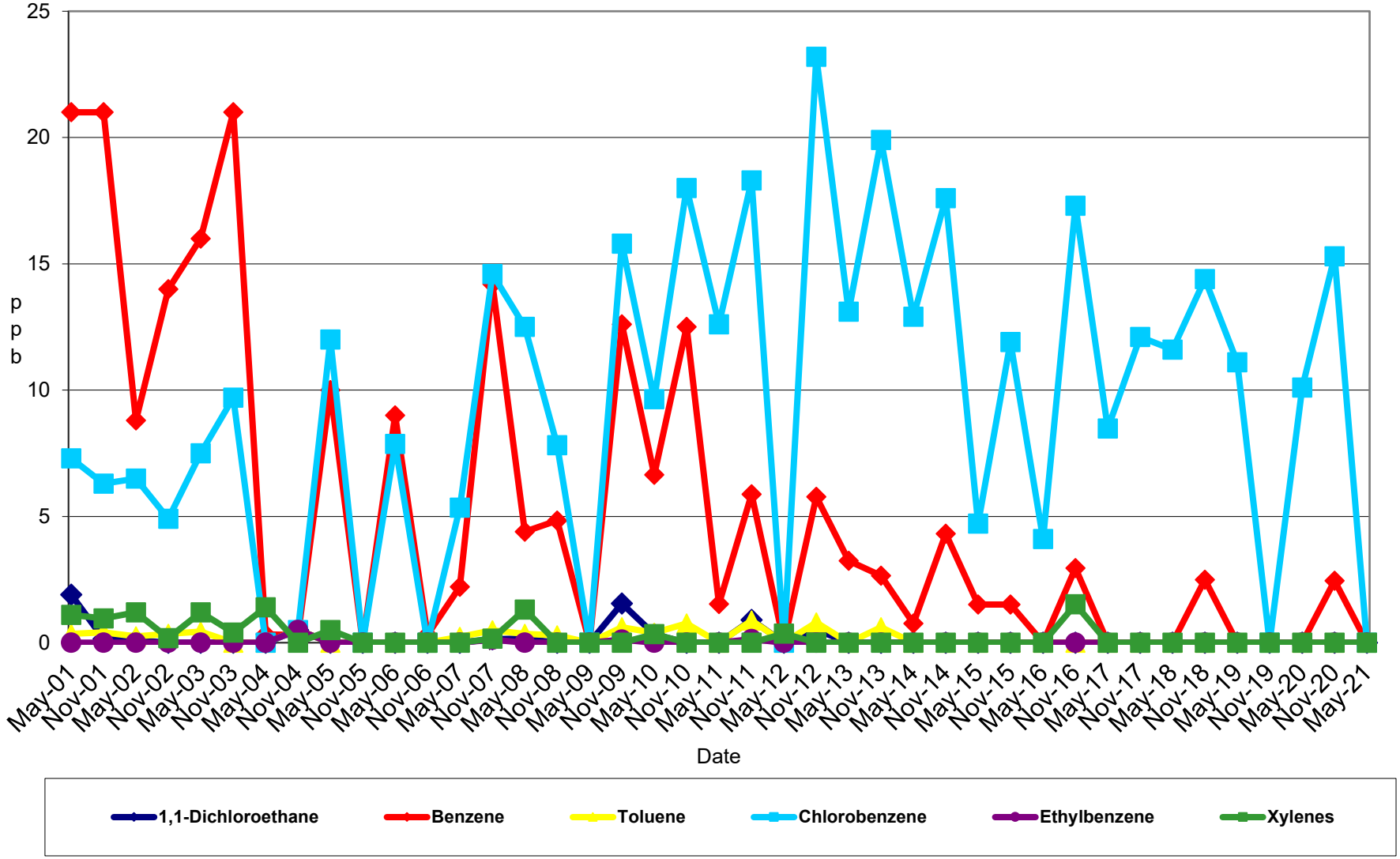


Prepared by de maximis, inc.
7/20/2021

I-C

Graphs

Long Term Groundwater Monitoring at LR-8
PAS Oswego Superfund Site Groundwater
2001 - 2021



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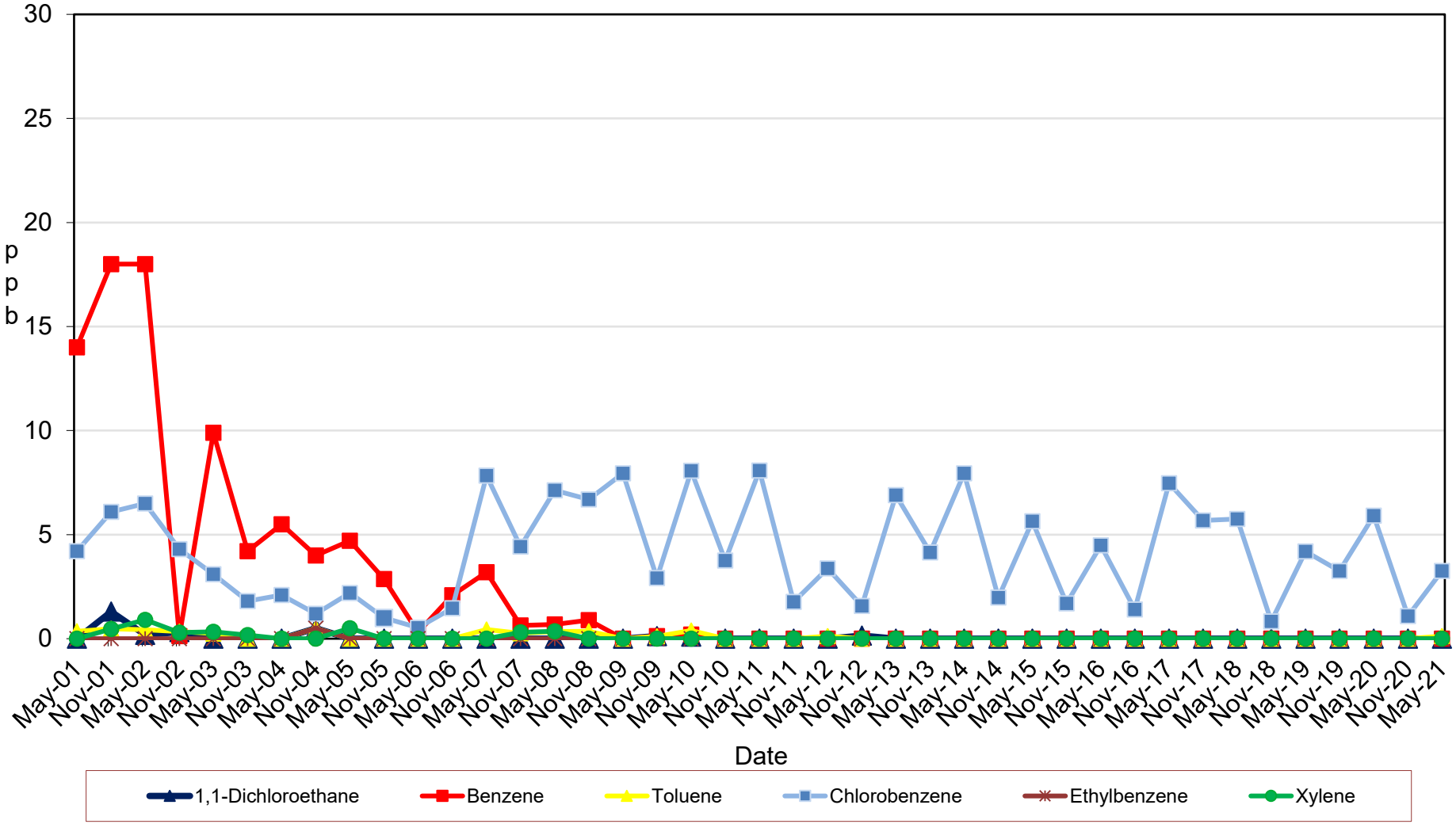
Long Term Groundwater Monitoring at M-21
PAS Oswego Superfund Site Groundwater
2001 - 2021



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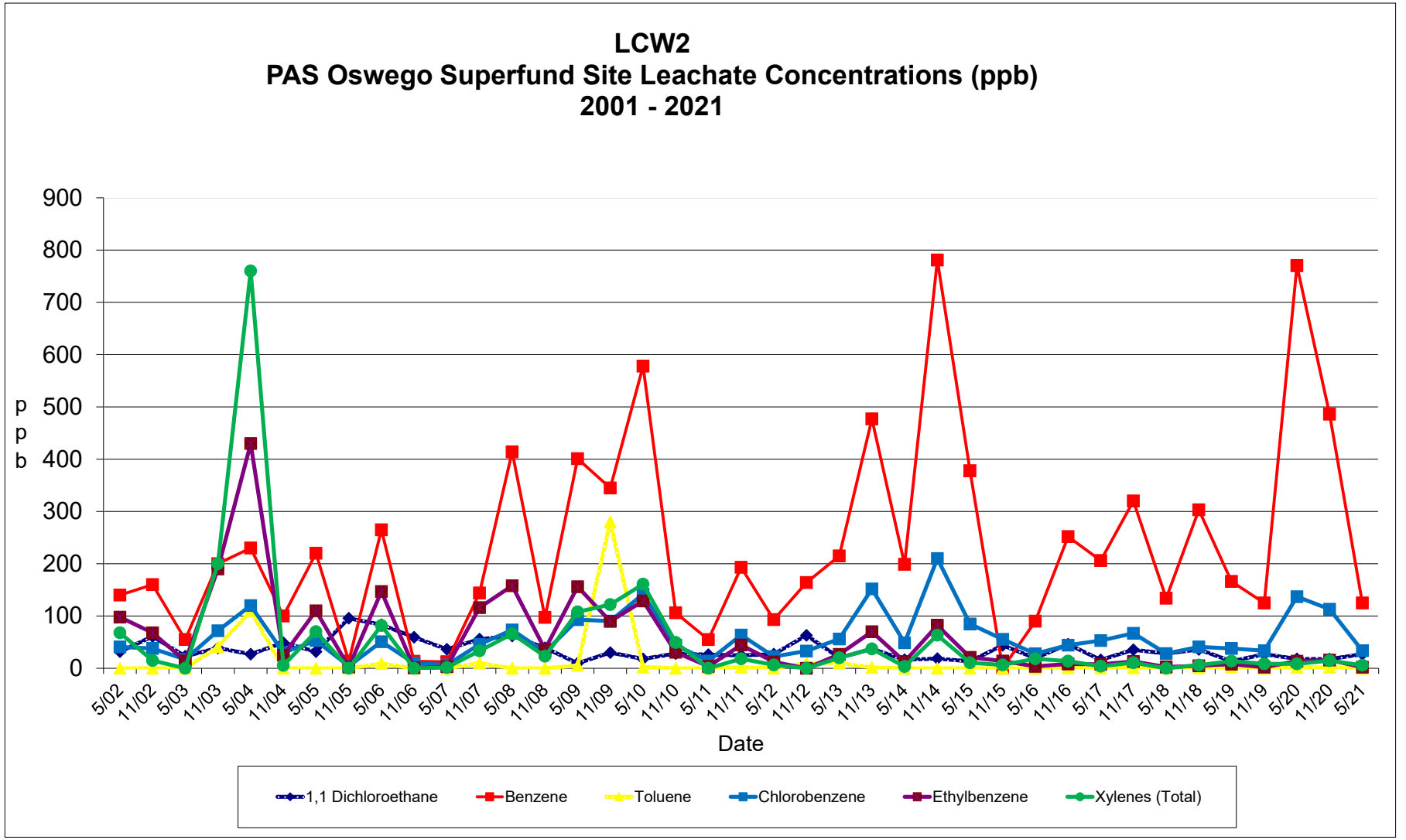
LCW

GRAPHS


LCW2
PAS Oswego Superfund Site Leachate Concentrations (ppb)
2001 - 2021
900
800
700
600
500
400
300
200
100
0
ppb
5/02
11/02
5/03
11/03
5/04
11/04
5/05
11/05
5/06
11/06
5/07
11/07
5/08
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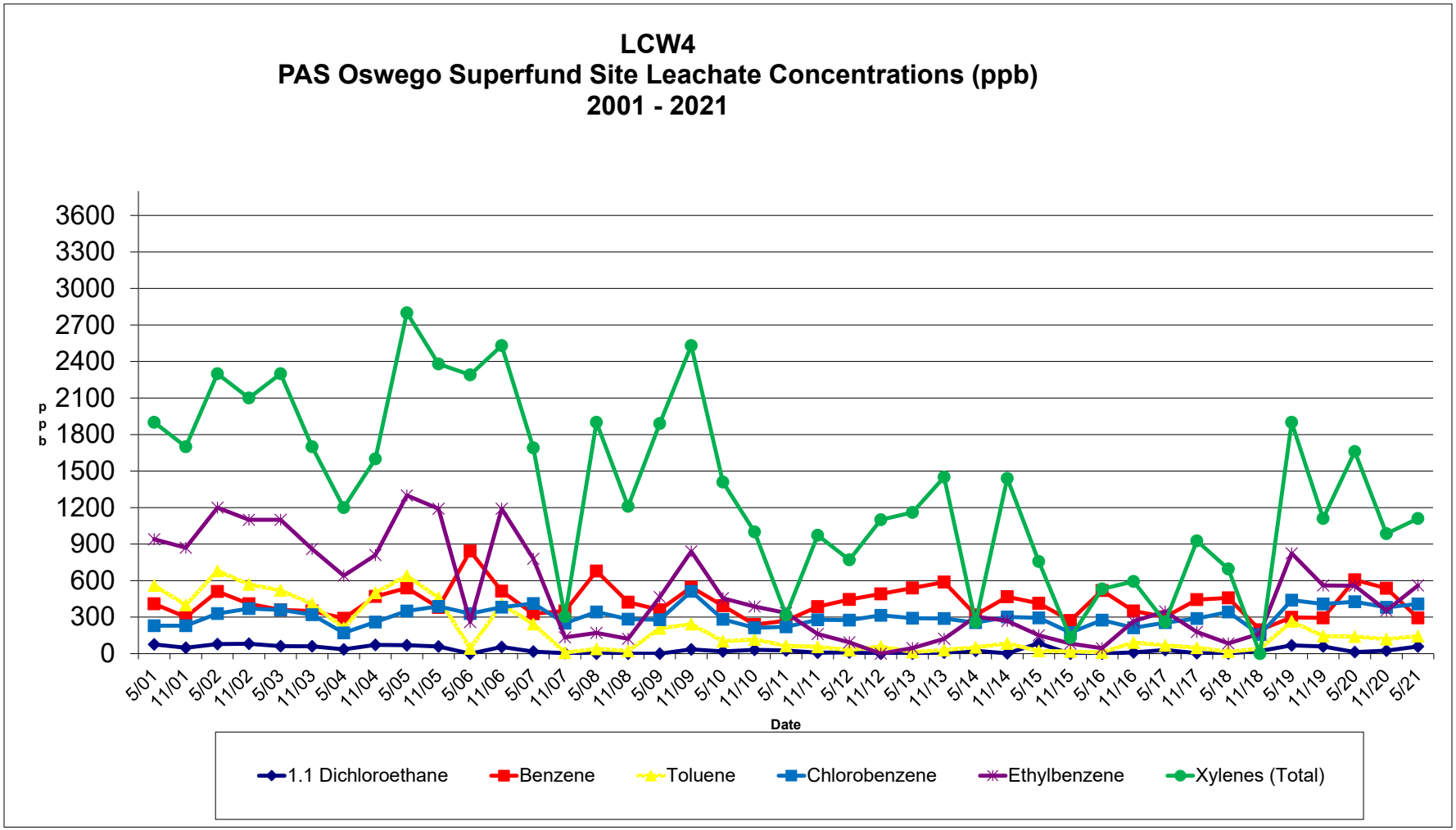
11/15
5/16
11/16
5/17
11/17
5/18
11/18
5/19
11/19
5/20
11/20
5/21
Date
1,1 Dichloroethane
Benzene
Toluene
Chlorobenzene
Ethylbenzene
Xylenes (Total)


LCW4
PAS Oswego Superfund Site Leachate Concentrations (ppb)
2001 - 2021
ppb
3600
3300
3000
2700
2400
2100
1800
1500
1200
900
600
300
0
5/01
11/01
5/02
11/02
5/03
11/03
5/04
11/04
5/05
11/05
5/06
11/06
5/07
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11/15
5/16
11/16
5/17
11/17
5/18
11/18
5/19
11/19
5/20
11/20
5/21
Date
1.1 Dichloroethane
Benzene
Toluene
Chlorobenzene
Ethylbenzene
Xylenes (Total)

I-D

Tables

TABLE 1

HISTORICAL LEACHATE REMOVAL SUMMARY (Gallons) Pollution Abatement Services Superfund Site Oswego, New York

	91 IGR Order			*94 IGR Order*					*98 Consent Decree*																					
Month	*1992*	*1993*	*1994*	*1994*	*1995*	*1996*	*1997*	*1998*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Jan		20,170	30,067		25,445	25,441	25,972	21,485		9,979	15,706	10,506	9,751	10,537	9,962	10,472	9,972	9,683	9,503	20,184	10,918	10,000	10,005	10,000	10,000	10,000	10,000	10,000	10,000	10,500	10,000	10,000
Feb	18,937	20,283	29,661		25,830	23,457	22,316	12,924		16,056	9,687	10,294	10,444	9,904	9,899	10,300	10,030	9,620	9,656	11,200	11,293	10,010	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,500	10,000	10,000
Mar	20,314	20,347	29,602		24,852	25,098	24,257	25,455		15,785	8,927	10,484	10,307	9,896	10,573	10,149	9,812	0	9,500	20,125	11,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,500	10,000	10,000
Apr	20,140	30,403	29,051		22,815	22,187	26,793	26,009		28,110	9,352	19,609	8,463	10,211	9,765	9,947	9,795	10,058	8,575	19,600	10,995	10,010	10,000	10,000	10,000	10,125	10,000	10,000	10,000	10,500	10,000	10,000
May	20,620	30,803	29,199		23,690	23,718	24,840	23,935		13,566	26,160	10,158	8,868	10,117	10,503	10,215	9,743	9,693	7,712	20,047	11,000	10,020	20,000	20,000	20,000	20,200	20,000	20,000	20,000	20,000	20,000	20,000
Jun	20,030	30,244	20,481		24,586	23,924	23,830	20,052		20,685	25,292	10,055	9,822	10,518	10,105	10,193	9,885	10,110	9,474	19,000	10,950	10,005	20,000	20,000	20,000	20,400	20,000	20,000	20,000	20,000	20,000	20,000
Jul	20,270	31,069	20,655		23,450	25,402	25,340	20,411		10,121	20,416	10,470	10,255	10,197	10,292	10,100	9,902	9,472	10,144	18,873	0	10,000	20,000	20,000	20,130	20,700	20,000	20,005	20,500	20,000	20,000	
Aug	20,363	31,404	25,690		24,188	25,129	19,677	20,292		21,832	23,597	9,368	10,254	10,403	10,306	10,025	9,839	9,781	10,200	19,600	19,000	10,020	20,000	20,000	20,000	20,200	20,130	20,005	20,500	20,000	20,000	
Sep	20,807	31,232	25,677		18,343	21,514	20,417	20,520		10,255	20,407	10,473	9,907	10,566	10,456	9,672	9,499	9,616	10,000	19,000	12,800	20,005	20,000	20,000	20,000	20,700	20,000	19,895	20,500	20,000	20,000	
Oct	19,421	31,114	14,815	0	23,288	24,541	17,867	16,458		10,255	17,563	10,226	10,400	8,196	10,717	9,773	9,802	0	10,871	18,806	20,000	20,005	20,000	20,000	20,000	20,000	20,000	20,005	20,500	20,000	20,000	
Nov	20,409	30,239		25,562	20,133	20,589	18,564		8,185	10,250	9,042	9,355	10,435	9,908	10,486	9,987	9,692	9,497	10,750	19,068	20,000	20,005	10,000	10,000	10,000	10,100	10,000	10,005	10,500	10,000	10,000	
Dec	20,497	30,311		25,121	22,544	22,347	19,498		10,238	10,816	10,463	9,214	9,686	10,130	10,359	9,833	9,779	9,603	10,900	11,009	20,000	10,010	10,000	10,000	10,000	10,000	10,000	10,000	10,500	10,000	10,000	
Totals	*221,808*	*337,619*	*254,898*	*50,683*	*279,164*	*283,347*	*269,371*	*207,541*	*18,423*	*177,710*	*196,613*	*130,212*	*118,592*	*120,583*	*123,423*	*120,666*	*117,750*	*97,133*	*117,285*	*216,512*	*157,956*	*150,090*	*180,005*	*180,000*	*180,130*	*182,425*	*180,130*	*179,915*	*183,000*	*182,000*	*180,000*	*80,000*
Average Removal Per Month	*20,164*	*28,135*	*25,490*	*16,894*	*23,264*	*23,612*	*22,448*	*20,754*	*9,212*	*14,809*	*16,384*	*10,851*	*9,883*	*10,049*	*10,285*	*10,056*	*9,813*	*8,094*	*9,774*	*18,043*	*13,163*	*12,508*	*15,000*	*15,000*	*15,011*	*15,202*	*15,011*	*14,993*	*15,250*	*15,167*	*15,000*	*13,333*

SUMMARY:	*TOTALS (GAL)*	*AVG RATE (GAL/MO)*	
1991 IGR Order:	**814,325**	**23,951**	
1994 IGR Order:	**1,090,106**	**22,710**	
1998 C D:	**3,570,553**	**12,995**	(11/98 to present)
Total (To Date):	**5,474,984**		

1) Used CECOS - Niagara Falls for lechate treatment/disposal beginning in May 1996 - DuPont Deepwater used for treatment/disposal prior to May 1996.
2) BBLES completed removal work at the end of July 2000; OBG began in Aug 2000.
3) Leachate collection well LCW4 pumped per 11/15/99 LCW4 pumping protocol as approved by EPA.
4) Leachate disposed at Clean Harbors facilities at Bristol CT from Mar 2005 to Oct 2007 and Baltimore MD from Nov 2007 to Jun 2007.
5) Leachate disposed at the Auburn Watewater Treatment Plant in Auburn, NY starting July 2008 to Oct 2010.
6) Leachate disposed at the City of Oswego Wastewater Treatment Plant in Oswego, NY starting Oct 2010 to Mar 2015.
7) Leachate disposed at the Auburn Watewater Treatment Plant in Auburn, NY starting Mar 2015 to Dec 2015.
8) Leachate disposed at the City of Oswego Wastewater Treatment Plant in Oswego, NY restarted Jan 2017.

Table 2

PAS Site
Oswego, New York

Consent Decree
Performance Standards

Volatile Organic Compounds in Ground Water and Leachate		
Constituent	**Analysis**	**Performance Standard ug/L**
Benzene	8260B	0.7
Chlorobenzene	8260B	5
1,1-Dichloroethane	8260B	5
Ethylbenzene	8260B	5
Toluene	8260B	5
Xylenes	8260B	5

Notes:

1. ug/L = micrograms per liter which equates to parts per billion (ppb).

TABLE 3

PAS OSWEGO SUPERFUND SITE

ADDITIONAL BEDROCK GROUNDWATER MONITORING RESULTS

	Perf Std	Additional monitoring well MW-22											Additional mon well MW-23			Additional monitoring well OD-3												
LTM CONSTITUENT	(ug/l)	Apr 06	May 06	May 09	May 14	Nov 14	May 15	Nov 15	May 16	Nov 16	Nov 17	Apr 18	Apr 06	May 06	May 09	Apr 06	May 06	May 14	Nov 14	May 15	Nov 15	May 16	Nov 16	May 17	Apr 17	Nov 17	May-18	Nov-18	Nov-19
Benzene	0.7	0.12J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	ND	1.25	ND	0.85	ND	ND	ND	ND	1.27	0.29J
Chlorobenzene	5	1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11J	ND	ND	26.3	ND	19.2	ND	16.5	ND	ND	ND	ND	16.3	10.5
1,1-Dichloroethane	5	ND	0.14J	ND	1.27	ND	0.12J	0.30J	0.30J	0.30J	0.30J	0.30J	0.86	0.9	0.82	ND	ND	ND	ND	ND	0.13J	ND	0.5	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16J	ND	ND	ND	0.31	ND	0.26J	ND	ND	ND	ND	0.28	0.13J
Xylenes	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11J	ND	0.31J	ND	0.39J	ND	ND	ND	ND	ND	ND	0.96	ND

NOTES:
1. Additional downgradient bedrock wells M-22, M-23 and OD-3 monitored during April and May 2006
pursuant to January 25, 2006 letter to EPA and EPA approval letter dated February 2, 2006. M-22 and OD-3 sampled in 2014 and 2015 pursuant to March 21, 2014 letter and EPA approval.
Sampling of MW-22 , LR-6 and OD-3 will be sampled in Fall 2022 to allow for use in EPA 5 yr review.
2. All results ug/L

ATTACHMENT II

ACTIONS COMPLETED

II - A

3RD QUARTER REPORT 2020

QUARTERLY PROGRESS REPORT – 3rd QUARTER 2020
Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: July – September (3rd Quarter) 2020

ACTIONS TAKEN DURING QUARTER:

- Leachate removal and site maintenance and monitoring activities were conducted at the Pollution Abatement Services (PAS) site (Site), in Oswego, NY by Ramboll (formerly OBG) consistent with the PAS Site Operation, Maintenance and Long-term Monitoring Plan (Work Plan).

