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New York State Department of Environmental
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Columbia Mills Site 2019 Annual Groundwater Monitoring Report

NYSDEC Site Number 7-38-012

October 2019

COLUMBIA MILLS SITE 2019 ANNUAL GROUNDWATER MONITORING REPORT

NYSDEC Site Number 7-38-012



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CONTENTS

Acronyms and Abbreviations	4
1 Introduction	1-1
2 Site Description.....	2-1
3 Operation and Maintenance	3-1
3.1 Observations and Activities	3-1
3.2 Leachate Collection System Operation Overview	3-1
3.3 Leachate Collection System Sampling	3-1
3.3.1 Sampling Procedures.....	3-1
3.3.2 Sampling Results	3-2
4 Groundwater Monitoring Program	4-1
4.1 Groundwater Monitoring.....	4-1
4.2 Well Inspection	4-1
4.2.1 Groundwater Flow.....	4-1
4.3 Groundwater Sampling.....	4-1
4.3.1 Groundwater Sampling Results	4-2
5 Recommendations.....	5-1
6 Summary	6-1
7 References	7-1

TABLES

Table 3-1	Summary of Leachate Collection System Sampling Results – PCBs
Table 4-1	Summary of Groundwater Elevations
Table 4-2	Summary of Groundwater Sampling Results – PCBs

FIGURES

Figure 2-1	Site Location
Figure 3-1	Leachate Collection System Schematic
Figure 3-2	Process Flow Diagram
Figure 4-1	Groundwater Monitoring Well Locations
Figure 4-2	Shallow Potentiometric Surface
Figure 4-3	Deep Potentiometric Surface

APPENDICES

Appendix A	Post Closure Inspection Forms and Site Photographs
Appendix B	Field Sampling Logs
Appendix C	Analytical Reporting Forms
Appendix D	Groundwater Level Data Form

ACRONYMS AND ABBREVIATIONS

ABP	Amphibian Breeding Pond
AMSL	Above Mean Sea Level
DO	Dissolved Oxygen
DUP	Duplicate
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation and Maintenance
ORP	Oxidation-Reduction Potential
PCBs	Poly-chlorinated Biphenyls
PFAS	Perfluorinated Alkyl Substances
PFOA	Perfluorooctanoic acid
PPRS	Pore-pressure Relief System
PRR	Periodic Review Report
SMP	Site Management Plan
TDS	Total Dissolved Solids
µg/L	Micrograms per liter
USEPA	United States Environmental Protection Agency

1 INTRODUCTION

The NYSDEC has issued a Work Assignment (# D007618-10) to ARCADIS CE, Inc. (Arcadis) for Operation, Maintenance, and Monitoring at the Columbia Mills Site (NYSDEC Site Number 7-38-012) in Minetto, New York. Arcadis has prepared this Report in accordance with the Draft Site Management Plan (SMP) (Arcadis 2017) to summarize site activities, including third quarter 2019 groundwater sampling results.

2 SITE DESCRIPTION

The Columbia Mills site is located on Route 48, Minetto, Oswego County, New York (Figure 2-1), across Route 48 from the western bank of the Oswego Canal. A capped, closed landfill is located in the western portion of the site. The landfill is surrounded by a six-foot chain-link fence. Groundwater quality in the vicinity of the landfill is monitored by sampling of eight groundwater monitoring wells on a five-quarter basis.

3 OPERATION AND MAINTENANCE

O&M activities were conducted on September 10, 2019 in accordance with the Draft SMP and in consultation with NYSDEC.

3.1 Observations and Activities

A Post-Closure Operation and Maintenance (O&M) checklist (Appendix A) was used to document the status of the landfill. A visual inspection of the landfill cap was performed to assess the landfill for burrowing rodents, erosion and settlement or woody vegetation. No active burrowing rodent holes, erosion, or cap settlement was observed. The landfill cap was not mowed; however, no woody vegetation was observed on the cover system.

Photographs taken during the September inspection are also provided in Appendix A.

An approximately 20-foot section of geotextile fabric in the landfill access road was exposed. No other areas of damage or erosion were observed during the inspection.

3.2 Leachate Collection System Operation Overview

A schematic of the leachate collection system is provided on Figure 3-1. Figure 3-2 provides a process flow diagram of the leachate collection system. As shown on Figure 3-2, a combination Pore-pressure Relief System (PPRS)/leachate collection system is located along the perimeter of the landfill cell. The system can convey leachate to a 10,000-gallon sub-surface leachate collection tank, the Town of Minetto sanitary sewer, or the ABP (via the combination sampling sump). A valve located at the inlet to the collection tank controls flow into the tank. Valves located up-gradient of the leachate collection tank can direct flow to the Town of Minetto sanitary sewer or ABP. Currently, at the direction of the NYSDEC, leachate is being directed to Town of Minetto sanitary sewer.

As shown on Figure 3-1 and 3-2, groundwater from the PPRSs (north and south of the landfill cell) discharges into a pre-cast concrete combination sampling sump located on the west side of the landfill. Valves within the sampling sump control groundwater flow into the sump and allow flow through the PPRSs. The valves can be closed if sampling indicates the presence of contamination in groundwater from the PPRS collection lines.

3.3 Leachate Collection System Sampling

Leachate collection system samples were collected from the north and south PPRS and leachate inlet pipes in the combination sampling sump (Figure 3-1) to evaluate the potential presence of polychlorinated biphenyls (PCBs) in the leachate (currently discharged to the Town of Minetto sanitary sewer).

3.3.1 Sampling Procedures

Leachate flow was temporarily diverted from the Town of Minetto sanitary sewer to the combination sampling sump. Leachate and PPRS samples were then collected from the respective inlet pipes to the

combination sampling sump (leachate, north PPRS, and south PPRS) (Figure 3-1) using a peristaltic pump with dedicated sample tubing. Leachate flow was restored to the Town of Minetto sanitary sewer after sampling was complete.

Prior to collecting samples, pH, conductivity, turbidity, dissolved oxygen (DO), temperature, salinity, total dissolved solids (TDS), and oxidation-reduction potential (ORP) were measured using a Horiba U-52 water quality meter and recorded on field sampling logs (Appendix B). Samples were submitted to TestAmerica in Amherst, New York for analysis of PCBs by United States Environmental Protection Agency (USEPA) Method 8082.

3.3.2 Sampling Results

Leachate collection system sampling results are summarized in Table 3-1 and Table 3-2. Analytical reporting forms are provided in Appendix C.

As shown in Table 3-1, none of the samples collected from the leachate collection system contained PCBs at concentrations greater than the indicated laboratory quantitation limits.

4 GROUNDWATER MONITORING PROGRAM

4.1 Groundwater Monitoring

Groundwater monitoring wells were sampled on September 10, 2019 to provide information on groundwater quality, monitor contaminant migration in the groundwater at the site, and assess hydrogeologic site conditions, including groundwater flow. Groundwater monitoring is performed on a five-quarter basis in accordance with the Draft SMP. The next groundwater sampling event will be conducted during the fourth quarter 2020.

4.2 Well Inspection

Existing on-site groundwater monitoring wells and piezometers (Figure 4-1) were evaluated for integrity and suitability for groundwater monitoring and water levels. The condition of each well and piezometer was recorded on well inspection logs (Appendix B). As shown in Appendix B, (and the photographs in Appendix A) the integrity of the groundwater monitoring wells and piezometers was acceptable, and no repair or maintenance is required at this time.

4.2.1 Groundwater Flow

Prior to collecting samples, groundwater levels were measured to the nearest hundredth of a foot and recorded on a groundwater level data form (Appendix D). Table 4-1 summarizes the groundwater levels and elevations from the site. As shown in Table 4-1, groundwater elevations in shallow overburden and bedrock wells ranged from approximately 309 feet amsl to approximately 323 feet amsl; groundwater elevations in deep bedrock wells ranged from approximately 305 feet amsl to approximately 323 feet amsl. As shown in Table 4-1, well clusters MW-1S/1D and 2S/2D had higher groundwater elevations in the deep groundwater monitoring zone compared to the shallow groundwater monitoring zone, indicating an upward hydraulic gradient at these locations. Table 4-1 shows that well clusters MW-3S/3D and MW-4S/4D had downward hydraulic gradient.

Shallow and deep potentiometric surfaces map are provided on Figure 4-2 and Figure 4-3, respectfully. As shown on Figure 4-2 and Figure 4-3, the direction of groundwater flow in the vicinity of the landfill is generally northeast toward the ABP and the Oswego Canal.

4.3 Groundwater Sampling

Groundwater samples from monitoring wells MW-1S, MW-1D, MW-2S, MW-2D, MW-3S, MW-3D, MW-4S, and MW-4D were collected using low-flow groundwater purging and sampling procedures in accordance with the Draft SMP. One sample (MW-X-DUP) was collected from MW-1D and submitted as a field duplicate. Prior to collecting groundwater samples, pH, conductivity, turbidity, DO, temperature, salinity, TDS, and ORP were measured using a Horiba U-52 water quality meter and recorded on groundwater sampling purge logs. Groundwater sampling purge logs are presented in Appendix B. Groundwater samples were submitted to TestAmerica for analysis of PCBs by USEPA Method 8082. Analytical reporting forms are provided in Appendix C.

4.3.1 Groundwater Sampling Results

Table 4-2 shows that no PCBs were detected in any of the groundwater samples collected during the 2019 sampling event. As shown in Table 4-2, only one groundwater sample (MW-3S collected in 2007) has ever contained a total PCB concentration greater than the respective NYSDEC Class GA Standard of 0.09 micrograms per liter ($\mu\text{g/L}$).

5 RECOMMENDATIONS

- Annual O&M should continue to be conducted as described in the Draft SMP.
- The landfill cap should be mowed on an annual basis to prevent the establishment of woody vegetation.
- The exposed area of geotextile in the landfill access road should be repaired and additional road material should be placed over the geotextile. The area should then be regraded to limit further erosion of the roadway.

6 SUMMARY

The landfill and site were inspected on September 10, 2019 and appear to be in acceptable condition. Although the landfill cap did not appear to be mowed, no woody vegetation was established on the landfill. A section of geotextile in the landfill access road was exposed.

The groundwater monitoring wells and piezometers are generally in acceptable condition. Based on the water level survey, groundwater flow across the site is generally toward the northeast.

No PCBs were detected in the Leachate, PPRS, or groundwater samples collected during the 2019 monitoring event.

Annual O&M should continue to be conducted as described in the Draft SMP.

The landfill access road should be repaired and graded to limit erosion.

The next groundwater sampling event is scheduled to be conducted during the fourth quarter 2020.

7 REFERENCES

Arcadis, 2017, Site Management Plan (Draft), Columbia Mills Site, Oswego County, Minetto, New York. NYSDEC Site Number 7-38-012. Prepared for NYSDEC, Division of Environmental Remediation by Arcadis CE, Inc., July 11, 2017.

TABLES



Table 3-1
Summary of Leachate Collection System Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class AA/GA Standard	Leachate 6/19/2009 µg/L	Leachate 3/25/2010 µg/L	Leachate 6/22/2011 µg/L	Leachate 7/30/2012 µg/L	Leachate 10/17/2013 µg/L	Leachate 4/23/2015 µg/L	Leachate 10/31/2017 µg/L	Leachate 9/10/2019 µg/L
Analyte									
PCB-1016	-	0.53 U	0.53 U	0.5 U	0.47 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1221	-	0.53 U	0.53 U	0.5 U	0.47 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1232	-	0.53 U	0.53 U	0.5 U	0.47 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1242	-	0.53 U	0.53 U	0.5 U	0.47 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1248	-	0.53 U	0.53 U	0.5 U	0.47 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1254	-	0.53 U	0.53 U	0.5 U	0.47 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1260	-	0.53 U	0.53 U	0.5 U	0.47 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

U - Analyte not detected

NR - Not reported

Table 3-1
Summary of Leachate Collection System Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class AA/GA Standard	North PPRS 6/19/2009 µg/L	North PPRS 3/25/2010 µg/L	North PPRS 6/22/2011 µg/L	North PPRS 10/17/2013 µg/L	North PPRS 4/23/2015 µg/L	North PPRS 10/31/2017 µg/L	North PPRS 9/10/2019 µg/L
Analyte								
PCB-1016	-	0.5 U	0.5 U	0.5 U	0.48 U	0.5 U	0.4 U	0.4 U
PCB-1221	-	0.5 U	0.5 U	0.5 U	0.48 U	0.5 U	0.4 U	0.4 U
PCB-1232	-	0.5 U	0.5 U	0.5 U	0.48 U	0.5 U	0.4 U	0.4 U
PCB-1242	-	0.5 U	0.5 U	0.5 U	0.48 U	0.5 U	0.4 U	0.4 U
PCB-1248	-	0.5 U	0.5 U	0.5 U	0.48 U	0.5 U	0.4 U	0.4 U
PCB-1254	-	0.5 U	0.5 U	0.5 U	0.48 U	0.5 U	0.4 U	0.4 U
PCB-1260	-	0.5 U	0.5 U	0.5 U	0.48 U	0.5 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

U - Analyte not detected

NR - Not reported

Table 3-1
Summary of Leachate Collection System Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class AA/GA Standard	South PPRS 6/19/2009 µg/L	South PPRS 3/25/2010 µg/L	South PPRS 6/22/2011 µg/L	South PPRS 7/30/2012 µg/L	South PPRS 10/17/2013 µg/L	South PPRS 4/23/2015 µg/L	South PPRS 10/31/2017 µg/L	South PPRS 9/10/2019 µg/L
Analyte									
PCB-1016	-	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1221	-	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1232	-	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1242	-	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1248	-	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1254	-	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1260	-	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	0.5 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

U - Analyte not detected

NR - Not reported

Table 3-1
Summary of Leachate Collection System Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class AA/GA Standard	Tank 10/2/2008 µg/L	Tank 3/25/2010 µg/L
Analyte			
PCB-1016	-	0.53 U	0.53 U
PCB-1221	-	1.1 U	0.53 U
PCB-1232	-	0.53 U	0.53 U
PCB-1242	-	0.53 U	0.53 U
PCB-1248	-	0.53 U	0.53 U
PCB-1254	-	0.53 U	0.53 U
PCB-1260	-	0.53 U	0.53 U
PCB-1262	-	NR	NR
PCB-1268	-	NR	NR
Total PCBs	0.09	-	-

Notes:

