



POST-CLOSURE MONITORING REPORT

**TOWN OF RAMAPO LANDFILL SITE
250 TORNE VALLEY ROAD
HILLBURN, ROCKLAND COUNTY, NEW YORK**

NYSDEC SITE NUMBER #344004; USEPA CERCLIS ID NYD000511493

Prepared for:

Town of Ramapo
237 Route 59
Suffern, New York 10901

and

Town of Ramapo Department of Public Works
16 Pioneer Avenue
P.O. Box 446
Tallman, New York 10982-0446

Prepared by:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

June 3, 2025

"Serving our clients and the environment since 1993"

POST-CLOSURE MONITORING REPORT

**TOWN OF RAMAPO LANDFILL SITE
250 TORNE VALLEY ROAD
HILLBURN, ROCKLAND COUNTY, NEW YORK**

NYSDEC SITE NUMBER #344004; USEPA CERCLIS ID NYD000511493

Table of Contents

	<u>Page</u>
EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	2
1.1 Summary of Site History	2
1.2 Effectiveness of the Remedial Program and Compliance	3
1.3 Recommendations	3
2.0 OVERVIEW	4
3.0 PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS	5
3.1 Air Quality.....	5
3.2 Groundwater Monitoring.....	5
3.2.1 Groundwater Flow.....	5
3.2.2 Groundwater Analytical Results.....	5
3.2.3 Concentration vs. Time Trends	7
3.2.4 Offsite Private Drinking Water Supplies / Offsite Public Water Supplies	9
3.2.5 Emerging Contaminants (1,4-Dioxane and Perfluorinated Compounds) in Select Onsite and Offsite Groundwater Samples	9
3.3 Leachate Quality.....	12
4.0 INSTITUTIONAL/ENGINEERING CONTROL PLAN COMPLIANCE	12
4.1 Institutional Controls	12
4.2 Engineering Controls.....	13
4.2.1 Landfill Cover System.....	13
4.2.2 Leachate Collection System	14
4.2.3 Groundwater Extraction Wells	14
4.2.4 Surface Water Runoff Features and Drainage Swales.....	15
4.2.5 Groundwater Monitoring Wells	15
5.0 MONITORING PLAN COMPLIANCE	16
5.1 Air Quality Monitoring.....	16
5.2 Groundwater Monitoring.....	16
5.3 Leachate Monitoring	16
6.0 OPERATION AND MAINTENANCE PLAN COMPLIANCE.....	18
7.0 CONCLUSIONS AND RECOMMENDATIONS	19

Figures

Figure 1	Site Location Map
Figure 2	Site Vicinity Map
Figure 3	Groundwater Monitoring Wells and Air Quality Monitoring Locations
Figure 4	Surface Water Drainage and Erosion Control Features with Photograph Locations
Figure 5	Shallow Overburden Aquifer Groundwater Elevation Contours – March 17 – 19, 2025
Figure 6	Bedrock Aquifer Groundwater Elevation Contours – March 17 – 19, 2025
Figure 7	Leachate Collection System - Extraction Wells and Lift Stations Locations

Tables

Table 1	Summary of Air Monitoring Results (March 17 – 19, 2025)
Table 2	Summary of Analytical Parameters and Method References
Table 3	Summary of Field Parameter Measurements (March 17 – 19, 2025)
Table 4	Summary of Groundwater Analytical Results (March 17 – 19, 2025)
Table 5	Summary of Analytical Results for Downgradient Drinking Water Supply Wells (March 17 – 19, 2025)
Table 6	Summary of Historical Groundwater Quality Results - Aluminum
Table 7	Summary of Historical Groundwater Quality Results - Beryllium
Table 8	Summary of Historical Groundwater Quality Results - Cadmium
Table 9	Summary of Historical Groundwater Quality Results - Copper
Table 10	Summary of Historical Groundwater Quality Results - Antimony
Table 11	Summary of Historical Groundwater Quality Results - Arsenic
Table 12	Summary of Historical Groundwater Quality Results - Chromium
Table 13	Summary of Historical Groundwater Quality Results - Iron
Table 14	Summary of Historical Groundwater Quality Results - Lead
Table 15	Summary of Historical Groundwater Quality Results - Magnesium
Table 16	Summary of Historical Groundwater Quality Results - Manganese
Table 17	Summary of Historical Groundwater Quality Results - Nickel
Table 18	Summary of Historical Groundwater Quality Results - Sodium
Table 19	Summary of Historical Groundwater Quality Results - Thallium
Table 20	Summary of Ramapo Landfill Extraction Volumes
Table 21	Summary of Historical Leachate / Groundwater Analytical Results

Appendices

Appendix A	Inspection Checklist and Institutional and Engineering Controls Evaluation Form
Appendix B	NYSDEC Region 3 Annual PCM&M Report
Appendix C	Photograph Log
Appendix D	Laboratory Analytical Results - Groundwater
Appendix E	Rockland County Sewer District – Laboratory Analytical Results - Leachate / Groundwater
Appendix F	Data Usability Summary Report (DUSR)

EXECUTIVE SUMMARY

The Town of Ramapo Landfill (Landfill), located at 250 Torne Valley Road in the Village of Hillburn, Town of Ramapo, Rockland County, New York (refer to Figure 1), is a Superfund National Priorities List (NPL) site and is regulated by the United States Environmental Protection Agency (USEPA), CERCLIS ID NYD000511493. The Landfill property is also registered as a New York State Class 4 Inactive Hazardous Waste Disposal Site, Registry No. 344004.

The Landfill was placed on the NPL in September 1983. The USEPA issued a Record of Decision (ROD) dated March 31, 1992, which was modified in December 1997 by Explanation of Significant Difference (ESD).

Between 1980 and 1988, the NYSDEC and the Town of Ramapo entered into four (4) Orders on Consent phasing out Landfill operations, constructing a surface water and groundwater diversion system and a leachate collection and transport system, and conducting a Remedial Investigation and Feasibility Study (RI/FS). The leachate collection system was constructed along the downgradient edge of the Landfill from 1984 to 1985. Leachate has been discharged to the Rockland County Sewer District (RCSD) No. 1 Western Ramapo Treatment Plant since 1996.

The selected remedies for the Landfill include Institutional Controls (IC) through a Declaration of Covenants and Restrictions that restricts disturbance of the Landfill cover and places restrictions on site use and offsite groundwater use restrictions, and onsite Engineering Controls (EC) provided by the Landfill cover and leachate collection systems, groundwater containment, fencing and access controls, air and water quality monitoring, and regular inspections and maintenance activities. The Covenant of Restrictions and Environmental Easements were filed with the Rockland County Clerk on August 28, 2012 and October 10, 2012. Post-closure air and water quality monitoring, leachate removal, and inspections and maintenance at the Landfill have been provided by the Town of Ramapo since 1999. A Site Management Plan (SMP) incorporates the Institutional/Engineering Control (IC/EC) Plan, the Inspection and Monitoring Plan, and the Operation and Maintenance Plan to provide for the continual post-closure monitoring and maintenance of the Landfill.

Post Closure Monitoring (PCM) is required annually (every 5th quarter) to document site management activities outlined in the SMP. At the recommendation of the USEPA, the 2025 PCM monitoring event was conducted during the 1st quarter. This PCM Report documents the monitoring event conducted March 17 – 20, 2025. The prior monitoring event was conducted in August 2024. Therefore, this PCM event covers the monitoring period of August 8, 2024 through March 20, 2025.

The remedial program implemented at the Landfill has been successful in meeting the remedial objectives set forth in the RODs. Leachate generation and contaminant migration through groundwater has reduced. The Landfill cover prevents contamination of surface runoff and direct human/animal contact with waste, and Landfill gas migration/buildup is effectively controlled.

Based on the results the current PCM event, no changes to the approved SMP are recommended. The requirements for discontinuing site management have not been met. As such, continued compliance with the approved SMP is recommended.

1.0 INTRODUCTION

The Town of Ramapo Landfill (Landfill), located at 250 Torne Valley Road in the Village of Hillburn, Town of Ramapo, Rockland County, New York (refer to Figure 1), is a Superfund National Priorities List (NPL) site and is regulated by the United States Environmental Protection Agency (USEPA), CERCLIS ID NYD000511493. The Landfill property is also registered as a New York State Class 4 Inactive Hazardous Waste Disposal Site, Registry No. 344004.

The Landfill was placed on the NPL in September 1983. The USEPA issued a Record of Decision (ROD) dated March 31, 1992, which was modified in December 1997 by Explanation of Significant Difference (ESD).

The Landfill encompasses 86.07 acres owned by the Town of Ramapo and is located east of Torne Valley Road and immediately west/southwest of Baler Boulevard (refer to Figure 2). The Baler Building, which is actively accepting waste, is located on Baler Boulevard and is adjacent to the Landfill to the northeast. The highest elevation is located on the easternmost edge of the site, and the Landfill slopes downward in a westerly direction towards Torne Brook. The lowest elevation is located along the southwestern edge of the site. Stone and concrete drainage ditches are present along the perimeter of the Landfill. Several stone drainage channels and swales are connected to four (4) main stone drainage downchutes that drain into the western perimeter drainage ditch of the Landfill. The site is covered with suitable shallow rooted vegetation with no evidence of erosion. Some deeper rooted vegetation is present in select drainage structures across the Landfill. The Landfill is surrounded by perimeter fencing and can only be accessed through an access gate at the northeast edge of the Landfill adjacent to Baler Boulevard.

The Landfill stages compost windrows on the east edge of the property and contains a shooting range for the Town of Ramapo Police Department. The Landfill is mowed regularly to prevent deep rooted vegetation that may damage the cover; however, portions of the Landfill are not mowed due to the presence of Timber Rattlesnake habitats.

Post Closure Monitoring (PCM) is required annually (every 5th quarter) to document site management activities outlined in the Site Management Plan (SMP). At the recommendation of the USEPA, the 2025 PCM monitoring event was conducted during the 1st quarter. This PCM Report documents the monitoring event conducted March 17 – 20, 2025. The prior monitoring event was conducted in August 2024. Therefore, this PCM event covers the monitoring period of August 8, 2024 through March 20, 2025. A Landfill inspection, air monitoring, leachate monitoring, groundwater monitoring, and an evaluation of institutional controls (IC) and engineering controls (EC) was completed in support of the PCM event.

1.1 Summary of Site History

The Landfill is located at the western base of the Ramapo Mountains on Torne Valley Road and consists of two major lobes commonly known as the north and south lobes. Landfill slopes range from three (3) to thirty-three (33) percent. Property features are presented in Figure 2.

Prior to landfilling operations in the 1950s and 1960s, portions of the property were excavated for gravel. In 1971, the Town was permitted by the Rockland County Department of Health (RCDOH) to operate a sanitary landfill. Under various operators, municipal solid waste (MSW) was accepted until 1984, and construction and demolition (C&D) debris was accepted until 1989. Substances reportedly disposed at the Landfill include industrial and sewer sludge, municipal refuse, asbestos, C&D debris, yard debris, paint sludge (presumably from an automotive plant), and liquid waste (reportedly from a paper company).

The Landfill was placed on the NPL in September 1983. Between 1980 and 1988, the NYSDEC and the Town of Ramapo entered into four (4) Orders on Consent phasing out Landfill operations, constructing a surface water and groundwater diversion system and a leachate collection and transport system, and conducting a Remedial Investigation and Feasibility Study (RI/FS). The leachate collection system was constructed along the downgradient edge of the Landfill from 1984 to 1985. Initially, collected leachate was conveyed by pumps and lift stations to a wastewater treatment pond in the southwest corner of the Landfill property. After aeration and settling, treated water was discharged to the Ramapo River. Since 1996, leachate has been discharged to the Rockland County Sewer District (RCSD) No. 1 Western Ramapo Treatment Plant.

In 1998, the Town of Ramapo subdivided the sections of the Landfill property used for the transfer facility, scale house, and leachate storage tank. The transfer facility and scale house properties were sold to the Rockland County Solid Waste Management Authority (RCSWMA) and the leachate storage tank property was sold to the RCSD.

The selected remedies for the Landfill include Institutional Controls (IC) through a Declaration of Covenants and Restrictions that restricts disturbance of the Landfill cover and places restrictions on site use and offsite groundwater use restrictions, and onsite Engineering Controls (EC) provided by the Landfill cover and leachate collection systems, groundwater containment, fencing and access controls, air and water quality monitoring, and regular inspections and maintenance activities. The Covenant of Restrictions and Environmental Easements were filed with the Rockland County Clerk on August 28, 2012 and October 10, 2012. Post-closure water and air quality monitoring, leachate removal, and inspections and maintenance at the Landfill have been provided by the Town of Ramapo since 1999. An existing SMP incorporates the Institutional/Engineering Control (IC/EC) Plan, the Inspection and Monitoring Plan, and the Operation and Maintenance Plan to provide for the continual post-closure monitoring and maintenance of the Landfill.

1.2 Effectiveness of the Remedial Program and Compliance

The remedial program implemented at the Landfill has been successful in meeting the remedial objectives set forth in the RODs. Leachate generation and contaminant migration through groundwater has reduced. The Landfill cover prevents contamination of surface runoff, prevents direct human/animal contact with waste, and effectively controls Landfill gas migration/buildup.

1.3 Recommendations

Based on the results the current PCM event, no changes to the approved SMP are recommended. The requirements for discontinuing site management have not been met. As such, continued compliance with the approved SMP is recommended.

2.0 OVERVIEW

The following information was collected in support of the Landfill PCM event:

- A Landfill inspection was performed by Sterling Environmental Engineering, P.C. (STERLING) on March 17 – 20, 2025. Site Location, Vicinity, and Property Features Maps are provided as Figures 1, 2, and 4, respectively. The 2025 Landfill inspection documents the physical integrity and stability of the Landfill cover system and assesses the condition and capability of existing surface water drainage and erosion control features. An Inspection Checklist and Institutional and Engineering Control Evaluation Form is provided in Appendix A. An NYSDEC Region 3 Solid Waste Program Annual Post Closure Monitoring & Maintenance Report for Landfills is provided as Appendix B. A photograph log documenting observations during the Annual Landfill inspection is provided in Appendix C.
- The 2025 air quality monitoring event was conducted March 17 – 20, 2025. Air monitoring locations are shown on Figure 3 and results are summarized on Table 1.
- Groundwater samples were collected from monitoring wells 1-OS, 1-I, 1-R, 2-OS, 2-I, 3-OS/I, 3-R, 4-OS, 4-I, 4-R, 6-I, 6-R, 7-OS, 7-I, 7-R, 8-OS, 8-I, 8-R, 9-OS, 9-I, 9-R, 10-OS, 10-I, 10-R, UP-OS, UP-I, UP-R, private water supply wells PW-1 and PW-2, and public water supply wells SVWC-93, SVWC-94, SVWC-95, and SVWC-96. Well locations are shown on Figure 3. The groundwater samples were analyzed for parameters listed in Table 2. A summary of field parameter measurements and analytical results for each well is summarized in Tables 3, 4, and 5. Analytical laboratory reports are provided in Appendix D. In addition, static water level readings were obtained at all of the sampled monitoring wells and monitoring wells 5-OS, 5-I, and 5-R.
- In accordance with the NYSDEC letter dated June 12, 2019 requesting that select groundwater samples be analyzed for additional emerging contaminants (per- and polyfluoroalkyl substances (PFAS) & 1,4-Dioxane), samples were collected from the upgradient monitoring well cluster (UP-OS, UP-I, and UP-R), the two (2) most downgradient sentinel well clusters (9-OS, 9-I, 9-R and 10-OS, 10-I, and 10-R), and two (2) of the public water supply wells (SVWC-94 and SVWC-95). At the request of the USEPA, additional samples for emerging contaminants were collected at downgradient monitoring wells 8-OS, 8-I, and 8-R, private water supply wells PW-1 and PW-2, public water supply wells SVWC-93 and SVWC-96, and leachate collection system manhole MH A-5.
- Historical data for select parameters (aluminum, beryllium, cadmium, copper, antimony, arsenic, chromium, iron, lead, magnesium, manganese, nickel, sodium, and thallium) requested by the NYSDEC and USEPA are provided in Tables 6 through 19.
- Reported discharge volumes pumped from the groundwater/leachate extraction wells, located on the downgradient side of the Landfill, to the RCSD No. 1 Western Ramapo Treatment Plant were provided by the Town of Ramapo and is included in Table 20.
- Analytical results for leachate/groundwater pumped to the Western Ramapo Treatment Plant are summarized in Table 21, and analytical reports are provided in Appendix E.

3.0 PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

The Landfill has been subject to an SMP since March 1999. The SMP provides for regular site inspections, air, groundwater, and leachate monitoring, leachate collection and management, mowing, and Landfill gas management.

3.1 Air Quality

Air quality monitoring consisted of measuring concentrations of explosive gas (measured in percent of lower explosive limit (%LEL)), hydrogen sulfide (H₂S), and volatile organic compounds (VOC) in the headspace of each monitoring well, leachate manhole A-5, lift stations A-10 and W-20, and within the ambient breathing zone inside the Baler Building and along the Landfill perimeter at designated locations shown on Figure 3. Air quality monitoring results are summarized in Table 1. Explosive gas, H₂S, and VOC measurements were obtained with a QRAE multi-gas monitor equipped with a photoionization detector (PID). The presence of VOCs, H₂S, and explosive gas were not detected at any of the sampling locations (Table 1). The air quality monitoring survey for explosive gas, H₂S, and VOCs indicated the Landfill is in compliance with the requirements set forth in 6 NYCRR 360-2.15(k)(4) and 2.17(f) (effective prior to November 4, 2017).

3.2 Groundwater Monitoring

3.2.1 Groundwater Flow

Depth to water measurements were obtained at or near the Landfill perimeter to determine groundwater elevations in the shallow overburden and bedrock aquifer systems. Groundwater flow direction in the overburden aquifer is to the northwest and/or west towards Torne Brook (Figure 5). Groundwater flow direction in the bedrock aquifer is similar (Figure 6). The bedrock groundwater elevation data for monitoring well 6-R was not utilized as the measured elevation was not consistent with historical data. Groundwater gradients are similar in both aquifer systems and downward vertical gradients are noted throughout the Landfill perimeter in well clusters 2, 4, 6, 7 and well pairs 1-OS/1-R, 1-I/1-R, 5-OS/5-R, 5-I/5-R, 8-OS/8-I, 9-OS/9-I, 9-I/9-R, and UP-OS/UP-I. All other monitoring well clusters and pairs display a slight to moderately upward vertical gradient. These vertical gradients are consistent with historical trends.

3.2.2 Groundwater Analytical Results

All samples were analyzed by Pace Analytical, located in Westborough, Massachusetts, following established methodologies and protocols. A copy of the analytical reports, prepared in accordance with NYSDEC Analytical Services Protocol (ASP) Category A reporting requirements, are provided in Appendix D.

Static water level and water quality field parameters (temperature, specific conductivity, pH, and oxidation-reduction potential (ORP)) were measured in the field and are presented on Table 3. The summary of the March 2025 groundwater analytical results is provided on Tables 4 and 5. A duplicate sample was collected from intermediate monitoring well 10-I and is labeled as “DUP031725”. An additional duplicate sample “DUP031725-DW” was collected at PW-1.

Analytical results for monitoring well samples are compared to the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), Ambient Water Quality Standards and Guidance Values (June 2004) and Ambient Water Quality Standards for emerging contaminants (PFOA, PFOS, and 1,4-Dioxane) adopted March 15, 2023. No site-related VOCs were detected in any groundwater samples.

Analytical results for the public water supply wells and private drinking water supply wells reported the following exceedances of applicable water quality standards: At PW-1, PFOA at a concentration of 11.5 ng/L (TOGS 1.1.1 of 6.7 ng/L and USEPA MCL of 4.0 ng/L) and PFOS at a concentration of 3.44 (TOGS 1.1.1 of 2.7 ng/L and USEPA MCL of 4.0 ng/L). At PW-2, PFOS at a concentration of 3.26 (TOGS 1.1.1 of 2.7 ng/L and USEPA MCL of 4.0 ng/L). At SVWC-94, PFOA at a concentration of 4.72 (TOGS 1.1.1 of 6.7 ng/L and USEPA MCL of 4.0 ng/L). At SVWC-95, PFOA at a concentration of 4.14 (TOGS 1.1.1 of 6.7 ng/L and USEPA MCL of 4.0 ng/L), PFOS at a concentration of 2.71 (TOGS 1.1.1 of 2.7 ng/L and USEPA MCL of 4.0 ng/L), and 1,4-Dioxane at a concentration of 0.691 ug/L (TOGS 1.1.1 of 0.35 ug/L and USEPA MCL of 1 ug/L) Analytical results for the groundwater in leachate collection system manhole MH A-5 reported concentrations of 1,4-Dioxane, PFOS, and PFOA that exceed the TOGS 1.1.1 guidance values.

The following TOGS 1.1.1 exceedances were reported at six shallow overburden monitoring wells (1-OS, 2-OS, 3-OS/I, 4-OS, 7-OS, and 8-OS), six intermediate overburden monitoring wells (1-I, 2-I, 3-OS/I, 4-I, 7-I, and 8-I), and seven bedrock monitoring wells (1-R, 3-R, 4-R, 7-R, 8-R, 9-R and UP-R).

Parameter Exceeding Water Quality Standard	TOGS 1.1.1 AWQS	1-OS	2-OS	3-OS/I	4-OS	7-OS	8-OS
Chromium	0.05	0.0952	0.3412	0.6726	0.3816	---	---
Iron	0.3**	1.5	3.12	8.17	4.65	---	---
Magnesium	35	---	---	---	---	---	---
Manganese	0.3**	0.561	0.05433	0.3066	0.1822	---	---
Nickel	0.1	---	---	0.1972	---	---	---
Sodium	20	64.3	22.1	---	108	26.7	26.8

Parameter Exceeding Water Quality Standard	TOGS 1.1.1 AWQS	1-I	2-I	3-OS/I	4-I	7-I	8-I
Chromium	0.05	0.2312	---	0.6726	---	0.3783	---
Iron	0.3**	2.12	2.93	8.17	8.55	0.647	5.66
Magnesium	35	---	---	---	---	---	---
Manganese	0.3**	0.3799	0.5015	0.3066	2.598	0.08604	3.562
Nickel	0.1	---	---	0.1972	---	---	---
Sodium	20	32.1	104	---	79.3	64.3	88.5

Parameter Exceeding Water Quality Standard	TOGS 1.1.1 AWQS	1-R	3-R	4-R	7-R	8-R	9-R	UP-R
Chromium	0.05	0.248	0.1018	---	0.05816	---	0.09332	---
Iron	0.3**	1.98	2.86	1.77	15.1	0.5	7.22	0.702
Magnesium	35	---	---	---	---	38	---	---
Manganese	0.3**	0.1901	9.385	0.3849	1.731	2.728	2.542	0.00781
Nickel	0.1	---	0.1055	---	---	---	---	---
Sodium	20	---	81.7	49.5	---	38.2	45.9	---

All units are in mg/L

--- = parameter did not exceed applicable standard

** = The standard for the sum of iron and manganese is 0.5 mg/L.

3.2.3 Concentration vs. Time Trends

Historical data summary tables are provided in Tables 6 through 19 for select inorganic parameters (aluminum, antimony, arsenic, beryllium, cadmium, chromium, copper, iron, lead, magnesium, manganese, nickel, sodium, and thallium) that have exceeded water quality standards or guidance values. Concentration versus time plots are also provided in Tables 6 through 19 to enable data trend analysis. The concentration trends over time for parameters with TOGS exceedances reported for this event are presented in plots shown in Tables 12, 13, 15, 16, and 18 and are summarized below:

Chromium (Table 12)

The following monitoring wells exceeded the TOGS 1.1.1 standard for chromium (50 µg/L or 0.05 mg/L):

Summary of Historical Trends for Chromium Exceedances			
Monitoring Well ID	Increasing	Stable	Decreasing
1-OS	X		
1-I	No Historical Analytical Data		
1-R		X	
2-OS			X
3-OS/I	X		
3-R	X		
4-OS	X		
7-I	No Historical Analytical Data		
7-R	X		
9-R	X		

Iron (Table 13)

The following monitoring wells exceeded the TOGS 1.1.1 standard for iron (300 µg/L or 0.3 mg/L):

Summary of Historical Trends for Iron Exceedances			
Monitoring Well ID	Increasing	Stable	Decreasing
1-OS			X
1-I	No Historical Analytical Data		
1-R		X	
2-OS			X
2-I	No Historical Analytical Data		
3-OS/I	X		
3-R		X	
4-OS			X
4-I	No Historical Analytical Data		
4-R			X
7-I	No Historical Analytical Data		
7-R		X	
8-I			X
8-R			X
9-R			X
UP-R	X		

Magnesium (Table 15)

Monitoring well 8-R exceeded the TOGS 1.1.1 standard for magnesium (35,000 µg/L or 35 mg/L) with a slightly increasing trend over time. .

Manganese (Table 16)

The following monitoring wells exceeded the TOGS 1.1.1 standard for manganese (300 µg/L or 0.3 mg/L) and/or the sum of iron and manganese (500 µg/L or 0.5 mg/L):

<u>Summary of Historical Trends for Manganese Exceedances</u>			
Monitoring Well ID	Increasing	Stable	Decreasing
1-OS	X		
1-I	No Historical Analytical Data		
2-I	No Historical Analytical Data		
3-OS/I			X
3-R	X		
4-I	No Historical Analytical Data		
4-R			X
7-R	X		
8-I	X		
8-R		X	
9-R	X		

Nickel (Table 17)

The following monitoring wells exceeded the TOGS 1.1.1 standard for nickel (100 µg/L or 0.1 mg/L):

<u>Summary of Historical Trends for Nickel Exceedances</u>			
Monitoring Well ID	Increasing	Stable	Decreasing
3-OS/I			X
3-R	X		

Sodium (Table 18)

The following monitoring wells exceeded the TOGS 1.1.1 standard for sodium (20,000 µg/L or 20 mg/L):

<u>Summary of Historical Trends for Sodium Exceedances</u>			
Monitoring Well ID	Increasing	Stable	Decreasing
1-OS	X		
1-I	No Historical Analytical Data		
2-OS	X		
2-I	No Historical Analytical Data		
3-R	X		
4-OS	X		
4-I	No Historical Analytical Data		
4-R	X		
7-OS	First Reported Exceedance		

7-I	No Historical Analytical Data		
8-OS	X		
8-I		X	
8-R			X
9-R	X		

There are no NYSDOH drinking water quality standard or designated limits for sodium. Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets. The onsite and offsite monitoring wells are not used as a drinking water supply source.

Sodium is included on the USEPA's Drinking Water Contaminant Candidate List (CCL). The CCL is a list of contaminants which, at the time of publication, are not subject to any proposed or promulgated National Primary Drinking Water Regulation (NPDWR), are known or anticipated to occur in public water systems, and may require regulations under the Safe Drinking Water Act (SDWA).

3.2.4 Offsite Private Drinking Water Supplies / Offsite Public Water Supplies

Groundwater from PW-1 and PW-2 is used as private drinking water supplies, and groundwater from SVWC-93, SVWC-94, SVWC-95, and SVWC-96 is used as a public water supply. Analytical results for the private drinking water supply wells are compared to the NYSDOH 10 NYCRR Part 5 MCLs and the USEPA MCLs for Primary Drinking Water Regulations. TOGS 1.1.1 standards are also provided as the samples are raw, untreated groundwater with exception of PW-2 which was collected from the kitchen sink during the 2025 monitoring event. Analytical results for the drinking water supply well samples indicate that there are no reported exceedances of applicable water quality standards at the public water supply wells or private drinking water supply wells for Part 360 Baseline Parameters. Emerging contaminants were detected above applicable standards at PW-1, PW-2, SVWC-94, and SVWC-95.

The sodium results at the private water supply wells are below the Applicable or Relevant and Appropriate Requirements (ARAR) standard of 20 mg/L while sodium results for the public water supply wells SVWC-93, SVWC-94, SVWC-95, and SVWC-96 exceed 20 mg/L. The public water supply wells have historically exceeded the ARAR for sodium and are increasing over time.

3.2.5 Emerging Contaminants (1,4-Dioxane and Perfluorinated Compounds) in Select Onsite and Offsite Groundwater Samples

1,4-Dioxane (1,4-D)

Groundwater samples were collected for 1,4-D analysis from twelve monitoring wells (UP-OS, UP-I, UP-R, 8-OS, 8-I, 8-R, 9-OS, 9-I, 9-R, 10-OS, 10-I, and 10-R), four public water supply wells (SVWC-93, SVWC-94, SVWC-95 and SVWC-96), two private water supply wells (PW-1 and PW-2), and leachate collection system manhole MH A-5. On March 15, 2023, NYSDEC adopted new guidance value that set the TOGS 1.1.1 AWQS of 0.35 part per billion (0.35 ppb or 0.35 µg/L) for 1,4-D in ambient waters including those used as drinking water sources. The NYSDOH Part 5 MCL for 1,4-D in finished drinking water is 1 ppb or 1 µg/L.

Summary of Analytical Results for 1,4-Dioxane				
Well ID	Non-Detect	Detection	Exceedance of Applicable Standards	Concentration (If Detected)
UP-OS	X			---
UP-I	X			---
UP-R	X			---
8-OS			X	1.43
8-I			X	37.4
8-R			X	23.5
9-OS	X			---
9-I	X			---
9-R			X	9.83
10-OS	X			---
10-I	X			---
10-R	X			---
MH A-5			X	2.36
SVWC-93	X			---
SVWC-94	X			---
SVWC-95			X	0.691
SVWC-96	X			---
PW-1		X		0.153
PW-2	X			---

All units are in µg/L

--- = parameter was not detected above the laboratory method detection limit (MDL)

Per and Polyfluoroalkyl Substances (PFAS)

Groundwater samples were collected for PFAS compound analysis from twelve monitoring wells (UP-OS, UP-I, UP-R, 8-OS, 8-I, 8-R, 9-OS, 9-I, 9-R, 10-OS, 10-I, and 10-R), four public water supply wells (SVWC-93, SVWC-94, SVWC-95 and SVWC-96), two private water supply wells (PW-1 and PW-2), and leachate collection system manhole MH A-5. On March 15, 2023, NYSDEC adopted new guidance value of 2.7 parts per trillion (2.7 ppt or 2.7 nanograms per liter, ng/L) for perfluorooctanesulfonic acid (PFOS) and 6.7 ppt (6.7 ng/L) for perfluorooctanoic acid (PFOA). The NYSDOH Part 5 MCL for finished drinking water is 10 ppt (10 ng/L) and the USEPA MCL is 4.0 ppt (4.0 ng/L) for both PFOS and PFOA.

Summary of Analytical Results for PFOS				
Well ID	Non-Detect	Detection	Exceedance of Applicable Standards	Concentration (If Detected)
UP-OS		X		0.272 J
UP-I	X			---
UP-R	X			---
8-OS			X	4.81
8-I			X	12.4
8-R			X	17.2
9-OS		X		1.96

9-I		X		2.51
9-R			X	5.7
10-OS	X			---
10-I	X			---
10-R	X			---
MH A-5			X	12.2
SVWC-93		X		2.21
SVWC-94		X		2.11
SVWC-95			X	2.71
SVWC-96		X		2.55
PW-1		X		4.17
PW-2		X		3.26

Summary of Analytical Results for PFOA				
Well ID	Non-Detect	Detection	Exceedance of Applicable Standards	Concentration (If Detected)
UP-OS		X		0.5 J
UP-I	X			---
UP-R	X			---
8-OS			X	8.5
8-I			X	58.3
8-R			X	53.5
9-OS		X		5.44
9-I		X		5.53
9-R			X	18.6
10-OS	X			---
10-I	X			---
10-R	X			---
MH A-5			X	18.7
SVWC-93		X		3.3
SVWC-94		X		4.72
SVWC-95		X		4.14
SVWC-96		X		3.86
PW-1			X	11.5
PW-2		X		3.59

All units are in ng/L

--- = parameter was not detected above the laboratory method detection limit (MDL)

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is approximate.

Data Validation

A Data Usability Summary Report (DUSR) was prepared by a certified Data Validator (Donald Anné of Alpha Geoscience) for emerging contaminants 1,4-Dioxane and PFAS. The DUSR is provided in Appendix F. The DUSR indicates that analytical data were generally acceptable and usable with no data qualified as rejected.

3.3 Leachate Quality

The analytical results for leachate/groundwater are summarized in Table 21 and are generally consistent with previous results. Leachate water quality is characterized by detectable to elevated concentrations of leachate indicators such as ammonia, COD, chloride, hardness, nitrate, sulfate, TDS, and TKN and inorganic parameters, including boron, cadmium, copper, manganese, nickel and zinc. Inorganic parameters that were not detected include antimony, arsenic, beryllium, chromium, lead, mercury, molybdenum, selenium, silver, and thallium.

4.0 INSTITUTIONAL/ENGINEERING CONTROL PLAN COMPLIANCE

The multiple institutional and engineering controls for the Landfill implemented by the RODs and documented in the SMP continue to be in place and performing as designed. These controls were reviewed and evaluated through this PCM event.

4.1 Institutional Controls

Institutional Controls (IC) include restrictions on the use of real property that limits human and environmental exposure, restricts the use of groundwater, provides notice to potential owners, operators, or members of the public, or prevents actions that would interfere with the effectiveness of the remedial program or with the effectiveness and/or integrity of operation, maintenance, or monitoring activities at or pertaining to the Landfill property.

ICs may include, but are not limited to environmental easements, deed restrictions, discharge permits, site security (other than fencing), local permits, Orders on Consent/decrees, zoning restrictions, hazardous waste site registry, deed notice, groundwater use restrictions, condemnation of property, and public health advisories.

The Covenant of Restrictions and Environmental Easements were filed with the Rockland County Clerk on August 28, 2012 and October 10, 2012. The Environmental Easements stay with the property in perpetuity to provide an effective and enforceable means of encouraging the reuse and redevelopment of the property in a manner determined to be safe for a specific use, while ensuring the performance of operation, maintenance, and/or monitoring requirements, and to ensure the potential restriction of future uses of the land that are consistent with the ROD.

The following restrictions apply to the Landfill property (Parcel 39.19-1-3):

- There shall be no construction, use, or occupancy that results in a disturbance or excavation that threatens the integrity of the engineering controls (EC) described in Section 4.2, or which results in unacceptable human exposure to contaminated soils.
- The Owner shall not disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of ECs described in Section 4.2 unless a written waiver is obtained from the USEPA and NYSDEC for each occasion.
- The Owner shall prohibit land use from ever being used for purposes other than commercial/industrial use without the express written waiver by the USEPA and NYSDEC.
- The Owner shall prohibit the use of underlying groundwater, without rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from

the USEPA and NYSDEC. This restriction also applies to Parcel 39.19-1-3.1, owned by RCSD No. 1, and Parcels 39.19-1-4 and 39.19-1-5, owned by RCSWMA.

- The Owner shall provide an annual certification (see Section 2.3 of the SMP) prepared by a Professional Engineer or environmental professional acceptable to the USEPA and NYSDEC. The certification will document in-place ICs and ECs are unchanged from the previous certification, comply with the current SMP and have not been impaired.
- The Owner shall continue to implement and maintain the ICs and ECs identified in the SMP unless permission to discontinue such controls is granted from the USEPA and NYSDEC. This requirement also applies to Parcel 39.19-1-3.1, owned by RCSD No. 1, and Parcels 39.19-1-4 and 39.19-1-5, owned by RCSWMA.
- All ICs and ECs shall be binding for present and all future owners. Any conveyance of the Landfill property or portions of the Landfill property are subject to the ICs and ECs.

4.2 Engineering Controls

Engineering Controls (EC) may include physical barriers or methods to actively or passively contain, stabilize, or monitor contamination, restrict the movement of contamination to ensure the long-term effectiveness of the remedial program, or eliminate potential exposure pathways to contamination.

The ECs for the Ramapo Landfill to control the source of contamination and the generation of contaminated leachate include:

- A Landfill cover consisting of layers of fill material, gas venting system, an impermeable membrane, and protective soil cover.
- Active groundwater extraction wells to supplement the existing leachate collection system.
- Leachate collection system for offsite treatment.
- Drainage swales to collect and divert surface water runoff downgradient of sections of the impermeable membrane installed on the Landfill slopes (Figure 4).
- Site security fencing to reduce trespassers on the Landfill property.

4.2.1 Landfill Cover System

Major components of the final cover system are a geomembrane barrier, secondary cushion geotextile, barrier protection soil layer, and a topsoil layer with vegetation.

The geomembrane barrier overlies the secondary cushion geotextile layer, which overlies the prepared existing subgrade, thereby covering the existing refuse mass and residual contaminated soil. The geomembrane barrier is overlain by another secondary cushion geotextile and a layer of 12 inches of low permeability barrier protection soil. The barrier protection soil layer is overlain by a 6-inch topsoil layer and seeded to minimize soil loss. The Landfill slopes are graded to provide proper drainage with slopes ranging from 3 to 33%.

Installation of the Landfill cover system minimizes infiltration of precipitation to wastes and the resultant generation of leachate and prevents the release of previously disposed wastes. The cover system is regularly inspected by the Town of Ramapo to evaluate its performance and assess the following physical condition elements: settlement and erosion of Landfill cover, vegetative growth, slope stability, damage due to

presence of vector populations over or near Landfill cover (i.e., burrow holes), monitoring well and Landfill gas vent integrity, presence or absence of leachate outbreaks, surface water drainage structures, site fencing, gates, and access roads, and evidence of trespassing.

A completed Inspection Checklist and Institutional and Engineering Control Evaluation Form from the annual site inspection completed on March 20, 2025 is provided in Appendix A. The Landfill cover was observed to be in good condition with no evidence of surface water ponding, leachate discharges, or iron-stained soils. The Landfill appears secure, stable, and the Landfill cover was observed to be well maintained and remains in good condition. No evidence of settlement, erosion, or damage due to active vector populations was observed and the overall physical integrity of the Landfill is in good condition.

The stormwater drainage system is in acceptable condition and appeared to be functioning as designed. Leaking gas vents were inspected and repaired as necessary by Town personnel to ensure all are in stable condition and functioning as designed. Town personnel continue to maintain the Landfill cover system in excellent condition. No additional actions or special maintenance is required for the Landfill cover system at this time beyond the regular ongoing post-closure care.

4.2.2 Leachate Collection System

All leachate collected from the leachate collection system flows by gravity to the adjacent RCSD No. 1 pump station and then the leachate/groundwater is pumped to the Western Ramapo Sewage Treatment Plant. The leachate collection/transfer system is designed and constructed to operate automatically. Extraction well and lift station locations are provided in Figure 7.

Individual pump controls are as follows:

1. Extraction Wells - Water Level Sensors
2. Lift Station and Pump Pit Pumps - Floats with mercury switches sensing actual water levels.

4.2.3 Groundwater Extraction Wells

The groundwater extraction wells are pumped to contain the contaminant plume that migrates from the Landfill. The groundwater extraction wells are located on the western side of the Landfill along Torne Valley Road between monitoring well clusters MW-3 and MW-8. The layout of the extraction well system is approximately 700 feet in length. Three extraction wells (W-5, W-6, and W-7) are approximately 20 feet deep and screened in dense sand and partially into the upper 2 feet of bedrock. The remaining extraction wells (W-1 through W-4) are deeper, ranging from 38 to 51 feet in depth and are screened in dense sand and partially into upper ten feet of bedrock (see Figure 7 for locations).

A Capture Zone Analysis was undertaken in 2023 and is summarized in a Capture Zone Analysis Report dated February 20, 2024. The Capture Zone Analysis was undertaken based on a recommendation from the fifth USEPA Five-Year Review Report to determine the capture efficiency of the leachate collection system. The Capture Zone Analysis Report concluded that the Conceptual Site Model that served as the basis of design for the leachate collection system remains valid and the extraction wells are intercepting and collecting leachate that commingles with groundwater.

Annual leachate/groundwater volumes pumped from the Landfill to the Western Ramapo Sewage Treatment Plant between 1995 and June 2024 are summarized in Table 20. The total leachate/groundwater removed from the Landfill during the period of January 1, 2024 through December 31, 2024 was approximately 13,911,000 gallons. Removed leachate/groundwater was directed through a force main to

the Western Ramapo Sewage Treatment Plant for treatment. For comparison, volume of leachate/groundwater discharged to the Western Ramapo Sewage Treatment Plant between 2011 and 2024 has averaged 14,233,247 gallons per year.

4.2.4 Surface Water Runoff Features and Drainage Swales

Surface water runoff features are located on and around the Landfill property (Figure 4). Terraces and riprap downchutes on the Landfill waste mass direct stormwater runoff to the Landfill perimeter drainage ditches successfully preventing the occurrence of standing water on the Landfill. The surface water runoff is directed into perimeter drainage ditches into drainage basins to reduce particulates and sediment before it ultimately enters into the Torne Brook. These surface water runoff features are checked routinely by the Town of Ramapo for sediment buildup, overgrowth of vegetation, overflow of drainage ditches or basins, improper drainage of terraces and downchutes, and sloughing of the Landfill cover. Based on the observed conditions during the Annual Landfill Site Inspection, no corrective measures are needed for the surface water management features.

Drainage swales collect diverted surface water runoff (Figure 4). Two (2) swales are located on the north lobe and two (2) swales are located on the south lobe of the Landfill. These swales divert runoff into wetlands, a retention pond, and Torne Brook.

Woody debris and accumulated sediment was observed at the culvert inlet within the concrete swale immediately upstream of the Rockland Green weigh station along Torne Valley Road (see Photograph 5 of Appendix C). Woody debris and accumulated sediment should be removed to maintain adequate drainage.

4.2.5 Groundwater Monitoring Wells

Existing groundwater monitoring wells are located along the upgradient, crossgradient, and downgradient perimeter of the Landfill waste mass. The wells are used to monitor groundwater quality around the Landfill property. Monitoring wells are routinely checked for sediment buildup using depth to bottom measurements and the integrity of the outer casing, lid, and lock. These monitoring wells are sampled every fifth quarter for 6 NYCRR Part 360 Modified Baseline Parameters for indication of contamination by the Landfill waste mass.

Overall, the monitoring well network is functioning as designed and the Town of Ramapo will continue the approved annual monitoring program.

5.0 MONITORING PLAN COMPLIANCE

The Landfill was granted a post-closure monitoring variance by the NYSDEC on October 27, 2003, reducing the monitoring frequency to once every year with the monitoring event being rotated to the next quarter for each year. Monitoring includes collection of groundwater and leachate samples for analysis of 6 NYCRR Part 360 Modified Baseline parameters, as well as water level measurements from select monitoring wells and air quality monitoring. Monitoring wells and sample locations are shown on Figure 3. The following sections describe the monitoring requirements for air, groundwater, and leachate quality.

5.1 Air Quality Monitoring

Air quality monitoring includes field measurements of explosive gas, H₂S, and VOC concentrations in the headspaces of each monitoring well, leachate manhole A-5, lift stations A-10 and W-20, and ambient breathing space at the Baler Building and along the Landfill perimeter at designated locations (Figure 3). Results of the air quality monitoring are described in Section 3.1.

The air quality monitoring program meets the remedial objectives to evaluate the effectiveness of the selected remedy by providing a direct means to determine if Landfill gases are prevented from migration and buildup. The Town of Ramapo will continue air quality monitoring according to the approved SMP.

5.2 Groundwater Monitoring

The current groundwater monitoring program consists of sampling eight “OS” monitoring wells, one OS/I monitoring well, three downgradient “I” monitoring wells, three downgradient “R” monitoring wells, two private water supply wells, and four public municipal water supply wells. A monitoring well cluster (UP-OS, UP-I, and UP-R) was installed in 2016 to determine natural upgradient groundwater conditions. Static depth to water measurements are collected from locations shown on Figure 5 for the shallow (OS) aquifer and Figure 6 for the bedrock (R) aquifer to determine groundwater flow patterns.

At the recommendation of the USEPA, additional samples were collected at all onsite monitoring wells, with exception of 5-OS, 5-I, and 5-R, and were analyzed for Part 360 Baseline Parameters. Additional samples for emerging contaminants (PFAS compounds and 1,4-Dioxane) were collected at monitoring wells 8-OS, 8-I, and 8-R, municipal water supply wells SVWC-93 and SVWC-96, and private water supply wells PW-1 and PW-2.

Overall, the groundwater monitoring program meets the remedial objectives by providing suitable means to determine the effectiveness of the selected remedy. The Town of Ramapo will continue groundwater monitoring according to the approved SMP.

5.3 Leachate Monitoring

Through June 2011, leachate and groundwater from the Landfill extraction well network were pumped to the Rockland County Sewer Treatment Plant located at 4 Route 340, Orangeburg, New York. Starting in June 2011, leachate/groundwater collected by the Landfill extraction wells has been pumped to the RCSD No. 1 Western Ramapo Treatment Plant in Hillburn, New York. Analytical testing of the Landfill leachate/groundwater occurs on a biannual basis from a manhole located upstream of the discharge to the leachate wet well.

Analytical results from RCSD No. 1 are summarized in Table 21. Reported parameter concentrations are compared with Maximum Concentration Limits set by RCSD No. 1 Western Ramapo Treatment Plant.

There are no limit exceedances for any of the listed parameters between. Leachate/groundwater extracted from the Landfill and discharged to the RCSD No. 1 Western Ramapo Treatment Plant meets the industrial permit requirements. Sampling of the discharge from the Landfill will continue on a semi-annual basis.

At the request of USEPA, a leachate sample was collected during the March 2025 PCM event from manhole MH A-5 for analysis of PFAS compounds and 1,4-Dioxane. MH A-5 is the final onsite access point in the leachate collection system prior to discharge to the RCSD sewer system.

6.0 OPERATION AND MAINTENANCE PLAN COMPLIANCE

The Operation and Maintenance (O&M) Plan for the Landfill, outlined in the SMP, consists of the following components:

- Repair, if necessary, of the Landfill cover system in accordance with approved specification materials and methods.
- Annual mowing of the vegetated cover system.
- Investigation of landfill cover system for evidence of sloughing, cracks, settlement, erosion and deposition, stressed vegetation, and undesirable vegetation.
- Vector control.
- Integrity assessment of the gas venting system.
- Investigation of gas odors.
- Snow plowing and upkeep of the perimeter access road.
- Collection, removal, and disposal of leachate.
- Preventative maintenance of leachate pumps.
- Repair or replacement, if necessary, of monitoring wells.
- Annual or more frequent clearing of drainage swales, ditches, and downchutes.

Between August 8, 2024 and March 20, 2025, the following O&M activities were performed:

- Routine and annual inspections of the Landfill cover system, surface water drainage features, monitoring wells, leachate collection system, and the Landfill property.
- Mowing of the Landfill cover system and removal of all minor woody vegetative growth as noted in the 2024 PCM Report.
- Regular leachate removal from onsite extraction wells for treatment at RCSD No. 1.
- Integrity assessment of the monitoring network.
- Air, groundwater, and leachate quality monitoring.
- Replacement of leachate collection pumps from extraction wells as needed.

Operation and maintenance of the property continues to protect human health and the overall integrity of the Landfill. There were minor deficiencies requiring attention as indicated in the Landfill Inspection Form in Appendix A. The components of the remedy subject to O&M requirements (Landfill cover, gas venting, leachate collection, and surface water management) are functioning as designed. Regular inspections performed by Town of Ramapo personnel continue to show compliance with the remedy determined for the Landfill.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The Landfill continues to comply with the required activities set forth in the SMP for this reporting period. The ICs and ECs implemented at the site continue to function as designed. The environmental monitoring plan for the Landfill is ongoing and remains in accordance with the approved variance granted by the NYSDEC in 2003. The Town of Ramapo will continue to perform regular inspections to maintain the integrity of the Landfill and surrounding property to protect human health and the environment.

The following conclusions are made based on observations and analytical results collected during the reporting period of August 8 2024 through March 20, 2025:

Landfill Inspection:

- The Landfill appears secure and stable, and the Landfill cover is intact with no evidence of stressed vegetation, leachate discharges, or damage due to settlement or active vectors.
- Leaking gas vents were inspected by Town personnel and repaired as necessary. All gas vents were observed to be in stable condition and operating as designed during the 2025 PCM event.
- Town personnel maintain the Landfill cover system in excellent condition through regular mowing and maintenance to minimize woody vegetative growth.

Air Quality Monitoring:

- The March 17 – 20, 2025 air quality monitoring survey for explosive gas, H₂S, and VOCs indicated the Landfill is in compliance with the requirements set forth in 6 NYCRR 360-2.15(k)(4) and 2.17(f) (effective prior to 11/4/17).

Groundwater Monitoring:

- Groundwater flow direction in the overburden and bedrock aquifer systems is to the northwest and/or west towards Torne Brook. Groundwater gradients are similar in both aquifer systems and vertical gradients are consistent with historical trends.
- No site-related VOCs were detected in groundwater at or above the respective laboratory MDLs. Site related VOCs have not been detected in any groundwater sample since 2015 and have not exceeded TOGS 1.1.1 or NYDOH guidance values since 1997, with exception of one exceedance for Vinyl Chloride at 8-R in 2010.
- The ARAR for sodium was exceeded at all sampled public water supply wells (SVWC-93, SVWC-94, SVWC-95, and SVWC-96), which is consistent with historical results.
- Applicable TOGS 1.1.1 standards were exceeded for chromium, iron, manganese, magnesium, nickel and sodium at one or more monitoring wells.
- Historical trends are relatively consistent with prior analytical results.

Emerging Contaminant Sampling:

- Applicable TOGS 1.1.1 standards were exceeded for 1,4-Dioxane, PFOA, and PFOS at monitoring wells 8-OS, 8-I, 8-R, and 9-R, and at leachate manhole MH A-5.
- Exceedances of USEPA MCLs were detected at two public water supply wells (SVWC-94 and SVWC-95) and two private water supply wells (PW-1 and PW-2) for emerging contaminants PFOA, PFOS, and/or 1,4-Dioxane.

Leachate Collection System:

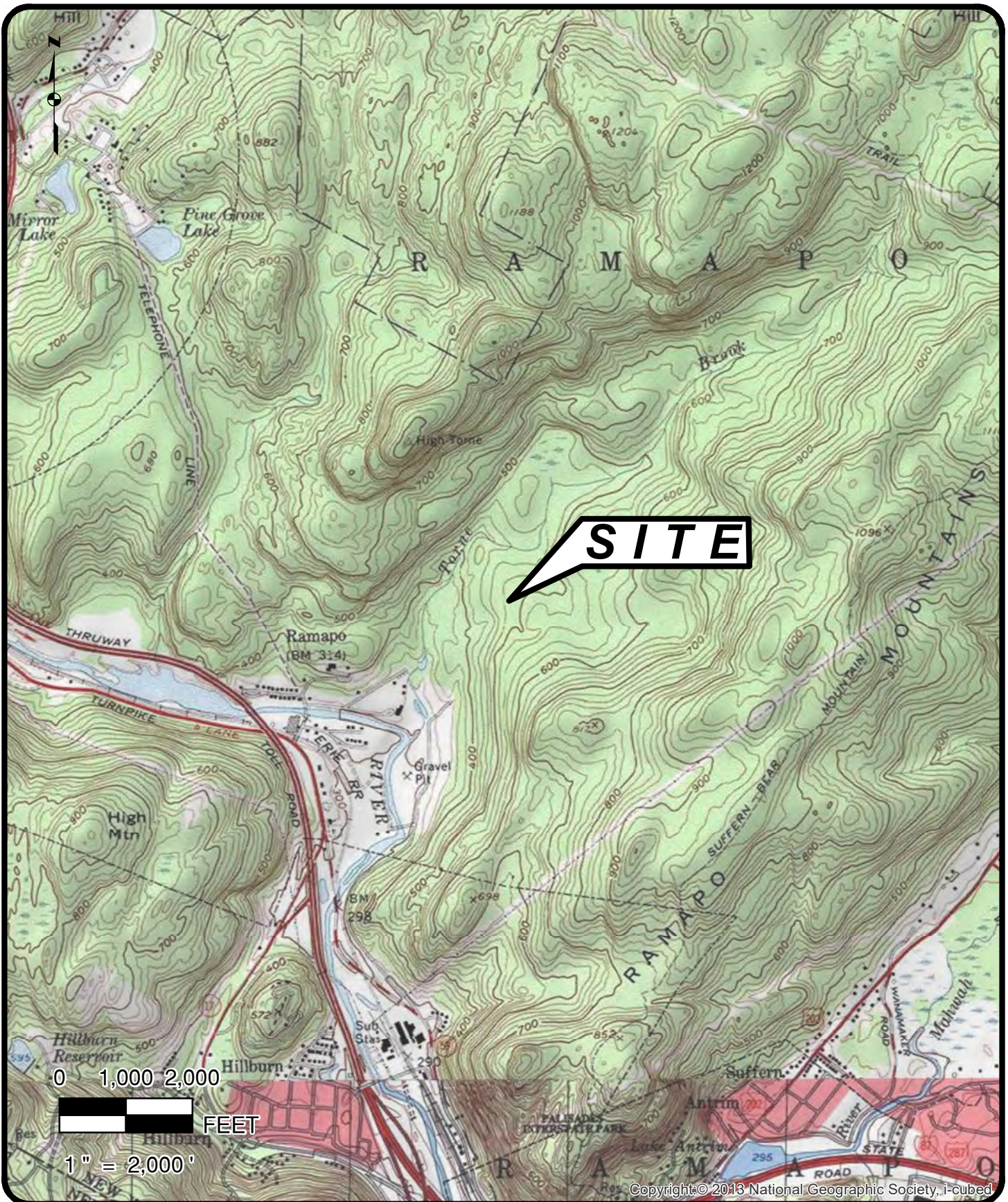
- The volume of leachate/groundwater pumped from Landfill extraction wells to the RCSD No. 1 Western Ramapo Treatment Plant during 2024 was approximately 13.9 million gallons and is 4% less than the annual average from 2014 through 2024.
- There were no reported discharge limit exceedances for the leachate/groundwater extracted from the Landfill and pumped to the RCSD No. 1 Western Ramapo Treatment Plant.

In accordance with the PCM Program and approved SMP, the next PCM event is to be conducted during the 2nd quarter of 2026. The most recent PRR was performed and submitted in 2023, therefore the next PRR is planned to be prepared in 2026.

S:\Sterling\Projects\2000 Projects\Town of Ramapo - 20010\Reports\2025 Post Closure Monitoring\Working Files\2025-06-03_Ramapo LF PCM Report.docx

FIGURES

S:\Sterling\Projects\2000 Projects\Town of Ramapo - 20010\Drawings-Maps-Figures\GIS\20010-001G_Site Location.mxd



STERLING

Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

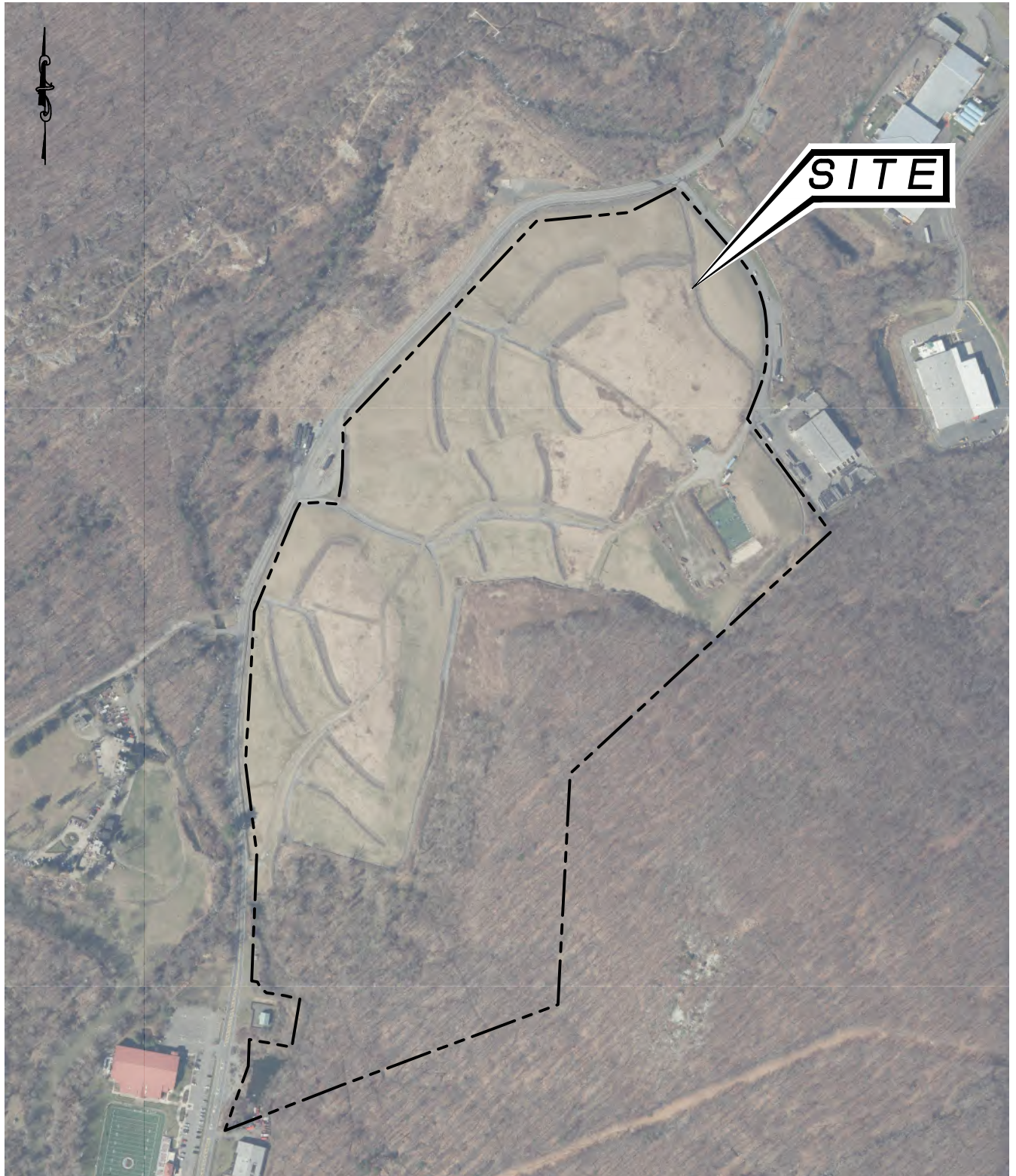
SITE LOCATION MAP
TOWN OF RAMAPO LANDFILL
TORNE VALLEY ROAD

TOWN OF RAMAPO

ROCKLAND CO., NY

PROJ.NO. 2024-07 | DATE: 08/13/2024 | SCALE: 1" = 2,000' | DWG.NO. 20010-001G | FIGURE 1

S:\Sterling\Projects\2000 Projects\Town of Ramapo - 20010\Drawings-Maps-Figures\ACAD\2025 PCM\20010088_F-2 - Site Vicinity.dwg BRIAN.CHEW 4/25/2025 9:19 AM



LEGEND:

----- APPROXIMATE PROPERTY LINE

REFERENCE:

1. AERIAL IMAGERY FROM NY STATEWIDE ORTHOIMAGERY PROGRAM, 2024.

STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

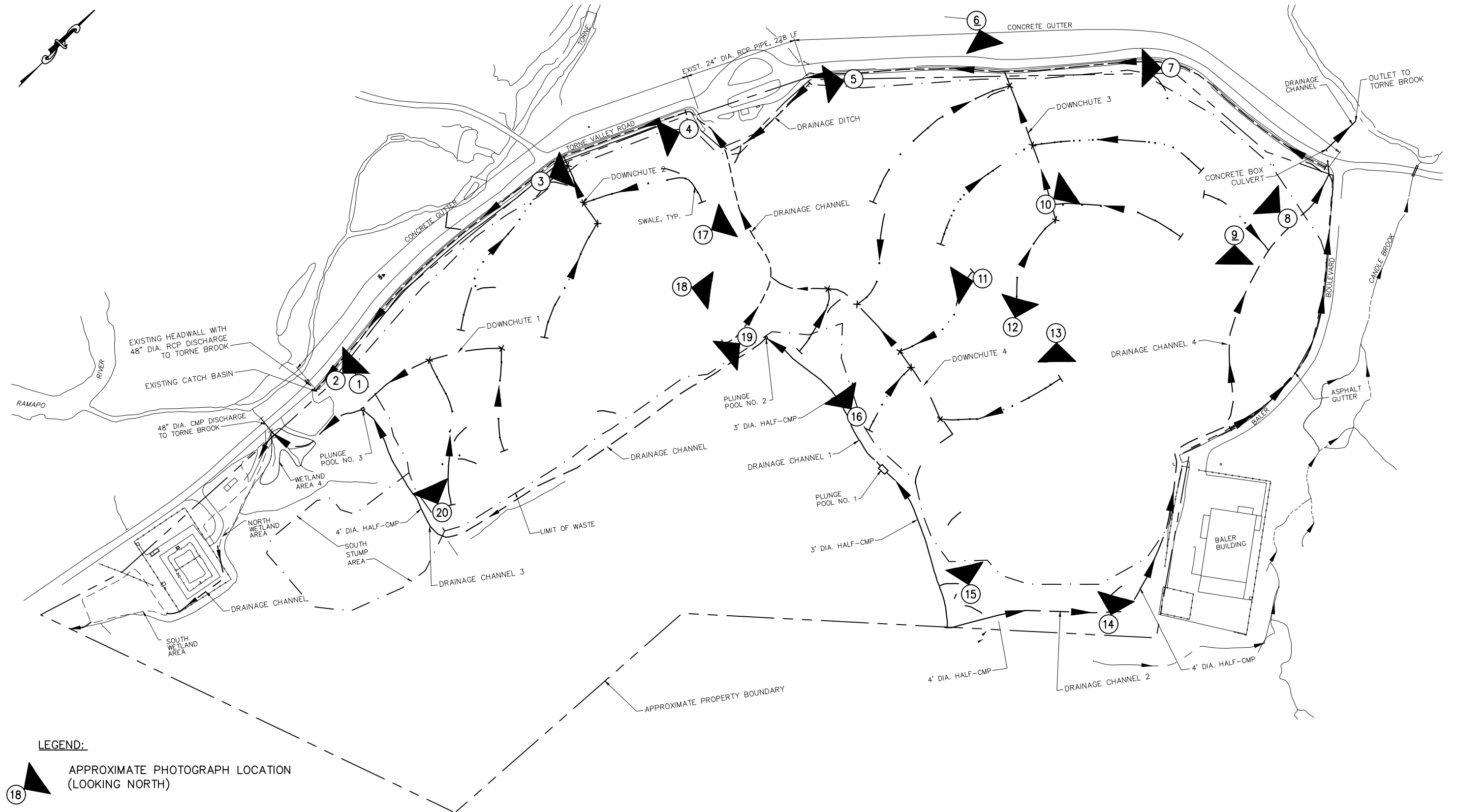
SITE VICINITY MAP
TOWN OF RAMAPO LANDFILL
TORNE VALLEY ROAD

TOWN OF RAMAPO

ROCKLAND CO., NY

PROJ. No.:	20010	DATE:	04/25/2025	SCALE:	1" = 500'	DWG. NO.	20010088	FIGURE	2

S:\Sterling\Projects\2000 Projects\Town of Ramapo - 2001\Drawings-Maps-Figures\ACAD\2025\PCM\20010090_F-4 - Stormwater and Photograph Locations.dwg 4/25/2025 9:55 AM



LEGEND:

- 18 APPROXIMATE PHOTOGRAPH LOCATION
(LOOKING NORTH)

NOTES:

1. BASE MAP FROM DWG. NO. 31, SURFACE DRAINAGE PLAN, BY URS CONSULTANTS, INC., BUFFALO, NY, JUNE 1994.
2. INFORMATION SHOWN FOR EXISTING PIPE SIZES ARE AS PROVIDED B A.R. SPARACO, JR., P.L.S., POMONA, NEW YORK

STERLING

Sterling Environmental Engineering, P.C.