- A total of 60,000 gallons of leachate were removed from the Site during the period of July, August, and September 2020.The specific quantities removed are 20,000 gallons in July, 20,000 gallons in August and 20,000 gallons in September. Details of the leachate removal for each month, along with historical leachate removal documentation are described in this progress report.

- During the months of July – September 2020, leachate was pumped monthly from the PAS Site. The leachate was pumped into the City of Oswego East Side Wastewater Treatment Plant in accordance with City of Oswego Industrial User Permit no. 6-2019-20.

- Quarterly groundwater elevation monitoring was performed on August 4, 2020. Quarterly groundwater elevation monitoring results for the SWW- series monitoring wells (SWW-1 through SWW-12), leachate collection wells (LCW-1 through LCW-4), M-series wells (M-21 through M-23), LR-series wells (LR-2, 3, 6 and 8), LD-series wells (LD-3, 4, 5, 6, and 8), along with wells OS-1, OS-3, OI-1, OD-3 and LS-6 were recorded on the Pre-Pumping Well Monitoring Level Form. (Attachment A-1)

- Site maintenance activities were conducted monthly in combination with the monthly leachate removal event. The Site Inspection Checklist was used to document the land cap, leachate discharge system, leachate collection system and general Site conditions. (Attachment A-2) Monthly Site maintenance activities included the following:

    - Inspected the perimeter security fence of the Site. No discrepancies were reported at the time of the inspection.

    - The Site single French drainage system and two (2) concrete troughs were visually inspected and cleared of grass. No discrepancies were reported at the time of the inspection.

    - Visually inspected the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. A woodchuck was reported under the shed during July and August inspections but was absent in September.

- Visually inspected the leachate collection system pumping equipment to verify proper operation. The field technician inspected each pump control panel to ensure control systems were generally free of rodents, insects, and were properly operating. The leachate holding tank was visually inspected for integrity, as were the leachate tanks steel protective roof and wood structure.

- The Site wooden utility shed and leachate pumping equipment, including centrifuge discharge pump, flow meter, suction hose, pump oils levels, heat trace power panel, interior lighting, exterior and interior shed structure, and main power distribution panel were inspected. No discrepancies were reported at the time of the inspection.

- On July 7, August 4, and September 9, 2020, Ramboll performed the monthly pre-pumping collection system inspection for leachate collection wells LCW-1, 2, 3 & 4, along with inspection of the leachate discharge pumping system. Observations were recorded on the Site Inspection Checklist. In advance of each leachate removal event, Ramboll informed the City of Oswego POTW of the anticipated discharge. (Attachment A-2)

- Upon completing the monthly leachate collection system inspections, Ramboll manually energized the four leachate collection pumps, identified as LCW-1, LCW-2, LCW-3, and LCW-4, in order to pump the planned volume of leachate into the leachate collection tank. The run time from each leachate collection pump, along with the leachate tank level taken upon completion of well pumping, was recorded on the Leachate Disposal Checklist. (Attachment A-3)

- During the months of July, August, and September 2020, Ramboll pumped a combined total of 60,000 gallons of leachate from LCW 1, 2, 3 & 4 into the leachate collection tank and then then into the City of Oswego POTW. The volume and flow rate of each leachate discharge was recorded onto the Leachate Disposal Checklist, as was leachate water pH, and temperature. The amount discharged was recorded onto the Leachate Disposal Checklist. No leachate was shipped to Auburn New York during the period. Therefore, no bill of lading was generated in this period. (Attachment A-3)

- Upon completing each monthly leachate discharge the tank suction hoses were placed back into the leachate hold tank and the leachate pump system was shut down and prepared for storage. The concrete leachate hold tank was secured, as was the wooden maintenance shed. Upon the completion of monthly Site activities, the Site metal access gates were closed and padlocked.

- The PAS Oswego Site quarterly discharge report for the 3rd quarter of 2020 for the City of Oswego was submitted on November 5, 2020 in accordance with Permit 6-2019-20. The quarterly report to the City of Auburn was submitted on November 4, 2020. (Attachment A-4)

DOCUMENTATION OF ACTIVITIES FOR THE QUARTER

- The Groundwater Pre-Pumping Well Monitoring Level Form for August 4, 2020 is attached to this report. (Attachment A-1)

- The Site Inspection Checklist for July 7, August 4 and September 9, 2020 are attached to this report. (Attachment A-2)

- The Leachate Disposal Checklist for the July 7, August 4 and September 9, 2020 are attached to this report. (Attachment A-3)

- The PAS POTW Quarterly Discharge reports submitted on November 4, 2020 to the City of Auburn and the report submitted to the City of Oswego on November 5, 2020 are attached to this report. (Attachment A-4)

A – 1
GROUNDWATER ELEVATION DATA

O'Brien & Gere Operation (O'Brien & Gere)
PAS Oswego Site
Oswego, New York
Pre-Pumping Well Monitoring Levels

Date - 8-4-20 Technician - MARTin Koenecke Month - August 2020

Well	Riser	Well Range Verification			Monthly Onsite Field Measurements					
Number	Elevation	Average Well Level	Low Well Level	High Well Level	Well Level (1st) Check	Well Level (2nd) Check	Well Within Range (based on historical well range data) YES	NO	Well Level Check (3rd) (if "NO" & well is not within targeted range)	NOTES
SWW1	289.33	10.50	9.58	11.16	10.74	10.74	✓			
SWW2	289.37	15.78	14.66	16.36	15.68	15.68	✓			
SWW3	286.50	17.07	16.38	17.60	17.02	17.02	✓			
SWW4	283.60	16.79	15.18	18.00	17.45	17.45	✓			
SWW5	277.02	13.36	12.26	14.92	13.90	13.90	✓			
SWW6	273.06	9.69	8.40	11.36	9.60	9.60	✓			
SWW7	277.93	8.22	7.30	8.64	8.08	8.08	✓			
SWW8	278.24	7.23	3.86	9.90	7.12	7.12	✓			
SWW9	285.55	17.72	16.80	18.70	17.92	17.92	✓			
SWW10	280.43	14.97	11.12	17.24	16.64	16.64	✓			
SWW11	273.50	9.50	8.42	11.08	10.08	10.08	✓			
SWW12	272.82	13.31	10.78	15.74	14.82	14.82	✓			
LCW-1	272.21	9.18	7.50	10.84	9.70	9.70	✓			
LCW-2	274.44	11.42	9.76	13.08	11.96	11.96	✓			
LCW-3	284.36	17.97	17.71	18.50	17.90	17.90	✓			
LCW-4	285.70	17.62	16.70	18.48	16.58	16.58	✓			
OS-1	272.10	13.16	9.82	16.48	14.40	14.40	✓			
OI-1	272.00	13.49	10.20	16.08	14.92	14.92	✓			
OS-3	277.89	16.81	15.42	18.46	17.82	17.82	✓			
OD-3	277.85	16.65	15.24	18.26	17.60	17.60	✓			
LD-3	278.62	7.63	4.22	10.26	8.80	8.80	✓			
LD-4	279.25	14.01	11.38	16.22	15.50	15.50	✓			
LD-5	272.94	13.95	11.28	16.38	15.40	15.40	✓			
LS-6	274.14	14.17	12.16	16.32	15.42	15.42	✓			
LD-6	274.03	13.48	11.64	15.80	14.48	14.48	✓			
LD-8	272.83	9.97	8.54	11.28	10.90	10.90	✓			
LR-2	289.85	14.66	13.55	15.70	15.40	15.40	✓			
LR-3	278.06	9.60	7.68	11.40	10.72	10.72	✓			
LR-6	274.39	11.84	10.32	13.70	12.35	12.35	✓			
LR-8	273.42	11.40	10.16	12.88	12.38	12.38	✓			
M-21	272.32	11.04	9.72	12.42	12.10	12.10	✓			
M-22	273.88	11.82	10.32	13.66	12.42	12.42	✓			
M-23	270.49	13.67	12.42	14.88	14.80	14.80	✓			

A – 2
SITE INSPECTION CHECKLIST

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 7-7-2020 Time 7:30

Field Technician Martin Koennecke Weather Conditions Sunny 73°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		Hole under shed
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		OK
Concrete trough clear and function able	√		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		Off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK

7-7-2020

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		OK
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		Yes
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

PUMPED 20,000 gallons LEACHATE TO CITY OF OSWEGO POTW

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 8-4-2020 Time 7:45

Field Technician MARTIN KOENNECKE Weather Conditions LIGHT RAIN 70°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISIBLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		yes
Concrete trough clear and function able	√		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		ACSESS DOOR ON TANK Replaced

8-4-20

Leachate holding tank metal roof inspected for structural integrity	✓		ok
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		REPLACED SHINGLES ON BACKCORNER
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		Yes
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

QUARTERLY WELL LEVELS, PUMPED 20,000 GAL. LEACHATE TO OSWEGO POTW

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 9-9-2020 Time 7:00

Field Technician Martin Koenneke Weather Conditions OVERCAST 61°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		Yes
Concrete trough clear and function able	✓		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK

9-9-20

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		Yes
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		Yes
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

PUMPED 20,000 gal. LEACHATE TO OSWEGO POTW

A – 3
LEACHATE DISPOSAL CHECKLIST

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 7-7-2020 Time: 7:30

Field Technician MARTIN Koennecke Weather Conditions Sunny 73°

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
11"	LCW-1	7:45	11:15		162 GPM	19,240
	LCW-2	7:45	11:15			
	LCW-3	7:45	8:15			
	LCW-4	7:45	9:25	after Pumpout - 8.5"		
				Total 63"		19,240

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:20	13:15	6.8	58°	1395165	1415165	20,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	85	20 min.	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 8-4-2020 Time: 7.45

Field Technician MARTIN KOENNECKE Weather Conditions LIGHT RAIN 78°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
8.5"	LCW-1	9:10	13:00			20,610
	LCW-2	9:10	13:00			
	LCW-3	9:10	9:40			
	LCW-4	9:10	10:55	INTERMITTENTLY RUNNING		
					Total	20,610

10,5" after Pump out

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	10:35	14:30	6,8	59°	1415165	1435165	20,000
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83	20 min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 9-9-2020 Time: 7:00

Field Technician MARTIN Koennecke Weather Conditions OVERCAST 61°

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10,5"	LCW-1	7:05	11:00		129 GPM	20,610
	LCW-2	7:05	11:00			
	LCW-3	7:05	7:30			
	LCW-4	7:05	8:50	— RAN INTERMITTENTLY		
				After pumping 12.5"	Total	20,610

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	8:20	12:20	6.8	57°	1435165	1455165	20,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	15 min	0	16			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

A – 4
QUARTERLY POTW
DISCHARGE REPORTS

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

November 4, 2020

Mr. Tim O'Brien
Department of Municipal Utilities
35 Bradley Street
Auburn, New York 13021

Re: 3rd Quarter PAS Oswego Monitoring Report 2020

Dear Mr. O'Brien,

This letter confirms that the PAS Oswego Site has not shipped or discharged any wastewater from the PAS Oswego collection system to the City of Auburn POTW during July 2020–September 2020. This has been due to the EPA allowance of an alternate disposal method.

- **Cumulative gallons removed for discharge in Auburn 3rd Qtr. 2020 - 0**
- **Cumulative gallons removed for discharge in Auburn 2020 - 0**

Since no wastewater was shipped or discharged to Auburn during the 3rd quarter of 2020, no analytical testing was required. However, we continue to perform Site maintenance and sampling activities under the Operation, Monitoring and Maintenance Program for the Site approved by EPA. The data associated with that program indicate little change in the characteristics of the Site wastewater.

Please contact me at (865) 691-5052, if you have any questions.

Sincerely,
de maximis, inc.

Clay McClarnon

Clay McClarnon

CMC/dsr

cc: PAS Management Committee

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

November 4, 2020

Mr. Timothy L. O'Brien
Industrial Pretreatment Coordinator
35 Bradley Street
Auburn, NY 13021

Re: Industrial Pretreatment Program
Zero Discharge Certification Statement:

Dear Mr. O'Brien

For the reporting quarter(s) of December 2017 to September 2020, I certify that for Pollution Abatement Services located in Oswego New York:

1. There have been no changes to any of our processes resulting in the potential for the discharge from the process waste stream.

2. No discharge of process wastewater has occurred since December 7, 2017.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Clay McClarnon	Project Coordinator	
Name	Title	
Clay McClarnon	November 4, 2020	865-691-5052
Signature	Date	Phone

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

Via electronic mail

November 5, 2020

Mr. John McGrath
Chief Operator
Westside Wastewater Treatment Plant
First Avenue & West Schuyler Streets
Oswego, New York 13126
Labmanager@oswegony.org

Re: Quarterly Discharge Report – 3rd Quarter 2020
Pollution Abatement Services Site – Oswego, New York
City of Oswego Wastewater Discharge Permit 6-2019-20

Dear Mr. McGrath:

This quarterly report is submitted in accordance with the City of Oswego Wastewater Discharge Permit 6-2019-20 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Oswego's Eastside Wastewater Treatment Facility. This report covers the reporting period from July 2020 through September 2020.

The PAS Site discharged a total of 60,000 gallons of leachate to the Oswego sewer system during the 3rd quarter of 2020.

Discharge to City of Oswego July 2020 – September 2020 60,000 gallons

If you need additional information, please call me at (865) 691-5052.

Sincerely,
de maximis, inc.

Clay McClarnon

Attachments:

cc: Dan Ramer – Chief Operator Eastside Wastewater Treatment Plant
Robert Johnson – City Engineer
PAS Oswego Site Management Committee

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF OSWEGO (2020)
LEACHATE DISCHARGE TO OSWEGO EASTSIDE WASTEWATER TREATMENT FACILITY
(Oswego SIU Wastwater Discharge Permit No.6-2019-20)

Discharge Quarter		*4Q 2019*		*1Q 2020*		*2Q 2020*		*3Q 2020*	
		Date Discharged (temp/pH)	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*
		10/8/19	20,000	1/7/20	10,000	4/7/20	10,000	7/7/20	20,000
		54/6.8		46/6.8		46/6.8		58/6.8	
		11/6/19	10,000	2/11/20	10,000	5/6/20	20,000	8/4/20	20,000
		54/6.8		42/6.8		44/6.8		55/6.8	
		12/3/19	10,000	3/3/20	10,000	6/2/20	20,000	9/9/20	20,000
		52/6.8		42/6.8		50/6.8		58/6.7	
Total Discharged			40,000		30,000		50,000		60,000
Date Sampled*	***Permit Limits***	11/6/2019				5/6/2020			
Analytes	***mg/L***	***mg/L***				***mg/L***			
Antinomy	*0.107*	ND <0.010				ND <0.001			
Arsenic	*0.358*	0.019				0.016			
Beryllium	*0.107*	ND <0.010				ND <0.010			
Cadmium	*0.43*	ND <0.010				ND <0.010			
Chromium (total)	*0.67*	ND <0.010				ND <0.010			
Copper	*0.43*	0.015				0.027			
Cyanide	*0.69*	0.23				ND <0.010			
Lead	*0.19*	ND <0.010				ND <0.010			
Mercury	*0.0002*	ND <0.0002				ND <0.0002			
Nickel	*0.65*	0.33				0.28			
Selenium	*0.282*	ND <0.010				ND <0.010			
Silver	*0.65*	ND <0.010				ND <0.010			
Thallium	*0.073*	ND <0.020				ND <0.020			
Zinc	*1*	ND <0.020				ND <0.020			
*VOC***									
1,1,1 TCA	*NA*	0.00625				*0.00454*			
MeCL	*NA*	ND <0.0005				ND <0.0005			
PCE	*NA*	0.029				*0.0314*			
Toluene	*NA*	0.0674				*0.0613*			
TCE	*NA*	0.0125				*0.0117*			
*SVOC***	*NA*	NA				NA			
BOD 5	*200*	11				12			
TSS	*400*	39				39			
oil & grease	*100*					*5.5*			
Phenolics	*0.375*					0.001			
pH	*>5 & <10*	6.8				6.8			

** Semi-annual sampling of PAS leachate discharge conducted in accordance with SIU Wastewater Discharge Permit No.6-2019-20.*

*** Analytes included for permit pollutant analysis performed every three years*

Analyte values in bold exceed limit

Prepared by de maximis, inc. 11/4/2020

ATTACHMENT I

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 7-7-2020 Time: 7:30

Field Technician MARTIN Koennecke Weather Conditions Sunny 73°

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
11"	LCW-1	7:45	11:15		162 GPM	19,240
	LCW-2	7:45	11:15			
	LCW-3	7:45	8:15			
	LCW-4	7:45	9:25	after Pumpout - 8.5"		
				Total 63"		19,240

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:20	13:15	6.8	58°	1395165	1415165	20,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	85	20 min.	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 8-4-2020 Time: 7.45

Field Technician MARTIN KOENNECKE Weather Conditions LIGHT RAIN 78°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
8.5"	LCW-1	9:10	13:00			20,610
	LCW-2	9:10	13:00			
	LCW-3	9:10	9:40			
	LCW-4	9:10	10:55	INTERMITTENTLY RUNNING		
					Total	20,610

10,5" after Pump out

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	10:35	14:30	6,8	59°	1415165	1435165	20,000
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83	20 min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 9-9-2020 Time: 7:00

Field Technician MARTIN Koennecke Weather Conditions OVERCAST 61°

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10,5"	LCW-1	7:05	11:00		129 GPM	20,610
	LCW-2	7:05	11:00			
	LCW-3	7:05	7:30			
	LCW-4	7:05	8:50	— RAN INTERMITTENTLY		
				After pumping 12.5"	Total	20,610

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	8:20	12:20	6.8	57°	1435165	1455165	20,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	15 min	0	16			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

II - B
4TH QUARTER REPORT 2020

QUARTERLY PROGRESS REPORT – 4th QUARTER 2020
Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: October – December (4th Quarter) 2020

ACTIONS TAKEN DURING QUARTER:

- Leachate removal and site maintenance and monitoring activities were conducted at the Pollution Abatement Services (PAS) site (Site), in Oswego, NY by Ramboll (formerly OBG) consistent with the PAS Site Operation, Maintenance and Long-term Monitoring Plan (Work Plan).

- A total of 40,000 gallons of leachate were removed from the Site during the period of October, November, and December 2020. Specific quantities of leachate removed included 20,000 gallons in October, 10,000 gallons in November and 10,000 gallons in December. Details of the leachate removal for each month, along with historical leachate removal documentation are described in this progress report.

- During the months of October – December 2020, leachate was pumped monthly from the PAS Site. The leachate was pumped into the City of Oswego East Side Wastewater Treatment Plant in accordance with City of Oswego Industrial User Permit no. 6-2019-20.

- Quarterly groundwater elevation monitoring was performed on November 2, 2020. Quarterly groundwater elevation monitoring results for the SWW- series monitoring wells (SWW-1 through SWW-12), leachate collection wells (LCW-1 through LCW-4), M-series wells (M-21 through M-23), LR-series wells (LR-2, 3, 6 and 8), LD-series wells (LD-3, 4, 5, 6, and 8), along with wells OS-1, OS-3, OI-1, OD-3 and LS-6 were recorded on the Pre-Pumping Well Monitoring Level Form. (Attachment B-1)

- Site maintenance activities were conducted monthly in combination with the monthly leachate removal event. The Site Inspection Checklist was used to document the land cap, leachate discharge system, leachate collection system and general Site conditions. (Attachment B-2) Monthly Site maintenance activities included the following:

    - Inspected the perimeter security fence of the Site. No discrepancies were reported at the time of the inspection. (Attachment B-8)

    - Site entrance and roadways were cleared of snow prior to the pumping event in December.

    - The Site single French drainage system and two (2) concrete troughs were visually inspected and cleared of accumulated grass. No discrepancies were reported at the time of the inspection.

- Visually inspected the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. No other discrepancies were reported at the time of the inspection.

- Visually inspected the leachate collection system pumping equipment to verify proper operation. Repaired leachate flow meter. The field technician inspected each pump control panel to ensure control systems were generally free of rodents, and insects, and were properly operating. The leachate holding tank was visually inspected for integrity, as were the leachate tanks steel protective roof, and wood structure. No discrepancies were reported at the time of the inspection.

- The Site wooden utility shed and leachate pumping equipment, including centrifuge discharge pump, flow meter, suction hose, pump oils levels, heat trace power panel, interior lighting, exterior and interior shed structure and main power distribution panel were inspected. No discrepancies were reported at the time of the inspection.

- On October 6, November 4, and December 8, 2020, Ramboll performed the monthly pre-pumping collection system inspection for leachate collection wells LCW-1, 2, 3 & 4, along with inspection of the leachate discharge pumping system. Observations were recorded on the Site Inspection Checklist. (Attachment B-2)

- Upon completing the monthly leachate collection system inspections, Ramboll manually energized the four leachate collection pumps, identified as LCW-1, LCW-2, LCW-3, and LCW-4, in order to pump the planned volume of leachate into the leachate collection tank. The run time from each leachate collection pump, along with the leachate tank level taken upon completion of well pumping, was recorded on the Leachate Disposal Checklist. In advance of each leachate removal event, Ramboll informed the City of Oswego POTW of the anticipated discharge. (Attachment B-3)

- During the months of October, November, and December 2020, Ramboll pumped a combined total of 40,000 gallons of leachate from LCW 1, 2, 3 & 4 into the leachate collection tank and then into the City of Oswego POTW. The volume and flow rate of each leachate discharge was recorded onto the Leachate Disposal Checklist, as was leachate water pH, and temperature. The amount discharged was recorded onto the Leachate Disposal Checklist. No leachate was shipped to Auburn New York during the period. Therefore, no bill of lading was generated in this period. (Attachment B-3)

- Upon completing each monthly leachate discharge the leachate discharge pump and tank suctions hoses were placed back into the leachate hold tank and the leachate pump system was shut down and prepared for storage. The concrete leachate hold tank was secured, as was the wooden maintenance shed. Upon the completion of monthly Site activities, the Site metal access gates were closed and padlocked.

- On November 4, 2020, Ramboll performed the semi-annual groundwater sampling for monitoring wells LR-8, M-21, and leachate collection wells LCW2 and LCW4. Based on the 2019 Annual Report. Sampling activities for long term monitoring wells were conducted using low-flow sampling protocols described in the Work Plan. Samples were preserved using industry standard methods, and delivered to Life Science Laboratories in East Syracuse, NY for analysis. (Attachment B-4)

- On November 4, 2019, the semiannual discharge sample required under the City of Oswego POTW permit was taken and hand delivered to Life Science Laboratories in East Syracuse, NY for analysis the data was included in the Oswego 4th quarter discharge report.