µg/L - micrograms per liter

U - Analyte not detected

NR - Not reported

Table 4-1
Summary of Groundwater Elevations
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Well	Measuring Point Elevation ⁽¹⁾ (feet)	8/6/2007		10/1/2008		6/17/2009		3/24/2010		6/22/2011		7/25/2012		10/17/2013		4/22/2015		10/31/2017		9/10/2019	
		DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)
MW-1S	324.85	6.94	317.91	4.91	319.94	4.81	320.04	2.98	321.87	5.20	319.65	6.92	317.93	5.28	319.57	3.07	321.78	2.89	321.96	5.51	319.34
MW-1D	325.20 ⁽²⁾	3.70	321.44	1.96	323.18	1.80	323.34	0.67	324.47	2.23	322.91	3.50	321.64	2.10	323.04	1.04	324.10	0.10	325.10	2.00	323.20
MW-2S	335.93	13.90	322.03	13.22	322.71	11.66	324.27	9.43	326.50	12.10	323.83	13.46	322.47	13.07	322.86	9.95	325.98	10.55	325.38	12.83	323.10
MW-2D	335.90	13.95	321.95	13.39	322.51	11.77	324.13	9.19	326.71	11.80	324.10	13.62	322.28	13.43	322.47	9.56	326.34	11.28	324.62	12.89	323.01
MW-3S	316.02	6.42	309.60	5.71	310.31	5.76	310.26	5.94	310.08	5.48	310.54	6.67	309.35	6.52	309.50	5.05	310.97	6.34	309.68	6.72	309.30
MW-3D	315.79	8.23	307.56	16.52	299.27	22.03	293.76	20.78	295.01	16.21	299.58	17.71	298.08	16.75	299.04	14.88	300.91	10.34	305.45	10.71	305.08
MW-4S	321.63	12.20	309.43	12.21	309.42	11.70	309.93	8.41	313.22	11.69	309.94	12.27	309.36	11.02	310.61	9.13	312.50	9.19	312.44	9.58	312.05
MW-4D	321.26	11.44	309.82	11.29	309.97	11.13	310.13	10.17	311.09	11.12	310.14	11.51	309.75	11.05	310.21	10.37	310.89	10.34	310.92	10.74	310.52
LFP-1	NA	19.15	-	18.74	-	18.36	-	18.00	-	18.30	-	18.91	-	18.55	-	17.17	-	NM	-	NM	-
LFP-2	NA	16.40	-	16.45	-	NM	-	13.12	-	13.12	-	16.00	-	15.86	-	12.76	-	NM	-	NM	-
LFP-3	NA	14.75	-	14.20	-	14.18	-	13.85	-	14.20	-	14.59	-	14.00	-	13.76	-	NM	-	NM	-
LFP-4	NA	13.57	-	13.40	-	13.24	-	13.28	-	13.25	-	13.33	-	13.28	-	13.15	-	NM	-	NM	-
LFP-5	NA	17.30	-	17.32	-	17.26	-	16.61	-	16.92	-	17.15	-	17.06	-	16.55	-	NM	-	NM	-
LFP-6	NA	14.50	-	14.19	-	13.44	-	12.40	-	13.40	-	14.15	-	13.73	-	12.51	-	NM	-	NM	-
LFP-7	NA	NM	-	Dry	-	NM	-	Dry	-	Dry	-	Dry	-	Dry	-	Dry	-	NM	-	NM	-
LFP-8	NA	13.92	-	13.54	-	13.21	-	12.39	-	13.30	-	13.74	-	13.72	-	12.39	-	NM	-	NM	-
LFP-9	NA	18.20	-	18.00	-	17.93	-	17.79	-	17.85	-	18.13	-	17.93	-	17.67	-	NM	-	NM	-
LFP-10	NA	15.18	-	14.90	-	14.90	-	14.81	-	14.89	-	15.18	-	14.88	-	14.73	-	NM	-	NM	-
LFP-11	NA	23.77	-	23.18	-	22.89	-	22.41	-	22.85	-	23.55	-	22.95	-	22.15	-	NM	-	NM	-
LFP-12	NA	NM	-	Dry	-	Dry	-	Dry	-	Dry	-	Dry	-	Dry	-	14.56	-	NM	-	NM	-
LFP-13	NA	Dry	-	6.33	-	6.50	-	5.48	-	6.60	-	7.48	-	5.75	-	5.92	-	NM	-	NM	-
LFP-14	NA	26.37	-	26.00	-	25.83	-	25.49	-	25.80	-	26.23	-	25.96	-	25.40	-	NM	-	NM	-

Notes

- (1) - Source: Malcolm Pirnie Inc. Project Number 0266405
Table 2-2, Monitoring Well and Piezometer Construction Summary
(2) - Elevation from Arcadis Survey performed on October 31, 2017.
NA - Not Available
NM - Not Measured

Table 4-2

Summary of Groundwater Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class GA Standards	MW-1S 8/7/2007 µg/L	MW-1S 10/1/2008 µg/L	MW-1S 6/18/2009 µg/L	MW-1S 3/24/2010 µg/L	MW-1S 6/22/2011 µg/L	MW-1S 7/29/2012 µg/L	MW-1S 10/16/2013 µg/L	MW-1S 4/22/2015 µg/L	MW-1S 10/31/2017 µg/L	MW-1S 9/10/2019 µg/L
Analyte											
PCB-1016	-	0.54 U	0.53 U	0.52 U	0.53 U	0.5 U	0.49 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1221	-	1.10 U	1.10 U	0.52 U	0.53 U	0.5 U	0.49 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1232	-	0.54 U	0.53 U	0.52 U	0.53 U	0.5 U	0.49 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1242	-	0.54 U	0.53 U	0.52 U	0.53 U	0.5 U	0.49 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1248	-	0.54 U	0.53 U	0.52 U	0.53 U	0.5 U	0.49 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1254	-	0.54 U	0.53 U	0.52 U	0.53 U	0.5 U	0.49 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1260	-	0.54 U	0.53 U	0.52 U	0.53 U	0.5 U	0.49 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

- Concentration exceeds corresponding
NYSDEC Class GA Standard

¹ - DUP collected from MW-1D

U - Analyte not detected

J - Estimated value

M - Manual integrated compound

B - Analyte was detected in Method Blank.

NR - Not reported

NS - No sample. Container damaged.

Table 4-2

Summary of Groundwater Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class GA Standards	MW-1D 8/7/2007 µg/L	MW-1D 10/1/2008 µg/L	MW-1D 6/18/2009 µg/L	MW-1D 3/24/2010 µg/L	MW-1D 6/22/2011 µg/L	MW-1D 7/29/2012 µg/L	MW-1D 10/16/2013 µg/L	MW-1D 4/22/2015 µg/L	DUP-1 ⁽¹⁾ 4/22/2015 µg/L	MW-1D 10/31/2017 µg/L	DUP-1 ⁽¹⁾ 10/31/2017 µg/L	MW-1D 9/10/2019 µg/L	DUP-1 ⁽¹⁾ 9/10/2019 µg/L
Analyte														
PCB-1016	-	0.54 U	0.52 U	0.5 U	0.5 U	0.5 U	0.49 U	0.48 U	0.48 U	0.48 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1221	-	1.10 U	1.00 U	0.5 U	0.5 U	0.5 U	0.49 U	0.48 U	0.48 U	0.48 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1232	-	0.54 U	0.52 U	0.5 U	0.5 U	0.5 U	0.49 U	0.48 U	0.48 U	0.48 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1242	-	0.54 U	0.52 U	0.5 U	0.5 U	0.5 U	0.49 U	0.48 U	0.48 U	0.48 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1248	-	0.54 U	0.52 U	0.5 U	0.5 U	0.5 U	0.49 U	0.48 U	0.48 U	0.48 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1254	-	0.54 U	0.52 U	0.5 U	0.5 U	0.5 U	0.49 U	0.48 U	0.48 U	0.48 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1260	-	0.54 U	0.52 U	0.5 U	0.5 U	0.5 U	0.49 U	0.48 U	0.48 U	0.48 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

- Concentration exceeds corresponding
NYSDEC Class GA Standard

¹ - DUP collected from MW-1D

U - Analyte not detected

J - Estimated value

M - Manual integrated compound

B - Analyte was detected in Method Blank.

NR - Not reported

NS - No sample. Container damaged.

Table 4-2

Summary of Groundwater Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class GA Standards	MW-2S 8/7/2007 µg/L	MW-2S 10/2/2008 µg/L	MW-2S 6/18/2009 µg/L	MW-2S 3/24/2010 µg/L	MW-2S 6/22/2011 µg/L	MW-2S 7/29/2012 µg/L	MW-2S 10/16/2013 µg/L	MW-2S 4/22/2015 µg/L	MW-2S 11/1/2017 µg/L	MW-2S 9/10/2019 µg/L
Analyte											
PCB-1016	-	0.56 U	0.54 U	0.5 U	NS	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1221	-	1.10 U	1.10 U	0.5 U	NS	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1232	-	0.56 U	0.54 U	0.5 U	NS	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1242	-	0.56 U	0.54 U	0.5 U	NS	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1248	-	0.56 U	0.54 U	0.5 U	NS	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1254	-	0.56 U	0.54 U	0.5 U	NS	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1260	-	0.56 U	0.54 U	0.5 U	NS	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

- Concentration exceeds corresponding
NYSDEC Class GA Standard

¹ - DUP collected from MW-1D

U - Analyte not detected

J - Estimated value

M - Manual integrated compound

B - Analyte was detected in Method Blank.

NR - Not reported

NS - No sample. Container damaged.

Table 4-2

Summary of Groundwater Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class GA Standards	MW-2D 8/7/2007 µg/L	MW-2D 10/1/2008 µg/L	MW-2D 6/18/2009 µg/L	MW-2D 3/24/2010 µg/L	MW-2D 6/25/2011 µg/L	MW-2D 7/29/2012 µg/L	MW-2D 10/16/2013 µg/L	MW-2D 4/22/2015 µg/L	MW-2D 11/1/2017 µg/L	MW-2D 9/10/2019 µg/L
Analyte											
PCB-1016	-	0.56 U	0.55 U	0.5 U	0.53 U	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1221	-	1.10 U	1.10 U	0.5 U	0.53 U	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1232	-	0.56 U	0.55 U	0.5 U	0.53 U	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1242	-	0.56 U	0.55 U	0.5 U	0.53 U	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1248	-	0.56 U	0.55 U	0.5 U	0.53 U	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1254	-	0.56 U	0.55 U	0.5 U	0.53 U	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1260	-	0.56 U	0.55 U	0.5 U	0.53 U	0.5 U	0.47 U	0.49 U	0.48 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

- Concentration exceeds corresponding
NYSDEC Class GA Standard

¹ - DUP collected from MW-1D

U - Analyte not detected

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M - Manual integrated compound

B - Analyte was detected in Method Blank.

NR - Not reported

NS - No sample. Container damaged.

Table 4-2

Summary of Groundwater Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class GA Standards	MW-3S 8/8/2007 µg/L	MW-3S 10/2/2008 µg/L	MW-3S 6/19/2009 µg/L	MW-3S 3/25/2010 µg/L	MW-3S 6/23/2011 µg/L	MW-3S 8/1/2012 µg/L	MW-3S 10/16/2013 µg/L	MW-3S 4/23/2015 µg/L	MW-3S 10/31/2017 µg/L	MW-3S 9/10/2019 µg/L
Analyte											
PCB-1016	-	0.50 U	0.53 U	0.5 U	0.5 U	0.63 U	0.91 U	0.5 U	0.48 U	0.4 U	0.4 U
PCB-1221	-	1.00 U	1.10 U	0.5 U	0.5 U	0.63 U	0.91 U	0.5 U	0.48 U	0.4 U	0.4 U
PCB-1232	-	0.50 U	0.53 U	0.5 U	0.5 U	0.63 U	0.91 U	0.5 U	0.48 U	0.4 U	0.4 U
PCB-1242	-	0.50 U	0.53 U	0.5 U	0.5 U	0.63 U	0.91 U	0.5 U	0.48 U	0.4 U	0.4 U
PCB-1248	-	0.40 J M	0.53 U	0.5 U	0.5 U	0.63 U	0.91 U	0.5 U	0.48 U	0.4 U	0.4 U
PCB-1254	-	0.50 U	0.53 U	0.5 U	0.5 U	0.63 U	0.91 U	0.5 U	0.48 U	0.4 U	0.4 U
PCB-1260	-	0.19 JMB	0.53 U	0.5 U	0.5 U	0.63 U	0.91 U	0.5 U	0.48 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	0.59	-	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

 - Concentration exceeds corresponding
NYSDEC Class GA Standard

¹ - DUP collected from MW-1D

U - Analyte not detected

J - Estimated value

M - Manual integrated compound

B - Analyte was detected in Method Blank.

NR - Not reported

NS - No sample. Container damaged.

Table 4-2

Summary of Groundwater Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class GA Standards	MW-3D 8/8/2007 µg/L	MW-3D 10/2/2008 µg/L	MW-3D 6/19/2009 µg/L	MW-3D 3/25/2010 µg/L	MW-3D 6/23/2011 µg/L	MW-3D 8/1/2012 µg/L	MW-3D 10/16/2013 µg/L	MW-3D 4/23/2015 µg/L	MW-3D 11/1/2017 µg/L	MW-3D 9/10/2019 µg/L
Analyte											
PCB-1016	-	0.5 U	0.93 U	0.54 U	0.54 U	0.5 U	1.2 U	0.77 U	0.73 U	0.4 U	0.4 U
PCB-1221	-	1.0 U	1.90 U	0.54 U	0.54 U	0.5 U	1.2 U	0.77 U	0.73 U	0.4 U	0.4 U
PCB-1232	-	0.5 U	0.93 U	0.54 U	0.54 U	0.5 U	1.2 U	0.77 U	0.73 U	0.4 U	0.4 U
PCB-1242	-	0.5 U	0.93 U	0.54 U	0.54 U	0.5 U	1.2 U	0.77 U	0.73 U	0.4 U	0.4 U
PCB-1248	-	0.5 U	0.93 U	0.54 U	0.54 U	0.5 U	1.2 U	0.77 U	0.73 U	0.4 U	0.4 U
PCB-1254	-	0.5 U	0.93 U	0.54 U	0.54 U	0.5 U	1.2 U	0.77 U	0.73 U	0.4 U	0.4 U
PCB-1260	-	0.5 U	0.93 U	0.54 U	0.54 U	0.5 U	1.2 U	0.77 U	0.73 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

- Concentration exceeds corresponding
NYSDEC Class GA Standard

¹ - DUP collected from MW-1D

U - Analyte not detected

J - Estimated value

M - Manual integrated compound

B - Analyte was detected in Method Blank.

NR - Not reported

NS - No sample. Container damaged.