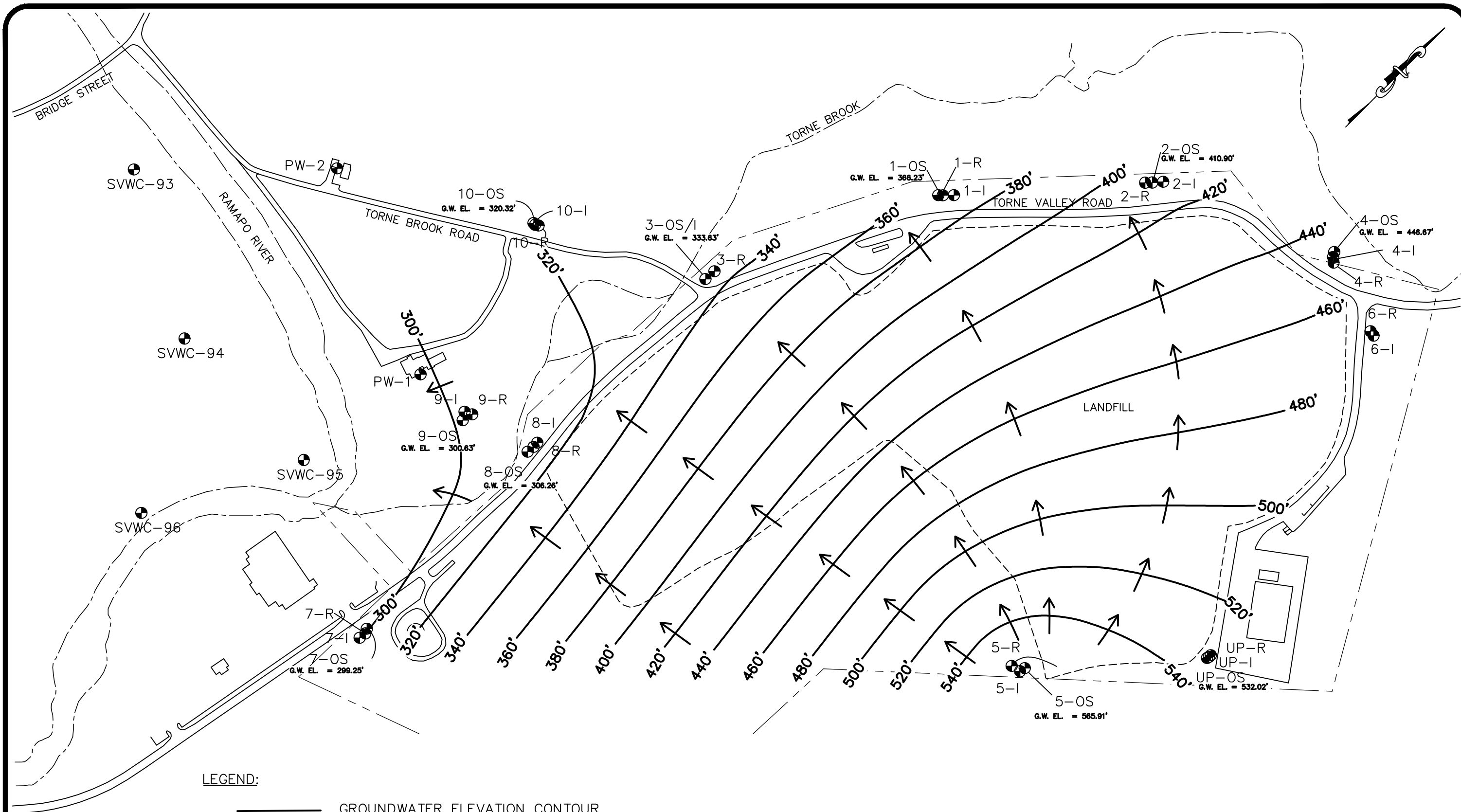
24 Wade Road • Latham, New York 12110

STORMWATER DRAINAGE FEATURES
AND PHOTOGRAPH LOCATIONS
TOWN OF RAMAPO LANDFILL
TORNE VALLEY ROAD

TOWN OF RAMAPO

ROCKLAND CO., NY

PROJ. No.: 20010 | DATE: 04/25/2025 | SCALE: 1" = 250' | DWG. NO. 20010090 | FIGURE 4



- LEGEND:**
- GROUNDWATER ELEVATION CONTOUR
 - GROUNDWATER FLOW DIRECTION
 - APPROXIMATE LANDFILL COVER SYSTEM BOUNDARY
 - APPROXIMATE LANDFILL PROPERTY BOUNDARY
 - 1-OS MONITORING WELL
 - GROUNDWATER ELEVATION

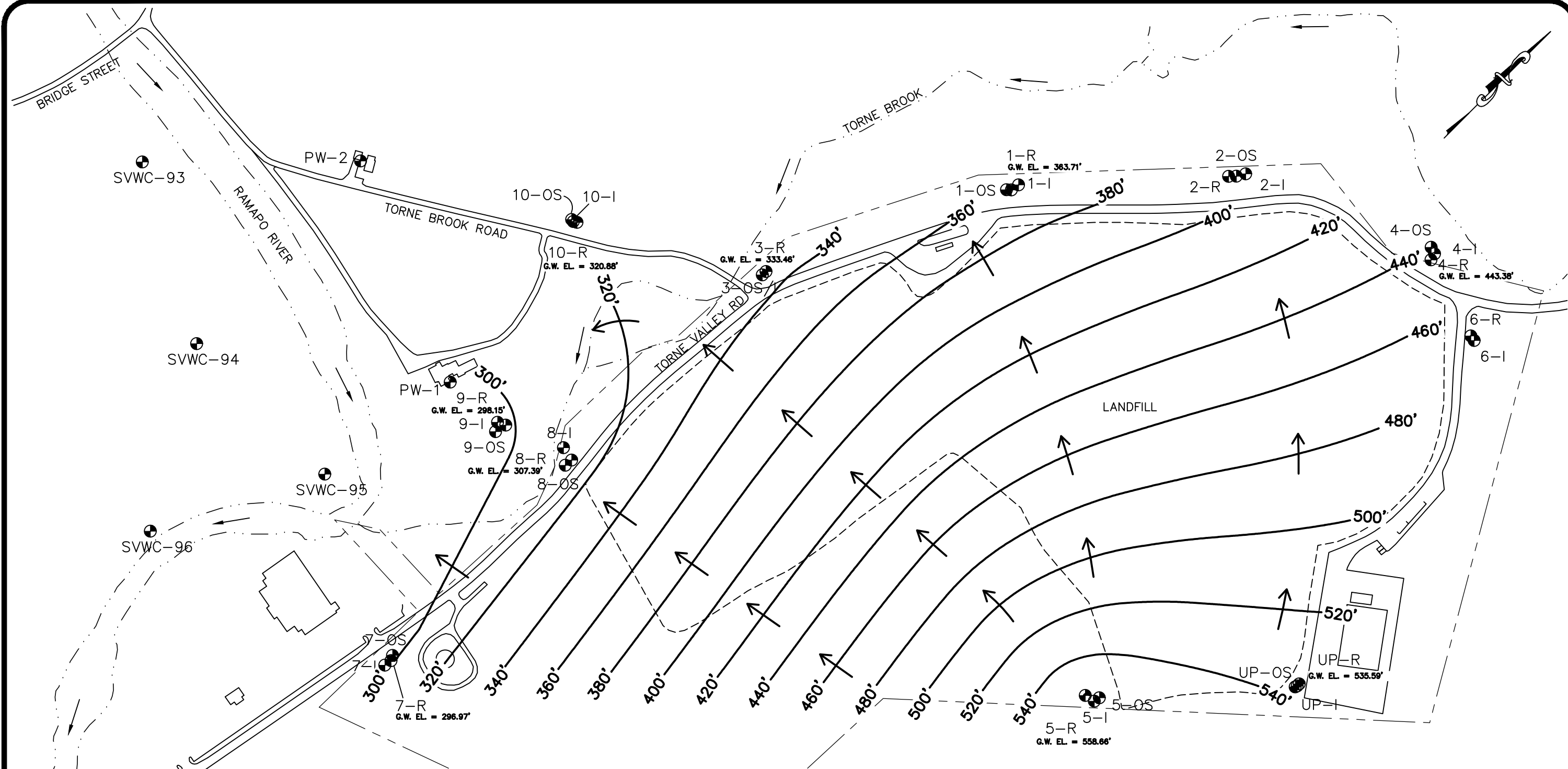
STERLING

Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

SHALLOW OVERBURDEN AQUIFER GROUNDWATER
ELEVATION CONTOURS – MARCH 17–19, 2025
TOWN OF RAMAPO LANDFILL
TORNE VALLEY ROAD

TOWN OF RAMAPO
ROCKLAND CO., N.Y.

PROJ. No.: 20010	DATE: 4/25/2025	SCALE: 1" = 300'	DWG. NO. 20010091	FIGURE 5



STERLING

Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

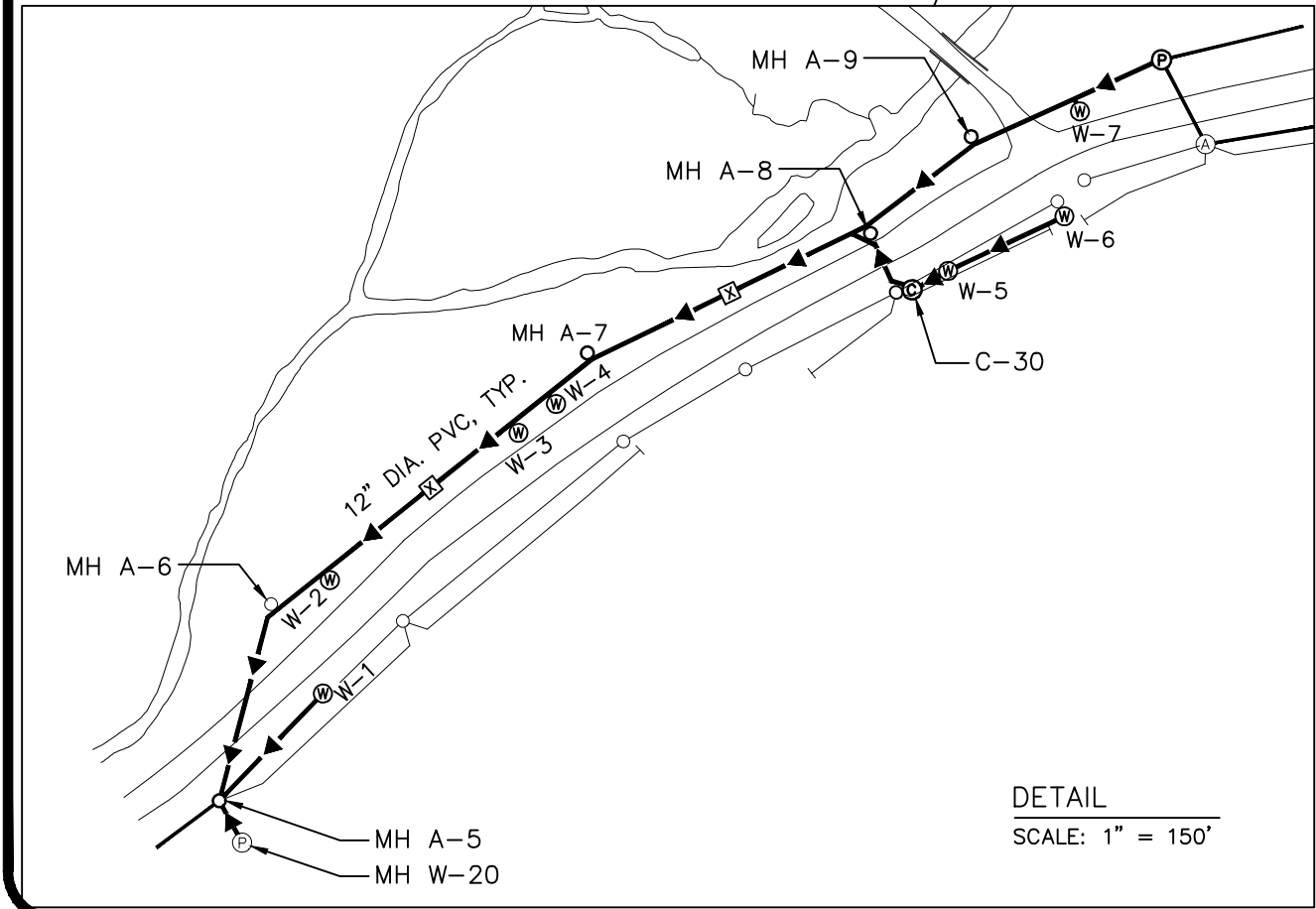
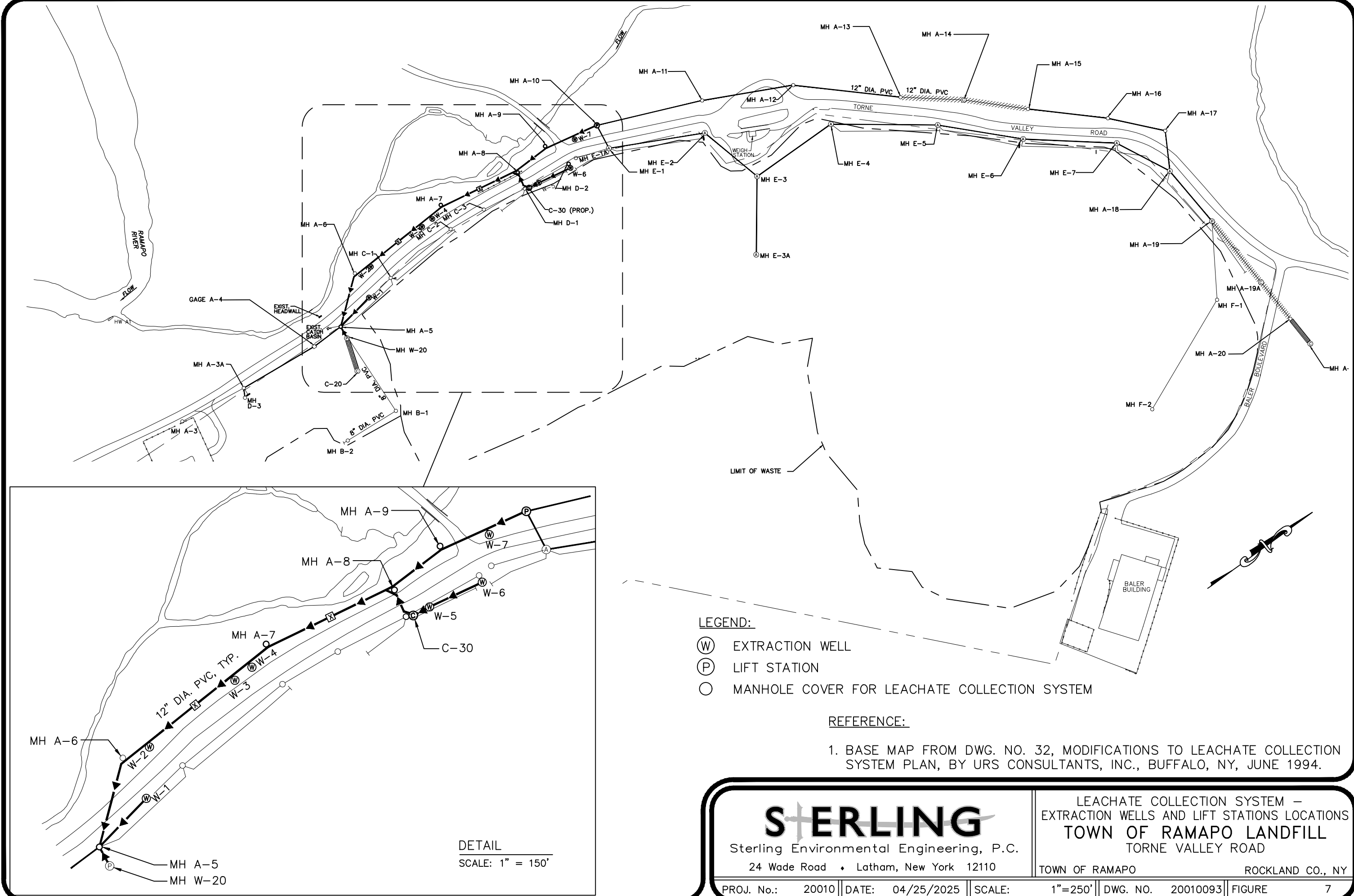
BEDROCK AQUIFER GROUNDWATER ELEVATION
CONTOURS - MARCH 17-19, 2025
TOWN OF RAMAPO LANDFILL
TORNE VALLEY ROAD

TOWN OF RAMAPO

ROCKLAND CO., NY

PROJ. No.: 20010 | DATE: 4/25/2025 | SCALE: 1" = 300' | DWG. NO. 20010092 | FIGURE 6

S:\Sterling\Projects\2000 Projects\Town of Ramapo - 2001\Drawings-Maps-Figures\ACAD\2025\PCM\20010093_F-7 - Leachate Collection System.dwg 4/25/2025 10:22 AM



STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

LEACHATE COLLECTION SYSTEM –
EXTRACTION WELLS AND LIFT STATIONS LOCATIONS
TOWN OF RAMAPO LANDFILL
TORNE VALLEY ROAD

TOWN OF RAMAPO

ROCKLAND CO., NY

PROJ. No.: 20010 | DATE: 04/25/2025 | SCALE: 1"=250' | DWG. NO. 20010093 | FIGURE 7

TABLES

Summary of Air Monitoring Results (March 17 - 19, 2025)
Town of Ramapo Landfill

Monitoring Location	LEL Reading (% LEL)	H ₂ S Reading (ppm)	VOC Reading (ppm)
UP-OS	0%	0.0	0.0
UP-I	0%	0.0	0.0
UP-R	0%	0.0	0.0
1-OS	0%	0.0	0.0
1-I	0%	0.0	0.0
1-R	0%	0.0	0.0
2-OS	0%	0.0	0.0
2-I	0%	0.0	0.0
2-R	NA - Well Infilled		
3-OS/I	0%	0.0	0.0
3-R	0%	0.0	0.0
4-OS	0%	0.0	0.0
4-I	0%	0.0	0.0
4-R	0%	0.0	0.0
5-OS	0%	0.0	0.0
5-I	0%	0.0	0.0
5-R	0%	0.0	0.0
6-I	0%	0.0	0.0
6-R	0%	0.0	0.0
7-OS	0%	0.0	0.0
7-I	0%	0.0	0.0
7-R	0%	0.0	0.0
8-OS	0%	0.0	0.0
8-I	0%	0.0	0.0
8-R	0%	0.0	0.0
9-OS	0%	0.0	0.0
9-I	0%	0.0	0.0
9-R	0%	0.0	0.0
10-OS	0%	0.0	0.0
10-I	0%	0.0	0.0
10-R	0%	0.0	0.0
Baler Building (Breathing Zone, North Corner)	0%	0.0	0.0
Baler Building (Breathing Zone, East Corner)	0%	0.0	0.0
Baler Building (Breathing Zone, South Corner)	0%	0.0	0.0
Baler Building (Breathing Zone, West Corner)	0%	0.0	0.0
Manhole A-5	0%	0.0	0.0
Lift Station A-10	0%	0.0	0.0
Lift Station W-20	0%	0.0	0.0
Landfill Perimeter (Breathing Zone, L1 - L23)	No Hits	No Hits	No Hits

Notes:

LEL = Lower Explosive Limit

H₂S = Hydrogen Sulfide

VOCs = Volatile Organic Compounds

ppm = Parts per Million

**Summary of Analytical Parameters and Method References
Town of Ramapo Landfill**

<u>Parameter</u>	<u>Document/Method No.</u>	<u>Reference</u>
Specific Conductance	120.1	1
Temperature	170.1	1
Static Water Level	---	---
Floaters or Sinkers	---	---
pH	150.1	1
Eh	D1498	2
Field Observations	---	---
TKN	EPA 351.1	1
COD	EPA 410.4	1
Alkalinity	SM 2320B	1
Hardness as CaCO ₃	EPA 6020B	1
Site Related Volatiles*		
1, 1-Dichloroethane	EPA 8260D	1
Vinyl Chloride	EPA 8260D	1
Benzene	EPA 8260D	1
Chlorobenzene	EPA 8260D	1
TAL Metals**	EPA 6020B	1
1,4-Dioxane	EPA 8270D-SIM	3
PFAS	EPA 1633	4

References:

1. New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) 9/89, 12/91 Revisions.
 2. American Society for Testing & Materials, ASTM, 1989.
 3. NYSDEC Ambient Water Quality Guidance Values for 1,4 Dioxane and Human Health (0.35 µg/L).
 4. NYSDEC DER, Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS), April 2023.
- Parameters will be measured by Field Personnel or Reference is not available.

Notes:

* Revised in Accordance with the NYSDEC's October 27, 2003 post-closure monitoring variance approval.

** Laboratory reporting limits (RL) must be equal to or less than the applicable water quality standard. Specifically, the RL for Antimony must be 3.0 µg/L or less and for Thallium must be 0.5 µg/L or less.

TABLE 3

Summary of Field Parameter Measurements (March 17 - 19, 2025)
Town of Ramapo Landfill

Parameter		Static Water Level ¹	Specific Conductivity	Temperature	pH	ORP	Turbidity
Units		feet	mS/cm	degrees C	pH Units	mV	NTU
Title 6 Part 703.5 Groundwater Standard		---	---	---	6.5<pH< 8.5	--	5.0
Well Sample ID	Date						
1-OS	3/19/2025	12.98	0.551	10.8	6.47	-127.8	21.88
1-I	3/19/2025	12.41	0.998	11.6	6.72	-148.3	25.20
1-R	3/19/2025	15.61	0.278	11.9	6.85	-97.2	15.29
2-OS	3/19/2025	11.84	0.598	9.3	7.02	-120.4	26.45
2-I	3/19/2025	14.95	0.462	14.3	7.59	-151.0	9.41
2-R	3/19/2025	NA - Well Abandoned					
3-OS/I	3/19/2025	12.14	0.512	9.2	6.45	-142.6	17.01
3-R	3/19/2025	12.05	0.686	11.7	6.55	-128.0	12.11
4-OS	3/18/2025	5.75	0.872	8.3	5.98	-73.6	32.27
4-I	3/18/2025	7.64	0.894	10.1	6.92	-137.4	42.15
4-R	3/18/2025	9.46	0.753	11.1	6.97	-301.2	12.31
5-OS	3/17/2025	Well Dry	---	---	---	---	---
5-I	3/17/2025	11.84	---	---	---	---	---
5-R	3/17/2025	26.09	---	---	---	---	---
6-I	3/19/2025	15.65	0.238	10.5	6.50	-165.0	3.47
6-R	3/19/2025	27.36	0.364	10.9	6.95	-173.4	1.13
7-OS	3/19/2025	11.34	0.767	8.5	6.34	-60.5	14.32
7-I	3/19/2025	11.69	0.917	12.4	6.05	-75.0	14.65
7-R	3/19/2025	13.92	0.455	11.7	6.89	-270.2	54.34
8-OS	3/18/2025	13.95	0.341	11.6	6.34	-151.1	11.94
8-I	3/18/2025	14.60	1.301	12.3	6.61	-302.5	7.47
8-R	3/18/2025	13.13	1.159	12.7	6.67	-299.3	3.69
9-OS	3/18/2025	8.89	0.080	10.0	6.14	-22.3	0.17
9-I	3/18/2025	10.17	0.105	11.6	6.10	-85.3	2.59
9-R	3/18/2025	11.42	0.593	11.4	6.68	-261.7	13.65
10-OS	3/17/2025	11.70	0.051	8.8	5.19	-21.3	1.08
10-I	3/17/2025	10.75	0.098	10.3	6.40	-134.9	11.55
10-R	3/17/2025	10.01	0.088	10.1	6.39	-111.0	15.46
UP-OS	3/17/2025	6.87	0.224	7.2	8.25	-114.5	10.14
UP-I	3/17/2025	7.66	0.169	8.7	8.55	-104.8	10.37
UP-R ⁽²⁾	3/17/2025	0.00	0.121	8.4	8.16	-118.3	2.42
PW-1	3/17/2025	---	0.131	12.4	6.98	13.5	2.77
PW-2	3/17/2025	---	0.129	12.3	6.49	-5.2	0.23
SVWC-93	3/18/2025	---	0.511	8.0	7.11	44.0	0.55
SVWC-94	3/18/2025	---	0.534	8.3	6.78	-85.1	0.19
SVWC-95	3/18/2025	---	0.440	7.3	6.83	-98.0	1.43
SVWC-96	3/18/2025	---	0.509	8.0	6.77	-91.3	0.88

NOTES :

¹ Measured from the top of the PVC or stainless steel well casing to water surface.

² Monitoring Well UP-R has artesian well characteristics. The static water level was exactly at the measuring point elevation.

Value in **BOLD** indicates an exceedance of applicable water quality standard or guidance value.

--- Denotes no standard or not measured.

TABLE 4

Summary of Groundwater Analytical Results (March 17 - 19, 2025)
Town of Ramapo Landfill, Hillburn, New York

ANALYTE	NY-AWQS	UP-OS	UP-I	UP-R	1-OS	1-I	1-R
		3/17/2025	3/17/2025	3/17/2025	3/19/2025	3/19/2025	3/19/2025
LEACHATE INDICATOR PARAMETERS, mg/L							
Alkalinity, Total	---	109	74.7	41.9	229	381	67.7
Chemical Oxygen Demand	---	2.7 U	2.7 U	8.1 J	2.7 U	12	34
Hardness	---	105.8	81.04	53.44	165.6	463.5	105.7
Total Kjeldahl Nitrogen	---	0.214 J	0.107 J	0.182 J	0.271 J	0.412	0.54
VOLATILE ORGANIC COMPOUNDS, µg/L							
1,1-Dichloroethane	5	0.13 U	0.13 U	0.13 U	0.7 U	0.7 U	0.7 U
Benzene	1	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chlorobenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Vinyl Chloride	2	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Total VOCs	---	0.00	0.00	0.00	0.00	0.00	0.00
1,4 DIOXANE, µg/L							
1,4-Dioxane	0.35 ⁽¹⁾	0.0368 U	0.0339 U	0.0339 U	NS	NS	NS
PERFLUORINATED ALKYL ACIDS, ng/L							
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	---	0.412 U	0.407 U	0.413 U	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	1.12 U	1.11 U	1.13 U			
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	---	0.838 U	0.828 U	0.841 U			
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	4.42 U	4.37 U	4.44 U			
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	---	3.91 U	3.86 U	3.92 U			
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	---	2.93 U	2.89 U	2.94 U			
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	---	0.492 U	0.486 U	0.494 U			
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	---	0.346 U	0.341 U	0.347 U			
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	---	0.404 U	0.399 U	0.406 U			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	---	1.47 U	1.45 U	1.47 U			
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	---	0.323 U	0.32 U	0.324 U			
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	---	1.01 U	1 U	1.02 U			
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---	0.441 U	0.436 U	0.442 U			
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	---	0.206 U	0.203 U	0.206 U			
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	---	1.2 U	1.18 U	1.2 U			
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---	0.441 U	0.436 U	0.442 U			
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	---	0.5 U	0.494 U	0.501 U			
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	---	0.301 U	0.298 U	0.302 U			
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	---	0.228 U	0.225 U	0.229 U			
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	---	0.331 U	0.327 U	0.332 U			
Perfluorobutanesulfonic Acid (PFBS)	---	0.368 U	0.363 U	0.369 U			
Perfluorobutanoic Acid (PFBA)	---	0.485 U	0.479 U	0.487 U			
Perfluorodecanesulfonic Acid (PFDS)	---	0.125 U	0.123 U	0.125 U			
Perfluorodecanoic Acid (PFDA)	---	0.191 U	0.189 U	0.192 U			
Perfluorododecanesulfonic Acid (PFDoS)	---	0.22 U	0.218 U	0.221 U			
Perfluorododecanoic Acid (PFDoA)	---	0.198 U	0.196 U	0.199 U			
Perfluoroheptanesulfonic Acid (PFHpS)	---	0.184 U	0.182 U	0.184 U			
Perfluoroheptanoic Acid (PFHpA)	---	0.22 U	0.218 U	0.221 U			
Perfluorohexanesulfonic Acid (PFHxS)	---	0.125 U	0.123 U	0.125 U			
Perfluorohexanoic Acid (PFHxA)	---	0.228 U	0.225 U	0.229 U			
Perfluorononanesulfonic Acid (PFNS)	---	0.184 U	0.182 U	0.184 U			
Perfluorononanoic Acid (PFNA)	---	0.243 U	0.24 U	0.243 U			
Perfluorooctanesulfonamide (PFOSA)	---	0.088 U	0.087 U	0.089 U			
Perfluorooctanesulfonic Acid (PFOS)	2.7 ⁽¹⁾	0.272 J	0.24 U	0.243 U			
Perfluorooctanoic Acid (PFOA)	6.7 ⁽¹⁾	0.5 J	0.24 U	0.243 U			
Perfluoropentanesulfonic Acid (PFPeS)	---	0.191 U	0.189 U	0.192 U			
Perfluoropentanoic Acid (PFPeA)	---	0.331 U	0.327 U	0.332 U			
Perfluorotetradecanoic Acid (PFTeDA)	---	0.147 U	0.145 U	0.147 U			
Perfluorotridecanoic Acid (PFTrDA)	---	0.169 U	0.167 U	0.17 U			
Perfluoroundecanoic Acid (PFUnA)	---	0.162 U	0.16 U	0.162 U			
PFAS, Total	---	0.772	0.000	0.000			
TOTAL METALS, mg/L							
Aluminum	---	0.103	0.0149	0.02	0.0271	0.341	0.097
Antimony	0.003	0.00042 U	0.00042 U	0.00042 U	0.0021 J	0.00071 J	0.00259 J
Arsenic	0.025	0.00026 J	0.00046 J	0.00016 U	0.00033 J	0.00096	0.00081
Barium	1	0.00304	0.00476	0.00287	0.00889	0.05267	0.03423
Beryllium	0.003	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Boron	1	0.0039 J	0.0025 J	0.0025 J	0.057	0.095	0.018
Cadmium	0.005	0.00005 U	0.00005 U	0.00005 U	0.00015 J	0.0001 J	0.00005 U
Calcium	---	29.8	24.6	15.6	49.5	133	31.3
Chromium	0.05	0.00147	0.00172	0.01499	0.0952	0.2312	0.248
Cobalt	---	0.00016 U	0.00016 U	0.00084	0.0008	0.01456	0.00456
Copper	0.2	0.00114	0.00038 U	0.00135	0.00258	0.00842	0.03376
Iron	0.3**	0.158	0.0191 U	0.702	1.5	2.12	1.98
Lead	0.025	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00077 J	0.00102
Magnesium	35	7.65	4.77	3.51	10.2	31.7	6.68
Manganese	0.3**	0.00356	0.00082 J	0.00781	0.561	0.3799	0.1901
Mercury	0.0007	0.00009 U	0.00009 U	0.00009 U	0.00012 J	0.00012 J	0.00012 J
Nickel	0.1	0.00055 U	0.0123	0.00218	0.01372	0.03484	0.03908
Potassium	---	0.561	0.492	0.565	2	8.55	8.53
Selenium	0.01	0.00173 U	0.00173 U	0.00173 U	0.00173 U	0.00173 U	0.00173 U
Silver	0.05	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Sodium	20	3.25	3.73	4.25	64.3	32.1	10.5
Thallium	0.0005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Vanadium	---	0.00157 U	0.00223 J	0.002 J	0.00157 U	0.00241 J	0.00205 J
Zinc	2	0.00482 J	0.00778 J	0.00371 J	0.00341 J	0.0044 J	0.00358 J

TABLE 4

Summary of Groundwater Analytical Results (March 17 - 19, 2025)
Town of Ramapo Landfill, Hillburn, New York

ANALYTE	NY-AWQS	2-OS	2-I	3-OS/I	3-R	4-OS	4-I	4-R
		3/19/2025	3/19/2025	3/19/2025	3/19/2025	3/18/2025	3/18/2025	3/18/2025
LEACHATE INDICATOR PARAMETERS, mg/L								
Alkalinity, Total	---	269	412	234	193	43.2	182	171
Chemical Oxygen Demand	---	3.2 J	3.2 J	2.7 U	12	12	14	23
Hardness	---	293.9	319.5	249.2	159	141.4	257.4	263.2
Total Kjeldahl Nitrogen	---	0.426	0.386	0.101 J	0.287 J	0.214 J	0.189 J	0.992
VOLATILE ORGANIC COMPOUNDS, µg/L								
1,1-Dichloroethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Benzene	1	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chlorobenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Vinyl Chloride	2	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Total VOCs	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,4 DIOXANE, µg/L								
1,4-Dioxane	0.35 ⁽¹⁾	NS	NS	NS	NS	NS	NS	NS
PERFLUORINATED ALKYL ACIDS, ng/L								
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	---	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---							
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	---							
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---							
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	---							
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	---							
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	---							
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	---							
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	---							
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	---							
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	---							
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	---							
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---							
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	---							
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	---							
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---							
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	---							
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEA)	---							
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	---							
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	---							
Perfluorobutanesulfonic Acid (PFBS)	---							
Perfluorobutanoic Acid (PFBA)	---							
Perfluorodecanesulfonic Acid (PFDS)	---							
Perfluorodecanoic Acid (PFDA)	---							
Perfluorododecanesulfonic Acid (PFDoS)	---							
Perfluorododecanoic Acid (PFDoA)	---							
Perfluoroheptanesulfonic Acid (PFHpS)	---							
Perfluoroheptanoic Acid (PFHpA)	---							
Perfluorohexanesulfonic Acid (PFHxS)	---							
Perfluorohexanoic Acid (PFHxA)	---							
Perfluorononanesulfonic Acid (PFNS)	---							
Perfluorononanoic Acid (PFNA)	---							
Perfluorooctanesulfonamide (PFOSA)	---							
Perfluorooctanesulfonic Acid (PFOS)	2.7 ⁽¹⁾							
Perfluorooctanoic Acid (PFOA)	6.7 ⁽¹⁾							
Perfluoropentanesulfonic Acid (PFPeS)	---							
Perfluoropentanoic Acid (PFPeA)	---							
Perfluorotetradecanoic Acid (PFTeDA)	---							
Perfluorotridecanoic Acid (PFTriDA)	---							
Perfluoroundecanoic Acid (PFUnA)	---							
PFAS, Total	---							
TOTAL METALS, mg/L								
Aluminum	---	0.149	0.0424	0.0388	0.0578	0.147	0.00398 J	0.184
Antimony	0.003	0.00074 J	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U
Arsenic	0.025	0.00111	0.00083	0.00025 J	0.00084	0.0007	0.00469	0.00108
Barium	1	0.03554	0.06226	0.01334	0.03876	0.03633	0.03262	0.01344
Beryllium	0.003	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Boron	1	0.069	0.309	0.049	0.069	0.0108 J	0.0758	0.045
Cadmium	0.005	0.00005 U	0.00011 J	0.00005 U	0.0002	0.00005 U	0.00005 U	0.00008 J
Calcium	---	99.1	79.8	80.4	42.9	32.2	70.8	71.1
Chromium	0.05	0.3412	0.00275	0.6726	0.1018	0.3816	0.04083	0.0243
Cobalt	---	0.00199	0.00043 J	0.0026	0.01312	0.00439	0.00182	0.00082
Copper	0.2	0.01795	0.00124	0.00692	0.00317	0.00423	0.00166	0.00338
Iron	0.3**	3.12	2.93	8.17	2.86	4.65	8.55	1.77
Lead	0.025	0.00051 J	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00046 J
Magnesium	35	11.2	29.2	11.8	12.6	14.8	19.5	20.8
Manganese	0.3**	0.05433	0.5015	0.3066	9.385	0.1822	2.598	0.3849
Mercury	0.0007	0.00012 J	0.00012 J	0.00012 J	0.00012 J	0.00009 U	0.00009 U	0.00009 U
Nickel	0.1	0.03794	0.00472	0.1972	0.1055	0.02384	0.04314	0.03502
Potassium	---	5.69	4.11	2.01	1.59	0.84	2.2	2.76
Selenium	0.01	0.00173 U	0.00173 U	0.00173 U	0.00173 U	0.00173 U	0.00173 U	0.00173 U
Silver	0.05	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Sodium	20	22.1	104	19.1	81.7	108	79.3	49.5
Thallium	0.0005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Vanadium	---	0.00281 J	0.00157 U	0.002 J	0.00157 U	0.00178 J	0.00157 U	0.00157 U
Zinc	2	0.00502 J	0.00341 U	0.00341 U	0.00386 J	0.00341 U	0.00341 U	0.00341 U

TABLE 4

Summary of Groundwater Analytical Results (March 17 - 19, 2025)
Town of Ramapo Landfill, Hillburn, New York

ANALYTE	NY-AWQS	6-I	6-R	7-OS	7-I	7-R
		3/19/2025	3/19/2025	3/19/2025	3/19/2025	3/19/2025
LEACHATE INDICATOR PARAMETERS, mg/L						
Alkalinity, Total	---	72.1	124	88	68.1	213
Chemical Oxygen Demand	---	2.7 U	2.7 U	2.7 U	19	26
Hardness	---	91.3	152.6	244.4	279.8	226.1
Total Kjeldahl Nitrogen	---	0.086 J	0.066 U	0.066 U	1.45	1.16
VOLATILE ORGANIC COMPOUNDS, µg/L						
1,1-Dichloroethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Benzene	1	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chlorobenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Vinyl Chloride	2	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Total VOCs	---	0.00	0.00	0.00	0.00	0.00
1,4 DIOXANE, µg/L						
1,4-Dioxane	0.35 ⁽¹⁾	NS	NS	NS	NS	NS
PERFLUORINATED ALKYL ACIDS, ng/L						
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	---	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---					
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	---					
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---					
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	---					
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	---					
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	---					
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	---					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	---					
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	---					
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	---					
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	---					
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---					
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	---					
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	---					
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---					
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	---					
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEA)	---					
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	---					
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	---					
Perfluorobutanesulfonic Acid (PFBS)	---					
Perfluorobutanoic Acid (PFBA)	---					
Perfluorodecanesulfonic Acid (PFDS)	---					
Perfluorodecanoic Acid (PFDA)	---					
Perfluorododecanesulfonic Acid (PFDoS)	---					
Perfluorododecanoic Acid (PFDoA)	---					
Perfluoroheptanesulfonic Acid (PFHpS)	---					
Perfluoroheptanoic Acid (PFHpA)	---					
Perfluorohexanesulfonic Acid (PFHxS)	---					
Perfluorohexanoic Acid (PFHxA)	---					
Perfluorononanesulfonic Acid (PFNS)	---					
Perfluorononanoic Acid (PFNA)	---					
Perfluorooctanesulfonamide (PFOSA)	---					
Perfluorooctanesulfonic Acid (PFOS)	2.7 ⁽¹⁾					
Perfluorooctanoic Acid (PFOA)	6.7 ⁽¹⁾					
Perfluoropentanesulfonic Acid (PFPeS)	---					
Perfluoropentanoic Acid (PFPeA)	---					
Perfluorotetradecanoic Acid (PFTeDA)	---					
Perfluorotridecanoic Acid (PFTriDA)	---					
Perfluoroundecanoic Acid (PFUnA)	---					
PFAS, Total	---					
TOTAL METALS, mg/L						
Aluminum	---	0.0102	0.0157	0.00912 J	0.355	1.1
Antimony	0.003	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U
Arsenic	0.025	0.00016 U	0.00016 U	0.00016 U	0.00116	0.00098
Barium	1	0.01165	0.01995	0.03535	0.08682	0.02476
Beryllium	0.003	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Boron	1	0.02	0.027	0.027	0.035	0.062
Cadmium	0.005	0.00005 U	0.00005 U	0.00005 U	0.00009 J	0.00031
Calcium	---	27.6	43.6	71.7	85.6	70.5
Chromium	0.05	0.01276	0.00255	0.00538	0.3783	0.05816
Cobalt	---	0.00045 J	0.00025 J	0.00016 U	0.00774	0.00496
Copper	0.2	0.00161	0.00136	0.00048 J	0.01501	0.01121
Iron	0.3**	0.283	0.0985	0.0258 J	0.647	15.1
Lead	0.025	0.00034 U	0.00034 U	0.00034 U	0.00093 J	0.00361
Magnesium	35	5.44	10.6	15.9	16	12.2
Manganese	0.3**	0.08701	0.2757	0.00156	0.08604	1.731
Mercury	0.0007	0.00012 J	0.00012 J	0.00012 J	0.00012 J	0.00016 J
Nickel	0.1	0.00138 J	0.02083	0.00055 U	0.00838	0.05643
Potassium	---	1.31	1.8	4.22	4.63	1.82
Selenium	0.01	0.00173 U	0.00173 U	0.00173 U	0.00339 J	0.00173 U
Silver	0.05	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Sodium	20	8.86	15.8	26.7	64.3	8.13
Thallium	0.0005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Vanadium	---	0.00157 U	0.00157 U	0.00157 U	0.00328 J	0.00233 J
Zinc	2	0.00341 U	0.01372	0.00341 U	0.0097 J	0.03434

TABLE 4

Summary of Groundwater Analytical Results (March 17 - 19, 2025)
Town of Ramapo Landfill, Hillburn, New York

ANALYTE	NY-AWQS	8-OS	8-I	8-R	9-OS	9-I	9-R
		3/18/2025	3/18/2025	3/18/2025	3/18/2025	3/18/2025	3/18/2025
LEACHATE INDICATOR PARAMETERS, mg/L							
Alkalinity, Total	---	83.5	438	483	19.1	24.2	174
Chemical Oxygen Demand	---	2.7 U	46	3.2 J	2.7 U	41	23
Hardness	---	103.7	387.5	554.2	27.07	27.02	116.4
Total Kjeldahl Nitrogen	---	0.315	10.4	0.739	0.081 J	0.083 J	2.47
VOLATILE ORGANIC COMPOUNDS, µg/L							
1,1-Dichloroethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Benzene	1	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chlorobenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Vinyl Chloride	2	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Total VOCs	---	0.00	0.00	0.00	0.00	0.00	0.00
1,4 DIOXANE, µg/L							
1,4-Dioxane	0.35 ⁽¹⁾	1.43	37.4	23.5	0.0326 U	0.0326 U	9.83
PERFLUORINATED ALKYL ACIDS, ng/L							
11-Chloroeicosfluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	---	0.46 U	0.455 U	0.429 U	0.448 U	0.446 U	0.432 U
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	1.26 U	1.24 U	1.17 U	1.22 U	1.22 U	1.18 U
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	---	0.937 U	0.926 U	0.873 U	0.912 U	0.907 U	0.879 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	4.95 U	48.9 U	4.61 U	4.82 U	4.79 U	7.76
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	---	4.37 U	152	4.07 U	4.26 U	4.23 U	13.9 J
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	---	3.27 U	3.23 U	3.05 U	3.18 U	3.17 U	3.07 U
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	---	0.55 U	9.37	0.513 U	0.536 U	0.533 U	0.832 J
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	---	0.386 U	0.382 U	0.36 U	0.376 U	0.374 U	0.362 U
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	---	0.452 U	0.447 U	0.421 U	0.44 U	0.438 U	0.424 U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	---	1.64 U	1.62 U	1.53 U	1.6 U	1.59 U	1.54 U
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	---	0.362 U	0.358 U	0.337 U	0.352 U	0.35 U	0.339 U
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	---	1.13 U	1.12 U	1.06 U	1.1 U	1.1 U	1.06 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---	0.493 U	5.35	2.7	0.48 U	0.477 U	1.41 J
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	---	0.23 U	0.228 U	0.214 U	0.224 U	0.223 U	0.216 U
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	---	1.34 U	1.32 U	1.25 U	1.3 U	1.3 U	1.26 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---	0.493 U	0.593 J	0.459 U	0.48 U	0.477 U	0.462 U
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	---	0.559 U	0.552 U	0.521 U	0.544 U	0.541 U	0.524 U
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEA)	---	0.337 U	0.333 U	0.314 U	0.328 U	0.326 U	0.316 U
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	---	0.255 U	0.715 J	0.237 U	0.248 U	0.247 U	0.239 U
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	---	0.37 U	0.39 J	0.344 U	0.36 U	0.358 U	0.347 U
Perfluorobutanesulfonic Acid (PFBS)	---	1.72	6.5	9.68	0.96 J	1.53 J	2.84
Perfluorobutanoic Acid (PFBA)	---	29.2	563	41	2.7 J	3.95 J	134
Perfluorodecanesulfonic Acid (PFDS)	---	0.14 U	0.138 U	0.13 U	0.136 U	0.135 U	0.131 U
Perfluorodecanoic Acid (PFDA)	---	0.427 J	1.37 J	2.53	0.208 U	0.207 U	0.262 JF
Perfluorododecanesulfonic Acid (PFDDoS)	---	0.246 U	0.244 U	0.23 U	0.24 U	0.239 U	0.231 U
Perfluorododecanoic Acid (PFDDoA)	---	0.222 U	0.219 U	0.207 U	0.216 U	0.215 U	0.208 U
Perfluoroheptanesulfonic Acid (PFHpS)	---	0.205 U	0.292 JF	0.39 J	0.2 U	0.199 U	0.193 U
Perfluoroheptanoic Acid (PFHpA)	---	3.52	27.3	16.5	1.77	2.39 U	8.61
Perfluorohexanesulfonic Acid (PFHxS)	---	1.02 J	10	13	0.544 J	0.358 J	2.58
Perfluorohexanoic Acid (PFHxA)	---	4.27	48.8	24.6	2.3	2.32	13.1
Perfluorononanesulfonic Acid (PFNS)	---	0.205 U	0.203 U	0.191 U	0.2 U	0.199 U	0.193 U
Perfluorononanoic Acid (PFNA)	---	18.1	446	1220	0.568 J	1.11 J	63.2
Perfluorooctanesulfonamide (PFOSA)	---	0.099 U	0.52 J	0.475 J	0.096 U	0.096 U	0.208 J
Perfluorooctanesulfonic Acid (PFOS)	2.7 ⁽¹⁾	4.81	12.4	17.2	1.96	2.51	5.7
Perfluorooctanoic Acid (PFOA)	6.7 ⁽¹⁾	8.5	58.3	53.5	5.44	5.53	18.6
Perfluoropentanesulfonic Acid (PFPeS)	---	0.214 J	2.67 F	2.37	0.208 U	0.207 U	0.848 JF
Perfluoropentanoic Acid (PFPeA)	---	4.75	25.2	18.3	1.44 J	2.51 J	8.66
Perfluorotetradecanoic Acid (PFTeDA)	---	0.164 U	0.162 U	0.153 U	0.16 U	0.159 U	0.154 U
Perfluorotridecanoic Acid (PFTriDA)	---	0.189 U	0.187 U	0.176 U	0.184 U	0.183 U	0.177 U
Perfluoroundecanoic Acid (PFUnA)	---	0.181 U	0.991 J	2.08	0.176 U	0.175 U	0.185 J
PFAS, Total	---	76.531	1322.961	1424.325	17.682	19.818	281.639
TOTAL METALS, mg/L							
Aluminum	---	0.00604 J	0.00559 J	0.0133	0.00327 U	0.0104	0.0219
Antimony	0.003	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U
Arsenic	0.025	0.00016 U	0.00276	0.00032 J	0.00016 U	0.00016 U	0.00478
Barium	1	0.00681	0.03864	0.01096	0.00405	0.00657	0.0225
Beryllium	0.003	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Boron	1	0.0284 J	0.2	0.12	0.0138 J	0.0193 J	0.0722
Cadmium	0.005	0.00005 U	0.00005 U	0.00032	0.00005 U	0.00007 J	0.00083
Calcium	---	30	107	161	7.87	7.75	31.7
Chromium	0.05	0.02213	0.00048 J	0.00629	0.00038 J	0.00662	0.09332
Cobalt	---	0.00033 J	0.00741	0.00812	0.00016 U	0.00016 U	0.00199
Copper	0.2	0.00103	0.00038 U	0.03647	0.00038 U	0.00043 J	0.00201
Iron	0.3**	0.225	5.66	0.5	0.0191 U	0.0669	7.22
Lead	0.025	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U
Magnesium	35	6.96	29	38	1.8	1.86	9.05
Manganese	0.3**	0.0816	3.562	2.728	0.00044 U	0.2303	2.542
Mercury	0.0007	0.00009 U	0.00009 U	0.00009 U	0.00009 U	0.00009 U	0.00009 U
Nickel	0.1	0.00934	0.01367	0.01675	0.00055 U	0.00065 J	0.03567
Potassium	---	1.39	14.2	2.61	0.716	0.701	7.39
Selenium	0.01	0.00173 U	0.00173 U	0.00173 U	0.00173 U	0.00173 U	0.00173 U
Silver	0.05	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Sodium	20	26.8	88.5	38.3	3.05	8.96	45.9
Thallium	0.0005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Vanadium	---	0.00157 U	0.00157 U	0.00157 U	0.00157 U	0.00157 U	0.00157 U
Zinc	2	0.00341 U	0.00341 U	0.00341 U	0.00341 U	0.00341 U	0.00341 U

TABLE 4

Summary of Groundwater Analytical Results (March 17 - 19, 2025)
Town of Ramapo Landfill, Hillburn, New York

ANALYTE	NY-AWQS	10-OS	10-I	DUP031725	10-R	MH A-5
		3/17/2025	3/17/2025	3/17/2025	3/17/2025	3/17/2025
LEACHATE INDICATOR PARAMETERS, mg/L						
Alkalinity, Total	---	4.22	27.7	27.5	25.2	NS
Chemical Oxygen Demand	---	2.7 U	3.6 J	2.7 U	2.7 U	NS
Hardness	---	12.4	33.15	32.18	28.58	NS
Total Kjeldahl Nitrogen	---	0.066 U	0.158 J	0.182 J	0.086 J	NS
VOLATILE ORGANIC COMPOUNDS, µg/L						
1,1-Dichloroethane	5	0.13 U	0.13 U	0.13 U	0.13 U	NS
Benzene	1	0.16 U	0.16 U	0.16 U	0.16 U	NS
Chlorobenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	NS
Vinyl Chloride	2	0.7 U	0.7 U	0.7 U	0.7 U	NS
Total VOCs	---	0.00	0.00	0.00	0.00	---
1,4 DIOXANE, µg/L						
1,4-Dioxane	0.35 ⁽¹⁾	0.0326 U	0.0326 U	0.0326 U	0.0326 U	2.36
PERFLUORINATED ALKYL ACIDS, ng/L						
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	---	0.414 U	0.404 U	0.445 U	0.432 U	0.44 U
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	1.13 U	1.1 U	1.22 U	1.18 U	1.2 U
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	---	0.843 U	0.823 U	0.907 U	0.879 U	0.895 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	4.45 U	4.35 U	4.79 U	4.64 U	4.72 U
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	---	3.93 U	3.84 U	4.23 U	4.1 U	4.18 U
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	---	2.94 U	2.87 U	3.16 U	3.07 U	3.12 U
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	---	0.495 U	0.484 U	0.533 U	0.516 U	0.526 U
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	---	0.347 U	0.339 U	0.374 U	0.362 U	0.369 U
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	---	0.406 U	0.397 U	0.437 U	0.424 U	0.432 U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	---	1.48 U	1.44 U	1.59 U	1.54 U	1.57 U
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	---	0.325 U	0.318 U	0.35 U	0.339 U	0.345 U
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	---	1.02 U	0.997 U	1.1 U	1.06 U	1.08 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---	0.444 U	0.433 U	0.477 U	0.462 U	1.23 J
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	---	0.207 U	0.202 U	0.223 U	0.216 U	0.22 U
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	---	1.2 U	1.18 U	1.3 U	1.26 U	1.28 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---	0.444 U	0.433 U	0.477 U	0.462 U	0.644 J
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	---	0.503 U	0.491 U	0.541 U	0.524 U	0.534 U
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEsA)	---	0.303 U	0.296 U	0.326 U	0.316 U	0.322 U
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	---	0.229 U	0.224 U	0.246 U	0.239 U	0.243 U
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	---	0.333 U	0.325 U	0.358 U	0.347 U	0.353 U
Perfluorobutanesulfonic Acid (PFBS)	---	0.37 U	0.361 U	0.398 U	0.385 U	3.04
Perfluorobutanoic Acid (PFBA)	---	0.488 U	0.477 U	0.525 U	0.509 U	31.4
Perfluorodecanesulfonic Acid (PFDS)	---	0.126 U	0.123 U	0.135 U	0.131 U	0.133 U
Perfluorodecanoic Acid (PFDA)	---	0.192 U	0.188 U	0.207 U	0.2 U	0.628 J
Perfluorododecanesulfonic Acid (PFDoS)	---	0.222 U	0.217 U	0.239 U	0.231 U	0.235 U
Perfluorododecanoic Acid (PFDoA)	---	0.2 U	0.195 U	0.215 U	0.208 U	0.212 U
Perfluoroheptanesulfonic Acid (PFHpS)	---	0.185 U	0.18 U	0.199 U	0.193 U	0.228 J
Perfluoroheptanoic Acid (PFHpA)	---	0.222 U	0.217 U	0.239 U	0.231 U	4.68
Perfluorohexanesulfonic Acid (PFHxS)	---	0.126 U	0.123 U	0.135 U	0.131 U	2.07
Perfluorohexanoic Acid (PFHxA)	---	0.229 U	0.224 U	0.246 U	0.239 U	8.64
Perfluorononanesulfonic Acid (PFNS)	---	0.185 U	0.18 U	0.199 U	0.193 U	0.196 U
Perfluorononanoic Acid (PFNA)	---	0.244 U	0.238 U	0.262 U	0.254 U	36.4
Perfluorooctanesulfonamide (PFOSA)	---	0.089 U	0.087 U	0.095 U	0.093 U	0.408 J
Perfluorooctanesulfonic Acid (PFOS)	2.7 ⁽¹⁾	0.244 U	0.238 U	0.262 U	0.254 U	12.2
Perfluorooctanoic Acid (PFOA)	6.7 ⁽¹⁾	0.244 U	0.238 U	0.262 U	0.254 U	18.7
Perfluoropentanesulfonic Acid (PFPeS)	---	0.192 U	0.188 U	0.207 U	0.2 U	0.589 J
Perfluoropentanoic Acid (PFPeA)	---	0.333 U	0.325 U	0.358 U	0.347 U	7.56
Perfluorotetradecanoic Acid (PFTeDA)	---	0.148 U	0.144 U	0.159 U	0.154 U	0.157 U
Perfluorotridecanoic Acid (PFTrDA)	---	0.17 U	0.166 U	0.183 U	0.177 U	0.18 U
Perfluoroundecanoic Acid (PFUnA)	---	0.163 U	0.159 U	0.175 U	0.17 U	0.966 J
PFAS, Total	---	0.000	0.000	0.000	0.000	129.4
TOTAL METALS, mg/L						
Aluminum	---	0.31	0.154	0.146	0.0081 J	NS
Antimony	0.003	0.00157 J	0.00042 U	0.00042 U	0.00042 U	NS
Arsenic	0.025	0.00016 U	0.00016 U	0.00016 U	0.00016 U	NS
Barium	1	0.00927	0.00197	0.00179	0.0029	NS
Beryllium	0.003	0.00014 J	0.0001 U	0.0001 U	0.0001 U	NS
Boron	1	0.0025 J	0.0064 J	0.0059 J	0.0074 J	NS
Cadmium	0.005	0.00009 J	0.00005 U	0.00005 U	0.00005 U	NS
Calcium	---	3.76	8.87	8.57	8.49	NS
Chromium	0.05	0.00032 J	0.00165	0.0006 J	0.0011	NS
Cobalt	---	0.0003 J	0.00016 U	0.00016 U	0.00016 U	NS
Copper	0.2	0.00043 J	0.00058 J	0.00079 J	0.00047 J	NS
Iron	0.3**	0.0377 J	0.286	0.258	0.0191 U	NS
Lead	0.025	0.00034 U	0.00034 U	0.00034 U	0.00034 U	NS
Magnesium	35	0.729	2.67	2.62	1.79	NS
Manganese	0.3**	0.03548	0.00269	0.00221	0.00278	NS
Mercury	0.0007	0.00009 U	0.00009 U	0.00009 U	0.00009 U	NS
Nickel	0.1	0.00081 J	0.00119 J	0.00076 J	0.00195 J	NS
Potassium	---	0.266	0.796	0.78	0.563	NS
Selenium	0.01	0.00173 U	0.00173 U	0.00173 U	0.00173 U	NS
Silver	0.05	0.00016 U	0.00016 U	0.00016 U	0.00016 U	NS
Sodium	20	1.97	3.9	3.76	3.89	NS
Thallium	0.0005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	NS
Vanadium	---	0.00157 U	0.00157 U	0.00157 U	0.00157 U	NS
Zinc	2	0.00341 U	0.00341 U	0.00341 U	0.00341 U	NS

Summary of Groundwater Analytical Results (March 17 - 19, 2025)
Town of Ramapo Landfill, Hillburn, New York

Notes:

NY-AWQS: New York T.O.G.S. 1.1.1. Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

⁽¹⁾ NY-AWQS: New York T.O.G.S. 1.1.1. Ambient Water Quality Standards for emerging contaminants (PFOA, PFOS, and 1,4-Dioxane) adopted March 15, 2023.

Bold = Value indicates reported concentration exceeds applicable water quality standards.

* Duplicate groundwater sample collected from bedrock monitoring well 10-1

** = The standard for the sum of iron and manganese is 0.5 mg/L.

--- Denotes no applicable water quality standard.