- The PAS Oswego Site quarterly discharge report for the 4th quarter of 2020 for the City of Oswego was submitted on January 11, 2021 in accordance with Permit 6-2019-20. The quarterly report to the City of Auburn was submitted on December 30, 2020. (Attachment B-5)

- The Institutional Control inspection was performed on November 4, 2020. This included interviews with the Industrial Precision Products facility manager and review of City and County records. (Attachment B-6)

DOCUMENTATION OF ACTIVITIES FOR THE QUARTER

- The Groundwater Pre-Pumping Well Monitoring Level Form for November 2, 2020 is attached to this report. (Attachment B-1)

- The Site Inspection Checklist for October 6, November 4, and December 8, 2020 are attached to this report. (Attachment B-2)

- The Leachate Disposal Checklist for the October 6, November 4 and December 8, 2020 are attached to this report. (Attachment B-3)

- The validated lab report for the Semi-annual Groundwater sampling of LR-8, M-21 and the sampling for, LCW2 and LCW4 performed on November 4, 2020 is attached to this report. (Attachment B-4)

- The PAS Quarterly Discharge reports submitted on January 11, 2021 to the City of Oswego and the report submitted to the City of Auburn on December 30, 2020 are attached to this report. (Attachment B-5)

- The Institutional Control inspection and record review is attached. (Attachment B-6)

B – 1
GROUNDWATER ELEVATION DATA

O'Brien & Gere Operation (O'Brien & Gere)
PAS Oswego Site
Oswego, New York
Pre-Pumping Well Monitoring Levels

Date - 11-2-2020 Technician - MARTIN Koennecke Month - November 2020

Well	Riser	Well Range Verification			Monthly Onsite Field Measurements					
Number	Elevation	Average Well Level	Low Well Level	High Well Level	Well Level (1st) Check	Well Level (2nd) Check	Well Within Range (based on historical well range data) YES	NO	Well Level Check (3rd) (if "NO" & well is not within targeted range)	NOTES
SWW1	289.33	9.72	8.62	11.62	10.15	10.15	✓			
SWW2	289.37	16.35	15.30	17.40	16.80	16.80	✓			
SWW3	286.50	17.35	16.52	17.96	17.82	17.82	✓			
SWW4	283.60	14.99	13.44	17.12	16.50	16.50	✓			
SWW5	277.02	13.64	12.55	14.66	14.34	14.34	✓			
SWW6	273.06	8.68	7.95	9.58	8.95	8.95	✓			
SWW7	277.93	8.73	7.90	9.43	9.04	9.04	✓			
SWW8	278.24	5.87	3.80	11.38	9.24	9.24	✓			
SWW9	285.55	18.78	17.32	20.14	20.25	20.25		✓	20.25	
SWW10	280.43	12.49	9.71	18.65	16.18	16.18	✓			
SWW11	273.50	10.06	8.81	11.48	11.22	11.22	✓			
SWW12	272.82	11.67	8.50	15.36	15.15	15.15	✓			
LCW-1	272.21	9.81	8.20	10.98	10.68	10.68	✓			
LCW-2	274.44	12.06	10.44	13.22	12.92	12.92	✓			
LCW-3	284.36	18.11	17.40	19.56	18.32	18.32	✓			
LCW-4	285.70	18.71	16.64	19.80	18.45	18.45	✓			
OS-1	272.10	12.36	8.40	16.60	14.91	14.91	✓			
OI-1	272.00	12.82	11.10	15.26	13.62	13.62	✓			
OS-3	277.89	16.09	13.56	18.58	17.30	17.30	✓			
OD-3	277.85	15.95	13.40	18.42	17.10	17.10	✓			
LD-3	278.62	6.51	4.18	11.77	9.60	9.60	✓			
LD-4	279.25	12.46	9.85	17.15	15.52	15.52	✓			
LD-5	272.94	12.77	8.80	16.00	15.88	15.88	✓			
LS-6	274.14	13.15	9.56	15.78	15.18	15.18	✓			
LD-6	274.03	11.71	9.90	13.88	12.55	12.55	✓			
LD-8	272.83	9.76	6.80	15.38	10.24	10.24	✓			
LR-2	289.85	13.65	12.63	14.96	14.20	14.20	✓			
LR-3	278.06	8.99	7.40	12.00	10.18	10.18	✓			
LR-6	274.39	11.06	10.05	12.72	11.70	11.70	✓			
LR-8	273.42	10.79	9.45	12.84	11.35	11.35	✓			
M-21	272.32	10.40	9.17	12.50	10.90	1090	✓			
M-22	273.88	11.04	10.00	12.62	11.72	11.72	✓			
M-23	270.49	12.87	12.22	14.25	13.10	13.10	✓			

B – 2
SITE INSPECTION CHECKLIST

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 10-6-2020 Time 7:45

Field Technician MARTIN KOENNECKE Weather Conditions SUNNY 45°

Check **V** (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		OK
Concrete trough clear and function able	✓		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		TURNED ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK

10-6-20

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes .
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Flow meter stopped working shut down and removed meter found metal rust chip stuck in meter turbine clean and replaced meter, Pumped 20,000 gal Leachate to Oswego POTW

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 11-3-2020 Time 7:00

Field Technician MARTIN KOENECKE Weather Conditions OVERCAST 40°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISABLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		CLEARED TODAY
Concrete trough clear and function able	√		CLEARED TODAY
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK

11-3-2020

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

QUARTERLY WELL LEVELS TAKEN 11-2-20
FENCE LINE AND CONCRETE TROTH CLEARED
SEMI ANNUAL LEACHATE SAMPLES TAKEN 11-4-20
PUMPED 10,000 GAL LEACHATE TO OSWEGO POTW

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 12-8-2020 Time 7:50

Field Technician MARTIN Koennecke Weather Conditions 28° SNOW-FLURRIES

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISABLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		OK
Concrete trough clear and function able	√		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK

12-8-20

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		work in Progress
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Pumped 10,000 gal Leachate To Oswego POTW
measured Total Depts of wells SWW-5, LR-2, M21

B – 3
LEACHATE DISPOSAL CHECKLIST

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 10-6-2020 Time: 7:45

Field Technician Martin Koennecke Weather Conditions Sunny 45°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
12.5"	LCW-1	8:05	9:50			
	LCW-2	8:05	9:50			
	LCW-3	8:05	8:30			
	LCW-4	8:05	9:50	Intermittently Run		
				After pump out 10.5	Total	19,390

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:50	13:45	6.8	53°	14755165	14975165	20,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 11-4-2020 Time: 7:00

Field Technician Martin Kocanecky Weather Conditions Sunny 40°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10" ±	LCW-1	7:05	8:30	44"	122 GPM	
	LCW-2	7:05	8:30			
	LCW-3	7:05	7:30			
	LCW-4	7:05	8:30			
					Total	10,370

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:10	11:10	6.8	50°	1475165	1485165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
		20 min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1	11-4-2020	sample port	Composite	10 30	6.8	50°

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 12-8-2020 Time: 7:50

Field Technician Martin Koennecke Weather Conditions 28° SNOW FLURRIES

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
11"	LCW-1	7:55	9:15	43"	1226pm	~~9,765~~
	LCW-2	7:55	9:15			9,760
	LCW-3	7:55	8:15			
	LCW-4	7:55	9:15			
					Total	9,760 ~~9,765~~

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:30	11:30	6.8	44°	1485165	1495165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83.3	20 min	0	16			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

B – 4
SEMIANNUAL LEACHATE AND GROUNDWATER MONTIORING DATA

DATA VALIDATION

FOR

WATER MONITORING
PAS Oswego
OSWEGO, NEW YORK

ORGANIC ANALYSIS DATA
Volatiles in Water
Laboratory Job No. 2018153

Analyses Performed

By:

Life Sciences Laboratory
East Syracuse, NY

For:

de maximis, Inc.
Knoxville, TN 37919

Data Validation By:

ddms, Inc.
St. Paul, Minnesota 55108

April 19, 2021

1547-3131/das/psn
PAS/2018153_voa

EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Life Sciences Laboratories, Inc. for five water samples, one equipment blank, and one trip blank, supporting the PAS Oswego (Site) Semi-Annual Well Sampling event has been completed by de maximis Data Management Solutions, Inc. (ddms). The data were reported by the laboratory under Laboratory Job No. 2108153. The following samples were reported:

M-21	LR-8	LCW-4	LCW-2
X-1	Equipment Blank	QC Trip Blank	

Based on the validation effort, the following qualifiers were applied:

- Based on a high variability observed between the initial calibration (IC) and the second-source IC verification (ICV) standards, results for acetone and 2-butanone in all of the water samples were qualified as estimated (J, UJ).
- Results for carbon disulfide and methylene chloride in LR-8, LCW-4, LCW-2, and X-1, and for carbon disulfide in MW-21 were qualified as not detected (U) at the reporting limit, or reported value, whichever is greater, based on contamination in associated laboratory and/or field blanks.
- Results for acetone in MW-21, LR-8, and LCW-2 were qualified as not detected (U) at the reporting limit or reported concentration, whichever is greater, based on contamination in associated laboratory and trip blanks.
- Results for acetone in all of the field samples were qualified as estimated (UJ) based on low recoveries in the matrix spike (MS)/MS duplicate (MSD) and poor precision in the field duplicates.
- The result for chloromethane in MW-21 was corrected from 0.37 µg/L to not detected at the reporting limit (1 U µg/L), based on insufficient signal to noise ratio (S/N) for the primary ion and no discernable mass peak for the secondary ion for confirmation.
- Results for 1,2-dichloroethane in LCW-2 and LCW-4 were qualified as tentatively identified (N), based on the absence of the secondary ion in the mass spectra.

- Results for chloromethane, methylcyclohexane, and toluene in all of the field samples were qualified as estimated (J, UJ), based on variability observed between the field duplicate samples.

All other results were determined to be valid as reported. Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

1.0 Introduction

This report presents the findings of the data validation assessment performed on the results of analyses for water samples collected on November 3, 2020, for the PAS Oswego semiannual well sampling event. This report details the review of data for samples submitted to the laboratory in the sample delivery group No. 2108153 and identifies quality issues which could affect the use of the sample results for decision-making purposes.

Analyses were performed in accordance with USEPA SW-846 Method 8260C. The laboratory provided a "CLP-type" data package for review.

The data validation was performed in accordance with USEPA Region II Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8260B & 8260C, SOP HW-24, Revision 4 (September 2014) as well as ddms' Standard Operating Procedure: Validation and Review of Volatile Organic Data; ECS-SOP-003. Where there was a discrepancy between the QC criteria in the guidelines and the QC criteria established in the analytical methodology, professional judgement was applied.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced method. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to sufficient quality review prior to submission for validation.

During the validation process, laboratory results are verified against all available supporting documentation. Based on the findings of the validation, qualifier codes may have been added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the Region II Guidelines:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

These qualifiers are recorded on the Data Summary Forms contained in Attachment A of this validation report to indicate qualifications placed on the results based on the data review.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

2.0 Volatile Organic Compounds

The table below documents the elements reviewed for each parameter. Quality excursions resulting in qualified data are presented below.

Review Element	Acceptable?
Preservation and Technical Holding Times	Y
Calibration (Initial Calibration [IC], IC Verification (ICV), Continuing Calibration (CC)	N
Blanks	N
GC/MS Instrument Tunes	Y
Surrogates	Y
Laboratory Control Samples (LCS)	N
Field Duplicates	N
Matrix Spike (MS) and Matrix Spike Duplicate (MSD)	N
Quantitation	Y
Compound Identification	Y
Documentation (Completeness and Compliance)	N

Y/N=yes/no

2.1 Preservation and Technical Holding Times

The temperature of the cooler on receipt of the samples at the laboratory (10°C) exceeded the upper limit of the acceptable range (QC ≤6°C). The samples were hand-delivered to the laboratory, on ice, within two hours of collection of the last sample; it is apparent that insufficient time was available from sample collection to laboratory receipt for the samples to have cooled. Based on professional judgment, no action was taken on this basis.

2.2 Calibration

A second-source standard was analyzed after the initial calibration (IC) and served both to verify the IC concentrations (as an ICV standard) and as a continuing calibration (CC) standard to verify continued accuracy of the IC for the analyses of all of the field samples. The LCS analyzed after this ICV/CC standard was prepared from the primary source; all recoveries for the target analytes were acceptable, supporting continued use of the IC.

An additional primary-source continuing calibration (CC) standard was run on November 11, 2020, with the matrix spike and matrix spike duplicate.

Compound	%D	Samples Affected
11/9/20 ICV/CC		
Acetone	-33.2	M-21 LR-8 LCW-4 LCW-2 X-1
2-Butanone	-22.2	
11/11/20 CC		
Acetone	+53.1	None – only QC samples associated
2-Butanone	+42.1	
2-Hexanone	+50.4	

Based on a decrease in sensitivity observed between the CC and the IC on 11/9/20, results for acetone and 2-butanone in all of the field samples were qualified as estimated (J-, UJ) with the potential for low bias. Only QC samples were analyzed with the 11/11/20 CC; therefore, no qualification of sample results was necessary.

2.3 Blanks

The validator assessed blank contamination based on on-column concentrations provided in the raw data in order to account for the dilutions performed for samples LCW-2 (5x) and LCW-4 (20x). Sample results less than five-times the concentration in the blanks were qualified as not detected (U) at the reporting limit or reported concentration, whichever is greater.

The table below summarizes the amount detected in each blank and the samples affected.

Compound	MB (ug/L)	EB (ug/L)	TB (ug/L)	Samples Affected
carbon disulfide	0.20 J	0.12 J	0.12 J	MW-21 LR-8 LCW-4 LCW-2 X-1
methylene chloride	ND (2.0 U)	0.40 J	0.34 J	LR-8 LCW-4 LCW-2 X-1
acetone	0.28 J	ND (10 U)	0.78	MW-21 LR-8 LCW-2

Results for carbon disulfide and methylene chloride in LR-8, LCW-4, LCW-2, and X-1 and for carbon disulfide in MW-21 were qualified as not detected (U) at the reporting limit, or reported value, whichever is greater, based on contamination in associated laboratory and/or field blanks.

Results for acetone in MW-21, LR-8, and LCS-2 were qualified as not detected (U) at the reporting limit or reported concentration, whichever is greater, based on contamination in associated laboratory and/or field blanks.

2.4 Laboratory Control Sample (LCS)/LCS Duplicate (LCSD)

Two LCSs were prepared and analyzed in association with the site samples. Recoveries for all target compounds in the LCS analyzed on 11/10/20 with the field samples were acceptable. The unacceptable recoveries for the three compounds below in the 11/11/20 LCS were associated only with the QC samples; therefore, no sample results required qualification.

Compound	LCS (%R)	Samples Affected
acetone	162	Only QC samples (MS/MSD)
2-butanone	152	
2-hexanone	159	

2.5 Matrix Spike (MS)/MS Duplicate (MSD)

Sample LR-8 was prepared and analyzed as an MS/MSD pair. Recoveries for all target analytes were acceptable (70-130%) with the exception below:

Compound	MS (%R)	MSD (%R)	RPD (%)
acetone	63	61	a

a = acceptable

Results for acetone in all of the field samples were qualified as estimated (UJ) on this basis. Results were previously qualified as not detected (U) based on blank contamination; the “UJ” takes precedence.

It should be noted that the LCS prepared and analyzed with the MS/MSD pair exhibited an exceptionally high recovery for acetone, while the recoveries in the MS/MSD were low, raising greater uncertainty regarding the MS/MSD results and recoveries for this target analyte.

2.6 Field Duplicates

X-1 was collected and submitted as a field duplicate of MW-21. After qualification based on blank contamination, acetone, chloromethane, methylcyclohexane, and toluene were detected at low concentrations in MW-21 but were not detected in X-1. Based on variability between the field duplicate for these compounds, results for acetone,

chloromethane, methylcyclohexane, and toluene in all of the field samples were qualified as estimated (J, UJ).

2.7 Compound Identification and Quantitation

The result for chloromethane in MW-21 was corrected from 0.37 µg/L to not detected at the reporting limit (1 U µg/L) based on insufficient signal to noise ratio (S/N) for the primary ion and no discernable mass peak for the secondary ion for confirmation. It should be noted that this compound was also detected in both method blanks and the trip blank at similar concentrations according to the quantitation reports. The S/N ratio was low and the secondary ion was missing in these instances, also.

Results for 1,2-dichloroethane in LCW-2 and LCW-4 were qualified as tentatively identified (N), based on the absence of the secondary ion in the mass spectra.

Samples LCW-2 and LCW-4 were analyzed at dilutions due to high concentrations of target analytes. The laboratory adjusted the reporting limits for the dilutions appropriately.

2.8 Documentation

The following documentation issues were observed:

- Surrogate recoveries listed on the Form 2 do not match the raw data (quantitation reports and run logs) and are several percent different in many cases; the source of the discrepancies was not apparent. The recoveries on the run logs are slightly different in some cases than the quantitation reports; these differences appear to be due to rounding. The surrogate recoveries calculated by the validator were consistent with those found in the raw data and on the sample analytical results forms. All surrogate recoveries calculated by the validator were acceptable; therefore, no action was taken for this discrepancy.
- A summary form was included for the MDL determinations. Included on the summary are seven replicates dated over a two-week period in July 2019. It is assumed that these MDLs were still in effect and have been demonstrated more recently to still be supported for the samples reported in this data set. It is also assumed that blank studies are performed currently and that these also support the reported MDLs.
- A summary form and raw data for the second-source standard associated with the initial calibration are labeled as a continuing calibration (CC) standard. It is assumed that the laboratory intended to use this standard as both an ICV and a CC standard. An LCS was also analyzed, which in the case of volatiles analyses, is procedurally the same as a CC; the LCS was labeled and summarized as an LCS.

At the data user's discretion, the laboratory may be requested to provide a corrected Form 2, reflecting accurate surrogate recoveries that are supported by the raw data, as well as other documentation detailed above to provide clarification or correction to the data.

ATTACHMENT A

DATA SUMMARY FORMS
Laboratory Job No. 2018153
Volatiles in Water

VALIDATION SUMMARY REPORT
Job No: 2018153
Site Name: PAS Oswego-Semi-Annual Well Sampling
ddms Project No: 1547-313101
Sampling Date: November 3, 2020

Units	Analyte	Equipment Blank		MW-21		LR-8		LCW-2	
		2018153-001		2018153-002		2018153-003		2018153-004	
	Method 8260								
	Dilution	1		1		1		5	
	1,1,1-Trichloroethane	0.50	U	0.50	U	0.50	U	**8.85**	
	1,1,2,2-Tetrachloroethane	0.50	U	0.50	U	0.50	U	**2.55**	
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	U	0.50	U	**1.20**	**J**
	1,1,2-Trichloroethane	0.50	U	0.50	U	0.50	U	2.50	U
	1,1-Dichloroethane	0.50	U	0.50	U	0.50	U	**17.8**	
	1,1-Dichloroethene	0.50	U	0.50	U	0.50	U	2.50	U
	1,2,4-Trichlorobenzene	1.00	U	1.00	U	1.00	U	5.00	U
	1,2-Dibromo-3-chloropropane	5.00	U	5.00	U	5.00	U	25.0	U
	1,2-Dibromoethane	0.50	U	0.50	U	0.50	U	2.50	U
	1,2-Dichlorobenzene	0.50	U	**0.14**	**J**	**0.69**		**5.50**	
	1,2-Dichloroethane	0.50	U	0.50	U	0.50	U	**18.8**	**N**
	1,2-Dichloropropane	0.50	U	0.50	U	0.50	U	2.50	U
	1,3-Dichlorobenzene	0.50	U	0.50	U	**0.20**	**J**	2.50	U
ug/L	1,4-Dichlorobenzene	0.50	U	0.50	U	**1.00**		**0.80**	**J**
	2-Butanone	10.0	**UJ**	10.0	**UJ**	10.0	**UJ**	50.0	**UJ**
	2-Hexanone	5.00	U	5.00	U	5.00	U	**25.4**	
	4-Methyl-2-pentanone	5.00	U	5.00	U	5.00	U	25.0	U
	Acetone	10.0	**UJ**	**10.0**	**UJ**	**10.0**	**UJ**	**50.0**	**UJ**
	Benzene	0.50	U	0.50	U	**2.45**		**486**	
	Bromodichloromethane	0.50	U	0.50	U	0.50	U	2.50	U
	Bromoform	1.00	U	1.00	U	1.00	U	5.00	U
	Bromomethane	1.00	U	1.00	U	1.00	U	5.00	U
	Carbon disulfide	**0.12**	**J**	**0.50**	**U**	**0.50**	**U**	**2.50**	**U**
	Carbon tetrachloride	0.50	U	0.50	U	0.50	U	2.50	U
	Chlorobenzene	0.50	U	**1.09**		**15.3**		**113**	
	Chloroethane	1.00	U	**1.00**		**4.07**		**28.2**	
	Chloroform	0.50	U	0.50	U	0.50	U	**2.15**	**J**
	Chloromethane	1.00	U	**1.00**	**UJ**	1.00	**UJ**	5.00	**UJ**
	cis-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	**80.6**	

VALIDATION SUMMARY REPORT
Job No: 2018153
Site Name: PAS Oswego-Semi-Annual Well Sampling
ddms Project No: 1547-313101
Sampling Date: November 3, 2020

Units	Analyte	Equipment Blank		MW-21		LR-8		LCW-2	
		2018153-001		2018153-002		2018153-003		2018153-004	
	Method 8260								
	Dilution	1		1		1		5	
	cis-1,3-Dichloropropene	0.50	U	0.50	U	0.50	U	2.50	U
	Cyclohexane	0.50	U	**0.60**		**3.37**		**0.95**	**J**
	Dibromochloromethane	0.50	U	0.50	U	0.50	U	2.50	U
	Dichlorodifluoromethane	1.00	U	1.00	U	1.00	U	5.00	U
	Ethylbenzene	0.50	U	0.50	U	**0.10**	**J**	**15.8**	
	Isopropylbenzene	0.50	U	**0.24**	**J**	**1.23**		**6.10**	
	Methyl acetate	5.00	U	5.00	U	5.00	U	25.0	U
	Methyl tert-butyl ether	1.00	U	1.00	U	1.00	U	5.00	U
ug/L	Methylcyclohexane	0.50	U	**0.10**	**J**	**0.34**	**J**	2.50	**UJ**
	Methylene chloride	**0.40**	**J**	2.00	U	**2.00**	**U**	**10.0**	**U**
	Styrene	0.50	U	0.50	U	0.50	U	2.50	U
	Tetrachloroethene	0.50	U	0.50	U	0.50	U	**6.15**	
	Toluene	0.50	U	0.50	**UJ**	**0.38**	**J**	**2.00**	**J**
	trans-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	**0.85**	**J**
	trans-1,3-Dichloropropene	0.50	U	0.50	U	0.50	U	2.50	U
	Trichloroethene	0.50	U	0.50	U	0.50	U	**6.50**	
	Trichlorofluoromethane	0.50	U	1.00	U	1.00	U	5.00	U
	Vinyl chloride	0.50	U	1.00	U	1.00	U	**43.2**	
	Xylenes (total)	0.50	U	1.00	U	**0.78**	**J**	**14.6**	

VALIDATION SUMMARY REPORT
Job No: 2018153
Site Name: PAS Oswego-Semi-Annual Well Sampling
ddms Project No: 1547-313101
Sampling Date: November 3, 2020

Units	Analyte	LCW-4		X-1		QC Trip Blank	
		2018153-005		2018153-006		2018153-007	
	Method 8260						
	Dilution	20		1		1	
ug/L	1,1,1-Trichloroethane	**10.0**	U	0.50	U	0.50	U
	1,1,2,2-Tetrachloroethane	**10.0**	U	0.50	U	0.50	U
	1,1,2-Trichloro-1,2,2-trifluoroethane	**10.0**	U	0.50	U	0.50	U
	1,1,2-Trichloroethane	**10.0**	U	0.50	U	0.50	U
	1,1-Dichloroethane	**24.6**		0.50	U	0.50	U
	1,1-Dichloroethene	**10.0**	U	0.50	U	0.50	U
	1,2,4-Trichlorobenzene	**20.0**	U	1.00	U	1.00	U
	1,2-Dibromo-3-chloropropane	**100**	U	5.00	U	5.00	U
	1,2-Dibromoethane	**10.0**	U	0.50	U	0.50	U
	1,2-Dichlorobenzene	**29.0**		**0.16**	**J**	0.50	U
	1,2-Dichloroethane	**17.8**	**N**	0.50	U	0.50	U
	1,2-Dichloropropane	**10.0**	U	0.50	U	0.50	U
	1,3-Dichlorobenzene	**10.0**	U	0.50	U	0.50	U
	1,4-Dichlorobenzene	**4.20**	**J**	0.50	U	0.50	U
	2-Butanone	**200**	**UJ**	**10.0**	**UJ**	**10.0**	**UJ**
	2-Hexanone	**10.0**	U	5.00	U	5.00	U
	4-Methyl-2-pentanone	**10.0**	U	5.00	U	5.00	U
	Acetone	**200**	**UJ**	**10.0**	**UJ**	**10.0**	**UJ**
	Benzene	**527**		0.50	U	0.50	U
	Bromodichloromethane	**10.0**	U	0.50	U	0.50	U
	Bromoform	**20.0**	U	1.00	U	1.00	U
	Bromomethane	**20.0**	U	1.00	U	1.00	U
	Carbon disulfide	**10.0**	**U**	**0.11**	**J**	**0.12**	**J**
	Carbon tetrachloride	**10.0**	U	0.50	U	0.50	U
	Chlorobenzene	**380**		**1.14**		0.50	U
	Chloroethane	**92.2**		**0.98**	**J**	1.00	U
	Chloroform	**10.0**	U	0.50	U	0.50	U
	Chloromethane	**20.0**	**UJ**	1.00	**UJ**	1.00	U
	cis-1,2-Dichloroethene	**18.2**		0.50	U	0.50	U

VALIDATION SUMMARY REPORT
Job No: 2018153
Site Name: PAS Oswego-Semi-Annual Well Sampling
ddms Project No: 1547-313101
Sampling Date: November 3, 2020

Units	Analyte	LCW-4		X-1		QC Trip Blank	
		2018153-005		2018153-006		2018153-007	
	Method 8260						
	Dilution	20		1		1	
	cis-1,3-Dichloropropene	**10.0**	U	0.50	U	0.50	U
	Cyclohexane	**9.00**	**J**	**0.59**		0.50	U
	Dibromochloromethane	**10.0**	U	0.50	U	0.50	U
	Dichlorodifluoromethane	**20.0**	U	1.00	U	1.00	U
	Ethylbenzene	**355**		0.50	U	0.50	U
	Isopropylbenzene	**5.60**	**J**	**0.24**	**J**	0.50	U
	Methyl acetate	**100**	U	5.00	U	5.00	U
	Methyl tert-butyl ether	**20.0**	U	1.00	U	1.00	U
ug/L	Methylcyclohexane	**3.00**	**J**	0.50	**UJ**	0.50	U
	Methylene chloride	**40.0**	**UJ**	**0.16**	**J**	**0.34**	**J**
	Styrene	**4.20**	**J**	0.50	U	0.50	U
	Tetrachloroethene	**10.0**	U	0.50	U	0.50	U
	Toluene	**120**	**J**	**0.10**	**J**	0.50	U
	trans-1,2-Dichloroethene	**10.0**	U	0.50	U	0.50	U
	trans-1,3-Dichloropropene	**100**	U	0.50	U	0.50	U
	Trichloroethene	**20.0**	U	0.50	U	0.50	U
	Trichlorofluoromethane	**20.0**	U	0.50	U	1.00	U
	Vinyl chloride	**37.8**		0.50	U	1.00	U
	Xylenes (total)	**986**		0.50	U	1.00	U

B – 5
QUARTERLY POTW
DISCHARGE REPORTS

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

December 30, 2020

Mr. Tim O'Brien
Department of Municipal Utilities
35 Bradley Street
Auburn, New York 13021

Re: 4th Quarter PAS Oswego Monitoring Report 2020

Dear Mr. O'Brien,

This letter confirms that the PAS Oswego Site has not shipped or discharged any wastewater from the PAS Oswego collection system to the City of Auburn POTW during October 2020–December 2020. This has been due to the EPA allowance of an alternate disposal method.