Table 4-2

Summary of Groundwater Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class GA Standards	MW-4S 8/7/2007 µg/L	MW-4S 10/1/2008 µg/L	MW-4S 6/18/2009 µg/L	MW-4S 3/24/2010 µg/L	MW-4S 6/22/2011 µg/L	MW-4S 8/1/2012 µg/L	MW-4S 10/16/2013 µg/L	MW-4S 4/23/2015 µg/L	MW-4S 11/1/2017 µg/L	MW-4S 9/10/2019 µg/L
Analyte											
PCB-1016	-	0.56 U	0.54 U	0.5 U	0.54 U	0.5 U	0.47 U	0.49 U	0.49 U	0.4 U	0.4 U
PCB-1221	-	1.10 U	1.10 U	0.5 U	0.54 U	0.5 U	0.47 U	0.49 U	0.49 U	0.4 U	0.4 U
PCB-1232	-	0.56 U	0.54 U	0.5 U	0.54 U	0.5 U	0.47 U	0.49 U	0.49 U	0.4 U	0.4 U
PCB-1242	-	0.56 U	0.54 U	0.5 U	0.54 U	0.5 U	0.47 U	0.49 U	0.49 U	0.4 U	0.4 U
PCB-1248	-	0.56 U	0.54 U	0.5 U	0.54 U	0.5 U	0.47 U	0.49 U	0.49 U	0.4 U	0.4 U
PCB-1254	-	0.56 U	0.54 U	0.5 U	0.54 U	0.5 U	0.47 U	0.49 U	0.49 U	0.4 U	0.4 U
PCB-1260	-	0.56 U	0.54 U	0.5 U	0.54 U	0.5 U	0.47 U	0.49 U	0.49 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

- Concentration exceeds corresponding
NYSDEC Class GA Standard

¹ - DUP collected from MW-1D

U - Analyte not detected

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B - Analyte was detected in Method Blank.

NR - Not reported

NS - No sample. Container damaged.

Table 4-2

Summary of Groundwater Sampling Results - PCBs
Columbia Mills
Minetto, New York
NYSDEC Site No. 7-38-012

Sample Date Units	NYSDEC Class GA Standards	MW-4D 8/7/2007 µg/L	MW-4D 10/1/2008 µg/L	MW-4D 6/18/2009 µg/L	MW-4D 3/24/2010 µg/L	MW-4D 6/22/2011 µg/L	MW-4D 7/30/2012 µg/L	MW-4D 10/16/2013 µg/L	MW-4D 4/23/2015 µg/L	MW-4D 11/1/2017 µg/L	MW-4D 9/10/2019 µg/L
Analyte											
PCB-1016	-	0.61 U	0.52 U	0.5 U	0.52 U	0.5 U	0.47 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1221	-	1.20 U	1.00 U	0.5 U	0.52 U	0.5 U	0.47 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1232	-	0.61 U	0.52 U	0.5 U	0.52 U	0.5 U	0.47 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1242	-	0.61 U	0.52 U	0.5 U	0.52 U	0.5 U	0.47 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1248	-	0.61 U	0.52 U	0.5 U	0.52 U	0.5 U	0.47 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1254	-	0.61 U	0.52 U	0.5 U	0.52 U	0.5 U	0.47 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1260	-	0.61 U	0.52 U	0.5 U	0.52 U	0.5 U	0.47 U	0.48 U	0.47 U	0.4 U	0.4 U
PCB-1262	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
PCB-1268	-	NR	NR	NR	NR	NR	NR	NR	NR	0.4 U	0.4 U
Total PCBs	0.09	-	-	-	-	-	-	-	-	-	-

Notes:

µg/L - micrograms per liter

- Concentration exceeds corresponding
NYSDEC Class GA Standard

¹ - DUP collected from MW-1D

U - Analyte not detected

J - Estimated value

M - Manual integrated compound

B - Analyte was detected in Method Blank.

NR - Not reported

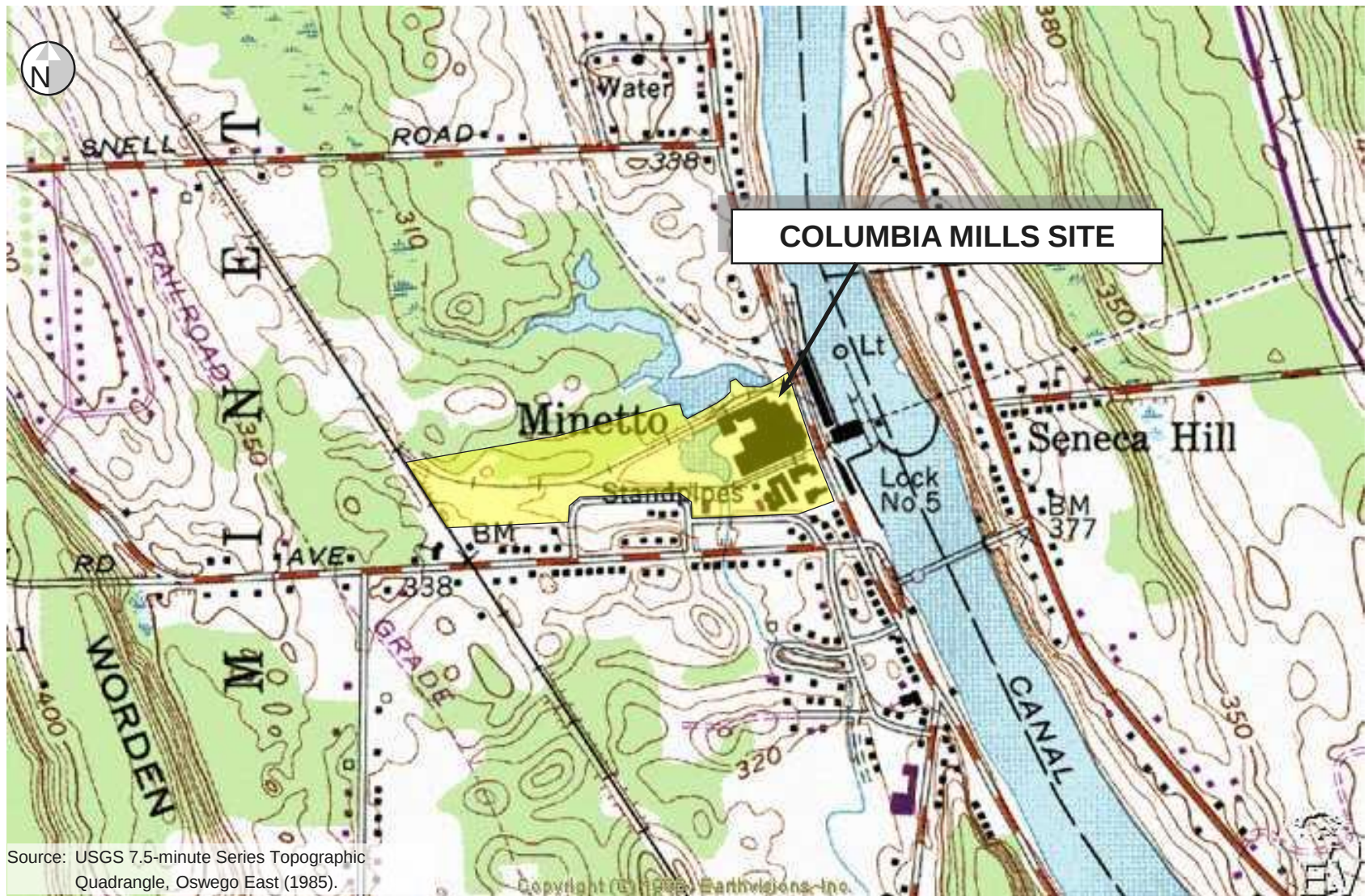
NS - No sample. Container damaged.

FIGURES



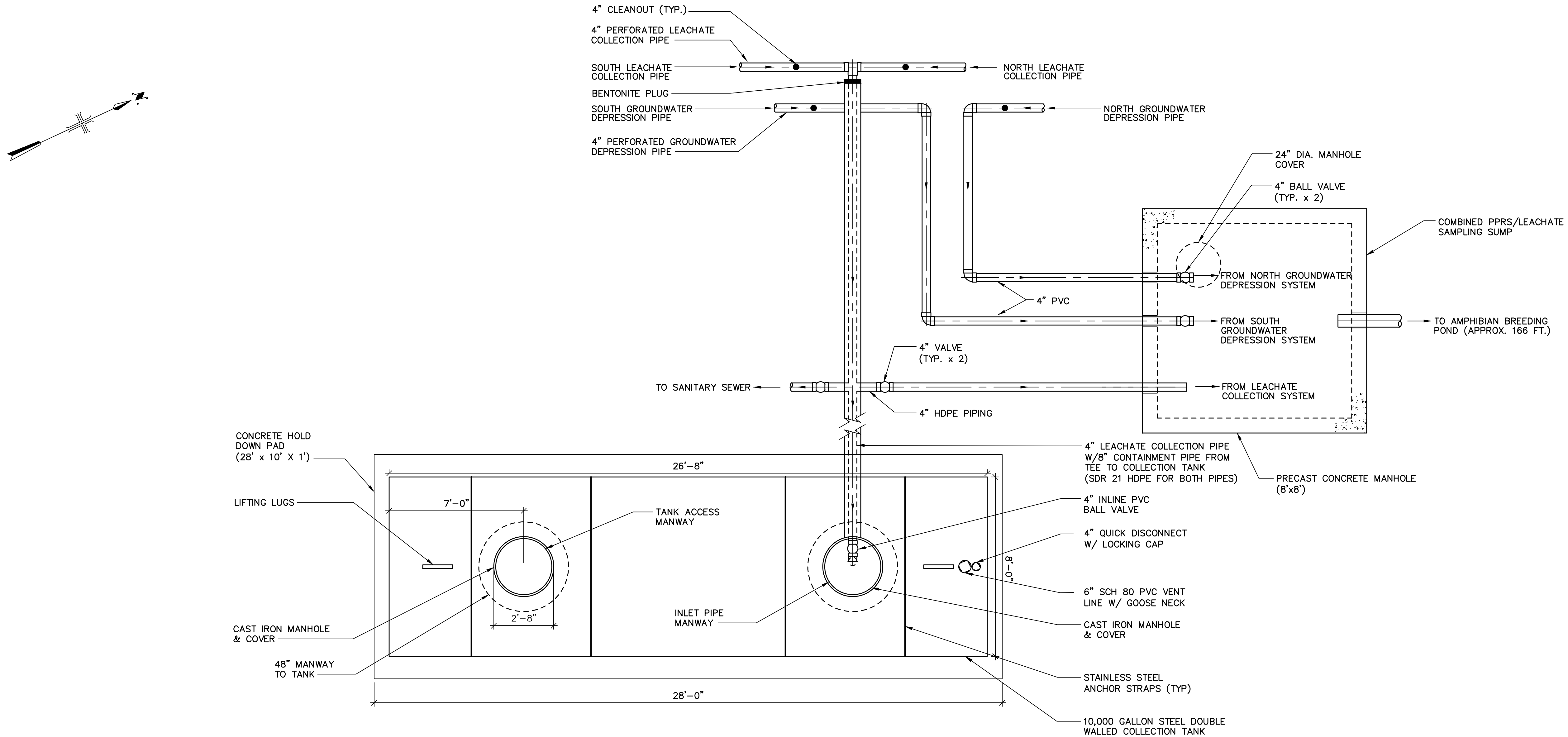
Figure 2-1 Site Location

Columbia Mills Site
NYSDEC Site 7-38-012



0  2,000 ft

XREFS: I:\ACAD\STANDARD-ARCADIS\Logos\ARCADIS-LOGO-ENG-COLOR.dwg IMAGES: None
User: Lewonowski, Spec: PIRNIE STANDARD File: I:\ACAD\PROJ\0266\363\Figures\FIGURE 2-2 2009 REPORT.DWG Scale: 1:1 Date: 09/23/2011 Time: 13:29 Layout: Layout1



LEACHATE COLLECTION
TANK PIPING
PLAN VIEW

SCALE: 3/16" = 1'-0"

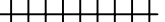
SOURCE: MALCOLM PIRNIE REMEDIAL LANDFILL DESIGN DRAWINGS (MARCH 1995) AND 2009 MALCOM PIRNIE DYE TESTING AT THE SITE.

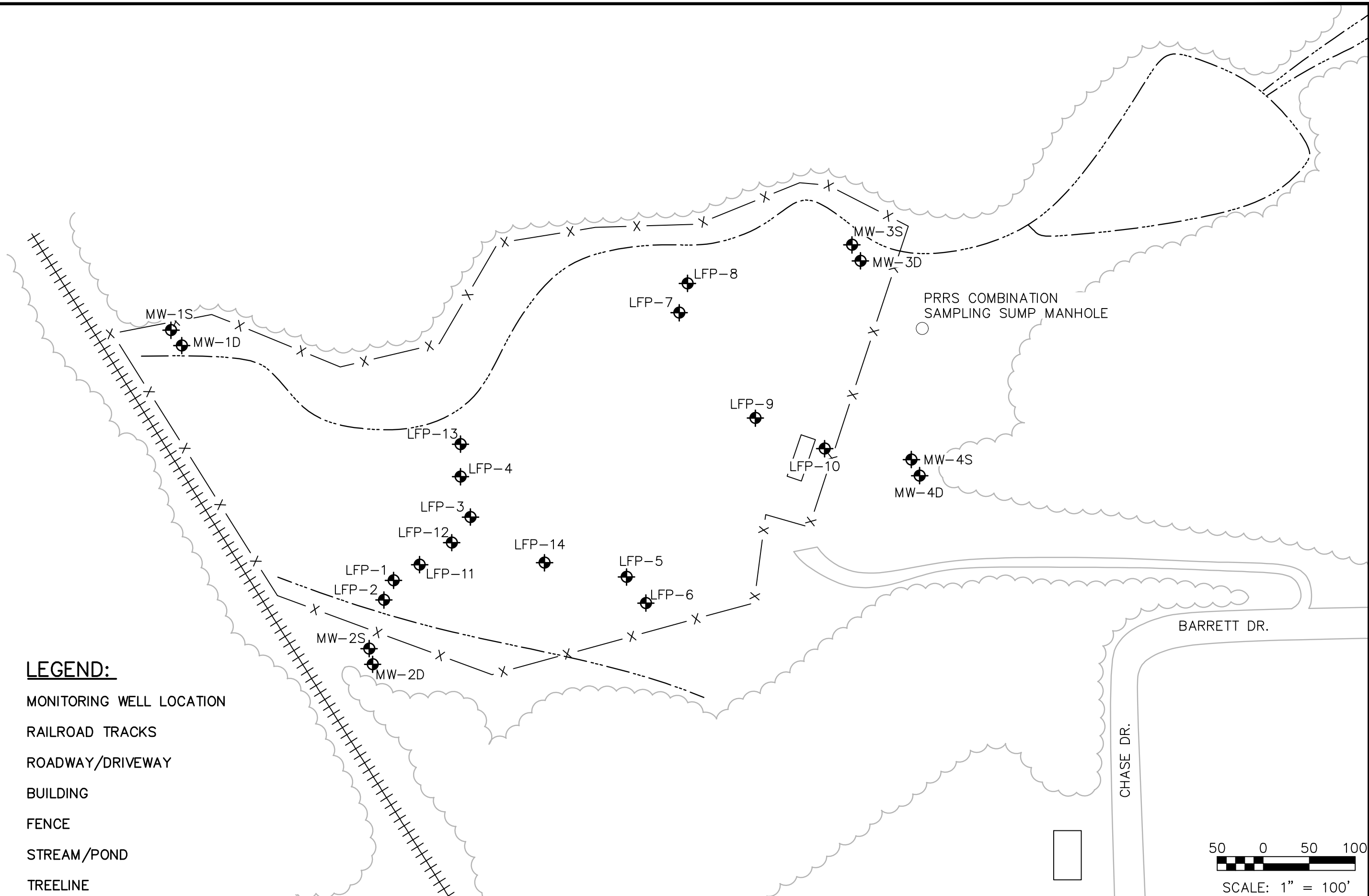


USER: JMUILLINS FILENAME: G:\ACAD\PROJ\00266405.0000\FIGURES\FIGURE 4-1.DWG SAVE DATE: 9/30/2019 7:18 PM PLOT DATE: 9/30/2019 7:19 PM