U = Analyte was not detected at or above laboratory method detection limit.

ND = Not Detected and No available Method Detection Limit (MDL) for this analyte.

⁽²⁾ = The laboratory Method Detection Limit (MDL) was higher than the NYTOGS 1.1.1. Groundwater Quality Standard.

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

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is approximate.

NS = Not sampled.

Qualifiers in **RED** were modified based on Data Validation Review (performed by Alpha Geoscience) of March 2025 results.

TABLE 5

Summary of Analytical Results for Downgradient Drinking Water Supply Wells (March 17 - 19, 2025)
Town of Ramapo Landfill, Hillburn, New York

ANALYTE	NY-AWQS	EPA-MCL	PW-1	DUP031725-DW	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
			3/17/2025	3/17/2025	3/17/2025	3/18/2025	3/18/2025	3/18/2025	3/18/2025
LEACHATE INDICATOR PARAMETERS, mg/L									
Alkalinity, Total	---	---	29.8	NS	68	49.2	49.8	58.3	52.9
Chemical Oxygen Demand	---	---	2.7 U	NS	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Hardness	---	---	29.9	NS	102	90.75	115.4	86.81	98.74
Nitrogen, Total Kjeldahl	---	---	0.166 J	NS	0.24 J	0.092 J	0.066 U	0.114 J	0.067 J
VOLATILE ORGANIC COMPOUNDS, µg/L									
1,1-Dichloroethane	5	---	0.21 U	NS	0.21 U	0.7 U	0.7 U	0.7 U	0.7 U
Benzene	1	5	0.16 U	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chlorobenzene	5	100	0.18 U	NS	0.18 U	0.7 U	0.7 U	0.7 U	0.7 U
Vinyl chloride	2	2	0.17 U	NS	0.17 U	0.7 U	0.7 U	0.7 U	0.7 U
Total VOCs	---	---	0.00	NS	0.00	0.00	0.00	0.00	0.00
1,4 DIOXANE, µg/L									
1,4-Dioxane	0.35 ⁽¹⁾	1	0.153	0.158 U	0.156 U	0.0346 U	0.061 U	0.691	0.13 U
PERFLUORINATED ALKYL ACIDS (PFAS), ng/L									
1-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	---	---	0.654 U	0.667 U	0.688 U	0.458 U	0.436 U	0.45 U	0.423 U
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	---	NA	NA	NA	1.25 U	1.19 U	1.23 U	1.16 U
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	---	---	NA	NA	NA	0.933 U	0.888 U	0.915 U	0.862 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	---	NA	NA	NA	4.93 U	4.69 U	4.83 U	4.55 U
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	---	---	NA	NA	NA	4.36 U	4.14 U	4.27 U	4.02 U
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	---	---	NA	NA	NA	3.26 U	3.1 U	3.2 U	3.01 U
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	---	---	NA	NA	NA	0.548 U	0.522 U	0.538 U	0.506 U
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	---	---	0.654 U	0.667 U	0.688 U	0.385 U	0.366 U	0.377 U	0.355 U
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	---	---	0.654 U	0.667 U	0.688 U	0.45 U	0.428 U	0.442 U	0.416 U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	---	10	0.654 U	0.667 U	0.688 U	1.64 U	1.56 U	1.61 U	1.51 U
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	---	---	NA	NA	NA	0.36 U	0.343 U	0.353 U	0.332 U
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	---	---	NA	NA	NA	1.13 U	1.07 U	1.11 U	1.04 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---	---	0.654 U	0.667 U	0.688 U	0.491 U	0.467 U	0.482 U	0.453 U
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	---	---	NA	NA	NA	0.229 U	0.218 U	0.225 U	0.212 U
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	---	---	NA	NA	NA	1.33 U	1.27 U	1.31 U	1.23 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---	---	0.654 U	0.667 U	0.688 U	0.491 U	0.467 U	0.482 U	0.453 U
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	---	---	NA	NA	NA	0.557 U	0.53 U	0.546 U	0.514 U
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	---	---	NA	NA	NA	0.336 U	0.319 U	0.329 U	0.31 U
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	---	---	NA	NA	NA	0.254 U	0.241 U	0.249 U	0.234 U
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	---	---	NA	NA	NA	0.368 U	0.35 U	0.361 U	0.34 U
Perfluorobutanesulfonic Acid (PFBS)	---	---	2.57 J-	2.06 J	0.688 U	1.51 J	1.72	1.69	1.47 J
Perfluorobutanoic Acid (PFBA)	---	---	0.654 U	0.667 U	0.688 U	2.64 J	2.84 J	3.89 J	2.98 J
Perfluorodecanesulfonic Acid (PFDS)	---	---	NA	NA	NA	0.139 U	0.132 U	0.136 U	0.128 U
Perfluorodecanoic Acid (PFDA)	---	---	NA	NA	NA	0.213 U	0.202 U	0.321 J	0.249 J
Perfluorododecanesulfonic Acid (PFDoS)	---	---	NA	NA	NA	0.246 U	0.234 U	0.241 U	0.227 U
Perfluorododecanoic Acid (PFDoA)	---	---	0.654 U	0.667 U	0.688 U	0.221 U	0.21 U	0.217 U	0.204 U
Perfluoroheptanesulfonic Acid (PFHpS)	---	---	NA	NA	NA	0.205 U	0.195 U	0.201 U	0.189 U
Perfluoroheptanoic Acid (PFHpA)	---	---	2.6 J	3.27 J	0.688 U	1.14 J	1.6	1.25 J	1.4 J
Perfluorohexanesulfonic Acid (PFHxS)	---	10	0.783 J+	0.911 J	0.791 J	0.909 J	0.966 J	1.04 J	0.982 J
Perfluorohexanoic Acid (PFHxA)	---	---	2.19	2.41	0.688 U	2.32	3	1.95	2.78
Perfluorononanesulfonic Acid (PFNS)	---	---	NA	NA	NA	0.205 U	0.195 U	0.201 U	0.189 U
Perfluorononanoic Acid (PFNA)	---	---	1.48 J+	1.61 J	0.696 J	0.827 J	1.76	17.7	4.06
Perfluorooctanesulfonamide (PFOSA)	---	---	NA	NA	NA	0.098 U	0.093 U	0.096 U	0.091 U
Perfluorooctanesulfonic Acid (PFOS)	2.7 ⁽¹⁾	4.0	4.17	3.44	3.26	2.21	2.11	2.71	2.55
Perfluorooctanoic Acid (PFOA)	6.7 ⁽¹⁾	4.0	11.5	11.3	3.59	3.3	4.72	4.14	3.86
Perfluoropentanesulfonic Acid (PFPeS)	---	---	NA	NA	NA	0.213 U	0.202 U	0.209 U	0.196 U
Perfluoropentanoic Acid (PFPeA)	---	---	NA	NA	NA	2.26 J	3.08 J	1.96 J	2.75 J
Perfluorotetradecanoic Acid (PFTeDA)	---	---	0.654 U	0.667 U	0.688 U	0.164 U	0.156 U	0.161 U	0.151 U
Perfluorotridecanoic Acid (PFTrDA)	---	---	0.654 U	0.667 U	0.688 U	0.188 U	0.179 U	0.185 U	0.174 U
Perfluoroundecanoic Acid (PFUnA)	---	---	0.654 U	0.667 U	0.688 U	0.18 U	0.171 U	0.281 J	0.174 J
PFAS, Total	---	---	25.293	25.001	8.337	17.116	21.796	36.932	23.255
TOTAL METALS, mg/L									
Aluminum	---	0.05-0.2**	0.0048 J	0.0033 U	0.0033 U	0.00327 U	0.00327 U	0.00327 U	0.00327 U
Antimony	0.006	0.006	0.0004 U	0.0004 U	0.0004 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U
Arsenic	0.01	0.01	0.0002 U	0.0002 U	0.0002 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Barium	2.0	2.0	0.0055	0.0054	0.0015	0.01073	0.01556	0.01093	0.01228
Beryllium	0.004	0.004	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Boron	1	---	0.0248 J	0.0204 J	0.0081 J	0.0217 J	0.0211 J	0.0238 J	0.0243 J
Cadmium	0.005	0.005	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Calcium	---	---	7.862	7.744	35.65	25	34.6	25.2	28.3
Chromium	0.1	0.1	0.0004 J	0.0002 J	0.0002 U	0.00022 J	0.00017 U	0.0002 J	0.00017 U
Cobalt	---	---	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Copper	---	1.3	0.0364	0.0358	0.0145	0.00399	0.00618	0.00339	0.0032
Iron	0.3*	0.3**	0.009 U	0.009 U	0.009 U	0.0191 U	0.0191 U	0.0191 U	0.0514
Lead	---	0.015	0.0007 J	0.0007 J	0.0003 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U
Magnesium	---	---	2.075	1.936	3.683	6.87	7.07	5.82	6.84
Manganese	0.3*	0.05**	0.0006 J	0.0005 J	0.0013	0.00044 U	0.00044 U	0.03022	0.00562
Mercury	0.002	0.002	0.0001 U	0.0001 U	0.0001 U	0.00009 U	0.00009 U	0.00009 U	0.00009 U
Nickel	---	---	0.0006 U	0.0006 U	0.0082	0.00055 U	0.00055 U	0.00055 U	0.00055 U
Potassium	---	---	0.903 J	0.864 J	1.04 J	1.75	1.87	1.69	1.76
Selenium	0.05	0.05	0.0017 U	0.0017 U	0.0017 U	0.00173 U	0.00173 U	0.00173 U	0.00173 U
Silver	0.1	0.1**	0.0002 U	0.0002 U	0.0002 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Sodium	20	--- ²	14.8	15.5	9.5	55.1	58.7	48.8	58.0
Thallium	0.002	0.002	0.0001 U	0.0001 U	0.0001 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Vanadium	---	---	0.0036 J	0.0016 U	0.0016 U	0.00157 U	0.00157 U	0.00157 U	0.00157 U
Zinc	5.0	5.0**	0.01211	0.00993	0.01844	0.00341 U	0.00993 J	0.00672 J	0.00341 U

Notes:
NY-AWQS: New York T.O.G.S. 1.1.1. Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.
NYSDOH Part 5: NYSDOH Part 5, SubPart 5-1 Public Water Supply Standards: MCLs Tables 1 - 7; Effective October 1, 2007 / USEPA MCLs: USEPA - Primary Drinking Water Standards

⁽¹⁾ NY-AWQS: New York T.O.G.S. 1.1.1. Ambient Water Quality Standards for emerging contaminants (PFOA, PFOS, and 1,4-Dioxane) adopted March 15, 2023.

⁽²⁾ While there is no Maximum Contaminant Level (MCL) for Sodium, people on severely restricted Sodium diets should consult with the County Health Department for guidance if reported concentration is higher than 20 mg/L.

Bold = Value indicates reported concentration exceeds NYS-AWQS and/or NYSDOH/USEPA Part 5 MCL.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is approximate.
U = Analyte was not detected at or above the laboratory method detection limit.
ND = Not Detected
NS = Not Sampled.
* = The standard for the sum of iron and manganese is 0.5 mg/L.
** = USEPA Secondary Drinking Water Standard. This standard is associated with aesthetic characteristics of the sample and not adverse health effects.
--- Denotes no applicable water quality standard.

Qualifiers in **RED** were modified based on Data Validation Review (performed by Alpha Geoscience) of March 2025 results.

Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	10.8	NA	0.47	17.8	NA	0.77	0.382	0.268	6.64	NA	0.217	30.8	NA	2.9	NA	NA	2.81	NA	0.121 B
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	20.2	NA	4.99	20.3	NA	0.0657 B	2.03	0.829	2.68	NA	0.0317 B	15.4	NA	0.483	NA	NA	2.79 N	NA	0.0615 B,N
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	13.6	NA	0.495	6.05	NA	3.77	0.195 B	0.325	1.41	NA	0.164 B	NA	4.15	6.21	NA	NA	4.44	NA	0.0149 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	NA	NA	0.0485 B	20.3	NA	1.96	2.74	1.15	6.95	NA	0.255	NA	1.35	1.11	NA	NA	1.24	NA	NA
Mar-04	NA	NA	NA	8.88	NA	NA	3.57	NA	1.37	NA	NA	98.8	NA	NA	NA	NA	25	NA	NA
Jun-05	0.765	NA	NA	1.19	NA	NA	0.0104 U	NA	0.386	NA	NA	NA	0.247	NA	NA	NA	1.52	NA	NA
Sep-06	39	NA	NA	4.5	NA	NA	0.58	NA	2.5	NA	NA	230	NA	NA	NA	NA	11	NA	NA
Oct-07	47	NA	NA	12.0	NA	NA	0.52	NA	9.8	NA	NA	0.37	NA	NA	NA	NA	7.9	NA	NA
Mar-09	12	NA	NA	3.2	NA	NA	0.87	NA	3.8	NA	NA	65	NA	NA	NA	NA	4.0	NA	NA
May-10	14.6	NA	NA	3.2	NA	NA	0.629	NA	2.35	NA	NA	115	NA	NA	NA	NA	15	NA	NA
Sep-11	20.1	NA	0.28	2.4	NA	0.12 J	0.97	0.25	1.2	NA	NA	42.5	1.1	19.9	NA	NA	12.8	NA	NA
Nov-12	12.9	NA	NA	1.6	NA	NA	0.17 J	NA	4.4	NA	NA	42	NA	NA	NA	NA	8.7	NA	NA
Mar-14	17.5	NA	NA	3.1	NA	NA	1.7	NA	3.0	NA	NA	36.3	NA	NA	NA	NA	17.8	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	3.22	NA	NA	0.176	NA	NA	0.036	NA	0.304	NA	NA	6.58	NA	NA	NA	NA	0.723	NA	NA
Jan-17	0.915	NA	NA	0.131	NA	NA	0.013	NA	0.038	NA	NA	NA	NA	NA	NA	NA	0.029	NA	NA
May-18	0.085	NA	NA	0.140	NA	NA	0.0835	NA	0.0502	NA	NA	NA	NA	NA	NA	NA	0.0582	NA	NA
Jul-19	0.141	NA	NA	0.735	NA	NA	1.12	NA	0.0184	NA	NA	NA	NA	NA	NA	NA	0.111	NA	NA
Oct-20	0.133	NA	NA	0.108	NA	NA	0.975	NA	0.055 J	NA	NA	NA	NA	NA	NA	NA	1.82	NA	NA
Jan-22	0.15	NA	NA	0.292	NA	NA	0.0124	NA	0.314	NA	NA	NA	NA	NA	NA	NA	0.0213	NA	NA
May-23	0.018	NA	NA	0.0463	NA	NA	0.00752 J	NA	0.0204	NA	NA	NA	NA	NA	NA	NA	0.017	NA	NA
Aug-24	0.0366	NA	NA	0.398	NA	NA	0.0041 J	NA	0.0173	NA	NA	NA	NA	NA	NA	NA	0.0568	NA	NA
Mar-25	0.0271	0.341	0.097	0.149	0.424	NA	0.0388	0.0578	0.147	0.00398 J	0.184	NA	NA	NA	0.0102	0.0157	0.0091 J	0.355	1.1

Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	0.0454	0.147	0.0148	0.183	0.306	0.0465	NA	NA	NA	NA	NA	NA	0.0298	0.0263	0.0355	0.0291	0.0244	0.0255
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	0.0495 B	1.27	0.0622 B	1.30	1.44	0.212	NA	NA	NA	NA	NA	NA	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.591 N	17.6 N	0.483 N	2.31 N	12.7 N	0.368 N	NA	NA	NA	NA	NA	NA	0.0104 U	0.0104 U	0.0104 U	0.113 B	0.237	0.15 B
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	1.02	1.47	0.0217 B	0.487	1.01	0.0149 U	NA	NA	NA	NA	NA	NA	0.0149 U	0.0149 U	0.0149 U	0.0149 U	0.0149 U	0.0149 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	0.149 B	6.82	0.0542 B	0.968	2.12	0.0358 B	NA	NA	NA	NA	NA	NA	0.0158 U	0.0158 U	0.0158 U	0.0158 U	0.0158 U	0.0158 U
Mar-04	0.0477 B	7.04	0.0182 U	0.311	0.965	0.286	NA	NA	NA	NA	NA	NA	0.0182 U	0.0182 U	0.0182 U	0.0182 U	0.0182 U	0.0182 U
Jun-05	0.735	0.184 B	0.0104 U	0.291	0.173 B	0.0265 B	NA	NA	NA	NA	NA	NA	0.0104 U	0.0104 U	0.0104 U	0.0104 U	0.0104 U	0.0104 U
Sep-06	0.14	8.7	1.20	1.00	12	0.073	NA	NA	NA	NA	NA	NA	0.076	0.067	0.063	0.056	0.037	0.014
Oct-07	0.089	10.0	0.07	4.00	21	0.14	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Mar-09	0.10 U	8.3	0.10 U	3.90	13	0.10 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U
May-10	0.20 U	5.97	0.20 U	2.43	18.3	0.495	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	NA	0.105 U	0.2 U
Sep-11	0.11 J	0.20000 U	0.20 U	3.50	21.9	0.20 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA
Nov-12	0.20 U	0.23	0.20 U	0.52	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA
Mar-14	ND	0.18 J	ND	1.80	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Nov-14	NA	NA	NA	NA	NA	NA	0.1 U	1.58	2.59	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.0099 J	0.018	0.002 J	0.75	0.008 J	0.008 J	0.608	0.240	0.09	NA	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Jan-17	0.017	0.009 J	0.011	0.009 J	0.015	0.011	0.39	0.012	0.04	0.159	0.12	0.131	0.003 U	0.003 J	0.01	0.003 U	0.003 U	0.004 J
May-18	0.00789 J	0.00934 J	0.00734 J	0.0198	0.0173	0.071	0.448	0.092	0.418	0.122	1.54	0.00462 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Jul-19	0.00489 J	0.00327 U	0.00327 U	0.0408	0.00698 J	0.0254	0.262	0.0384	0.0348	0.699	0.042	0.0225	0.00327 U	0.00391 J	0.00327 U	0.00327 U	0.00327 U	0.00327 U
Oct-20	0.0216	0.004 J	0.016	0.0073 J	0.02010	0.00918 J	0.359	0.016	0.0636	0.0454	0.0955	0.00424 J	0.00327 U	0.00327 U	0.00327 U	0.00327 U	0.00327 U	0.00327 U
Jan-22	0.00963 J	0.00327 U	0.0371	0.00758 J	0.0777	0.042	1.58	0.0154	0.0449	0.113	0.0519	NA	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
May-23	0.00368 J	0.00327 U	0.0105	0.00936 J	0.00922 J	0.0777	0.468	0.00964 J	0.0284	1.17	0.599	0.00499 J	0.0318 U	0.0318 U	0.0318 U	0.00557 J	0.00327 U	0.0318 U
Aug-24	0.00327 U	0.00327 U	0.012	0.0326	0.0922	0.11	0.624	0.00578 J	0.0138	0.136	0.0212	0.00533 J	0.00698 J	0.00327 U	0.00327 U	0.00385 J	0.00327 U	0.00327 U
Mar-25	0.00604 J	0.00559 J	0.0133	0.00327 U	0.0104	0.022	0.31	0.154	0.0081 J	0.103	0.0149	0.02	0.0048 J	0.0033 U	0.00327 U	0.00327 U	0.00327 U	0.00327 U

Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = None Listed; USEPA Secondary MCL = .05 mg/L; and, PART 5 MCL = Not Available
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or Secondary MCL/MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed
NS = Well Not Sampled

Laboratory Qualifier Definitions

ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

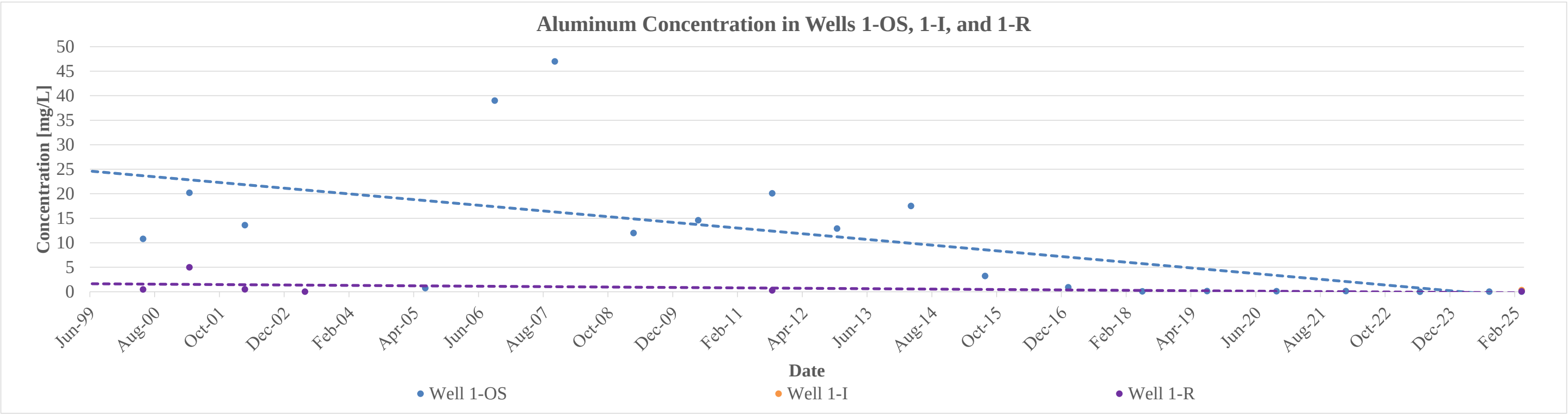


Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

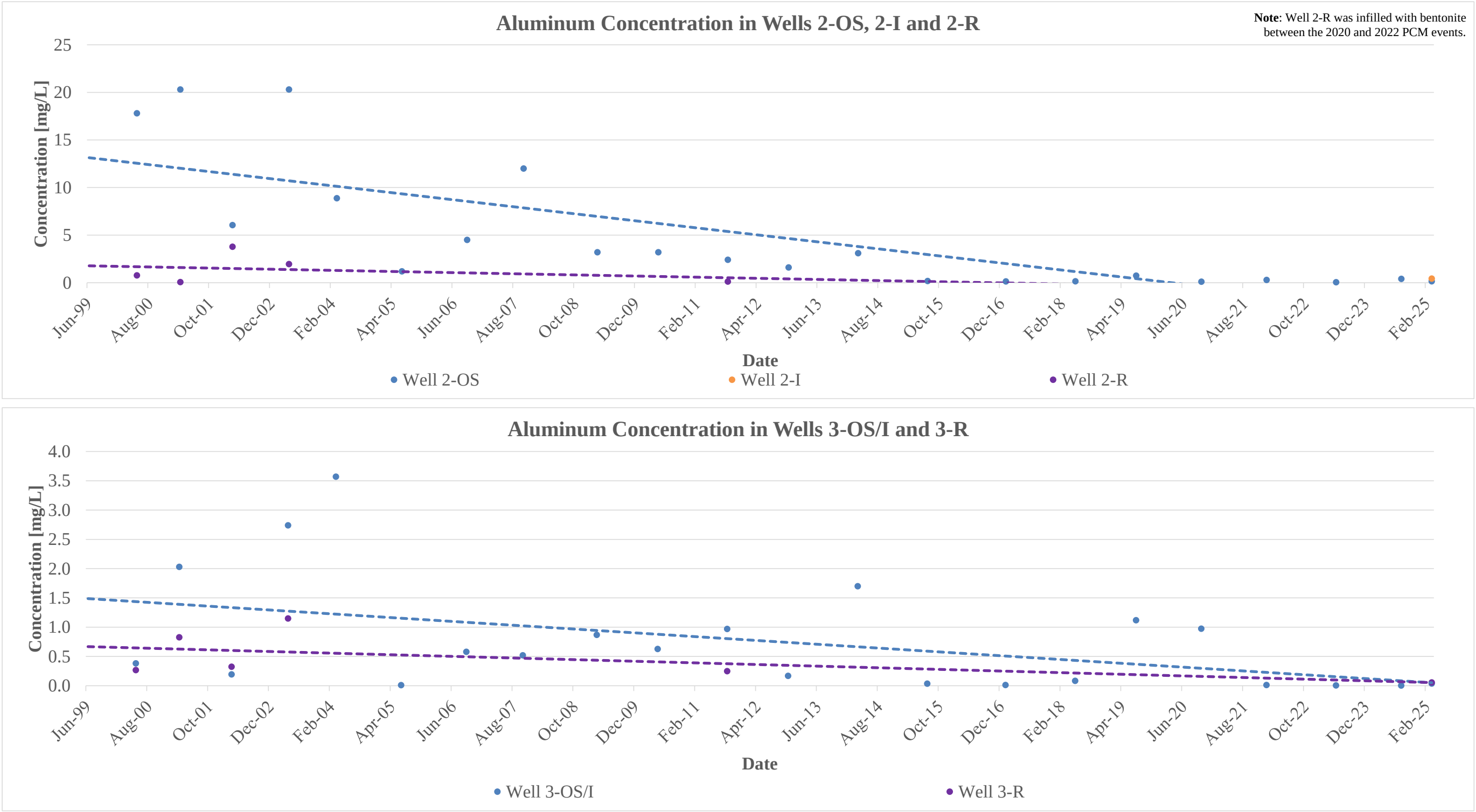


Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

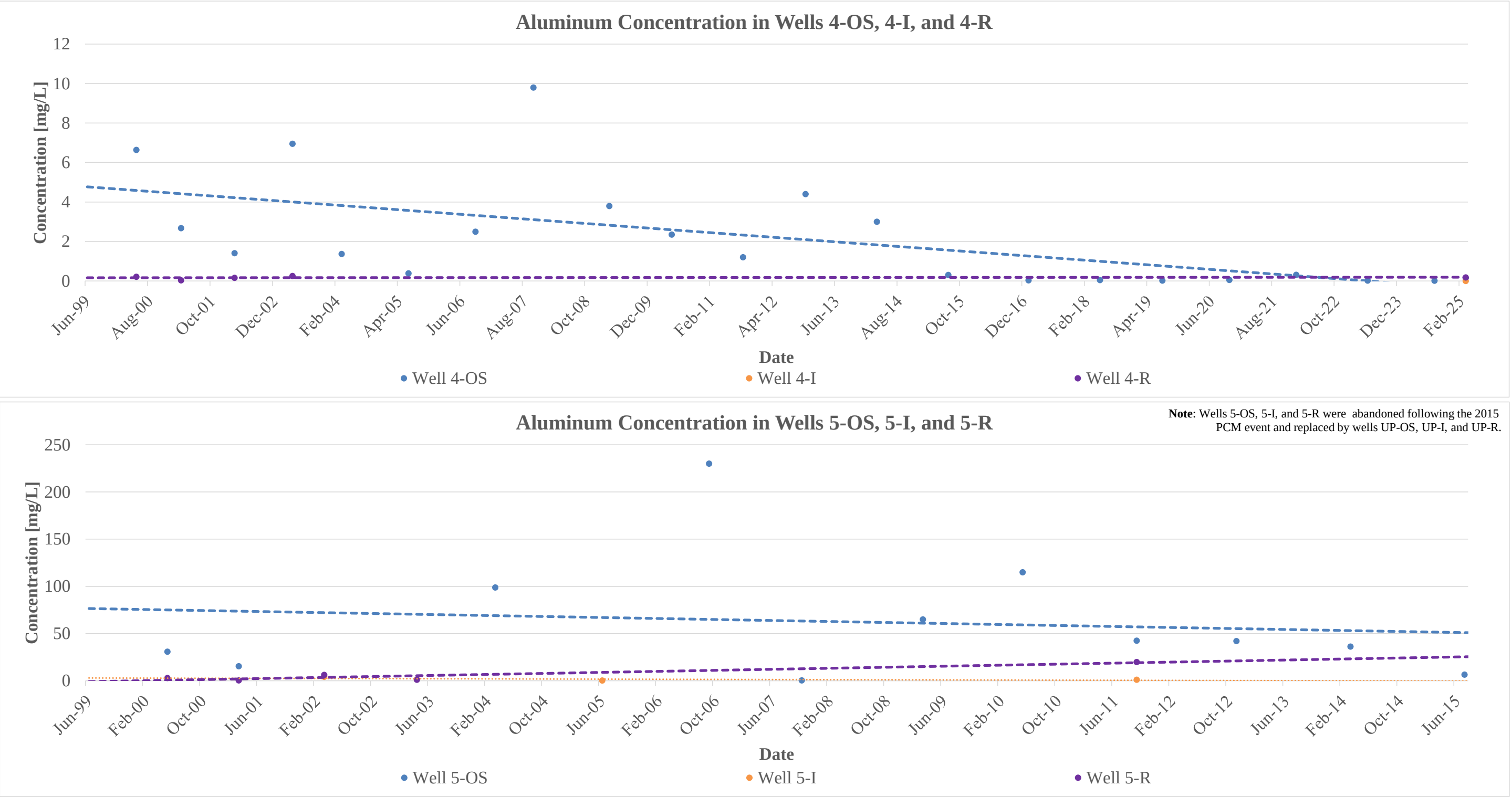


Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

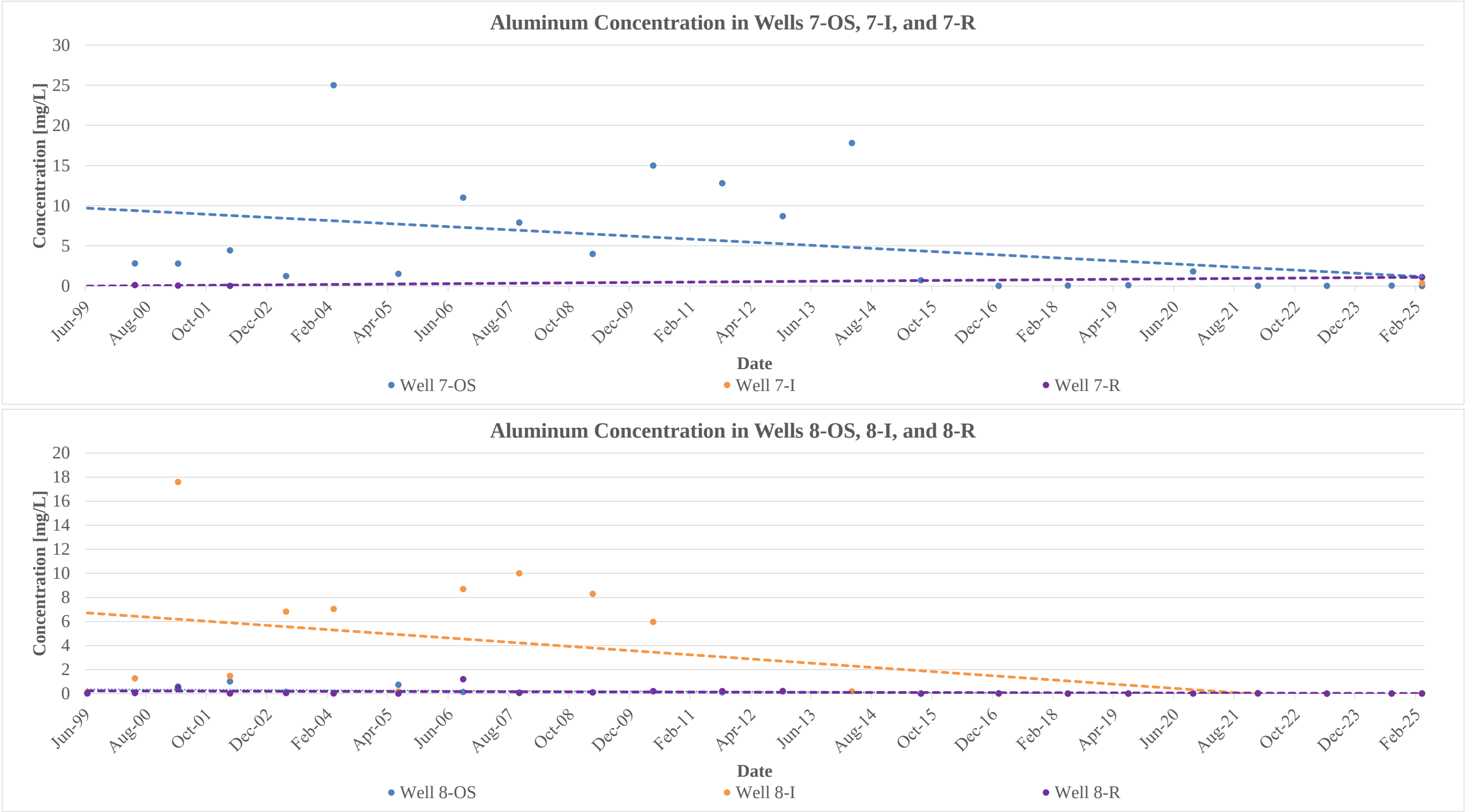


Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

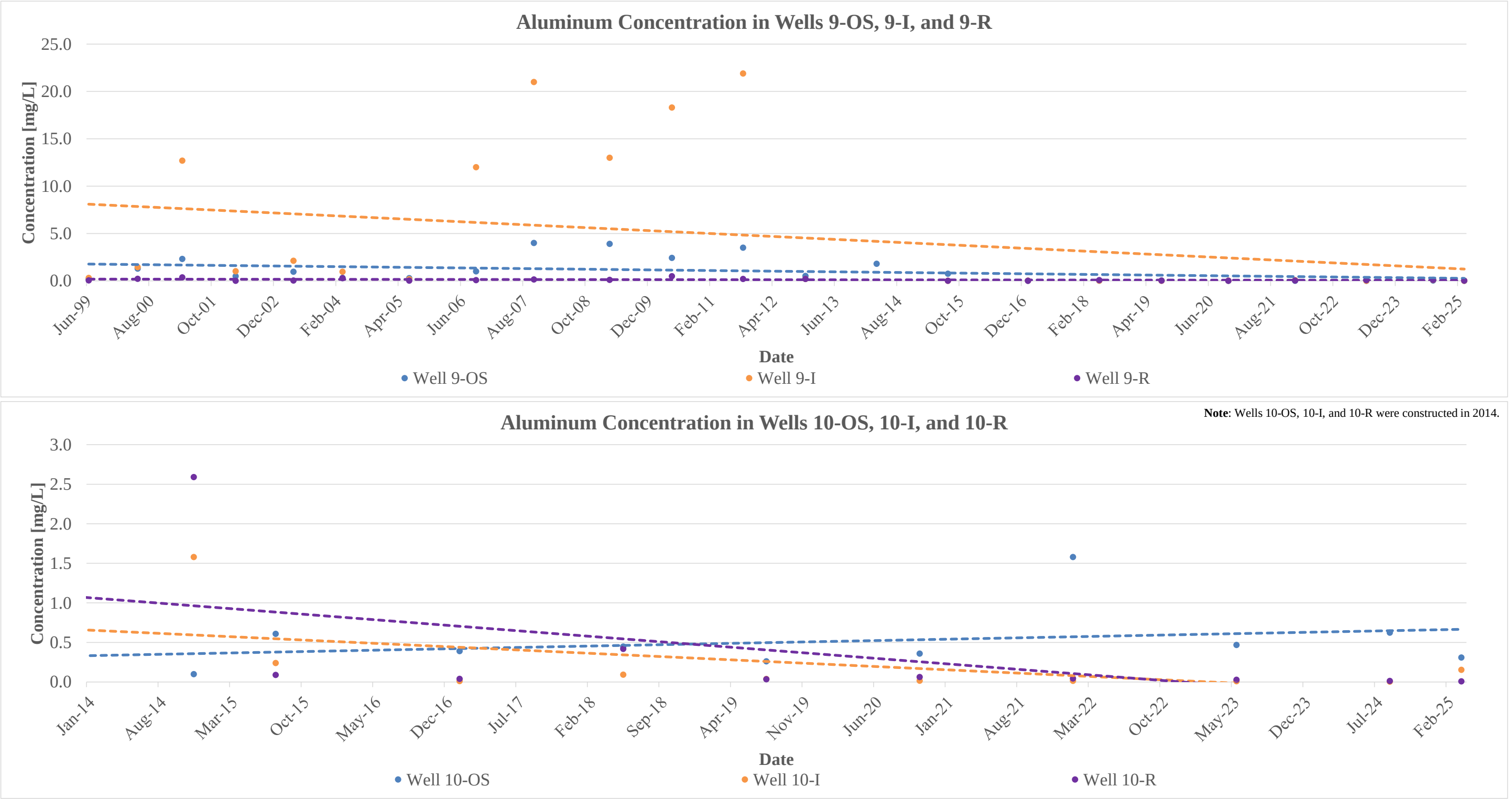


Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

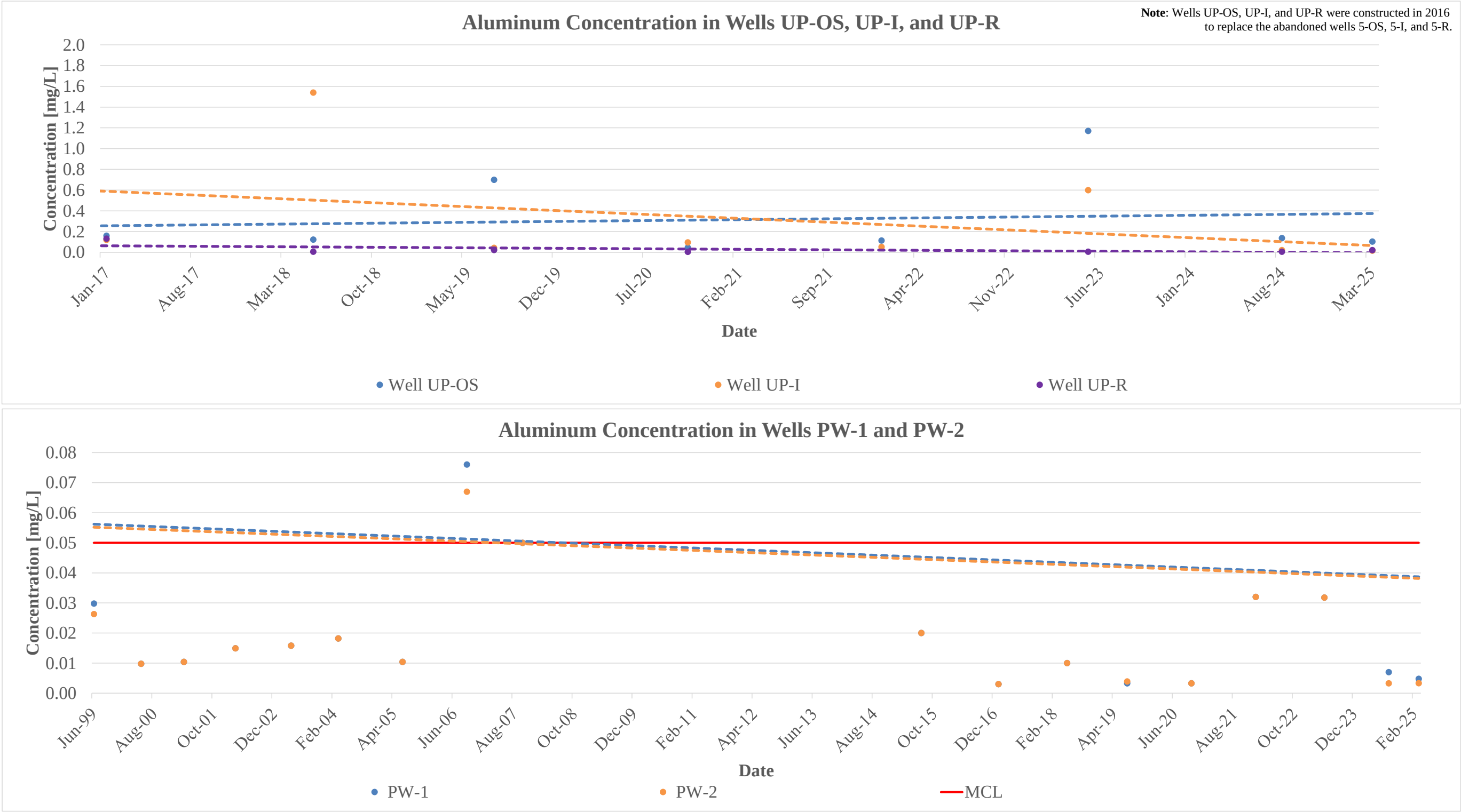


Table 6

Summary of Historical Groundwater Quality Results - Aluminum (mg/L)
Town of Ramapo Landfill

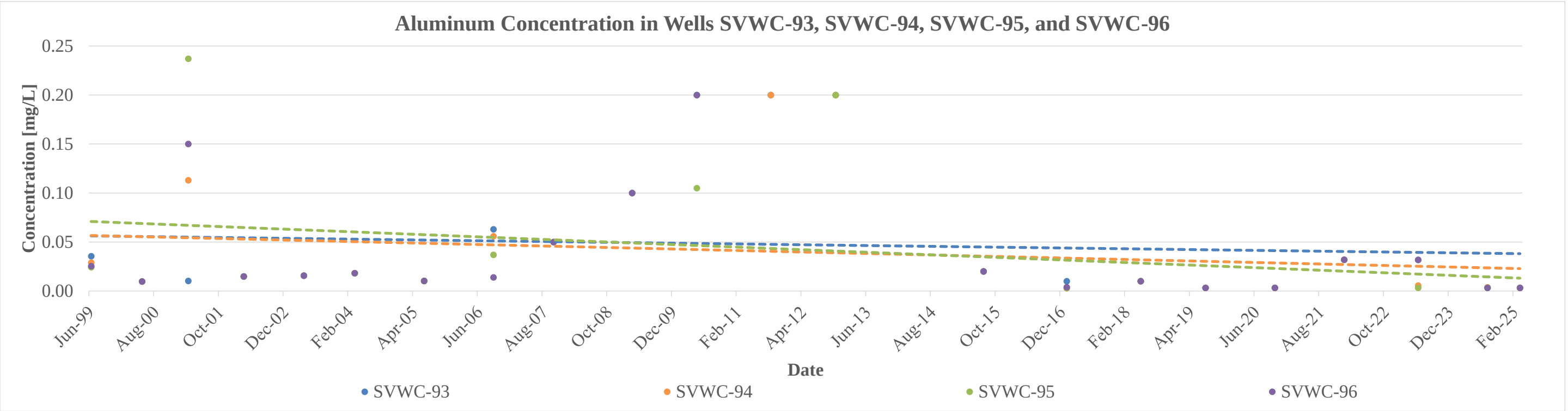


Table 7

Summary of Historical Groundwater Quality Results - Beryllium (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	0.0003 B	NA	0.0001 U	0.0008 B	NA	0.0001 U	0.0001 U	0.0001 U	0.0004 B	NA	0.0001 U	0.0015 B	NA	0.0001 U	NA	NA	0.0001 U	NA	0.0001 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.0011 B	NA	0.0003 B	0.0009 B	NA	0.0002 U	0.0002 U	0.0002 U	0.0002 U	NA	0.0002 U	0.0010 B	NA	0.0005 B	NA	NA	0.0002 B	NA	0.0002 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	0.0012 B	NA	0.0004 U	0.0004 B	NA	0.0004 U	0.0004 U	0.0004 U	0.0004 U	NA	0.0004 U	NA	0.0004 U	0.0004 U	NA	NA	0.0004 U	NA	0.0004 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	NA	NA	0.0002 U	0.0010 B	NA	0.0002 U	0.0002 U	0.0002 U	0.0004 B	NA	0.0002 U	NA	0.0002 U	0.0002 U	NA	NA	0.0002 U	NA	NA
Mar-04	NA	NA	NA	0.0005 B	NA	NA	0.0003 U	NA	0.0004 U	NA	NA	0.0049	NA	NA	NA	NA	0.0003 U	NA	NA
Jun-05	0.0004 U	NA	NA	0.0004 U	NA	NA	0.0004 U	NA	0.0004 U	NA	NA	NA	0.0004 U	NA	NA	NA	0.0004 U	NA	NA
Sep-06	0.0022 J	NA	NA	0.0004 J	NA	NA	0.0002 J	NA	0.0004 J	NA	NA	0.0130	NA	NA	NA	NA	0.0007 J	NA	NA
Oct-07	0.0026 J	NA	NA	0.0007 J	NA	NA	0.0001 J	NA	0.0006 J	NA	NA	0.0030 U	NA	NA	NA	NA	0.0005 J	NA	NA
Mar-09	0.0006 J	NA	NA	0.0030 U	NA	NA	0.0030 U	NA	0.0030 U	NA	NA	0.0032	NA	NA	NA	NA	0.0002 J	NA	NA
May-10	0.0007 J	NA	NA	0.0002 J	NA	NA	0.0020 U	NA	0.0002 J	NA	NA	0.0055	NA	NA	NA	NA	0.0007 J	NA	NA
Sep-11	0.0009 J	NA	0.0020 U	0.0020 U	NA	0.0020 U	0.0020 U	0.0020 U	0.0020 U	NA	NA	0.0024	0.0020 U	0.0014 J	NA	NA	0.0006 J	NA	NA
Nov-12	0.0007 J	NA	NA	0.0020 U	NA	NA	0.0020 U	NA	0.0020 U	NA	NA	0.0021	NA	NA	NA	NA	0.0005 J	NA	NA
Mar-14	0.0005 J	NA	NA	0.0020 U	NA	NA	0.0020 U	NA	0.0020 U	NA	NA	0.0019 J	NA	NA	NA	NA	0.0006 J	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.0002 J	NA	NA	0.0002 U	NA	NA	0.0002 U	NA	0.0002 U	NA	NA	0.0011	NA	NA	NA	NA	0.0002 U	NA	NA
Jan-17	0.0001 U	NA	NA	0.0001 U	NA	NA	0.0001 U	NA	0.0001 U	NA	NA	NA	NA	NA	NA	NA	0.0001 U	NA	NA
May-18	0.0005 U	NA	NA	0.0005 U	NA	NA	0.0005 U	NA	0.0005 U	NA	NA	NA	NA	NA	NA	NA	0.0005 U	NA	NA
Jul-19	0.0001 U	NA	NA	0.0001 U	NA	NA	0.0001 U	NA	0.0001 U	NA	NA	NA	NA	NA	NA	NA	0.0001 U	NA	NA
Oct-20	0.0010 U	NA	NA	0.0010 U	NA	NA	0.0010 U	NA	0.0010 U	NA	NA	NA	NA	NA	NA	NA	0.0010 U	NA	NA
Jan-22	0.0001 U	NA	NA	0.0001 U	NA	NA	0.0001 U	NA	0.0001 U	NA	NA	NA	NA	NA	NA	NA	0.0001 U	NA	NA
May-23	0.0001 U	NA	NA	0.0001 U	NA	NA	0.0001 U	NA	0.0001 U	NA	NA	NA	NA	NA	NA	NA	0.0001 U	NA	NA
Aug-24	0.0001 U	NA	NA	0.0001 U	NA	NA	0.0001 U	NA	0.0001 U	NA	NA	NA	NA	NA	NA	NA	0.0001 U	NA	NA
Mar-25	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	NA	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	NA	NA	NA	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Table 7

Summary of Historical Groundwater Quality Results - Beryllium (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	0.0011	ND	0.0014	0.0013	0.0014	0.0013	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	NA	NA	NA	NA	NA	NA	0.0001 U	0.0001 U	0.0004 B	0.0001 U	0.0001 U	0.0001 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.0003 B	0.0011 B	0.0002 U	0.0004 B	0.0012 B	0.0009 B	NA	NA	NA	NA	NA	NA	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	NA	NA	NA	NA	NA	NA	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	0.0002 U	0.0004 B	0.0002 U	0.0002 U	0.0002 U	0.0002 U	NA	NA	NA	NA	NA	NA	0.0002 U	0.0003 B	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Mar-04	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	NA	NA	NA	NA	NA	NA	0.0004 B	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Jun-05	0.0005 B	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	NA	NA	NA	NA	NA	NA	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U
Sep-06	0.0002 J	0.0007 J	0.0003 J	0.0001 J	0.0008 J	0.0010 U	NA	NA	NA	NA	NA	NA	0.0030 U	0.0001 J	0.0001 J	0.0030 U	0.0030 U	0.0030 U
Oct-07	0.0030 U	0.0007 J	0.0030 U	0.0003 J	0.0012 J	0.0001 J	NA	NA	NA	NA	NA	NA	0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U
Mar-09	0.0030 U	0.0005 J	0.0030 U	0.0003 J	0.0007 J	0.0030 U	NA	NA	NA	NA	NA	NA	0.0030 U	0.0030 U	0.0030 U	NA	0.0030 U	0.0030 U
May-10	0.0020 U	0.0004 J	0.0020 U	0.0020 U	0.0009 J	0.0020 U	NA	NA	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0020 U	NA	0.0020 U	0.0020 U
Sep-11	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0018 J	0.0020 U	NA	NA	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0020 U	0.0020 U	NA	NA
Nov-12	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	NA	NA	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	NA
Mar-14	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	NA	NA	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U
Nov-14	NA	NA	NA	NA	NA	NA	0.0001 U	0.0001 U	0.0002 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	NA	NA	NA	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Jan-17	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 J	0.0001 U	0.0001 U	0.0001 U	NA	0.0001 U	NA	0.0001 U	NA	0.0001 U	NA	0.0001 U
May-18	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0001 J	0.0005 U	0.0005 U	0.0005 U	NA	0.0005 U	NA	0.0005 U	NA	0.0005 U	NA	0.0005 U
Jul-19	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Oct-20	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Jan-22	0.0001 U	0.0001 U	0.0001 J	0.0001 U	0.0001 U	0.0001 U	0.0002 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	NA	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
May-23	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00013 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aug-24	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00014 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Mar-25	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00014 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Table 7

Summary of Historical Groundwater Quality Results - Beryllium (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = .003 mg/L; USEPA MCL = .004 mg/L; and, PART 5 MCL = .004 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or Secondary MCL/MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

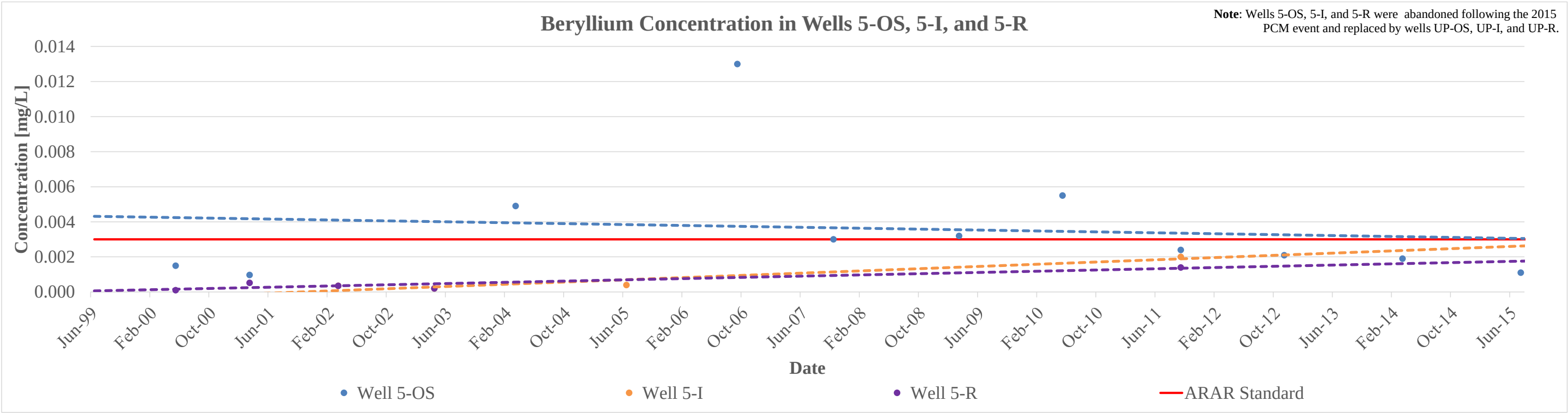


Table 8																			
Summary of Historical Groundwater Quality Results - Cadmium (mg/L)																			
Town of Ramapo Landfill																			
Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	ND	NA	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	ND	ND	NA	NA	ND	NA	ND
May-00	0.00092 B	NA	0.00061 B	0.00240	NA	0.00040 U	0.00040 U	0.00040 U	0.00045 B	NA	0.00040 U	0.00130 B	NA	0.00140 B	NA	NA	0.00040 U	NA	0.00040 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	0.00310 U	NA	0.00310 U	0.00310 U	NA	0.00310 U	0.00310 U	0.00310 U	0.00310 U	NA	0.00310 U	0.00340 B	NA	0.00310 U	NA	NA	0.00310 U	NA	0.00310 U
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.00120 B	NA	0.00030 U	0.00130 B	NA	0.00030 U	0.00030 U	0.00030 U	0.00030 U	NA	0.00030 U	0.00031 B	NA	0.00042 B	NA	NA	0.00030 U	NA	0.00030 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	0.00030 U	NA	0.00030 U	0.00110 B	NA	0.00036 B	0.00030 U	0.00030 U	0.00030 U	NA	0.00030 U	NA	0.00084 B	0.00030 U	NA	NA	0.00037 B	NA	0.00030 U
Mar-02	0.00026 U	NA	0.00026 U	0.00026 U	NA	0.00066 B	0.00026 U	0.00026 U	0.00026 U	NA	0.00026 U	NA	0.00026 U	0.00045 B	NA	NA	0.00026 U	NA	0.00026 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	0.00048 U	NA	0.00150 B	0.00048 U	NA	0.00048 U	0.00048 U	0.00048 U	0.00048 U	NA	0.00048 U	NA	0.00048 U	0.00048 U	NA	NA	0.00048 U	NA	NA
Apr-03	NA	NA	0.00030 U	0.00170 B	NA	0.00030 U	0.00120 B	0.00030 U	0.00033 B	NA	0.00030 U	NA	0.00030 U	0.00030 U	NA	NA	0.00030 U	NA	NA
Mar-04	NA	NA	NA	0.00040 U	NA	NA	0.00058	NA	0.00040 U	NA	NA	0.00040 U	NA	NA	NA	NA	0.00210 B	NA	NA
Jun-05	0.00080 U	NA	NA	0.00080 U	NA	NA	0.00160 B	NA	0.00080 U	NA	NA	NA	0.00080 U	NA	NA	NA	0.00080 U	NA	NA
Sep-06	0.00430	NA	NA	0.00160	NA	NA	0.00320	NA	0.00220	NA	NA	0.01100	NA	NA	NA	NA	0.00100	NA	NA
Oct-07	0.00100 U	NA	NA	0.00100 U	NA	NA	0.00100 U	NA	0.00100 U	NA	NA	0.00100 U	NA	NA	NA	NA	0.00100 U	NA	NA
Mar-09	0.00500 U	NA	NA	0.00500 U	NA	NA	0.00500 U	NA	0.00500 U	NA	NA	0.00500 U	NA	NA	NA	NA	0.00500 U	NA	NA
May-10	0.00100 U	NA	NA	0.00100 U	NA	NA	0.00100 U	NA	0.00100 U	NA	NA	0.00500 U	NA	NA	NA	NA	0.00100 U	NA	NA
Sep-11	0.00067 J	NA	0.00100 U	0.00100 U	NA	0.00100 U	0.00047 J	0.00061 J	0.00100 U	NA	NA	0.00042 J	0.00100 U	0.00220	NA	NA	0.00100 U	NA	NA
Nov-12	0.00100 U	NA	NA	0.00100 U	NA	NA	0.00100 U	NA	0.00100 U	NA	NA	0.00069	NA	NA	NA	NA	0.00100 U	NA	NA
Mar-14	0.00066 J	NA	NA	0.00100 U	NA	NA	0.00100 U	NA	0.00100 U	NA	NA	0.00100 U	NA	NA	NA	NA	0.00100 U	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00029	NA	NA	0.00010 J	NA	NA	0.00010 U	NA	0.00010 U	NA	NA	0.00040	NA	NA	NA	NA	0.00010 J	NA	NA
Jan-17	0.00030	NA	NA	0.00010 U	NA	NA	0.00010 U	NA	0.00010 U	NA	NA	NA	NA	NA	NA	NA	0.00010 U	NA	NA
May-18	0.00020 U	NA	NA	0.00020 U	NA	NA	0.00012 J	NA	0.00020 U	NA	NA	NA	NA	NA	NA	NA	0.00020 U	NA	NA
Jul-19	0.00014 J	NA	NA	0.00005 U	NA	NA	0.00017 J	NA	0.00005 U	NA	NA	NA	NA	NA	NA	NA	0.00005 U	NA	NA
Oct-20	0.00100 U	NA	NA	0.00100 U	NA	NA	0.00100 U	NA	0.00100 U	NA	NA	NA	NA	NA	NA	NA	0.00100 U	NA	NA
Jan-22	0.00005 U	NA	NA	0.00005 U	NA	NA	0.00005 U	NA	0.00005 U	NA	NA	NA	NA	NA	NA	NA	0.00005 U	NA	NA
May-23	0.00005 U	NA	NA	0.00005 U	NA	NA	0.00005 U	NA	0.00005 U	NA	NA	NA	NA	NA	NA	NA	0.00005 U	NA	NA
Aug-24	0.00005 U	NA	NA	0.00009 J	NA	NA	0.00005 U	NA	0.00005 U	NA	NA	NA	NA	NA	NA	NA	0.00005 U	NA	NA
Mar-25	0.00015 J	0.0001 J	0.00005 U	0.00005 U	0.00011 J	NA	0.00005 U	0.0002	0.00005 U	0.00005 U	0.00008 J	NA	NA	NA	0.00005 U	0.00005 U	0.00005 U	0.00009 J	0.00031

Table 8

Summary of Historical Groundwater Quality Results - Cadmium (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	ND	ND	ND	ND	0.00130	0.00300	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Sep-99	ND	ND	ND	ND	0.00380	0.02420	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
May-00	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00940	NA	NA	NA	NA	NA	NA	0.00040 U	0.00040 U	0.00061 B	0.0004 U	0.0004 U	0.0004 U
Sep-00	0.00620 U	0.00310 U	0.00310 U	0.00310 U	0.00310 U	0.00310 U	NA	NA	NA	NA	NA	NA	0.00310 U	0.00310 U	0.00310 U	0.0031 U	0.0031 U	0.0031 U
Dec-00	0.00310 U	0.00310 U	0.00310 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00310 U	0.00310 U	0.00310 U	0.00310 U	0.00310 U
Jan-01	NA	NA	NA	0.00081 B	0.00030 U	0.00088 B	NA	NA	NA	NA	NA	NA	0.00300 U	NA	NA	NA	NA	NA
Mar-01	0.00040 B	0.00120 B	0.00035 B	0.00042 B	0.00090 B	0.00170 B	NA	NA	NA	NA	NA	NA	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U
Jul-01	0.00091 B	0.00068 B	0.00030 U	0.00030 U	0.00030 U	0.00037 B	NA	NA	NA	NA	NA	NA	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U
Oct-01	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U	NA	NA	NA	NA	NA	NA	0.00030 U	0.00030 U	NA	NA	NA	NA
Mar-02	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	NA	NA	NA	NA	NA	NA	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U
Jul-02	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U	NA	NA	NA	NA	NA	NA	0.00048 U	0.00048 U	0.00048 U	0.00240 B	0.00048 U	0.00048 U
Oct-02	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U	NA	NA	NA	NA	NA	NA	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U
Apr-03	0.00030 U	0.00055 B	0.00030 U	0.00030 U	0.00030 U	0.00030 U	NA	NA	NA	NA	NA	NA	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U
Mar-04	0.00042 B	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00090 B	NA	NA	NA	NA	NA	NA	0.00088 B	0.00040 U	0.00040 U	0.00052 B	0.00040 U	0.00040 U
Jun-05	0.00080 U	0.00080 U	0.00080 U	0.00080 U	0.00080 U	0.00080 U	NA	NA	NA	NA	NA	NA	0.00080 U	0.00080 U	0.00080 U	0.00080 U	0.00080 U	0.00080 U
Sep-06	0.00092 J	0.00150	0.00120	0.00067 J	0.00073 J	0.00053 J	NA	NA	NA	NA	NA	NA	0.00053 J	0.00062 J	0.00059 J	0.00100 U	0.00100 U	0.00100 U
Oct-07	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	NA	NA	NA	NA	NA	NA	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Mar-09	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	NA	NA	NA	NA	NA	NA	0.00500 U	0.00500 U	0.00500 U	NA	0.00500 U	0.00500 U
May-10	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	NA	NA	NA	NA	NA	NA	0.00100 U	0.00100 U	0.00100 U	NA	0.00100 U	0.00100 U
Sep-11	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	NA	NA	NA	NA	NA	NA	0.00100 U	0.00100 U	0.00100 U	0.00100 U	NA	NA
Nov-12	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	NA	NA	NA	NA	NA	NA	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	NA
Mar-14	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	NA	NA	NA	NA	NA	NA	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Nov-14	NA	NA	NA	NA	NA	NA	0.00200 U	0.00200 U	0.00200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00010 U	0.00010 U	0.00010 U	0.00040	0.00010 U	0.00010 J	0.00010 J	0.00010 U	0.00010 U	NA	NA	NA	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Jan-17	0.00010 U	0.00010 U	0.00010 J	0.00018 J	0.00018 J	0.00060	0.00010 J	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U
May-18	0.00020 U	0.00020 U	0.00022 J	0.00020 U	0.00020 U	0.00030	0.00048	0.00012 J	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Jul-19	0.00008 J	0.00005 U	0.00022 J	0.00032	0.00005 U	0.00071	0.00005 U	0.00005 U	0.00017 J	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Oct-20	0.00005 U	0.00005 U	0.00029	0.00005 U	0.00005 U	0.00045	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Jan-22	0.00005 U	0.00005 U	0.00029	0.00011 J	0.00020	0.00101	0.00007 J	0.00005 U	0.00005 U	0.00005 U	0.00005 U	NA	0.00010 U	0.00010 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
May-23	0.00005 U	0.00005 U	0.00022	0.00005 U	0.00005 U	0.00141	0.00006 J	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00010 U	0.00010 U	0.00010 U	0.00005 U	0.00005 U	0.00010 U
Aug-24	0.00005 U	0.00005 U	0.00008 J	0.00009 J	0.00049	0.00044	0.00006 J	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Mar-25	0.00005 U	0.00005 U	0.00032	0.00005 U	0.00007 J	0.00083	0.00009 J	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U