- **Cumulative gallons removed for discharge in Auburn 4th Qtr. 2020 - 0**
- **Cumulative gallons removed for discharge in Auburn 2020 - 0**

Since no wastewater was shipped or discharged to Auburn during the 4th quarter of 2020, no analytical testing was required. However, we continue to perform Site maintenance and sampling activities under the Operation, Monitoring and Maintenance Program for the Site approved by EPA. The data associated with that program indicate little change in the characteristics of the Site wastewater.

Please contact me at (865) 691-5052, if you have any questions.

Sincerely,
de maximis, inc.

Clay McClarnon

Clay McClarnon

CMC/dsr

cc: PAS Management Committee

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

December 30, 2020

Mr. Timothy L. O'Brien
Industrial Pretreatment Coordinator
35 Bradley Street
Auburn, NY 13021

Re: Industrial Pretreatment Program
Zero Discharge Certification Statement:

Dear Mr. O'Brien

For the reporting quarter(s) of December 2017 to December 2020, I certify that for Pollution Abatement Services located in Oswego New York:

1. There have been no changes to any of our processes resulting in the potential for the discharge from the process waste stream.

2. No discharge of process wastewater has occurred since December 7, 2017.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Clay McClarnon	Project Coordinator	
Name	Title	
Clay McClarnon	December 30, 2020	865-691-5052
Signature	Date	Phone

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

Via electronic mail

January 11, 2021

Mr. John McGrath
Chief Operator
Westside Wastewater Treatment Plant
First Avenue & West Schuyler Streets
Oswego, New York 13126
Labmanager@oswegony.org

Re: Quarterly Discharge Report – 4th Quarter 2020
Pollution Abatement Services Site – Oswego, New York
City of Oswego Wastewater Discharge Permit 6-2019-20

Dear Mr. McGrath:

This quarterly report is submitted in accordance with the City of Oswego Wastewater Discharge Permit 6-2019-20 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Oswego's Eastside Wastewater Treatment Facility. This report covers the reporting period from October 2020 through December 2020.

The PAS Site discharged a total of 40,000 gallons of leachate to the Oswego sewer system during the 4th quarter of 2020.

Discharge to City of Oswego October 2020 – December 2020 40,000 gallons

If you need additional information, please call me at (865) 691-5052.

Sincerely,
de maximis, inc.

Clay McClarnon

Clay McClarnon

Attachments:

cc: Dan Ramer – Chief Operator Eastside Wastewater Treatment Plant
PAS Oswego Site Management Committee

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF OSWEGO (2020)
LEACHATE DISCHARGE TO OSWEGO EASTSIDE WASTEWATER TREATMENT FACILITY
(Oswego SIU Wastwater Discharge Permit No.6-2019-20)

Discharge Quarter		*1Q 2020*		*2Q 2020*		*3Q 2020*		*4Q 2020*	
		Date Discharged (temp/pH)	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*
		1/7/20	10,000	4/7/20	10,000	7/7/20	20,000	10/6/20	20,000
		46/6.8		46/6.8		58/6.8		53/6.8	
		2/11/20	10,000	5/6/20	20,000	8/4/20	20,000	11/4/20	10,000
		42/6.8		44/6.8		59/6.8		50/6.8	
		3/3/20	10,000	6/2/20	20,000	9/9/20	20,000	12/8/20	10,000
		42/6.8		50/6.8		57/6.8		44/6.8	
Total Discharged			30,000		50,000		60,000		40,000
Date Sampled*	***Permit Limits***			5/6/2020				11/4/2020	
Analytes	***mg/L***			***mg/L***				***mg/L***	
Antinomy	*0.107*			ND <0.001				ND <0.010	
Arsenic	*0.358*			0.016				0.021	
Beryllium	*0.107*			ND <0.010				ND <0.010	
Cadmium	*0.43*			ND <0.010				ND <0.010	
Chromium (total)	*0.67*			ND <0.010				ND <0.010	
Copper	*0.43*			0.027				0.011	
Cyanide	*0.69*			ND <0.010				ND <0.010	
Lead	*0.19*			ND <0.010				ND <0.010	
Mercury	*0.0002*			ND <0.0002				ND <0.0002	
Nickel	*0.65*			0.28				0.32	
Selenium	*0.282*			ND <0.010				ND <0.010	
Silver	*0.65*			ND <0.010				ND <0.010	
Thallium	*0.073*			ND <0.020				ND <0.020	
Zinc	*1*			ND <0.020				ND <0.020	
*VOC***									
1,1,1 TCA	*NA*			*0.00454*				0.0086	
MeCL	*NA*			ND <0.0005				ND <0.0005	
PCE	*NA*			*0.0314*				0.029	
Toluene	*NA*			*0.0613*				0.109	
TCE	*NA*			*0.0117*				0.0199	
*SVOC***	*NA*			NA				NA	
BOD 5	*200*			12				21	
TSS	*400*			39				50	
oil & grease	*100*			*5.5*				ND 5.0	
Phenolics	*0.375*			0.001				ND <0.001	
pH	*>5 & <10*			6.8				6.8	

** Semi-annual sampling of PAS leachate discharge conducted in accordance with SIU Wastewater Discharge Permit No.6-2019-20.*

*** Analytes included for permit pollutant analysis performed every three years*

Analyte values in bold exceed limit

Prepared by de maximis, inc. 1/6/2021

ATTACHMENT I

Leachate Disposal Check List

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 10-6-2020 Time 7:45

Field Technician MARTIN KOENNECKE Weather Conditions SUNNY 45°

Check **V** (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		OK
Concrete trough clear and function able	✓		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		TURNED ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK

10-6-20

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes .
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Flow meter stopped working shut down and removed meter found metal rust chip stuck in meter turbine clean and replaced meter, Pumped 20,000 gal Leachate to Oswego POTW

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 11-4-2020 Time: 7:00

Field Technician Martin Kocanecky Weather Conditions Sunny 40°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10" ±	LCW-1	7:05	8:30	44"	122 GPM	
	LCW-2	7:05	8:30			
	LCW-3	7:05	7:30			
	LCW-4	7:05	8:30			
					Total	10,370

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:10	11:10	6.8	50°	1475165	1485165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
		20 min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1	11-4-2020	sample port	Composite	10 30	6.8	50°

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 12-8-2020 Time: 7:50

Field Technician Martin Koennecke Weather Conditions 28° SNOW FLURRIES

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
11"	LCW-1	7:55	9:15	43"	1226pm	~~9,765~~
	LCW-2	7:55	9:15			9,760
	LCW-3	7:55	8:15			
	LCW-4	7:55	9:15			
					Total	9,760 ~~9,765~~

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:30	11:30	6.8	44°	1485165	1495165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83.3	20 min	0	16			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

ATTACHMENT II

Semi Annual Discharge Data

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 **(315) 445-1900**

Tuesday, December 08, 2020

Mark Byrne
Ramboll Americas O&M Solutions
333 W. Washington St.
PO Box 4873
Syracuse, NY 13202

TEL: 315-437-6100

Project: PAS OSWEGO, SEMIANNUAL PERMIT DISCHARGE
RE: Analytical Results Order No.: 2018426

Dear Mark Byrne:

Life Science Laboratories, Inc. received 2 sample(s) on 11/4/2020 for the analyses presented in the following report. Sample results relate only to the samples as received by the laboratory.

Very truly yours,
Life Science Laboratories, Inc.

David J Prichard
Project Manager

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT: Ramboll Americas O&M Solutions
Project: PAS Oswego, Semiannual Permit Discharge
Location:
W Order: 2018426
Matrix: WATER
Inst. ID: MSN_76 **Sample Size:** NA
ColumnID: Rtx-VMS **%Moisture:**
Revision: 12/04/20 12:02 **TestCode** 624W
Col Type:

Lab ID: **2018426-001A**
Client Sample ID: ***Leachate Effluent, 11/4/20***
Collection Date: 11/04/20 10:30
Date Received: 11/04/20 14:30
PrepDate:
BatchNo: R34362
FileID: 1-SAMP-n4091.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 624**		
1,1,1-Trichloroethane	8.60	H	5.00	µg/L	5	12/02/20 0:37
Methylene chloride	ND	H	5.00	µg/L	5	12/02/20 0:37
Tetrachloroethene	53.0	H	5.00	µg/L	5	12/02/20 0:37
Toluene	109	H	5.00	µg/L	5	12/02/20 0:37
Trichloroethene	19.9	H	5.00	µg/L	5	12/02/20 0:37
Surr: 1,2-Dichloroethane-d4	95	H	75-130	%REC	5	12/02/20 0:37
Surr: 4-Bromofluorobenzene	90	H	75-125	%REC	5	12/02/20 0:37
Surr: Toluene-d8	95	H	75-125	%REC	5	12/02/20 0:37

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001B**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 11/4/20***
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	MS06_40 **Sample Size:** NA	**PrepDate:**	11/06/20 0:00
ColumnID:	DB-5MS **%Moisture:**	**BatchNo:**	R34321
Revision:	12/01/20 12:58 **TestCode** 625W	**FileID:**	1-SAMP-T1704
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SEMI-VOLATILE ORGANICS COMPOUNDS BY GC/MS				**EPA 625**		
Phenol	ND		10	µg/L	1	11/10/20 20:16
Surr: 2,4,6-Tribromophenol	109		46-149	%REC	1	11/10/20 20:16
Surr: 2-Fluorophenol	37		26-130	%REC	1	11/10/20 20:16
Surr: Phenol-d5	31		21-134	%REC	1	11/10/20 20:16

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001C**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	*Leachate Effluent, 11/4/20*
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 11/19/20 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 27528/R34337
Revision:	12/08/20 8:59	**TestCode** 200.7_NPW	**FileID:** 1-SAMP-19357
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7,Rev.4.4(1994)**		**(EPA 200.2)**
Antimony	ND		0.010	mg/L	1	11/20/20 17:08
Arsenic	0.021		0.010	mg/L	1	11/20/20 17:08
Barium	0.49		0.10	mg/L	1	11/20/20 17:08
Beryllium	ND		0.010	mg/L	1	11/20/20 17:08
Cadmium	ND		0.010	mg/L	1	11/20/20 17:08
Chromium	ND		0.010	mg/L	1	11/20/20 17:08
Copper	0.011		0.010	mg/L	1	11/20/20 17:08
Iron	20		0.050	mg/L	1	11/20/20 17:08
Lead	ND		0.010	mg/L	1	11/20/20 17:08
Nickel	0.32		0.010	mg/L	1	11/20/20 17:08
Selenium	ND		0.010	mg/L	1	11/20/20 17:08
Silver	ND		0.010	mg/L	1	11/20/20 17:08
Thallium	ND		0.020	mg/L	1	11/20/20 17:08
Zinc	ND		0.020	mg/L	1	11/20/20 17:08

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
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East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001C**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 11/4/20***
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	FIMS 100 **Sample Size:** 40 mL	**PrepDate:**	11/05/20 13:55
ColumnID:	**%Moisture:**	**BatchNo:**	27495/R34309
Revision:	12/07/20 8:23 **TestCode** HG245W	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
MERCURY				**EPA 245.1, Rev. 3.0 (1994)**		**(EPA 245.1, REV. 3.0 (1994))**
Mercury	ND		0.00020	mg/L	1	11/06/20 10:56

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
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East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001D**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 11/4/20***
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	DENVER APX-200 **Sample Size:** 1000 mL	**PrepDate:**	11/12/20 8:32
ColumnID:	**%Moisture:**	**BatchNo:**	27506/R34319
Revision:	12/04/20 12:02 **TestCode** OG1664A	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
OIL AND GREASE (LLE)				**EPA 1664A**		**(EPA 1664A)**
Oil and Grease	ND		5.00	mg/L	1	11/13/20

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
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Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001E**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 11/4/20***
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	AA3 **Sample Size:** 50 mL	**PrepDate:**	11/10/20 0:00
ColumnID:	**%Moisture:**	**BatchNo:**	27517/R34328
Revision:	11/16/20 9:43 **TestCode** CN335.4W	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
CYANIDE, TOTAL				**EPA 335.4**		**(EPA 335.4)**
Cyanide, Total	ND		0.010	mg/L	1	11/10/20

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001F**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	*Leachate Effluent, 11/4/20*
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	GENESYS 20 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R34314
Revision:	11/13/20 8:55 **TestCode** CRHEX3500W	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
CHROMIUM VI DISSOLVED				**SM 3500-Cr B-09,-11**		
Chromium VI dissolved	ND		0.010	mg/L	1	11/04/20 16:26

Qualifiers:					
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
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Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001F**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	*Leachate Effluent, 11/4/20*
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	Fisher balance XA **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R34317
Revision:	11/12/20 11:24 **TestCode** TSS2540D	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
RESIDUE-NON-FILTERABLE (TSS)				**SM 2540 D-2011**		
Residue-non-filterable (TSS)	50		5.0	mg/L	1	11/10/20

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001F**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 11/4/20***
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	WC **Sample Size:** NA	**PrepDate:**	11/05/20 9:24
ColumnID:	**%Moisture:**	**BatchNo:**	R34315
Revision:	11/12/20 8:48 **TestCode** BODSM5210B	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (BOD5)				**SM 5210B-01,-11**		
Biochemical oxygen demand (BOD5)	21		4.0	mg/L	1	11/05/20

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001G**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	*Leachate Effluent, 11/4/20*
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	Traacs **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R34342
Revision:	11/23/20 9:01 **TestCode** TKN351.2	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
KJELDAHL NITROGEN - TOTAL (AS N)				**EPA 351.2**		
Kjeldahl Nitrogen - Total (as N)	29	E	0.10	mg/L	1	11/16/20

NOTES:

As per NELAC regulation disclosure of the following condition is required; The results of the matrix spike and matrix spike duplicate samples associated with this analysis were less than the established control limit.

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-001G**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 11/4/20***
Location:			
W Order:	2018426	**Collection Date:**	11/04/20 10:30
Matrix:	WATER	**Date Received:**	11/04/20 14:30
Inst. ID:	HACH4000 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R34341
Revision:	11/23/20 8:54 **TestCode** TP365.3	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
PHOSPHORUS, TOTAL (AS P)				**EPA 365.3**		
Phosphorus, Total (As P)	0.22		0.010	mg/L	1	11/17/20

Qualifiers:					
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2018426-002A**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	*QC Trip Blank*
Location:			
W Order:	2018426	**Collection Date:**	10/29/20 0:00
Matrix:	WATER Q	**Date Received:**	11/04/20 14:30
Inst. ID:	MSN_76 **Sample Size:** NA	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R34362
Revision:	12/04/20 12:02 **TestCode** 624W	**FileID:**	1-SAMP-n4092.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 624**		
1,1,1-Trichloroethane	ND		1.00	µg/L	1	12/02/20 1:12
Methylene chloride	ND		1.00	µg/L	1	12/02/20 1:12
Tetrachloroethene	ND		1.00	µg/L	1	12/02/20 1:12
Toluene	ND		1.00	µg/L	1	12/02/20 1:12
Trichloroethene	ND		1.00	µg/L	1	12/02/20 1:12
Surr: 1,2-Dichloroethane-d4	89		75-130	%REC	1	12/02/20 1:12
Surr: 4-Bromofluorobenzene	91		75-125	%REC	1	12/02/20 1:12
Surr: Toluene-d8	99		75-125	%REC	1	12/02/20 1:12

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

November 24, 2020

Greg Smith
Life Science Laboratories, Inc.
5854 Butternut Dr.
E. Syracuse, NY 13057
TEL: (315) 445-1105
FAX: (315) 445-1301

RE: 2018426

Order No.: 20110988

Dear Greg Smith:

Summit Environmental Technologies, Inc. received 1 sample(s) on 11/17/2020 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 011, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **20110988**
Date: **11/24/2020**

CLIENT: Life Science Laboratories, Inc.
Project: 2018426

WorkOrder Narrative:
20110988: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

 The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
20110988-001A HG-LL_NPW(1631): Z: Method Deviation: Sample was received without an associated Field or Trip Blank for Low Level Mercury Analysis.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **20110988**
Date: **11/24/2020**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Website: http://www.settek.com

Workorder Sample Summary

WO#: **20110988**
24-Nov-20

CLIENT: Life Science Laboratories, Inc.
Project: 2018426

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
20110988-001	2018426-001H		11/4/2020	11/17/2020 11:50:00 AM	Non-Potable Water

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DATES REPORT

WO#: **20110988**

24-Nov-20

Client: Life Science Laboratories, Inc.

Project: 2018426

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
20110988-001A	2018426-001H	11/4/2020	Non-Potable Water	Low-Level Mercury (EPA 1631)			11/20/2020 1:37:12 PM

Original

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3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

WO#: **20110988**
Date Reported: **11/24/2020**
Company: Life Science Laboratories, Inc.
Address: 5854 Butternut Dr.
E. Syracuse NY 13057
Received: 11/17/2020
Project#: 2018426

Client ID#	Lab ID#	Collected	Analyte	Result Units	Qual	Matrix	Method	DF	MDL	PQL	Run	Analyst
2018426-001H	001	11/4/2020	Mercury	0.338 ng/L	J	Non-Potable Water	EPA 1631 E	1	0.247	0.500	11/20/2020	KMW

NOTES:
Z: Method Deviation: Sample was received without an associated Field or Trip Blank for Low Level Mercury Analysis.

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Accreditation Program Analytes Report

WO#: **20110988**
24-Nov-20

Client: Life Science Laboratories, Inc.
Project: 2018426

State: NY
Program Name: DW_WW_SCM_NE

Sample ID	Matrix	Test Name	Analyte	Status
20110988-001A	Non-Potable Water	Low-Level Mercury (EPA 1631)	Mercury	A

Key

DW_WW_SCM_NE A Accredited

Original #1

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QC SUMMARY REPORT

WO#: **20110988**

24-Nov-20

Client: Life Science Laboratories, Inc.

Project: 2018426 **BatchID:** **R120464**

Sample ID: **mblank1**	SampType: **MBLK**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **120464**
Client ID: **PBW**	Batch ID: **R120464**	TestNo: **E1631**		Analysis Date: **11/20/2020**	SeqNo: **3085738**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.500									U

Sample ID: **LFB**	SampType: **LCS**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **120464**
Client ID: **LCSW**	Batch ID: **R120464**	TestNo: **E1631**		Analysis Date: **11/20/2020**	SeqNo: **3085751**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	46.1	0.500	50.00	0	92.2	77	123				

Sample ID: **LFBD**	SampType: **LCSD**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **120464**
Client ID: **LCSS02**	Batch ID: **R120464**	TestNo: **E1631**		Analysis Date: **11/20/2020**	SeqNo: **3085752**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	50.2	0.500	50.00	0	100	77	123	46.08	8.52	24	

Sample ID: **LFB**	SampType: **LCS**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **120464**
Client ID: **LCSW**	Batch ID: **R120464**	TestNo: **E1631**		Analysis Date: **11/20/2020**	SeqNo: **3085764**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	46.2	0.500	50.00	0	92.4	77	123				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	P	Second column confirmation exceeds	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted reco

Original

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QC SUMMARY REPORT

WO#: **20110988**

24-Nov-20

Client: Life Science Laboratories, Inc.
Project: 2018426 **BatchID:** **R120464**

Sample ID: LFB	SampType: LCS	TestCode: HG-LL_NPW(	Units: ng/L	Prep Date:	RunNo: 120464
Client ID: LCSW	Batch ID: R120464	TestNo: E1631		Analysis Date: 11/20/2020	SeqNo: 3085764

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: LFBD	SampType: LCSD	TestCode: HG-LL_NPW(	Units: ng/L	Prep Date:	RunNo: 120464
Client ID: LCSS02	Batch ID: R120464	TestNo: E1631		Analysis Date: 11/20/2020	SeqNo: 3085765

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	46.9	0.500	50.00	0	93.8	77	123	46.19	1.56	24	

Sample ID: mblank2	SampType: MBLK	TestCode: HG-LL_NPW(	Units: ng/L	Prep Date:	RunNo: 120464
Client ID: PBW	Batch ID: R120464	TestNo: E1631		Analysis Date: 11/20/2020	SeqNo: 3085767

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.500									U

Sample ID: lcs2	SampType: LCS	TestCode: HG-LL_NPW(	Units: ng/L	Prep Date:	RunNo: 120464
Client ID: LCSW	Batch ID: R120464	TestNo: E1631		Analysis Date: 11/20/2020	SeqNo: 3085768

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	47.0	0.500	50.00	0	94.0	77	123				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	P	Second column confirmation exceeds	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted reco

Original

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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **20110988**

24-Nov-20

Client: Life Science Laboratories, Inc.
Project: 2018426 **BatchID:** **R120464**

Sample ID: mblank3	SampType: MBLK	TestCode: HG-LL_NPW(	Units: ng/L	Prep Date:	RunNo: 120464
Client ID: PBW	Batch ID: R120464	TestNo: E1631		Analysis Date: 11/20/2020	SeqNo: 3085771

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.500									U

Sample ID: lfb	SampType: LCS	TestCode: HG-LL_NPW(	Units: ng/L	Prep Date:	RunNo: 120464
Client ID: LCSW	Batch ID: R120464	TestNo: E1631		Analysis Date: 11/20/2020	SeqNo: 3085772

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	44.7	0.500	50.00	0	89.4	77	123				

Sample ID: lfbd	SampType: LCSD	TestCode: HG-LL_NPW(	Units: ng/L	Prep Date:	RunNo: 120464
Client ID: LCSS02	Batch ID: R120464	TestNo: E1631		Analysis Date: 11/20/2020	SeqNo: 3085773

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	46.6	0.500	50.00	0	93.2	77	123	44.71	4.18	24	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	P	Second column confirmation exceeds	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted reco

Original

Vendor Purchase Order / Chain of Custody

Life Science Laboratories, Inc.
5854 Buttermut Dr., E. Syracuse, NY 13057
Phone # (315) 445-1105 Fax # (315) 445-1301

Seller agrees to sell and deliver services as specified herein in accordance with the Vendor Order. . This order expressly limits acceptance to the terms of this order and any additional or different terms proposed by the seller are rejected unless expressly assented to in writing by Life Science Laboratories, Inc.