LEGEND:

- MW-2S  MONITORING WELL LOCATION
-  RAILROAD TRACKS
-  ROADWAY/DRIVEWAY
-  BUILDING
-  FENCE
-  STREAM/POND
-  TREELINE



NYSDEC STANDBY CONTRACT NO. D007618-10
NYSDEC SITE NO. 7-38-012
COLUMBIA MILLS SITE
MINETTO, NEW YORK

GROUNDWATER MONITORING WELL LOCATIONS

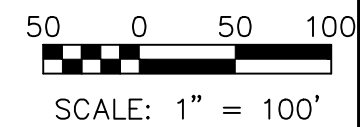
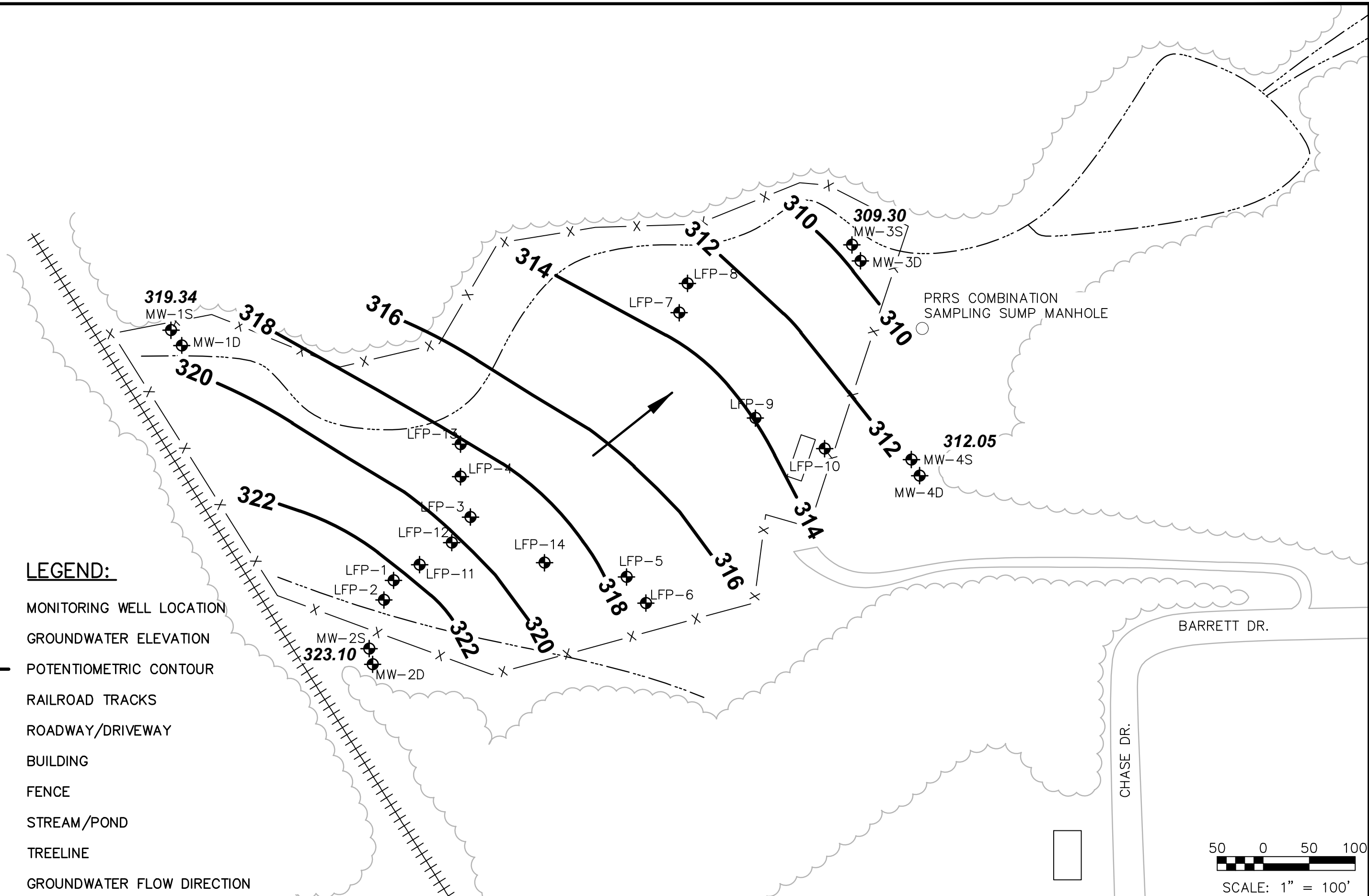
SCALE: AS SHOWN

FIGURE 4-1

USER: J\MULLINS FILENAME: G:\ACAD\PROJ\00266405.0000\FIGURES\SHALLOW POT 2019.DWG SAVE DATE: 9/30/2019 7:38 PM PLOT DATE: 9/30/2019 7:39 PM



- LEGEND:**
- MW-2S MONITORING WELL LOCATION
 - 309.30 GROUNDWATER ELEVATION
 - 310 POTENTIOMETRIC CONTOUR
 - RAILROAD TRACKS
 - ROADWAY/DRIVEWAY
 - BUILDING
 - FENCE
 - STREAM/POND
 - TREELINE
 - GROUNDWATER FLOW DIRECTION



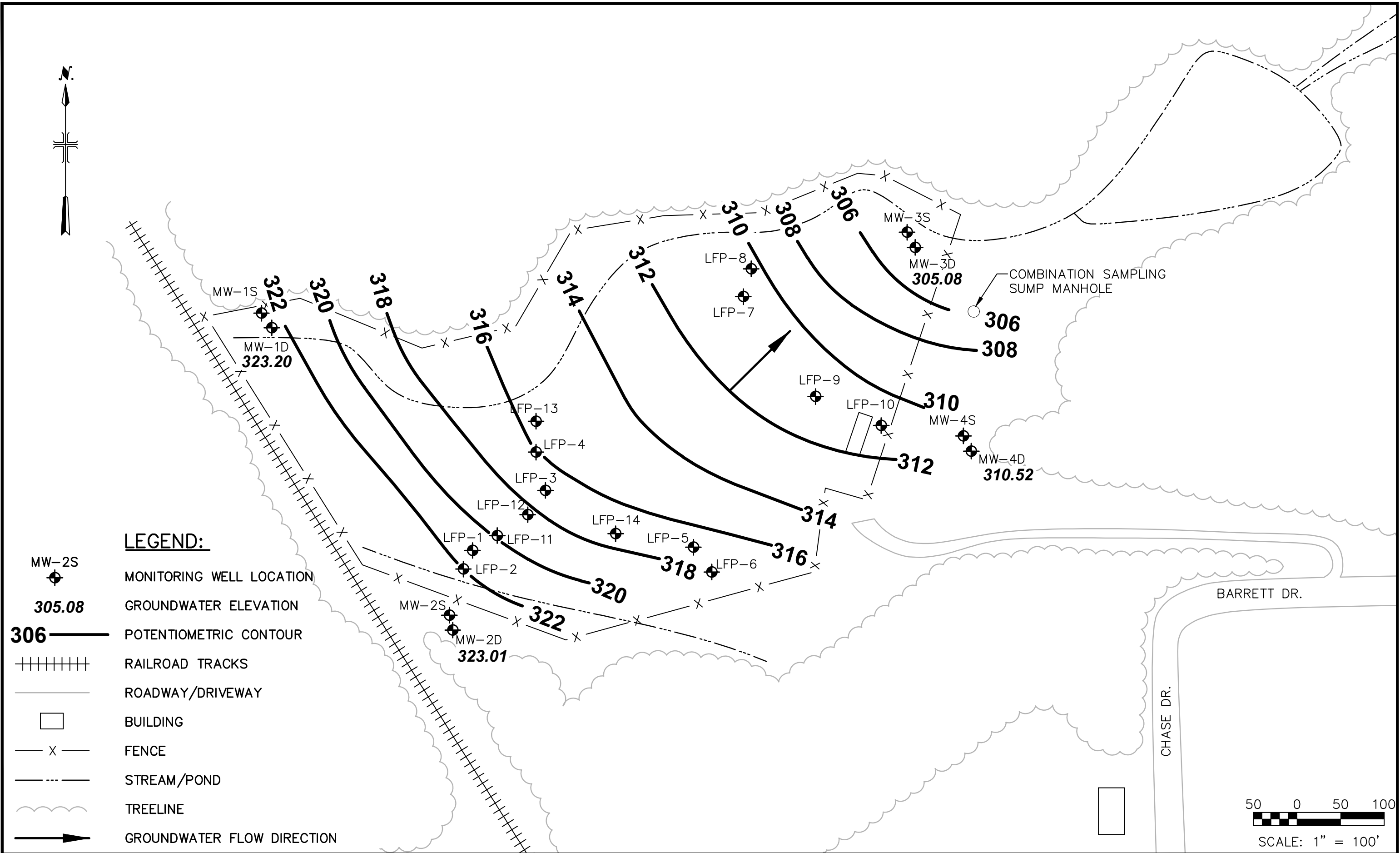
NYSDEC STANDBY CONTRACT NO. D007618-10
NYSDEC SITE NO. 7-38-012
COLUMBIA MILLS SITE
MINETTO, NEW YORK

SHALLOW POTENTIOMETRIC SURFACE

SCALE: AS SHOWN

SEPTEMBER 2019
FIGURE 4-2

USER: JMUILLINS FILENAME: G:\ACAD\PROJ\00266405.0000\FIGURES\DEEP POT 2019.DWG SAVE DATE: 9/30/2019 8:03 PM PLOT DATE: 9/30/2019 8:04 PM



NYSDEC STANDBY CONTRACT NO. D007618-10
NYSDEC SITE NO. 7-38-012
COLUMBIA MILLS SITE
MINETTO, NEW YORK

DEEP POTENTIOMETRIC SURFACE

SCALE: AS SHOWN

SEPTEMBER 2019
FIGURE 4-3

APPENDIX A

Post Closure Inspection Forms and Site Photographs



Inspected by: Jasmine Mullins

Date: 9/10/19 Time: 1530

Weather Conditions: Sunny @ 69°F

Erosion	☒	YES	☒	NO
Holes or Cracks in Cover	☒	YES	☒	NO
Cap Settlement	☒	YES	☒	NO
Ponded Water or Wet Areas	☒	YES	☒	NO
Burrowing Rodents	☒	YES	☒	NO
Sparse Vegetation/Bare Soil	☒	YES	☒	NO
Brush or Other Woody Vegetation,	☒	YES	☐	NO
Excessive Weeds in Grass	☒	YES	☐	NO
Grass Mowed	☒	YES	☒	NO

Damage	<u> </u>	YES	<u>✓</u>	NO
Obstructions	<u> </u>	YES	<u>✓</u>	NO

Erosion	☒	YES	☒	NO
Obstructions	☒	YES	☒	NO
Sediment Accumulation	☒	YES	☒	NO
Evidence of Surcharging	☒	YES	☒	NO
Presence of Brush	☒	YES	☐	NO

Comments: _____

Continued

FENCING

Warning Signs	☒	OK	☐	OTHER
Gates and Locks	☒	OK	☐	OTHER
Posts	☒	OK	☐	OTHER
Top Tension Wire	☒	OK	☐	OTHER
Barbed Wire	☐	OK	☒	OTHER

MONITORING WELLS

Capped and Locked	☒	YES	☐	NO
Casing Damage	☒	YES	☐	NO
ID Visible	☒	YES	☐	NO

PIEZOMETERS

Riser Damage	☒	YES	☐	NO
Capped	☒	YES	☐	NO
ID Visible	☐	YES	☒	NO

AMPHIBIAN BREEDING POND

Discharge Pipe from Sampling Sump	☒	OK	☐	OTHER
Discharge Weir	☒	OK	☐	OTHER
Erosion	☐	YES	☒	NO
Obstructions	☒	YES	☐	NO

Comments: Barbed wire is not installed; monitoring wells MW-45/1
are bent at top of casing but still operational and lockable.
Weeds removed from discharge weir.

Continued

PORE-PRESSURE RELIEF SYSTEM

Cleanout Damage	_____	YES	<u>✓</u>	NO
Cleanouts Capped	<u>✓</u>	YES	_____	NO
North PPRS - Est. Flow Rate			<u>< 2-5</u>	GPM
South PPRS - Est. Flow Rate			<u>< 2-5</u>	GPM
Sediment Accumulation in Sampling Sump	_____	YES	<u>✓</u>	NO
Discharge to ABP Blocked	_____	YES	<u>✓</u>	NO

LEACHATE COLLECTION SYSTEM

Current Discharge Location	_____	Sample Sump	_____	Storage Tank	<u>✓</u>	Sanitary Sewer
Sample Sump Condition		<u>✓</u>	OK			OTHER
Tank Level		<u>19.71 ft</u>	DTW	<u>21.5 ft</u>		DTB
Control Valve Operation:	Sample Sump	<u>✓</u>	OK			OTHER
	Storage Tank	<u>N/A</u>	OK			OTHER
	Sanitary Sewer	<u>✓</u>	OK			OTHER
Estimated Flow Rate				<u>< 2-5</u>		GPM

Comments: _____

DATE

9/10/19

INSPECTOR'S SIGNATURE

[Signature]

Appendix A Site Photographs

Columbia Mills Site
NYSDEC Site #7-38-012
Minetto, New York



Exposed road fabric on access road

Appendix A Site Photographs

Columbia Mills Site
NYSDEC Site #7-38-012
Minetto, New York



North side of landfill, facing west.