Table 8

Summary of Historical Groundwater Quality Results - Cadmium (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = .005 mg/L; USEPA MCL = .005 mg/L; and, Part 5 MCL = .005 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or Secondary MCL/MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions

ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

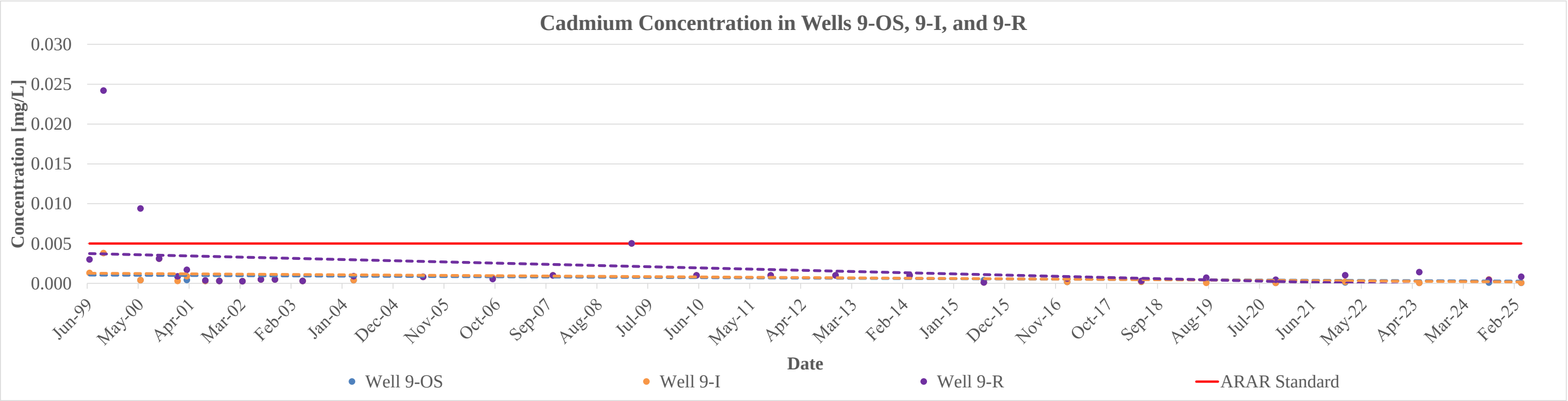


Table 9

Summary of Historical Groundwater Quality Results - Copper (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	0.10400	NA	0.01060	0.02340	NA	ND	0.00780	0.02380	0.07980	NA	0.01730	NA	0.00600	0.01010 B	NA	NA	0.03450	NA	0.00580
May-00	0.06800	NA	0.00680 B	0.05690	NA	0.00630 B	0.01350 B	0.00520 B	0.01910 B	NA	0.00200 U	0.05390	NA	0.00920 B	NA	NA	0.01080 B	NA	0.00440 B
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	0.04930	NA	0.00500 B	0.04510	NA	0.01540 B	0.01000 B	0.00820 B	0.01580 B	NA	0.00350 B	0.14200	NA	0.00660 B	NA	NA	0.02450 B	NA	0.00490 B
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.07500	NA	0.03690	0.05730	NA	0.00160 U	0.01020 B	0.00460 B	0.00830 B	NA	0.00160 U	0.02620	NA	0.00320 B	NA	NA	0.00800 B	NA	0.00160 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	0.02220 B	NA	0.01540 B	0.03900	NA	0.00190 B	0.00800 B	0.00240 B	0.00520 B	NA	0.00340 B	NA	0.02180 B	0.00560 B	NA	NA	0.02590	NA	0.00710 B
Mar-02	0.04740	NA	0.01710 B	0.01650 B	NA	0.01920 B	0.00500 B	0.00300 U	0.00300 U	NA	0.00300 U	NA	0.00500 B	0.02390 B	NA	NA	0.00780 B	NA	0.00300 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	0.08630	NA	0.02040 B	0.08340	NA	0.00690 U	0.03160	0.00880 B	0.04540	NA	0.00690 U	NA	0.00690 U	0.00690 U	NA	NA	0.03950	NA	NA
Apr-03	NA	NA	0.00360 B	0.05530	NA	0.01130 B	0.05990	0.00530 B	0.01760 B	NA	0.00310 B	NA	0.00420 B	0.00560 B	NA	NA	0.00440 B	NA	NA
Mar-04	NA	NA	NA	0.02540	NA	NA	0.01370 B	NA	0.00740 B	NA	NA	0.18300	NA	NA	NA	NA	0.05160	NA	NA
Jun-05	0.02590	NA	NA	0.01590 B	NA	NA	0.05180	NA	0.00420 B	NA	NA	NA	0.00290 B	NA	NA	NA	0.00520 B	NA	NA
Sep-06	0.13000	NA	NA	0.01500	NA	NA	0.06900	NA	0.01000	NA	NA	0.50000	NA	NA	NA	NA	0.02800	NA	NA
Oct-07	0.14000	NA	NA	0.03500	NA	NA	0.02700	NA	0.02300	NA	NA	0.01000 U	NA	NA	NA	NA	0.01800	NA	NA
Mar-09	0.03300	NA	NA	0.02100	NA	NA	0.04400	NA	0.01100	NA	NA	0.11000	NA	NA	NA	NA	0.01000	NA	NA
May-10	0.05760	NA	NA	0.03600	NA	NA	0.02110	NA	0.00740 J	NA	NA	0.20200	NA	NA	NA	NA	0.03090	NA	NA
Sep-11	0.16000	NA	0.01500	0.03400	NA	0.00180 J	0.20000	0.03400	0.00420 J	NA	NA	0.07200	0.00290 J	0.05300	NA	NA	0.03200	NA	NA
Nov-12	0.04800	NA	NA	0.01100	NA	NA	0.05500	NA	0.01400	NA	NA	0.08500	NA	NA	NA	NA	0.02700	NA	NA
Mar-14	0.09000	NA	NA	0.03400	NA	NA	0.02800	NA	0.01200	NA	NA	0.06600	NA	NA	NA	NA	0.03900	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.09526	NA	NA	0.00520	NA	NA	0.00470	NA	0.00340	NA	NA	0.03760	NA	NA	NA	NA	0.02000	NA	NA
Jan-17	0.04290	NA	NA	0.01190	NA	NA	0.00540	NA	0.00090 J	NA	NA	NA	NA	NA	NA	NA	0.00230	NA	NA
May-18	0.00460	NA	NA	0.01132	NA	NA	0.03248	NA	0.00088 J	NA	NA	NA	NA	NA	NA	NA	0.00101	NA	NA
Jul-19	0.00455	NA	NA	0.00315	NA	NA	0.05900	NA	0.00085 J	NA	NA	NA	NA	NA	NA	NA	0.00143	NA	NA
Oct-20	0.00300 J	NA	NA	0.02000	NA	NA	0.01800	NA	0.00200 U	NA	NA	NA	NA	NA	NA	NA	0.01200	NA	NA
Jan-22	0.00199	NA	NA	0.00927	NA	NA	0.00142	NA	0.00911	NA	NA	NA	NA	NA	NA	NA	0.00070 J	NA	NA
May-23	0.00166	NA	NA	0.00368	NA	NA	0.00081 J	NA	0.00072 J	NA	NA	NA	NA	NA	NA	NA	0.00096 J	NA	NA
Aug-24	0.00517	NA	NA	0.02088	NA	NA	0.00080 J	NA	0.00123	NA	NA	NA	NA	NA	NA	NA	0.00568	NA	NA
Mar-25	0.00258	0.00842	0.03376	0.01795	0.00124	NA	0.00692	0.00317	0.00423	0.00166	0.00338	NA	NA	NA	0.00161	0.00136	0.00048 J	0.01501	0.01121

Table 9

Summary of Historical Groundwater Quality Results - Copper (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	0.01200	0.03720	0.01270	0.00950	0.01000	0.01280	NA	NA	NA	NA	NA	NA	0.09720	0.02910	0.02580	0.03230	0.02580	0.02910
Sep-99	0.00720	0.01820	0.02350	ND	0.00870	0.01910	NA	NA	NA	NA	NA	NA	0.03970	0.00750	NA	NA	NA	NA
May-00	0.00210 B	0.00340 B	0.00540 B	0.00200 U	0.00310 B	0.00390 B	NA	NA	NA	NA	NA	NA	0.09910	0.01860 B	0.00310 B	0.00560 B	0.00350 B	0.00400 B
Sep-00	0.01810 B	0.01850 B	0.02290 B	0.00210 U	0.00340 B	0.00500 B	NA	NA	NA	NA	NA	NA	0.17300	0.03960	0.00320 B	0.00490 B	0.00210 U	0.00510 B
Dec-00	0.01170 B	0.03040	0.02620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01940 B	0.01030 B	0.00710 B	0.00700 B	0.01780 B
Jan-01	NA	NA	NA	0.00630 B	0.00340 B	0.00270 B	NA	NA	NA	NA	NA	NA	0.05270	NA	NA	NA	NA	NA
Mar-01	0.00530 B	0.05380	0.02990	0.00430 B	0.02950	0.00310 B	NA	NA	NA	NA	NA	NA	0.05910	0.00720 B	0.00170 B	0.00700 B	0.00420 B	0.00280 B
Jul-01	0.00330 B	0.02030 B	0.00950 B	0.00240 B	0.00340 B	0.00430 B	NA	NA	NA	NA	NA	NA	0.05360	0.02130 B	0.00390 B	0.00410 B	0.00270 B	0.00400 B
Oct-01	0.00590 B	0.00160 U	0.00460 B	0.00890 B	0.00400 B	0.00160 U	NA	NA	NA	NA	NA	NA	0.06490	0.08060	NA	NA	NA	NA
Mar-02	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	NA	NA	NA	NA	NA	NA	0.05760	0.01780 B	0.00300 U	0.00360 B	0.00680 B	0.00820 B
Jul-02	0.00690 U	0.01580 B	0.00810 B	0.00690 U	0.00690 U	0.00690 U	NA	NA	NA	NA	NA	NA	0.12100	0.01300 B	0.00690 U	0.00690 U	0.00690 U	0.00690 U
Oct-02	0.01290 B	0.01410 B	0.02200 B	0.00690 U	0.00690 U	0.00690 U	NA	NA	NA	NA	NA	NA	0.05060	0.01840 B	0.00690 U	0.00690 U	0.00790 B	0.00690 U
Apr-03	0.00300 B	0.01860 B	0.00460 B	0.00280 U	0.00530 B	0.00280 U	NA	NA	NA	NA	NA	NA	0.05870	0.01390 B	0.00640 B	0.00440 B	0.00400 B	0.00360 B
Mar-04	0.00170 B	0.01420 B	0.00180 B	0.00160 U	0.00280 B	0.00220 B	NA	NA	NA	NA	NA	NA	0.05950	0.01740 B	0.01060 B	0.00980 B	0.00560 B	0.00540 B
Jun-05	0.03210	0.00120 U	0.00300 B	0.00120 U	0.00120 U	0.00120 U	NA	NA	NA	NA	NA	NA	0.08340	0.19700	0.00390 B	0.00540 B	0.00300 B	0.00390 B
Sep-06	0.00200 J	0.02300	0.08400	0.00360 J	0.02700	0.01000 U	NA	NA	NA	NA	NA	NA	0.06900	0.05000	0.00760 J	0.00700 J	0.00610 J	0.00680 J
Oct-07	0.01000 U	0.02900	0.00290 J	0.01400	0.04400	0.01000 U	NA	NA	NA	NA	NA	NA	0.06000	0.20000	0.00800 J	0.01200	0.00440 J	0.00430 J
Mar-09	0.01100	0.02700	0.00500 J	0.01600	0.02700	0.01000 U	NA	NA	NA	NA	NA	NA	0.10000	0.06100	0.00390 J	NA	0.00540 J	0.00630 J
May-10	0.00170 J	0.01240	0.01000 J	0.00720 J	0.03300 B	0.01000 U	NA	NA	NA	NA	NA	NA	0.11700	0.05340	0.01930	NA	0.01120	0.00850 J
Sep-11	0.00920 J	0.01000 U	0.01000 U	0.00670 J	0.04800	0.01000 U	NA	NA	NA	NA	NA	NA	0.08700	0.01600	0.00460 J	0.00390 J	NA	NA
Nov-12	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	0.25000	0.02600	0.00310 J	0.00540 J	0.00410	NA
Mar-14	0.00260 J	0.00240 J	0.00400 J	0.00380 J	ND	ND	NA	NA	NA	NA	NA	NA	0.16000	0.06300	0.00790 J	0.00800 J	0.01100	0.00810 J
Nov-14	NA	NA	NA	NA	NA	NA	0.00500 U	0.00500 U	0.33100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00280	0.00030 U	0.00080 J	0.00400	0.00030 U	0.00030 J	0.01200	0.00150	0.00120	NA	NA	NA	0.11100	0.02400	0.00832	0.00752	0.00250	0.00766
Jan-17	0.00380	0.00060 J	0.00210	0.00050 J	0.00080 J	0.00170	0.00150	0.00096 J	0.00290	0.01340	0.00380	0.00310	0.09180	0.05560	0.00980	0.00490	0.00530	0.00700
May-18	0.00100 U	0.00100 U	0.00510	0.00100 U	0.00058 J	0.00181	0.00123	0.00093 J	0.00461	0.00051 J	0.02028	0.00100 U	0.32020	0.05288	0.00279	0.00463	0.00510	0.00601
Jul-19	0.00134	0.00038 U	0.00166	0.00754	0.00084 J	0.00242	0.00106	0.00102	0.00267	0.00766	0.00097 J	0.00075 J	0.06062	0.02332	0.00339	0.00313	0.00430	0.00262
Oct-20	0.00161	0.00038 U	0.00402	0.00040 J	0.00081 J	0.00191	0.00099 J	0.00038 U	0.00154	0.00057 J	0.00146	0.00038 U	0.03185	0.00851	0.00339	0.00330	0.02050	0.00673
Jan-22	0.00457	0.00038 U	0.00505	0.00067 J	0.00065 J	0.00192	0.00524	0.00038 U	0.00092 J	0.00081 J	0.00103	NA	0.09380	0.00740	0.00262	0.00362	0.03104	0.00465
May-23	0.00085 J	0.00045 J	0.00369	0.00059 J	0.00043 J	0.00191	0.00098 J	0.00038 U	0.00041 J	0.00987	0.00573	0.00038 U	0.03040	0.01130	0.00270	0.00355	0.00200	0.00250
Aug-24	0.00082 J	0.00038 U	0.00206	0.00044 J	0.00263	0.00200	0.00147	0.00038 U	0.00051 J	0.00190	0.00038 U	0.00038 U	0.2577	0.00929	0.00494	0.00298	0.00376	0.00299
Mar-25	0.00103	0.00038 U	0.0365	0.00038 U	0.00043 J	0.00201	0.00043 J	0.00058 J	0.00047 J	0.00114	0.00038 U	0.00135	0.03640	0.0145	0.00399	0.00618	0.00339	0.0032

Table 9

Summary of Historical Groundwater Quality Results - Copper (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 0.2 mg/L; MCL Guidance = 1.3 mg/L*; and, Part 5 MCL = Not Available
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
* USEPA National Secondary Drinking Water Regulation
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or Secondary MCL/MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions

ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

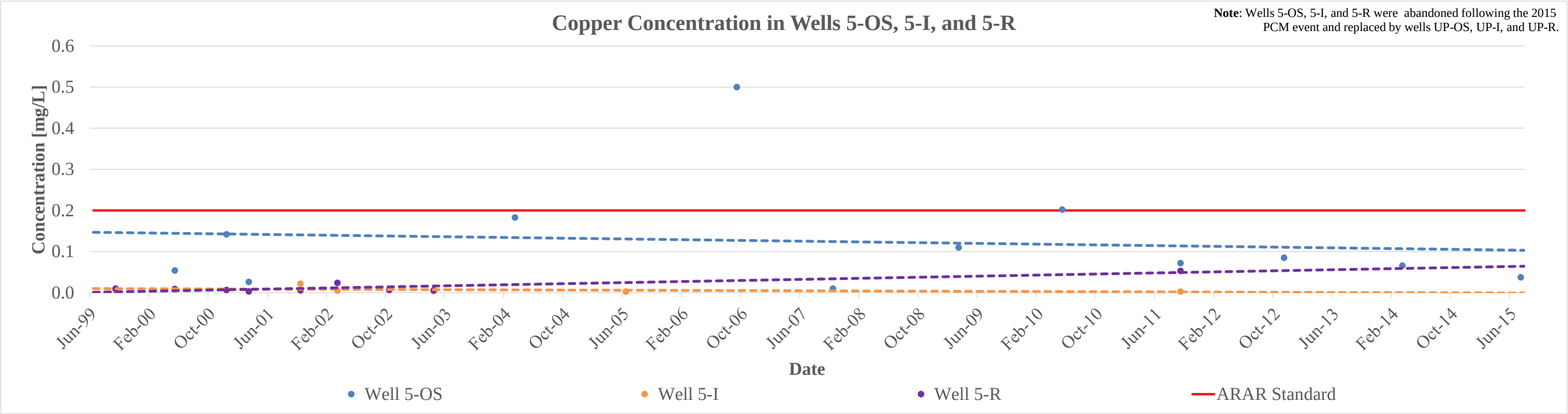


Table 10

Summary of Historical Groundwater Quality Results - Antimony (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	ND	NA	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	ND	ND	NA	NA	ND	NA	ND
May-00	0.02910 B	NA	0.00340 U	0.00340 U	NA	0.00340 U	0.00480 B	0.00340 U	0.00340 U	NA	0.00340 U	0.00340 U	NA	0.00340 U	NA	NA	0.00340 U	NA	0.00340 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	0.00550 U	NA	0.00550 U	0.00550 U	NA	0.00550 U	0.00820 B, N	0.00550 U	0.00550 U	NA	0.00550 U	0.00550 U	NA	0.00550 U	NA	NA	0.00550 U	NA	0.00550 U
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.00470 U	NA	0.00470 U	0.00470 U	NA	0.00470 U	0.00950 B, N	0.00470 U	0.00470 U	NA	0.00470 U	0.00470 U	NA	0.00470 U	NA	NA	0.00470 U	NA	0.00470 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	0.00470 U	NA	0.00470 U	0.00470 U	NA	0.00470 U	0.00940 B	0.00470 U	0.00470 U	NA	0.00470 U	NA	0.00470 U	0.00470 U	NA	NA	0.00470 U	NA	0.00470 U
Mar-02	0.01270 B	NA	0.01050 B	0.01400 B	NA	0.01380 B	0.01510 B	0.01190 B	0.00740 U	NA	0.00970 B	NA	0.00740 U	0.00740 U	NA	NA	0.01320 B	NA	0.01300 B
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	0.01500 B,N	NA	0.00560 B, N	0.03300 B, N	NA	0.00530 U	0.02540 B, N	0.00550 B, N	0.00530 U	NA	0.00530 U	NA	0.00530 U	0.00530 U	NA	NA	0.00530 U	NA	NA
Apr-03	NA	NA	0.00500 U	0.00500 U	NA	0.00500 U	0.07760	0.00500 U	0.00500 U	NA	0.00500 U	NA	0.00500 U	0.00500 U	NA	NA	0.00500 U	NA	NA
Mar-04	NA	NA	NA	0.00710 U	NA	NA	0.00580 U	NA	0.00710 U	NA	NA	0.00710 U	NA	NA	NA	NA	0.00580 U	NA	NA
Jun-05	0.00012 U	NA	NA	0.00012 U	NA	NA	0.00012 U	NA	0.00012 U	NA	NA	NA	0.00012 U	NA	NA	NA	0.00012 U	NA	NA
Sep-06	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	NA	NA	0.00300 U	NA	NA
Oct-07	0.00960	NA	NA	0.00240 J	NA	NA	0.00840	NA	0.00180 J	NA	NA	0.00300 U	NA	NA	NA	NA	0.00300 U	NA	NA
Mar-09	0.06000 U	NA	NA	0.06000 U	NA	NA	0.06000 U	NA	0.06000 U	NA	NA	0.06000 U	NA	NA	NA	NA	0.06000 U	NA	NA
May-10	0.00380	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	0.00300 U	NA	NA	0.00500 U	NA	NA	NA	NA	0.00300 U	NA	NA
Sep-11	0.00830	NA	0.00067 J	0.00040 J	NA	0.00300 U	0.00082 J	0.01500 U	0.00024 J	NA	NA	0.00300 U	0.00300 U	0.00041 J	NA	NA	0.00020 J	NA	NA
Nov-12	0.00300	NA	NA	0.00030 J	NA	NA	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	NA	NA	0.00300 U	NA	NA
Mar-14	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	NA	NA	0.00300 U	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00401	NA	NA	0.00010 J	NA	NA	0.00010 J	NA	0.00010 U	NA	NA	0.00010 U	NA	NA	NA	NA	0.00010 J	NA	NA
Jan-17	0.00230 J	NA	NA	0.00060 J	NA	NA	0.00060 J	NA	0.00040 U	NA	NA	NA	NA	NA	NA	NA	0.00050 J	NA	NA
May-18	0.00131 J	NA	NA	0.00100 J	NA	NA	0.00056 J	NA	0.00400 U	NA	NA	NA	NA	NA	NA	NA	0.00400 U	NA	NA
Jul-19	0.00108 J	NA	NA	0.00042 U	NA	NA	0.00042 U	NA	0.00042 U	NA	NA	NA	NA	NA	NA	NA	0.00042 U	NA	NA
Oct-20	0.00700 U	NA	NA	0.00700 U	NA	NA	0.00700 U	NA	0.00700 U	NA	NA	NA	NA	NA	NA	NA	0.00700 U	NA	NA
Jan-22	0.00044 J	NA	NA	0.00067 J	NA	NA	0.00042 U	NA	0.00042 U	NA	NA	NA	NA	NA	NA	NA	0.00042 U	NA	NA
May-23	0.00096 J	NA	NA	0.00043 J	NA	NA	0.00042 J	NA	0.00042 U	NA	NA	NA	NA	NA	NA	NA	0.00042 U	NA	NA
Aug-24	0.00276 J	NA	NA	0.00122 J	NA	NA	0.00042 U	NA	0.00042 U	NA	NA	NA	NA	NA	NA	NA	0.00042 U	NA	NA
Mar-25	0.0021 J	0.00071 J	0.00259 J	0.00074 J	0.00042 U	NA	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	NA	NA	NA	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U

Table 10

Summary of Historical Groundwater Quality Results - Antimony (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Sep-99	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
May-00	0.00340 U	0.00340 U	0.00340 U	0.00340 U	0.00340 U	NA	NA	NA	NA	NA	NA	NA	0.00340 U	0.00340 U	0.00340 U	0.00340 U	0.00340 U	0.00340 U
Sep-00	0.01100 U	0.00550 U	0.00550 U	0.00550 U	0.00550 U	NA	NA	NA	NA	NA	NA	NA	0.00550 U	0.00550 U	0.00550 U	0.00550 U	0.00550 U	0.00550 U
Dec-00	0.00550 U	0.00550 U	0.00550 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00550 U	0.00550 U	0.00550 U	0.00550 U	0.00550 U
Jan-01	NA	NA	NA	0.00470 U	0.00470 U	NA	NA	NA	NA	NA	NA	NA	0.00470 U	NA	NA	NA	NA	NA
Mar-01	0.00470 U	0.00470 U	0.00470 U	0.00470 U	0.00470 U	NA	NA	NA	NA	NA	NA	NA	0.00470 U	0.00470 U	0.00470 U	0.00470 U	0.00470 U	0.00470 U
Jul-01	0.00470 U	0.00470 U	0.00470 U	0.00470 U	0.00470 U	NA	NA	NA	NA	NA	NA	NA	0.00470 U	0.00470 U	0.00470 U	0.00470 U	0.00470 U	0.00470 U
Oct-01	0.00470 U	0.00470 U	0.00470 U	0.00470 U	0.00470 U	NA	NA	NA	NA	NA	NA	NA	0.00470 U	0.00470 U	NA	NA	NA	NA
Mar-02	0.00740 U	0.01090 B	0.01200 B	0.00740 U	0.00740 U	NA	NA	NA	NA	NA	NA	NA	0.00740 U	0.00930 B	0.00800 B	0.01140 B	0.00740 U	0.00740 U
Jul-02	0.00530 U	0.00530 U	0.00530 U	0.00530 U	0.00530 U	NA	NA	NA	NA	NA	NA	NA	0.00530 U	0.00530 U	0.00810 B	0.00530 U	0.00530 U	0.00530 U
Oct-02	0.00530 U	0.00530 U	0.00630 B, N	0.00530 U	0.00530 U	NA	NA	NA	NA	NA	NA	NA	0.00530 U	0.00530 U	0.01720 B, N	0.00550 B, N	0.00530 U	0.00530 U
Apr-03	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	NA	NA	NA	NA	NA	NA	NA	0.00500 U	0.00930 B	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Mar-04	0.00580 U	0.00580 U	0.00580 U	0.00580 U	0.00580 U	NA	NA	NA	NA	NA	NA	NA	0.00580 U	0.00580 U	0.00580 U	0.00580 U	0.00580 U	0.00580 U
Jun-05	0.00013 B	0.00012 U	0.00012 U	0.00015 B	0.00012 U	NA	NA	NA	NA	NA	NA	NA	0.00012 U	0.00012 U	0.00014 B	0.00012 U	0.00012 U	0.00012 U
Sep-06	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	NA	NA	NA	NA	NA	NA	NA	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U
Oct-07	0.00300 U	0.00300 U	0.00300 U	0.00200 J	0.00300 U	NA	NA	NA	NA	NA	NA	NA	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U
Mar-09	0.06000 U	0.06000 U	0.06000 U	0.06000 U	0.06000 U	NA	NA	NA	NA	NA	NA	NA	0.06000 U	0.06000 U	0.06000 U	NA	0.06000 U	0.06000 U
May-10	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	NA	NA	NA	NA	NA	NA	NA	0.00300 U	0.00300 U	0.00300 U	NA	0.00300 U	0.00300 U
Sep-11	0.00300 U	0.00300 U	0.00300 U	0.00015 J	0.01500 U	NA	NA	NA	NA	NA	NA	NA	0.00300 U	0.00300 U	0.00300 U	0.00300 U	NA	NA
Nov-12	0.00300 U	0.00300 U	0.00300 U	0.00024 J	0.00300 U	NA	NA	NA	NA	NA	NA	NA	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	NA
Mar-14	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	NA	NA	NA	NA	NA	NA	NA	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U	0.00300 U
Nov-14	NA	NA	NA	NA	NA	NA	0.00230 U	0.00230 U	0.00230 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00010 J	0.00010 U	0.00010 J	0.00010 J	0.00010 U	NA	0.00010 J	0.00010 J	0.00090 J	NA	NA	NA	0.00010 U	0.00014 J	0.00014 J	0.00032 J	0.00016 J	0.00011 J
Jan-17	0.00070 J	0.00120 J	0.00090 J	0.00040 U	0.00040 U	NA	0.00040 U	0.00040 U	0.00070 J	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00070 J	0.00040 U	0.00040 U	0.00040 U
May-18	0.00400 U	0.00400 U	0.00400 U	0.00077 J	0.00113 J	0.00154 J	0.00043 J	0.00450 U	0.00400 U	0.00116 J	0.00043 J	0.00382 J	0.00081 J	0.00059 J	0.00094 J	0.00065 J	0.00058 J	0.00043 J
Jul-19	0.00042 U	0.00042 U	0.00042 U	0.00248 J	0.00103 J	0.00080 J	0.00042 U	0.00042 U	0.00140 J	0.00042 U	0.00042 U	0.00172 J	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U
Oct-20	0.00354 J	0.00042 U	0.00048 J	0.00042 U	0.00042 U	0.00074 J	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00194 J	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U
Jan-22	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00221 J	0.00042 U	0.00042 U	NA	0.00210 J	0.00120 J	0.00042 U	0.00042 U	0.00042 U	0.00042 U
May-23	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00052 J	0.00175 J	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00040 U	0.00040 U	0.00040 U	0.00042 U	0.00042 U	0.00040 U
Aug-24	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00088 J	0.00042 U	0.00042 U	0.00117 J	0.00042 U	0.00042 U	0.00048 J	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U
Mar-25	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00157 J	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U	0.0004 U	0.0004 U	0.00042 U	0.00042 U	0.00042 U	0.00042 U

Table 10

Summary of Historical Groundwater Quality Results - Antimony (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = .003 mg/L; USEPA MCL = .006 mg/L; and, Part 5 MCL = .006 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

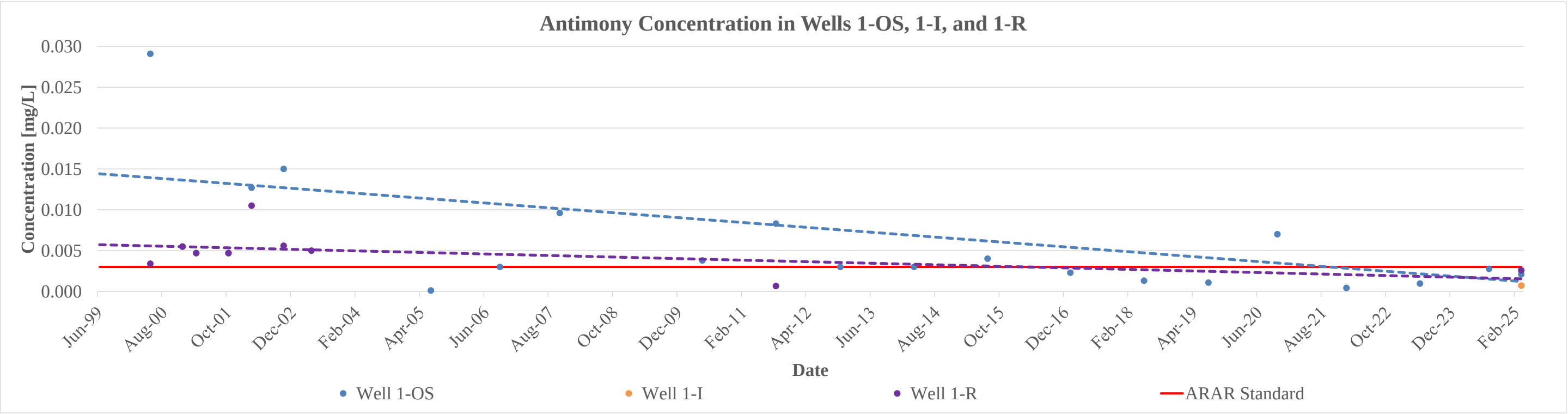


Table 10

Summary of Historical Groundwater Quality Results - Antimony (mg/L)
Town of Ramapo Landfill

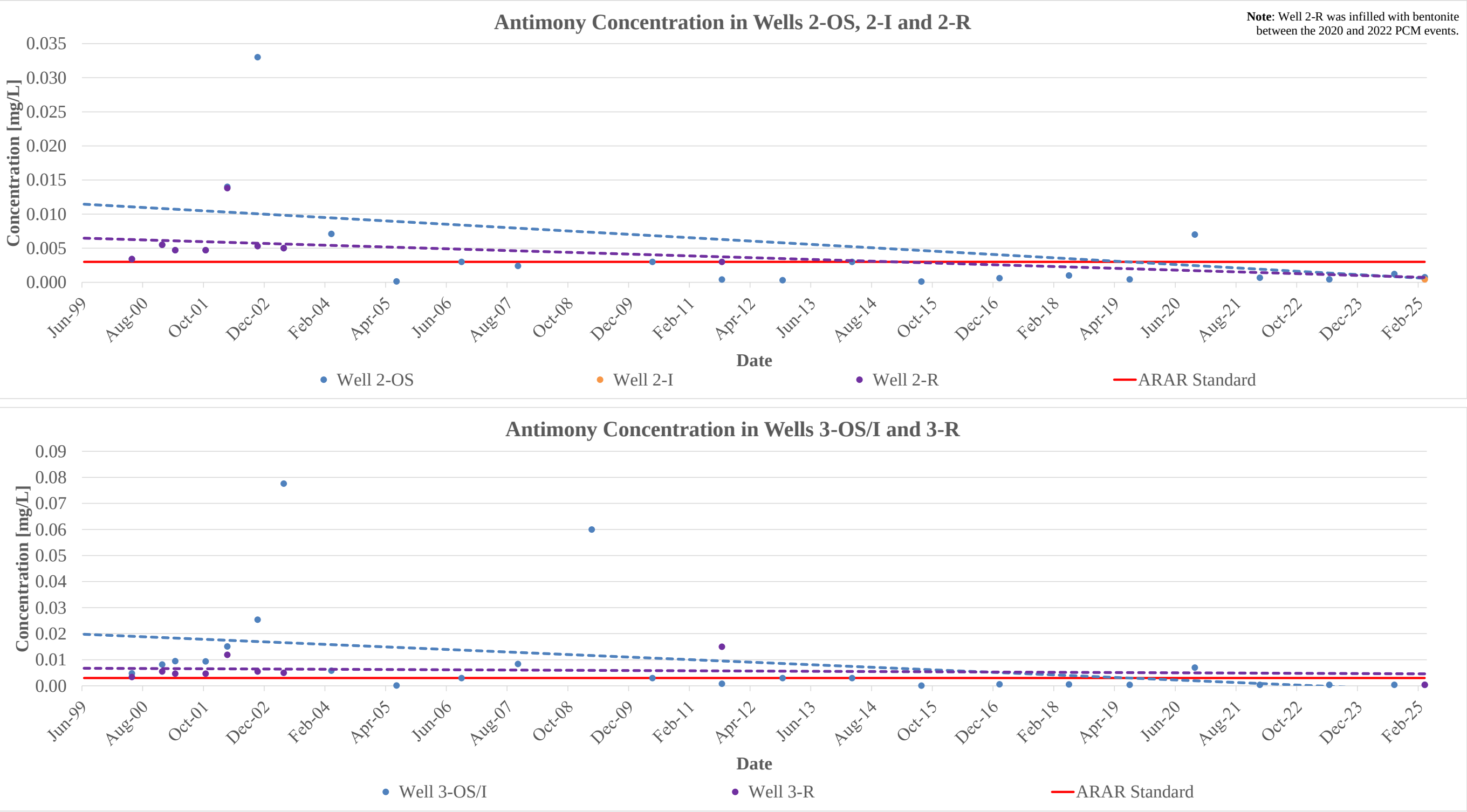


Table 10

Summary of Historical Groundwater Quality Results - Antimony (mg/L)
Town of Ramapo Landfill

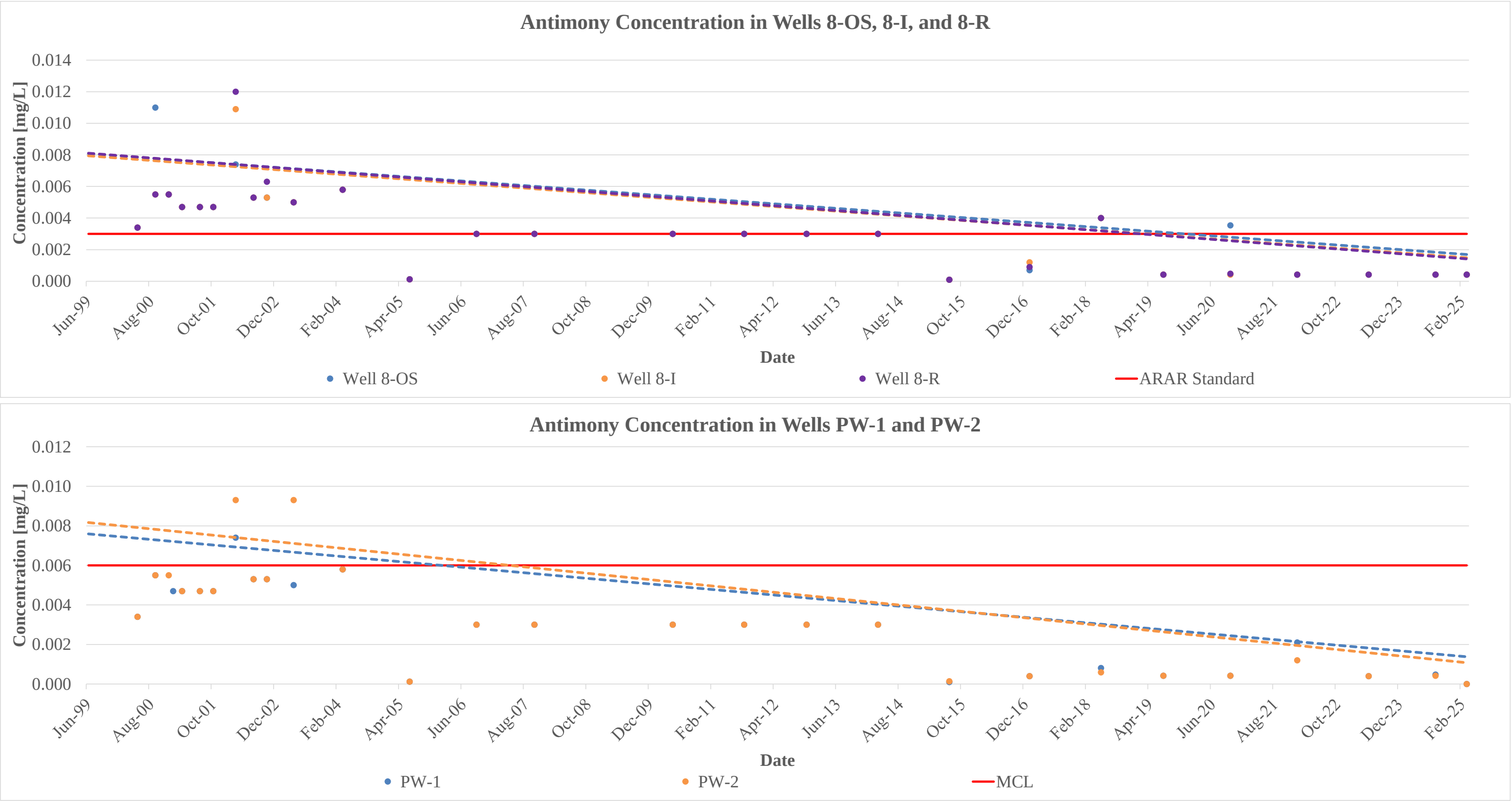


Table 10

Summary of Historical Groundwater Quality Results - Antimony (mg/L)
Town of Ramapo Landfill

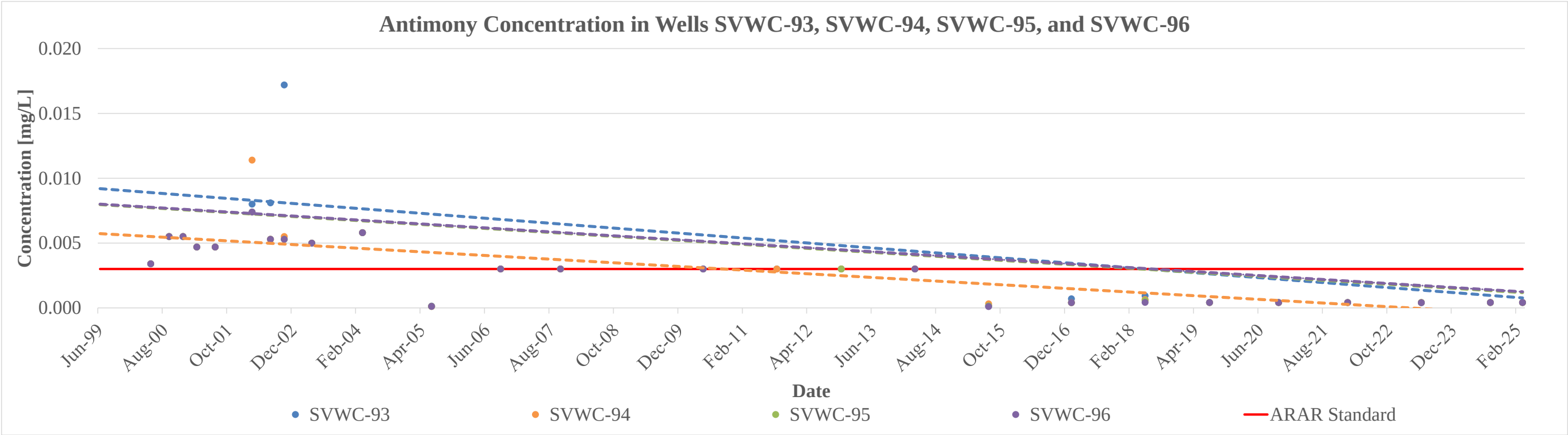


Table 11

Summary of Historical Groundwater Quality Results - Arsenic (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	0.01140	NA	ND	ND	NA	ND	ND	0.00790	0.00850	NA	ND	NA	ND	ND	NA	NA	ND	NA	ND
May-00	0.00730 B	NA	0.00260 U	0.00660 B	NA	0.00260 U	0.00260 U	0.00260 U	0.00260 U	NA	0.00260 U	0.00320 B	NA	0.00260 U	NA	NA	0.00260 U	NA	0.00260 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	0.01180	NA	0.00180 U	0.00940 B	NA	0.00180 U	0.00180 U	0.00180 U	0.00180 U	NA	0.00330 B	0.01680	NA	0.00180 U	NA	NA	0.00340 B	NA	0.00180 U
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.01350	NA	0.00370 B	0.01050	NA	0.00220 U	0.00220 U	0.00220 U	0.00260 B	NA	0.00220 U	0.00390 B	NA	0.00220 U	NA	NA	0.00220 U	NA	0.00220 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	0.00590 B	NA	0.00260 B	0.00840 B	NA	0.00220 U	0.00220 U	0.00220 U	0.00220 U	NA	0.00220 U	NA	0.00270 B	0.00220 U	NA	NA	0.00260 B	NA	0.00220 U
Mar-02	0.00910 B	NA	0.00260 U	0.00260 U	NA	0.00260 U	0.00260 U	0.00260 U	0.00260 U	NA	0.00260 U	NA	0.00260 U	0.00260 U	NA	NA	0.00260 U	NA	0.00260 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	0.09130	NA	0.00400 B	0.01330	NA	0.00260 U	0.00260 U	0.00260 U	0.00750 B	NA	0.00260 U	NA	0.00260 U	0.00260 U	NA	NA	0.00520 B	NA	NA
Apr-03	NA	NA	0.00240 U	0.01030	NA	0.00240 U	0.00540 B	0.00240 U	0.00400 B	NA	0.00440 B	NA	0.00240 U	0.00240 U	NA	NA	0.00240 U	NA	NA
Mar-04	NA	NA	NA	0.00740 B	NA	NA	0.00190 U	NA	0.00270 U	NA	NA	0.03040	NA	NA	NA	NA	0.00980 B	NA	NA
Jun-05	0.00810 B	NA	NA	0.00400 B	NA	NA	0.00310 U	NA	0.00310 U	NA	NA	NA	0.00310 U	NA	NA	NA	0.00310 N	NA	NA
Sep-06	0.04300	NA	NA	0.00280 J	NA	NA	0.00690	NA	0.00280 J	NA	NA	0.03300	NA	NA	NA	NA	0.00470 J	NA	NA
Oct-07	0.03100	NA	NA	0.00620	NA	NA	0.00500 U	NA	0.00500 U	NA	NA	0.00500 U	NA	NA	NA	NA	0.00500 U	NA	NA
Mar-09	0.00710 J	NA	NA	0.01000 U	NA	NA	0.01000 U	NA	0.01000 U	NA	NA	0.00980 J	NA	NA	NA	NA	0.01000 U	NA	NA
May-10	0.01120	NA	NA	0.01000 U	NA	NA	0.01000 U	NA	0.01000 U	NA	NA	0.01550	NA	NA	NA	NA	0.01000 U	NA	NA
Sep-11	0.04000	NA	0.01000 U	0.01000 U	NA	0.01000 U	0.05300	0.00730 J	0.01000 U	NA	NA	0.00950 J	0.01000 U	0.01000 U	NA	NA	0.01000 U	NA	NA
Nov-12	0.01800	NA	NA	0.01000 U	NA	NA	0.01500	NA	0.00980 J	NA	NA	0.00930 J	NA	NA	NA	NA	0.00880 J	NA	NA
Mar-14	0.01400	NA	0.00000	0.01000 U	NA	NA	0.01000 U	NA	0.01000 U	NA	NA	0.00670 J	NA	NA	NA	NA	0.00930 J	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00732	NA	NA	0.00070	NA	NA	0.00030 J	NA	0.00070	NA	NA	0.00310	NA	NA	NA	NA	0.00100	NA	NA
Jan-17	0.00310	NA	NA	0.00100	NA	NA	0.00020 U	NA	0.00020 J	NA	NA	NA	NA	NA	NA	NA	0.00020 J	NA	NA
May-18	0.00051	NA	NA	0.00122	NA	NA	0.00087	NA	0.00018 J	NA	NA	NA	NA	NA	NA	NA	0.00050 U	NA	NA
Jul-19	0.00138	NA	NA	0.00191	NA	NA	0.00148	NA	0.00016 U	NA	NA	NA	NA	NA	NA	NA	0.00035 J	NA	NA
Oct-20	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	0.00200 U	NA	NA	NA	NA	NA	NA	NA	0.00200 U	NA	NA
Jan-22	0.00021 J	NA	NA	0.00084	NA	NA	0.00019 J	NA	0.00073	NA	NA	NA	NA	NA	NA	NA	0.00016 U	NA	NA
May-23	0.00016 U	NA	NA	0.00026 J	NA	NA	0.00016 U	NA	0.00016 U	NA	NA	NA	NA	NA	NA	NA	0.00016 U	NA	NA
Aug-24	0.00025 J	NA	NA	0.00102	NA	NA	0.00016 U	NA	0.00016 U	NA	NA	NA	NA	NA	NA	NA	0.00020 J	NA	NA
Mar-25	0.00033 J	0.00096	0.00081	0.00111	0.00083	NS	0.00025 J	0.00084	0.0007	0.00469	0.00108	NA	NA	NA	0.00016 U	0.00016 U	0.00016 U	0.00116	0.00098

Table 11

Summary of Historical Groundwater Quality Results - Arsenic (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	NA	0.01170	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	0.00970	0.00710	ND	ND	ND	ND
Sep-99	ND	ND	0.00620	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
May-00	0.00260 U	0.00660 B	0.00260 U	0.00260 U	0.00260 U	0.00260 U	NA	NA	NA	NA	NA	NA	0.00260 U	0.00260 U	0.00260 U	0.00260 U	0.00260 U	0.00260 U
Sep-00	0.01390 B	0.01180	0.00180 U	0.00180 U	0.00180 U	0.00770 B	NA	NA	NA	NA	NA	NA	0.00180 U	0.00180 U	0.00180 U	0.00180 U	0.00180 U	0.00180 U
Dec-00	0.00260 B	0.01000 B	0.00180 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00180 U	0.00180 U	0.00180 U	0.00180 U	0.00180 U
Jan-01	NA	NA	NA	0.00220 U	0.00220 U	0.00300 B	NA	NA	NA	NA	NA	NA	0.00220 U	NA	NA	NA	NA	NA
Mar-01	0.00260 B	0.01340	0.00220 U	0.00220 U	0.00580 B	0.00630 B	NA	NA	NA	NA	NA	NA	0.00220 U	0.00220 U	0.00220 U	0.00220 U	0.00220 U	0.00220 U
Jul-01	0.00220 U	0.01050	0.00220 U	0.00220 U	0.00220 U	0.00370 B	NA	NA	NA	NA	NA	NA	0.00220 U	0.00220 U	0.00220 U	0.00220 U	0.00220 U	0.00220 U
Oct-01	0.00240 B	0.00690 B	0.00220 U	0.00220 U	0.00220 U	0.00400 B	NA	NA	NA	NA	NA	NA	0.00220 U	0.00220 U	NA	NA	NA	NA
Mar-02	0.00260 U	0.00970 B	0.00340 B	0.00260 U	0.00260 U	0.00260 U	NA	NA	NA	NA	NA	NA	0.00260 U	0.00260 U	0.00260 U	0.00260 U	0.00260 U	0.00260 U
Jul-02	0.00390 B	0.01020	0.00270 B	0.00260 U	0.00260 U	0.00550 B	NA	NA	NA	NA	NA	NA	0.00260 U	0.00260 U	0.00260 U	0.00260 U	0.00260 U	0.00260 U
Oct-02	0.00260 U	0.00520 B	0.00260 U	0.00260 U	0.00260 U	0.00260 U	NA	NA	NA	NA	NA	NA	0.00260 U	0.00260 U	0.00260 U	0.00260 U	0.00260 U	0.00260 U
Apr-03	0.00240 U	0.00750 B	0.00240 U	0.00240 U	0.00240 U	0.00370 B	NA	NA	NA	NA	NA	NA	0.00240 U	0.00270	0.00240 U	0.00240 U	0.00240 U	0.00240 U
Mar-04	0.00190 U	0.00890 B	0.00190 U	0.00190 U	0.00190 U	0.00340 B	NA	NA	NA	NA	NA	NA	0.00560 B	0.00190 U	0.00190 U	0.00290 B	0.00190 U	0.00190 U
Jun-05	0.00370 B, N	0.00860 B, N	0.00310 U	0.00310 U	0.00310 U	0.00310 U	NA	NA	NA	NA	NA	NA	0.00310 U	0.00310 U	0.00420 B, N	0.00310 U	0.00310 U	0.00310 U
Sep-06	0.00500 U	0.02600	0.00310 J	0.00500 U	0.00450 J	0.00590	NA	NA	NA	NA	NA	NA	0.00500 U	0.00500 U	0.00120 J	0.00500 U	0.00200 J	0.00130 J
Oct-07	0.00500 U	0.01500	0.00500 U	0.00420 J	0.00440 J	0.00610	NA	NA	NA	NA	NA	NA	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Mar-09	0.01000 U	0.01200	0.01000 U	0.01000 U	0.01000 U	0.00570 J	NA	NA	NA	NA	NA	NA	0.10000 U	0.01000 U	0.01000 U	NA	0.01000 U	0.01000 U
May-10	0.01000 U	0.01010	0.01000 U	0.01000 U	0.01000 U	0.00840 J	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	NA	0.01000 U	0.01000 U
Sep-11	0.01000 U	0.00610 J	0.01000 U	0.01000 U	0.00760 J	0.00790 J	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	0.01000 U	NA	NA
Nov-12	0.01000 U	0.01200	0.01000 U	0.01000 U	0.01000 U	0.01000 U	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	NA
Mar-14	0.01000 U	0.01100	0.01000 U	0.01000 U	0.01000 U	0.01000 U	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U
Nov-14	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00040 J	0.00680	0.00060	0.00100	0.00010 U	0.00380	0.00020 J	0.00020 J	0.00020 J	NA	NA	NA	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00022 J	0.00020 U
Jan-17	0.00020 J	0.00380	0.00060	0.00020 U	0.00020 U	0.00060	0.00040 J	0.00020 U	0.00020 U	0.00030 J	0.00047 J	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 J	0.00020 U
May-18	0.00050 U	0.00432	0.00028 J	0.00050 U	0.00050 U	0.02354	0.00050 U	0.00050 U	0.00050 U	0.00058	0.00042 J	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U
Jul-19	0.00017 J	0.00454	0.00034 J	0.00039 J	0.00016 U	0.00142	0.00036 J	0.00016 U	0.00016 U	0.00050	0.00045 J	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Oct-20	0.00022 J	0.00447	0.00067	0.00016 U	0.00016 U	0.00046 J	0.00021 J	0.00016 U	0.00016 U	0.00035 J	0.00041 J	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Jan-22	0.00049 J	0.00317	0.00171	0.00016 U	0.00016 U	0.00038 J	0.00041 J	0.00016 U	0.00016 U	0.00016 U	0.00037 J	NA	0.00020 U	0.00020 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
May-23	0.00016 U	0.00242	0.00023 J	0.00016 U	0.00016 U	0.00100	0.00018 J	0.00016 U	0.00016 U	0.00038 J	0.00036 J	0.00016 U	0.00020 U	0.00020 U	0.00020 U	0.00029 J	0.00016 U	0.00020 U
Aug-24	0.00016 U	0.00041 J	0.00040 J	0.00016 U	0.00076	0.00825	0.00026 J	0.00016 U	0.00016 U	0.00027 J	0.00040 J	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U
Mar-25	0.00016 U	0.00276	0.00032 J	0.00016 U	0.00016 U	0.00478	0.00016 U	0.00016 U	0.00016 U	0.00026 J	0.00046 J	0.00016 U	0.0002 U	0.0002 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U

Table 11

Summary of Historical Groundwater Quality Results - Arsenic (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 0.025 mg/L; USEPA MCL = 0.01 mg/L; and, Part 5 MCL = 0.01 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

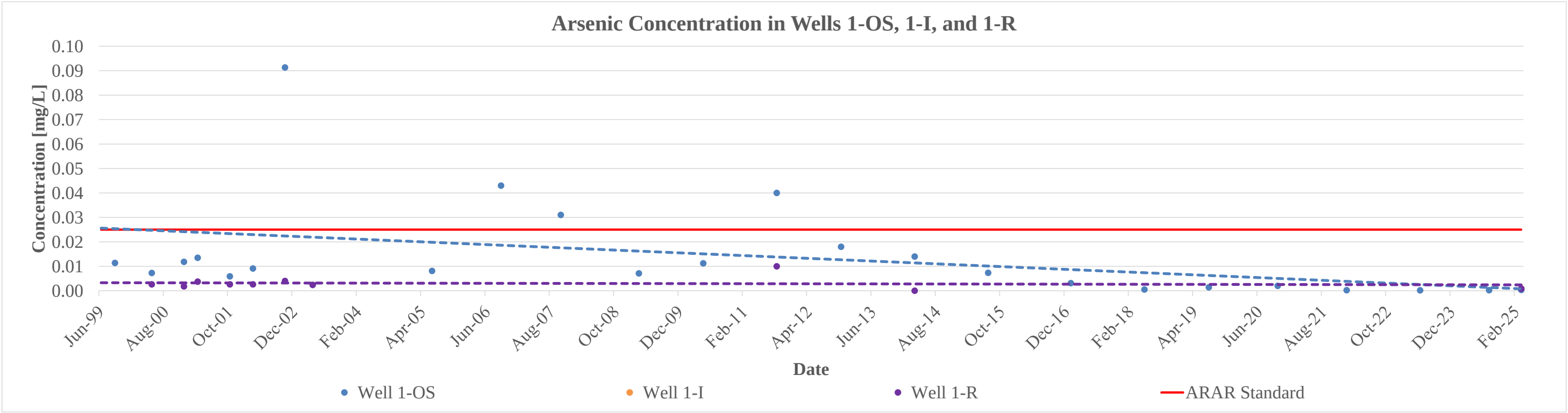


Table 11

Summary of Historical Groundwater Quality Results - Arsenic (mg/L)
Town of Ramapo Landfill

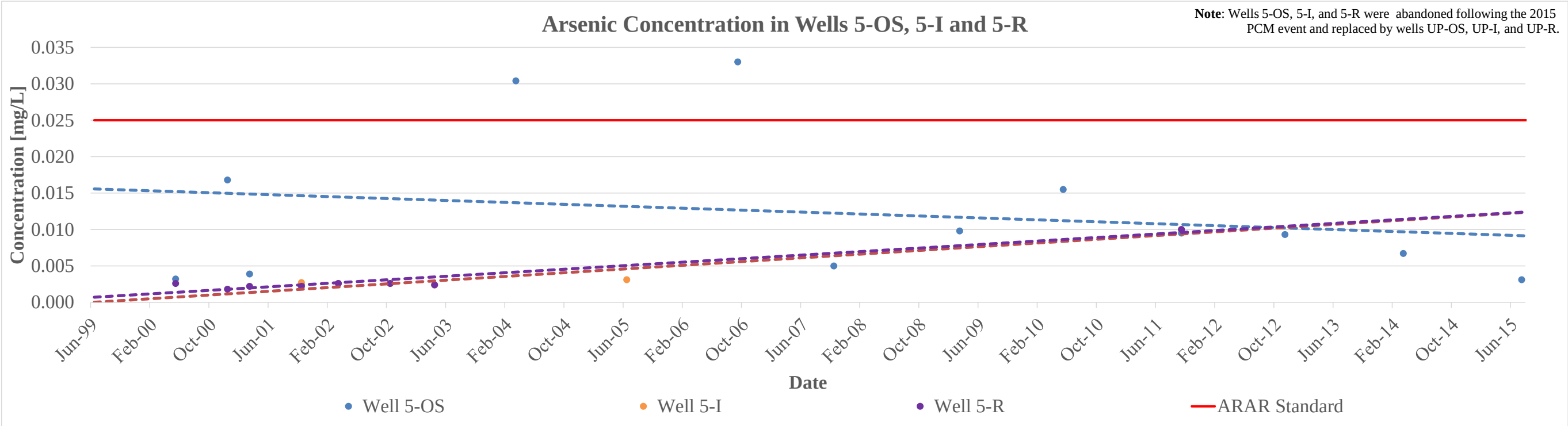


Table 12

Summary of Historical Groundwater Quality Results - Chromium (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jan-90	0.15300	NA	0.03970	0.18000	NA	0.01610	0.58700	0.02800	0.13900	NA	0.13500	0.09000	0.14300	0.02740	NA	NA	0.03350	NA	0.01620
Sep-90	0.05730	NA	0.01750	0.14100	NA	0.00550	1.29000	0.01140	0.04010	NA	0.07060	0.03560	0.04880	0.02930	NA	NA	0.04010	NA	0.01680
Jan-93	0.00800	NA	ND	ND	NA		0.80700	ND	0.00580	NA	NA	0.04880	NA	0.00680	NA	NA	0.02420	NA	ND
Apr-93	ND	NA	ND	ND	NA		0.04040	ND	ND	NA	NA	ND	NA	ND	NA	NA	0.01300	NA	ND
Sep-93	0.06000	NA	0.08490	0.05020	NA	0.01480	1.35000	ND	0.01080	NA	NA	NA	NA	ND	NA	NA	1.89000	NA	ND
Dec-93	0.25700	NA	0.04680	0.09590	NA	0.00610	1.10000	0.01470	0.01120	NA	NA	NA	0.08000	0.00860	NA	NA	0.21800	NA	ND
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	1.85000	NA	0.07340	0.28500	NA	ND	0.32100	0.07570	0.08770	NA	ND	NA	0.01060	0.00270	NA	NA	0.05920	NA	ND
May-00	2.10000	NA	0.05860	0.41500	NA	0.00400 B	0.68700	0.05120	0.03680	NA	0.00050 U	0.06930	NA	0.01470	NA	NA	0.20000	NA	0.00050 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	0.40500	NA	0.00980 B	0.12000	NA	0.00470 B	0.45300	0.21300	0.01790	NA	0.00090 U	0.16500	NA	0.00720 B	NA	NA	0.03470	NA	0.00090 U
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.25300	NA	0.11900	0.12800	NA	0.00090 U	0.52200	0.12400	0.01320	NA	0.00090 U	0.03860	NA	0.00390 B	NA	NA	0.05190	NA	0.00090 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	0.02060	NA	0.04710	0.08710	NA	0.00390 B	0.46700	0.01270	0.00400 B	NA	0.00220 B	NA	0.00330 B	0.00330 B	NA	NA	0.04840	NA	0.00230 B
Mar-02	0.06010	NA	0.01020	0.03560	NA	0.00960 B	0.25700	0.03350	0.00870 B	NA	0.00083 U	NA	0.01050	0.02460	NA	NA	0.02210	NA	0.00083 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	0.38600 E	NA	0.08290 E	2.04000 E	NA	0.00460 B, E	1.40000 E	0.03120 E	0.03500 E	NA	0.00130 B, E	NA	0.00120 B, E	0.00990 B, E	NA	NA	0.10800 E	NA	NA
Apr-03	NA	NA	0.00080 U	0.08980	NA	0.00480 B	4.25000	0.08680	0.01790	NA	0.00080 U	NA	0.00560 B	0.00560 B	NA	NA	0.03600	NA	NA
Mar-04	NA	NA	NA	0.08710	NA	NA	0.81600	NA	0.00940 B	NA	NA	0.23700	NA	NA	NA	NA	0.13300	NA	NA
Jun-05	0.03140	NA	NA	0.10100	NA	NA	2.02000	NA	0.05670	NA	NA	NA	0.00560 B	NA	NA	NA	0.00570 B	NA	NA
Sep-06	2.40000	NA	NA	0.12000	NA	NA	7.20000	NA	1.30000	NA	NA	0.69000	NA	NA	NA	NA	0.08700	NA	NA
Oct-07	0.53000	NA	NA	0.25000	NA	NA	3.40000	NA	0.27000	NA	NA	0.03200	NA	NA	NA	NA	0.09600	NA	NA
Mar-09	0.14000	NA	NA	0.48000	NA	NA	3.90000	NA	0.23000	NA	NA	0.17000	NA	NA	NA	NA	0.06100	NA	NA
May-10	1.99000	NA	NA	0.72200	NA	NA	2.57000	NA	0.52200	NA	NA	0.27800	NA	NA	NA	NA	0.15800	NA	NA
Sep-11	11.10000	NA	0.97000	1.00000	NA	0.00270 J	29.70000	2.60000	0.29000	NA	NA	0.12000	0.01100	0.09300	NA	NA	0.48000	NA	NA
Nov-12	2.40000	NA	NA	0.28000	NA	NA	4.10000	NA	1.70000	NA	NA	0.13000	NA	NA	NA	NA	0.23000	NA	NA
Mar-14	5.20000	NA	NA	1.10000	NA	NA	2.80000	NA	0.54000	NA	NA	0.09600	NA	NA	NA	NA	0.30000	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	6.60400	NA	NA	0.06220	NA	NA	0.22880	NA	0.13290	NA	NA	0.04060	NA	NA	NA	NA	0.25420	NA	NA
Jan-17	1.25900	NA	NA	0.22920	NA	NA	0.59490	NA	0.21000	NA	NA	NA	NA	NA	NA	NA	0.13150	NA	NA
May-18	0.06024	NA	NA	0.01030	NA	NA	3.37500	NA	0.15660	NA	NA	NA	NA	NA	NA	NA	0.01874	NA	NA
Jul-19	0.30830	NA	NA	0.00229	NA	NA	8.58000	NA	0.07353	NA	NA	NA	NA	NA	NA	NA	0.01642	NA	NA
Oct-20	0.31800	NA	NA	0.09400	NA	NA	3.19000	NA	0.10600	NA	NA	NA	NA	NA	NA	NA	0.57300	NA	NA
Jan-22	0.05443	NA	NA	0.03354	NA	NA	0.15410	NA	0.99920	NA	NA	NA	NA	NA	NA	NA	0.00441	NA	NA
May-23	0.02308	NA	NA	0.01312	NA	NA	0.08466	NA	0.02963	NA	NA	NA	NA	NA	NA	NA	0.03431	NA	NA
Aug-24	0.01866	NA	NA	0.05551	NA	NA	0.05801	NA	0.01974	NA	NA	NA	NA	NA	NA	NA	0.2922	NA	NA
Mar-25	0.0952	0.2312	0.248	0.3412	0.00275	NA	0.6726	0.1018	0.3816	0.04083	0.0243	NA	NA	NA	0.01276	0.00255	0.00538	0.3783	0.05816