Samples sent to:	Report should be sent to:	Life Science Laboratories Project Number:	Special Instructions:
Summit Environmental Technologies Inc 3310 Winn Street Cuyahoga Falls, OH 44223 Phone: 330-253-8211 Fax: 330-253-4489	Life Science Laboratories, Inc. 5854 Buttermut Drive East Syracuse, NY 13057 Sample Custody Department Contact Name: Greg Smith	2018426 Purchase Order Number (VO#): VO57627 *Send invoice to: Accounting Department* Results are required by this date: Standard	*The Purchase Order Number must appear on all reports and invoices.* 20110988 ***SAMPLES ARE FOR NEW YORK STATE COMPLIANCE.***

Life Science Labs Sample ID # / Client ID	Sample Date	Type grab	Type comp	Matrix	Preserv. Added	Containers size/type	Containers #	Analysis Requested	Unit Price
2018426-001H Tank Effluent	11/04/20	X		NPW	HCL	40ml	2	Hg 1631	[redacted]
								Disposal Fee	[redacted]
								Sub Total	
								Surcharge:	
								Total:	[redacted]

Custody Transfers		Date:	Time
Sampled By:	Received By:		
Relinquished By:	Received By: Via ups	11-13-20	11:10
Relinquished By:	Received for Lab By:	11/17/20	1150
	Received Intact: Y N	Sample Receipt Temp	2.4 °C

Copies: Original Purchasing Administration Accounting O.OCE

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

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3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **LIF-NY-13057** Work Order Number: **20110988** RcptNo: **1**

Logged by:	**Christina N. Jager**	**11/17/2020 11:50:00 AM**	C. Jager
Completed By:	**Jesseca E. Westfall**	**11/17/2020 7:14:27 PM**	
Reviewed By:	**Jennifer Woolf**	**11/18/2020 1:47:39 PM**	Jennifer Woolf

Chain of Custody

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

Log In

3. Coolers are present?	Yes ☐	No ☑	NA ☐
4. Shipping container/cooler in good condition?	Yes ☑	No ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
No. Seal Date:	Signed By:		
5. Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
	Not required		
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

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

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

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
box	12.4	Good	Not Present			

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: RAMBoll Phone # 315-956-6100
Address: 333 West Washington ST Fax #

Authorization:

Contact Person: MARK, BYRNE
@RAMBoll.com
315-842-7024

LSL Project #: ~~2018446~~ 2018426

Client's Site I.D.: City of Oswego Permit
Semi Annual Leachate Discharge

Client's Project I.D.:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
001 A	LEACHATE EFF.	11-4-20	10:30		C	W		2	40ml/glass	EPA 624		
B	" "	11-4-20	10:30		C	W		1		EPA 625		
C					C	W		1		OIL & GREASE		
D					C	W		1		CYANIDE		>12
E					C	W		1		TKN, T-PHOS		<2
F					C	W		1		BOD, TSS, CR-6		
G					C	W		1		METALS SEE PERMIT		<2
					C	W		1		~~CR-6~~ AK		
H		11-4-20	10:30					2		LL Hg 1631		
002 AA	QC TRIP BLANK	10-29-20						2		EPA 624		

SAMPLES MUST BE RECEIVED ON ICE — Please Fill Out Completely — SAMPLES MUST BE RECEIVED ON ICE

Notes and Hazard identifications:
Temp - 5.0°
PH - 6.8
Samples Received On Ice Packs

Custody Transfers	Date	Time
Sampled and Relinquished By: Print Name: MARTIN Koennecke Signature:	11-4-20	14:30
Received By:		
Relinquished By: Received By:		
Relinquished By: Received for Lab By:	11/04/20	1430

Shipment Method: Samples Received Intact: (Y) N 12.3°C

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: **OGINA PAS**

Date and Time Received: **11/4/2020 2:30:00 PM**

Work Order Number: **2018426**

Received by: tjn

Checklist completed by: TJ 11-4-20 (Initials / Date)

Reviewed by: DP 12/8/20 (Initials / Date)

Delivery Method: Hand Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Applicable ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Comments:

Corrective Action:

Life Science Laboratories, Inc.
LSL 5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: Ramball Phone # 315 956-6100
Address: 333 West Washington St Fax #
E. Syracuse NY

Authorization:

Contact Person: MARK BYRNE @ RAMBALL.com 315-842-7024

LSL Project #:

Client's Site I.D.: PAS Oswego Semi Annual Well Sampling

Client's Project I.D.:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
	Equipment Blank	11-3-20	7:20	G		W		2	40ml/glass	8260		
	MW-21	11-3-20	9:25	G		W		2	40ml/glass	8260		
	LR-8	11-3-20	10:50	G		W		2	40ml/glass	8260		
	LR-8 MSD	11-3-20	10:50	G		W		2	40ml/glass	8260		
	LR-8 MS	11-3-20	10:50	G		W		2	40ml/glass	8260		
	LCW-2	11-3-20	13:15	G		W		2	40 ml/glass	8260		
	LCW-4	11-3-20	14:15	G		W		2	40ml/glass	8260		
	X-1	11-3-20	—	G		W		2	40ml/glass	8260		
	QC TRIP BLANKS					W		2		8260		

SAMPLES MUST BE RECEIVED ON ICE — Please Fill Out Completely — SAMPLES MUST BE RECEIVED ON ICE

Notes and Hazard identifications:

Samples Received On Ice

Custody Transfers	Date	Time
Sampled and Relinquished By: Print Name: MARTIN Koennecke Signature:	11-3-20	15:55
Received By:		
Relinquished By: Received By:		
Relinquished By: Received for Lab By:	11/3/20	16:00

Shipment Method: HAND Samples Received Intact: Y N 10.0°C

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: RAMBoll
Address: 333 West Washington St
Phone # 315-956-6100
Fax #

Contact Person: MARK, BYRNE @RAMBoll.com 315-842-7024

LSL Project #:

Client's Site I.D.: Semi Annual Leachate Discharge City of GSW Per

Client's Project I.D.:

Authorization:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pre Che
	Leachate Eff.	11-4-20	10:30		C	W		2	40ml/glass	EPA 624		
	" "	11-4-20	10:30		C	W		1		EPA 625		
					C	W		1		OIL & GREASE		
					C	W		1		CYANIDE		
					C	W		1		TKN, T-PHOS		
					C	W		1		BOD, TSS, CR-6		
					C	W		1		METALS SEE PERMIT		
					C	W		1		~~CR-6~~ OK		
		11-4-20	10:30					2		LL Hg 1631		
	QC Trip Blank							2		EPA 624		

SAMPLES MUST BE RECEIVED ON ICE

Please Fill Out Completely

Notes and Hazard identifications:
Temp - 5.0°C
PH - 6.8
Samples Received On Ice Packs

SAMPLES MUST BE RECEIVED ON ICE

Custody Transfers

		Date	Time
Sampled and Relinquished By: Print Name: MARTIN KOCANDRDA	Signature:	11-4-20	14:30
Received By:			
Relinquished By:	Received By:		
Relinquished By:	Received for Lab By:	11/04/20	1430

Shipment Method:

Samples Received Intact: (Y) N

12.3°C

B – 6
INSTITUTIONAL CONTROL CERTIFICATION

PAS OSWEGO SUPERFUND SITE

Institutional Controls Implementation Plan
Annual Certification
November 4, 2020

REQUIREMENT: The Institutional Control Implementation Plan (ICIP) for the PAS Oswego Superfund Site (Site) as approved by USEPA includes requirements for the period following the execution and recording of the Easement, which were documented in the approved Remedial Action Completion Report. It states that following implementation of institutional controls on the Industrial Precision Products Property, the Site will be inspected on an annual basis to determine whether any intrusive activities have occurred. In addition, building and property records will be reviewed to ascertain whether or not any filings have been made for such activities. The ICIP provides for an annual report summarizing the findings of the inspection and record review to be prepared, along with a certification confirming that operation and maintenance activities continue, and that this annual report would be included with the OM&M progress report to be submitted to EPA in July of each year.

CERTIFICATION: The PAS Oswego annual Site and records inspection was performed by de *maximis, inc.* on November 4, 2020. During this visit an inspection was made of the PAS Oswego Site during a monthly operation leachate removal event. This Site inspection was scheduled to allow a visit with a representative of Industrial Precision Products to determine if any intrusive activities may have occurred on their property since the Remedial Action Completion Report was approved in August 2006. *de maximis* also contacted representatives of the City and County to confirm that no potential filings were made to install wells on the Industrial Precision Property. Based on results of the Site and records inspection, a determination has been made that no intrusive activities have occurred or are planned on the Industrial Precision Control Property and that the operation and maintenance activities at the PAS Oswego Site are continuing in accordance with the requirements of Consent Decree.

II - C

1ST QUARTER REPORT 2020

QUARTERLY PROGRESS REPORT – 1st QUARTER 2021
Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: January – March (1st Quarter) 2021

ACTIONS TAKEN DURING QUARTER:

- Leachate removal and site maintenance and monitoring activities were conducted at the Pollution Abatement Services (PAS) site (Site), in Oswego, NY by Ramboll (formerly OBG) consistent with the PAS Site Operation, Maintenance and Long-term Monitoring Plan (Work Plan).

- A total of 30,000 gallons of leachate were removed from the Site during the period of January, February, and March 2021. Specific quantities of leachate removed included 10,000 gallons in January, 10,000 gallons in February and 10,000 gallons in March. Details of the leachate removal for each month, along with historical leachate removal documentation are described in this progress report.

- During the months of January – March 2021, leachate was pumped monthly from the PAS Site. The leachate was pumped into the City of Oswego East Side Wastewater Treatment Plant in accordance with City of Oswego Industrial User Permit no. 6-2021-22.

- Quarterly groundwater elevation monitoring was performed on February 9, 2021. Quarterly groundwater elevation monitoring results for the SWW- series monitoring wells (SWW-1 through SWW-12), leachate collection wells (LCW-1 through LCW-4), M-series wells (M-21 through M-23), LR-series wells (LR-2, 3, 6 and 8), LD-series wells (LD-3, 4, 5, 6, and 8), along with wells OS-1, OS-3, OI-1, OD-3 and LS-6 were recorded on the Pre-Pumping Well Monitoring Level Form. (Attachment C-1)

- Site maintenance activities were conducted monthly in combination with the monthly leachate removal event. The Site Inspection Checklist was used to document the land cap, leachate discharge system, leachate collection system and general Site conditions. (Attachment C-2) Monthly Site maintenance activities included the following:

    - Inspected the perimeter security fence of the Site. Northern Wetland fence area inaccessible for repairs. No other discrepancies were reported at the time of the inspection.

    - Site entrance and roadways were plowed prior to the pumping events in February.

    - The Site single French drainage system and two (2) concrete troughs were visually inspected. No discrepancies were reported at the time of the inspection.

    - Visually inspected the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. No discrepancies were reported at the time of the inspections.

- Visually inspected the leachate collection system pumping equipment to verify proper operation. The field technician inspected each pump control panel to ensure control systems were generally free of rodents and insects and were properly operating. The leachate holding tank was visually inspected for integrity, as were the leachate tanks steel protective roof, and wood structure. No other discrepancies were reported at the time of the inspection.

- The Site wooden utility shed and leachate pumping equipment, including centrifuge discharge pump, flow meter, suction hose, pump oils levels, heat trace power panel, interior lighting, exterior and interior shed structure, and main power distribution panel were inspected. Main discharge pump would not prime. The backup pump was used. No other discrepancies were reported at the time of the inspection.

- On January 5, February 9, and March 9, 2021, Ramboll performed the monthly pre-pumping collection system inspection for leachate collection wells LCW-1, 2, 3 & 4, along with inspection of the leachate discharge pumping system. Observations were recorded on the Site Inspection Checklist. In advance of each leachate removal event, Ramboll informed the City of Oswego POTW of the anticipated discharge. (Attachment C-2)

- Upon completing the monthly leachate collection system inspections, Ramboll manually energized the four leachate collection pumps, identified as LCW-1, LCW-2, LCW-3, and LCW-4, in order to pump the planned volume of leachate into the leachate collection tank. The run time from each leachate collection pump, along with the leachate tank level taken upon completion of well pumping, was recorded on the Leachate Disposal Checklist. (Attachment C-3)

- During the months of January, February, and March 2021, Ramboll pumped a combined total of 30,000 gallons of leachate from LCW 1, 2, 3 & 4 into the leachate collection tank and then into the City of Oswego POTW. The volume and flow rate of each leachate discharge was recorded onto the Leachate Disposal Checklist, as was leachate water pH, and temperature. The amount discharged was recorded onto the Leachate Disposal Checklist. No leachate was shipped to Auburn New York during the period. Therefore, no bill of lading was generated. (Attachment C-3)

- Upon completing each monthly leachate discharge the tank suction hoses were placed back into the leachate hold tank and the leachate pump system was shut down and prepared for storage. The concrete leachate hold tank was secured, as was the wooden maintenance shed. Upon the completion of monthly Site activities, the Site metal access gates were closed and padlocked.

- The PAS Oswego Site quarterly discharge report for the 1st quarter of 2021 for the City of Oswego was submitted on March 23, 2021 in accordance with Permit 6-2021-22. The quarterly report to the City of Auburn was submitted on April 10, 2021. (Attachment C-4)

DOCUMENTATION OF ACTIVITIES FOR THE QUARTER

- The Groundwater Pre-Pumping Well Monitoring Level Form for February 9, 2021 is attached to this report. (Attachment C-1)

- The Site Inspection Checklist for January 5, February 9 and March 9, 2021 are attached to this report. (Attachment C-2)

- The Leachate Disposal Checklist for the January 5, February 9 and March 9, 2021 are attached to this report. (Attachment C-3)

- The PAS Quarterly Discharge reports submitted on March 23, 2021 to the City of Oswego and the report submitted to the City of Auburn on April 10, 2021 are attached to this report. (Attachment C-4)

C – 1

GROUNDWATER ELEVATION DATA

O'Brien & Gere Operation (O'Brien & Gere)
PAS Oswego Site
Oswego, New York
Pre-Pumping Well Monitoring Levels

Date - 2-9-21 Technician - MARTIN Koennecke Month - February 2021

Well	Riser	Well Range Verification			Monthly Onsite Field Measurements					
Number	Elevation	Average Well Level	Low Well Level	High Well Level	Well Level (1st) Check	Well Level (2nd) Check	Well Within Range (based on historical well range data) YES	NO	Well Level Check (3rd) (if "NO" & well is not within targeted range)	NOTES
SWW1	289.33	9.05	7.92	9.74	9.66	9.66	✓			
SWW2	289.37	15.45	14.32	16.08	15.60	15.60	✓			
SWW3	286.50	16.93	15.94	19.94	17.02	17.02	✓			
SWW4	283.60	14.37	11.36	15.70	15.68	15.68	✓			
SWW5	277.02	13.14	12.48	14.04	13.86	13.86	✓			
SWW6	273.06	8.41	7.18	8.90	8.68	8.68	✓			
SWW7	277.93	7.95	7.12	8.30	8.02	8.02	✓			
SWW8	278.24	3.96	3.48	4.30	4.20	4.20	✓			
SWW9	285.55	17.22	16.06	18.72	17.45	17.45	✓			
SWW10	280.43	10.86	8.50	12.53	11.30	11.30	✓			
SWW11	273.50	9.24	8.40	10.16	9.40	9.40	✓			
SWW12	272.82	8.63	7.60	9.20	8.88	8.88	✓			
LCW-1	272.21	8.85	7.70	9.90	8.45	8.45	✓			
LCW-2	274.44	11.05	9.95	12.14	10.48	10.48	✓			
LCW-3	284.36	17.74	17.18	18.34	17.18	17.18	✓			
LCW-4	285.70	18.07	16.58	19.42	17.68	17.68	✓			
OS-1	272.10	9.30	8.16	10.94	9.18	9.18	✓			
OI-1	272.00	11.08	10.05	11.80	10.90	10.90	✓			
OS-3	277.89	13.54	11.10	15.38	13.36	13.36	✓			
OD-3	277.85	13.47	10.95	15.16	13.20	13.20	✓			
LD-3	278.62	4.24	3.86	4.62	4.50	4.50	✓			
LD-4	279.25	10.38	9.32	11.90	11.76	11.76	✓			
LD-5	272.94	8.81	8.08	9.48	9.20	9.20	✓			
LS-6	274.14	9.66	7.86	11.28	11.10	11.10	✓			
LD-6	274.03	9.99	9.40	10.82	10.60	10.60	✓			
LD-8	272.83	7.41	4.92	9.52	9.35	9.35	✓			
LR-2	289.85	12.76	12.34	13.30	13.05	13.05	✓			
LR-3	278.06	7.78	7.28	8.12	7.82	7.82	✓			
LR-6	274.39	10.21	9.54	10.98	10.80	10.80	✓			
LR-8	273.42	9.63	8.50	10.20	9.95	9.95	✓			
M-21	272.32	9.39	8.20	10.44	10.16	10.16	✓			
M-22	273.88	10.11	9.52	10.94	10.70	10.70	✓			
M-23	270.49	12.07	10.78	12.65	12.55	12.55	✓			

C - 2
SITE INSPECTION CHECKLIST

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 1-5-21 Time 7:20

Field Technician MARTin Koennecke Weather Conditions RAIN/SNOW MIX 34°

Check **V** (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		Yes
Concrete trough clear and function able	✓		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK

1-5-21

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		work in Progress
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Pumped 10,000 gal. Leachate To Oswego PoTW

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 2-9-21 Time 7:15

Field Technician MARTIN KOENNECKE Weather Conditions SNOWING 23°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		SNOW COVERED
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		SNOW COVERED
Concrete trough clear and function able	✓		SNOW COVERED
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		Yes, ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		Yes

2-9-21

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		PLOWED SNOW
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		OK
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		Yes
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

SITE SNOW COVERED, PLOWED DRIVE,
10,000 gal Leachate Pumped To Oswego POTW,
Quarterly well Levels

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 3-9-21 Time 7:15

Field Technician MARTIN KOENNEKE Weather Conditions OVERCAST 35°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISABLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		SNOW COVERED
Concrete trough clear and function able	√		SNOW COVERED
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		ON Yes
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		Yes

3-9-2021

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		work in Progress
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		OK
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		Yes
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Pumped 10,000 gal. Leachate To Oswego POTW

C – 3

LEACHATE DISPOSAL

CHECKLIST

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 1-5-21 Time: 7:20

Field Technician MARTIN KOENNECKE Weather Conditions OVERCAST 34°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10.5"	LCW-1	7:30	9:00	46"	120	
	LCW-2	7:30	9:00			
	LCW-3	7:30	8:00			
	LCW-4	7:30	9:00			
					Total	10,824

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:15	11:15	6.8	46°	1495165	1505165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20 MIN	0	18"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 2-9-21 Time: 7:15

Field Technician MARTIN Koennecke Weather Conditions SNOWING 23°

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
127.5"	LCW-1	10:35	11:50	45"	128 GPM	9836
	LCW-2	10:35	11:50			
	LCW-3	10:35	11:00			
	LCW-4	10:35	11:50			
					Total	9,836

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	12:00	14:00	6.7	40	1505165	1515165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	25min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 3-9-21 Time: 7:15

Field Technician MARTIN KOENNECKE Weather Conditions 35° OVERCAST

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
13"	LCW-1	7:30	8:50	43.5	180 GPM	9607
	LCW-2	7:30	8:50			
	LCW-3	7:30	7:50			
	LCW-4	7:30	8:50			
					Total	9607

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:10	11:10	6.8	42°	1515165	1525165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20 min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

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QUARTERLY POTW

DISCHARGE REPORTS

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

April 10, 2020

Mr. Tim O'Brien
Department of Municipal Utilities
35 Bradley Street
Auburn, New York 13021

Re: 1st Quarter PAS Oswego Monitoring Report 2020

Dear Mr. O'Brien,

This letter confirms that the PAS Oswego Site has not shipped or discharged any wastewater from the PAS Oswego collection system to the City of Auburn POTW during January 2020–March 2020. This has been due to the EPA allowance of an alternate disposal method.

- **Cumulative gallons removed for discharge in Auburn 1st Qtr. 2020 - 0**
- **Cumulative gallons removed for discharge in Auburn 2019 - 0**

Since no wastewater was shipped or discharged to Auburn during the 1st quarter of 2020, no analytical testing was required. However, we continue to perform Site maintenance and sampling activities under the Operation, Monitoring and Maintenance Program for the Site approved by EPA. The data associated with that program indicate little change in the characteristics of the Site wastewater.

Please contact me at (865) 691-5052, if you have any questions.

Sincerely,
de maximis, inc.

Clay McClarnon

CMC/dsr

cc: PAS Management Committee

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

April 10, 2020

Mr. Timothy L. O'Brien
Industrial Pretreatment Coordinator
35 Bradley Street
Auburn, NY 13021

Re: Industrial Pretreatment Program
Zero Discharge Certification Statement:

Dear Mr. O'Brien

For the reporting quarter(s) of December 2017 to March 2020, I certify that for Pollution Abatement Services located in Oswego New York:

1. There have been no changes to any of our processes resulting in the potential for the discharge from the process waste stream.

2. No discharge of process wastewater has occurred since December 7, 2017.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Clay McClarnon	Project Coordinator	
Name	Title	
Clay McClarnon	April 10, 2020	865-691-5052
Signature	Date	Phone

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

Via electronic mail

March 23, 2021

Mr. John McGrath
Chief Operator
Westside Wastewater Treatment Plant
First Avenue & West Schuyler Streets
Oswego, New York 13126
Labmanager@oswegony.org

Re: Quarterly Discharge Report – 1st Quarter 2021
Pollution Abatement Services Site – Oswego, New York
City of Oswego Wastewater Discharge Permit 6-2020-21

Dear Mr. McGrath:

This quarterly report is submitted in accordance with the City of Oswego Wastewater Discharge Permit 6-2019-21 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Oswego's Eastside Wastewater Treatment Facility. This report covers the reporting period from January 2020 through March 2020.

The PAS Site discharged a total of 30,000 gallons of leachate to the Oswego sewer system during the 1st quarter of 2021.

Discharge to City of Oswego January 2021 – March 2021 30,000 gallons

If you need additional information, please call me at (865) 691-5052.

Sincerely,
de maximis, inc.

Clay McClarnon
Clay McClarnon

Attachments:

cc: Dan Ramer – Chief Operator Eastside Wastewater Treatment Plant
PAS Oswego Site Management Committee
Richard Mator – BMS
Tara Garcia – BMS

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF OSWEGO (2021)
LEACHATE DISCHARGE TO OSWEGO EASTSIDE WASTEWATER TREATMENT FACILITY
(Oswego SIU Wastwater Discharge Permit No.6-2021-22)

Discharge Quarter		*2Q 2020*		*3Q 2020*		*4Q 2020*		*1Q 2021*	
		Date Discharged (temp/pH)	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*
		4/7/20	10,000	7/7/20	20,000	10/6/20	20,000	1/5/21	10,000
		46/6.8		58/6.8		53/6.8		46/6.8	
		5/6/20	20,000	8/4/20	20,000	11/4/20	10,000	2/9/21	10,000
		44/6.8		59/6.8		50/6.8		40/6.7	
		6/2/20	20,000	9/9/20	20,000	12/3/19	10,000	3/9/21	10,000
		50/6.8		57/6.8		52/6.8		42/6.8	
Total Discharged			50,000		60,000		40,000		30,000
Date Sampled*	***Permit Limits***	5/6/2020				11/4/2020			
Analytes	***mg/L***	***mg/L***				***mg/L***			
Antinomy	*0.107*	ND <0.001				ND <0.010			
Arsenic	*0.358*	0.016				0.019			
Beryllium	*0.107*	ND <0.010				ND <0.010			
Cadmium	*0.43*	ND <0.010				ND <0.010			
Chromium (total)	*0.67*	ND <0.010				ND <0.010			
Copper	*0.43*	0.027				0.015			
Cyanide	*0.69*	ND <0.010				0.23			
Lead	*0.19*	ND <0.010				ND <0.010			
Mercury	*0.0002*	ND <0.0002				ND <0.0002			
Nickel	*0.65*	0.28				0.33			
Selenium	*0.282*	ND <0.010				ND <0.010			
Silver	*0.65*	ND <0.010				ND <0.010			
Thallium	*0.073*	ND <0.020				ND <0.020			
Zinc	*1*	ND <0.020				ND <0.020			
*VOC***									
1,1,1 TCA	*NA*	*0.00454*				0.00625			
MeCL	*NA*	ND <0.0005				ND <0.0005			
PCE	*NA*	*0.0314*				0.029			
Toluene	*NA*	*0.0613*				0.0674			
TCE	*NA*	*0.0117*				0.0125			
*SVOC***	*NA*	NA				NA			
BOD_5	*200*	12				11			
TSS	*400*	39				39			
oil & grease	*100*	*5.5*							
Phenolics	*0.375*	0.001							
pH	*>5 & <10*	6.8				6.8			

** Semi-annual sampling of PAS leachate discharge conducted in accordance with SIU Wastewater Discharge Permit No.6-2019-20.*

*** Analytes included for permit pollutant analysis performed every three years*

Analyte values in bold exceed limit

Prepared by de maximis, inc. 3/24/2021

ATTACHMENT I

Leachate Disposal Check List

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 1-5-21 Time: 7:20

Field Technician MARTIN KOENNECKE Weather Conditions OVERCAST 34°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10.5"	LCW-1	7:30	9:00	46"	120	
	LCW-2	7:30	9:00			
	LCW-3	7:30	8:00			
	LCW-4	7:30	9:00			
					Total	10,824

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:15	11:15	6.8	46°	1495165	1505165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20 MIN	0	18"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 2-9-21 Time: 7:15

Field Technician MARTIN Koennecke Weather Conditions SNOWING 23°

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
127.5"	LCW-1	10:35	11:50	45"	128 GPM	9836
	LCW-2	10:35	11:50			
	LCW-3	10:35	11:00			
	LCW-4	10:35	11:50			
					Total	9,836

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	12:00	14:00	6.7	40	1505165	1515165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	25min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 3-9-21 Time: 7:15

Field Technician MARTIN KOENNECKE Weather Conditions 35° OVERCAST

Beginning Leachate Hold Tank Elevation (Inches)	*Pre-Discharge Well Pumping*					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
13"	LCW-1	7:30	8:50	43.5	180 GPM	9607
	LCW-2	7:30	8:50			
	LCW-3	7:30	7:50			
	LCW-4	7:30	8:50			
					Total	9607

Discharge #	*Monthly Leachate Discharge Pumping* (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:10	11:10	6.8	42°	1515165	1525165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20 min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

II - D
2ND QUARTER REPORT 2020

QUARTERLY PROGRESS REPORT – 2nd QUARTER 2021
Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: April – June (2nd Quarter) 2021

ACTIONS TAKEN DURING QUARTER:

- Leachate removal and site maintenance and monitoring activities were conducted at the Pollution Abatement Services (PAS) site (Site), in Oswego, NY by Ramboll (formerly OBG) consistent with the PAS Site Operation, Maintenance and Long-term Monitoring Plan (Work Plan).