East side of landfill, facing south

Appendix A Site Photographs

Columbia Mills Site
NYSDEC Site #7-38-012
Minetto, New York



Northwest corner of landfill, facing east



East side of landfill, facing east

Appendix A Site Photographs

Columbia Mills Site
NYSDEC Site #7-38-012
Minetto, New York



MW-1S



MW-1D

Appendix A Site Photographs

Columbia Mills Site
NYSDEC Site #7-38-012
Minetto, New York



MW-2S



MW-2D

Appendix A Site Photographs

Columbia Mills Site
NYSDEC Site #7-38-012
Minetto, New York



MW-3S



MW-3D

Appendix A Site Photographs

Columbia Mills Site
NYSDEC Site #7-38-012
Minetto, New York



MW-4S



MW-4D

APPENDIX B

Field Sampling Logs



Groundwater Monitoring Well Inspection

Site/Project Name: Columbia Mills Project Number: 00266405.0000
 Date of Inspection: 7/10/19 Inspector: J. Mullins / S. Tweedie
 Well Designation: MW-15
 Well Location: NW corner of LF

Outward Appearance

Flushmount Diameter _____ inches N/A ☒
 Approximate Stickup Height ~2.5 feet N/A ☐
 Integrity of Protective Casing Describe: Good
 Protective Casing Material Steel ☒ Stainless Steel ☐ Other _____
 Protective Casing Width or Dia. 5 inches
 Weep Hole in Protective Casing Yes ☐ No ☒
 Surface Seal/Apron Material Cement ☒ Bentonite ☐ Not apparent ☐ Other _____
 Integrity of Surface Seal/Apron Describe: Somewhat chipped on top portion
 Surface Drainage Away from Wellhead ☒ Toward Wellhead ☐
 Bollards Present? Yes ☐ No ☒ Describe: _____
 Well ID. Visible? Yes ☒ No ☐ Describe: On casing
 Lock Present and Functional? Yes ☒ No ☐ Describe: _____
 Photograph Taken? Photo # Yes ☒ No ☐ Describe: _____

Inner Appearance

Integrity of Well Casing Describe: OK
 Integrity of Cap Seal Describe: Good
 Surface Water in Casing? Yes ☒ No ☐ Describe: _____
 Well Casing Diameter 2 inches
 Well Casing Material PVC ☒ Steel ☐ Stainless Steel ☐
 Inner Cap Threaded ☐ Slip ☒ Expansion Plug ☐ None ☐
 Reference/Measuring Point Groove ☐ Indelible Mark ☒ None ☐
 Evidence of Double Casing? Yes ☐ No ☒ Describe: _____

Downhole

Odor Yes ☐ No ☒ Describe: _____
 PID Reading 0.0 ppm
 Depth to Water (to top of casing) 5.51 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A ☒
 Total Well Depth (to top of casing) 16.80 feet (nearest 0.1)
 Sediment (Hard/Soft Bottom) Describe: Hard Bottom

Additional Comments:

Site/Project Name: Columbia Mills Project Number: 00266405.0000
 Date of Inspection: 9/10/19 Inspector: J. Mullins / S. Tweedie
 Well Designation: MW-1D
 Well Location: NW corner of LF

Outward Appearance

Flushmount Diameter _____ inches N/A ☒
 Approximate Stickup Height ~2 feet N/A ☐
 Integrity of Protective Casing Describe: Good
 Protective Casing Material Steel ☒ Stainless Steel ☐ Other _____
 Protective Casing Width or Dia. 4 inches
 Weep Hole in Protective Casing Yes ☐ No ☒
 Surface Seal/Apron Material Cement ☒ Bentonite ☐ Not apparent ☐ Other _____
 Integrity of Surface Seal/Apron Describe: Good
 Surface Drainage Away from Wellhead ☒ Toward Wellhead ☐
 Bollards Present? Yes ☐ No ☒ Describe: _____
 Well ID. Visible? Yes ☒ No ☐ Describe: on casing
 Lock Present and Functional? Yes ☒ No ☐ Describe: _____
 Photograph Taken? Photo # Yes ☒ No ☐ Describe: _____

Inner Appearance

Integrity of Well Casing Describe: Good
 Integrity of Cap Seal Describe: Good
 Surface Water in Casing? Yes ☒ No ☐ Describe: _____
 Well Casing Diameter 2 inches
 Well Casing Material PVC ☒ Steel ☐ Stainless Steel ☐
 Inner Cap Threaded ☐ Slip ☒ Expansion Plug ☐ None ☐
 Reference/Measuring Point Groove ☐ Indelible Mark ☐ None ☐
 Evidence of Double Casing? Yes ☐ No ☒ Describe: _____

Downhole

Odor Yes ☐ No ☒ Describe: _____
 PID Reading 0.0 ppm
 Depth to Water (to top of casing) 2.00 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A ☒
 Total Well Depth (to top of casing) 26.85 feet (nearest 0.1)
 Sediment (Hard/Soft Bottom) Describe: Firm bottom

Additional Comments:

Double checked depth to bottom as historical logs indicated deeper... Confirmed measured total depth on 9/10 is 26.85 measured to top of PVC.

Site/Project Name: Columbia Mills Project Number: 00266405.0000
 Date of Inspection: 9/10/19 Inspector: J. Mullins / S. Tweedie
 Well Designation: MW-25
 Well Location: SW corner of LF; outside of fence line

Outward Appearance

Flushmount Diameter _____ inches N/A ☒
 Approximate Stickup Height ~2.5 feet N/A ☐
 Integrity of Protective Casing Describe: Good
 Protective Casing Material Steel ☒ Stainless Steel ☐ Other _____
 Protective Casing Width or Dia. 5 inches
 Weep Hole in Protective Casing Yes ☐ No ☒
 Surface Seal/Apron Material Cement ☐ Bentonite ☐ Not apparent ☒ Other _____
 Integrity of Surface Seal/Apron Describe: Overgrown by grass
 Surface Drainage Away from Wellhead ☒ Toward Wellhead ☐
 Bollards Present? Yes ☐ No ☒ Describe: _____
 Well ID. Visible? Yes ☒ No ☐ Describe: On casing
 Lock Present and Functional? Yes ☒ No ☐ Describe: _____
 Photograph Taken? Photo # Yes ☒ No ☐ Describe: _____

Inner Appearance

Integrity of Well Casing Describe: Good
 Integrity of Cap Seal Describe: Good
 Surface Water in Casing? Yes ☒ No ☐ Describe: _____
 Well Casing Diameter 2 inches
 Well Casing Material PVC ☒ Steel ☐ Stainless Steel ☐
 Inner Cap Threaded ☐ Slip ☒ Expansion Plug ☐ None ☐
 Reference/Measuring Point Groove ☐ Indelible Mark ☒ None ☐
 Evidence of Double Casing? Yes ☐ No ☒ Describe: _____

Downhole

Odor Yes ☐ No ☐ Describe: _____
 PID Reading 0.0 ppm
 Depth to Water (to top of casing) 12.83 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A ☒
 Total Well Depth (to top of casing) 17.40 feet (nearest 0.1)
 Sediment (Hard/Soft Bottom) Describe: Hard Bottom

Additional Comments:

Groundwater Monitoring Well Inspection

Site/Project Name: Columbia Mills Project Number: 00266405.0000
Date of Inspection: 9/10/19 Inspector: J. Mullins / S. Tweedie
Well Designation: MW-2D
Well Location: SW corner of LF; outside of fence line

Outward Appearance

Flushmount Diameter _____ inches N/A ☒
Approximate Stickup Height ~2.5 feet N/A ☐
Integrity of Protective Casing Describe: Good
Protective Casing Material Steel ☒ Stainless Steel ☐ Other _____
Protective Casing Width or Dia. _____ inches
Weep Hole in Protective Casing Yes ☐ No ☒
Surface Seal/Apron Material Cement ☐ Bentonite ☐ Not apparent ☒ Other _____
Integrity of Surface Seal/Apron Describe: Grown over by grass
Surface Drainage Away from Wellhead ☒ Toward Wellhead ☐
Bollards Present? Yes ☐ No ☒ Describe: _____
Well ID. Visible? Yes ☒ No ☐ Describe: on casing
Lock Present and Functional? Yes ☒ No ☐ Describe: _____
Photograph Taken? Photo # Yes ☒ No ☐ Describe: _____

Inner Appearance

Integrity of Well Casing Describe: Good
Integrity of Cap Seal Describe: Good
Surface Water in Casing? Yes ☒ No ☐ Describe: _____
Well Casing Diameter 2 inches
Well Casing Material PVC ☒ Steel ☐ Stainless Steel ☐
Inner Cap Threaded ☐ Slip ☒ Expansion Plug ☐ None ☐
Reference/Measuring Point Groove ☐ Indelible Mark ☒ None ☐
Evidence of Double Casing? Yes ☐ No ☒ Describe: _____

Downhole

Odor Yes ☐ No ☒ Describe: _____
PID Reading 0.0 ppm
Depth to Water (to top of casing) 12.89 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A ☒
Total Well Depth (to top of casing) 27.40 feet (nearest 0.1)
Sediment (Hard/Soft Bottom) Describe: Hard Bottom

Additional Comments:

Groundwater Monitoring Well Inspection

Site/Project Name: Columbia Mills Project Number: 00266405.0000

Date of Inspection: 9/10/19 Inspector: J. Mullins

Well Designation: MW-3S

Well Location: Inside NE corner of Fence Line

Outward Appearance

Flushmount Diameter inches N/A ☒
 Approximate Stickup Height 2 feet N/A ☐
 Integrity of Protective Casing Describe: GOOD
 Protective Casing Material Steel ☒ Stainless Steel ☐ Other
 Protective Casing Width or Dia. 5 inches
 Weep Hole in Protective Casing Yes ☐ No ☒
 Surface Seal/Apron Material Cement ☐ Bentonite ☐ Not apparent ☒ Other
 Integrity of Surface Seal/Apron Describe: COVERED BY SOIL/GRASS
 Surface Drainage Away from Wellhead ☒ Toward Wellhead ☐
 Bollards Present? Yes ☒ No ☒ Describe: Tee Posts
 Well ID. Visible? Yes ☒ No ☐ Describe:
 Lock Present and Functional? Yes ☒ No ☐ Describe:
 Photograph Taken? Photo # Yes ☒ No ☐ Describe:

Inner Appearance

Integrity of Well Casing Describe: GOOD
 Integrity of Cap Seal Describe: GOOD
 Surface Water in Casing? Yes ☐ No ☒ Describe:
 Well Casing Diameter 2 inches
 Well Casing Material PVC ☒ Steel ☐ Stainless Steel ☐
 Inner Cap Threaded ☐ Slip ☒ Expansion Plug ☐ None ☐
 Reference/Measuring Point Groove ☐ Indelible Mark ☒ None ☐
 Evidence of Double Casing? Yes ☐ No ☒ Describe:

Downhole

Odor Yes ☐ No ☒ Describe:
 PID Reading 2.3 ppm
 Depth to Water (to top of casing) 6.72 feet (nearest 0.01) Depth to LNAPL feet (nearest 0.01) N/A ☒
 Total Well Depth (to top of casing) 17.73 feet (nearest 0.1)
 Sediment (Hard/Soft Bottom) Describe: FIRM BOTTOM

Additional Comments:

PID readings not likely erroneous due to spraying of wasp & hornet
killer spray ~30 minutes prior to groundwater sampling & purging.

Groundwater Monitoring Well Inspection

Site/Project Name: Columbia Mills Project Number: 00266405.0000
Date of Inspection: 9/18/19 Inspector: J. Mullins
Well Designation: MW-3D
Well Location: Inside NE corner of Fence Line

Outward Appearance

Flushmount Diameter _____ inches N/A ☒
Approximate Stickup Height ~2.5 feet N/A ☐
Integrity of Protective Casing Describe: Good
Protective Casing Material Steel ☒ Stainless Steel ☐ Other _____
Protective Casing Width or Dia. 5 inches
Weep Hole in Protective Casing Yes ☐ No ☒
Surface Seal/Apron Material Cement ☐ Bentonite ☐ Not apparent ☒ Other _____
Integrity of Surface Seal/Apron Describe: covered by soil/grass
Surface Drainage Away from Wellhead ☒ Toward Wellhead ☐
Bollards Present? Yes ☒ No ☒ Describe: TREE POSTS ADJACENT
Well ID. Visible? Yes ☒ No ☐ Describe: _____
Lock Present and Functional? Yes ☒ No ☐ Describe: _____
Photograph Taken? Photo # Yes ☒ No ☐ Describe: _____

Inner Appearance

Integrity of Well Casing Describe: Good
Integrity of Cap Seal Describe: Good
Surface Water in Casing? Yes ☒ No ☐ Describe: _____
Well Casing Diameter 2 inches
Well Casing Material PVC ☒ Steel ☐ Stainless Steel ☐
Inner Cap Threaded ☐ Slip ☐ Expansion Plug ☒ None ☐
Reference/Measuring Point Groove ☐ Indelible Mark ☒ None ☐
Evidence of Double Casing? Yes ☐ No ☒ Describe: _____

Downhole

Odor Yes ☐ No ☒ Describe: _____
PID Reading 0.5 ppm
Depth to Water (to top of casing) 10.71 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A ☒
Total Well Depth (to top of casing) 26.5 feet (nearest 0.1)
Sediment (Hard/Soft Bottom) Describe: HARD BOTTOM

Additional Comments:

Groundwater Monitoring Well Inspection



Site/Project Name: Columbia Mills Project Number: 00266405.0000
 Date of Inspection: 9/10/19 Inspector: J. Mullins
 Well Designation: MW-45
 Well Location: SE of LF; outside of Fence line

Outward Appearance

Flushmount Diameter _____ inches N/A [☒]
 Approximate Stickup Height ≈2.0 feet N/A [☐]
 Integrity of Protective Casing Describe: Top of casing bent/damaged
 Protective Casing Material Steel [☒] Stainless Steel [☐] Other _____
 Protective Casing Width or Dia. 5 inches
 Weep Hole in Protective Casing Yes [☐] No [☒]
 Surface Seal/Apron Material Cement [☐] Bentonite [☐] Not apparent [☒] Other _____
 Integrity of Surface Seal/Apron Describe: COVERED BY SOIL / GRASS
 Surface Drainage Away from Wellhead [☒] Toward Wellhead [☐]
 Bollards Present? Yes [☐] No [☒] Describe: _____
 Well ID. Visible? Yes [☒] No [☐] Describe: _____
 Lock Present and Functional? Yes [☒] No [☐] Describe: _____
 Photograph Taken? Photo # Yes [☒] No [☐] Describe: _____

Inner Appearance

Integrity of Well Casing Describe: FAIR
 Integrity of Cap Seal Describe: GOOD
 Surface Water in Casing? Yes [☒] No [☐] Describe: _____
 Well Casing Diameter 2 inches
 Well Casing Material PVC [☒] Steel [☐] Stainless Steel [☐]
 Inner Cap Threaded [☐] Slip [☒] Expansion Plug [☐] None [☐]
 Reference/Measuring Point Groove [☐] Indelible Mark [☒] None [☐]
 Evidence of Double Casing? Yes [☐] No [☒] Describe: _____