Table 12

Summary of Historical Groundwater Quality Results - Chromium (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jan-90	0.03480	0.21500	0.02000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-90	0.01670	0.03250	0.02310	0.00680	0.00810	0.00880	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
Jan-93	ND	NA	0.00990	ND	NA	0.00390	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Apr-93	ND	NA	ND	ND	NA	0.01640	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Sep-93	ND	NA	0.01770	ND	NA	0.01670	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA
Dec-93	0.00760	NA	0.01820	ND	NA	0.01160	NA	NA	NA	NA	NA	NA	ND	0.00490	ND	NA	NA	ND
Jun-99	0.02020	0.05680	0.00200	0.00110	0.00680	0.01500	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Sep-99	0.03100	ND	ND	ND	ND	0.04730	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
May-00	0.03010	0.01000	0.00110 B	0.03450	0.01080	0.00300 B	NA	NA	NA	NA	NA	NA	0.00075 B	0.00050 U	0.00050 U	0.00053 B	0.00050 U	0.00050 U
Sep-00	0.01690 B	0.01730	0.00220 B	0.00740 B	0.00500 B	0.00160 B	NA	NA	NA	NA	NA	NA	0.00090 U	0.00090 U	0.00090 U	0.00090 U	0.00090 U	0.00090 U
Dec-00	0.00880 B	0.02290	0.00360 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00090 U	0.00140 B	0.00090 U	0.00090 U	0.00090 U
Jan-01	NA	NA	NA	0.02010	0.00410 B	0.00240 B	NA	NA	NA	NA	NA	NA	0.00090 U	NA	NA	NA	NA	NA
Mar-01	0.02580	0.04990	0.00770 B	0.01700	0.02880	0.00410 B	NA	NA	NA	NA	NA	NA	0.00090 U	0.00090 U	0.00090 U	0.00090 U	0.00090 U	0.00090 U
Jul-01	0.00655 B	0.01990	0.00556 B	0.00090 U	0.00235 B	0.00112 B	NA	NA	NA	NA	NA	NA	0.00090 U	0.00090 U	0.00090 U	0.00090 U	0.00090 U	0.00090 U
Oct-01	0.02060	0.00230 B	0.00390 B	0.01740	0.00120 B	0.00190 B	NA	NA	NA	NA	NA	NA	0.00120 B	0.00180 B	NA	NA	NA	NA
Mar-02	0.01640	0.00480 B	0.00120 B	0.01250	0.00240 B	0.00083 U	NA	NA	NA	NA	NA	NA	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U
Jul-02	0.00570 B	0.00950 B	0.00170 B	0.00520 B	0.00380 B	0.00083 U	NA	NA	NA	NA	NA	NA	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U
Oct-02	0.03380 E	0.00950 B, E	0.00610 B, E	0.00970 B, E	0.00083 U	0.00083 U	NA	NA	NA	NA	NA	NA	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U
Apr-03	0.01040	0.01550	0.00080 U	0.01920	0.00420 B	0.00080 U	NA	NA	NA	NA	NA	NA	0.00080 U	0.00080 U	0.00080 U	0.00080 U	0.00080 U	0.00080 U
Mar-04	0.01030	0.01940	0.00200 B	0.01040	0.00280 B	0.00260 B	NA	NA	NA	NA	NA	NA	0.00130 B	0.00150 B	0.00140 B	0.00190 B	0.00150 B	0.00120 B
Jun-05	0.02960	0.00330 B	0.00250 B	0.00240 B	0.00140 B	0.00190 B	NA	NA	NA	NA	NA	NA	0.00090 U	0.00090 U	0.00090 U	0.00093 B	0.00090 U	0.00094 B
Sep-06	0.14000	0.03000	0.04200	0.05500	0.03600	0.00410 J	NA	NA	NA	NA	NA	NA	0.00270 J	0.00280 J	0.00320 J	0.00200 J	0.01000 U	0.01000 U
Oct-07	0.08500	0.04100	0.01100	0.33000	0.15000	0.00430 J	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U
Mar-09	0.68000	0.02700	0.01100	0.30000	0.03800	0.01000 U	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	NA	0.01000 U	0.01000 U
May-10	0.15200	0.01400	0.00400 U	0.17600	0.05390	0.00250 J	NA	NA	NA	NA	NA	NA	0.00400 U	0.00400 U	0.00400 U	NA	0.00400 U	0.00400 U
Sep-11	1.50000	0.00400 U	0.00400 U	0.43000	0.38000	0.00400 U	NA	NA	NA	NA	NA	NA	0.00400 U	0.00400 U	0.00400 U	0.00400 U	NA	NA
Nov-12	0.14000	0.00290 J	0.00400 U	0.10000	0.00260 J	0.00400 U	NA	NA	NA	NA	NA	NA	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	NA
Mar-14	0.08500	0.00370 J	ND	0.29000	0.01100	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Nov-14	NA	NA	NA	NA	NA	NA	0.00200 U	0.00200 U	0.00330 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.23040	0.00280	0.00240	0.05670	0.00250	0.00240	0.00240	0.00150 J	0.00790	NA	NA	NA	0.00027 J	0.00024 J	0.00021 J	0.00054 J	0.00200 U	0.00023 J
Jan-17	0.29670	0.00270	0.01920	0.00370	0.03680	0.01300	0.00040 J	0.00190	0.00520	0.00200	0.00200	0.00330	0.00040 J	0.00030 J	0.00130	0.00130	0.00040 J	0.00040 J
May-18	0.00377	0.00088 J	0.00101	0.00400	0.04467	0.04600	0.00035 J	0.00071 J	0.18110	0.00059 J	0.01138	0.00121	0.00030 J	0.00022 J	0.00031 J	0.00023 J	0.00031 J	0.00040 J
Jul-19	0.01270	0.00064 J	0.04565	0.01202	0.01542	0.00546	0.00017 U	0.00026 J	0.01136	0.00253	0.00194	0.00732	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00018 J
Oct-20	0.06122	0.00104	0.05239	0.00081 J	0.04680	0.00355	0.00031 J	0.00034 J	0.02904	0.00132	0.02597	0.00201	0.00035 J	0.00017 U	0.00018 J	0.00017 U	0.00027 J	0.00040 J
Jan-22	0.36240	0.00317	0.01692	0.01594	0.01218	0.00155	0.00157	0.00048 J	0.00795	0.00143	0.00428	NA	0.00030 J	0.00020 U	0.00052 J	0.00017 U	0.00020 J	0.00017 U
May-23	0.07087	0.00058 J	0.00254	0.00074 J	0.02259	0.01297	0.00043 J	0.00037 J	0.00434	0.00327	0.05443	0.00142	0.00040 J	0.00020 J	0.00020 U	0.00035 J	0.00027 J	0.00070 J
Aug-24	0.02563	0.00238	0.08321	0.00948	0.07688	0.07216	0.00051 J	0.00028 J	0.00163	0.00176	0.00253	0.00287	0.00052 J	0.00019 J	0.00027 J	0.00041 J	0.00043 J	0.00036 J
Mar-25	0.02213	0.00048 J	0.00629	0.00038 J	0.00662	0.09332	0.00032 J	0.00165	0.0011	0.00147	0.00172	0.01499	0.00040 J	0.0002 U	0.00022 J	0.00017 U	0.0002 J	0.00017 U

Table 12

Summary of Historical Groundwater Quality Results - Chromium (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 0.05 mg/L; USEPA MCL = 0.1 mg/L; and, Part 5 MCL = 0.1 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

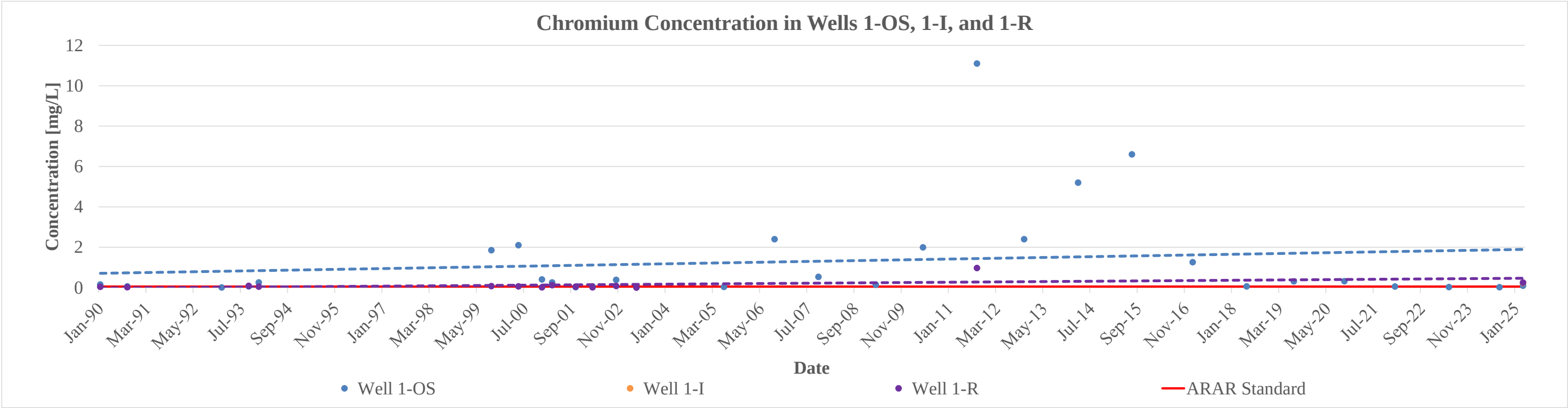


Table 12

Summary of Historical Groundwater Quality Results - Chromium (mg/L)
Town of Ramapo Landfill

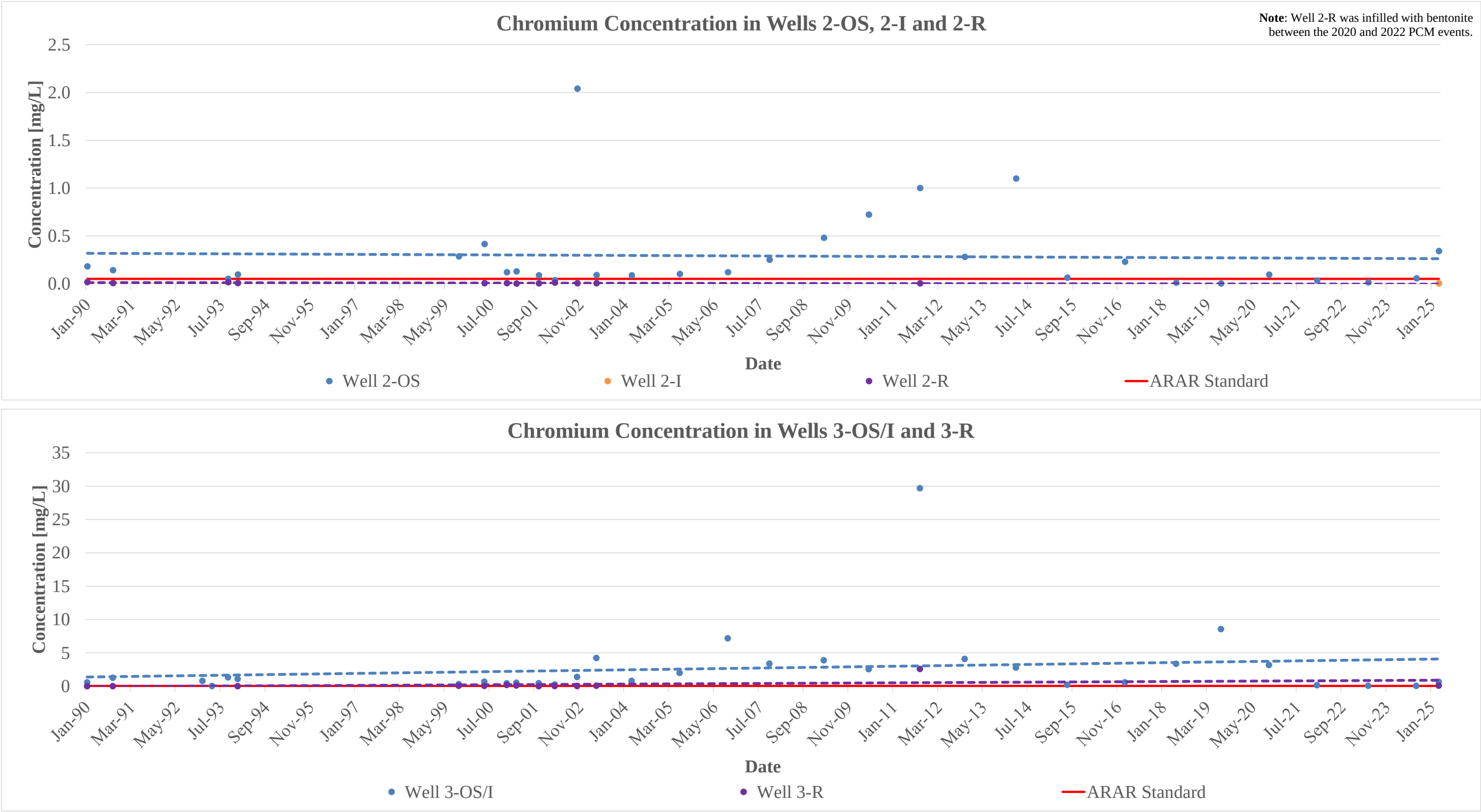


Table 12

Summary of Historical Groundwater Quality Results - Chromium (mg/L)
Town of Ramapo Landfill

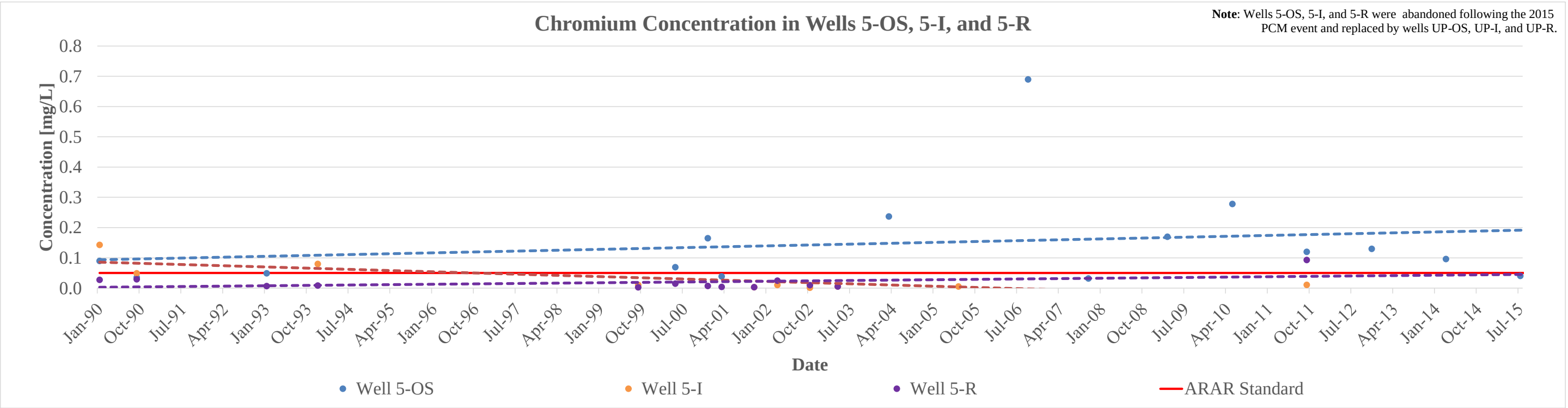
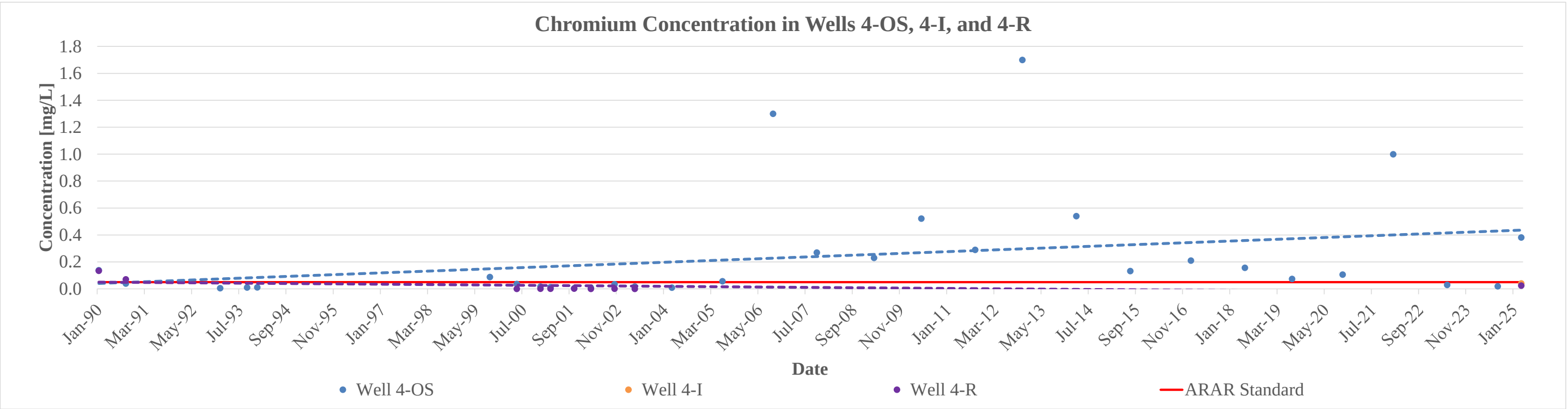


Table 12

Summary of Historical Groundwater Quality Results - Chromium (mg/L)
Town of Ramapo Landfill

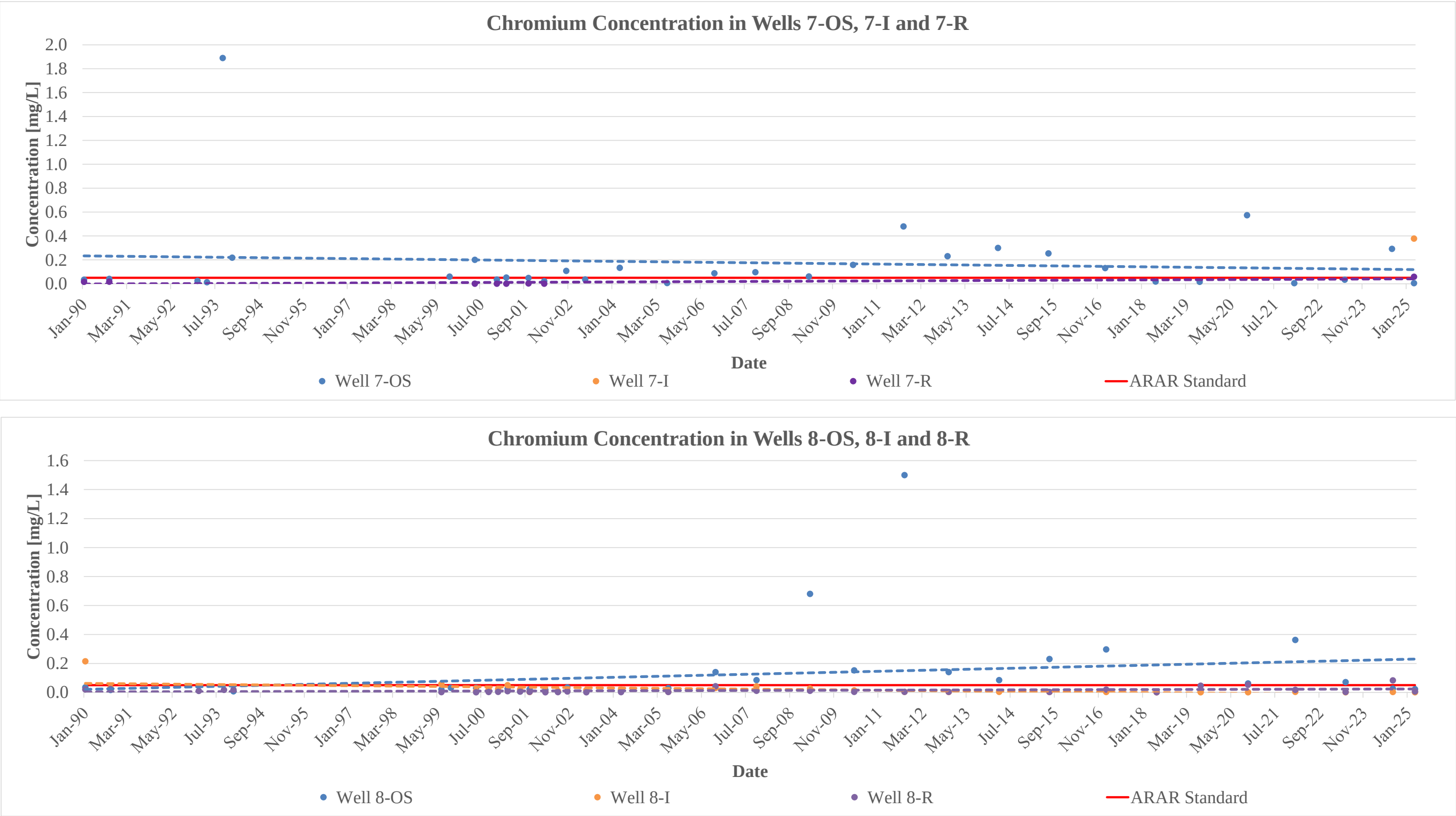


Table 12

Summary of Historical Groundwater Quality Results - Chromium (mg/L)
Town of Ramapo Landfill

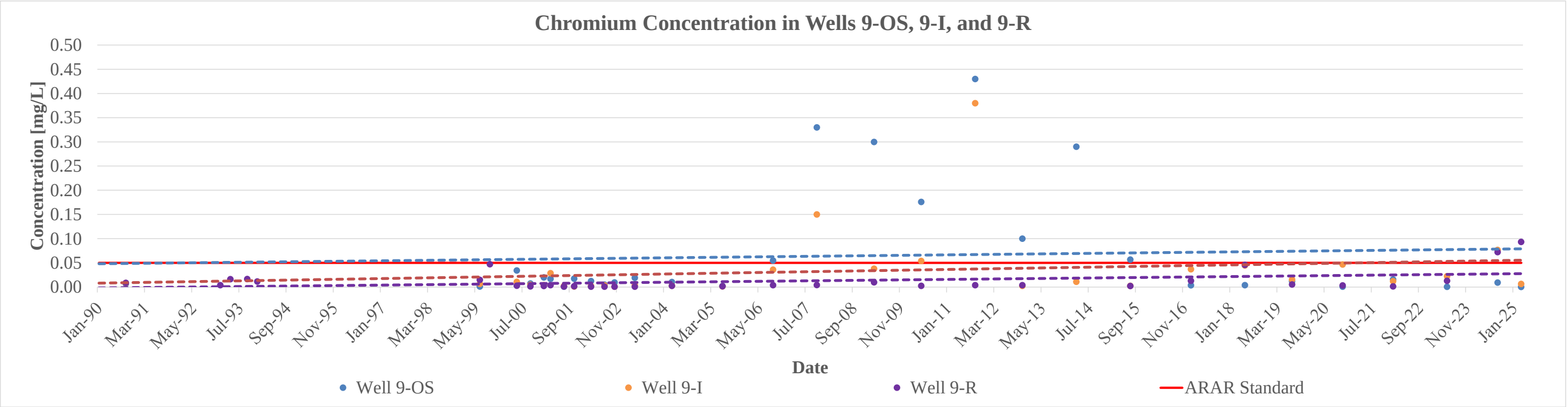


Table 13

Summary of Historical Groundwater Quality Results - Iron (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jan-90	45.000	NA	11.800	0.912	NA	0.409	6.830	1.930	15.600	NA	8.230	27.000	0.973	0.658	NA	NA	0.981	NA	31.500
Sep-90	17.500	NA	2.650	41.800	NA	0.602	9.750	1.370	12.400	NA	5.290	11.200	23.300	0.368	NA	NA	24.500	NA	1.940
Jan-93	1.870	NA	0.395	NA	NA	NA	5.110	11.500	0.529	NA	3.520	11.100	NA	0.620	NA	NA	1.250	NA	ND
Apr-93	0.884	NA	0.197	0.186	NA	0.674	0.333	2.940	0.520	NA	4.920	4.700	NA	2.310	NA	NA	0.521	NA	0.057
Sep-93	32.300	NA	1.940	11.800	NA	1.120	21.300	3.280	5.560	NA	3.100	NA	NA	0.751	NA	NA	619.000	NA	0.989
Dec-93	162.000	NA	1.210	9.800	NA	1.450	37.900	4.800	10.600	NA	5.290	NA	2.030	0.243	NA	NA	2.200	NA	0.600
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	76.200	NA	1.420	6.910	NA	2.640	1.990	8.770	50.200	NA	7.500	NA	0.700	0.040	NA	NA	11.300	NA	ND
May-00	40.500	NA	0.867	32.900	NA	1.790	3.310	1.610	16.300	NA	5.900	41.500	NA	5.000	NA	NA	4.300	NA	0.128
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	43.800 E	NA	0.990 E	32.800 E	NA	1.440 E	3.620 E	3.020 E	11.300 E	NA	7.240 E	101.000 E	NA	2.370 E	NA	NA	12.400 E	NA	0.310 E
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	54.100	NA	15.700	37.700	NA	0.337	5.810	4.400	7.690	NA	4.220	22.800	NA	0.826	NA	NA	4.170 N	NA	0.213
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	16.400 E	NA	6.260 E	24.500 E	NA	0.299	4.090 E	1.140 E	1.760 E	NA	3.850 E	NA	0.186 E	0.096 E	NA	NA	10.400 E	NA	0.022 B,E
Mar-02	35.200	NA	1.330	10.500	NA	6.830	1.810	2.020	4.310	NA	3.250	NA	5.490	10.300	NA	NA	6.790	NA	0.073
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	127.000 E	NA	41.600 E	48.200 E	NA	1.760 E	30.800 E	13.300 E	32.800 E	NA	4.520 E	NA	0.061 E	1.230 E	NA	NA	21.200 E	NA	NA
Apr-03	NA	NA	0.374	40.700	NA	2.550	31.800	4.830	14.100	NA	6.250	NA	1.910	1.760	NA	NA	1.850	NA	NA
Mar-04	NA	NA	NA	14.700	NA	NA	12.900	NA	3.050	NA	NA	150.000	NA	NA	NA	NA	38.500	NA	NA
Jun-05	54.200 N	NA	NA	0.144 N	NA	NA	60.500 N	NA	1.230	NA	NA	NA	0.124 N	NA	NA	NA	1.310	NA	NA
Sep-06	120.000	NA	NA	12.000	NA	NA	77.000	NA	12.000	NA	NA	410.000	NA	NA	NA	NA	17.000	NA	NA
Oct-07	160.000	NA	NA	31.000	NA	NA	25.000	NA	24.000	NA	NA	0.850	NA	NA	NA	NA	13.000	NA	NA
Mar-09	38.000	NA	NA	12.000	NA	NA	30.000	NA	10.000	NA	NA	110.000	NA	NA	NA	NA	5.800	NA	NA
May-10	44.100 B	NA	NA	22.700	NA	NA	24.000 B	NA	6.830	NA	NA	176.000	NA	NA	NA	NA	19.300 B	NA	NA
Sep-11	82.000	NA	8.600 B	16.000	NA	0.260	158.000	18.000	3.500	NA	NA	66.500	1.300	28.100 B	NA	NA	19.300	NA	NA
Nov-12	45.200	NA	NA	6.600	NA	NA	34.800	NA	18.500	NA	NA	68.500	NA	NA	NA	NA	14.300	NA	NA
Mar-14	66.000	NA	NA	17.900	NA	NA	16.600	NA	8.900	NA	NA	53.500	NA	NA	NA	NA	24.500	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	53.600	NA	NA	2.310	NA	NA	2.750	NA	2.500	NA	NA	7.800	NA	NA	NA	NA	5.570	NA	NA
Jan-17	10.400	NA	NA	3.670	NA	NA	8.560	NA	1.160	NA	NA	NA	NA	NA	NA	NA	0.806	NA	NA
May-18	0.533	NA	NA	0.324	NA	NA	25.200	NA	1.140	NA	NA	NA	NA	NA	NA	NA	0.265	NA	NA
Jul-19	7.150	NA	NA	3.710	NA	NA	37.600	NA	0.633	NA	NA	NA	NA	NA	NA	NA	0.348	NA	NA
Oct-20	9.660	NA	NA	1.050	NA	NA	13.600	NA	1.180	NA	NA	NA	NA	NA	NA	NA	5.310	NA	NA
Jan-22	0.450	NA	NA	0.849	NA	NA	1.210	NA	6.580	NA	NA	NA	NA	NA	NA	NA	0.045 J	NA	NA
May-23	0.377	NA	NA	0.207	NA	NA	0.409	NA	0.765	NA	NA	NA	NA	NA	NA	NA	0.220	NA	NA
Aug-24	0.372	NA	NA	1.44	NA	NA	0.226	NA	0.354	NA	NA	NA	NA	NA	NA	NA	2.51	NA	NA
Mar-25	1.5	2.12	1.98	3.12	2.93	NA	8.17	2.86	4.65	8.55	1.77	NA	NA	NA	0.283	0.0985	0.0258 J	0.647	15.1

Table 13

Summary of Historical Groundwater Quality Results - Iron (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jan-90	229.000	15.700	1.360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-90	43.800	30.500	2.940	0.249	0.145	20.200	NA	NA	NA	NA	NA	NA	0.064	0.011	NA	NA	NA	NA
Jan-93	3.230	NA	11.600	0.051	NA	2.680	NA	NA	NA	NA	NA	NA	0.186	0.042	0.033	0.040	0.052	0.022
Apr-93	2.080	NA	2.590	1.200	NA	8.250	NA	NA	NA	NA	NA	NA	0.130	0.050	0.011	0.019	0.074	0.173
Sep-93	6.180	NA	9.160	0.383	NA	11.500	NA	NA	NA	NA	NA	NA	1.260	NA	NA	NA	ND	NA
Dec-93	12.000	NA	4.710	0.393	NA	10.800	NA	NA	NA	NA	NA	NA	0.916	0.023	0.553	NA	NA	0.023
Jun-99	0.473	19.100	1.140	0.515	0.949	4.360	NA	NA	NA	NA	NA	NA	0.163	0.114	0.169	0.083	0.090	0.068
Sep-99	0.747	4.270	5.260	0.198	ND	3.110	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
May-00	1.200	9.870	1.180	1.880	2.820	1.340	NA	NA	NA	NA	NA	NA	0.018 B	0.059 B	0.009 B	0.004 B	0.023 B	0.005 B
Sep-00	8.900	22.900	2.230	2.230	3.920	9.110	NA	NA	NA	NA	NA	NA	0.003 U	0.037 B	0.004 B	0.003 U	0.003 U	0.003 U
Dec-00	4.450 E	26.400 E	2.580 E	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.062 B,E	0.037 B,E	0.021 B,E	0.014 B,E	0.053 B,E
Jan-01	NA	NA	NA	2.640	2.570	8.280	NA	NA	NA	NA	NA	NA	0.005 B	NA	NA	NA	NA	NA
Mar-01	6.020 N	47.600 N	2.500 N	3.660 N	24.000 N	8.080 E	NA	NA	NA	NA	NA	NA	0.015 B	0.011 B	0.062 B	0.022 B	0.025 B	0.028 B
Jul-01	2.460	27.600	1.680	0.003 U	2.350	8.320	NA	NA	NA	NA	NA	NA	0.561	0.026 B	0.029 B	0.007 B	0.103	0.019 B
Oct-01	4.600 E	6.560 E	1.770 E	3.780 E	0.145 E	8.150 E	NA	NA	NA	NA	NA	NA	0.016 B	0.059 B,E	NA	NA	NA	NA
Mar-02	3.060	16.700	2.110	0.896	2.000	5.980	NA	NA	NA	NA	NA	NA	0.008 B	0.036 B	0.005 U	0.011 B	0.013 B	0.005 U
Jul-02	3.540 *	16.700 *	1.580 *	0.789 *	3.290 *	7.110 *	NA	NA	NA	NA	NA	NA	0.008 *B	0.017 *B	0.019 B	0.007 U	0.009 B	0.007 U
Oct-02	6.600 E	17.600 E	1.490 E	0.500 E	0.040 B,E	6.140 E	NA	NA	NA	NA	NA	NA	0.024 B,E	0.033 B,E	0.939 E	0.053 B,E	0.091 E	0.011 B,E
Apr-03	2.490	21.400	0.969	1.600	3.710	5.720	NA	NA	NA	NA	NA	NA	0.009 B	0.025 B	0.024 B	0.020 B	0.056 B	0.007 B
Mar-04	1.030	29.700	1.160	0.506	1.630	4.890	NA	NA	NA	NA	NA	NA	0.020 B	0.028 B	0.203	0.030 B	0.157	0.017 U
Jun-05	3.150	13.900	0.751	0.453	0.318	6.430	NA	NA	NA	NA	NA	NA	0.019 B	0.115	0.014 B	0.008	0.017 B	0.008 U
Sep-06	1.200	43.000	4.700	1.600	24.000	7.000	NA	NA	NA	NA	NA	NA	0.015 J	0.034 J	0.021 J	0.050 U	0.260	0.050 U
Oct-07	0.780	39.000	1.300	6.300	41.000	8.500	NA	NA	NA	NA	NA	NA	0.017 J	0.130	0.046 J	0.012 J	0.076	0.050 U
Mar-09	3.800	33.000	1.300	7.800	23.000	9.400	NA	NA	NA	NA	NA	NA	0.012 J	0.140	0.029 J	NA	0.033 J	0.016 J
May-10	1.070 B	27.000 B	0.563 B	4.640 B	30.300 B	12.500 B	NA	NA	NA	NA	NA	NA	0.023 B,J	0.071 B	0.050 U	NA	0.030 B,J	0.598 B
Sep-11	6.500	12.600 B	0.350 B	7.500 B	40.100 B	7.300 B	NA	NA	NA	NA	NA	NA	0.028 B,J	0.080 B	0.140 B	0.090 B	NA	NA
Nov-12	0.950	15.800	0.300	1.300	0.075	5.400	NA	NA	NA	NA	NA	NA	0.055	0.250	0.050 U	0.050 U	0.050 U	NA
Mar-14	0.540	14.400	0.210	3.700	0.100	6.800	NA	NA	NA	NA	NA	NA	0.034 J	0.110	ND	ND	ND	ND
Nov-14	NA	NA	NA	NA	NA	NA	0.114	0.997	2.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	1.280	11.600	0.311	1.760	0.023 J	9.270	0.273	0.331	0.085	NA	NA	NA	0.030 J	0.090	0.020 U	0.020 U	0.480	0.020 U
Jan-17	2.140	9.520	0.373	0.042 J	0.241	0.968	0.186	0.022 J	0.111	0.219	0.165	0.463	0.048 J	0.066	0.034 J	0.047 J	0.104	0.076
May-18	0.056	10.200	0.294	0.067	0.347	22.800	0.275	0.133	0.765	0.435	3.230	0.055	0.193	0.148	0.036 J	0.050 U	0.022 J	0.020 J
Jul-19	0.240	8.930	0.195	0.270	0.113	1.650	0.019 J	0.095	0.078	1.150	0.106	0.200	0.021 J	0.032 J	0.019 U	0.054	0.054	0.019 U
Oct-20	0.552	9.630	1.560	0.026 J	0.305	0.533	0.181	0.039 J	0.151	0.062	0.266	0.025 J	0.029 J	0.047 J	0.019 U	0.019 U	0.019 U	0.030 J
Jan-22	2.190	7.520	2.460	0.102	0.229	0.569	1.960	0.027 J	0.070	0.167	0.233	NA	0.010 J	0.104	0.019 U	0.019 U	0.019 U	0.019 U
May-23	0.504	5.100	0.345	0.019 U	0.168	5.620	0.270	0.0191 U	0.0381 J	1.620	2.220	0.0357 J	0.009 U	0.024 J	0.009 U	0.0363 J	0.0289 J	0.009 U
Aug-24	0.218	0.829	0.512	0.099	0.525	14.1	0.324	0.0191 U	0.0191 U	0.185	0.032 J	0.159	0.043 J	0.0191 U	0.0191 U	0.0191 U	0.0191 U	0.0191 U
Mar-25	0.225	5.66	0.5	0.0191 U	0.0669	7.22	0.0377 J	0.286	0.0191 U	0.158	0.0191 U	0.702	0.009 U	0.009 U	0.0191 U	0.0191 U	0.0191 U	0.0514

Table 13

Summary of Historical Groundwater Quality Results - Iron (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 0.3 mg/L; USEPA Secondary MCL = Not Available; and, Part 5 MCL = 0.3 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

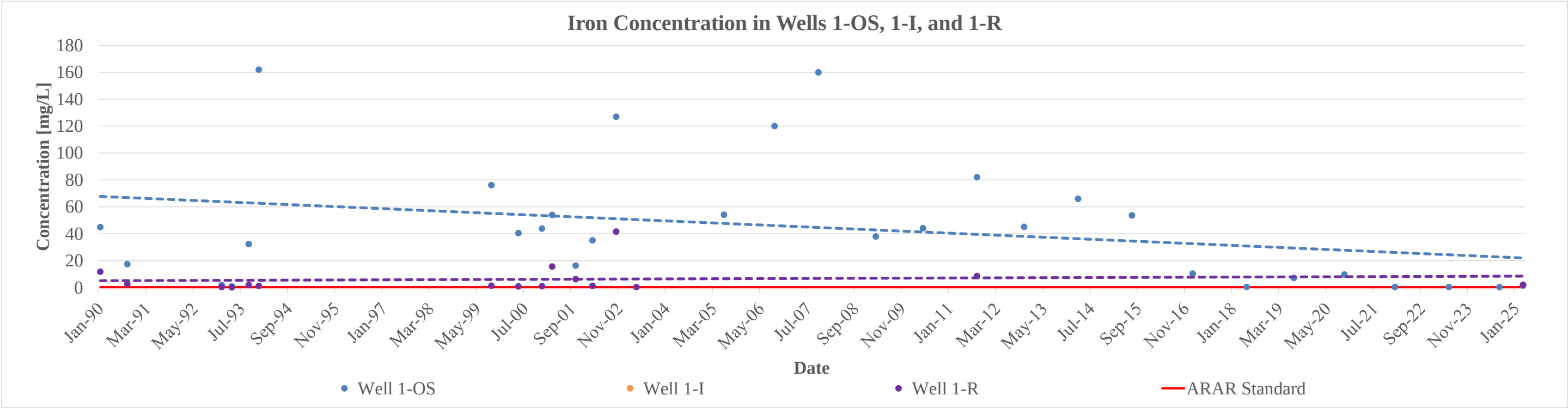


Table 13

Summary of Historical Groundwater Quality Results - Iron (mg/L)
Town of Ramapo Landfill

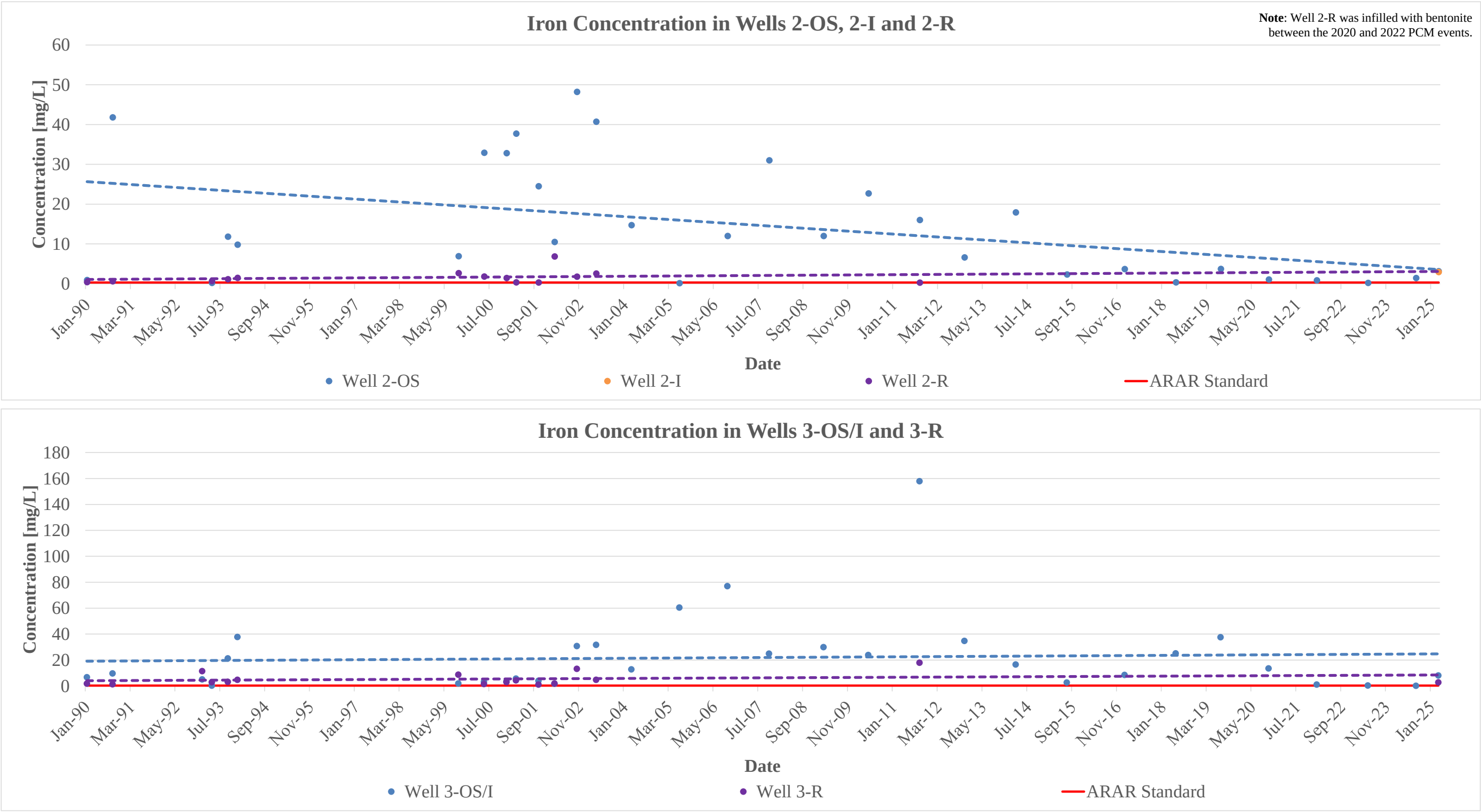


Table 13

Summary of Historical Groundwater Quality Results - Iron (mg/L)
Town of Ramapo Landfill

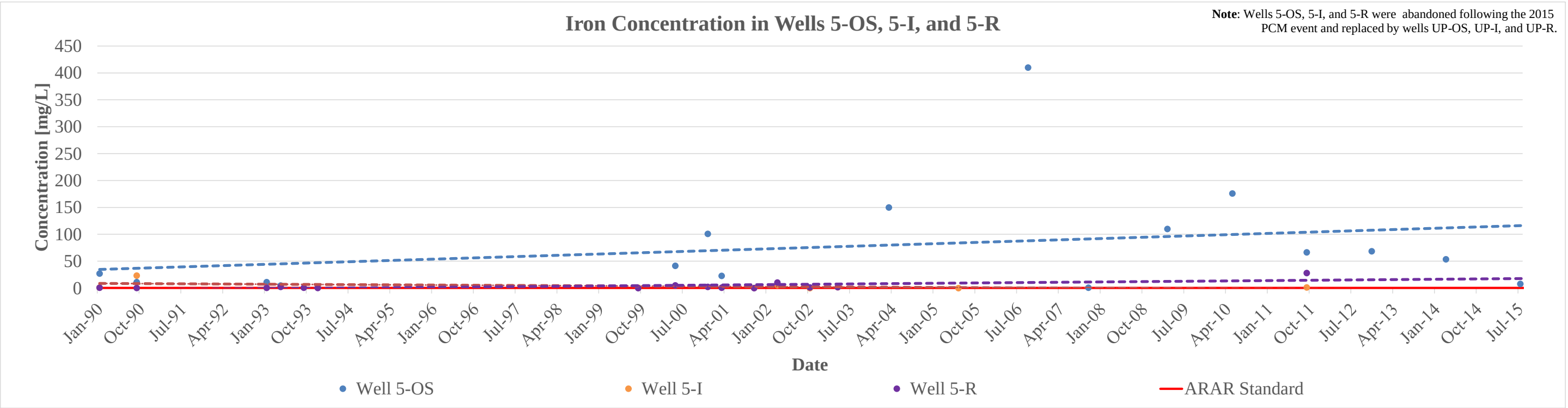
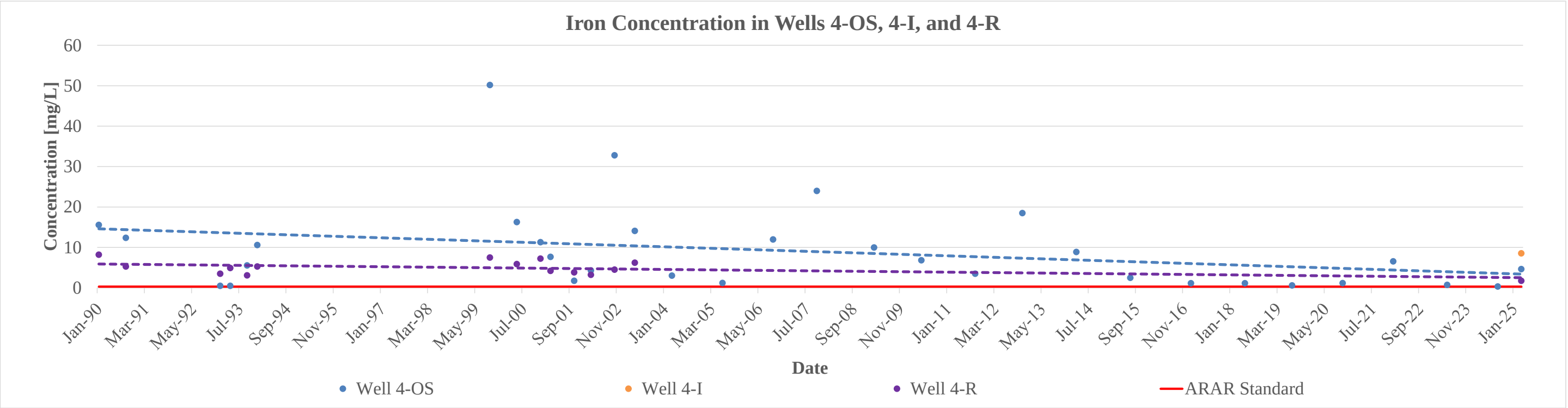


Table 13

Summary of Historical Groundwater Quality Results - Iron (mg/L)
Town of Ramapo Landfill

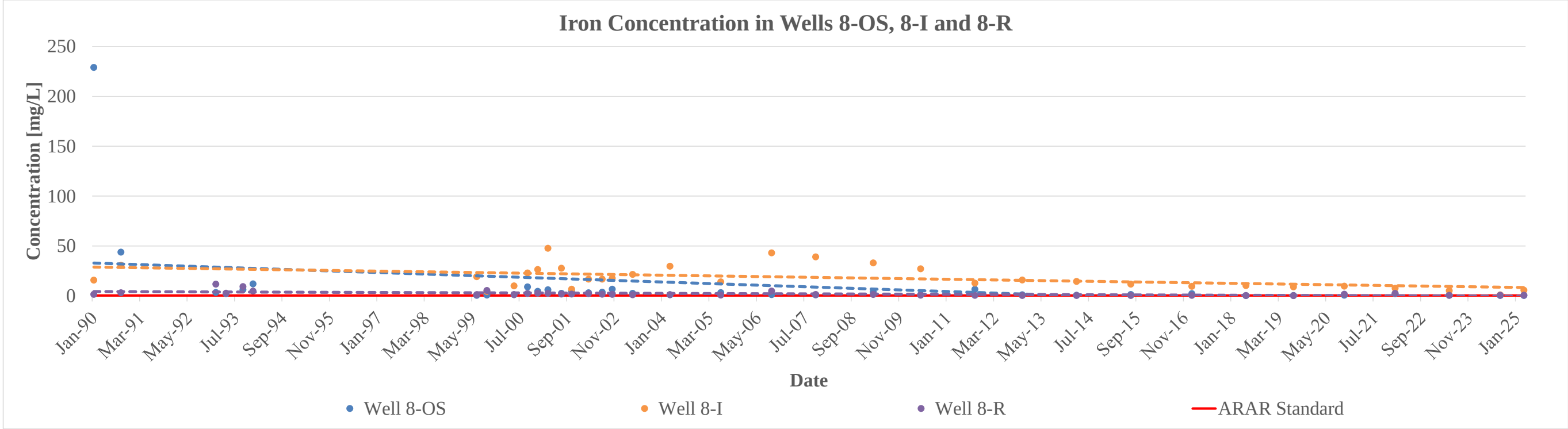
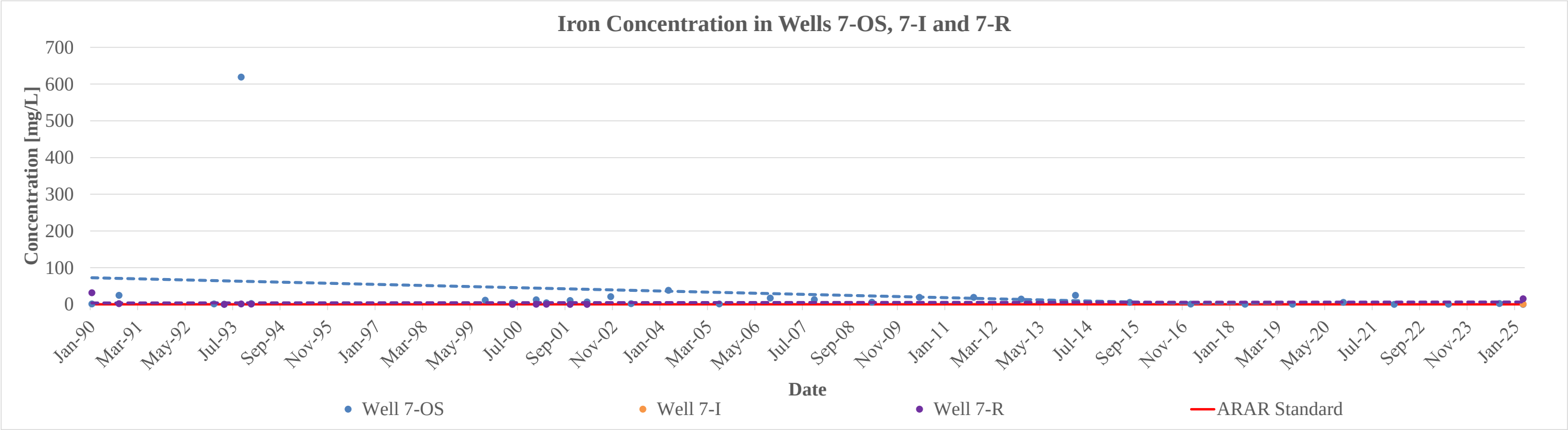


Table 13

Summary of Historical Groundwater Quality Results - Iron (mg/L)
Town of Ramapo Landfill

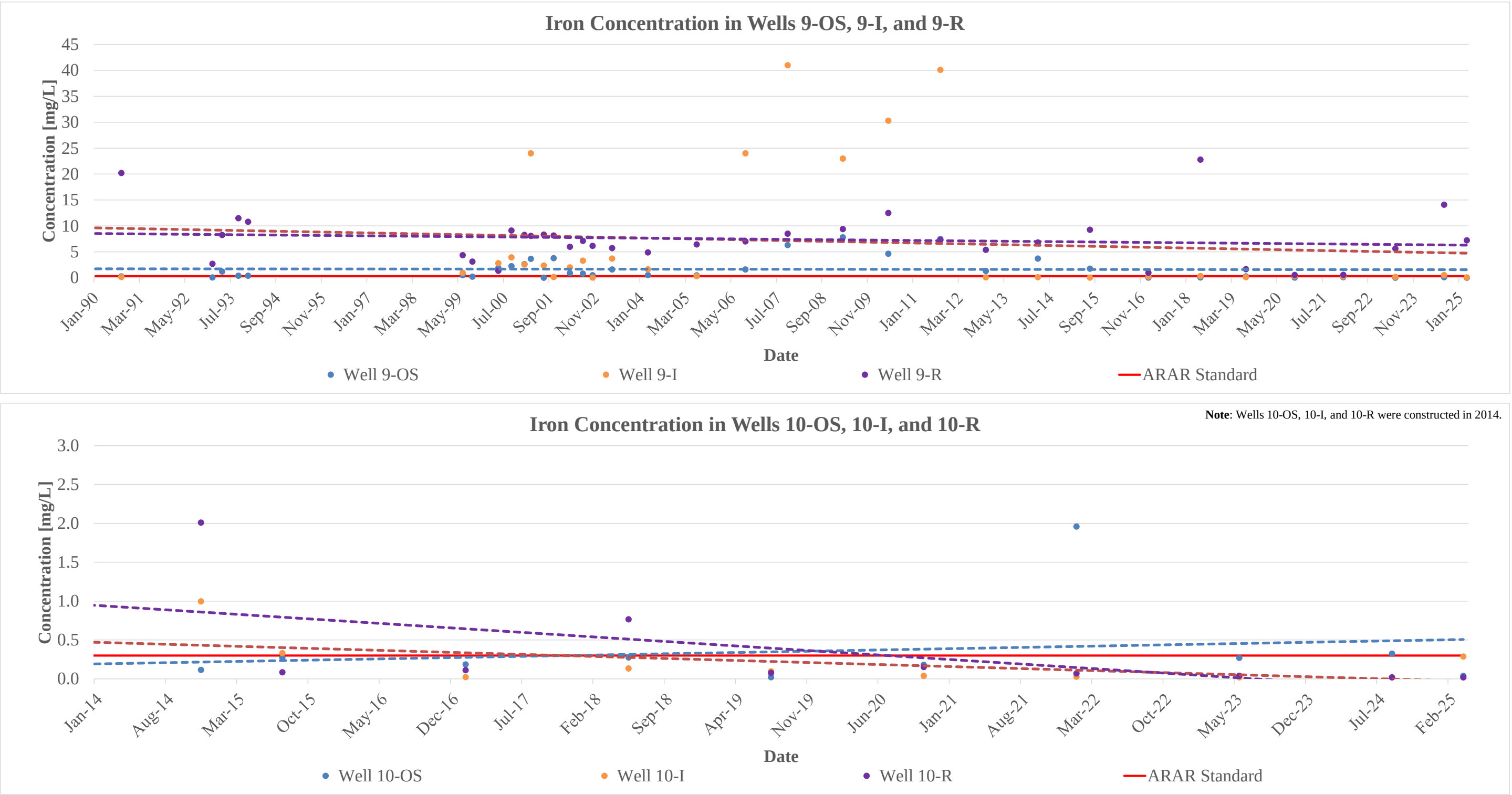


Table 13

Summary of Historical Groundwater Quality Results - Iron (mg/L)
Town of Ramapo Landfill