- A total of 50,000 gallons of leachate were removed from the Site during the period of April, May and June 2021. Specific quantities of leachate removed included 10,000 gallons in April, 20,000 gallons in May and 20,000 gallons in June. Details of the leachate removal for each month, along with historical leachate removal documentation are described in this progress report.

- During the months of April – June 2021, leachate was pumped monthly from the PAS Site. The leachate was pumped into the City of Oswego East Side Wastewater Treatment Plant in accordance with City of Oswego Industrial User Permit no. 6-2021-22.

- Quarterly groundwater elevation monitoring was performed on May 5, 2021. Quarterly groundwater elevation monitoring results for the SWW- series monitoring wells (SWW-1 through SWW-12), leachate collection wells (LCW-1 through LCW-4), M-series wells (M-21 through M-23), LR-series wells (LR-2, 3, 6 and 8), LD-series wells (LD-3, 4, 5, 6, and 8), along with wells OS-1, OS-3, OI-1, OD-3 and LS-6 were recorded on the Pre-Pumping Well Monitoring Level Form. (Attachment D-1)

- Site maintenance activities were conducted monthly in combination with the monthly leachate removal event. The Site Inspection Checklist was used to document the land cap, leachate discharge system, leachate collection system and general Site conditions. (Attachment D-2) Monthly Site maintenance activities included the following:

    - Inspected the perimeter security fence of the Site. Tree had fallen on eastern wetland fence. The tree was removed, and fence repaired as needed. No other discrepancies were reported at the time of the inspection.

    - The Site single French drainage system and two (2) concrete troughs were visually inspected. No discrepancies were reported at the time of the inspection.

    - Visually inspected the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. A hole reported under the shed during the May inspection. Vermin was discovered under the shed during the June inspection.

- Visually inspected the leachate collection system pumping equipment to verify proper operation. The field technician inspected each pump control panel to ensure control systems were generally free of rodents, insects and were properly operating. The leachate holding tank was visually inspected for integrity, as were the leachate tanks steel protective roof, and wood structure. The door to the tank was weathered and noted. No other discrepancies were reported at the time of the inspection.

- The Site wooden utility shed and leachate pumping equipment, including centrifuge discharge pump, flow meter, suction hose, pump oils levels, heat trace power panel, interior lighting, exterior and interior shed structure, and main power distribution panel were inspected. No discrepancies were reported at the time of the inspection.

- On April 6, May 5, and June 9, 2021, Ramboll performed the monthly pre-pumping collection system inspection for leachate collection wells LCW-1, 2, 3 & 4, along with inspection of the leachate discharge pumping system. Observations were recorded on the Site Inspection Checklist. In advance of each leachate removal event, Ramboll informed the City of Oswego POTW of the anticipated discharge. (Attachment D-2)

- Upon completing the monthly leachate collection system inspections, Ramboll manually energized the four leachate collection pumps, identified as LCW-1, LCW-2, LCW-3, and LCW-4, in order to pump the planned volume of leachate into the leachate collection tank. The run time from each leachate collection pump, along with the leachate tank level taken upon completion of well pumping, was recorded on the Leachate Disposal Checklist. (Attachment D-3)

- During the months of April, May and June 2021, Ramboll pumped a combined total of 50,000 gallons of leachate from LCW 1, 2, 3 & 4 into the leachate collection tank and then into the City of Oswego POTW. The volume and flow rate of each leachate discharge was recorded onto the Leachate Disposal Checklist, as was leachate water pH, and temperature. The amount discharged was recorded onto the Leachate Disposal Checklist. No leachate was shipped to Auburn New York during the period. Therefore, no bill of lading was generated. (Attachment D-3)

- Upon completing each monthly leachate discharge the tank suction hoses were placed back into the leachate hold tank and the leachate pump system was shut down and prepared for storage. The concrete leachate hold tank was secured, as was the wooden maintenance shed. Upon the completion of monthly Site activities, the Site metal access gates were closed and padlocked.

- On May 5, 2021, Ramboll performed the semi-annual groundwater sampling for monitoring wells LR-8, M-21, and leachate collection wells LCW2 and LCW4. Based on the 2019 Annual Report, well OD-3, M-22 and LR-6 were not sampled during this event. Sampling activities for long term monitoring wells were conducted using low-flow sampling protocols described in the Work Plan. Samples were preserved using industry standard methods, and delivered to Life Science Laboratories in East Syracuse, NY for analysis. (Attachment D-4)

- On May 5, 2021, the semiannual discharge sample required under the City of Oswego POTW permit was taken and hand delivered to Life Science Laboratories in East Syracuse, NY for analysis the data was included in the Oswego 2nd POTW Discharge Quarter Report.

- The PAS Oswego Site Quarterly POTW Discharge Report for the 2nd quarter of 2021 for the City of Oswego was submitted on July 6, 2021 in accordance with Permit 6-2021-22. The quarterly report to the City of Auburn was submitted on June 28, 2021. (Attachment D-5)

DOCUMENTATION OF ACTIVITIES FOR THE QUARTER

- The Groundwater Pre-Pumping Well Monitoring Level Form for May 5, 2021 is attached to this report. (Attachment D-1)

- The Site Inspection Checklist for April 6, May 5 and June 9, 2021 are attached to this report. (Attachment D-2)

- The Leachate Disposal Checklist for the April 6, May 5 and June 9, 2021 are attached to this report. (Attachment D-3)

- The validated lab report for the Semi-annual Groundwater sampling of LR-8, M-21, , LCW2 and LCW4, performed on May 5, 2021 is attached to this report. (Attachment D-4)

- The PAS Quarterly Discharge Reports submitted on June 28, 2021 to the City of Auburn and the report submitted to the City of Oswego on July 6, 2021 are attached to this report. (Attachment D-5)

D - 1
GROUNDWATER ELEVATION DATA

O'Brien & Gere Operation (O'Brien & Gere)
PAS Oswego Site
Oswego, New York
Pre-Pumping Well Monitoring Levels

Date - 5-3-21 Technician - MARTIN Koenecke Month - May 2021

Well	Riser	Well Range Verification			Monthly Onsite Field Measurements					
Number	Elevation	Average Well Level	Low Well Level	High Well Level	Well Level (1st) Check	Well Level (2nd) Check	Well Within Range (based on historical well range data) YES	NO	Well Level Check (3rd) (if "NO" & well is not within targeted range)	NOTES
SWW1	289.33	9.19	8.22	10.00	9.40	9.40	✓			
SWW2	289.37	14.91	14.14	15.42	14.98	14.98	✓			
SWW3	286.50	16.49	15.84	17.00	16.65	16.65	✓			
SWW4	283.60	14.55	12.62	15.94	14.62	14.62	✓			
SWW5	277.02	12.71	11.74	13.46	12.98	12.98	✓			
SWW6	273.06	8.50	7.58	9.21	7.72	7.72	✓			
SWW7	277.93	7.44	6.78	7.90	7.32	7.32	✓			
SWW8	278.24	3.94	3.40	4.54	3.54	3.54	✓			
SWW9	285.55	16.36	15.68	17.16	16.86	16.86	✓			
SWW10	280.43	10.98	8.50	12.62	10.18	10.18	✓			
SWW11	273.50	8.63	7.50	9.50	9.00	9.00	✓			
SWW12	272.82	8.53	7.58	9.23	7.78	7.78	✓			
LCW-1	272.21	8.11	7.04	9.12	8.62	8.62	✓			
LCW-2	274.44	10.36	9.27	11.36	10.84	10.84	✓			
LCW-3	284.36	17.70	17.24	18.05	18.00	18.00	✓			
LCW-4	285.70	17.42	16.26	18.56	17.10	17.10	✓			
OS-1	272.10	8.48	6.40	11.40	6.56	6.56	✓			
OI-1	272.00	11.07	10.14	12.28	10.96	10.96	✓			
OS-3	277.89	14.04	11.70	15.30	13.98	13.98	✓			
OD-3	277.85	13.88	11.58	15.12	13.80	13.80	✓			
LD-3	278.62	4.17	3.78	4.64	3.92	3.92	✓			
LD-4	279.25	10.53	8.68	11.79	10.74	10.74	✓			
LD-5	272.94	8.64	7.84	9.42	8.20	8.20	✓			
LS-6	274.14	9.50	7.95	10.74	8.72	8.72	✓			
LD-6	274.03	9.86	9.32	10.65	9.98	9.98	✓			
LD-8	272.83	7.15	6.08	8.30	6.46	6.46	✓			
LR-2	289.85	13.13	12.32	13.42	13.22	13.22	✓			
LR-3	278.06	7.62	7.10	8.36	7.64	7.64	✓			
LR-6	274.39	10.06	9.44	10.66	9.92	9.92	✓			
LR-8	273.42	9.72	9.04	10.35	9.70	9.70	✓			
M-21	272.32	9.36	8.66	10.02	9.36	9.36	✓			
M-22	273.88	10.07	9.38	10.64	10.00	10.00	✓			
M-23	270.49	12.04	11.02	12.88	11.80	11.80	✓			

D – 2

SITE INSPECTION CHECKLIST

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 4-6-21 Time 7:35

Field Technician Martin Kosmaki Weather Conditions Sunny 32°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		None Visable
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		Yes
Concrete trough clear and function able	√		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK

4-6-21

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		Work in Progress
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Rehang Tresspassing Signs
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Replacing with new Inspection
Spill control material inspected & adequate	✓		Yes
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Pumped 10,000 gal Leachate To Oswego POTW

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 5-5-21 Time 6:45

Field Technician MARTIN Koenecke Weather Conditions OVERCAST 49°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISABLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		Yes
Concrete trough clear and function able	√		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		OK
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK

5-5-21

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		OK
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

QUARTERLY WELL LEVELS, SEMI ANNUAL WELL SAMPLING PERFORMED, SEMI ANNUAL LEACHATE EFFLUENT SAMPLES TAKEN WITH SPLIT SAMPLE W/ CITY OF OSWEGO POTW JOHN MAGRATH PERFORMED YEARLY SITE INSP. PUMPED 20,000 gal LEACHATE TO OSWEGO POTW, 5-7-21 TIM O'BRIEN FROM AUBURN WTP PERFORMED SITE INSPECTION.

RAMBOLL

Site Inspection Checklist (V3)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 6-9-21 Time 7:20

Field Technician MARTIN Koennecke Weather Conditions OVERCAST 72°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		UNDER SHED
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		OK
Concrete trough clear and function able	✓		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK

6-9-21

Leachate holding tank metal roof inspected for structural integrity	✓		OK
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		OK
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

PUMPED 20,000 gal LEACHATE TO OSWEGO POTW

WEED WHACKED & MOWED AROUND SHED, TANK FRONT AND POWER PANEL

D – 3
LEACHATE DISPOSAL CHECKLIST

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 4-6-21 Time: 7:35

Field Technician MARTIN Koennecke Weather Conditions Sunny 32°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10.5"	LCW-1	7:45	9:05	43"	124 GPM	9912
	LCW-2	7:45	9:05			
	LCW-3	7:45	8:10			
	LCW-4	7:45	9:05			
					Total	9912

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:30	11:30	6.8	44°	1525165	1535165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	25min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 5-5-21 Time: 6:45

Field Technician MARTIN Koennecke Weather Conditions OVERCAST 49°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10.5"	LCW-1	6:50	9:45	9.5"	123 GPM	
	LCW-2	6:50	9:45			
	LCW-3	6:50	7:30			
	LCW-4	6:50	8:25	THEN INTERMITTENT		
					Total	19,695

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	8:35	12:35	6.8	48°	1535165	1555165	20,000
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83	20 MIN	0	18"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1	5-5-21	EFF	—	10:45	6.8	48°

SPLIT sample w/City of Oswego POTW

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 6-9-21 Time: 7:20

Field Technician MARTIN Koennecke Weather Conditions Overcast 72°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	7:35	10:15	10.5"	122 GPM	
	LCW-2	7:35	10:15			
	LCW-3	7:35	8:10			
	LCW-4	7:35	9:00	Intermittently RAN		
					Total	20,152

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:05	13:05	6.8	54°	1555165	1575165	20,000
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83	20 min	0	18"			
	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)						
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature	
Sample #1							

D – 4
SEMIANNUAL LEACHATE AND GROUNDWATER MONITORING DATA

DATA VALIDATION

FOR

WATER MONITORING
PAS Oswego
OSWEGO, NEW YORK

ORGANIC ANALYSIS DATA
Volatiles in Water
Laboratory Job No. 2106371

Analyses Performed

By:

Life Sciences Laboratory
East Syracuse, NY

For:

de maximis, Inc.
Knoxville, TN 37919

Data Validation By:

ddms, Inc.
St. Paul, Minnesota 55108

July 22, 2021

1547-3131/psn/das
PAS/2106371_voa

EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Life Sciences Laboratories, Inc. for five water samples, one equipment blank, and one trip blank, supporting the PAS Oswego (Site) Semi-Annual Well Sampling event has been completed by de maximis Data Management Solutions, Inc. (ddms). The data were reported by the laboratory under Laboratory Job No. 2106371. The following samples were reported:

M-21	LR-8	LCW-4	LCW-2
X-1	Equipment Blank	QC Trip Blank	

Based on the validation effort, the following qualifiers were applied:

- Results for acetone and 2-butanone in all of the samples were qualified as estimated (J-, UJ) with the potential for low bias due to a high variability observed between the IC and the second source standard.

- Results for carbon disulfide in LR-8 and LCW-4 and for 1,2,4-trichlorobenzene in LR-8 were qualified as not detected (U) at the reporting limit, or reported value, whichever is greater, based on contamination in associated laboratory and/or field blanks.

- Results for 2-butanone, 2-hexanone, acetone, and bromomethane in all of the field samples were qualified as estimated (UJ) due to unacceptable matrix spike/matrix spike duplicate recoveries.

- Based on variability between the field duplicates, results for chlorobenzene, chloroethane, total xylenes, and 1,3-dichlorobenzene in all of the field samples were qualified as estimated (J, UJ).

All other results were determined to be valid as reported. Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

1.0 Introduction

This report presents the findings of the data validation assessment performed on the results of analyses for water samples collected on November 3, 2020, for the PAS Oswego semiannual well sampling event. This report details the review of data for samples submitted to the laboratory in the sample delivery group No. 2106371 and

identifies quality issues which could affect the use of the sample results for decision-making purposes.

Analyses were performed in accordance with USEPA SW-846 Method 8260C. The laboratory provided a "CLP-type" data package for review.

The data validation was performed in accordance with USEPA Region II Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8260B & 8260C, SOP HW-24, Revision 4 (September 2014) as well as ddms' Standard Operating Procedure: Validation and Review of Volatile Organic Data; ECS-SOP-003. Where there was a discrepancy between the QC criteria in the guidelines and the QC criteria established in the analytical methodology, professional judgement was applied.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced method. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to sufficient quality review prior to submission for validation.

During the validation process, laboratory results are verified against all available supporting documentation. Based on the findings of the validation, qualifier codes may have been added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the Region II Guidelines:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

These qualifiers are recorded on the Data Summary Forms contained in Attachment A of this validation report to indicate qualifications placed on the results based on the data review.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

2.0 Volatile Organic Compounds

The table below documents the elements reviewed for each parameter. Quality excursions resulting in qualified data are presented below.

Review Element	Acceptable?
Preservation and Technical Holding Times	Y
Calibration (Initial Calibration [IC], IC Verification (ICV), Continuing Calibration (CC)	N
Blanks	N
GC/MS Instrument Tunes	Y
Surrogates	Y
Laboratory Control Samples (LCS)	Y
Field Duplicates	N
Matrix Spike (MS) and Matrix Spike Duplicate (MSD)	N
Quantitation	Y
Compound Identification	Y
Documentation (Completeness and Compliance)	N

Y/N=yes/no

2.1 Calibration

A second-source standard was analyzed after the initial calibration (IC) and served to verify the IC concentrations, and a continuing calibration (CC) standard was analyzed to verify continued accuracy of the IC for the reported analyses of all of the field samples. High variability was observed between the IC and the second source standard for acetone (50%) and 2-butanone (60%). Results for acetone and 2-butanone in all samples were qualified as estimated (J, UJ) with the potential for low bias.

2.2 Blanks

The validator assessed blank contamination based on on-column concentrations provided in the raw data in order to account for the dilution performed for sample LCW-4 (20x). Sample results less than five-times the concentration in the blanks were qualified as not detected (U) at the reporting limit or reported concentration, whichever is greater.

The table below summarizes the amount detected in each blank and the samples affected.

Compound	MB (ug/L)	TB (ug/L)	Samples Affected
carbon disulfide	0.17 J	0.11 J	LR-8 LCW-4
1,2,4-trichlorobenzene	0.28 J	ND	LR-8

Results for carbon disulfide in LR-8 and LCW-4 and for 1,2,4-trichlorobenzene in LR-8 were qualified as not detected (U) at the reporting limit, or reported value, whichever is greater, based on contamination in associated laboratory and/or field blanks.

2.3 Matrix Spike (MS)/MS Duplicate (MSD)

Sample LR-8 was prepared and analyzed as an MS/MSD pair. Recoveries for all target analytes were acceptable (70-130%) with the exception below:

Sample	Compound	MS % R	MSD % R
M-21	2-Butanone	57.2	57.4
	2-Hexanone	68.7	a
	Acetone	36.3	38.2
	Bromomethane	69.4	61.1

a = acceptable

Results for 2-butanone, 2-hexanone, acetone, and bromomethane in all of the field samples were qualified as estimated (UJ) on this basis. Results were previously qualified as not detected (U) based on blank contamination; the "UJ" takes precedence.

2.5 Field Duplicates

X-1 was collected and submitted as a field duplicate of M-21. Total xylenes and 1,3-dichlorobenzene were detected at low concentrations in X-1 but were not detected in M-21. Chlorobenzene was detected in M-21 at 6.2 µg/L and in X-1 at 11.1 µg/L and chloroethane was detected in M-21 at 1.34 µg/L and in X-1 at 2.98 µg/L. Based on variability between the field duplicates, results for chlorobenzene, chloroethane, total xylenes, and 1,3-dichlorobenzene in all of the field samples were qualified as estimated (J, UJ).

2.6 Compound Identification and Quantitation

Samples LCW-2 and LCW-4 were analyzed at dilutions due to high concentrations of target analytes. The laboratory adjusted the reporting limits for the dilutions appropriately.

2.7 Documentation

The following documentation issues were observed:

- A summary form was included for the MDL determinations. Included on the summary are seven replicates dated over a two-week period in July 2019. It is assumed that these MDLs were still in effect and have been demonstrated more recently to still be supported for the samples reported in this data set. It is also assumed that blank studies are performed currently and that these also support the reported MDLs.
- A summary form and raw data for the second-source standard associated with the initial calibration was missing from the data package. The laboratory was contacted and provided the missing data.
- The laboratory misidentified M-21 as MW-21 throughout the data package and EDD. M-21 was used throughout this report.

At the data user's discretion, the laboratory may be requested to provide corrected data, reflecting accurate sample identification, as well as other documentation detailed above to provide clarification or correction to the data.