Downhole

Odor Yes [☐] No [☒] Describe: _____
 PID Reading 0.0 ppm
 Depth to Water (to top of casing) 9.58 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A [☒]
 Total Well Depth (to top of casing) 14.16 feet (nearest 0.1)
 Sediment (Hard/Soft Bottom) Describe: HARD BOTTOM

Additional Comments:

Site/Project Name: Columbia Mills Project Number: 00266405.0000
 Date of Inspection: 9/10/19 Inspector: J. Mullins
 Well Designation: MW-4D
 Well Location: SE of LF; outside of fence line

Outward Appearance

Flushmount Diameter inches N/A ☒
 Approximate Stickup Height ≈2.0 feet N/A ☐
 Integrity of Protective Casing Describe: Top of casing bent/damaged
 Protective Casing Material Steel ☒ Stainless Steel ☐ Other
 Protective Casing Width or Dia. 5 inches
 Weep Hole in Protective Casing Yes ☐ No ☒
 Surface Seal/Apron Material Cement ☐ Bentonite ☐ Not apparent ☒ Other
 Integrity of Surface Seal/Apron Describe: COVERED BY SOIL/GRASS
 Surface Drainage Away from Wellhead ☒ Toward Wellhead ☐
 Bollards Present? Yes ☐ No ☒ Describe:
 Well ID. Visible? Yes ☒ No ☐ Describe:
 Lock Present and Functional? Yes ☒ No ☐ Describe:
 Photograph Taken? Photo # Yes ☒ No ☐ Describe:

Inner Appearance

Integrity of Well Casing Describe: FAIR
 Integrity of Cap Seal Describe: GOOD
 Surface Water in Casing? Yes ☒ No ☐ Describe:
 Well Casing Diameter 2 inches
 Well Casing Material PVC ☒ Steel ☐ Stainless Steel ☐
 Inner Cap Threaded ☐ Slip ☒ Expansion Plug ☐ None ☐
 Reference/Measuring Point Groove ☐ Indelible Mark ☒ None ☐
 Evidence of Double Casing? Yes ☐ No ☒ Describe:

Downhole

Odor Yes ☐ No ☒ Describe:
 PID Reading 0.0 ppm
 Depth to Water (to top of casing) 10.74 feet (nearest 0.01) Depth to LNAPL feet (nearest 0.01) N/A ☒
 Total Well Depth (to top of casing) 27.12 feet (nearest 0.1)
 Sediment (Hard/Soft Bottom) Describe: SOFT/FIRM BOTTOM

Additional Comments:

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	MW-1S		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, ~70°F	
Measuring Pt. Description	TOC	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material:	PVC ☒	SS ☐
Total Depth (ft-bmp)	16.80	Static Water Level (ft-bmp)	5.51	Water Column in Well (ft.)		Gallons in Well	1.8	
MP Elevation		Pump Intake (ft-bmp)	~14	Volumes Purged		Gallons Purged	~1.8	
Sample Method	Grab	Pump On/Off	1345/1430	Sample Time	Label 1425 Start 1425 End 1430	Purge Method	Centrifugal ☐ Submersible ☐ Disp. Bailer ☐ Other Peristaltic ☐	
Replicate/Code No.		Sampled By	S. Tweedie					

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1350	0		5.79	0.2	7.79	0.345	33.7	0.08	15.20	-90	clear	none
1355	5		5.80	0.3	7.77	0.348	16.0	0.00	15.04	-115	clear	none
1400	10		5.80	0.5	7.77	0.357	2.7	0.00	14.96	-125	clear	none
1405	15		5.85	0.8	7.77	0.358	2.7	0.00	15.15	-125	clear	none
1410	20		5.85	1.2	7.77	0.359	0.0	0.00	15.20	-126	clear	none
1415	25		5.85	1.5	7.77	0.360	0.0	0.00	15.25	-127	clear	none
1420	30		5.85	1.8	7.77	0.361	0.0	0.00	15.26	-129	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	NW corner of landfill	Well Locked at Arrival:	Yes
Condition of Well:	Good	Well Locked at Departure:	Yes
Well Completion:	Stick Up	Key Number To Well:	0344

NOTES:

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No. <u>00266405.0000</u>		Well ID <u>MW-1D</u>		Date <u>9/10/2019</u>
Project Name/Location <u>Columbia Mills</u>				Weather <u>Sunny, 70°F</u>
Measuring Pt. Description <u>TOC</u>	Screen Setting (ft-bmp) _____	Casing Diameter (in.) <u>2</u>	Well Material: PVC ☒ SS ☐	
Total Depth (ft-bmp) <u>26.85</u>	Static Water Level (ft-bmp) <u>2.00</u>	Water Column in Well (ft.) <u>24.85</u>	Gallons in Well <u>3.9</u>	
MP Elevation _____	Pump Intake (ft-bmp) <u>~25</u>	Volumes Purged _____	Gallons Purged <u>1.7</u>	
Sample Method <u>Grab</u>	Pump On/Off <u>1445/1530</u>	Sample Time Label <u>1525</u>	Purge Method _____	
		Start <u>1525</u>	Centrifugal _____	
		End <u>1530</u>	Submersible _____	
Replicate/Code No. <u>MW-X-DUP</u>	Sampled By <u>S. Tweedie</u>		Disp. Bailer _____	
			Other <u>Peristaltic</u>	

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1450	0		2.20	0.2	7.98	0.322	12.2	0.38	14.97	-143	clear	none
1455	5		2.25	0.5	7.98	0.320	7.6	0.00	14.76	-152	clear	none
1500	10		2.30	0.7	7.92	0.311	0.0	0.00	14.71	-152	clear	none
1505	15		2.35	1.0	7.88	0.302	0.0	0.00	14.72	-151	clear	none
1510	20		2.40	1.2	7.86	0.300	0.0	0.00	14.24	-148	clear	none
1515	25		2.45	1.5	7.84	0.297	0.0	0.00	14.29	-147	clear	none
1520	30		2.50	1.7	7.84	0.296	0.0	0.00	14.30	-146	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location: <u>NW corner of landfill</u>	Well Locked at Arrival: <u>Yes</u>
Condition of Well: <u>Good</u>	Well Locked at Departure: <u>Yes</u>
Well Completion: <u>Stick Up</u>	Key Number To Well: <u>0344</u>

NOTES:

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	MW-2S		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, 60°F	
Measuring Pt. Description	TOC	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material:	PVC ☒	SS ☐
Total Depth (ft-bmp)	17.40	Static Water Level (ft-bmp)	12.83	Water Column in Well (ft.)	4.57	Gallons in Well	0.73	
MP Elevation		Pump Intake (ft-bmp)	~15	Volumes Purged		Gallons Purged	1.6	
Sample Method	Grab	Pump On/Off	1150/1255	Sample Time	Label 1255 Start 1250 End 1255	Purge Method	Centrifugal ☐ Submersible ☐ Disp. Bailer ☐ Other Peristaltic ☐	
Replicate/Code No.		Sampled By	S. Tweedie					

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1155	0		13.25	0.1	7.17	0.259	9.60	4.81	14.25	211	clear	none
1200	5		13.52	0.2	6.80	0.270	260.0	4.02	14.08	226	clear	none
1205	10		13.90	0.25	6.80	0.274	176.0	3.86	13.96	228	clear	none
1210	15		14.15	0.3	6.81	0.280	93.0	3.70	14.22	230	clear	none
1215	20		14.20	0.5	6.81	0.267	22.4	3.89	14.23	231	clear	none
1220	25		14.25	0.6	6.84	0.291	4.1	3.62	14.39	232	clear	none
1225	30		14.29	0.8	6.88	0.298	0.0	3.50	14.47	233	clear	none
1230	35		14.30	1.0	6.91	0.306	0.0	3.43	14.39	233	clear	none
1235	40		14.30	1.2	6.94	0.309	0.0	3.47	14.38	233	clear	none
1240	45		14.30	1.4	7.13	0.378	0.0	3.01	14.37	231	clear	none
1245	50		14.30	1.5	7.13	0.380	0.0	3.02	14.32	230	clear	none
1250	55		14.30	1.6	7.12	0.380	0.0	2.99	14.31	230	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	SW corner of landfill, outside of fence line	Well Locked at Arrival:	Yes
Condition of Well:	Good	Well Locked at Departure:	Yes
Well Completion:	Stick Up	Key Number To Well:	0344

NOTES: PID upon opening: 0.0 ppm

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	MW-2D		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, 55°F	
Measuring Pt. Description	TOC	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material:	PVC ☒	SS ☐
Total Depth (ft-bmp)	27.40	Static Water Level (ft-bmp)	12.89	Water Column in Well (ft.)	14.51	Gallons in Well	2.32	
MP Elevation		Pump Intake (ft-bmp)	~25	Volumes Purged		Gallons Purged	1.4	
Sample Method	Grab	Pump On/Off	1050/1140	Sample Time	Label 1135 Start 1135 End 1140	Purge Method	Centrifugal ☐ Submersible ☐ Disp. Bailer ☐ Other Peristaltic ☐	
Replicate/Code No.		Sampled By	S. Tweedie					

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1055	0		15.50	0.25	7.23	0.482	0.0	1.34	12.26	249	clear	none
1100	5		15.90	0.4	7.42	0.463	0.0	1.09	12.50	231	clear	none
1105	10		16.50	0.5	7.44	0.459	0.0	1.00	12.63	228	clear	none
1110	15		17.30	0.6	7.46	0.450	0.0	1.03	12.68	225	clear	none
1115	20		17.65	0.8	7.50	0.446	0.0	0.85	12.66	221	clear	none
1120	25		17.80	1.0	7.52	0.443	0.0	0.77	12.67	218	clear	none
1125	30		17.89	1.2	7.51	0.442	0.0	0.79	12.65	217	clear	none
1130	35		17.90	1.4	7.51	0.442	0.0	0.78	12.63	217	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	SW corner of landfill, outside of fence line	Well Locked at Arrival:	Yes
Condition of Well:	Good	Well Locked at Departure:	Yes
Well Completion:	Stick Up	Key Number To Well:	0344

NOTES: PID upon opening: 0.0 ppm

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	MW-3S		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, 69°F	
Measuring Pt. Description	Top of PVC	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material:	PVC ☒	SS ☐
Total Depth (ft-bmp)	17.73	Static Water Level (ft-bmp)	6.72	Water Column in Well (ft.)	11.01	Gallons in Well	1.76	
MP Elevation		Pump Intake (ft-bmp)	15.73	Volumes Purged		Gallons Purged	1.75	
Sample Method	Low flow	Pump On/Off	1257/1335	Sample Time	Label 1330 Start 1328 End 1335	Purge Method	Centrifugal ☐ Submersible ☐ Disp. Bailer ☐ Other Peristaltic ☐	
Replicate/Code No.		Sampled By	J. Mullins					

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1258	0		7.24	0.0	7.71	0.508	3.60	5.21	15.49	76	clear	none
1303	5		9.93	0.5	7.74	0.496	3.80	3.81	15.24	79	clear	none
1308	10		11.26	0.75	7.83	0.489	2.80	3.73	17.03	75	clear	none
1313	15		12.35	1.00	7.89	0.495	2.30	3.61	16.44	71	clear	none
1318	20		12.91	1.25	7.95	0.490	2.50	3.65	16.48	69	clear	none
1323	25		13.30	1.50	7.95	0.488	2.30	3.7	16.47	69	clear	none
1328	30		14.88	1.75	7.92	0.488	2.30	3.62	16.37	69	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	Inside NE corner of fence line	Well Locked at Arrival:	Yes
Condition of Well:	Good	Well Locked at Departure:	Yes
Well Completion:	Stick Up	Key Number To Well:	0344

NOTES: Active wasp nests in well; sprayed with wasp and hornet killer spray ~30 minutes prior to sampling/purging groundwater.
PID = 2.3 ppm; most likely erroneous because of spray (VOCs)

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	MW-3D		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, 69°F	
Measuring Pt. Description	Top of PVC	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material:	PVC ☒	SS ☐
Total Depth (ft-bmp)	26.55	Static Water Level (ft-bmp)	10.71	Water Column in Well (ft.)	15.84	Gallons in Well	2.53	
MP Elevation		Pump Intake (ft-bmp)	24.55	Volumes Purged		Gallons Purged	1.20	
Sample Method	Low flow	Pump On/Off	1205/1248	Sample Time	Label 1240 Start 1238 End 1248	Purge Method	Centrifugal ☐ Submersible ☐ Disp. Bailer ☐ Other Peristaltic ☐	
Replicate/Code No.		Sampled By	J. Mullins					

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1207	0		10.72	0.0	7.86	0.594	0.0	1.20	15.86	-50	clear	slight
1212	5		12.28	0.2	7.76	0.590	0.0	0.00	13.36	-67	clear	slight
1217	10		15.02	0.4	7.72	0.583	0.0	0.00	13.41	-89	clear	none
1222	15		17.71	0.6	7.70	0.582	0.0	0.00	13.51	-93	clear	none
1227	20		19.90	0.8	7.73	0.580	0.0	0.10	13.61	-88	clear	none
1232	25		21.48	1.0	7.74	0.584	0.0	0.15	13.55	-85	clear	none
1237	30		23.18	1.2	7.74	0.582	0.0	0.20	13.61	-89	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	Inside NE corner of fence line	Well Locked at Arrival:	Yes
Condition of Well:	Good	Well Locked at Departure:	Yes
Well Completion:	Stick Up	Key Number To Well:	0344

NOTES: PID = 0.5 ppm
Slight odor observed

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	MW-4S		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, 69°F	
Measuring Pt. Description	Top of PVC	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material:	PVC ☒	SS ☐
Total Depth (ft-bmp)	14.16	Static Water Level (ft-bmp)	9.58	Water Column in Well (ft.)	4.58	Gallons in Well	0.73	
MP Elevation		Pump Intake (ft-bmp)	13.16	Volumes Purged		Gallons Purged	1.20	
Sample Method	Low flow	Pump On/Off	1408/1445	Sample Time	Label 1440 Start 1440 End 1445	Purge Method	Centrifugal ☐ Submersible ☐ Disp. Bailer ☐ Other Peristaltic ☐	
Replicate/Code No.		Sampled By	J. Mullins					

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1410	0		9.59	0.0	7.14	0.572	0.0	1.06	15.68	-119	clear	slight sulfur
1415	5		10.95	0.2	7.08	0.568	0.0	0.37	15.72	-118	clear	slight sulfur
1420	10		11.05	0.4	7.09	0.560	1.9	0.14	15.85	-112	clear	none
1425	15		11.15	0.6	7.10	0.557	3.4	0.10	15.80	-109	clear	none
1430	20		11.26	0.8	7.10	0.550	5.0	0.08	15.75	-106	clear	none
1435	25		11.42	1.0	7.09	0.556	4.2	0.03	15.70	-103	clear	none
1440	30		11.52	1.2	7.05	0.553	5.1	0.00	15.70	-99	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	SE of landfill; outside of fence line	Well Locked at Arrival:	Yes
Condition of Well:	Fair; outside casing bent at top	Well Locked at Departure:	Yes
Well Completion:	Stick Up	Key Number To Well:	0344