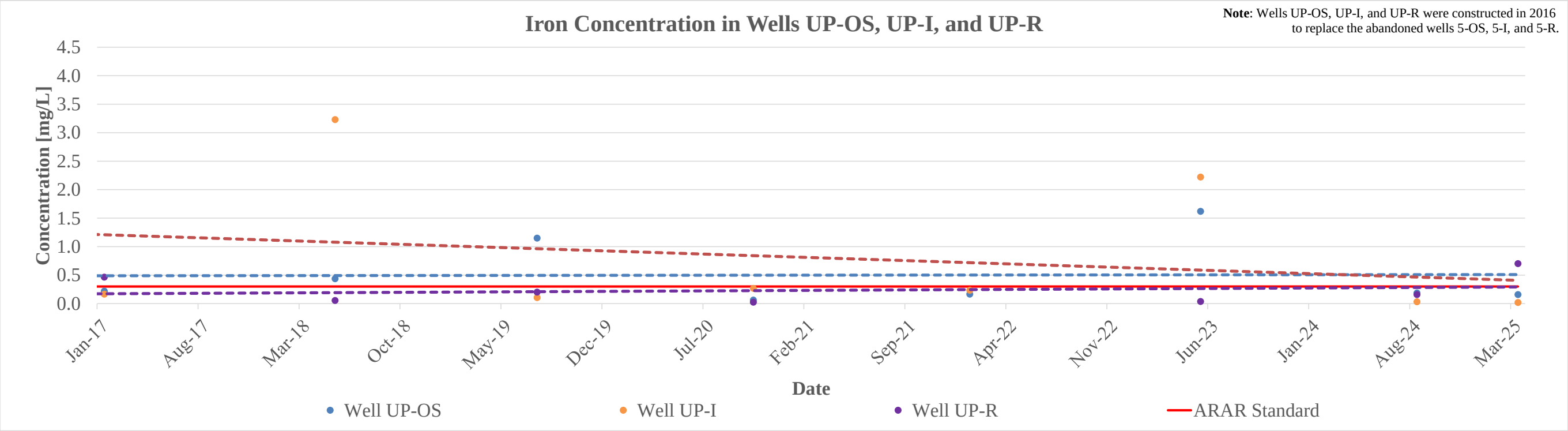


Table 14

Summary of Historical Groundwater Quality Results - Lead (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	0.01010	NA	ND	0.00400	NA	ND	ND	ND	0.01230	NA	ND	NA	ND	ND	NA	NA	0.00490	NA	ND
May-00	0.00580	NA	0.00150 U	0.03800	NA	0.00150 U	0.00150 U	0.00180 B	0.00230 B	NA	0.00150 U	0.00540	NA	0.00150 U	NA	NA	0.00150 U	NA	0.00150 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	0.00660	NA	0.00170 U	0.03220	NA	0.00170 U	0.00170 U	0.00200 B	0.00170 U	NA	0.00240 B	0.01760	NA	0.00170 U	NA	NA	0.00570	NA	0.00170 U
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.01430	NA	0.00510	0.04590	NA	0.00250 B	0.00530	0.00470	0.00320	NA	0.00260 B	0.00590	NA	0.00390	NA	NA	0.00200 U	NA	0.00200 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	0.00500 B	NA	0.00220 B	0.02520	NA	0.00200 U	0.00200 U	0.00200 U	0.00200 U	NA	0.00200 U	NA	0.00200 U	0.00200 U	NA	NA	0.00710	NA	0.00200 U
Mar-02	0.00860	NA	0.00330 B	0.01000	NA	0.00480 B	0.00290 U	0.00290 U	0.00290 U	NA	0.00290 U	NA	0.00290 U	0.00300 B	NA	NA	0.00290 U	NA	0.00290 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	0.01030 N	NA	0.00480 B,N	0.03130 N	NA	0.00290 U	0.00390 B,N	0.00420 B,N	0.00710 N	NA	0.00290 U	NA	0.00290 U	0.00290 U	NA	NA	0.00720 N	NA	NA
Apr-03	NA	NA	0.00220 U	0.04110	NA	0.00220 U	0.00670	0.00220 U	0.00260 B	NA	0.00230 B	NA	0.00220 U	0.00220 U	NA	NA	0.00220 U	NA	NA
Mar-04	NA	NA	NA	0.01830 N	NA	NA	0.00220 B	NA	0.00770 N	NA	NA	0.03400 N	NA	NA	NA	NA	0.01280	NA	NA
Jun-05	0.00580	NA	NA	0.00760	NA	NA	0.00310	NA	0.00190 U	NA	NA	NA	0.00190 U	NA	NA	NA	0.00250 B	NA	NA
Sep-06	0.09400	NA	NA	0.00910	NA	NA	0.00110 J	NA	0.00120 J	NA	NA	0.06700	NA	NA	NA	NA	0.00630	NA	NA
Oct-07	0.04400	NA	NA	0.02200	NA	NA	0.00500 U	NA	0.00420 J	NA	NA	0.00500 U	NA	NA	NA	NA	0.00500 U	NA	NA
Mar-09	0.00630 J	NA	NA	0.00570 J	NA	NA	0.01000 U	NA	0.01000 U	NA	NA	0.01200	NA	NA	NA	NA	0.01000 U	NA	NA
May-10	0.01830	NA	NA	0.00490 J	NA	NA	0.00500 U	NA	0.00500 U	NA	NA	0.02330	NA	NA	NA	NA	0.00600	NA	NA
Sep-11	0.04300	NA	0.00320 J	0.00460 J	NA	0.00500 U	0.00500 U	0.00530	0.00500 U	NA	NA	0.01600	0.00500 U	0.01900	NA	NA	0.00690	NA	NA
Nov-12	0.02000	NA	NA	0.00500 U	NA	NA	0.00500 U	NA	0.00500 U	NA	NA	0.01100	NA	NA	NA	NA	0.00330 J	NA	NA
Mar-14	0.02500	NA	NA	0.00490 J	NA	NA	ND	NA	ND	NA	NA	0.00780	NA	NA	NA	NA	0.00940	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.01055	NA	NA	0.00110	NA	NA	0.00010 U	NA	0.00070 J	NA	NA	0.00400	NA	NA	NA	NA	0.00130	NA	NA
Jan-17	0.00260	NA	NA	0.00060 J	NA	NA	0.00030 U	NA	0.00030 U	NA	NA	NA	NA	NA	NA	NA	0.00030 U	NA	NA
May-18	0.00100 U	NA	NA	0.00051 J	NA	NA	0.00100 U	NA	0.00100 U	NA	NA	NA	NA	NA	NA	NA	0.00100 U	NA	NA
Jul-19	0.00226	NA	NA	0.00269	NA	NA	0.00111	NA	0.00100 U	NA	NA	NA	NA	NA	NA	NA	0.00059 J	NA	NA
Oct-20	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	0.00300 U	NA	NA	NA	NA	NA	NA	NA	0.00300 U	NA	NA
Jan-22	0.00034 U	NA	NA	0.00095 J	NA	NA	0.00034 U	NA	0.00034 U	NA	NA	NA	NA	NA	NA	NA	0.00034 U	NA	NA
May-23	0.00034 U	NA	NA	0.00034 U	NA	NA	0.00034 U	NA	0.00034 U	NA	NA	NA	NA	NA	NA	NA	0.00034 U	NA	NA
Aug-24	0.00034 U	NA	NA	0.00083 J	NA	NA	0.00034 U	NA	0.00034 U	NA	NA	NA	NA	NA	NA	NA	0.00034 U	NA	NA
Mar-25	0.00034 U	0.00077 J	0.00102	0.00051 J	0.00034 U	NA	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00046 J	NA	NA	NA	0.00034 U	0.00034 U	0.00034 U	0.00093 J	0.00361

Table 14

Summary of Historical Groundwater Quality Results - Lead (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	ND	0.00550	0.00250	ND	ND	ND	NA	NA	NA	NA	NA	NA	0.00250	ND	0.00270	ND	ND	ND
Sep-99	ND	ND	0.01080	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
May-00	0.00150 U	0.00150 U	0.00150 U	0.00150 U	0.00180 B	0.00230 B	NA	NA	NA	NA	NA	NA	0.00680	0.00230 B	0.00230 B	0.00150 U	0.00150 U	0.00150 U
Sep-00	0.00340 U	0.00480	0.00440	0.00260 B	0.00190 B	0.00170 U	NA	NA	NA	NA	NA	NA	0.00890	0.00510	0.00280 B	0.00250 B	0.00170 U	0.00200 B
Dec-00	0.00170 U	0.00360	0.00170 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00170 U	0.00170 U	0.00170 U	0.00170 U	0.00170 U
Jan-01	NA	NA	NA	0.00430	0.00200 U	0.00200 U	NA	NA	NA	NA	NA	NA	0.00410	NA	NA	NA	NA	NA
Mar-01	0.00200 U	0.00680	0.00200 U	0.00200 U	0.00460	0.00220 B	NA	NA	NA	NA	NA	NA	0.00230 B	0.00200 U	0.00200 U	0.00200 U	0.00200 U	0.00200 U
Jul-01	0.00200 U	0.00330	0.00200 U	0.00600	0.00200 U	0.00200 U	NA	NA	NA	NA	NA	NA	0.00200 U	0.00200 U	0.00200 U	0.00200 U	0.00200 U	0.00200 U
Oct-01	0.00200 U	0.00200 U	0.00220	0.00200 U	0.00200 U	0.00200 U	NA	NA	NA	NA	NA	NA	0.00290 B	0.00400 B	NA	NA	NA	NA
Mar-02	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U	NA	NA	NA	NA	NA	NA	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U
Jul-02	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U	NA	NA	NA	NA	NA	NA	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U
Oct-02	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U	NA	NA	NA	NA	NA	NA	0.00350 B,N	0.00290 U	0.00290 U	0.00290 U	0.00290 U	0.00290 U
Apr-03	0.00220 U	0.00350 B	0.00300 B	0.00220 U	0.00220 U	0.00220 U	NA	NA	NA	NA	NA	NA	0.00520	0.00230 B	0.00220 U	0.00220 U	0.00220 U	0.00220 U
Mar-04	0.00110 U	0.00300	0.00110 U	0.00110 U	0.00110 U	0.00110 U	NA	NA	NA	NA	NA	NA	0.00490	0.00110 U	0.00110 U	0.00110 U	0.00110 U	0.00110 U
Jun-05	0.00190 U	0.00190 U	0.00350	0.00190 U	0.00190 U	0.00190 U	NA	NA	NA	NA	NA	NA	0.00190 U	0.00190 U	0.00200 B	0.00190 U	0.00190 U	0.00190 U
Sep-06	0.00500 U	0.00350 J	0.00400 J	0.00100 J	0.00350 J	0.00500 U	NA	NA	NA	NA	NA	NA	0.00500 U	0.00210 J	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Oct-07	0.00500 U	0.00500 U	0.00500 U	0.00610	0.00460 J	0.00500 U	NA	NA	NA	NA	NA	NA	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Mar-09	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	NA	0.01000 U	0.01000 U
May-10	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00360 J	0.00500 U	NA	NA	NA	NA	NA	NA	0.00500 U	0.00500 U	0.00500 U	NA	0.00500 U	0.00500 U
Sep-11	0.00500 U	0.00500 U	0.00500 U	0.00500	0.01400	0.00500 U	NA	NA	NA	NA	NA	NA	0.00560	0.00500 U	0.00500 U	0.00500 U	NA	NA
Nov-12	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	NA	NA	NA	NA	NA	NA	0.01700	0.00500 U	0.00500 U	0.00500 U	0.00500 U	NA
Mar-14	ND	ND	ND	0.00350 J	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Nov-14	NA	NA	NA	NA	NA	NA	0.00340 U	0.00340 U	0.00340 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00010 U	0.00010 U	0.00010 U	0.00160	0.00010 U	0.00020 J	0.00020 J	0.00070 J	0.00010 U	NA	NA	NA	0.00783	0.00041 J	0.00020 U	0.00078 J	0.00026 J	0.00049 J
Jan-17	0.00030 U	0.00030 U	0.00050 J	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00050 J	0.00030 U	0.00030 U	0.00030 U	0.00420	0.00090 J	0.00030 U	0.00030 U	0.00030 U	0.00040 J
May-18	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	0.00163	0.00100 U	0.00100 U	0.00058 J	0.00100 U	0.00084 J	0.00100 U	0.00509	0.00394	0.00100 U	0.00100 U	0.00038 J	0.00100 U
Jul-19	0.00034 U	0.00034 U	0.00034 J	0.01474 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00395	0.00096 J	0.00034 U	0.00034 U	0.00053 J	0.00513	0.00034 U	0.00034 U	0.00034 U	0.00034 U
Oct-20	0.00034 U	0.00034 U	0.00227	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00125	0.00034 U	0.00034 U	0.00034 U	0.00071 J	0.00034 U	0.00034 U	0.00034 U	0.00063 J	0.00034 U
Jan-22	0.00034 U	0.00034 U	0.00425	0.00034 U	0.00034 U	0.00034 U	0.00044 J	0.00034 U	0.00034 U	0.00034 U	0.00034 U	NA	0.00760	0.00030 U	0.00034 U	0.00034 U	0.00061 J	0.00034 U
May-23	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00063 J	0.00034 U	0.00034 U	0.00034 U	0.00061 J	0.00038 J	0.00034 U	0.00090 J	0.00030 U	0.00030 U	0.00034 U	0.00034 U	0.00030 U
Aug-24	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00088 J	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.03827	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U
Mar-25	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00070 J	0.0003 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U

Table 14

Summary of Historical Groundwater Quality Results - Lead (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 0.025 mg/L; USEPA MCL = 0.015 mg/L; and, PART 5 MCL = Not Available
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

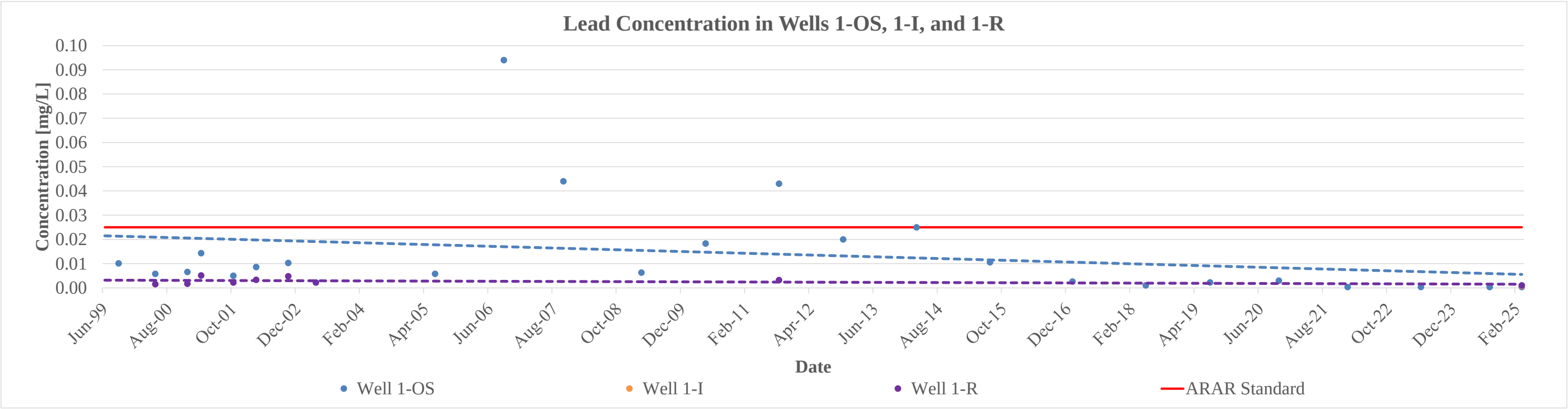


Table 14

Summary of Historical Groundwater Quality Results - Lead (mg/L)
Town of Ramapo Landfill

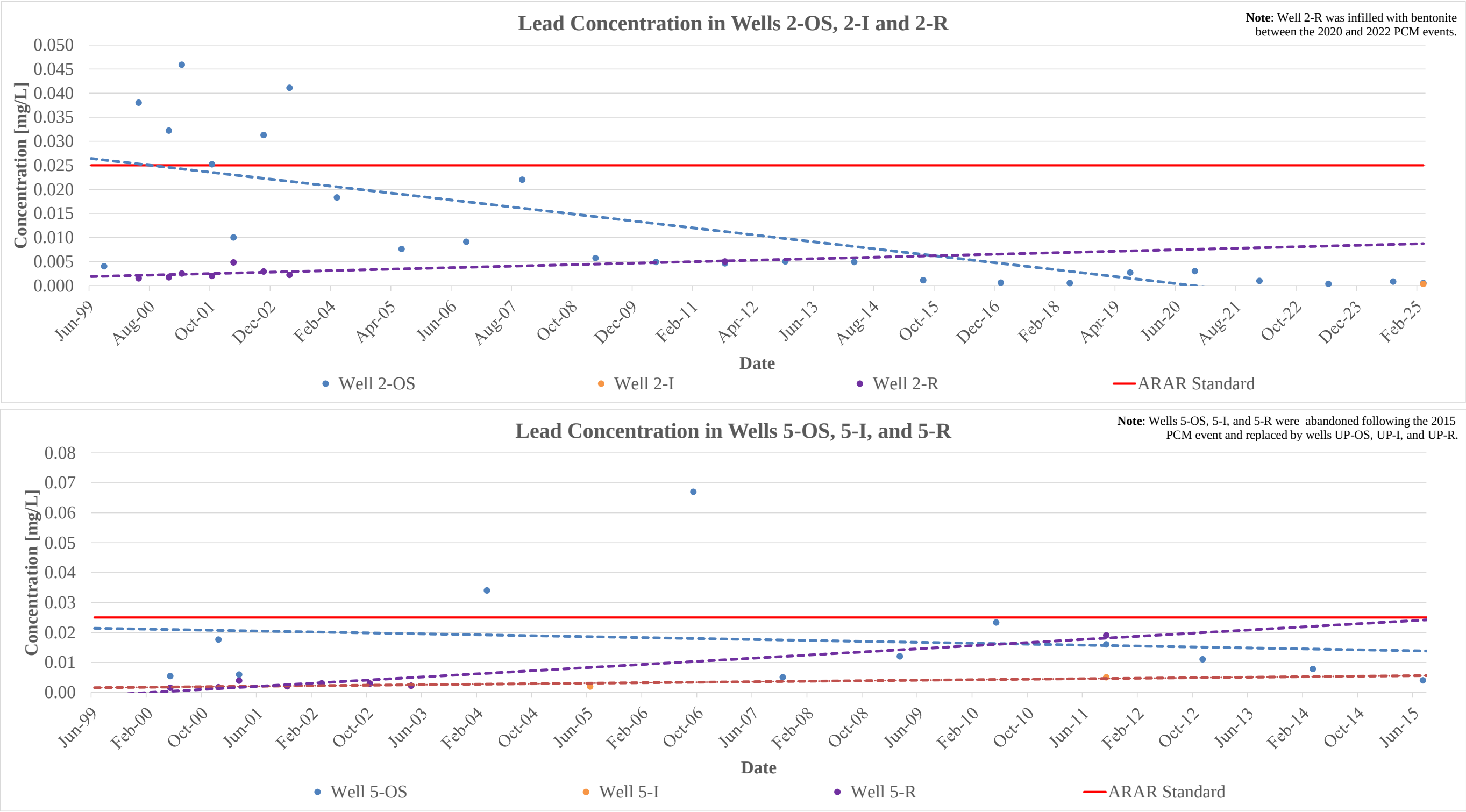


Table 14

Summary of Historical Groundwater Quality Results - Lead (mg/L)
Town of Ramapo Landfill

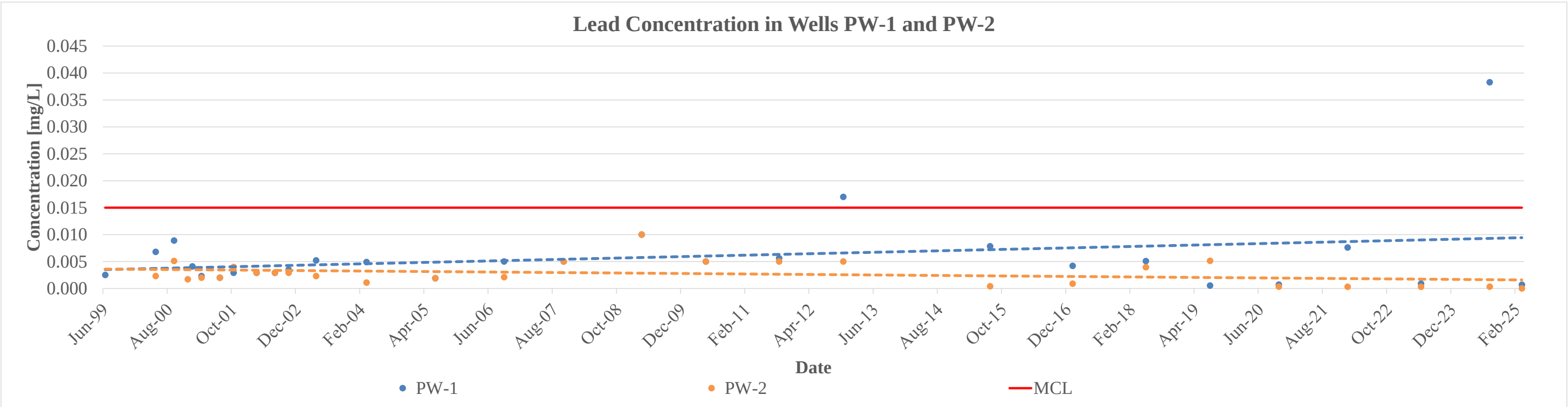


Table 15

Summary of Historical Groundwater Quality Results - Magnesium (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	21.70	NA	20.30	27.70	NA	15.50	14.10	24.50	8.31	NA	18.80	10.10	NA	5.85	NA	NA	12.10	NA	17.60
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	24.10	NA	16.20	29.50	NA	12.10	14.80	18.20	6.24	NA	15.80	6.57	NA	4.50 B	NA	NA	13.60	NA	17.80
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	23.10	NA	6.73	23.50	NA	12.90	16.60	18.00	6.50	NA	14.80	NA	6.67	7.06	NA	NA	12.50	NA	13.90
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	NA	NA	19.60	25.10	NA	12.90	15.40	18.00	9.08	NA	16.40	NA	5.57	4.74 B	NA	NA	8.23	NA	NA
Mar-04	NA	NA	NA	21.00	NA	NA	13.20	NA	18.50	NA	NA	32.10	NA	NA	NA	NA	11.60	NA	NA
Jun-05	14.00	NA	NA	15.60	NA	NA	10.70	NA	17.10	NA	NA	NA	4.51 B	NA	NA	NA	11.50	NA	NA
Sep-06	28.00	NA	NA	18.00	NA	NA	13.00	NA	18.00	NA	NA	80.00	NA	NA	NA	NA	9.80	NA	NA
Oct-07	30.00	NA	NA	22.00	NA	NA	14.00	NA	20.00	NA	NA	4.60	NA	NA	NA	NA	10.00	NA	NA
Mar-09	20.00	NA	NA	18.00	NA	NA	12.00	NA	11.00	NA	NA	21.00	NA	NA	NA	NA	12.00	NA	NA
May-10	22.60	NA	NA	14.80	NA	NA	11.20	NA	15.00	NA	NA	36.50	NA	NA	NA	NA	13.50	NA	NA
Sep-11	16.20	NA	20.30	14.60	NA	14.70	9.70	16.00	14.60	NA	NA	13.50	5.10	12.80	NA	NA	8.00	NA	NA
Nov-12	14.50	NA	NA	16.10	NA	NA	10.50	NA	12.20	NA	NA	14.70	NA	NA	NA	NA	13.10	NA	NA
Mar-14	17.60	NA	NA	18.10	NA	NA	12.50	NA	12.40	NA	NA	12.70	NA	NA	NA	NA	14.00	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	13.60	NA	NA	18.80	NA	NA	12.70	NA	17.30	NA	NA	5.71	NA	NA	NA	NA	8.68	NA	NA
Jan-17	11.10	NA	NA	17.60	NA	NA	12.40	NA	18.60	NA	NA	NA	NA	NA	NA	NA	9.98	NA	NA
May-18	16.70	NA	NA	16.70	NA	NA	11.30	NA	12.30	NA	NA	NA	NA	NA	NA	NA	10.70	NA	NA
Jul-19	17.40	NA	NA	18.20	NA	NA	10.60	NA	35.90	NA	NA	NA	NA	NA	NA	NA	10.70	NA	NA
Oct-20	14.50	NA	NA	11.20	NA	NA	11.30	NA	18.00	NA	NA	NA	NA	NA	NA	NA	8.95	NA	NA
Jan-22	10.50	NA	NA	15.70	NA	NA	12.80	NA	14.40	NA	NA	NA	NA	NA	NA	NA	8.80	NA	NA
May-23	11.90	NA	NA	14.90	NA	NA	8.54	NA	13.60	NA	NA	NA	NA	NA	NA	NA	7.09	NA	NA
Aug-24	14.2	NA	NA	15.2	NA	NA	11.6	NA	27.2	NA	NA	NA	NA	NA	NA	NA	8.70	NA	NA
Mar-25	10.2	31.7	6.68	11.2	29.2	NA	11.8	12.6	14.8	19.5	20.8	NA	NA	NA	5.44	10.6	15.9	16	12.2

Table 15

Summary of Historical Groundwater Quality Results - Magnesium (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	3.47	4.87	32.90	3.11	3.04	3.72	NA	NA	NA	NA	NA	NA	2.29	5.31	4.19	4.94	5.01	5.35
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.01	NA	NA	NA	NA
May-00	1.49 B	6.10	32.90	1.76 B	2.05 B	6.16	NA	NA	NA	NA	NA	NA	2.78 B	4.26 B	3.78 B	4.40 B	4.99 B	5.33
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	5.25	30.30	39.30	2.09 B	5.64	9.85	NA	NA	NA	NA	NA	NA	2.78 B	4.19 B	6.12	6.36	6.83	5.55
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	3.10	17.30	38.90	2.16	4.17	8.46	NA	NA	NA	NA	NA	NA	4.34	4.51	8.88	9.23	6.48	7.84
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	4.39 B	18.90	39.50	1.99 B	2.94 B	7.46	NA	NA	NA	NA	NA	NA	3.96 B	4.00 B	5.06	5.89	5.30	5.48
Mar-04	8.75	34.10	41.00	1.42 B	1.53 B	5.85	NA	NA	NA	NA	NA	NA	2.68 B	4.23 B	5.90	6.76	5.79	5.23
Jun-05	2.95 B	31.00	43.00	1.95 B	2.23 B	8.52	NA	NA	NA	NA	NA	NA	5.07	2.32 B	6.17	6.52	6.03	6.25
Sep-06	4.20	21.00	44.00	2.00	5.10	8.30	NA	NA	NA	NA	NA	NA	2.70	3.20	5.20	5.30	5.10	4.90
Oct-07	5.10	18.00	39.00	2.50	7.90	9.30	NA	NA	NA	NA	NA	NA	2.30	2.40	6.10	5.90	6.50	5.80
Mar-09	9.10	16.00	40.00	3.30	5.90	11.00	NA	NA	NA	NA	NA	NA	2.80	2.90	5.90	NA	6.70	6.30
May-10	5.77	23.60	40.70	2.49	6.30	13.70	NA	NA	NA	NA	NA	NA	4.16	3.43	4.56	NA	5.53	5.24
Sep-11	4.10	16.90	41.40	2.60	7.60	10.00	NA	NA	NA	NA	NA	NA	10.10	2.90	3.80	3.60	NA	NA
Nov-12	4.10	23.30	42.90	1.40	1.90	9.00	NA	NA	NA	NA	NA	NA	2.50	3.20	3.90	4.10	6.70	NA
Mar-14	4.60	29.30	43.30	2.20	1.60	10.40	NA	NA	NA	NA	NA	NA	2.30	2.50	7.50	8.00	8.20	7.30
Nov-14	NA	NA	NA	NA	NA	NA	2.64	4.38	0.92	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	4.48	28.10	41.50	3.35	2.49	13.20	0.57	2.86	2.27	NA	NA	NA	4.60	3.40	5.50	5.40	5.20	6.90
Jan-17	4.98	5.12	47.40	2.07	1.53	13.20	0.62	2.50	1.87	6.77	4.43	3.39	2.39	2.58	7.24	6.38	6.62	7.21
May-18	1.30	29.00	43.00	1.60	3.46	9.52	0.71	2.13	2.32	1.26	4.86	3.78	4.74	2.20	4.62	5.36	5.83	6.29
Jul-19	11.20	27.80	45.40	1.48	1.60	7.50	0.43	2.72	2.02	8.13	4.58	3.55	3.18	3.26	5.84	6.19	5.52	5.46
Oct-20	6.62	18.40	66.80	1.46	1.94	10.10	0.50	2.81	1.97	7.20	4.84	3.77	2.07	3.81	8.06	7.89	7.76	7.07
Jan-22	7.05	24.80	41.70	1.16	1.96	9.87	0.85	2.48	1.71	7.63	4.89	NA	1.86	3.45	4.92	5.56	6.27	5.92
May-23	3.42	26.50	36.90	1.90	2.33	13.10	0.575	2.82	1.79	8.41	5.01	3.75	2.28	3.49	4.88	4.94	4.74	5.57
Aug-24	12.0	6.61	38.70	1.48	2.19	10.3	0.48	2.97	2.09	9.31	5.36	4.08	2.07	4.41	5.71	5.75	5.91	4.93
Mar-25	6.96	29	38	1.8	1.86	9.05	0.729	2.67	1.79	7.65	4.77	3.51	2.075	3.683	6.87	7.07	5.82	6.84

Table 15

Summary of Historical Groundwater Quality Results - Magnesium (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Guidance Value = 35 mg/L; USEPA MCL = Not Available; and, Part 5 MCL = Not Available
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.

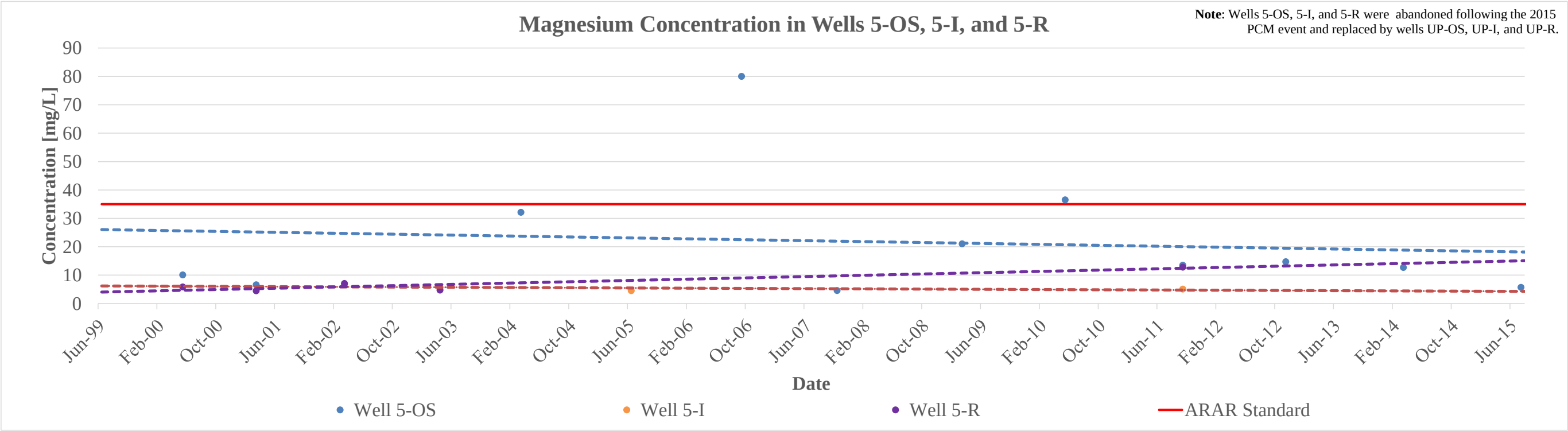


Table 15

Summary of Historical Groundwater Quality Results - Magnesium (mg/L)
Town of Ramapo Landfill

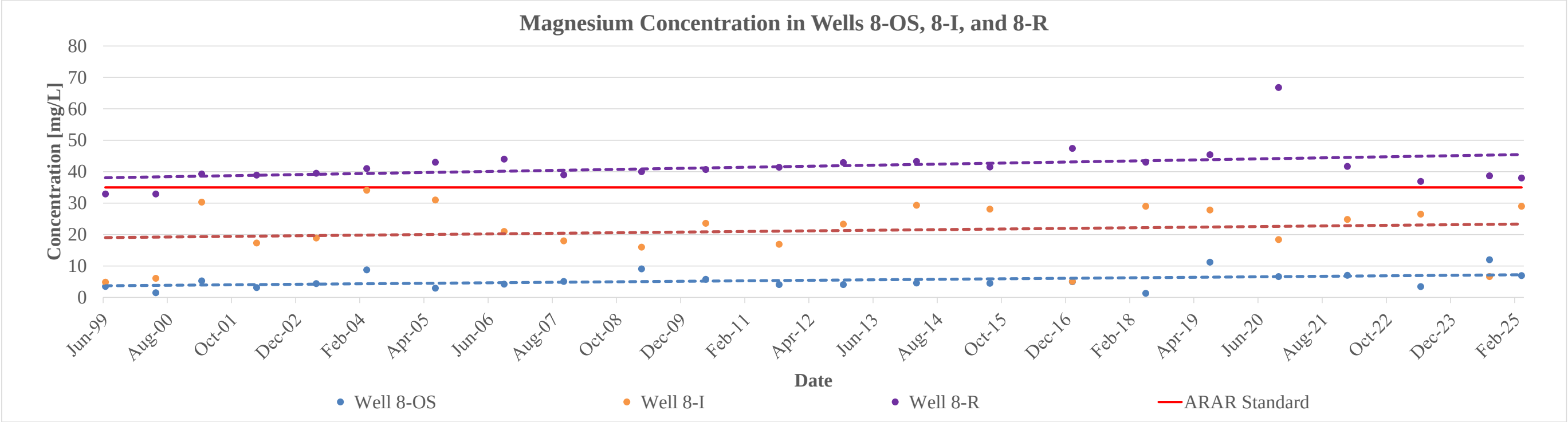


Table 16

Summary of Historical Groundwater Quality Results - Manganese (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jan-90	3.79000	NA	0.14400	0.29800	NA	0.19700	8.70000	7.23000	4.21000	NA	1.73000	0.98100	0.03440	0.02230	NA	NA	1.24000	NA	0.05190
Sep-90	3.70000	NA	0.09850	4.77000	NA	0.13500	18.10000	12.40000	5.02000	NA	1.52000	0.53000	0.27600	0.00930	NA	NA	3.26000	NA	0.10200
Jan-93	0.80900	NA	0.06140	NA	NA	NA	3.45000	10.70000	0.54700	NA	1.66000	0.19200	NA	0.00960	NA	NA	0.04830	NA	0.04610
Apr-93	1.41000	NA	0.03870	0.02700	NA	0.11800	1.69000	12.90000	0.50600	NA	1.89000	0.04320	NA	0.02190	NA	NA	0.04610	NA	0.05180
Sep-93	4.01000	NA	0.14300	4.85000	NA	0.12600	9.59000	11.00000	2.08000	NA	1.16000	NA	NA	0.01140	NA	NA	45.10000	NA	0.11400
Dec-93	5.59000	NA	0.06200	1.58000	NA	0.11600	8.78000	12.00000	0.99500	NA	1.23000	NA	0.05280	0.00820	NA	NA	0.12200	NA	0.08160
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	9.83000	NA	0.59900	0.93600	NA	0.74400	0.57700	15.10000	1.72000	NA	1.18000	NA	0.02720	0.00120	NA	NA	0.75500	NA	0.09850
May-00	5.74000	NA	0.23600	4.11000	NA	0.49700	5.72000	14.20000	1.34000	NA	1.32000	0.53300	NA	0.06930	NA	NA	0.30500	NA	0.25700
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	5.81000	NA	0.15800	3.37000	NA	0.24700	5.07000	13.10000	1.93000	NA	1.24000	1.08000	NA	0.03300	NA	NA	1.27000	NA	0.36000
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	4.94000	NA	2.07000	3.45000	NA	0.14200	3.75000	10.40000	0.44000	NA	1.04000	0.32300	NA	0.01310 B	NA	NA	0.63800 N	NA	0.37900 N
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	5.31000	NA	0.90900	3.83000	NA	0.10600	2.04000	12.70000	0.83900	NA	1.07000	NA	0.00270 B	0.00220 U	NA	NA	0.66800	NA	0.37500
Mar-02	6.24000	NA	0.10400	2.30000	NA	0.61600	2.80000	9.95000	0.75900	NA	1.11000	NA	0.13200	0.15400	NA	NA	0.59200	NA	0.29200
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	8.16000 E	NA	1.65000 E	6.94000 E	NA	0.40400 E	13.40000 E	19.40000 E	3.79000 E	NA	0.95300 E	NA	0.00370 B,E	0.02170 E	NA	NA	1.73000 E	NA	NA
Apr-03	NA	NA	0.17700	3.10000	NA	0.15700	24.80000	12.10000	0.62000	NA	1.18000	NA	0.06360	0.02950	NA	NA	0.12400	NA	NA
Mar-04	NA	NA	NA	2.30000	NA	NA	7.20000	NA	0.33800	NA	NA	2.04000	NA	NA	NA	NA	2.14000	NA	NA
Jun-05	4.72000	NA	NA	0.77800	NA	NA	6.45000	NA	0.70000	NA	NA	NA	0.01360	NA	NA	NA	0.22200	NA	NA
Sep-06	2.80000	NA	NA	1.90000	NA	NA	9.20000	NA	0.86000	NA	NA	5.10000	NA	NA	NA	NA	1.30000	NA	NA
Oct-07	5.10000	NA	NA	3.50000	NA	NA	4.40000	NA	2.70000	NA	NA	0.01400 J	NA	NA	NA	NA	0.92000	NA	NA
Mar-09	9.00000	NA	NA	2.20000	NA	NA	14.00000	NA	0.40000	NA	NA	1.00000	NA	NA	NA	NA	0.45000	NA	NA
May-10	14.80000 B	NA	NA	1.68000	NA	NA	2.46000 B	NA	0.22300	NA	NA	2.23000	NA	NA	NA	NA	1.71000 B	NA	NA
Sep-11	8.30000 B	NA	1.50000 B	0.78000 B	NA	0.53000 B	4.50000 B	41.40000 B	0.16000 B	NA	NA	0.83000 B	0.02600 B	0.64000 B	NA	NA	1.20000 B	NA	NA
Nov-12	11.60000 B	NA	NA	0.98000 B	NA	NA	2.80000 B	NA	0.56000 B	NA	NA	0.66000 B	NA	NA	NA	NA	1.40000 B	NA	NA
Mar-14	16.90000 B	NA	NA	1.90000 B	NA	NA	2.90000 B	NA	0.74000 B	NA	NA	0.62000 B	NA	NA	NA	NA	1.50000	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	12.55000	NA	NA	0.36330	NA	NA	0.27130	NA	0.27590	NA	NA	0.06510	NA	NA	NA	NA	0.17300	NA	NA
Jan-17	2.47900	NA	NA	0.08680	NA	NA	0.52000	NA	0.02390	NA	NA	NA	NA	NA	NA	NA	0.01900	NA	NA
May-18	0.19880	NA	NA	0.00910	NA	NA	1.12100	NA	0.03413	NA	NA	NA	NA	NA	NA	NA	0.04218	NA	NA
Jul-19	0.7723	NA	NA	0.45360	NA	NA	3.72800	NA	0.21190	NA	NA	NA	NA	NA	NA	NA	0.07451	NA	NA
Oct-20	13	NA	NA	0.02600	NA	NA	1.50000	NA	0.46300	NA	NA	NA	NA	NA	NA	NA	0.58600	NA	NA
Jan-22	2.215	NA	NA	0.05451	NA	NA	0.10740	NA	0.07359	NA	NA	NA	NA	NA	NA	NA	0.01006	NA	NA
May-23	0.89	NA	NA	0.00743	NA	NA	0.04861	NA	0.03810	NA	NA	NA	NA	NA	NA	NA	0.00321	NA	NA
Aug-24	1.525	NA	NA	0.1658	NA	NA	0.04902	NA	0.01879	NA	NA	NA	NA	NA	NA	NA	0.03294	NA	NA
Mar-25	0.561	0.3799	0.1901	0.05433	0.5015	NA	0.3066	9.385	0.1822	2.598	0.3849	NA	NA	NA	0.08701	0.2757	0.00156	0.08604	1.731

Table 16

Summary of Historical Groundwater Quality Results - Manganese (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jan-90	2.83000	4.23000	0.87200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-90	2.75000	1.11000	0.18100	0.01460	0.37700	3.27000	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
Jan-93	1.68000	NA	1.66000	ND	NA	2.32000	NA	NA	NA	NA	NA	NA	0.00120	0.00470	ND	0.00730	0.05640	ND
Apr-93	1.64000	NA	2.60000	0.02110	NA	2.28000	NA	NA	NA	NA	NA	NA	0.00180	0.00750	0.00170	ND	0.00180	ND
Sep-93	3.33000	NA	2.44000	0.00960	NA	2.54000	NA	NA	NA	NA	NA	NA	ND	0.00630	NA	NA	ND	NA
Dec-93	NA	NA	1.91000	0.00870	NA	1.89000	NA	NA	NA	NA	NA	NA	0.00360	0.00660	0.07220	NA	NA	ND
Jun-99	1.40000	1.05000	1.90000	0.01510	0.01800	1.62000	NA	NA	NA	NA	NA	NA	0.00190	0.00660	0.00250	0.00430	0.04060	0.00160
Sep-99	0.86000	1.57000	2.78000	0.01170	0.00540	1.32000	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
May-00	0.52500	0.78900	2.64000	0.04010	0.10900	1.50000	NA	NA	NA	NA	NA	NA	0.00081 B	0.00180 B	0.00049 B	0.00360 B	0.04040	0.00020 U
Sep-00	3.82000	2.81000	2.39000	0.05460	0.06670	3.02000	NA	NA	NA	NA	NA	NA	0.00074 B	0.00250 B	0.00210 B	0.00710 B	0.04970	0.00070 U
Dec-00	2.41000	2.56000	2.12000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00390 B	0.00070 U	0.00960 B	0.04750	0.00070 U
Jan-01	NA	NA	NA	0.05890	0.04920	3.10000	NA	NA	NA	NA	NA	NA	0.00140 B	NA	NA	NA	NA	NA
Mar-01	6.76000 N	3.43000	2.25000 N	0.09320 N	0.56100 N	2.86000 N	NA	NA	NA	NA	NA	NA	0.01360 B	0.00600 B	0.00220 B	0.00470 B	0.04980	0.00060 U
Jul-01	5.80000	2.99000 N	2.64000	0.00060 U	0.03800	2.96000	NA	NA	NA	NA	NA	NA	0.00435 B	0.00196 B	0.00060 U	0.00267 B	0.14300	0.00060 U
Oct-01	6.34000	1.76000	2.06000	0.07760	0.00490 B	3.08000	NA	NA	NA	NA	NA	NA	0.00220 U	0.00470 B	NA	NA	NA	NA
Mar-02	1.62000	3.67000	1.93000	0.02470	0.04460	2.49000	NA	NA	NA	NA	NA	NA	0.00140 U	0.00600 B	0.00140 U	0.00690 B	0.06820	0.00140 U
Jul-02	3.39000	2.39000	2.16000	0.01900	0.07580	2.74000	NA	NA	NA	NA	NA	NA	0.00190 U	0.00690 B	0.00190 U	0.00460 B	0.07740	0.00190 U
Oct-02	6.95000 E	2.98000 E	1.98000 E	0.01050 E	0.00410 B,E	2.88000 E	NA	NA	NA	NA	NA	NA	0.00210 B,E	0.00330 B,E	0.00740 B	0.00190 U	0.06170	0.00340 B
Apr-03	0.89400	3.14000	2.05000	0.03560	0.05230	2.63000	NA	NA	NA	NA	NA	NA	0.00080 U	0.00390 B	0.00080 U	0.00610 B	0.08000	0.00080 U
Mar-04	1.59000	4.65000	2.15000	0.00440 B	0.01900	1.98000	NA	NA	NA	NA	NA	NA	0.00090 U	0.00090 U	0.00090 U	0.00330 B	0.08800	0.00090 U
Jun-05	0.69100	3.09000	2.19000	0.02770	0.01160	2.73000	NA	NA	NA	NA	NA	NA	0.00210 U	0.00210 U	0.00210 U	0.00650 B	0.08600	0.00210 U
Sep-06	0.11000	1.90000	2.20000	0.05100	0.29000	2.80000	NA	NA	NA	NA	NA	NA	0.00075 J	0.00140 J	0.00062 J	0.00320 J	0.02500 J	0.05000 U
Oct-07	2.00000	2.20000	1.90000	0.14000	0.56000	2.90000	NA	NA	NA	NA	NA	NA	0.05000 U	0.00560 J	0.05000 U	0.00380 J	0.09600	0.05000 U
Mar-09	0.61000	3.10000	1.90000	0.15000	0.29000	3.70000	NA	NA	NA	NA	NA	NA	0.05000 U	0.00180 J	0.05000 U	NA	0.14000	0.05000 U
May-10	0.39900 B	4.59000 B	1.96000 B	0.09010 B	0.39200 B	4.03000 B	NA	NA	NA	NA	NA	NA	0.00120 J,B	0.00310 B	0.00030 J,B	NA	0.11000 B	0.02200 B
Sep-11	0.70000 B	3.50000 B	2.10000 B	0.11000 B	0.59000 B	2.70000 B	NA	NA	NA	NA	NA	NA	0.00210 J,B	0.00240 J,B	0.00180 J,B	0.00150 J,B	NA	NA
Nov-12	0.28000 B	3.50000 B	2.00000 B	0.01900 B	0.00380 B	2.30000 B	NA	NA	NA	NA	NA	NA	0.00130 J,B	0.00260 J,B	0.00089 J,B	0.00075 J,B	0.20000 B	NA
Mar-14	0.10000 B	3.30000 B	1.90000 B	0.05100	0.00400	3.10000	NA	NA	NA	NA	NA	NA	0.00160 J	0.04100	ND	ND	0.13000	ND
Nov-14	NA	NA	NA	NA	NA	NA	0.02630	0.02890	0.19000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.17840	2.56000	2.16200	0.04700	0.03180	4.45800	0.03290	0.00830	0.01580	NA	NA	NA	0.00200 U	0.00200 U	0.00200 U	0.00200 U	1.81000	0.00200 U
Jan-17	0.06560	1.55800	0.26290	0.00170	0.00230	1.65900	0.02230	0.00130	0.01620	0.01540	0.01090	0.00450	0.00110	0.00096 J	0.00100	0.00050 J	0.06750	0.00040 U
May-18	0.00143	3.72000	2.42200	0.00135	0.02618	2.94800	0.02864	0.00302	0.03608	0.08050	0.15970	0.00098 J	0.00238	0.00234	0.00075 J	0.00100 U	0.04209	0.00100 U
Jul-19	2.31800	3.19800	0.12700	0.00903	0.03312	1.45000	0.02476	0.00106	0.01807	0.03922	0.00339	0.00703	0.00101	0.00171	0.00063 J	0.00123	0.04306	0.00053 J
Oct-20	0.18350	3.47900	0.57740	0.00063 J	0.00587	1.13700	0.02056	0.00047 J	0.02264	0.00157	0.00561	0.00077 J	0.00049 J	0.00049 J	0.00044 U	0.00075 J	0.06270	0.00044 U
Jan-22	0.22680	3.12900	4.15200	0.00210	0.00503	2.01900	0.05222	0.00044 U	0.00594	0.00426	0.00371	NA	0.00200 U	0.00500 J	0.00044 U	0.00044 U	0.03345	0.00044 U
May-23	0.01707	2.55700	2.29400	0.00080 J	0.12010	3.85	0.02591	0.00044 J	0.00390	0.02715	0.03364	0.00100	0.00160 U	0.00160 U	0.00160 U	0.01209	0.03420	0.00160 U
Aug-24	0.01350	0.2322	0.1838	0.00209	1.436	2.947	0.02557	0.00044 U	0.00164	0.00512	0.00166	0.00094 J	0.00142	0.00088 J	0.00044 J	0.00122	0.04813	0.00044
Mar-25	0.0816	3.562	2.728	0.00044 U	0.2303	2.542	0.03548	0.00269	0.00278	0.00356	0.00082 J	0.00781	0.0006 J	0.0013	0.00044 U	0.00044 U	0.03022	0.0056

Table 16

Summary of Historical Groundwater Quality Results - Manganese (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 0.3 mg/L; USEPA Secondary MCL = Not Available; and, Part 5 MCL = 0.3 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level; USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
E = Indicates an estimated value because of the possible presence of interference.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

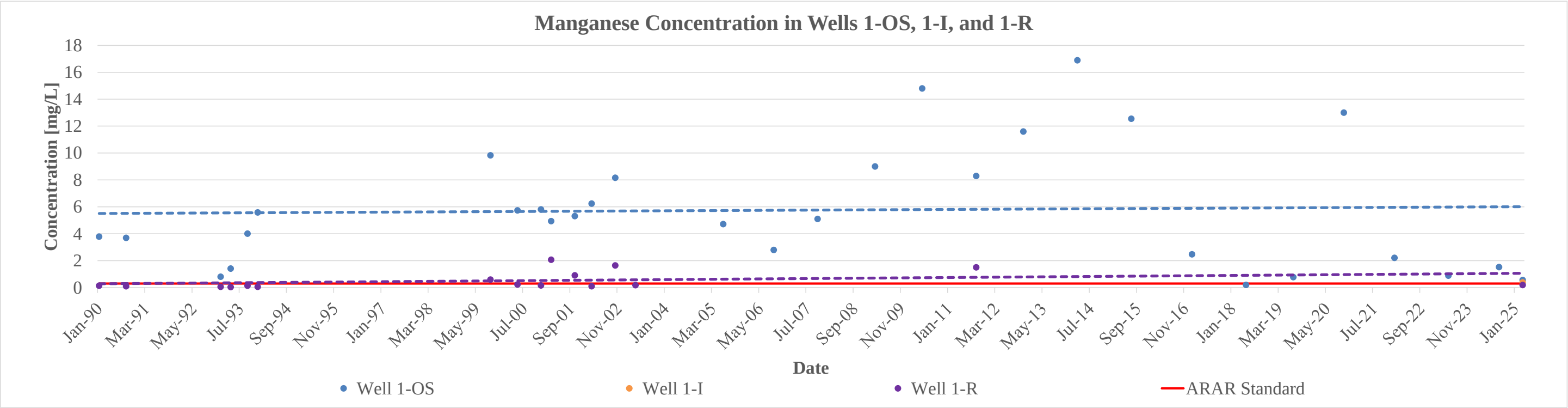


Table 16

Summary of Historical Groundwater Quality Results - Manganese (mg/L)
Town of Ramapo Landfill

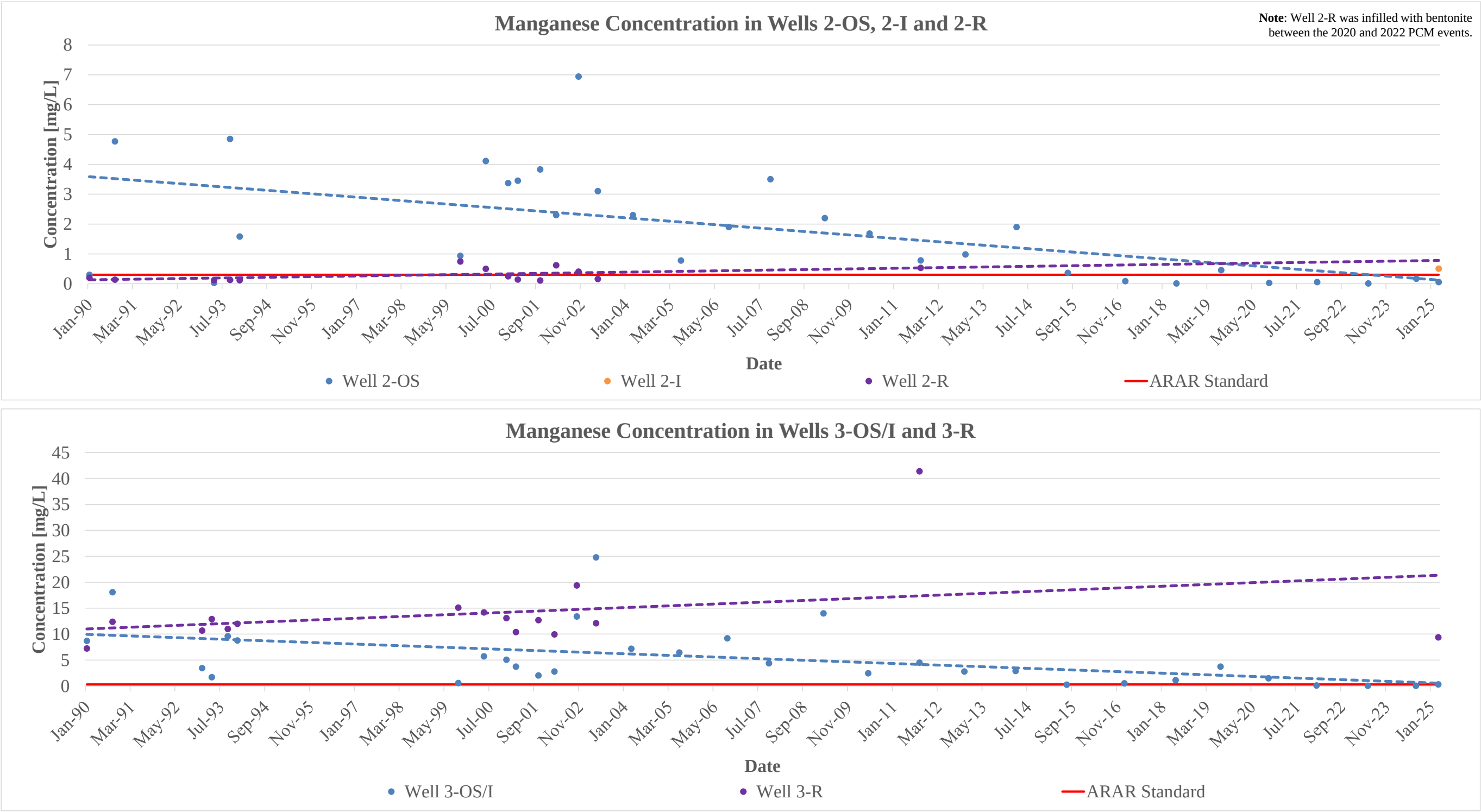


Table 16

Summary of Historical Groundwater Quality Results - Manganese (mg/L)
Town of Ramapo Landfill

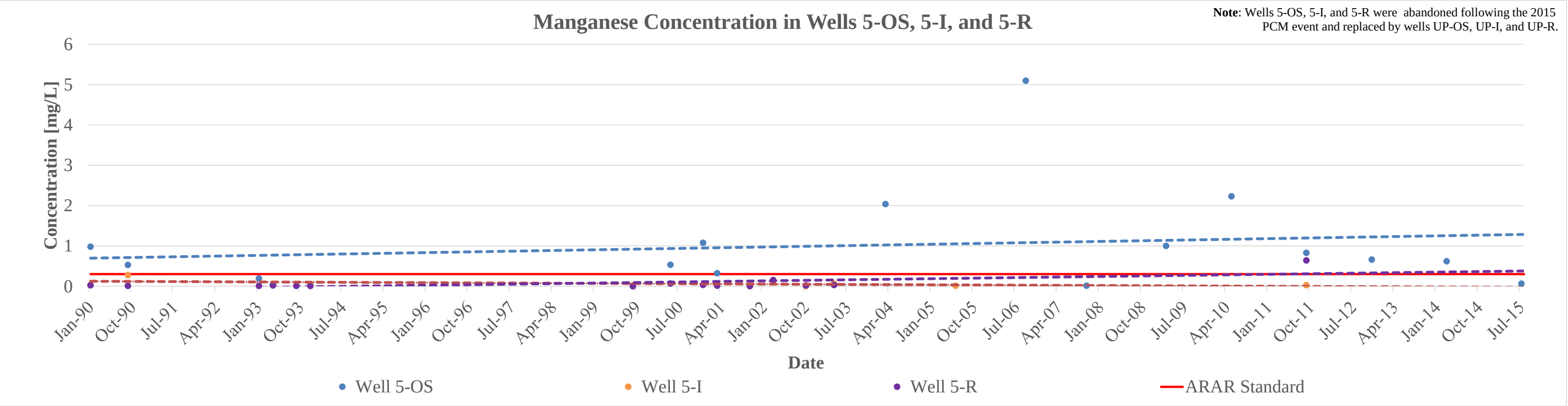
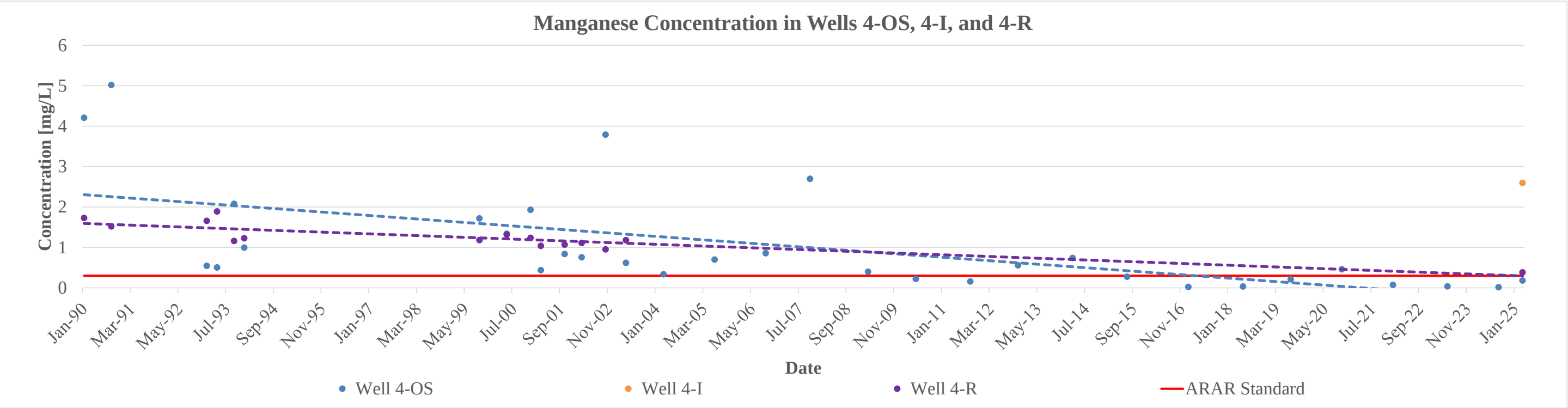


Table 16

Summary of Historical Groundwater Quality Results - Manganese (mg/L)
Town of Ramapo Landfill

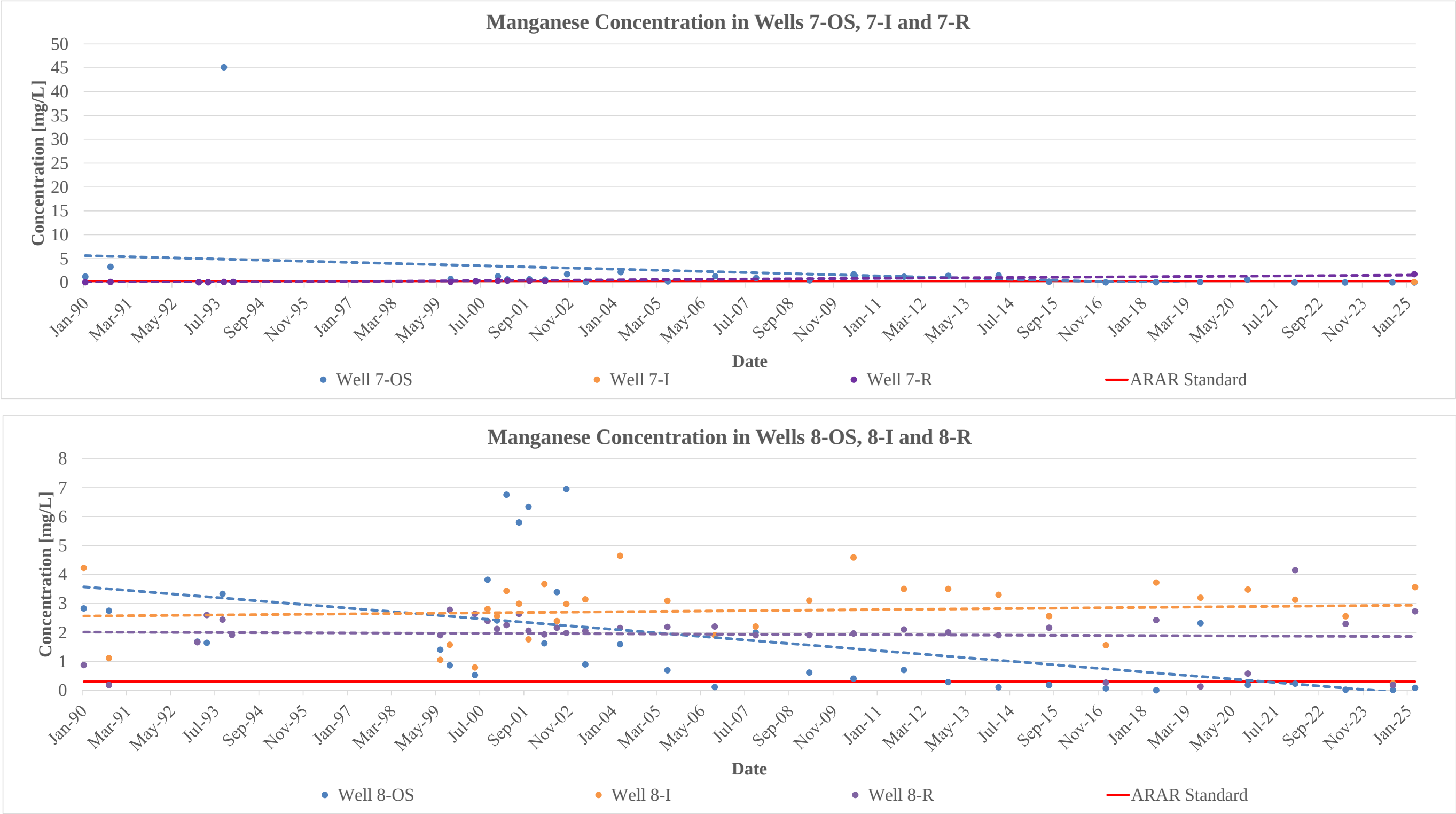


Table 16

Summary of Historical Groundwater Quality Results - Manganese (mg/L)
Town of Ramapo Landfill