ATTACHMENT A

DATA SUMMARY FORMS
Laboratory Job No. 2106371
Volatiles in Water

VALIDATION DATA SUMMARY REPORT

Job No. 2106371

Site Name: PAS

ddms Project No: 1547-3131

EPA Method 8260

Sampling Date: May 4, 2021

Units		Field Sample ID	Equipment Blank		LCW-2		LCW-4		LR-8	
		Lab Sample ID	2106371-001A		2106371-005A		2106371-004A		2106371-003A	
	RL	Dilution Factor	1		5		20		1	
ug/l	0.50	1,1,1-Trichloroethane	0.5	U	**9.8**		10	U	0.5	U
	0.50	1,1,2,2-Tetrachloroethane	0.5	U	2.5	U	10	U	0.5	U
	0.50	1,1,2-Trichloro-1,2,2-Trifluoroethane	0.5	U	**2.1**	**J**	10	U	0.5	U
	0.50	1,1,2-Trichloroethane	0.5	U	2.5	U	10	U	0.5	U
	0.50	1,1-Dichloroethane	0.5	U	**15.2**		**5**	**J**	0.5	U
	0.50	1,1-Dichloroethene	0.5	U	2.5	U	10	U	0.5	U
	1.00	1,2,4-Trichlorobenzene	1	U	5	U	20	U	1	U
	5.00	1,2-Dibromo-3-chloropropane	5	U	25	U	100	U	5	U
	0.50	1,2-Dibromoethane	0.5	U	2.5	U	10	U	0.5	U
	0.50	1,2-Dichlorobenzene	0.5	U	**1.05**	**J**	**32.4**		**0.48**	**J**
	0.50	1,2-Dichloroethane	0.5	U	2.5	U	10	U	0.5	U
	0.50	1,2-Dichloropropane	0.5	U	2.5	U	10	U	0.5	U
	0.50	1,3-Dichlorobenzene	0.5	U	2.5	UJ	10	UJ	**0.2**	**J**
	0.50	1,4-Dichlorobenzene	0.5	U	2.5	U	**4.4**	**J**	**0.76**	
	5.00	2-Hexanone	5	U	25	UJ	100	UJ	5	UJ
	5.00	4-Methyl-2-pentanone	5	U	25	U	100	U	5	U
	10.0	Acetone	10	UJ	50	UJ	200	UJ	**1.41**	**J**
	0.50	Benzene	0.5	U	**54.3**		**556**		**0.51**	
	0.50	Bromodichloromethane	0.5	U	2.5	U	10	U	0.5	U
	1.00	Bromoform	1	U	5	U	20	U	1	U
	1.00	Bromomethane	1	U	5	UJ	20	UJ	1	UJ
	0.50	Carbon Disulfide	0.5	U	2.5	U	10	U	0.5	U
	0.50	Carbon Tetrachloride	0.5	U	2.5	U	10	U	0.5	U
	0.50	Chlorobenzene	0.5	U	**17.6**	**J**	**456**	**J**	**12.2**	**J**
	1.00	Chloroethane	1	U	5	UJ	**104**	**J**	**3.33**	**J**
	0.50	Chloroform	0.5	U	**2.4**	**J**	10	U	0.5	U
	1.00	Chloromethane	1	U	5	U	20	U	1	U
	0.50	cis-1,2-Dichloroethene	0.5	U	**16.8**		**3**	**J**	0.5	U
	0.50	cis-1,3-Dichloropropene	0.5	U	2.5	U	10	U	0.5	U
	0.50	Cyclohexane	0.5	U	2.5	U	**9.4**	**J**	**2.51**	

VALIDATION DATA SUMMARY REPORT

Job No. 2106371

Site Name: PAS

ddms Project No: 1547-3131

EPA Method 8260

Sampling Date: May 4, 2021

Units		Field Sample ID	Equipment Blank		LCW-2		LCW-4		LR-8	
		Lab Sample ID	2106371-001A		2106371-005A		2106371-004A		2106371-003A	
	RL	Dilution Factor	1		5		20		1	
	0.50	Cyclohexane, methyl-	0.5	U	2.5	U	**3.6**	**J**	**0.28**	**J**
	0.50	Dibromochloromethane	0.5	U	2.5	U	10	U	0.5	U
	1.00	Dichlorodifluoromethane	1	U	5	U	20	U	1	U
	0.50	Ethylbenzene	0.5	U	**1.5**	**J**	**291**		0.5	U
	0.50	Isopropylbenzene	0.5	U	**1.35**	**J**	**5.8**	**J**	**0.66**	
	5.00	Methyl Acetate	5	U	25	U	100	U	5	U
	10.0	Methyl Ethyl Ketone	10	UJ	50	UJ	200	UJ	10	UJ
	1.00	Methyl tert-butyl ether	1	U	5	U	20	U	1	U
	2.00	Methylene Chloride	2	U	**1.35**	**J**	**6**	**J**	2	U
	0.50	Styrene	0.5	U	2.5	U	**4.4**	**J**	0.5	U
	0.50	Tetrachloroethene	0.5	U	**132**		10	U	0.5	U
	0.50	Toluene	0.5	U	2.5	U	**50.4**		**0.27**	**J**
	0.50	trans-1,2-Dichloroethene	0.5	U	2.5	U	10	U	0.5	U
	0.50	trans-1,3-Dichloropropene	0.5	U	2.5	U	10	U	0.5	U
	0.50	Trichloroethene	0.5	U	**31.7**		10	U	0.5	U
	1.00	Trichlorofluoromethane	1	U	5	U	20	U	1	U
	1.00	Vinyl Chloride	1	U	**3.55**	**J**	**6.8**	**J**	1	U
	1.00	Xylenes, Total	1	U	5	UJ	**914**	**J**	**0.54**	**J**

VALIDATION DATA SUMMARY REPORT

Job No. 2106371

Site Name: PAS

ddms Project No: 1547-3131

EPA Method 8260

Sampling Date: May 4, 2021

Units		Field Sample ID	M-21		QC Trip Blank		X-1	
		Lab Sample ID	2106371-002A		2106371-007A		2106371-006A	
	RL	Dilution Factor	1		1		1	
ug/l	0.50	1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U
	0.50	1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U
	0.50	1,1,2-Trichloro-1,2,2-Trifluoroethane	0.5	U	0.5	U	0.5	U
	0.50	1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U
	0.50	1,1-Dichloroethane	0.5	U	0.5	U	0.5	U
	0.50	1,1-Dichloroethene	0.5	U	0.5	U	0.5	U
	1.00	1,2,4-Trichlorobenzene	1	U	1	U	1	U
	5.00	1,2-Dibromo-3-chloropropane	5	U	5	U	5	U
	0.50	1,2-Dibromoethane	0.5	U	0.5	U	0.5	U
	0.50	1,2-Dichlorobenzene	**0.57**		0.5	U	**0.39**	**J**
	0.50	1,2-Dichloroethane	0.5	U	0.5	U	0.5	U
	0.50	1,2-Dichloropropane	0.5	U	0.5	U	0.5	U
	0.50	1,3-Dichlorobenzene	0.5	UJ	0.5	U	**0.14**	**J**
	0.50	1,4-Dichlorobenzene	**0.33**	**J**	0.5	U	**0.66**	
	5.00	2-Hexanone	5	UJ	5	U	5	UJ
	5.00	4-Methyl-2-pentanone	5	U	5	U	5	U
	10.0	Acetone	10	UJ	10	UJ	10	UJ
	0.50	Benzene	**0.23**	**J**	0.5	U	**0.43**	**J**
	0.50	Bromodichloromethane	0.5	U	0.5	U	0.5	U
	1.00	Bromoform	1	U	1	U	1	U
	1.00	Bromomethane	1	UJ	1	U	1	UJ
	0.50	Carbon Disulfide	0.5	U	**0.11**	**J**	0.5	U
	0.50	Carbon Tetrachloride	0.5	U	0.5	U	0.5	U
	0.50	Chlorobenzene	**6.16**	**J**	0.5	U	**11.1**	**J**
	1.00	Chloroethane	**1.34**	**J**	1	U	**2.98**	**J**
	0.50	Chloroform	0.5	U	0.5	U	0.5	U
	1.00	Chloromethane	1	U	1	U	1	U
	0.50	cis-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U
	0.50	cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U
	0.50	Cyclohexane	**1.9**		0.5	U	**2.27**	

VALIDATION DATA SUMMARY REPORT

Job No. 2106371

Site Name: PAS

ddms Project No: 1547-3131

EPA Method 8260

Sampling Date: May 4, 2021

Units		Field Sample ID	M-21		QC Trip Blank		X-1	
		Lab Sample ID	2106371-002A		2106371-007A		2106371-006A	
	RL	Dilution Factor	1		1		1	
	0.50	Cyclohexane, methyl-	**0.2**	**J**	0.5	U	**0.23**	**J**
	0.50	Dibromochloromethane	0.5	U	0.5	U	0.5	U
	1.00	Dichlorodifluoromethane	1	U	1	U	1	U
	0.50	Ethylbenzene	0.5	U	0.5	U	0.5	U
	0.50	Isopropylbenzene	**0.45**	**J**	0.5	U	**0.57**	
	5.00	Methyl Acetate	5	U	5	U	5	U
	10.0	Methyl Ethyl Ketone	10	UJ	10	UJ	10	UJ
	1.00	Methyl tert-butyl ether	1	U	1	U	1	U
	2.00	Methylene Chloride	2	U	2	U	2	U
	0.50	Styrene	0.5	U	0.5	U	0.5	U
	0.50	Tetrachloroethene	0.5	U	0.5	U	0.5	U
	0.50	Toluene	**0.23**	**J**	0.5	U	**0.24**	**J**
	0.50	trans-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U
	0.50	trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U
	0.50	Trichloroethene	0.5	U	0.5	U	0.5	U
	1.00	Trichlorofluoromethane	1	U	1	U	1	U
	1.00	Vinyl Chloride	1	U	1	U	1	U
	1.00	Xylenes, Total	1	UJ	1	U	**0.49**	**J**

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: OBG OPERATIONS Phone # 315-842-7024
Address: 333 West Washington St Fax #
Syracuse NY 13201

Authorization:

Contact Person: MARK BYRNE 315-842-7024

LSL Project #:

Client's Site I.D.: PAS Oswego Semi Annual Discharge
Oswego Permit Discharge

Client's Project I.D.:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
	LEACHATE EFF	5-5-21	10'45		C	NPW	HCl	2	40 ml	EPA 624		
							None	1	Liter-g	EPA 625		
							HNO_3	1	250 ml	Metals (see permitt)		
							H_2SO_4	1	Liter-g	Oil & Grease		
							Asc/NaOH	1	250 ml	Cn		
							None	1	250 ml	Cr+6		
							None	1	Liter-p	BOD, TSS		
							H_2SO_4	1	250 ml	TKN, Phos		
							HCl	2	40 ml	LL Hg (1631)		
	TRIP BLANK	5-5-21	—				HCl	2	40 ml	EPA 624		
	BLANK	5-5-21	1045				HCl	2	40 ml	LL Hg (1631)		

SAMPLES MUST BE RECEIVED ON ICE — Please Fill Out Completely — SAMPLES MUST BE RECEIVED ON ICE

Notes and Hazard identifications: Temp-4.8°
PH - 6.8

Custody Transfers	Date	Time
Sampled and Relinquished By: Print Name: MARTIN KOENNECKE Signature: Martin Koennecke	5-5-21	13:50
Received By:		
Relinquished By: Received By:		
Relinquished By: Received for Lab By: Donna Rivera	5/5/21	13.50

Shipment Method: HAND Samples Received Intact: Y N 6.8°C Samples Received On Ice Packs

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: OBG OPERATIONS Phone # 315-842-7024
Address: 333 West WASHington ST Fax #
SYRACUSE NY 13281

Authorization:

Contact Person: MARK BYRNE 315-842-7024

LSL Project #:

Client's Site I.D.: PAS Oswego Semi Annual well sampling

Client's Project I.D.:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
	Equipment Blank	5-4-21	7:30	G		W		2		EPA 8260		
	M-21	5-4-21	8:40	G		W		2		8260		
	M-21 MS	5-4-21	8:40	G		W		2		8260		
	M-21 MSD	5-4-21	8:40	G		W		2		8260		
	LR-8	5-4-21	10:10	G		W		2		8260		
	LCW-4	5-4-21	12:00	G		W		2		8260		
	LCW-2	5-4-21	13:20	G		W		2		8260		
	X-1	5-4-21	—	G		W		2		8260		
	QC TRIP Blanks					W		2		8260		

SAMPLES MUST BE RECEIVED ON ICE — Please Fill Out Completely — SAMPLES MUST BE RECEIVED ON ICE

Notes and Hazard identifications:

Custody Transfers	Date	Time
Sampled and Relinquished By: Print Name: MARTIN Koennecke Signature: Martin Koennecke	5-4-21	15:15
Received By:		
Relinquished By: Received By:		
Relinquished By: Received for Lab By: Daniel Rivera	5/4/21	15.14

Shipment Method: Samples Received Intact: Y N 5.0°C Samples Received On Ice

D – 5
QUARTERLY POTW
DISCHARGE REPORTS

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

June 28, 2021

Mr. Tim O'Brien
Department of Municipal Utilities
35 Bradley Street
Auburn, New York 13021

Re: 2 nd Quarter PAS Oswego Monitoring Report 2021

Dear Mr. O'Brien,

This letter confirms that the PAS Oswego Site has not shipped or discharged any wastewater from the PAS Oswego collection system to the City of Auburn POTW during January 2021–June 2021. This has been due to the EPA allowance of an alternate disposal method.

- **Cumulative gallons removed for discharge in Auburn 2nd Qtr. 2021 - 0**
- **Cumulative gallons removed for discharge in Auburn 2021 - 0**

Since no wastewater was shipped or discharged to Auburn during the 2nd quarter of 2021, no analytical testing was required. However, we continue to perform Site maintenance and sampling activities under the Operation, Monitoring and Maintenance Program for the Site approved by EPA. The data associated with that program indicate little change in the characteristics of the Site wastewater.

Please contact me at (865) 691-5052, if you have any questions.

Sincerely,
de maximis, inc.

Clay McClarnon

Clay McClarnon

CMC/dsr

cc: PAS Management Committee

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

June 28, 2021

Mr. Timothy L. O'Brien
Industrial Pretreatment Coordinator
35 Bradley Street
Auburn, NY 13021

Re: Industrial Pretreatment Program
Zero Discharge Certification Statement:

Dear Mr. O'Brien

For the reporting quarter(s) of December 2017 to June 2021, I certify that for Pollution Abatement Services located in Oswego New York:

1. There have been no changes to any of our processes resulting in the potential for the discharge from the process waste stream.

2. No discharge of process wastewater has occurred since December 7, 2017.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Clay McClarnon	Project Coordinator
Name	Title

Clay McClarnon	June 28, 2021	(865) 691-5052
Signature	Date	Phone

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

Via electronic mail

July 6, 2021

Mr. John McGrath
Chief Operator
Westside Wastewater Treatment Plant
First Avenue & West Schuyler Streets
Oswego, New York 13126
Labmanager@oswegony.org

Re: Quarterly Discharge Report – 2nd Quarter 2021
Pollution Abatement Services Site – Oswego, New York
City of Oswego Wastewater Discharge Permit 6-2020-21

Dear Mr. McGrath:

This quarterly report is submitted in accordance with the City of Oswego Wastewater Discharge Permit 6-2019-21 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Oswego's Eastside Wastewater Treatment Facility. This report covers the reporting period from April 2021 through June 2021.

The PAS Site discharged a total of 50,000 gallons of leachate to the Oswego sewer system during the 2nd quarter of 2021.

Discharge to City of Oswego April 2021 – June 2021 50,000 gallons

If you need additional information, please call me at (865) 691-5052.

Sincerely,
de maximis, inc.

Clay McClarnon
Clay McClarnon

Attachments:

CC: Dan Ramer – Chief Operator Eastside Wastewater Treatment Plant
PAS Oswego Site Management Committee
Richard Mator – BMS
Tara Garcia – BMS

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF OSWEGO (2021)
LEACHATE DISCHARGE TO OSWEGO EASTSIDE WASTEWATER TREATMENT FACILITY
(Oswego SIU Wastwater Discharge Permit No.6-2021-22)

Discharge Quarter		*3Q 2020*		*4Q 2020*		*1Q 2020*		*2Q 2021*	
		Date Discharged (temp/pH)	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*	*Date Discharged (temp/pH)*	*Gallons Discharged*
		7/7/20	20,000	10/6/20	20,000	1/5/21	10,000	4/6/21	10,000
		58/6.8		53/6.8		46/6.8		44/6.8	
		8/4/20	20,000	11/4/20	10,000	2/9/21	10,000	5/5/21	20,000
		59/6.8		50/6.8		40/6.7		48/6.8	
		9/9/20	20,000	12/3/19	10,000	3/9/21	10,000	6/9/21	20,000
		57/6.8		52/6.8		42/6.8		54/6.8	
Total Discharged			60,000		40,000		30,000		50,000
Date Sampled*	***Permit Limits***			11/4/2020				5/5/2021	
Analytes	***mg/L***			***mg/L***				***mg/L***	
Antinomy	*0.107*			ND <0.010				ND <0.010	
Arsenic	*0.358*			0.019				0.015	
Beryllium	*0.107*			ND <0.010				ND <0.010	
Cadmium	*0.43*			ND <0.010				ND <0.010	
Chromium (total)	*0.67*			ND <0.010				ND <0.010	
Copper	*0.43*			0.015				0.022	
Cyanide	*0.69*			0.23				0.23	
Lead	*0.19*			ND <0.010				ND <0.010	
Mercury	*0.0002*			ND <0.0002				ND <0.0002	
Nickel	*0.65*			0.33				0.26	
Selenium	*0.282*			ND <0.010				ND <0.010	
Silver	*0.65*			ND <0.010				ND <0.010	
Thallium	*0.073*			ND <0.020				ND <0.020	
Zinc	*1*			ND <0.020				ND <0.020	
*VOC***									
1,1,1 TCA	*NA*			0.00625				0.00625	
MeCL	*NA*			ND <0.0005				ND <0.0005	
PCE	*NA*			0.029				0.036	
Toluene	*NA*			0.0674				0.073	
TCE	*NA*			0.0125				0.011	
*SVOC***	*NA*			NA				NA	
BOD_5	*200*			11				11	
TSS	*400*			39				33	
oil & grease	*100*							5	
Phenolics	*0.375*							66.5	
pH	*>5 & <10*			6.8				6.8	

** Semi-annual sampling of PAS leachate discharge conducted in accordance with SIU Wastewater Discharge Permit No.6-2019-20.*

*** Analytes included for permit pollutant analysis performed every three years*

Analyte values in bold exceed limit

Prepared by de maximis, inc. 6/29/2021

ATTACHMENT I

Leachate Disposal Check List

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 4-6-21 Time: 7:35

Field Technician MARTIN Koennecke Weather Conditions Sunny 32°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10.5"	LCW-1	7:45	9:05	43"	124 GPM	9912
	LCW-2	7:45	9:05			
	LCW-3	7:45	8:10			
	LCW-4	7:45	9:05			
					Total	9912

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:30	11:30	6.8	44°	1525165	1535165	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	25min	0	16"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 5-5-21 Time: 6:45

Field Technician MARTIN Koennecke Weather Conditions OVERCAST 49°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10.5"	LCW-1	6:50	9:45	9.5"	123 GPM	
	LCW-2	6:50	9:45			
	LCW-3	6:50	7:30			
	LCW-4	6:50	8:25	THEN INTERMITTENT		
					Total	19,695

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	8:35	12:35	6.8	48°	1535165	1555165	20,000
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83	20 MIN	0	18"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1	5-5-21	EFF	—	10:45	6.8	48°

SPLIT sample w/City of Oswego POTW

RAMBOLL

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 6-9-21 Time: 7:20

Field Technician MARTIN Koennecke Weather Conditions Overcast 72°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	7:35	10:15	10.5"	122 GPM	
	LCW-2	7:35	10:15			
	LCW-3	7:35	8:10			
	LCW-4	7:35	9:00	Intermittently RAN		
					Total	20,152

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:05	13:05	6.8	54°	1555165	1575165	20,000
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83	20 min	0	18"			
	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)						
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature	
Sample #1							

ATTACHMENT II

Leachate Analytical Data

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 **(315) 445-1900**

Wednesday, May 19, 2021

Mark Byrne
Ramboll Americas O&M Solutions
333 W. Washington St.
PO Box 4873
Syracuse, NY 13202

TEL: 315-437-6100

Project: PAS OSWEGO, SEMIANNUAL PERMIT DISCHARGE
RE: Analytical Results Order No.: 2106415

Dear Mark Byrne:

Life Science Laboratories, Inc. received 3 sample(s) on 5/5/2021 for the analyses presented in the following report. Sample results relate only to the samples as received by the laboratory.

Very truly yours,
Life Science Laboratories, Inc.

Project Manager

Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT: Ramboll Americas O&M Solutions
Project: PAS Oswego, Semiannual Permit Discharge
Location:
W Order: 2106415
Matrix: WATER
Inst. ID: MS04_73 **Sample Size:** NA
ColumnID: Rtx-VMS **%Moisture:**
Revision: 05/19/21 10:21 **TestCode** 624W
Col Type:

Lab ID: **2106415-001A**
Client Sample ID: ***Leachate Effluent, 5/5/21***
Collection Date: 05/05/21 10:45
Date Received: 05/05/21 13:50
PrepDate:
BatchNo: R34697
FileID: 1-SAMP-R5456

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 624**		
1,1,1-Trichloroethane	ND		5.0	µg/L	5	05/07/21 2:59
Methylene chloride	ND		5.0	µg/L	5	05/07/21 2:59
Tetrachloroethene	36		5.0	µg/L	5	05/07/21 2:59
Toluene	73		5.0	µg/L	5	05/07/21 2:59
Trichloroethene	11		5.0	µg/L	5	05/07/21 2:59
Surr: 1,2-Dichloroethane-d4	96		75-130	%REC	5	05/07/21 2:59
Surr: 4-Bromofluorobenzene	102		75-125	%REC	5	05/07/21 2:59
Surr: Toluene-d8	109		75-125	%REC	5	05/07/21 2:59

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900
StateCertNo: 10248

Analytical Results

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-001B**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 5/5/21***
Location:			
W Order:	2106415	**Collection Date:**	05/05/21 10:45
Matrix:	WATER	**Date Received:**	05/05/21 13:50
Inst. ID:	MS06_40 **Sample Size:** NA	**PrepDate:**	05/07/21 0:00
ColumnID:	DB-5MS **%Moisture:**	**BatchNo:**	R34705
Revision:	05/19/21 10:21 **TestCode** 625W	**FileID:**	1-SAMP-T2213
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SEMI-VOLATILE ORGANICS COMPOUNDS BY GC/MS				**EPA 625**		
Phenol	ND		10	µg/L	1	05/19/21 6:06
Surr: 2,4,6-Tribromophenol	66		46-149	%REC	1	05/19/21 6:06
Surr: 2-Fluorophenol	31		26-130	%REC	1	05/19/21 6:06
Surr: Phenol-d5	31		21-134	%REC	1	05/19/21 6:06

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900
StateCertNo: 10248

Analytical Results

CLIENT: Ramboll Americas O&M Solutions
Project: PAS Oswego, Semiannual Permit Discharge
Location:
W Order: 2106415
Matrix: WATER
Inst. ID: ICAP 61E
ColumnID:
Revision: 05/17/21 8:55
Col Type:

Sample Size: 50 mL
%Moisture:
TestCode 200.7_NPW

Lab ID: 2106415-001C
Client Sample ID: *Leachate Effluent, 5/5/21*
Collection Date: 05/05/21 10:45
Date Received: 05/05/21 13:50
PrepDate: 05/12/21 0:00
BatchNo: 28033/R34698
FileID: 1-SAMP-24610

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7,Rev.4.4(1994)**		**(EPA 200.2)**
Antimony	ND		0.010	mg/L	1	05/14/21 14:53
Arsenic	0.015		0.010	mg/L	1	05/14/21 14:53
Barium	0.38		0.10	mg/L	1	05/14/21 14:53
Beryllium	ND		0.010	mg/L	1	05/14/21 14:53
Cadmium	ND		0.010	mg/L	1	05/14/21 14:53
Chromium	ND		0.010	mg/L	1	05/14/21 14:53
Copper	0.022		0.010	mg/L	1	05/14/21 14:53
Iron	13		0.050	mg/L	1	05/14/21 14:53
Lead	ND		0.010	mg/L	1	05/14/21 14:53
Nickel	0.26		0.010	mg/L	1	05/14/21 14:53
Selenium	ND		0.010	mg/L	1	05/14/21 14:53
Silver	ND		0.010	mg/L	1	05/14/21 14:53
Thallium	ND		0.020	mg/L	1	05/14/21 14:53
Zinc	ND		0.020	mg/L	1	05/14/21 14:53

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900
StateCertNo: 10248

Analytical Results

CLIENT: Ramboll Americas O&M Solutions
Project: PAS Oswego, Semiannual Permit Discharge
Location:
W Order: 2106415
Matrix: WATER
Inst. ID: FIMS 100 **Sample Size:** 40 mL
ColumnID: **%Moisture:**
Revision: 05/11/21 14:06 **TestCode** HG245W
Col Type:

Lab ID: 2106415-001C
Client Sample ID: *Leachate Effluent, 5/5/21*
Collection Date: 05/05/21 10:45
Date Received: 05/05/21 13:50
PrepDate: 05/06/21 11:08
BatchNo: 28018/R34683
FileID: 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
MERCURY				**EPA 245.1, Rev. 3.0 (1994)**		**(EPA 245.1, REV. 3.0 (1994))**
Mercury	ND		0.00020	mg/L	1	05/07/21 13:43

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-001D**
Project:	PAS Oswego, Semiannual Permit Discharge	**Clieut Sample ID:**	***Leachate Effluent, 5/5/21***
Location:			
W Order:	2106415	**Collection Date:**	05/05/21 10:45
Matrix:	WATER	**Date Received:**	05/05/21 13:50
Inst. ID:	DENVER APX-200 **Sample Size:** 1000 mL	**PrepDate:**	05/13/21 7:29
ColumnID:	**%Moisture:**	**BatchNo:**	28052/R34701
Revision:	05/18/21 7:31 **TestCode** OG1664A	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
OIL AND GREASE (LLE)				**EPA 1664A**		**(EPA 1664A)**
Oil and Grease	ND		5.00	mg/L	1	05/18/21

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-001E**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 5/5/21***
Location:			
W Order:	2106415	**Collection Date:**	05/05/21 10:45
Matrix:	WATER	**Date Received:**	05/05/21 13:50
Inst. ID:	AA3 **Sample Size:** 50 mL	**PrepDate:**	05/19/21 0:00
ColumnID:	**%Moisture:**	**BatchNo:**	28058/R34706
Revision:	05/19/21 14:16 **TestCode** CN335.4W	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
CYANIDE, TOTAL				**EPA 335.4**		**(EPA 335.4)**
Cyanide, Total	ND		0.010	mg/L	1	05/19/21

Qualifiers:					
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-001F**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 5/5/21***
Location:			
W Order:	2106415	**Collection Date:**	05/05/21 10:45
Matrix:	WATER	**Date Received:**	05/05/21 13:50
Inst. ID:	HACH4000 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R34677
Revision:	05/07/21 8:57 **TestCode** CRHEX7196W	**FileID:**	0-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
CHROMIUM, HEXAVALENT				**SW7196A**		
Chromium, Hexavalent	ND		0.010	mg/L	1	05/06/21 8:42

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-001G**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	*Leachate Effluent, 5/5/21*
Location:			
W Order:	2106415	**Collection Date:**	05/05/21 10:45
Matrix:	WATER	**Date Received:**	05/05/21 13:50
Inst. ID:	Fisher balance XA	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R34692
Revision:	05/14/21 9:59	**TestCode** TSS2540D	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
RESIDUE-NON-FILTERABLE (TSS)				**SM 2540 D-2011**		
Residue-non-filterable (TSS)	33		5.0	mg/L	1	05/11/21

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-001G**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 5/5/21***
Location:			
W Order:	2106415	**Collection Date:**	05/05/21 10:45
Matrix:	WATER	**Date Received:**	05/05/21 13:50
Inst. ID:	DO Meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R34686
Revision:	05/12/21 9:40	**TestCode** BODSM5210B	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (BOD5)				**SM 5210B-01,-11**		
Biochemical oxygen demand (BOD5)	11		4.0	mg/L	1	05/05/21 15:33

Qualifiers:					
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-001H**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 5/5/21***
Location:			
W Order:	2106415	**Collection Date:**	05/05/21 10:45
Matrix:	WATER	**Date Received:**	05/05/21 13:50
Inst. ID:	HACH4000 **Sample Size:** 50 mL	**PrepDate:**	05/17/21 8:23
ColumnID:	**%Moisture:**	**BatchNo:**	28047/R34703
Revision:	05/18/21 14:23 **TestCode** TP365.3	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
PHOSPHORUS, TOTAL (AS P)				**EPA 365.3**		**(EPA 365.3)**
Phosphorus, Total (As P)	<5		0.10	mg/L	2.5	05/18/21

Qualifiers:					
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
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East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-001H**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Leachate Effluent, 5/5/21***
Location:			
W Order:	2106415	**Collection Date:**	05/05/21 10:45
Matrix:	WATER	**Date Received:**	05/05/21 13:50
Inst. ID:	Traacs	**Sample Size:** 1 mL	**PrepDate:** 05/17/21 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 28051/R34702
Revision:	05/18/21 12:02	**TestCode** TKN351.2	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
KJELDAHL NITROGEN - TOTAL (AS N)				**EPA 351.2**		**(EPA 351.2)**
Kjeldahl Nitrogen - Total (as N)	21		0.30	mg/L	3	05/18/21

NOTES:
As per NELAC regulation disclosure of the following condition is required. The method blank and laboratory control sample results were greater than the established limit.