NOTES:

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	MW-4D		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, 69°F	
Measuring Pt. Description	Top of PVC	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material:	PVC ☒	SS ☐
Total Depth (ft-bmp)	27.12	Static Water Level (ft-bmp)	10.74	Water Column in Well (ft.)	16.38	Gallons in Well	2.62	
MP Elevation		Pump Intake (ft-bmp)	25.12	Volumes Purged		Gallons Purged	1.20	
Sample Method	Low flow	Pump On/Off	1457/1535	Sample Time	Label 1530 Start 1528 End 1535	Purge Method	Centrifugal ☐ Submersible ☐ Disp. Bailer ☐ Other Peristaltic ☐	
Replicate/Code No.		Sampled By	J. Mullins					

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1458	0		11.03	0.0	7.67	0.590	139	1.71	17.03	-140	clear	slight sulfur
1503	5		11.19	0.2	7.68	0.581	98.4	1.21	17.14	-146	clear	slight sulfur
1508	10		11.27	0.4	7.75	0.485	76.1	0.65	16.95	-158	clear	none
1513	15		11.33	0.6	7.59	0.282	52.1	0.58	17.02	-151	clear	none
1518	20		11.38	0.8	7.62	0.280	46.0	0.52	17.09	-156	clear	none
1523	25		11.42	1.0	7.64	0.277	43.2	0.47	17.11	-157	clear	none
1528	30		11.46	1.2	7.64	0.275	40.0	0.45	17.10	-159	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	SE of landfill; outside of fence line	Well Locked at Arrival:	Yes
Condition of Well:	Fair; outside casing bent at top	Well Locked at Departure:	Yes
Well Completion:	Stick Up	Key Number To Well:	0344

NOTES:

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

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built assets

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	SPPRS		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, 55°F	
Measuring Pt. Description	Screen Setting (ft-bmp)		Casing Diameter (in.)		Well Material: PVC ☒ SS ☐			
Total Depth (ft-bmp)			Water Column in Well (ft.)		Gallons in Well			
MP Elevation	Pump Intake (ft-bmp)		In pipe		Gallons Purged			
Sample Method	Grab	Pump On/Off	N/A	Sample Time	Label 0950	Purge Method		
					Start 0945	Centrifugal		
					End 0955	Submersible		
Replicate/Code No.		Sampled By	JM/ST			Disp. Bailer		
						Other Grab		

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
0950					6.88	0.454	4.6	6.82	14.54	42	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	In PPRS manhole, middle pipe in vault	Well Locked at Arrival:	N/A
Condition of Well:	Good	Well Locked at Departure:	N/A
Well Completion:	Flush Mount	Key Number To Well:	---

NOTES: Used swing rod attached to tubing to sample pipe

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Groundwater Sampling Log

Page 1 of 1

Project No.	00266405.0000		Well ID	Leachate		Date	9/10/2019	
Project Name/Location	Columbia Mills					Weather	Sunny, 55°F	
Measuring Pt. Description	Screen Setting (ft-bmp)		Casing Diameter (in.)	4		Well Material: PVC	✓	
						SS		
Total Depth (ft-bmp)	Static Water Level (ft-bmp)		Water Column in Well (ft.)			Gallons in Well		
MP Elevation	Pump Intake (ft-bmp)	In pipe	Volumes Purged			Gallons Purged		
Sample Method	Grab	Pump On/Off	0914/0916	Sample Time	Label	Purge Method		
					0915	Centrifugal		
					0914	Submersible		
					0919	Disp. Bailer		
Replicate/Code No.		Sampled By	JM/ST			Other		
						Grab		

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
0915					6.13	0.506	40.1	7.73	13.63	230	clear	none

Constituents Sampled	Container	Number	Preservative
PCBs	250 mL Amber	2	---

Well Information

Well Location:	In PPRS manhole, pipe in the furthest	Well Locked at Arrival:	N/A
Condition of Well:	Good	Well Locked at Departure:	N/A
Well Completion:	Flush Mount	Key Number To Well:	---

NOTES: Used swing rod attached to tubing to sample pipe

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

APPENDIX C

Analytical Reporting Forms



ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

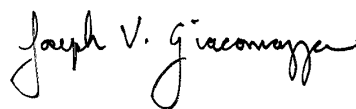
Laboratory Job ID: 480-158974-1

Client Project/Site: NY Standby - Columbia Mills 2019

For:

ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Jasmine Mullins



Authorized for release by:

9/16/2019 3:38:33 PM

Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	13
Lab Chronicle	14
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	23



Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Job ID: 480-158974-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-158974-1

Comments

No additional comments.

Receipt

The samples were received on 9/11/2019 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC Semi VOA

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

Organic Prep

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Client Sample ID: MW-1S-20190910

Lab Sample ID: 480-158974-1

☐ No Detections.

Client Sample ID: MW-1D-20190910

Lab Sample ID: 480-158974-2

☐ No Detections.

Client Sample ID: MW-2S-20190910

Lab Sample ID: 480-158974-3

☐ No Detections.

Client Sample ID: MW-2D-20190910

Lab Sample ID: 480-158974-4

☐ No Detections.

Client Sample ID: MW-3S-20190910

Lab Sample ID: 480-158974-5

☐ No Detections.

Client Sample ID: MW-3D-20190910

Lab Sample ID: 480-158974-6

☐ No Detections.

Client Sample ID: MW-4S-20190910

Lab Sample ID: 480-158974-7

☐ No Detections.

Client Sample ID: MW-4D-20190910

Lab Sample ID: 480-158974-8

☐ No Detections.

Client Sample ID: NPPRS-20190910

Lab Sample ID: 480-158974-9

☐ No Detections.

Client Sample ID: SPPRS-20190910

Lab Sample ID: 480-158974-10

☐ No Detections.

Client Sample ID: MW-X-DUP-20190910

Lab Sample ID: 480-158974-11

☐ No Detections.

Client Sample ID: LEACHATE-20190910

Lab Sample ID: 480-158974-12

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Client Sample ID: MW-1S-20190910

Lab Sample ID: 480-158974-1

Date Collected: 09/10/19 14:25

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 22:56	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 22:56	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 22:56	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 22:56	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 22:56	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 22:56	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 22:56	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 22:56	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 22:56	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 22:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		10 - 150				09/14/19 13:50	09/15/19 22:56	1
DCB Decachlorobiphenyl	77		10 - 150				09/14/19 13:50	09/15/19 22:56	1

Client Sample ID: MW-1D-20190910

Lab Sample ID: 480-158974-2

Date Collected: 09/10/19 15:25

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:19	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:19	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:19	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:19	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:19	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 23:19	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 23:19	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 23:19	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 23:19	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		10 - 150				09/14/19 13:50	09/15/19 23:19	1
DCB Decachlorobiphenyl	90		10 - 150				09/14/19 13:50	09/15/19 23:19	1

Client Sample ID: MW-2S-20190910

Lab Sample ID: 480-158974-3

Date Collected: 09/10/19 12:55

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:43	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:43	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:43	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:43	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:43	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 23:43	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 23:43	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 23:43	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 23:43	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Client Sample ID: MW-2S-20190910

Lab Sample ID: 480-158974-3

Date Collected: 09/10/19 12:55

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 23:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 150				09/14/19 13:50	09/15/19 23:43	1
DCB Decachlorobiphenyl	83		10 - 150				09/14/19 13:50	09/15/19 23:43	1

Client Sample ID: MW-2D-20190910

Lab Sample ID: 480-158974-4

Date Collected: 09/10/19 11:35

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:06	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:06	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:06	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:06	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:06	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:06	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:06	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:06	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:06	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	80		10 - 150				09/14/19 13:50	09/16/19 00:06	1
DCB Decachlorobiphenyl	83		10 - 150				09/14/19 13:50	09/16/19 00:06	1

Client Sample ID: MW-3S-20190910

Lab Sample ID: 480-158974-5

Date Collected: 09/10/19 13:30

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:29	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:29	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:29	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:29	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:29	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:29	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:29	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:29	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:29	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		10 - 150				09/14/19 13:50	09/16/19 00:29	1
DCB Decachlorobiphenyl	84		10 - 150				09/14/19 13:50	09/16/19 00:29	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Client Sample ID: MW-3D-20190910

Lab Sample ID: 480-158974-6

Date Collected: 09/10/19 12:40

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:53	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:53	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:53	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:53	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:53	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:53	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:53	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:53	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 00:53	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 00:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		10 - 150	09/14/19 13:50	09/16/19 00:53	1
DCB Decachlorobiphenyl	76		10 - 150	09/14/19 13:50	09/16/19 00:53	1

Client Sample ID: MW-4S-20190910

Lab Sample ID: 480-158974-7

Date Collected: 09/10/19 14:40

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:16	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:16	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:16	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:16	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:16	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 01:16	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 01:16	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 01:16	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 01:16	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		10 - 150	09/14/19 13:50	09/16/19 01:16	1
DCB Decachlorobiphenyl	85		10 - 150	09/14/19 13:50	09/16/19 01:16	1

Client Sample ID: MW-4D-20190910

Lab Sample ID: 480-158974-8

Date Collected: 09/10/19 15:30

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:40	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:40	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:40	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:40	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:40	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 01:40	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 01:40	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 01:40	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 01:40	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Client Sample ID: MW-4D-20190910

Lab Sample ID: 480-158974-8

Date Collected: 09/10/19 15:30

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 01:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 150				09/14/19 13:50	09/16/19 01:40	1
DCB Decachlorobiphenyl	81		10 - 150				09/14/19 13:50	09/16/19 01:40	1

Client Sample ID: NPPRS-20190910

Lab Sample ID: 480-158974-9

Date Collected: 09/10/19 10:00

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:03	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:03	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:03	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:03	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:03	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:03	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:03	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:03	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:03	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 150				09/14/19 13:50	09/16/19 02:03	1
DCB Decachlorobiphenyl	78		10 - 150				09/14/19 13:50	09/16/19 02:03	1

Client Sample ID: SPPRS-20190910

Lab Sample ID: 480-158974-10

Date Collected: 09/10/19 09:50

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:26	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:26	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:26	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:26	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:26	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:26	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:26	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:26	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:26	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		10 - 150				09/14/19 13:50	09/16/19 02:26	1
DCB Decachlorobiphenyl	94		10 - 150				09/14/19 13:50	09/16/19 02:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Client Sample ID: MW-X-DUP-20190910

Lab Sample ID: 480-158974-11

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:50	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:50	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:50	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:50	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:50	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:50	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:50	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:50	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 02:50	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 02:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		10 - 150	09/14/19 13:50	09/16/19 02:50	1
DCB Decachlorobiphenyl	81		10 - 150	09/14/19 13:50	09/16/19 02:50	1

Client Sample ID: LEACHATE-20190910

Lab Sample ID: 480-158974-12

Date Collected: 09/10/19 09:15

Matrix: Water

Date Received: 09/11/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 03:13	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 03:13	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 03:13	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 03:13	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 03:13	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 03:13	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 03:13	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 03:13	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/16/19 03:13	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/16/19 03:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	71		10 - 150	09/14/19 13:50	09/16/19 03:13	1
DCB Decachlorobiphenyl	74		10 - 150	09/14/19 13:50	09/16/19 03:13	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCBP1 (10-150)	DCBP2 (10-150)
480-158974-1	MW-1S-20190910	78	77
480-158974-2	MW-1D-20190910	82	90
480-158974-3	MW-2S-20190910	79	83
480-158974-4	MW-2D-20190910	80	83
480-158974-5	MW-3S-20190910	81	84
480-158974-6	MW-3D-20190910	72	76
480-158974-7	MW-4S-20190910	84	85
480-158974-8	MW-4D-20190910	79	81
480-158974-9	NPPRS-20190910	76	78
480-158974-10	SPPRS-20190910	86	94
480-158974-11	MW-X-DUP-20190910	74	81
480-158974-12	LEACHATE-20190910	71	74
LCS 460-639356/2-A	Lab Control Sample	95	100
LCSD 460-639356/3-A	Lab Control Sample Dup	97	102
MB 460-639356/1-A	Method Blank	104	104

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-639356/1-A

Matrix: Water

Analysis Batch: 639475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 639356

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 18:38	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 18:38	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 18:38	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 18:38	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 18:38	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 18:38	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 18:38	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 18:38	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/14/19 13:50	09/15/19 18:38	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/14/19 13:50	09/15/19 18:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		10 - 150	09/14/19 13:50	09/15/19 18:38	1
DCB Decachlorobiphenyl	104		10 - 150	09/14/19 13:50	09/15/19 18:38	1

Lab Sample ID: LCS 460-639356/2-A

Matrix: Water

Analysis Batch: 639475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 639356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	4.00	3.58		ug/L		90	78 - 150
Aroclor 1016	4.00	3.98		ug/L		99	78 - 150
Aroclor 1260	4.00	4.96		ug/L		124	80 - 150
Aroclor 1260	4.00	4.63		ug/L		116	80 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	95		10 - 150
DCB Decachlorobiphenyl	100		10 - 150

Lab Sample ID: LCSD 460-639356/3-A

Matrix: Water

Analysis Batch: 639475

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 639356

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	4.00	3.71		ug/L		93	78 - 150	4	30
Aroclor 1016	4.00	4.34		ug/L		108	78 - 150	9	30
Aroclor 1260	4.00	5.14		ug/L		129	80 - 150	4	30
Aroclor 1260	4.00	5.00		ug/L		125	80 - 150	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	97		10 - 150
DCB Decachlorobiphenyl	102		10 - 150

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

GC Semi VOA

Prep Batch: 639356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158974-1	MW-1S-20190910	Total/NA	Water	3510C	
480-158974-2	MW-1D-20190910	Total/NA	Water	3510C	
480-158974-3	MW-2S-20190910	Total/NA	Water	3510C	
480-158974-4	MW-2D-20190910	Total/NA	Water	3510C	
480-158974-5	MW-3S-20190910	Total/NA	Water	3510C	
480-158974-6	MW-3D-20190910	Total/NA	Water	3510C	
480-158974-7	MW-4S-20190910	Total/NA	Water	3510C	
480-158974-8	MW-4D-20190910	Total/NA	Water	3510C	
480-158974-9	NPPRS-20190910	Total/NA	Water	3510C	
480-158974-10	SPPRS-20190910	Total/NA	Water	3510C	
480-158974-11	MW-X-DUP-20190910	Total/NA	Water	3510C	
480-158974-12	LEACHATE-20190910	Total/NA	Water	3510C	
MB 460-639356/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-639356/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-639356/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 639475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158974-1	MW-1S-20190910	Total/NA	Water	8082A	639356
480-158974-2	MW-1D-20190910	Total/NA	Water	8082A	639356
480-158974-3	MW-2S-20190910	Total/NA	Water	8082A	639356
480-158974-4	MW-2D-20190910	Total/NA	Water	8082A	639356
480-158974-5	MW-3S-20190910	Total/NA	Water	8082A	639356
480-158974-6	MW-3D-20190910	Total/NA	Water	8082A	639356
480-158974-7	MW-4S-20190910	Total/NA	Water	8082A	639356
480-158974-8	MW-4D-20190910	Total/NA	Water	8082A	639356
480-158974-9	NPPRS-20190910	Total/NA	Water	8082A	639356
480-158974-10	SPPRS-20190910	Total/NA	Water	8082A	639356
480-158974-11	MW-X-DUP-20190910	Total/NA	Water	8082A	639356
480-158974-12	LEACHATE-20190910	Total/NA	Water	8082A	639356
MB 460-639356/1-A	Method Blank	Total/NA	Water	8082A	639356
LCS 460-639356/2-A	Lab Control Sample	Total/NA	Water	8082A	639356
LCSD 460-639356/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	639356