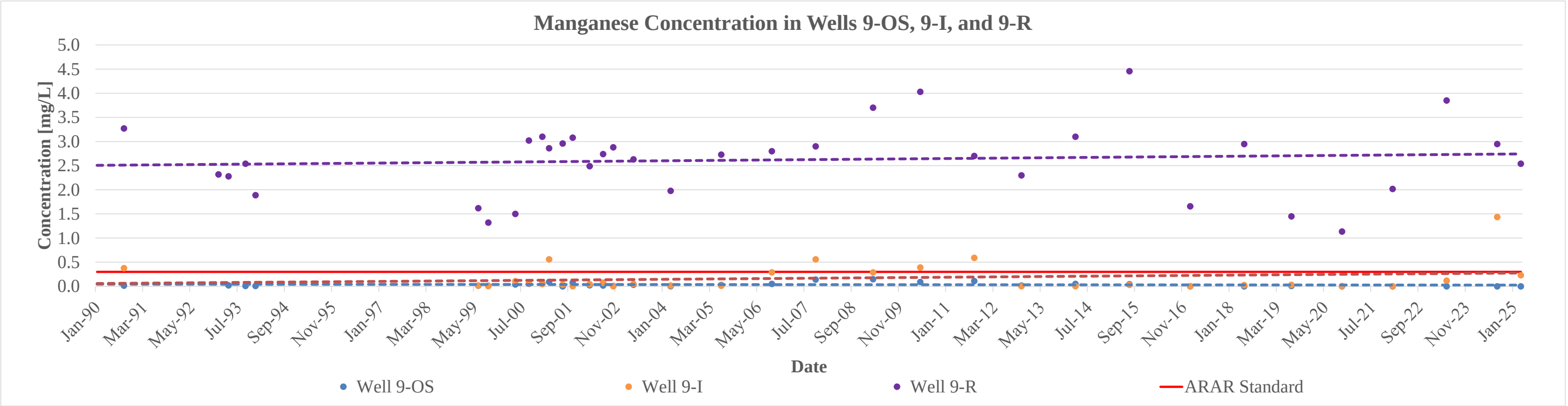


Table 17

Summary of Historical Groundwater Quality Results - Nickel (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	0.14000	NA	0.01620 B	0.21500	NA	0.00410 B	0.15600	0.07370	0.02240 B	NA	0.00150 B	0.03500 B	NA	0.00820 B	NA	NA	0.00940 B	NA	0.00190 B
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.08240	NA	0.02770 B	0.11600	NA	0.00170 U	0.06870	0.02820 B	0.00880 B	NA	0.00190 B	0.01950 B	NA	0.00230 B	NA	NA	0.01030 B	NA	0.00220 B
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	0.02880 B	NA	0.03820 B	0.03490 B	NA	0.00950 B	0.12800	0.00860 B	0.00540 B	NA	0.00280 U	NA	0.00500 B	0.01170 B	NA	NA	0.00860 B	NA	0.00280 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	NA	NA	0.00220 B	0.10800	NA	0.00390 B	0.93200	0.00510 B	0.01480 B	NA	0.00190 U	NA	0.00270 B	0.00210 B	NA	NA	0.00350 B	NA	NA
Mar-04	NA	NA	NA	0.05680	NA	NA	0.43400	NA	0.00730 B	NA	NA	0.13200 E	NA	NA	NA	NA	0.04180	NA	NA
Jun-05	0.00920 B	NA	NA	0.05210	NA	NA	1.46000	NA	0.08780	NA	NA	NA	0.00230 U	NA	NA	NA	0.00230 U	NA	NA
Sep-06	0.27000	NA	NA	0.08000	NA	NA	1.30000	NA	0.04000 J	NA	NA	0.37000	NA	NA	NA	NA	0.02600 J	NA	NA
Oct-07	0.75000	NA	NA	0.15000	NA	NA	0.73000	NA	0.06800	NA	NA	0.01400 J	NA	NA	NA	NA	0.02600 J	NA	NA
Mar-09	0.64000	NA	NA	0.49000	NA	NA	0.81000	NA	0.04400 J	NA	NA	0.08900	NA	NA	NA	NA	0.01100 J	NA	NA
May-10	0.52700	NA	NA	0.23600	NA	NA	0.49200	NA	0.06150	NA	NA	0.14700	NA	NA	NA	NA	0.02850	NA	NA
Sep-11	0.88000	NA	0.13000	0.41000	NA	0.00430 J	1.60000	0.26000	0.03400	NA	NA	0.05600	0.00440 J	0.06100	NA	NA	0.03700	NA	NA
Nov-12	0.18000	NA	NA	0.17000	NA	NA	0.65000	NA	0.03700	NA	NA	0.06700	NA	NA	NA	NA	0.02900	NA	NA
Mar-14	0.44000	NA	NA	0.24000	NA	NA	0.40000	NA	0.04200	NA	NA	0.04700	NA	NA	NA	NA	0.03600	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.40570	NA	NA	0.15260	NA	NA	0.08250	NA	0.03750	NA	NA	0.01200	NA	NA	NA	NA	0.00760	NA	NA
Jan-17	0.62250	NA	NA	0.24970	NA	NA	0.30290	NA	0.05980	NA	NA	NA	NA	NA	NA	NA	0.00280	NA	NA
May-18	0.16650	NA	NA	0.00648	NA	NA	0.39080	NA	0.02304	NA	NA	NA	NA	NA	NA	NA	0.00098 J	NA	NA
Jul-19	0.04278	NA	NA	0.00326	NA	NA	1.04400	NA	0.05196	NA	NA	NA	NA	NA	NA	NA	0.00080 J	NA	NA
Oct-20	0.05000	NA	NA	0.02500 J	NA	NA	0.71100	NA	0.06400	NA	NA	NA	NA	NA	NA	NA	0.01100 J	NA	NA
Jan-22	0.03813	NA	NA	0.00811	NA	NA	0.12230	NA	0.01962	NA	NA	NA	NA	NA	NA	NA	0.00055 U	NA	NA
May-23	0.00337	NA	NA	0.00278	NA	NA	0.01541	NA	0.03011	NA	NA	NA	NA	NA	NA	NA	0.00305	NA	NA
Aug-24	0.00501	NA	NA	0.02088	NA	NA	0.02803	NA	0.02450	NA	NA	NA	NA	NA	NA	NA	0.01010	NA	NA
Mar-25	0.01372	0.03484	0.03908	0.03794	0.00472	NA	0.1972	0.1055	0.02384	0.04314	0.03502	NA	NA	NA	0.00138 J	0.02083	0.00055 U	0.00838	0.05643

Table 17

Summary of Historical Groundwater Quality Results - Nickel (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	0.00110	0.03400	0.01570	ND	0.00220	0.00660	NA	NA	NA	NA	NA	NA	0.00110	0.00120	0.00270	0.00410	0.00330	0.00380
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	0.00220 B	0.00590 B	0.01620 B	0.00240 B	0.00460 B	0.00370 B	NA	NA	NA	NA	NA	NA	0.00110 U	0.00110 U	0.00260 B	0.00110 U	0.00110 U	0.00130 B
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.01940 B	0.04040	0.02260 B	0.00470 B	0.01820 B	0.00570 B	NA	NA	NA	NA	NA	NA	0.00170 U	0.00170 U	0.00170 U	0.00170 U	0.00170 U	0.00170 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	0.01110 B	0.00700 B	0.02090 B	0.00280 U	0.00280 U	0.00280 U	NA	NA	NA	NA	NA	NA	0.00280 U	0.00280 U	0.00280 U	0.00280 U	0.00280 U	0.00280 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	0.00680 B	0.01430 B	0.01500 B	0.00190 U	0.00270 B	0.00190 U	NA	NA	NA	NA	NA	NA	0.00190 U	0.00190 U	0.00190 U	0.00190 U	0.00290 B	0.00190 U
Mar-04	0.00790 B	0.02940 B	0.01500 B	0.00170 U	0.00170 U	0.00170 U	NA	NA	NA	NA	NA	NA	0.00170 U	0.00170 U	0.04270	0.00170 U	0.00190 B	0.00170 U
Jun-05	0.06190	0.01560 B	0.01150 B	0.00230 U	0.00230 U	0.00230 U	NA	NA	NA	NA	NA	NA	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U
Sep-06	0.00580 J	0.02000 J	0.03600 J	0.00670 J	0.01800 J	0.00180 J	NA	NA	NA	NA	NA	NA	0.05000	0.05000 U	0.05000 U	0.05000 U	0.00140 J	0.05000 U
Oct-07	0.01400 J	0.02400 J	0.01500 J	0.03400 J	0.03100 J	0.00320 J	NA	NA	NA	NA	NA	NA	0.05000 U	0.00700 J	0.00550 J	0.05000 U	0.00120 J	0.05000 U
Mar-09	0.01700 J	0.01800 J	0.01500 J	0.02800 J	0.01900 J	0.00250 J	NA	NA	NA	NA	NA	NA	0.05000 U	0.05000 U	0.05000 U	NA	0.05000 U	0.05000 U
May-10	0.01030	0.01370	0.01060	0.01340	0.02340	0.00340 J	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	NA	0.01000 U	0.00750 J
Sep-11	0.02800	0.00600 J	0.01000	0.02000	0.03200	0.00290 J	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	0.01000 U	NA	NA
Nov-12	0.01100	0.01200	0.01000	0.00720 J	0.01000 U	0.00290 J	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	NA
Mar-14	0.00590 J	0.01300	0.01100	0.01500	ND	0.00200 J	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	0.00670 J
Nov-14	NA	NA	NA	NA	NA	NA	0.00400 U	0.00410 J	0.08910	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.01290	0.01380	0.01440	0.00340	0.00360	0.00390	0.00360	0.00220	0.01480	NA	NA	NA	0.00050 J	0.00060 J	0.00054 J	0.00090 J	0.00499	0.00016
Jan-17	0.04900	0.00160 J	0.00980	0.00060 U	0.00190 J	0.00760	0.00080 J	0.00180 J	0.06910	0.00140 J	0.00150 J	0.00250	0.00060 U	0.00070 J	0.00200	0.00130 J	0.00180 J	0.00070 J
May-18	0.00088 J	0.00857	0.01175	0.00200 U	0.00249	0.01583	0.00088 J	0.00100 J	0.10140	0.00136 J	0.15430	0.00200 U	0.00200 U	0.00159 J	0.00200 U	0.00200 U	0.00062 J	0.00200 U
Jul-19	0.06892	0.00898	0.00917	0.00186 J	0.00101 J	0.00472	0.00061 J	0.00055 U	0.01356	0.00195 J	0.00831	0.00556	0.00055 U	0.00124 J	0.00055 U	0.00057 J	0.00055 U	0.00055 U
Oct-20	0.01766	0.00665	0.02297	0.00055 U	0.00077 J	0.08511	0.00072 J	0.00055 U	0.00592	0.00055 U	0.01049	0.00093 J	0.00055 U	0.00055 U	0.00055 U	0.00060 J	0.00107 J	0.00059 J
Jan-22	0.01390	0.00541	0.04774	0.00055 U	0.00055 U	0.02791	0.00241	0.00055 U	0.00281	0.00083 J	0.00260	NA	0.00070 J	0.00060 U	0.00055 U	0.00055 U	0.00064 J	0.00055 U
May-23	0.00852	0.00626	0.01305	0.00100 J	0.00065 J	0.05360	0.00058 J	0.00055 U	0.00197 J	0.00218	0.10800	0.00055 U	0.00060 U	0.00060 U	0.00060 J	0.00055 U	0.00055 U	0.00060 J
Aug-24	0.01217	0.00075 J	0.01897	0.00055 U	0.00521	0.02019	0.00096 J	0.00055 U	0.00216	0.00078 J	0.03734	0.00065 J	0.00080 J	0.00055 U	0.00055 U	0.00055 U	0.00077 J	0.00055 U
Mar-25	0.00934	0.01367	0.01675	0.00055 U	0.00065 J	0.03567	0.00081 J	0.00119 J	0.00195 J	0.00055 U	0.0123	0.00218	0.0006 U	0.0082	0.00055 U	0.00055 U	0.00055 U	0.00055 U

Table 17

Summary of Historical Groundwater Quality Results - Nickel (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 0.1 mg/L; USEPA MCL = Not Available; and, Part 5 MCL = Not Available
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
E = Indicates an estimated value because of the possible presence of interference.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

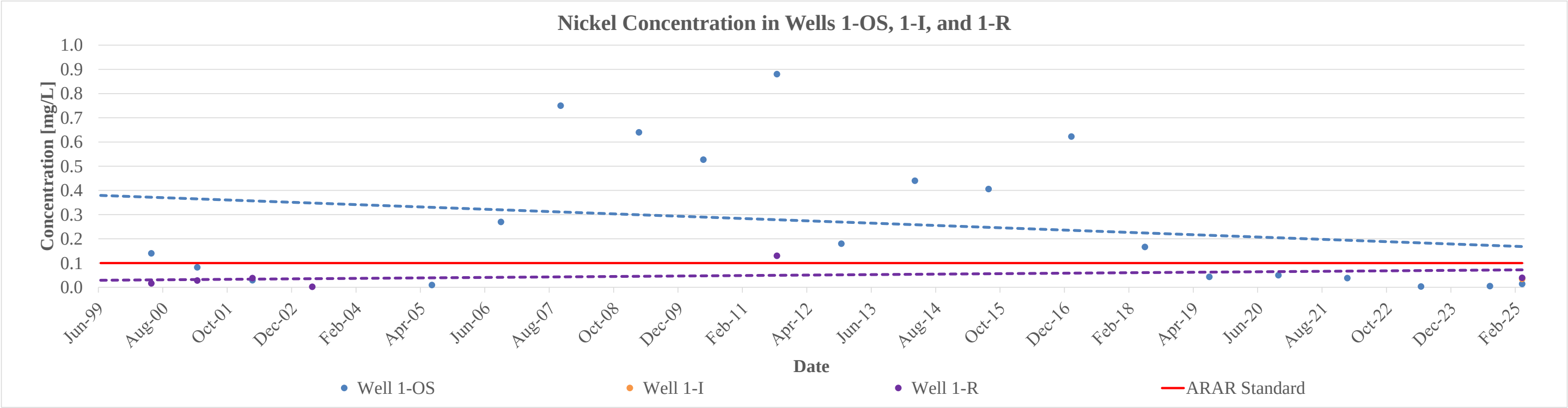


Table 17

Summary of Historical Groundwater Quality Results - Nickel (mg/L)
Town of Ramapo Landfill

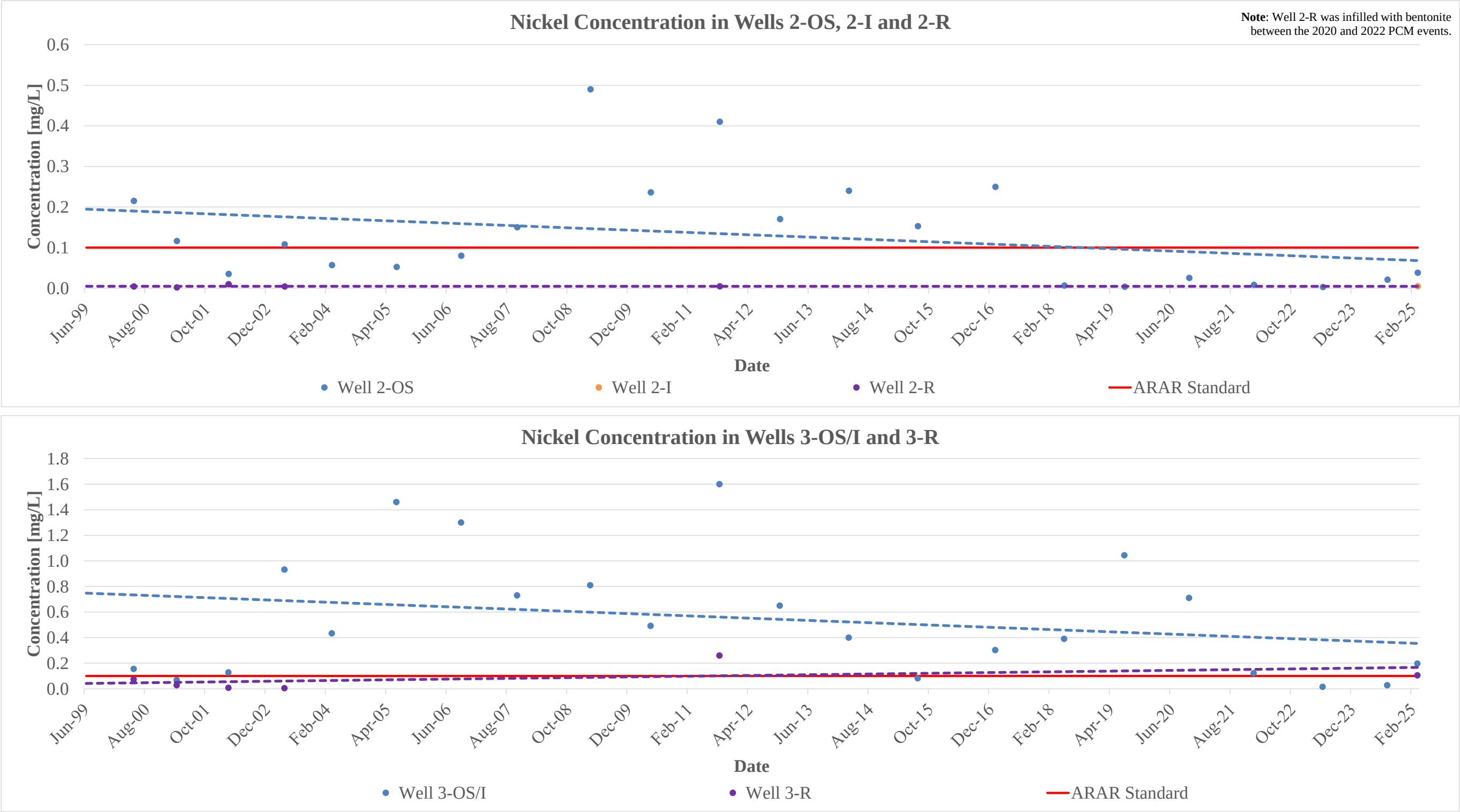


Table 17

Summary of Historical Groundwater Quality Results - Nickel (mg/L)
Town of Ramapo Landfill

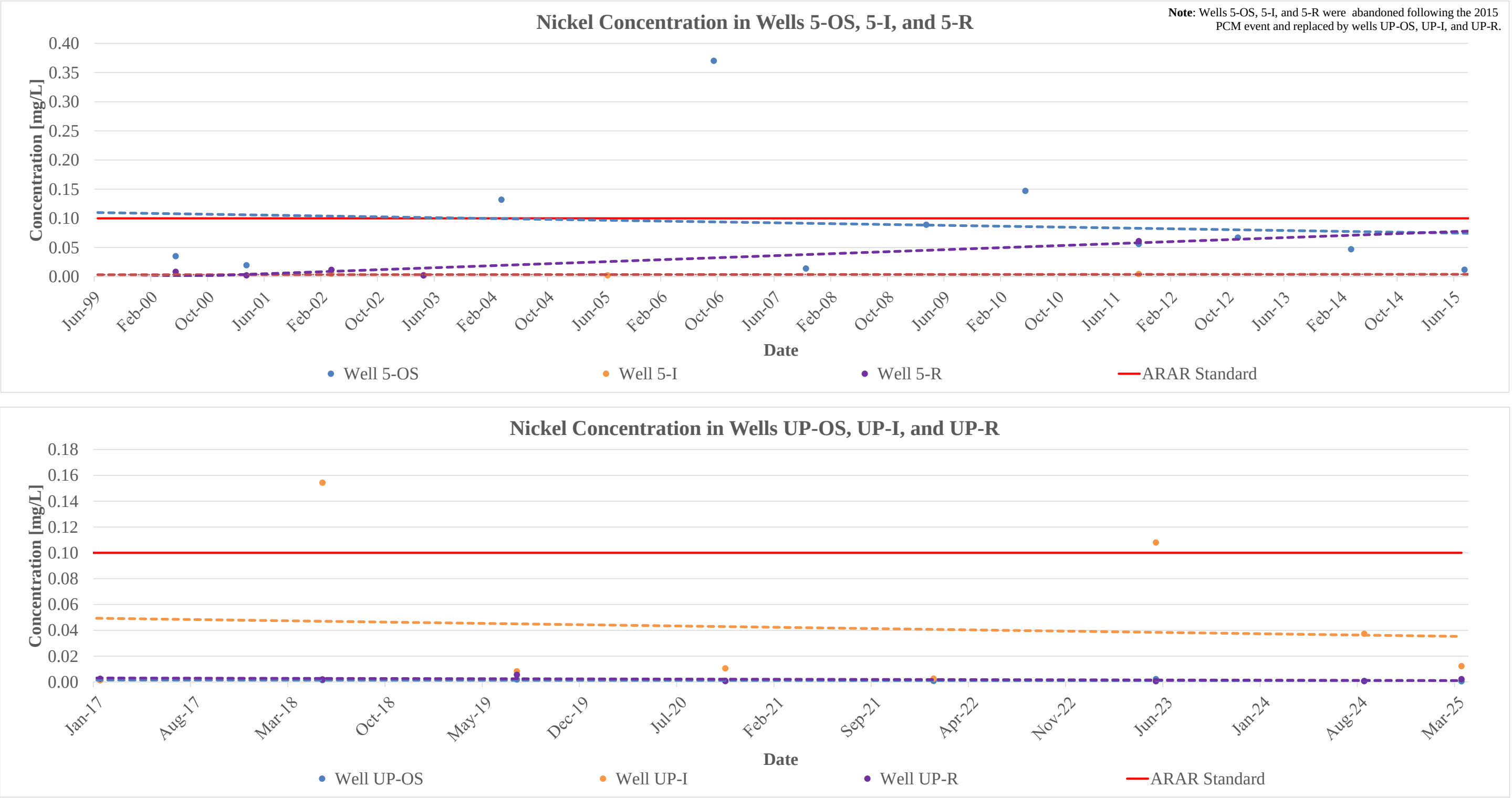


Table 18

Summary of Historical Groundwater Quality Results - Sodium (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	36.40	NA	29.00	9.96	NA	10.10	41.60	43.30	30.50	NA	13.80	5.53	NA	4.48	NA	NA	19.80	NA	13.90
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	42.10	NA	19.10	9.46	NA	7.76	38.70	34.90	24.10	NA	13.70	4.77 B	NA	3.74 B	NA	NA	16.90	NA	11.30
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	47.80	NA	69.50	9.45	NA	7.24	29.80	32.30	23.50	NA	9.78	NA	4.48	4.86	NA	NA	12.50	NA	10.50
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	NA	NA	24.20	7.13	NA	7.67	31.50	38.00	26.20	NA	12.90	NA	4.54 B	4.19 B	NA	NA	13.10	NA	NA
Mar-04	NA	NA	NA	11.00	NA	NA	22.60 E	NA	54.60	NA	NA	8.87	NA	NA	NA	NA	5.00 E	NA	NA
Jun-05	37.10 E	NA	NA	8.68 E	NA	NA	29.10 E	NA	20.30	NA	NA	NA	2.88 B,E	NA	NA	NA	9.19	NA	NA
Sep-06	62.00	NA	NA	11.00	NA	NA	29.00	NA	33.00	NA	NA	14.00	NA	NA	NA	NA	7.00	NA	NA
Oct-07	76.00	NA	NA	12.00	NA	NA	23.00	NA	24.00	NA	NA	4.10	NA	NA	NA	NA	7.70	NA	NA
Mar-09	97.00	NA	NA	11.00	NA	NA	36.00	NA	48.00	NA	NA	8.10	NA	NA	NA	NA	9.70	NA	NA
May-10	111.00	NA	NA	9.30	NA	NA	36.90	NA	47.90	NA	NA	8.00	NA	NA	NA	NA	11.70	NA	NA
Sep-11	101.00	NA	23.90 B	10.90	NA	9.70	57.20	59.00	60.20	NA	NA	7.30	4.60	6.20 B	NA	NA	12.50	NA	NA
Nov-12	102.00	NA	NA	13.10	NA	NA	36.30	NA	64.50	NA	NA	7.30	NA	NA	NA	NA	15.90	NA	NA
Mar-14	117.00 B	NA	NA	10.50 B	NA	NA	35.30	NA	71.90	NA	NA	7.00	NA		NA	NA	14.90	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	118.00	NA	NA	15.10	NA	NA	20.50	NA	35.60	NA	NA	4.09	NA	NA	NA	NA	15.80	NA	NA
Jan-17	103.00	NA	NA	14.00	NA	NA	25.90	NA	84.70	NA	NA	NA	NA	NA	NA	NA	14.60	NA	NA
May-18	73.30	NA	NA	34.70	NA	NA	29.90	NA	67.10	NA	NA	NA	NA	NA	NA	NA	11.10	NA	NA
Jul-19	115.00	NA	NA	133.00	NA	NA	52.10	NA	93.50	NA	NA	NA	NA	NA	NA	NA	14.90	NA	NA
Oct-20	112.00	NA	NA	24.80	NA	NA	60.80	NA	51.80	NA	NA	NA	NA	NA	NA	NA	12.00	NA	NA
Jan-22	90.60	NA	NA	32.00	NA	NA	26.80	NA	80.50	NA	NA	NA	NA	NA	NA	NA	12.70	NA	NA
May-23	69.70	NA	NA	32.90	NA	NA	35.40	NA	84.90	NA	NA	NA	NA	NA	NA	NA	9.05	NA	NA
Aug-24	28.1	NA	NA	24.4	NA	NA	14.4	NA	111	NA	NA	NA	NA	NA	NA	NA	10.1	NA	NA
Mar-25	64.3	32.1	10.5	22.1	104	NA	19.1	81.7	108	79.3	49.5	NA	NA	NA	8.86	15.8	26.7	64.3	8.13

Table 18

Summary of Historical Groundwater Quality Results - Sodium (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	4.98	16.10	43.40	5.50	5.61	13.10	NA	NA	NA	NA	NA	NA	4.30	13.20	31.60	33.40	32.90	30.40
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	3.48 B	15.00	71.10	5.08	4.40 B	14.30	NA	NA	NA	NA	NA	NA	5.43	9.11	31.40	32.50	28.80	35.90
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	14.20	90.50	52.40	3.67 B	4.95 B	27.50	NA	NA	NA	NA	NA	NA	6.13	9.33	36.00	38.70	38.50	35.20
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	5.15	56.20	74.40	5.12	6.06	22.20	NA	NA	NA	NA	NA	NA	7.16	8.72	56.00 E	48.90 E	41.90 E	43.50 E
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	10.90	46.50	52.20	4.53 B	5.83	20.60	NA	NA	NA	NA	NA	NA	8.69	9.00	39.80	43.00	34.70	4.04
Mar-04	17.10 E	110.00 E	47.30 E	3.22 B,E	3.69 B	14.60 E	NA	NA	NA	NA	NA	NA	5.41 E	7.73 E	33.80 E	35.60 E	27.70 E	30.10 E
Jun-05	8.40	124.00	42.20	4.16 B	5.53	22.50	NA	NA	NA	NA	NA	NA	11.50	5.40	44.10	42.30	41.70	47.40
Sep-06	28.00	73.00	46.00	0.01	9.40	28.00	NA	NA	NA	NA	NA	NA	14.00	7.40	52.00	47.00	36.00	47.00
Oct-07	15.00	55.00	48.00	7.20	9.80	35.00	NA	NA	NA	NA	NA	NA	12.00	6.10	60.00	52.00	53.00	56.00
Mar-09	41.00	50.00	42.00	8.30	15.00	44.00	NA	NA	NA	NA	NA	NA	12.00	7.40	52.00	NA	49.00	54.00
May-10	30.70	75.60	41.40	8.20	14.20	59.30	NA	NA	NA	NA	NA	NA	18.60	8.60	41.60	NA	47.20	48.60
Sep-11	19.80	56.80 B	34.60 B	11.20 B	17.10 B	48.90 B	NA	NA	NA	NA	NA	NA	68.50 B	6.90 B	45.60 B	40.40 B	NA	NA
Nov-12	10.80	97.90	37.80	9.80	11.40	45.50	NA	NA	NA	NA	NA	NA	32.50	6.80	45.10	45.90	42.50	NA
Mar-14	24.50 B	91.80 B	37.80	5.50	13.00	37.60	NA	NA	NA	NA	NA	NA	25.60 B	7.20	54.10 B	50.10 B	48.60 B	56.10 B
Nov-14	NA	NA	NA	NA	NA	NA	5.74	17.80	3.22	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	31.00	122.00	42.80	9.77	9.96	47.20	2.15	4.21	6.95	NA	NA	NA	35.00	7.90	58.00	66.00	61.00	64.00
Jan-17	18.00	29.20	39.70	5.81	19.30	50.40	2.23	3.78	5.52	3.58	3.82	4.03	19.80	6.41	63.00	56.40	56.10	59.70
May-18	6.84	59.40	35.90	4.66	31.50	43.20	2.56	3.34	5.27	24.80	4.06	4.72	40.70	6.37	44.80	49.40	46.00	57.30
Jul-19	52.40	96.80	42.00	6.70	9.68	39.60	2.09	3.91	4.41	3.87	3.59	4.38	37.90	7.08	58.20	61.30	55.60	62.90
Oct-20	26.30	91.40	71.50	6.12	26.10	50.00	2.30	4.23	4.28	4.06	3.68	4.49	17.60	8.38	80.10	82.90	73.40	74.00
Jan-22	24.60	44.70	37.80	16.10	5.88	48.40	2.64	3.77	3.70	3.64	3.72	NA	18.40	7.37	46.10	50.80	44.50	54.90
May-23	13.00	56.80	45.70	2.46	9.69	58.10	2.26	3.99	4.22	3.61	3.83	4.49	18.60	7.42	55.60	42.20	38.20	65.10
Aug-24	36.8	17.1	40.6	8.31	12.6	53.6	2.01	4.43	4.48	4.39	4.20	4.96	21.0	10.8	49.9	48.2	45.0	49.1
Mar-25	26.8	88.5	38.3	3.05	8.96	45.9	1.97	3.9	3.89	3.25	3.73	4.25	14.8	9.48	55.1	58.7	48.8	58.0

Table 18

Summary of Historical Groundwater Quality Results - Sodium (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 20 mg/L; USEPA MCL = Not Available; Part 5 MCL = (1); and, Health Advisory = 20 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
⁽¹⁾ While there is no Part 5 MCL for sodium, people on severely restricted diets should consult with the County Health Department for guidance if the reported sodium concentration is higher than 20,000 mg/L.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
E = Indicates an estimated value because of the possible presence of interference.

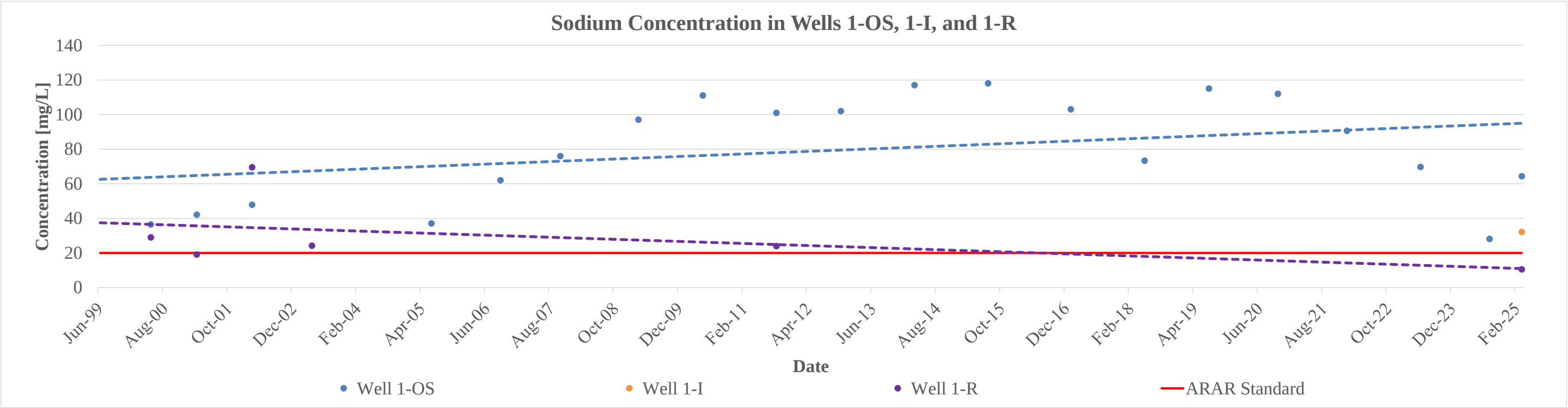


Table 18

Summary of Historical Groundwater Quality Results - Sodium (mg/L)
Town of Ramapo Landfill

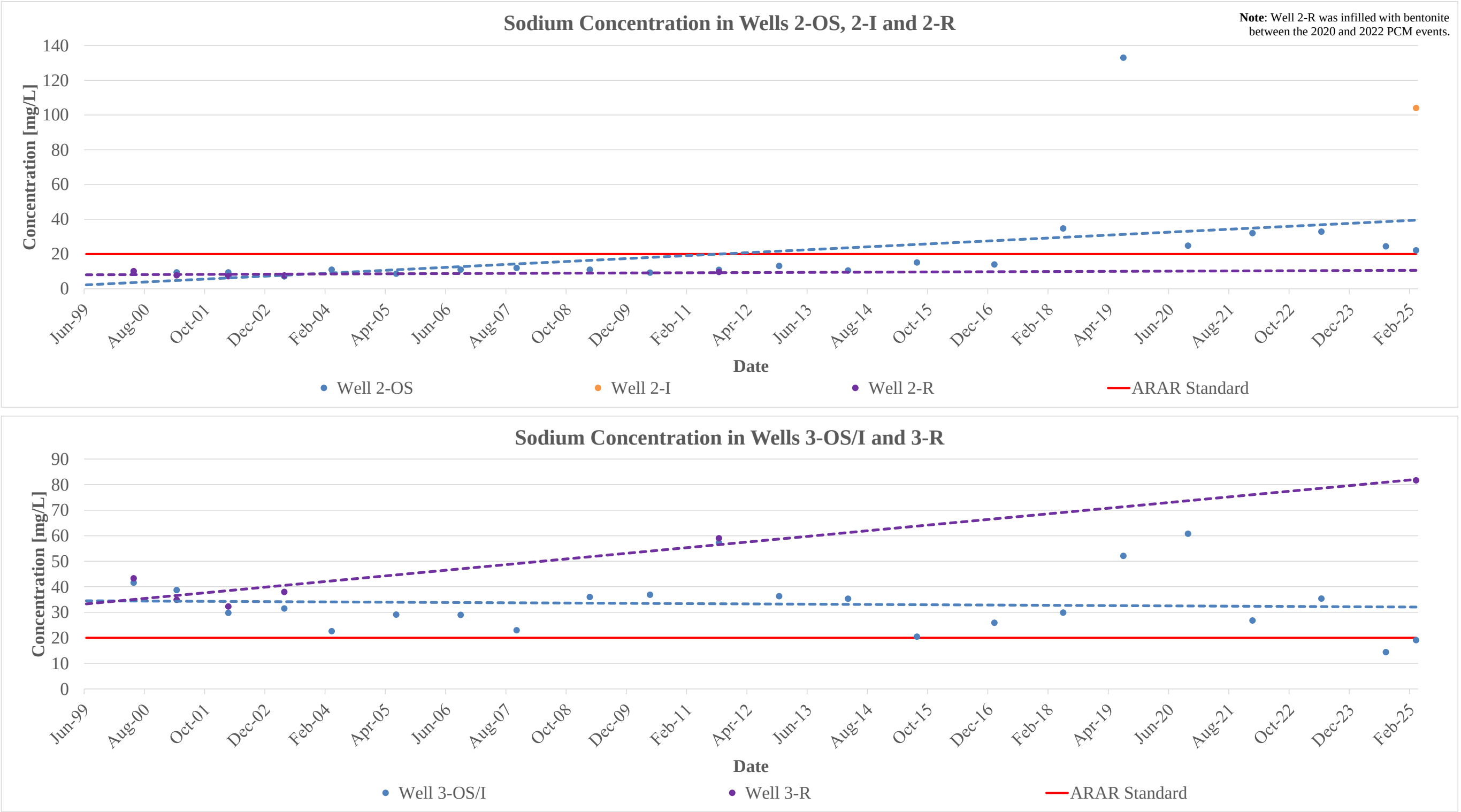


Table 18

Summary of Historical Groundwater Quality Results - Sodium (mg/L)
Town of Ramapo Landfill

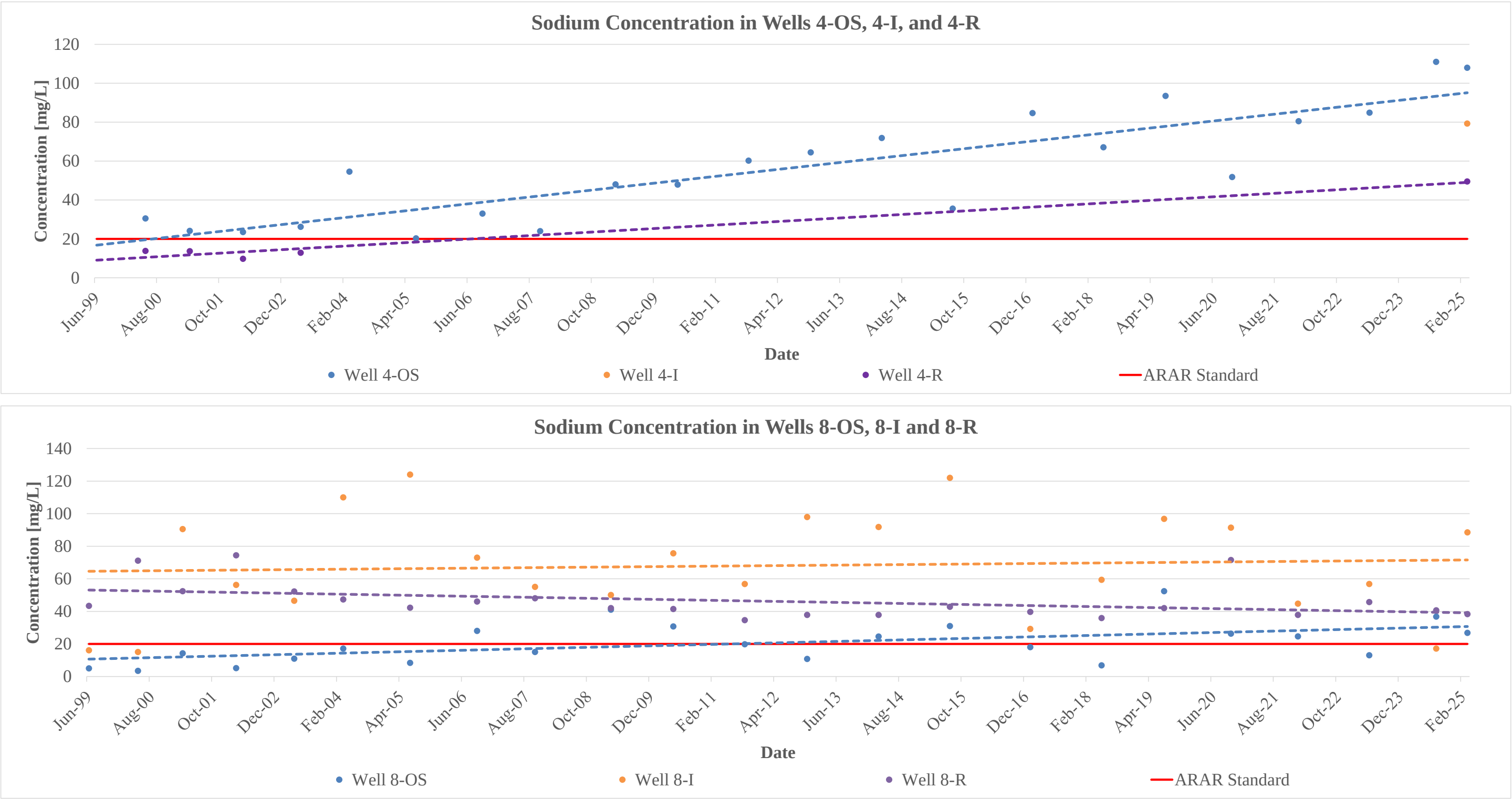


Table 18

Summary of Historical Groundwater Quality Results - Sodium (mg/L)
Town of Ramapo Landfill

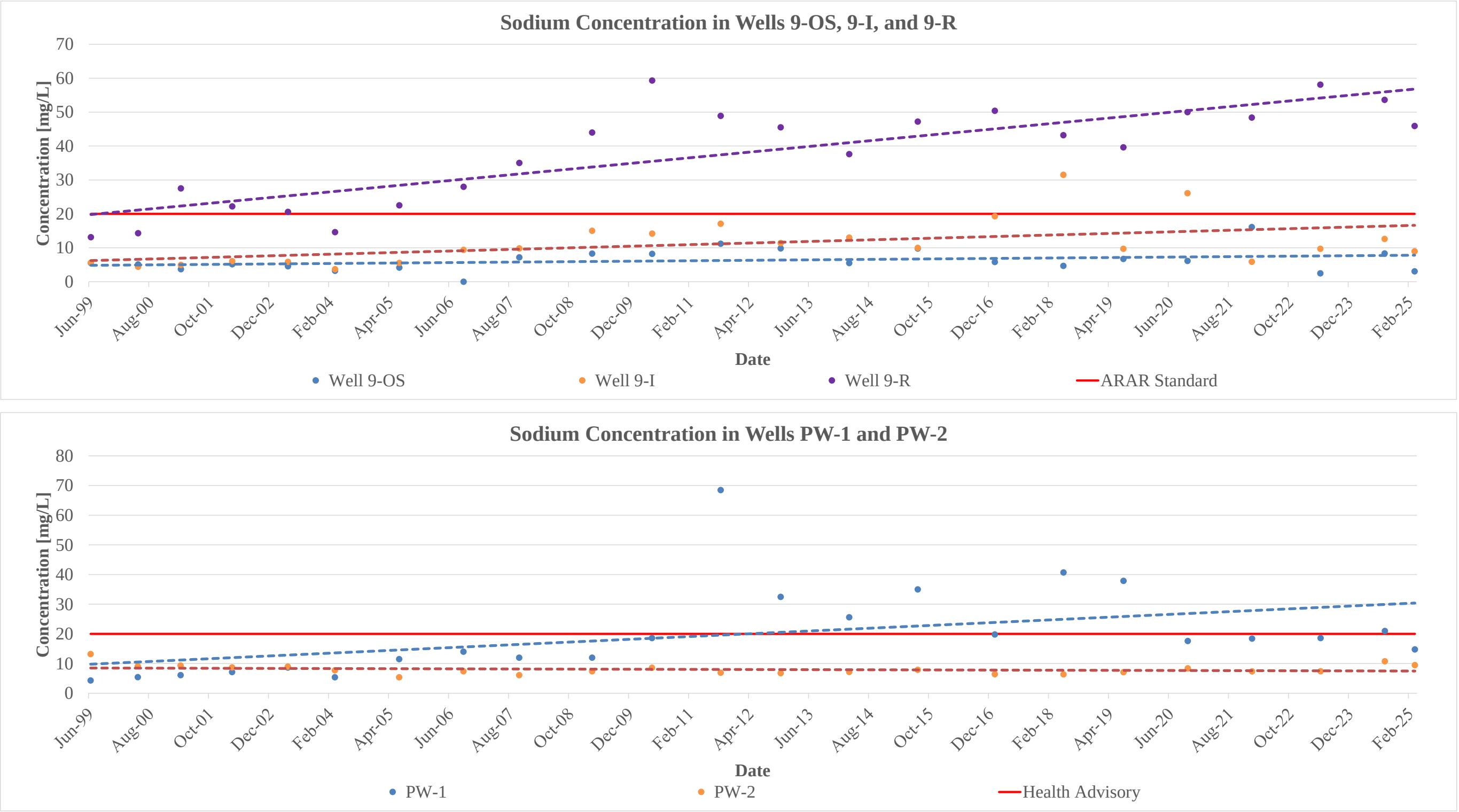


Table 18

Summary of Historical Groundwater Quality Results - Sodium (mg/L)
Town of Ramapo Landfill

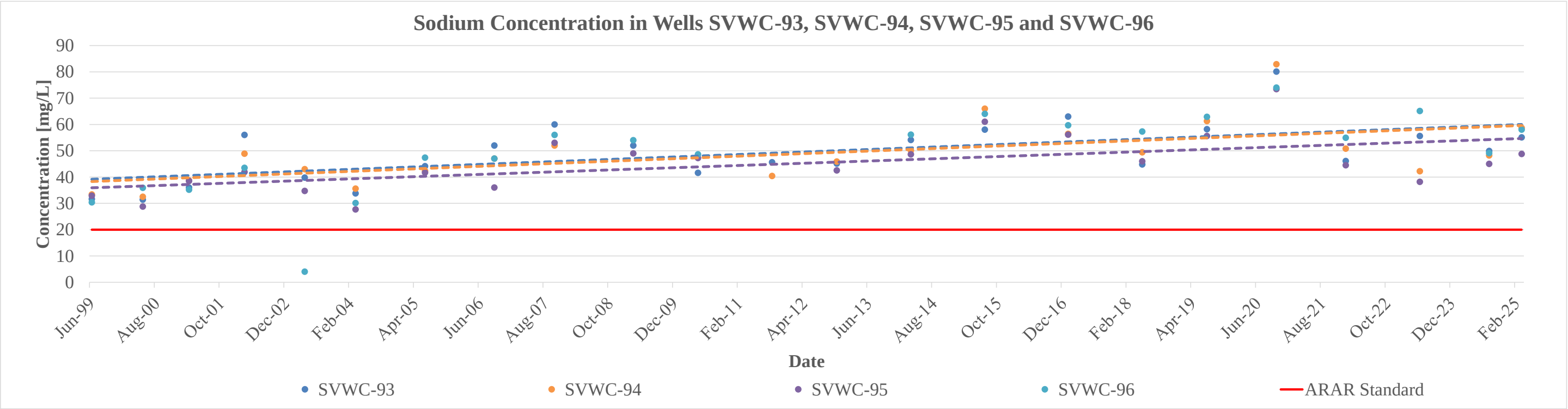


Table 19

Summary of Historical Groundwater Quality Results - Thallium (mg/L)
Town of Ramapo Landfill

Well ID	Well 1-OS	Well 1-I	Well 1-R	Well 2-OS	Well 2-I	Well 2-R	Well 3-OS/I	Well 3-R	Well 4-OS	Well 4-I	Well 4-R	Well 5-OS	Well 5-I	Well 5-R	Well 6-I	Well 6-R	Well 7-OS	Well 7-I	Well 7-R
DATE																			
Jun-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	0.00230 U	NA	0.00230 U	0.00230 U	NA	0.00230 U	0.00230 U	0.00230 U	0.00230 U	NA	0.00230 U	0.00230 U	NA	0.00230 U	NA	NA	0.00230 U	NA	0.00230 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.00270 U	NA	0.00270 U	0.00270 U	NA	0.00270 U	0.00270 U	0.00270 U	0.00270 U	NA	0.00270 U	0.00480 B	NA	0.02280	NA	NA	0.00270 U	NA	0.00270 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	0.00360 U	NA	0.00360 U	0.00360 U	NA	0.00360 U	0.00360 U	0.00360 U	0.00360 U	NA	0.00360 U	NA	0.00360 U	0.00360 U	NA	NA	0.00360 U	NA	0.00360 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	NA	NA	0.00350 U	0.00480 B	NA	0.00350 U	0.00350 U	0.00350 U	0.00350 U	NA	0.00350 U	NA	0.00410 B	0.00350 U	NA	NA	0.00350 U	NA	NA
Mar-04	NA	NA	NA	0.00280 U	NA	NA	0.00330 U	NA	0.00540 B	NA	NA	0.00280 U	NA	NA	NA	NA	0.00330 U	NA	NA
Jun-05	0.01040	NA	NA	0.00530 B	NA	NA	0.01270	NA	0.00290 U	NA	NA	NA	0.00510 B	NA	NA	NA	0.00290 U	NA	NA
Sep-06	0.02000	NA	NA	0.01600	NA	NA	0.01600	NA	0.02400	NA	NA	0.00780 J	NA	NA	NA	NA	0.00760 J	NA	NA
Oct-07	0.00990 J	NA	NA	0.01000 U	NA	NA	0.01000 U	NA	0.01000 U	NA	NA	0.01000 U	NA	NA	NA	NA	0.01000 U	NA	NA
Mar-09	0.02000 U	NA	NA	0.02000 U	NA	NA	0.04000 U	NA	0.02000 U	NA	NA	0.02000 U	NA	NA	NA	NA	0.02000 U	NA	NA
May-10	0.00050 U	NA	NA	0.00050 U	NA	NA	0.00050 J	NA	0.00050 J	NA	NA	0.00250 U	NA	NA	NA	NA	0.00050 U	NA	NA
Sep-11	0.00020 J	NA	0.00018 J	0.00003 J	NA	0.00011 J	0.00001 J	0.00047 J	0.00014 J	NA	NA	0.00032 J	0.00002 J	0.00018 J	NA	NA	0.00020 J	NA	NA
Nov-12	0.00013 J	NA	NA	0.00004 J	NA	NA	0.00050 U	NA	0.00005 J	NA	NA	0.00044 J	NA	NA	NA	NA	0.00021 J	NA	NA
Mar-14	0.00010 J	NA	NA	0.00004 J	NA	NA	0.00002 J	NA	0.00004	NA	NA	0.00039 J	NA		NA	NA	0.00025 J	NA	NA
Nov-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00006 J	NA	NA	0.00010 U	NA	NA	0.00010 U	NA	0.00010 U	NA	NA	0.00010 U	NA	NA	NA	NA	0.00010 U	NA	NA
Jan-17	0.00010 U	NA	NA	0.00010 U	NA	NA	0.00010 U	NA	0.00010 U	NA	NA	NA	NA	NA	NA	NA	0.00010 U	NA	NA
May-18	0.00050 U	NA	NA	0.00050 U	NA	NA	0.00050 U	NA	0.00050 U	NA	NA	NA	NA	NA	NA	NA	0.00050 U	NA	NA
Jul-19	0.00014 U	NA	NA	0.00014 U	NA	NA	0.00014 U	NA	0.00014 U	NA	NA	NA	NA	NA	NA	NA	0.00014 U	NA	NA
Oct-20	0.01500 J	NA	NA	0.00300 U	NA	NA	0.00500 J	NA	0.00300 U	NA	NA	NA	NA	NA	NA	NA	0.00400 J	NA	NA
Jan-22	0.00014 U	NA	NA	0.00014 U	NA	NA	0.00014 U	NA	0.00014 U	NA	NA	NA	NA	NA	NA	NA	0.00014 U	NA	NA
May-23	0.00014 U	NA	NA	0.00014 U	NA	NA	0.00014 U	NA	0.00014 U	NA	NA	NA	NA	NA	NA	NA	0.00014 U	NA	NA
Aug-24	0.00014 U	NA	NA	0.00014 U	NA	NA	0.00014 U	NA	0.00014 U	NA	NA	NA	NA	NA	NA	NA	0.00014 U	NA	NA
Mar-25	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	NA	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	NA	NA	NA	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U

Table 19

Summary of Historical Groundwater Quality Results - Thallium (mg/L)
Town of Ramapo Landfill

Well ID	Well 8-OS	Well 8-I	Well 8-R	Well 9-OS	Well 9-I	Well 9-R	Well 10-OS	Well 10-I	Well 10-R	Well UP-OS	Well UP-I	Well UP-R	PW-1	PW-2	SVWC-93	SVWC-94	SVWC-95	SVWC-96
Jun-99	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	0.00720
Sep-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-00	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U	NA	NA	NA	NA	NA	NA	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U
Sep-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-01	0.00270 U	0.00270 U	0.00270 U	0.00270 U	0.00270 U	0.00270 U	NA	NA	NA	NA	NA	NA	0.00270 U	0.00270 U	0.00270 U	0.00270 U	0.00270 U	0.00270 U
Jul-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar-02	0.00360 U	0.00360 U	0.00360 U	0.00360 U	0.00440 B	0.00360 U	NA	NA	NA	NA	NA	NA	0.00360 U	0.00360 U	0.00440 B	0.00360 U	0.00360 U	0.00360 U
Jul-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Apr-03	0.00350 U	0.00350 U	0.00350 U	0.00350 U	0.00350 U	0.00350 U	NA	NA	NA	NA	NA	NA	0.00410 B	0.00350 U	0.00350 U	0.00350 U	0.00350 U	0.00350 U
Mar-04	0.00330 U	0.00330 U	0.00330 U	0.00330 U	0.00330 U	0.00330 U	NA	NA	NA	NA	NA	NA	0.00330 U	0.00330 U	0.00330 U	0.00330 U	0.00330 U	0.00330 U
Jun-05	0.00290 U	0.00460 B,N	0.00460 B,N	0.00290 U	0.00290 U	0.00290 U	NA	NA	NA	NA	NA	NA	0.00290 U	0.00290 U	0.00290 U	0.00290 N	0.00290 U	0.00290 U
Sep-06	0.00980 J	0.01200	0.00940 J	0.01000 U	0.01000 U	0.01000 U	NA	NA	NA	NA	NA	NA	0.01000 U	0.00880 J	0.00760 J	0.01000 U	0.01000 U	0.01000 U
Oct-07	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	NA	NA	NA	NA	NA	NA	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U	0.01000 U
Mar-09	0.02000 U	0.02000 U	0.02000 U	0.02000 U	0.02000 U	0.02000 U	NA	NA	NA	NA	NA	NA	0.02000 U	0.02000 U	0.02000 U	NA	0.01000 U	0.02000 U
May-10	0.00050 U	0.00050 J	0.00050 J	0.00050 U	0.00050 U	0.00050 U	NA	NA	NA	NA	NA	NA	0.00050 U	0.00050 U	0.00050 U	NA	0.00050 U	0.00050 U
Sep-11	0.00050 U	0.00028 J	0.00030 J	0.00019 J	0.00060 J	0.00028 J	NA	NA	NA	NA	NA	NA	0.00031 J	0.00022 J	0.00029 J	0.00026 J	NA	NA
Nov-12	0.00050 U	0.00050 U	0.00050 U	0.00001 J	0.00050 U	0.00050 U	NA	NA	NA	NA	NA	NA	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	NA
Mar-14	ND	ND	ND	0.00002 J	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Nov-14	NA	NA	NA	NA	NA	NA	0.00050 U	0.00050 U	0.00050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-15	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	NA	NA	NA	0.00003 U	0.00003 U	0.00003 U	0.00003 U	0.00006 J	0.00003 U
Jan-17	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00010 U
May-18	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U
Jul-19	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00037 J	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Oct-20	0.00045 J	0.00034 J	0.00021 J	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00027 J	0.00016 J	0.00014 U	0.00021 J	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Jan-22	0.00017 J	0.00029 J	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 J	0.00014 U	NA	0.00010 U	0.00010 U	0.00014 U	0.00014 U	0.00016 J	0.00014 U
May-23	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00010 U	0.00010 U	0.00010 U	0.00014 U	0.00014 U	0.00010 U
Aug-24	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Mar-25	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.0001 U	0.0001 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U

Table 19

Summary of Historical Groundwater Quality Results - Thallium (mg/L)
Town of Ramapo Landfill

Notes:
ARAR Standard = 0.0005 mg/L; USEPA MCL = .002 mg/L; and, Part 5 MCL = .002 mg/L
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC T.O.G.S. 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 2004).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.
NA = Not Analyzed

Laboratory Qualifier Definitions
ND or U = Not Detected
B = The analyte was detected above the reporting limit in the associated method blank.
D14 = Dilution required due to high concentration of dissolved solids known to cause failure of routine quality control. Analytical method recommends a five-fold dilution for samples that contain greater than 2,000 mg/L of total solids.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

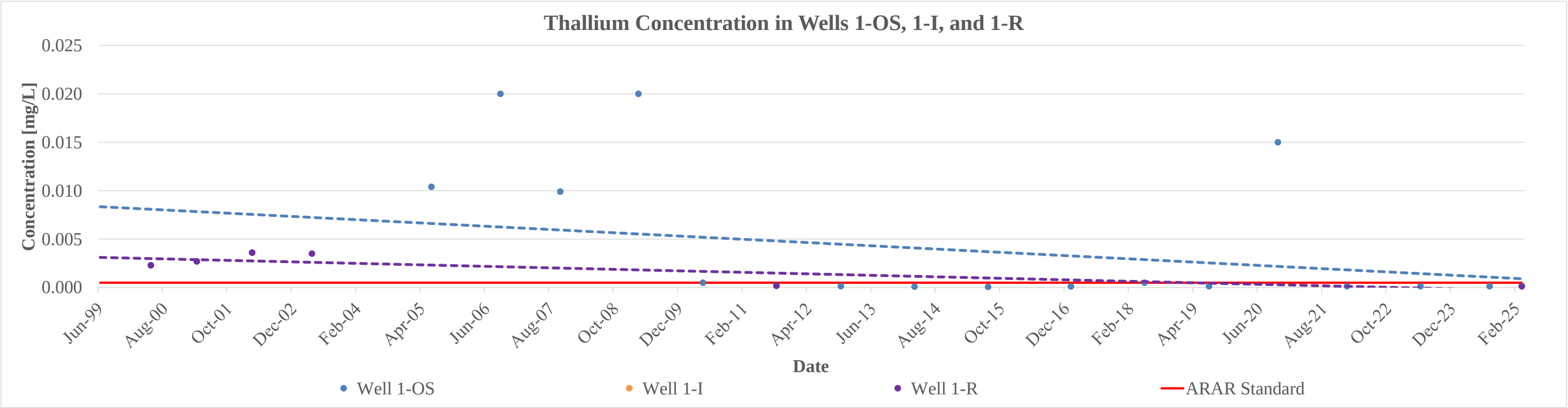


Table 19

Summary of Historical Groundwater Quality Results - Thallium (mg/L)
Town of Ramapo Landfill

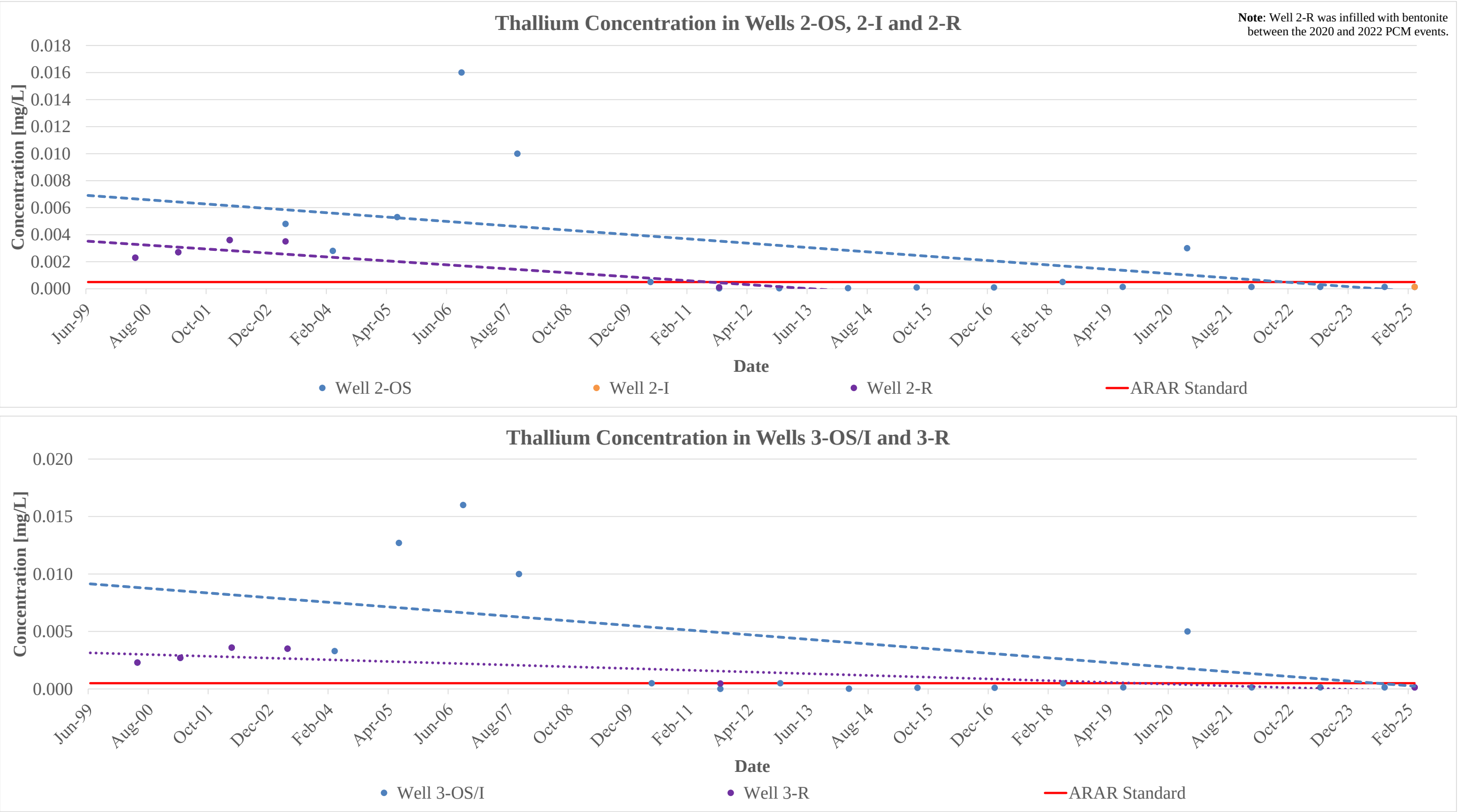


Table 19

Summary of Historical Groundwater Quality Results - Thallium (mg/L)
Town of Ramapo Landfill