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
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Analytical Results

StateCertNo: 10248

CLIENT:	Ramboll Americas O&M Solutions	**Lab ID:**	**2106415-002A**
Project:	PAS Oswego, Semiannual Permit Discharge	**Client Sample ID:**	***Trip Blank***
Location:			
W Order:	2106415	**Collection Date:**	04/05/21 0:00
Matrix:	WATER Q	**Date Received:**	05/05/21 13:50
Inst. ID:	MS04_73 **Sample Size:** NA	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R34697
Revision:	05/19/21 10:21 **TestCode** 624W	**FileID:**	1-SAMP-R5457
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 624**		
1,1,1-Trichloroethane	ND		1.0	µg/L	1	05/07/21 3:35
Methylene chloride	ND		1.0	µg/L	1	05/07/21 3:35
Tetrachloroethene	ND		1.0	µg/L	1	05/07/21 3:35
Toluene	ND		1.0	µg/L	1	05/07/21 3:35
Trichloroethene	ND		1.0	µg/L	1	05/07/21 3:35
Surr: 1,2-Dichloroethane-d4	100		75-130	%REC	1	05/07/21 3:35
Surr: 4-Bromofluorobenzene	101		75-125	%REC	1	05/07/21 3:35
Surr: Toluene-d8	109		75-125	%REC	1	05/07/21 3:35

Qualifiers:	* Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Website: http://www.settek.com

May 14, 2021

Greg Smith
Life Science Laboratories, Inc.
5854 Butternut Dr.
E. Syracuse, NY 13057
TEL: (315) 445-1105
FAX: (315) 445-1301

RE: 2106415

Dear Greg Smith: Order No.: 21050527

Summit Environmental Technologies, Inc. received 2 sample(s) on 5/10/2021 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf
Project Manager
3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 011, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **21050527**
Date: **5/14/2021**

CLIENT: Life Science Laboratories, Inc.
Project: 2106415

WorkOrder Narrative:
21050527: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

 The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **21050527**
Date: **5/14/2021**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Original

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Workorder Sample Summary

WO#: **21050527**

14-May-21

CLIENT: Life Science Laboratories, Inc.
Project: 2106415

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
21050527-001	2106415-001I		5/5/2021	5/10/2021 10:15:00 AM	Non-Potable Water
21050527-002	2106415-003A		5/5/2021	5/10/2021 10:15:00 AM	Non-Potable Water

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DATES REPORT

WO#: **21050527**

14-May-21

Client: Life Science Laboratories, Inc.

Project: 2106415

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
21050527-001A	2106415-001I	5/5/2021	Non-Potable Water	Low-Level Mercury (EPA 1631)			5/13/2021 12:38:20 PM
21050527-002A	2106415-003A			Low-Level Mercury (EPA 1631)			5/13/2021 12:41:58 PM

Original

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WO#: **21050527**
Date Reported: **5/14/2021**
Company: Life Science Laboratories, Inc.
Address: 5854 Butternut Dr.
E. Syracuse NY 13057
Received: 5/10/2021
Project#: 2106415

Client ID#	Lab ID#	Collected	Analyte	Result Units	Qual	Matrix	Method	DF	MDL	PQL	Run	Analyst
2106415-001I	001	5/5/2021	Mercury	0.745 ng/L		Non-Potable Water	EPA 1631 E	1	0.247	0.500	5/13/2021	KMW

Client ID#	Lab ID#	Collected	Analyte	Result Units	Qual	Matrix	Method	DF	MDL	PQL	Run	Analyst
2106415-003A	002	5/5/2021	Mercury	0.688 ng/L		Non-Potable Water	EPA 1631 E	1	0.247	0.500	5/13/2021	KMW

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Accreditation Program Analytes Report

WO#: **21050527**

14-May-21

Client: Life Science Laboratories, Inc.

State: NY

Project: 2106415

Program Name: DW_WW_SCM_NE

Sample ID	Matrix	Test Name	Analyte	Status
21050527-001A	Non-Potable Water	Low-Level Mercury (EPA 1631)	Mercury	A
21050527-002A	Non-Potable Water	Low-Level Mercury (EPA 1631)	Mercury	A

	Key	
DW_WW_SCM_NE	A	Accredited

Original #1

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QC SUMMARY REPORT

WO#: **21050527**

14-May-21

Client: Life Science Laboratories, Inc.
Project: 2106415

BatchID: **R127831**

Sample ID: **LCS**	SampType: **LCS**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **LCSW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344406**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	42.7	0.500	50.00	0	85.5	77	123				

Sample ID: **mblank1**	SampType: **MBLK**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **PBW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344407**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.324	0.500									J

Sample ID: **RLC**	SampType: **RLC**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **BatchQC**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344408**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.613	0.500	0.5000	0	123	50	150				

Sample ID: **mblank2**	SampType: **MBLK**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **PBW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344409**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.500									U

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	P	Second column confirmation exceeds	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted reco

Original

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QC SUMMARY REPORT

WO#: **21050527**

14-May-21

Client: Life Science Laboratories, Inc.
Project: 2106415

BatchID: **R127831**

Sample ID: **mblank2**	SampType: **MBLK**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **PBW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344409**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: **mblank3**	SampType: **MBLK**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **PBW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344417**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.500									U

Sample ID: **LFB**	SampType: **LCS**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **LCSW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344421**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	43.7	0.500	50.00	0	87.4	77	123				

Sample ID: **LFBD**	SampType: **LCSD**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **LCSS02**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344422**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	43.6	0.500	50.00	0	87.2	77	123	43.71	0.298	24	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	P	Second column confirmation exceeds	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted reco

Original

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QC SUMMARY REPORT

WO#: **21050527**

14-May-21

Client: Life Science Laboratories, Inc.

Project: 2106415

BatchID: **R127831**

Sample ID: **LFB**	SampType: **LCS**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **LCSW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	42.3	0.500	50.00	0	84.7	77	123				

Sample ID: **LFBD**	SampType: **LCSD**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **LCSS02**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344434**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	42.0	0.500	50.00	0	84.1	77	123	42.33	0.698	24	

Sample ID: **LCS2**	SampType: **LCS**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **LCSW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	42.9	0.500	50.00	0	85.7	77	123				

Sample ID: **mblank4**	SampType: **MBLK**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:	RunNo: **127831**
Client ID: **PBW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**	SeqNo: **3344437**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.500									U

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	P	Second column confirmation exceeds	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted reco

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **21050527**

14-May-21

Client: Life Science Laboratories, Inc.
Project: 2106415

BatchID: **R127831**

Sample ID: **mblank4**	SampType: **MBLK**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:		RunNo: **127831**
Client ID: **PBW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**		SeqNo: **3344437**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: **mblank5**	SampType: **MBLK**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:		RunNo: **127831**
Client ID: **PBW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**		SeqNo: **3344438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.500									U

Sample ID: **LFB**	SampType: **LCS**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:		RunNo: **127831**
Client ID: **LCSW**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**		SeqNo: **3344447**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	42.2	0.500	50.00	0	84.3	77	123				

Sample ID: **LFBD**	SampType: **LCSD**	TestCode: **HG-LL_NPW(**	Units: **ng/L**	Prep Date:		RunNo: **127831**
Client ID: **LCSS02**	Batch ID: **R127831**	TestNo: **E1631**		Analysis Date: **5/13/2021**		SeqNo: **3344448**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	41.1	0.500	50.00	0	82.2	77	123	42.16	2.61	24	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	P	Second column confirmation exceeds	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted reco

Original

Vendor Purchase Order / Chain of Custody

Life Science Laboratories, Inc.
5854 Butternut Dr., E. Syracuse, NY 13057
Phone # (315) 445-1105 Fax # (315) 445-1301

Seller agrees to sell and deliver services as specified herein in accordance with the Vendor Order. . This order expressly limits acceptance to the terms of this order and any additional or different terms proposed by the seller are rejected unless expressly assented to in writing by Life Science Laboratories, Inc.

Samples sent to:	Report should be sent to:	Life Science Laboratories Project Number:	Special Instructions:
Summit Environmental Technologies Inc 3310 Winn Street Cuyahoga Falls, OH 44223 Phone: 330-253-8211 Fax: 330-253-4489	Life Science Laboratories, Inc. 5854 Butternut Drive East Syracuse, NY 13057 Sample Custody Department Contact Name: Greg Smith	2106415 Purchase Order Number (VO#): VO58165 *Send invoice to: Accounting Department* Results are required by this date: Standard	*The Purchase Order Number must appear on all reports and invoices.* 21050527 ***SAMPLES ARE FOR NEW YORK STATE COMPLIANCE.***

Life Science Labs Sample ID # / Client ID		Sample Date	Type grab	Type comp	Matrix	Preserv. Added	Containers size/type	Containers #	Analysis Requested	Unit Price
2106415-001I	Leachate Effluent	05/05/21	X		NPW	HCL	40ml	2	Hg 1631	[redacted]
2106415-003A	Field Blank	05/05/21	X		NPW	HCL	40ml	2	Hg 1631	[redacted]
									Disposal Fee	[redacted]
									Sub Total	
									Surcharge:	
									Total:	[redacted]

Custody Transfers		Date:	Time
Sampled By:	Received By:		
Relinquished By: Daniel Rivera	Received By: Via UPS	5/6/21	10:50
Relinquished By:	Received for Lab By:	5/10/21	1015
	Received Intact: Y N	19.3 - 0.8 Sample Receipt Temp	19.5 °C

Copies: Original Purchasing Administration Accounting

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **LIF-NY-13057** Work Order Number: **21050527** RcptNo: **1**

Logged by:	**Christina N. Jager**	**5/10/2021 10:15:00 AM**	C. Jager
Completed By:	**Christina N. Jager**	**5/10/2021 5:04:50 PM**	C. Jager
Reviewed By:	**Jennifer Woolf**	**5/11/2021 11:22:54 AM**	Jennifer Woolf

Chain of Custody

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

Log In

3. Coolers are present?	Yes ☐	No ☑	NA ☐
4. Shipping container/cooler in good condition?	Yes ☑	No ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
No. Seal Date:	Signed By:		
5. Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
	Not required		
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

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

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

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.5	Good	Not Present			

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: OBG OPERATIONS Phone # 315-842-7024
Address: 333 West Washington St Syracuse NY 13201 Fax #

Contact Person: MARK BYRNE 315-842-7024

LSL Project #: 2106415

Client's Site I.D.: PAS Oswego Semi Annual Discharge Oswego Permit Discharge

Client's Project I.D.:

Authorization:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
001 A	LEACHATE EFF	5-5-21	10:45		C	NPW	HCl	2	40 ml	EPA 624		
c							None	1	Liter-g	EPA 625		
d							HNO3	1	250 ml	Metals (see permit)		
E							H2SO4	1	Liter-g	Oil & Grease		
f							Asc/NaOH	1	250 ml	Cn		
G							None	1	250 ml	Cr+6		
H							None	1	Liter-p	BOD, TSS		
I							H2SO4	1	250 ml	TKN, Phos		
					"		HCl	2	40 ml	LL Hg (1631)		
002 A	TRIP BLANK	5-5-21	—				HCl	2	40 ml	EPA 624		
003 A	BLANK	5-5-21	10:45				HCl	2	40 ml	LL Hg (1631)		

SAMPLES MUST BE RECEIVED ON ICE — Please Fill Out Completely — SAMPLES MUST BE RECEIVED ON ICE

Notes and Hazard identifications: Temp - 4.8°
PH - 6.8

Custody Transfers	Date	Time
Sampled and Relinquished By: Print Name: MARTIN KOENNECKE Signature:	5-5-21	13:50
Received By:		
Relinquished By: Received By:		
Relinquished By: Received for Lab By:	5/5/21	13:50

Shipment Method: HAND Samples Received Intact: Y N 6.8°C Samples Received On Ice Packs

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: **OGINA PAS**

Date and Time Received: **5/5/2021 1:50:00 PM**

Work Order Number: **2106415**

Received by: dcr

Checklist completed by: 45 (Initials) 5-5-21 (Date)

Reviewed by: (Initials) 5/10/21 (Date)

Delivery Method: Hand Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Applicable ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Comments:

Corrective Action:

Life Science Laboratories, Inc.
LSL 5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: Ramball Phone # 315 956-6100
Address: 333 West Washington St Fax #
E. Syracuse NY

Authorization:

Contact Person: MARK BYRNE @ RAMBALL.com 315-842-7024

LSL Project #:

Client's Site I.D.: PAS Oswego Semi Annual Well Sampling

Client's Project I.D.:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
	Equipment Blank	11-3-20	7:20	G		W		2	40ml/glass	8260		
	MW-21	11-3-20	9:25	G		W		2	40ml/glass	8260		
	LR-8	11-3-20	10:50	G		W		2	40ml/glass	8260		
	LR-8 MSD	11-3-20	10:50	G		W		2	40ml/glass	8260		
	LR-8 MS	11-3-20	10:50	G		W		2	40ml/glass	8260		
	LCW-2	11-3-20	13:15	G		W		2	40 ml/glass	8260		
	LCW-4	11-3-20	14:15	G		W		2	40ml/glass	8260		
	X-1	11-3-20	—	G		W		2	40ml/glass	8260		
	QC TRIP BLANKS					W		2		8260		

SAMPLES MUST BE RECEIVED ON ICE — Please Fill Out Completely — SAMPLES MUST BE RECEIVED ON ICE

Notes and Hazard identifications:

Samples Received On Ice

Custody Transfers	Date	Time
Sampled and Relinquished By: Print Name: MARTIN Koennecke Signature:	11-3-20	15:55
Received By:		
Relinquished By: Received By:		
Relinquished By: Received for Lab By:	11/3/20	16:00

Shipment Method: HAND Samples Received Intact: Y N 10.0°C

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: RAMBoll
Address: 333 West Washington St
Phone # 315-956-6100
Fax #

Contact Person: MARK, BYRNE @RAMBoll.com 315-842-7024

LSL Project #:

Client's Site I.D.: Semi Annual Leachate Discharge City of GSW Per

Client's Project I.D.:

Authorization:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pre Che
	Leachate Eff.	11-4-20	10:30		C	W		2	40ml/glass	EPA 624		
	" "	11-4-20	10:30		C	W		1		EPA 625		
					C	W		1		OIL & GREASE		
					C	W		1		CYANIDE		
					C	W		1		TKN, T-PHOS		
					C	W		1		BOD, TSS, CR-6		
					C	W		1		METALS SEE PERMIT		
					C	W		1		~~CR-6~~ OK		
		11-4-20	10:30					2		LL Hg 1631		
	QC Trip Blank							2		EPA 624		

SAMPLES MUST BE RECEIVED ON ICE

Please Fill Out Completely

Notes and Hazard identifications:
Temp - 5.0°C
PH - 6.8
Samples Received On Ice Packs

SAMPLES MUST BE RECEIVED ON ICE

Custody Transfers

		Date	Time
Sampled and Relinquished By: Print Name: MARTIN KOCANDRDA	Signature:	11-4-20	14:30
Received By:			
Relinquished By:	Received By:		
Relinquished By:	Received for Lab By:	11/04/20	1430

Shipment Method:

Samples Received Intact: (Y) N

12.3°C

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: OBG OPERATIONS Phone # 315-842-7024
Address: 333 West Washington St Fax #
Syracuse NY 13201

Authorization:

Contact Person: MARK BYRNE 315-842-7024

LSL Project #:

Client's Site I.D.: PAS Oswego Semi Annual Discharge
Oswego Permit Discharge

Client's Project I.D.:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
	LEACHATE EFF	5-5-21	10'45		C	NPW	HCl	2	40 ml	EPA 624		
							None	1	Liter-g	EPA 625		
							HNO_3	1	250 ml	Metals (see permitt)		
							H_2SO_4	1	Liter-g	Oil & Grease		
							Asc/NaOH	1	250 ml	Cn		
							None	1	250 ml	Cr+6		
							None	1	Liter-p	BOD, TSS		
							H_2SO_4	1	250 ml	TKN, Phos		
							HCl	2	40 ml	LL Hg (1631)		
	TRIP BLANK	5-5-21	—				HCl	2	40 ml	EPA 624		
	BLANK	5-5-21	1045				HCl	2	40 ml	LL Hg (1631)		

SAMPLES MUST BE RECEIVED ON ICE — Please Fill Out Completely — SAMPLES MUST BE RECEIVED ON ICE

Notes and Hazard identifications: Temp-4.8°
PH - 6.8

Custody Transfers	Date	Time
Sampled and Relinquished By: Print Name: MARTIN KOENNECKE Signature: Martin Koennecke	5-5-21	13:50
Received By:		
Relinquished By: Received By:		
Relinquished By: Received for Lab By: Donna Rivera	5/5/21	13.50

Shipment Method: HAND Samples Received Intact: Y N 6.8°C Samples Received On Ice Packs

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: OBG OPERATIONS Phone # 315-842-7024
Address: 333 West WASHington ST Fax #
SYRACUSE NY 13281

Authorization:

Contact Person: MARK BYRNE 315-842-7024

LSL Project #:

Client's Site I.D.: PAS Oswego Semi Annual well sampling

Client's Project I.D.:

(Lab Use Only) LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
	Equipment Blank	5-4-21	7:30	G		W		2		EPA 8260		
	M-21	5-4-21	8:40	G		W		2		8260		
	M-21 MS	5-4-21	8:40	G		W		2		8260		
	M-21 MSD	5-4-21	8:40	G		W		2		8260		
	LR-8	5-4-21	10:10	G		W		2		8260		
	LCW-4	5-4-21	12:00	G		W		2		8260		
	LCW-2	5-4-21	13:20	G		W		2		8260		
	X-1	5-4-21	—	G		W		2		8260		
	QC TRIP Blanks					W		2		8260		

SAMPLES MUST BE RECEIVED ON ICE — Please Fill Out Completely — SAMPLES MUST BE RECEIVED ON ICE

Notes and Hazard identifications:

Custody Transfers	Date	Time
Sampled and Relinquished By: Print Name: MARTIN Koennecke Signature: Martin Koennecke	5-4-21	15:15
Received By:		
Relinquished By: Received By:		
Relinquished By: Received for Lab By: Daniel Rivera	5/4/21	15.14

Shipment Method: Samples Received Intact: Y N 5.0°C Samples Received On Ice

ATTACHMENT III

ACTIONS PLANNED

de maximis, inc.

ANNUAL PROGRESS REPORT – Future

Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: JULY 2021 – JUNE 2022

ACTIONS PLANNED FOR THE YEAR

- Leachate removal activities will be performed during the period July 2021 through June 2022 at the PAS Oswego Site in accordance with the Operation, Maintenance and Long-term Monitoring (OM&M) Activities Plan (BBL, 1998 revised July 2012) (Work Plan). The OM&M activities will include pumping approximately 20,000 gallons per month from May through October, and 10,000 gallons per month for the winter and spring months November through April.

- The leachate will be discharged to the Eastside Wastewater Treatment Plant in Oswego, New York (Oswego WWTP) under an approved permit consistent with the schedule presented below. However, the Wastewater Treatment Plant in the City of Auburn, New York will continue to be retained as an alternate leachate treatment and disposal facility.

- Additional leachate sampling will be conducted as needed for treatment and disposal at the Oswego Wastewater Treatment Plant under the approved permit.

- Quarterly ground-water elevation monitoring is scheduled to be conducted on August 4, 2020, November 3, 2020, February 2, 2021 and May 4, 2021.

- Site maintenance activities will be conducted along with other monitoring and removal activities. Maintenance activities include cap vegetation control and inspection and maintenance of the storage shed, spill control materials and the perimeter fence. Snow removal will be performed on an as needed basis throughout the winter months. These activities will be performed in accordance with the approved Work Plan.

- Semi-annual groundwater and leachate quality sampling is scheduled to be conducted on November 3, 2021 and May 4, 2022. Wells LR-8, M-21, LCW-2 and LCW-4 will be monitored over the 2021-2022 period. OD-3, MW- 22 and LR-6 will be sampled in the fall of 2022 to provide data for the next 5 year review.

- The Institutional Control Implementation Plan (ICIP) includes the inspection requirements for the period following the execution and recording of the Easement, which were documented in the approved Remedial Action Completion Report. It states that following implementation of institutional controls on the Industrial Precision Products Property, the Site will be inspected on an annual basis to determine whether any intrusive activities have occurred. In addition, building and property records will be reviewed to ascertain whether or not any filings have been made for

such activities. The ICIP provides for an annual report summarizing the findings of the inspection and record review to be prepared, along with a certification confirming that operation and maintenance activities will continue, and that the annual report would be included in the annual OM&M progress report to be submitted to EPA in July of each year.

- The schedule for leachate removal events and tasks is provided below.

GROUND-WATER REMOVAL EVENT SCHEDULE 2021/2022						
	July 2021 Removal Events		August 2021 Removal Events		September 2021 Removal Events	
	First Event		First Event		First Event	
Removal	Jan 6		Feb 10		Mar 10	

GROUND-WATER REMOVAL EVENT SCHEDULE 2019/2020						
	October 2021 Removal Events		November 2021 Removal Events		December 2021 Removal Events	
	First Event		First Event		First Event	
Removal	Apr 7		May 5		June 9	

GROUND-WATER REMOVAL EVENT SCHEDULE 2021/2022						
	January 2022 Removal Events		February 2022 Removal Events		March 2022 Removal Events	
	First Event		First Event		First Event	
Removal	July 7		Aug 4		Sep 8	

GROUND-WATER REMOVAL EVENT SCHEDULE 2021/2022						
	April 2022 Removal Events		May 2022 Removal Events		June 2022 Removal Events	
	First Event		First Event		First Event	
Removal	Oct 6		Nov 10		Dec 8	

GROUND-WATER REMOVAL SCHEDULE 2022						
	January 2022 Removal Events		February 2022 Removal Events		March 2022 Removal Events	
	First Event		First Event		First Event	
Removal	Jan 5		Feb 9		Mar 9	

GROUND-WATER REMOVAL SCHEDULE 2022						
	April 2022 Removal Events		May 2022 Removal Events		June 2022 Removal Events	
	First Event		First Event		First Event	
Removal	Apr 6		May 4		June 8	

GROUND-WATER REMOVAL SCHEDULE 2022						
	July 2022 Removal Events		August 2022 Removal Events		September 2022 Removal Events	
	First Event		First Event		First Event	
Removal	July 6		Aug 10		Sept 7	

GROUND-WATER REMOVAL SCHEDULE 2022						
	October 2022 Removal Events		November 2022 Removal Events		December 2022 Removal Events	
	First Event		First Event		First Event	
Removal	Oct 5		Nov 9		Dec 7	