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Client Sample ID: MW-1S-20190910

Lab Sample ID: 480-158974-1

Date Collected: 09/10/19 14:25

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/15/19 22:56	SXG	TAL EDI

Client Sample ID: MW-1D-20190910

Lab Sample ID: 480-158974-2

Date Collected: 09/10/19 15:25

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/15/19 23:19	SXG	TAL EDI

Client Sample ID: MW-2S-20190910

Lab Sample ID: 480-158974-3

Date Collected: 09/10/19 12:55

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/15/19 23:43	SXG	TAL EDI

Client Sample ID: MW-2D-20190910

Lab Sample ID: 480-158974-4

Date Collected: 09/10/19 11:35

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 00:06	SXG	TAL EDI

Client Sample ID: MW-3S-20190910

Lab Sample ID: 480-158974-5

Date Collected: 09/10/19 13:30

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 00:29	SXG	TAL EDI

Client Sample ID: MW-3D-20190910

Lab Sample ID: 480-158974-6

Date Collected: 09/10/19 12:40

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 00:53	SXG	TAL EDI

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Client Sample ID: MW-4S-20190910

Lab Sample ID: 480-158974-7

Date Collected: 09/10/19 14:40

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 01:16	SXG	TAL EDI

Client Sample ID: MW-4D-20190910

Lab Sample ID: 480-158974-8

Date Collected: 09/10/19 15:30

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 01:40	SXG	TAL EDI

Client Sample ID: NPPRS-20190910

Lab Sample ID: 480-158974-9

Date Collected: 09/10/19 10:00

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 02:03	SXG	TAL EDI

Client Sample ID: SPPRS-20190910

Lab Sample ID: 480-158974-10

Date Collected: 09/10/19 09:50

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 02:26	SXG	TAL EDI

Client Sample ID: MW-X-DUP-20190910

Lab Sample ID: 480-158974-11

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 02:50	SXG	TAL EDI

Client Sample ID: LEACHATE-20190910

Lab Sample ID: 480-158974-12

Date Collected: 09/10/19 09:15

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			639356	09/14/19 13:50	ATF	TAL EDI
Total/NA	Analysis	8082A		1	639475	09/16/19 03:13	SXG	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Eurofins TestAmerica, Buffalo

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

Laboratory: Eurofins TestAmerica, Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-20
Connecticut	State Program	PH-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State	<cert No.>	12-31-21
DE Haz. Subst. Cleanup Act (HSCA)	State Program	N/A	12-31-19
New Jersey	NELAP	12028	06-30-20
New Jersey	NELAP	12028	06-30-20
New York	NELAP	11452	04-01-20
New York	NELAP	11452	04-01-20
Pennsylvania	NELAP	68-00522	02-28-20
Pennsylvania	NELAP	68-00522	02-28-20
Rhode Island	State	LAO00132	12-30-19
Rhode Island	State Program	LAO00132	12-30-19
USDA	Federal	NJCA-003-08	05-03-21
USDA	US Federal Programs	P330-18-00135	05-03-21

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI

Protocol References:

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

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

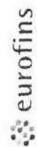
Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: NY Standby - Columbia Mills 2019

Job ID: 480-158974-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-158974-1	MW-1S-20190910	Water	09/10/19 14:25	09/11/19 08:00	
480-158974-2	MW-1D-20190910	Water	09/10/19 15:25	09/11/19 08:00	
480-158974-3	MW-2S-20190910	Water	09/10/19 12:55	09/11/19 08:00	
480-158974-4	MW-2D-20190910	Water	09/10/19 11:35	09/11/19 08:00	
480-158974-5	MW-3S-20190910	Water	09/10/19 13:30	09/11/19 08:00	
480-158974-6	MW-3D-20190910	Water	09/10/19 12:40	09/11/19 08:00	
480-158974-7	MW-4S-20190910	Water	09/10/19 14:40	09/11/19 08:00	
480-158974-8	MW-4D-20190910	Water	09/10/19 15:30	09/11/19 08:00	
480-158974-9	NPPRS-20190910	Water	09/10/19 10:00	09/11/19 08:00	
480-158974-10	SPPRS-20190910	Water	09/10/19 09:50	09/11/19 08:00	
480-158974-11	MW-X-DUP-20190910	Water	09/10/19 00:00	09/11/19 08:00	
480-158974-12	LEACHATE-20190910	Water	09/10/19 09:15	09/11/19 08:00	

Chain of Custody Record



Environment Testing
TestAmerica

Client Information		Sampler: J. Mullins	Lab PM: Stone, Judy L
Client Contact: Jasmine Mullins		Phone: 646-248-4208	E-Mail: judy.stone@testamericainc.com

Company:	ARCADIS U.S. Inc		Analysis	
Address:	855 Route 146 Suite 210			
City:	Clifton Park			
State:	NY			
Zip:	12065			
Phone:	518-250-7308(Tel)			
Email:	jasmine.mullins@arcadis.com			
Project Name:	NY Standby - Columbia Mills 2019			
Site:	1 - 2019			
Due Date Requested:	STANDARD			
TAT Requested (days):	STANDARD			
PO #:	00266405.0000			
WO #:				
Project #:	48016949			
SSOW#:				
			Sample (Yes or No)	
			(Yes or No)	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample	Form MS/MSD	8082A - PCBs
MW-1S--20190910	9/10/19	1425	G	Water	X	X	Z
MW-1D--20190910	9/10/19	1525	G	Water	X	X	Z
MW-2S--20190910	9/10/19	1255	G	Water	X	X	Z
MW-2D--20190910	9/10/19	1135	G	Water	X	X	Z
MW-3S--20190910	9/10/19	1330	G	Water	X	X	Z
MW-3D--20190910	9/10/19	1240	G	Water	X	X	Z
MW-4S--20190910	9/10/19	1440	G	Water	X	X	Z
MW-4D--20190910	9/10/19	1530	G	Water	X	X	Z
NNPPRS--20190910	9/10/19	1000	G	Water	X	X	Z
SPPRS--20190910	9/10/19	0950	G	Water	X	X	Z
MW-X-DUP--20190910	9/10/19	1000	G	Water	X	X	Z

☒ Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	Sample Disposal (A fee may apply) ☐ Return To Client
Deliverable Requested: I, II, III, IV, Other (specify)	
Special Instructions/QC Requirements	

Empty Kit Relinquished by:		Date:	Time:
Relinquished by:	<i>[Signature]</i>	Date/Time:	4-10-19, 17:40
Relinquished by:	<i>[Signature]</i>	Date/Time:	5-10-19, 19:00
Relinquished by:	<i>[Signature]</i>	Date/Time:	
Custody Seal No.:		Company:	Received by:
A Yes A No		Company:	Received by:
Cooler Temperature(s) °C and		Company:	Received by:

[illegible]

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2SZO3
G - Amchlor	S - HS2O4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

[illegible]

Assessed if samples are retained longer than 1 month)

Disposal By Lab ☐ Archive For _____ Months

ents: NYSDEC EQUNTS

	Method of Shipment:	
13	Date/Time: 9-20-19, 17:40	Company Sny
	Date/Time: 9/11/19 0800	Company TAS
	Date/Time:	Company
		Remarks: #1 3:11

Ver: 01/16/2019

Chain of Custody Record



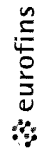
Syracuse

#225

Client Information Client Contact: Jasmine Mullins Phone: 716-691-2600 Fax: 716-691-7991 Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Project Name: NY Standby - Columbia Mills 2019 Site: Columbia Mills		Lab PM: Stone, Judy L E-Mail: judy.stone@testamericainc.com Job #:	
Due Date Requested: STANDARD TAT Requested (days): STANDARD PO #: 00266405 0000 WO #:		Analysis Requested	
Sample Identification LEACHATE - 20190910 9-10-19 9-10-19		Sample Date 9/10/19 0915 9	
Sample Type G=grab G		Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) Water Water Water	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Total Number of Containers		Special Instructions/Note:	
2		2	
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Z - other (specify)	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months Special Instructions/QC Requirements: NYDEC EQUIS			
Empty Kit Relinquished by:			
Relinquished by: <i>Jasmine Mullins</i> Relinquished by: <i>RE-191114</i> Relinquished by:			
Date: 9-10-19, 17:40 Date: 9-10-19, 19:00 Date:			
Company: ARCADIS Company: <i>RE-191114</i> Company:			
Date/Time: 9-10-19, 17:40 Date/Time: 9-10-19, 17:40 Date/Time:			
Cooler Temperature(s) °C and Other Remarks: #1 2.4			

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record



Environment Testing
TestAmerica

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:										
Client Contact: Shipping/Receiving		Phone:	Stone, Judy L		480-51566-1										
Company: TestAmerica Laboratories, Inc.		E-Mail:	judy.stone@testamericainc.com	State of Origin: New York	Page: Page 1 of 2										
Address: 777 New Durham Road,		Accreditations Required (See note): NELAP - New York													
City: Edison		Job #: 480-158974-1													
State, Zip: NJ, 08817		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)													
Phone: 732-549-3900(Tel) 732-549-3679(Fax)		Analysis Requested													
Email:		Total Number of Containers													
Project Name: NY Standby - Columbia Mills 2019		Special Instructions/Note:													
Site:															
SSOW#:															
Due Date Requested: 9/27/2019															
TAT Requested (days):															
PO #:															
WO #:															
Project #: 48016949															
SSOW#:															
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=oil, BT=Tissue, A=air)	Field Filtered Sample (Yes or No)	8082A/3510C LVI PCBs	Formaldehyde (MSP, NIOSH 1501)	Preservation Code:	Field Filtered Sample (Yes or No)	8082A/3510C LVI PCBs	Formaldehyde (MSP, NIOSH 1501)	Analysis Requested	Special Instructions/Note:	
MW-1S-20190910 (480-158974-1)		9/10/19	14:25 Eastern		Water		X			X					
MW-1D-20190910 (480-158974-2)		9/10/19	15:25 Eastern		Water		X			X					
MW-2S-20190910 (480-158974-3)		9/10/19	12:55 Eastern		Water		X			X					
MW-2D-20190910 (480-158974-4)		9/10/19	11:35 Eastern		Water		X			X					
MW-3S-20190910 (480-158974-5)		9/10/19	13:30 Eastern		Water		X			X					
MW-3D-20190910 (480-158974-6)		9/10/19	12:40 Eastern		Water		X			X					
MW-4S-20190910 (480-158974-7)		9/10/19	14:40 Eastern		Water		X			X					
MW-4D-20190910 (480-158974-8)		9/10/19	15:30 Eastern		Water		X			X					
NPPRS-20190910 (480-158974-9)		9/10/19	10:00 Eastern		Water		X			X					
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.															
Possible Hazard Identification															
Unconfirmed															
Deliverable Requested: I, II, III, IV, Other (specify)															
Primary Deliverable Rank: 2															
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)															
Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months															
Special Instructions/QC Requirements:															
Empty Kit Relinquished by:															
Relinquished by: <u>Wm Kow Cukolo</u> Date/Time: <u>09/12/19 17:00</u> Company: <u>ITP</u>															
Relinquished by: <u>Naoimi P</u> Date/Time: <u>09/13/19 09:20</u> Company: <u>IA Edc</u>															
Relinquished by: <u>IR #9</u> Date/Time: <u>0.900</u> Company: <u>Via fedex</u>															

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-158974-1

Login Number: 158974

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Stopa, Erik S

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

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-158974-1

Login Number: 158974

List Number: 2

Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison

List Creation: 09/13/19 12:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	993333
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX D

Groundwater Level Data Form



GROUNDWATER LEVEL DATA FORM

PROJECT NAME: Columbia Mills
PROJECT NUMBER: 00266405.00000

DATE: 9/10/2019
PERSONNEL: J. Mullins / S. Tweedie

WELL ID	Date	Time	Headspace VOC ppm	Depth to Water (feet)	Total Depth (feet)	Reference Point
MW-1S	9/10/2019	10:50-3:35	0.0	5.51	319.34	TOC
MW-1D	9/10/2019	10:50-3:35	0.0	2.00	323.20	TOC
MW-2S	9/10/2019	10:50-3:35	0.0	12.83	323.10	TOC
MW-2D	9/10/2019	10:50-3:35	0.0	12.89	323.01	TOC
MW-3S	9/10/2019	10:50-3:35	0.0	6.72	309.30	TOC
MW-3D	9/10/2019	10:50-3:35	0.0	10.71	305.08	TOC
MW-4S	9/10/2019	10:50-3:35	0.0	9.58	312.05	TOC
MW-4D	9/10/2019	10:50-3:35	0.0	10.74	310.52	TOC
LFP-1	9/10/2019	10:50-3:35	0.0	NM	20.14	TOC
LFP-2	9/10/2019	10:50-3:35	0.0	NM	18.15	TOC
LFP-3	9/10/2019	10:50-3:35	0.0	NM	17.10	TOC
LFP-4	9/10/2019	10:50-3:35	0.0	NM	14.65	TOC
LFP-5	9/10/2019	10:50-3:35	0.0	NM	22.54	TOC
LFP-6	9/10/2019	10:50-3:35	0.0	NM	19.72	TOC
LFP-7	9/10/2019	10:50-3:35	0.0	NM	9.87	TOC
LFP-8	9/10/2019	10:50-3:35	0.0	NM	14.98	TOC
LFP-9	9/10/2019	10:50-3:35	0.0	NM	18.68	TOC
LFP-10	9/10/2019	10:50-3:35	0.0	NM	15.69	TOC
LFP-11	9/10/2019	10:50-3:35	0.0	NM	24.97	TOC
LFP-12	9/10/2019	10:50-3:35	0.0	NM	21.69	TOC
LFP-13	9/10/2019	10:50-3:35	0.0	NM	7.90	TOC
LFP-14	9/10/2019	10:50-3:35	0.0	NM	30.98	TOC

Notes: LFP-9 had no cap
LFP-11 had crack in the top of the PVC, but is still functionable
NM - Not Measured

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