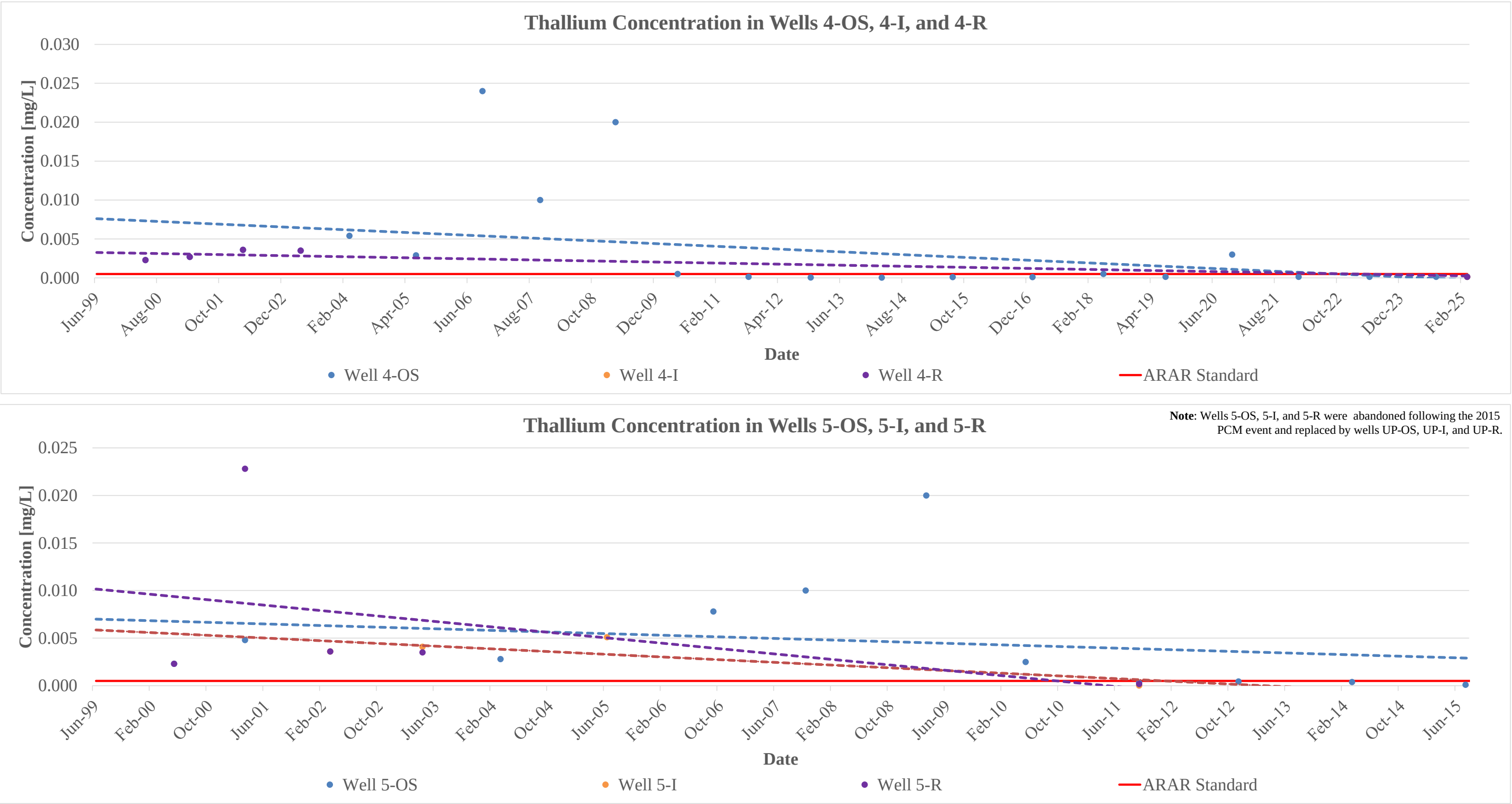


Table 19

Summary of Historical Groundwater Quality Results - Thallium (mg/L)
Town of Ramapo Landfill

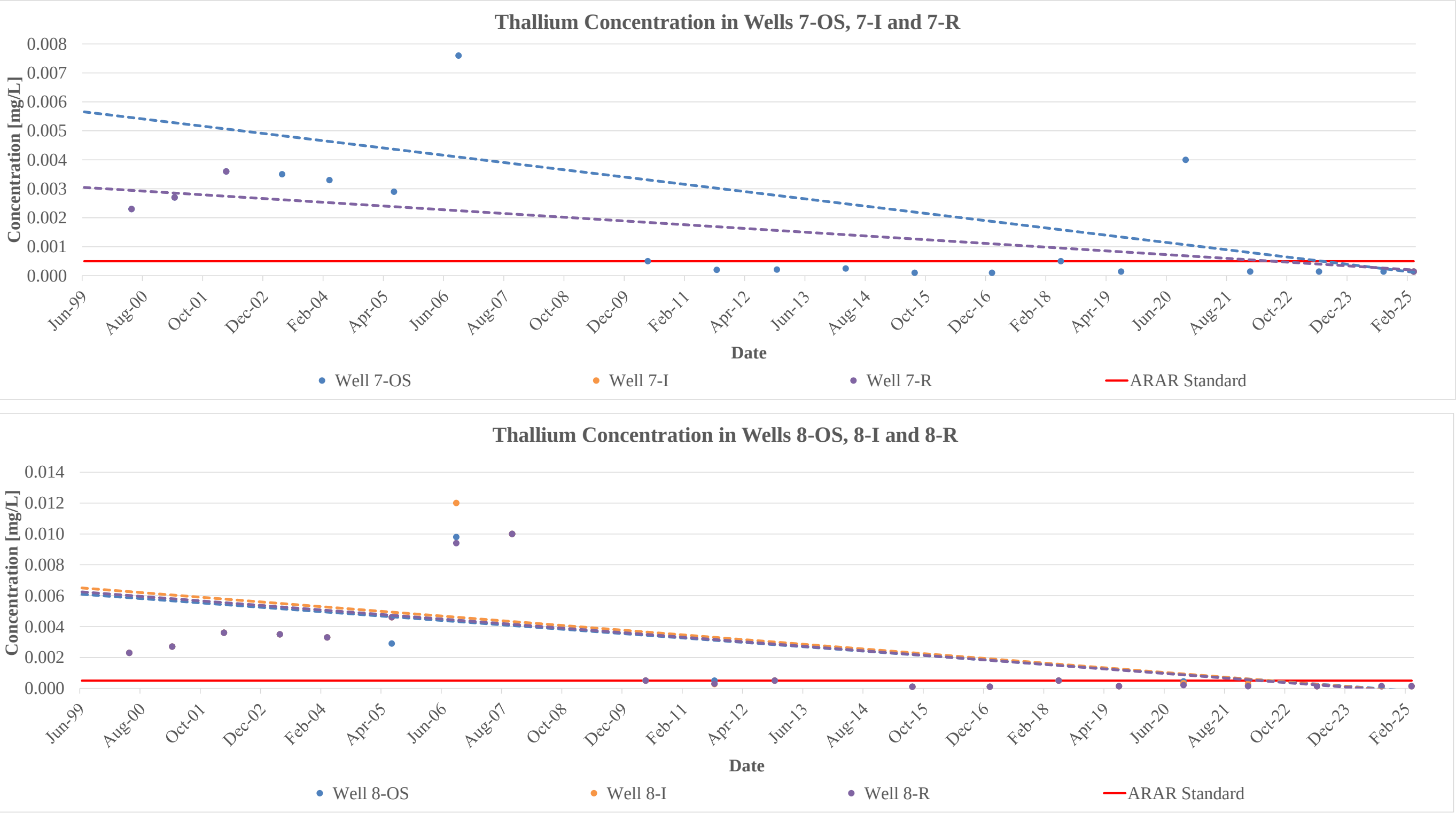


Table 19

Summary of Historical Groundwater Quality Results - Thallium (mg/L)
Town of Ramapo Landfill

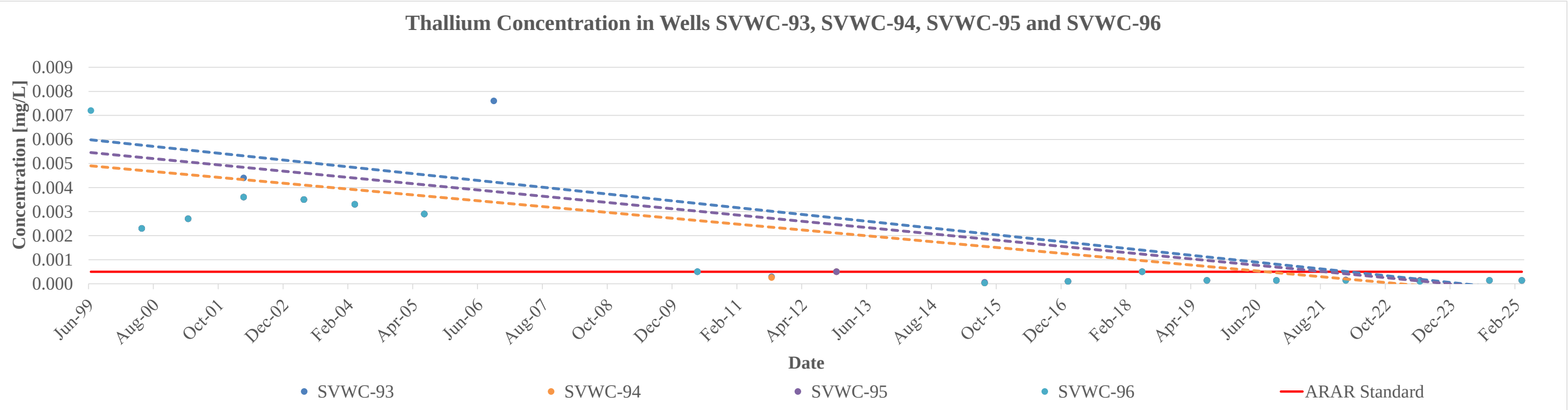


TABLE 20

**Volume of Leachate/Groundwater Pumped from Landfill Extraction Wells to RCSD #1 POTW
Town of Ramapo Landfill, Hillburn, New York**

Year	Gallons
1995	20,553,200
1996	21,851,062
1997 ⁽¹⁾	22,888,055
1998 ⁽¹⁾	22,888,055
1999	7,280,848
2000	17,234,622
2001	12,328,217
2002	13,576,560
2003	18,415,267
2004	13,827,647
2005	18,285,355
2006	14,391,820
2007	11,671,388
2008	11,929,369
2009	13,692,046
2010	8,955,114
2011	9,763,081
2012	13,345,000
2013	18,202,000
2014	13,254,000
2015	14,591,000
2016	11,314,000
2017	17,811,125
2018	15,001,258
2019	14,079,593
2020	11,822,370
2021	13,366,682
2022	14,916,500
2023	17,887,848
2024	13,911,000

Notes:

⁽¹⁾ Flow meter or totalizer did not function - no data available therefore values are based on previous records

Note: The volumes for 1997, 1998, and 2018 are estimated. No data was recorded in 1997 and 1998 due to malfunctioning equipment.

Table 21

Summary of Historical Leachate/Groundwater Analytical Results
Rockland County Sewer District #1 - Western Ramapo Treatment Plant
Sample Location: Manhole Immediately Upstream of Wet Well

Analyte	Maximum Concentration	Units	8/20 & 21/09	01/13/10	5/19 & 20/10	1/26/11	7/20/11	3/14/12	5/17/12	8/22/12
pH		S.U.	---	---	---	---	6.8	6.8	6.8	6.5
Phosphorous (Total)	-	ppm	0.41	1.32	0.02 U	0.13	0.07	0.185	0.105	0.03 U
Chloride	-	ppm	160	180	130	200	257	123	92.6	90.8
Ammonia	-	ppm	520	340	1.8	1 U	2.3	0.645	0.821	2.03
BOD	-(¹)	ppm	30	100	2	4	6	4	2	2
COD	-	ppm	161	576	35	43	55	52	20	9
Suspended Solids	-(²)	ppm	24	74	5	2	20	7	3	6
TKN	-	ppm	530	380	2.2	1 U	3.4	1.47	1.59	4.06
Total Dissolved Solids	-	ppm	2,300	950	480	720	1,500	504	312	366
O&G Non-Polar	25	ppm	1.4 U	1.4 U	1.4 U	5 U	0.6 U	6.30	---	---
Antimony	-	ppm	0.1	0.11	0.09	0.098	0.111	0.0792 B	0.0966 B	0.0725 B
Arsenic	0.25	ppm	0.727	0.783	0.744	0.87	0.428	1.35	0.823	1,160
Beryllium	-	ppm	0.005 U	0.005 U	0.005 U	0.015 U	0.0036 J	0.002 U	0.002 U	0.002 U
Boron	1.0	ppm	0.004 U	0.007	0.004 U	0.01 U	0.0035 U	0.002	0.002	0.002
Cadmium	0.07	ppm	0.001 U	0.001 U	0.001 U	0.005 U	0.0008 U	0.001 U	0.000116 B	0.000106 B
Chromium	0.6	ppm	0.001 U	0.001 U	0.001 U	0.002 U	0.0005 J	0.004 U	0.004 U	0.008
Copper	1.0	ppm	0.001 U	0.004	0.001 U	0.005 U	0.0039 J	0.011 U	0.016 B	0.011 U
Lead	1.0	ppm	0.018	0.085	0.002 U	0.025 U	0.158	0.015	0.024	0.01 U
Manganese	-	ppm	0.002 U	0.002 U	0.002 U	0.01 U	0.0028 U	0.044	0.015 U	0.032 B
Mercury	0.05	ppm	0.0002 U	0.008 U	0.0002 U	0.0002 U	0.00007 U	0.001 U	0.001 U	0.001 U
Molybdenum	0.14	ppm	0.003	0.01	0.002	0.005 U	0.0082	0.016 B	0.038	0.01 U
Nickel	1.0	ppm	0.001 U	0.001	0.001 U	0.01 U	0.0012 U	0.01 U	0.01 U	0.01 U
Selenium	0.1	ppm	0.005 U	0.025 U	0.005 U	0.005 U	0.0038	0.05 U	0.033 U	0.033 U
Silver	2.3	ppm	0.027	0.117	0.003	0.025 U	0.471	0.044	0.109	0.023
Thallium	-	ppm	0.01 U	0.01 U	0.01 U	0.01 U	0.0037 U	0.004	0.004	0.001 U
Zinc	3.0	ppm	0.01 U	0.01 U	0.01 U	0.01 U	0.0047 U	0.0024 B	0.0019 B	0.0027 B
Cyanide Total	1.0	ppm	0.02	0.05 U	0.01 U	0.01 U	0.00498 U	0.01 U	0.01 U	0.01 U
Cyanide, Free	0.1	ppm	0.01	(³)	0.01 U	0.005	0.00468 U	---	---	---
Cyanide, Amenable	-	ppm	---	---	---	---	---	0.01 U	0.01 U	0.010 U
Phenol	2.25	ppm	0.03 U	0.015 U	0.015 U	0.015 U	0.015 U	0.05 U	0.05 U	0.05 U
USEPA Priority Pollutants (⁴)	-	ppm	0.06 U	0.06 U	0.06 U	0.0206 U	0.028 U	0.085 (⁵)	0.087 (⁵)	0.089 (⁵)

Table 21

Summary of Historical Leachate/Groundwater Analytical Results
Rockland County Sewer District #1 - Western Ramapo Treatment Plant
Sample Location: Manhole Immediately Upstream of Wet Well

Analyte	Maximum Concentration	Units	7/25/13	1/23/14	05/15/14	07/10/14	01/14/15	04/16/15	07/08/15	02/24/16
pH		S.U.	8.2	7.7	7.1	7.3	7.6	7.5	7.3	7.2
Phosphorous (Total)	-	ppm	0.198	3.74	0.264	0.05 U	0.05 U	0.05 U	0.054	0.05 U
Chloride	-	ppm	148	4010	136	218	97.4	263	201	267
Ammonia	-	ppm	0.1 U	1260	0.1 U	0.1 U	0.7	0.1 U	0.128	0.422
BOD	-(¹)	ppm	1	39	2	9	12	3	4	3
COD	-	ppm	---	2600	30	56	47	27	110	62
Suspended Solids	-(²)	ppm	6	72	6	6	4	5	7	16
TKN	-	ppm	1.02	1500	0.64	1.03	2.25	0.35	0.35	1.61
Total Dissolved Solids	-	ppm	504	958	511	628	322	694	740	756
O&G Non-Polar	25	ppm	---	---	---	---	---	---	---	---
Antimony	-	ppm	0.106	0.1	0.068	0.096	0.05 U	0.08	0.08	0.05
Arsenic	0.25	ppm	0.508	0.025 U	0.703	0.64	0.572	0.261	0.575	4.73
Beryllium	-	ppm	0.001	0.001 U	0.001	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Boron	1.0	ppm	0.001 U	0.002	0.001	0.004	0.001 U	0.001 U	0.003	0.009
Cadmium	0.07	ppm	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	0.6	ppm	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.009
Copper	1.0	ppm	0.025 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
Lead	1.0	ppm	0.010 U	0.067	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.023
Manganese	-	ppm	0.016 U	0.016 U	0.038 B	0.027 B	0.058	0.059	0.028 B	0.063
Mercury	0.05	ppm	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Molybdenum	0.14	ppm	0.025 U	0.025 U	0.074	0.025 U	0.031	0.047	0.025 U	0.059
Nickel	1.0	ppm	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Selenium	0.1	ppm	0.033 U	0.039 B	0.075	0.05 U	0.05 U	0.053	0.061	0.042 B
Silver	2.3	ppm	0.015	0.093	0.01 U	0.043	0.044	0.011	0.01 U	0.051
Thallium	-	ppm	0.002	0.001	0.002	0.003	0.001 U	0.004	0.001	0.002
Zinc	3.0	ppm	0.00240 B	0.05 U	0.05	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U
Cyanide Total	1.0	ppm	0.01 U	0.057	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cyanide, Free	0.1	ppm	---	---	---	---	---	---	---	---
Cyanide, Amenable	-	ppm	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenol	2.25	ppm	0.01 U	0.067	0.05 U	0.01 U	0.01 U	0.016 B	0.016 B	0.019 B
USEPA Priority Pollutants ⁽⁴⁾	-	ppm	0.57 J	0.0197 J	0.00948 J	0.03611 J	0.00701 J	0.00887 J	0.01294 J	0.00835 J

Table 21

Summary of Historical Leachate/Groundwater Analytical Results
Rockland County Sewer District #1 - Western Ramapo Treatment Plant
Sample Location: Manhole Immediately Upstream of Wet Well

Analyte	Maximum Concentration	Units	06/08/16	09/21/16	05/17/17	09/20/17	11/29/17	04/25/18	07/25/18	10/17/18
pH		S.U.	8.2	7.2	7.3	6.8	6.4	6.5	6.8	7.2
Phosphorous (Total)	-	ppm	0.601	0.238	0.894	1.73	0.862	0.106	1.05	0.546
Chloride	-	ppm	165	294	194	177	201	180	70.1	163
Ammonia	-	ppm	0.1 U	1.72	0.1 U	5.24	2.07	0.21	0.22	2.27
BOD	-(¹)	ppm	2	12	13	3	3	7	24	15
COD	-	ppm	30	42	76	41	88	86	300	39
Suspended Solids	-(²)	ppm	4	4	18	12	4	13	14	19
TKN	-	ppm	0.41	3.23	2.82	79.5	2.49	0.61	1.02	2.84
Total Dissolved Solids	-	ppm	624	976	594	567	660	631	360	590
O&G Non-Polar	25	ppm	5 U	5 U	5 U	5 U	1.7 U	5 U	1.5 U	1.7 U
Antimony	-	ppm	0.08	0.11	0.001 U	0.001 U	0.003 U	0.003 U	0.003 U	0.003 U
Arsenic	0.25	ppm	0.395	0.211	0.002 U	0.003	0.002	0.002 U	0.002 U	0.002 U
Beryllium	-	ppm	0.001 U	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Boron	1.0	ppm	0.001 U	0.001 U	0.10	0.11	0.11	0.09	0.1	0.03 U
Cadmium	0.07	ppm	0.001 U	0.003	0.01	0.005	0.003 B	0.001 U	0.001 U	0.001 U
Chromium	0.6	ppm	0.003 B	0.009	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
Copper	1.0	ppm	0.011 U	0.011 U	0.023	0.019	0.01 U	0.01 U	0.013	0.032
Lead	1.0	ppm	0.01 U	0.01 U	0.074	0.067	0.068	0.016 U	0.016 U	0.016 U
Manganese	-	ppm	0.03 B	0.094	0.542	0.943	0.656	0.411	0.226	1.31
Mercury	0.05	ppm	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Molybdenum	0.14	ppm	0.061	0.07	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Nickel	1.0	ppm	0.01 U	0.01 U	0.055	0.051	0.01 U	0.01 U	0.01 U	0.01 U
Selenium	0.1	ppm	0.05 U	0.05 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U
Silver	2.3	ppm	0.01	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Thallium	-	ppm	0.001 U	0.001 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
Zinc	3.0	ppm	0.005 U	0.005 U	0.059	0.052	0.036 U	0.01 U	0.16	0.04
Cyanide Total	1.0	ppm	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.01 U
Cyanide, Free	0.1	ppm	---	---	0.01 U	0.01 U	0.05 U	---	---	---
Cyanide, Amenable	-	ppm	0.01 U	0.01 U	0.01 U	0.01 U	---	0.01 U	0.010 U	0.010 U
Phenol	2.25	ppm	0.01 U	0.029 B	0.01 U	0.01 U	0.015 U	0.015 U	0.063	0.015 U
USEPA Priority Pollutants ⁽⁴⁾	-	ppm	0.01653 J	0.00781	0.00176 J	0.001442 J	0.00739 J	0.00266 J	ND	ND

Table 21

Summary of Historical Leachate/Groundwater Analytical Results
Rockland County Sewer District #1 - Western Ramapo Treatment Plant
Sample Location: Manhole Immediately Upstream of Wet Well

Analyte	Maximum Concentration	Units	05/15/19	09/18/19	02/19/20	10/07/20	04/14/21	07/21/21	10/20/21	05/19/22
pH		S.U.	6.4	6.9	6.45	6.16	6.77	6.54	7.33	6.9
Phosphorous (Total)	-	ppm	3.92	0.351	0.85	0.021	0.059	0.020	0.076	0.120
Chloride	-	ppm	123	311	161	133	118	165	160	141
Ammonia	-	ppm	0.28	0.06	0.17	1.1	1.21	0.706	1.33	1.04
BOD	-(¹)	ppm	2	1	1.5	4	5	6	4	17
COD	-	ppm	35	41	32	32	22	21	36	53
Suspended Solids	-(²)	ppm	2	1.0 U	1.0 U	2	3	2	4	3 U
TKN	-	ppm	0.48	0.21	0.37	1.54	1.30	0.828	1.36	2.9
Total Dissolved Solids	-	ppm	470	890	540	767	517	530	552	752
O&G Non-Polar	25	ppm	1.9 U	4.0 U	4.0 U	5.1 U	5 U	5 U	5 U	5 U
Antimony	-	ppm	0.003 U	0.003 U	0.02 U	0.002 U	0.002 U	0.002 U	0.006 U	0.006 U
Arsenic	0.25	ppm	0.002 U	0.002 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Beryllium	-	ppm	0.001 U	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Boron	1.0	ppm	0.09	0.12	0.22	0.221	0.105	0.126	0.14	0.169
Cadmium	0.07	ppm	0.009	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chromium	0.6	ppm	0.011 U	0.011 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Copper	1.0	ppm	0.01 U	0.01 U	0.01 U	0.0137	0.0116	0.0972	0.00745	0.00801
Lead	1.0	ppm	0.016 U	0.016 U	0.0082	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Manganese	-	ppm	0.383	0.08	0.27	0.384	0.342	0.00204	0.434	0.259
Mercury	0.05	ppm	0.001 U	0.001 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Molybdenum	0.14	ppm	0.003 U	0.003 U	0.02 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Nickel	1.0	ppm	0.01 U	0.087	0.02 U	0.00333	0.00344	0.002 U	0.00284	0.002 U
Selenium	0.1	ppm	0.005 U	0.005 U	0.02 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Silver	2.3	ppm	0.01 U	0.01 U	0.004 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Thallium	-	ppm	0.033 U	0.033 U	0.02 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Zinc	3.0	ppm	0.019	0.01 U	0.02 U	0.03 U	0.003 U	0.334	0.0346	0.03 U
Cyanide Total	1.0	ppm	0.002 U	0.013	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cyanide, Free	0.1	ppm	---	---	---	---	---	---	---	---
Cyanide, Amenable	-	ppm	0.005 U	0.012	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenol	2.25	ppm	0.015 U	0.015 U	0.015 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
USEPA Priority Pollutants ⁽⁴⁾	-	ppm	0.00615 J	0.00858 J	ND	0.00703	ND	0.00371 J	0.00141 J	0.003913

Table 21
Summary of Historical Leachate/Groundwater Analytical Results
Rockland County Sewer District #1 - Western Ramapo Treatment Plant
Sample Location: Manhole Immediately Upstream of Wet Well

Analyte	Maximum Concentration	Units	08/24/22	10/12/22	04/13/23	07/12/23	10/19/23	04/17/24	08/07/24
pH		S.U.	7.51	8.07	7.49	7.01	6.36	7.79	7.16
Phosphorous (Total)	-	ppm	0.082	0.135	0.232	0.068	0.195	0.071	0.111
Chloride	-	ppm	208	219	187	95.7	108	119	89.6
Ammonia	-	ppm	1.34	1.83	1.58	0.925	1.1	0.21	0.335
BOD	_(¹)	ppm	22	4	6	3	8	3	4
COD	-	ppm	141	54	46	23	41	26	25
Suspended Solids	_(²)	ppm	6	5	6	3	5	2	12
TKN	-	ppm	4.42	4.82	4.66	2.38	0.48	0.46	0.71
Total Dissolved Solids	-	ppm	722	78.4	684	413	494	490	421
O&G Non-Polar	25	ppm	5 U	5 U	5 U	5 U	5.2 U	4.6 U	5 U
Antimony	-	ppm	0.006 U	0.006 U	0.006 U	0.006 U	0.06 U	0.06 U	0.06 U
Arsenic	0.25	ppm	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U
Beryllium	-	ppm	0.001 U	0.001 U	0.001 U	0.001 U	0.003 U	0.003 U	0.003 U
Boron	1.0	ppm	0.155	0.156	0.147	0.149 B	0.2 U	0.2 U	0.2 U
Cadmium	0.07	ppm	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U
Chromium	0.6	ppm	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Copper	1.0	ppm	0.078	0.00873 *	0.091 *	0.0308	0.125	0.02 U	0.027
Lead	1.0	ppm	0.002 U	0.002 U	0.002 U	0.002 U	0.05 U	0.05 U	0.05 U
Manganese	-	ppm	0.186	0.133	0.217	0.257	0.501	0.383	0.048
Mercury	0.05	ppm	0.0005 U	0.0005 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	0.14	ppm	0.002 U	0.002 U	0.002 U	0.002 U	0.025 U	0.025 U	0.025 U
Nickel	1.0	ppm	0.00342	0.002 U	0.00378	0.00271	0.04 U	0.04 U	0.04 U
Selenium	0.1	ppm	0.006 U	0.006 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U
Silver	2.3	ppm	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U
Thallium	-	ppm	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U
Zinc	3.0	ppm	0.117	0.03 U	0.13	0.185	0.198	0.02 U	0.079
Cyanide Total	1.0	ppm	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cyanide, Free	0.1	ppm	---	---	---	---	---	---	---
Cyanide, Amenable	-	ppm	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenol	2.25	ppm	0.05 U	0.05 U	0.05 U	0.147	0.005 U	0.005 U	0.005 U
USEPA Priority Pollutants ⁽⁴⁾	-	ppm	0.00151	0.00245	0.00395	ND	ND	ND	ND

Table 21
Summary of Historical Leachate/Groundwater Analytical Results
Rockland County Sewer District #1 - Western Ramapo Treatment Plant
Sample Location: Manhole Immediately Upstream of Wet Well

Notes:

- = No maximum concentration is provided.

--- = Not sampled for.

B = The analyte was detected above the reporting limit in the associated method blank.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U = Reported at concentration less than indicated reporting limit.

(1) A surcharge will apply if BOD is > 250 ppm

(2) A surcharge will apply if Suspended Solids is > 300 ppm

(3) Could not report free Cyanide due to matrix interference

(4) Excluding metals, Phenol and Cyanides

(5) Does not include : Acrolein, Acrylonitrile, Benzidine, Parachlorometa cresol, 1, 2-diphenylhydrazine, 4-chlorophenyl phenyl ether, 4-bromophenyl phenyl ether, Methyl chloride, Methyl bromide, 4, 6 -dinitro-o-cresol

ND = Not Detected.

* = Concentration is partially illegible on laboratory report and is assumed.

APPENDIX A

INSPECTION CHECKLIST AND INSTITUTIONAL AND ENGINEERING CONTROLS EVALUATION FORM

Inspection Checklist and Institutional and Engineering Controls Evaluation Form
Town of Ramapo Landfill
250 Torne Valley Road, Hillburn, New York

Date: March 20, 2025
Inspected By: Brian Chew – Sterling Environmental Engineering, P.C.

Landfill Property Item	Condition: (Check applicable items)			Remarks
	Acceptable	Not Acceptable	Not Present	
1. Vegetative Cover	X			Excellent Condition – No problems noted.
2. Surface Water Drainage Structures (Swales, Downchutes, Channels, Plunge Pools, Outfalls to Torne Brook).	X			Good condition – No problems noted.
a. Sediment Build-Up in Drainage Structures	X			Good condition – One location of sediment/vegetative debris accumulation at culvert inlet in concrete swale immediately upgradient of Rockland Green weigh station.
b. Pooling or Ponding	X			Good condition – No problems noted.
c. Slope Integrity	X			Good condition – No problems noted.
d. Overall Adequacy	X			
e. Concrete Lining	X			
f. Gabion Lining	X			
g. Corrugated Metal Pipe (CMP) Lining	X			
3. Access Road	X			Good condition – No problems noted.
4. Landfill Cover System	X			
a. Erosion Damage			X	
b. Leachate Seeps			X	
c. Settlement			X	
d. Stone Aprons	X			

Landfill Property Item	Condition: (Check applicable items)			Remarks
	Acceptable	Not Acceptable	Not Present	
5. Gabion Retaining Walls	X			Good condition - No problems noted.
a. Structural	X			
b. Drainage Media Behind Wall	X			
6. Fence and Gates	X			Good condition - No problems noted.
7. Slope Stability	X			Good condition - No problems noted.
a. Landfill	X			
b. Mountain Side	X			
8. Gas Vents	X			Good overall condition – All gas vents were observed to be in stable condition.
a. Are Openings Unobstructed?	X			
b. Pipe Condition	X			
9. Burrow Holes			X	No burrow holes were observed.

Other	Yes	No
Obtain Groundwater Extraction Well Operation Period Records and Maintenance Records for Current Year	X	

Comments:

- The Town of Ramapo continues to maintain the Landfill in excellent condition. Regular maintenance continues to be performed to minimize to ensure proper operation of Landfill IEC's.
- All leaning gas vents have been inspected by Town of Ramapo personnel to ensure none are damaged and all are operating as designed.

APPENDIX B

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT
FOR LANDFILLS**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

This report form provides a standard format for owners of closed municipal solid waste landfills to report to the Department regarding post-closure monitoring and maintenance activities which have occurred during the past year. Use of this form will ensure that information needed by the operator and Department staff is readily available. Reporting of non-essential information is avoided. By completing and submitting this form on an annual basis, all reporting requirements connected with the closed landfill are satisfied and there is no need to submit any additional reports or paperwork. This form should be submitted once per year on a schedule which coincides with completion of the annual or fourth quarter groundwater monitoring event.

SECTION A - FACILITY DATA

1. REPORTING PERIOD (mm/dd/yy to mm/dd/yy): August 8, 2024 – March 20, 2025
2. OWNER OF LANDFILL: Town of Ramapo
3. ADDRESS OF LANDFILL: 250 Torne Valley Road
Hillburn, New York 10931
4. LOCATION OF LANDFILL: County: Rockland Municipality: Town of Ramapo
5. CONTACT PERSON: Name: Mike Sadowski Address: 237 Route 59
Phone: (845) 357-5100 Suffern, NY 10901
6. SIZE OF LANDFILL (Acres): 86.07
7. PERIOD OF OPERATION (Yr to Yr): 1950s - 1989
8. DATE OF COMPLETION OF CLOSURE CONSTRUCTION (mm/yy): September 30, 1997
9. TYPE OF LANDFILL CAP (check one): ☒ Geomembrane ☐ Clay ☐ Composite
☐ Other – Specify: _____
10. LANDFILL GAS MANAGEMENT (Check all that apply): ☒ Passive Venting ☐ Flares
☐ Gas Filter ☐ Gas Collection ☐ Power Generation ☐ Other- Specify: _____
11. LEACHATE MANAGEMENT: Does the landfill have a leachate collection system? ☒ Y ☐ N
12. DATE OF CLOSURE CERTIFICATION (mm/dd/yy): December 1998
13. NAME OF CERTIFYING ENGINEER: URS Greiner, Inc.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

14. GRANTED REGULATORY RELIEF VARIANCES (Check all that apply): ☐ Topsoil Layer
☐ Barrier Layer ☐ Barrier Protection Layer ☐ Gas Vent Layer I ☐ Gas Vent Layer II
☒ Post Closure Monitoring I ☐ Post Closure Monitoring II

15. DATE OF LAST MOWING OF VEGETATIVE COVER: October 2024

SECTION B - LANDFILL INSPECTION

1. DATE OF LAST INSPECTION (mm/dd/yy): March 20, 2025

2. NAME(S) OF INSPECTOR(S): Brian Chew and Paul Scholar, Sterling Environmental Engineering, P.C.

3. Was entire landfill surface and entire landfill perimeter inspected? ☒ Y ☐ N; If no, describe extent of inspection:

4. Was the entire landfill surface covered with suitable vegetation (e.g. shallow rooting) and free of soil erosion? ☒ Y ☐ N; If no, identify problems identified and corrective actions taken or planned:

5. Were active leachate discharges, iron-stained surface soils or other signs of leachate breakouts noted? ☐ Y ☒ N; If yes, describe the nature of the problem and corrective actions taken or planned:

6. Were areas of surface water ponding observed on the landfill surface? ☐ Y ☒ N; If yes, describe the nature of the problem and corrective actions taken or planned:

7. Were odors detected on or in the vicinity of the landfill? ☐ Y ☒ N; If yes, describe the nature of the problem and corrective actions taken or planned:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

8. Were vectors or evidence of vectors observed? ____ Y **X** N; If yes, describe the nature of the problem and corrective actions taken or planned:

9. Was damage to the landfill cover system, gas vents, monitoring wells, leachate collection system or other landfill components observed? ____ Y **X** N; If yes, describe the nature of the problem and corrective actions taken or planned:

All leaning gas vents were inspected by Town personnel and were determined to be stable and operating as designed. No further action required.

10. Were there signs of dumping, ruts caused by vehicle tires, camp fires, or other signs of unauthorized public access or encroachment? ____ Y **X** N; If yes, describe the nature of the problem and corrective actions taken or planned:

11. Were any other problems noted in addition to those identified in items 4 through 10, above?
____ Y **X** N; If yes, describe the nature of the problem and corrective actions taken or planned:

SECTION C - WATER QUALITY MONITORING

1. CURRENT WATER QUALITY MONITORING PROGRAM (Check One):

____ Quarterly Routine/Annual Baseline ____ Semi-Annual Baseline ____ Annual Baseline
X Other - Specify: Modified Part 360 Baseline Parameters every fifth quarter

2. DATE OF MOST RECENT WATER QUALITY SAMPLING EVENT (mm/dd/yy):

March 17, 2025 – March 20, 2025

3. INDICATE EACH SAMPLING EVENT COMPLETED DURING PAST YEAR AND ATTACH THE DATA SUMMARY SHEETS FOR EACH SAMPLING EVENT:

X 1st Quarter ____ 2nd Quarter ____ 3rd Quarter ____ 4th Quarter

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

4. LIST AND DESCRIBE THE WATER QUALITY MONITORING POINTS INCLUDED IN THE PROGRAM BY COMPLETING THE TABLE BELOW:

ID Number	Description: Indicate whether the monitoring point is for groundwater or surface water, upgradient or downgradient, completed in overburden or bedrock, and, if part of a well couplet, shallow or deep
1-OS	Groundwater Monitoring Well, Downgradient, Overburden, Shallow
1-I	Groundwater Monitoring Well, Downgradient, Overburden/Bedrock, Intermediate
1-R	Groundwater Monitoring Well, Downgradient, Overburden, Deep
2-OS	Groundwater Monitoring Well, Downgradient, Overburden, Shallow
2-I	Groundwater Monitoring Well, Downgradient, Overburden/Bedrock, Intermediate
3-OS/I	Groundwater Monitoring Well, Downgradient, Overburden, Shallow/Intermediate
3-R	Groundwater Monitoring Well, Downgradient, Overburden, Deep
4-OS	Groundwater Monitoring Well, Downgradient, Overburden, Shallow
4-I	Groundwater Monitoring Well, Downgradient, Overburden/Bedrock, Intermediate
4-R	Groundwater Monitoring Well, Downgradient, Overburden, Deep
6-I	Groundwater Monitoring Well, Downgradient, Overburden/Bedrock, Intermediate
6-R	Groundwater Monitoring Well, Downgradient, Overburden, Deep
7-OS	Groundwater Monitoring Well, Downgradient, Overburden, Shallow
7-I	Groundwater Monitoring Well, Downgradient, Overburden/Bedrock, Intermediate
7-R	Groundwater Monitoring Well, Downgradient, Overburden, Deep
8-OS	Groundwater Monitoring Well, Downgradient, Overburden, Shallow
8-I	Groundwater Monitoring Well, Downgradient, Overburden/Bedrock, Intermediate
8-R	Groundwater Monitoring Well, Downgradient, Overburden, Deep
9-OS	Groundwater Monitoring Well, Downgradient, Overburden, Shallow
9-I	Groundwater Monitoring Well, Downgradient, Overburden/Bedrock, Intermediate

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

9-R	Groundwater Monitoring Well, Downgradient, Bedrock, Deep
10-OS	Groundwater Monitoring Well, Downgradient, Overburden, Shallow
10-I	Groundwater Monitoring Well, Downgradient, Overburden/Bedrock, Intermediate
10-R	Groundwater Monitoring Well, Downgradient, Bedrock, Deep
UP-OS	Groundwater Monitoring Well, Upgradient, Overburden, Shallow
UP-I	Groundwater Monitoring Well, Upgradient, Overburden/Bedrock, Intermediate
UP-R	Groundwater Monitoring Well, Upgradient, Bedrock, Deep

5. Using the following table, summarize each parameter detected during the reporting period, at a downgradient monitoring point, at a concentration exceeding the applicable water quality standard. (Include parameters which are undetected, if detection limit exceeds the standard.)

Sample Date	Sampling Point	Parameter	Units	Sample Result	Applicable Standard	Upgradient Results
		See attached Tables in 2025 Post-Closure Monitoring Report				

6. Do results of the most recent water quality monitoring event indicate an improvement or a worsening in water quality when compared with those of previous water quality monitoring events? ____ Y X N; If yes, describe change, attach graphs or tables if appropriate.

The 2025 data are consistent with prior results. See historic data plots for selected parameters in Tables 6 through 19 of the 2025 Post Closure Monitoring Report.

SECTION D - IMPACTED OR POTENTIALLY IMPACTED RESIDENTIAL WATER SUPPLY WELLS

1. Are there residences served by private water supply wells located less than one mile from the landfill in the downgradient direction and not separated from the landfill by an intervening perennial stream or other groundwater discharge zone? X Y ____ N;

Located at 20 and 1-9 Torne Brook Road in Hillburn, NY. Both are separated from the Landfill by Torne Brook but are sampled as part of the Landfill monitoring plan.

If yes, provide the information requested in items 2 through 5, below.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

2. Indicate the distance between the downgradient edge of the landfill and the nearest residential water supply well, in feet: Approximately 450 feet (1-9 Torne Brook Road).

3. Have residential wells been sampled to determine whether there has been landfill-water quality impact? X Y ___ N; If yes, provide the following information:

Date of most recent sampling event (mm/dd/yy): 3/17/2025 Number of wells tested: 2

Samples collected by: STERLING. Was the County Health Department notified? X Y ___ N

Parameters tested: Modified Part 360 Baseline + Emerging Contaminants (PFAS and 1,4-Dioxane)

4. Using the following table, summarize each parameter detected during the reporting period, at a downgradient monitoring point, at a concentration exceeding the applicable drinking water standard. (Include parameters which are undetected, if detection limit exceeds the standard.)

Sample Date	Homeowner Name or Well ID	Parameter	Units	Sample Result	Applicable Standard
	(See Item 5, below)				

5. Explain cause of parameters exceeding standards, and if due to landfill-derived contamination, indicate what actions have been taken or are planned to mitigate water quality impact.

No MCL exceedances were reported for the March 2025 sampling event at PW-2. MCL exceedances for PFOA and PFOS were detected at PW-1. Refer to PCM Report.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

SECTION E - GAS MONITORING

1. Is landfill gas monitoring carried out at the landfill? X Y N; If yes, provide the following information:

Type of monitoring (Check all that are applicable)

- Landfill perimeter survey using temporary boreholes
 Landfill perimeter survey using permanent gas monitoring wells
 Landfill gas vents within waste mass (as well as inspection for blockage)
 X Interior survey of on-site and nearby structures
 Landfill final cover areas where stressed vegetation and/or fissures are evident
 Continuous automatic monitoring devices installed in buildings
 X Other-Specify: Inside monitoring wells, leachate manhole A-5, lift stations A-10 and W-20, and along the Landfill perimeter

Frequency of Monitoring: Quarterly Semi-annual Annual X Other-Specify: Every fifth quarter.

Date of Most Recent Monitoring Event (mm/dd/yy): March 17 – 20, 2025 see Figure 3 of 2025 PCM Report.
 (Attach data sheet and site plan showing sampling locations)

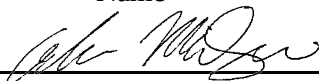
2. Have any explosive gas readings exceeding 25% of the lower explosive limit been detected during sampling events carried out during the past year? Y X N; If yes, indicate whether the readings indicate a potential threat to public safety, what actions have been taken or are planned to mitigate potential safety concerns or the rationale for why corrective action is not needed.

SECTION F - CERTIFICATION OF ACCURACY

I certify that the information provided in this form is accurate and complete, to the best of my knowledge. I understand, that knowingly providing false information, may be grounds for enforcement action.

Andrew M. Millspaugh, P.E.

Name



Signature

Vice President, Sterling Environmental Engineering, P.C.

Title

05/14/2025

Date

APPENDIX C
PHOTOGRAPH LOG

			DAILY PHOTOGRAPH LOG		
			Project: Ramapo Landfill – Post Closure Monitoring		
			Photos By: Brian Chew and Paul Scholar (STERLING)		
Photo No.	Date	Time			
1	3/17/2025	13:40			
Direction Looking:	Down				
Comments: View within Manhole MH A-5 where all leachate collection system flows are combined.					

Photo No.	Date	Time	
2	3/20/2025	9:01	
Direction Looking:	North		
Comments: View of concrete swale along western embankment of the southern Landfill cell and Torne Valley Road. IECE's observed to be in acceptable condition.			

			DAILY PHOTOGRAPH LOG		
			Project: Ramapo Landfill – Post Closure Monitoring		
			Photos By: Brian Chew and Paul Scholar (STERLING)		
Photo No.	Date	Time			
3	3/20/2025	9:06			
Direction Looking:		North			
Comments: View of concrete swale, gabion retaining wall and landfill cover system down chute along western embankment of the southern Landfill cell and Torne Valley Road. IECE's observed to be in acceptable condition.					

Photo No.	Date	Time			
4	3/20/2025	9:11			
Direction Looking:		Southwest			
Comments: View of well-maintained and healthy landfill cover system vegetation along western embankment of the southern Landfill cell.					

STERLING Sterling Environmental Engineering, P.C.			DAILY PHOTOGRAPH LOG
			Project: Ramapo Landfill – Post Closure Monitoring
			Photos By: Brian Chew and Paul Scholar (STERLING)
Photo No.	Date	Time	
5	3/20/2025	10:14	
Direction Looking:	Southwest		
Comments:			
View of woody debris and sediment accumulation within the concrete swale and obstructing the culvert inlet along Torne Valley Road, upstream of the Rockland Green Weigh Station.			

Photo No.	Date	Time
6	3/17/2025	17:42
Direction Looking:	East	
Comments:		
View of well-maintained landfill cover system drainage features along the western embankment of the northern Landfill cell. IECE's observed to be in acceptable condition.		



STERLING Sterling Environmental Engineering, P.C.			DAILY PHOTOGRAPH LOG	
			Project: Ramapo Landfill – Post Closure Monitoring	
			Photos By: Brian Chew and Paul Scholar (STERLING)	
Photo No.	Date	Time		
7	3/20/2025	9:18		
Direction Looking:	West			
Comments:				
View of concrete swale and leachate collection system manholes along western embankment of northern Landfill cell and Torne Valley Road. IECE’s observed to be in acceptable condition.				

Photo No.	Date	Time	
8	3/20/2025	8:51	
Direction Looking:	West		
Comments: View of well-maintained landfill cover system vegetation within the western embankment of the northern Landfill cell.			

STERLING Sterling Environmental Engineering, P.C.			DAILY PHOTOGRAPH LOG
			Project: Ramapo Landfill – Post Closure Monitoring
			Photos By: Brian Chew and Paul Scholar (STERLING)
Photo No.	Date	Time	
9	3/20/2025	8:49	
Direction Looking:	West		
Comments:			
View of well-maintained and healthy landfill cover system vegetation within the northern portion the northern Landfill cell. Non-mowed wildlife habitat area (foreground) observed to be in healthy condition.			

Photo No.	Date	Time
10	3/17/2025	17:02
Direction Looking:	West	
Comments: View of well-maintained and healthy landfill cover system vegetation within the western portion the northern Landfill cell.		



STERLING Sterling Environmental Engineering, P.C.			DAILY PHOTOGRAPH LOG	
			Project: Ramapo Landfill – Post Closure Monitoring	
			Photos By: Brian Chew and Paul Scholar (STERLING)	
Photo No.	Date	Time		
11	3/20/2025	8:54		
Direction Looking:	Southwest			
Comments:				
View of healthy landfill cover system vegetation and well maintained landfill cover system drainage features within the west-central portion of the Landfill. IECE’s observed to be in acceptable condition.				

Photo No.	Date	Time
12	3/17/2025	17:02
Direction Looking:	North	
Comments: View of landfill cover system drainage swale within the central portion the northern Landfill cell. IECE's observed to be in acceptable condition.		



			DAILY PHOTOGRAPH LOG		
			Project: Ramapo Landfill – Post Closure Monitoring		
			Photos By: Brian Chew and Paul Scholar (STERLING)		
Photo No.	Date	Time			
13	3/20/2025	8:53			
Direction Looking:	Southeast				
Comments: View of well-maintained and healthy landfill cover system vegetation within the crown of the northern Landfill cell. Non-mowed wildlife habitat area observed to be in healthy condition.					

Photo No.	Date	Time			
14	3/17/2025	16:51			
Direction Looking:	Northwest				
Comments: View of healthy landfill cover system vegetation and well-maintained landfill cover system drainage features along the eastern embankment of the northern Landfill cell. IECE's observed to be in acceptable condition.					

STERLING Sterling Environmental Engineering, P.C.			DAILY PHOTOGRAPH LOG
			Project: Ramapo Landfill – Post Closure Monitoring
			Photos By: Brian Chew and Paul Scholar (STERLING)
Photo No.	Date	Time	
15	3/17/2025	16:49	
Direction Looking:	West		
Comments:			
View of healthy landfill cover system vegetation along the southern embankment of the northern Landfill cell.			

Photo No.	Date	Time
16	3/20/2025	8:52
Direction Looking:	West	
Comments:		
View of healthy landfill cover system vegetation and well-maintained landfill cover system drainage features along the southern embankment of the northern Landfill cell. IECE's observed to be in acceptable condition.		



STERLING Sterling Environmental Engineering, P.C.			DAILY PHOTOGRAPH LOG
			Project: Ramapo Landfill – Post Closure Monitoring
			Photos By: Brian Chew and Paul Scholar (STERLING)
Photo No.	Date	Time	
17	3/20/2025	9:10	
Direction Looking:	Northeast		
Comments:			
View of healthy landfill cover system vegetation and well-maintained landfill cover system drainage features along the southwestern embankment of the northern Landfill cell. IECE’s observed to be in acceptable condition.			

Photo No.	Date	Time
18	3/20/2025	9:10
Direction Looking:	East	
Comments: View of healthy landfill cover system vegetation and well-maintained landfill cover system drainage features along the southern embankment of the northern Landfill cell. IECE's observed to be in acceptable condition.		



STERLING Sterling Environmental Engineering, P.C.			DAILY PHOTOGRAPH LOG	
			Project: Ramapo Landfill – Post Closure Monitoring	
			Photos By: Brian Chew and Paul Scholar (STERLING)	
Photo No.	Date	Time		
19	3/20/2025	8:54		
Direction Looking:	South			
Comments:				
View of healthy landfill cover system vegetation and well-maintained landfill cover system drainage features along the eastern embankment of the southern Landfill cell. IECE’s observed to be in acceptable condition.				

Photo No.	Date	Time	
20	3/20/2025	9:02	
Direction Looking:	West		
Comments: View of well-maintained and healthy landfill cover system vegetation along the southern embankment of the southern Landfill cell.			

APPENDIX D

LABORATORY ANALYTICAL RESULTS - GROUNDWATER



ANALYTICAL REPORT

Lab Number:	L2515295
Client:	Sterling Environmental Engineering 24 Wade Road Latham, NY 12110
ATTN:	Andrew Millspaugh
Phone:	(518) 456-4900
Project Name:	RAMAPO LANDFILL
Project Number:	20010
Report Date:	04/15/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2515295-01	UP-OS	WATER	SUFFERN, NY	03/17/25 13:00	03/17/25
L2515295-02	UP-I	WATER	SUFFERN, NY	03/17/25 13:40	03/17/25
L2515295-03	UP-R	WATER	SUFFERN, NY	03/17/25 12:30	03/17/25
L2515295-04	10-OS	WATER	SUFFERN, NY	03/17/25 10:05	03/17/25
L2515295-05	10-I	WATER	SUFFERN, NY	03/17/25 11:40	03/17/25
L2515295-06	10-R	WATER	SUFFERN, NY	03/17/25 11:10	03/17/25
L2515295-07	MH-A5	WATER	SUFFERN, NY	03/17/25 14:00	03/17/25
L2515295-08	DUP031725	WATER	SUFFERN, NY	03/17/25 00:00	03/17/25
L2515295-09	EB031725	WATER	SUFFERN, NY	03/17/25 12:00	03/17/25
L2515295-10	TB031725	WATER	SUFFERN, NY	03/17/25 00:00	03/17/25
L2515295-11	RPD RR	WATER	SUFFERN, NY	03/17/25 17:00	03/17/25
L2515295-12	PW-1	DW	SUFFERN, NY	03/17/25 15:30	03/17/25
L2515295-13	PW-2	DW	SUFFERN, NY	03/17/25 16:20	03/17/25
L2515295-14	FB031725	DW	SUFFERN, NY	03/17/25 15:20	03/17/25
L2515295-15	DUP031725	DW	SUFFERN, NY	03/17/25 00:00	03/17/25

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Case Narrative

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

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

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

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

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

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

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Case Narrative (continued)

Report Submission

April 15, 2025: This final report includes the results of all requested analyses.

March 31, 2025: This is a preliminary report.

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

Perfluorinated Alkyl Acids by 1633

L2515295-04: The Extracted Internal Standard recovery was above the acceptance criteria for perfluoro[1,2,3-13c3]hexanesulfonic acid (m3pfhxs) (132%). Since the sample was non-detect to the RL for all associated target analytes, re-analysis was not required.

WG2047829-1: The Extracted Internal Standard recovery was above the acceptance criteria for perfluoro[13c5]pentanoic acid (m5pfpea) (144%). Since the Method Blank was non-detect to the RL for all associated target analytes, re-analysis was not required.

The Extracted Internal Standard recoveries for the WG2047829-4 MS performed on L2515295-04 are outside the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]decanesulfonic acid (m2-8:2fts) (33%) and n-deuteriomethylperfluoro-1-octanesulfonamidoacetic acid (d3-nmefosaa) (39%). The associated MS spike compounds are within criteria; therefore, no further action was taken.

Perfluorinated Alkyl Acids by EPA 537.1

L2515295-13 and -14: The sample was re-analyzed due to QC failures in the original analysis. The results of the re-analysis are reported.

The WG2046318-3/-4 MS/MSD recoveries performed on L2515295-12 are outside the acceptance criteria for perfluorobutanesulfonic acid (pfbs) (45%/40%), perfluorohexanesulfonic acid (pfhxs) (MS 157%), perfluorononanoic acid (pfna) (158%/201%), and perfluorotetradecanoic acid (pfta) (MSD 156%).

The WG2046318-3/-4 MS/MSD RPD performed on L2515295-12 is outside the acceptance criteria for n-ethyl perfluorooctanesulfonamidoacetic acid (netfosaa) (37%).

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Case Narrative (continued)

WG2046318-3/-4: The Matrix Spike level is at the Reporting Limit (RL); any detections below the RL in the native sample are not included in the % Recovery calculation.

The surrogate recovery for the WG2046318-3 MS performed on L2515295-12 is outside the acceptance criteria for 2,3,3,3-tetrafluoro-2-[1,1,2,2,3,3,3-heptafluoropropoxy]-13c3-propanoic acid (m3hfpo-da) (69%).

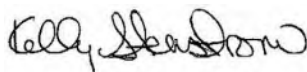
The surrogate recoveries in the native sample are within acceptance criteria.

Alkalinity, Total

The WG2043469-5 Laboratory Duplicate RPD performed on L2515295-04 is above the acceptance criteria for alkalinity, total (15%); however, the sample and duplicate results are less than five times the reporting limit and the RPD is valid.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 04/15/25

ORGANICS

VOLATILES

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-01
Client ID: UP-OS
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 13:00
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/25 11:44
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	113		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-02
Client ID: UP-I
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 13:40
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/25 12:06
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	117		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-03
Client ID: UP-R
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 12:30
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/25 12:28
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	117		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-04
Client ID: 10-0S
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 10:05
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/25 12:51
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	116		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-05
Client ID: 10-I
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 11:40
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/25 13:58
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	111		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-06
 Client ID: 10-R
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 11:10
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 03/21/25 14:20
 Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	113		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-08
Client ID: DUP031725
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 00:00
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/25 14:43
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	116		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-10
Client ID: TB031725
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 00:00
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/25 14:15
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-12
Client ID: PW-1
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 15:30
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Dw
Analytical Method: 1,8260D
Analytical Date: 03/24/25 12:18
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	116		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-13
Client ID: PW-2
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 16:20
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Dw
Analytical Method: 1,8260D
Analytical Date: 03/24/25 12:40
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	114		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/21/25 09:01
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10 Batch: WG2044219-5					
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Benzene	ND		ug/l	0.50	0.16
Ethylbenzene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/21/25 11:21
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06,08 Batch: WG2044222-5					
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Benzene	ND		ug/l	0.50	0.16
Ethylbenzene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	114		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/24/25 11:11
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12-13 Batch: WG2045345-5					
1,1-Dichloroethane	ND		ug/l	0.75	0.21
Chlorobenzene	ND		ug/l	0.50	0.18
Benzene	ND		ug/l	0.50	0.16
Ethylbenzene	ND		ug/l	0.50	0.17

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	116		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10 Batch: WG2044219-3 WG2044219-4								
Chlorobenzene	95		96		75-130	1		20
1,2-Dichloroethane	82		87		70-130	6		20
Benzene	90		97		70-130	7		20
Ethylbenzene	92		96		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		93		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	95		98		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08 Batch: WG2044222-3 WG2044222-4								
Chlorobenzene	100		100		75-130	0		20
1,2-Dichloroethane	100		110		70-130	10		20
Benzene	89		90		70-130	1		20
Ethylbenzene	97		99		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	114		112		70-130
Toluene-d8	103		103		70-130
4-Bromofluorobenzene	92		95		70-130
Dibromofluoromethane	101		102		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12-13 Batch: WG2045345-3 WG2045345-4								
1,1-Dichloroethane	98		93		70-130	5		20
Chlorobenzene	100		98		75-130	2		25
Benzene	87		83		70-130	5		25
Ethylbenzene	98		93		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		108		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	98		100		70-130
Dibromofluoromethane	103		99		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08 QC Batch ID: WG2044222-6 WG2044222-7 QC Sample: L2515295-04 Client ID: 10-0S												
Chlorobenzene	ND	10	10	100		10	100		75-130	0		20
1,2-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
Benzene	ND	10	9.5	95		9.5	95		70-130	0		20
Ethylbenzene	ND	10	10	100		10	100		70-130	0		20

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		113		70-130
4-Bromofluorobenzene	94		99		70-130
Dibromofluoromethane	104		103		70-130
Toluene-d8	102		102		70-130

SEMIVOLATILES

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-01
 Client ID: UP-OS
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 13:00
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/21/25 12:06
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	163	36.8	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	43			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-01
Client ID: UP-OS
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 13:00
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/03/25 11:27
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	5.88	0.485	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.94	0.331	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.47	0.368	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.88	0.838	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.47	0.228	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.47	0.191	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.47	0.220	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.47	0.125	1
Perfluorooctanoic Acid (PFOA)	0.500	J	ng/l	1.47	0.243	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.88	4.42	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.47	0.184	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.47	0.243	1
Perfluorooctanesulfonic Acid (PFOS)	0.272	J	ng/l	1.47	0.243	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.47	0.191	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.88	1.12	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.47	0.184	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.47	0.441	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.47	0.162	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.47	0.125	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.47	0.088	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.47	0.441	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.47	0.198	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.47	0.169	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.47	0.147	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.88	1.47	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.88	0.346	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.47	0.220	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-01**Date Collected:** 03/17/25 13:00**Client ID:** UP-OS**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.88	0.404	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.88	0.412	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.47	0.206	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.47	0.323	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.7	1.20	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.7	1.01	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.94	0.228	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.94	0.331	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.94	0.301	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.94	0.500	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.35	0.492	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	36.8	3.91	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	36.8	2.93	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-01

Date Collected: 03/17/25 13:00

Client ID: UP-OS

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	109		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	120		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	112		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	109		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	122		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	105		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	113		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	116		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	89		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	113		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	117		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	89		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	90		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	83		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	94		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	102		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	92		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	80		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	73		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	119		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	66		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	69		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	94		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	98		10-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-02
 Client ID: UP-I
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 13:40
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/21/25 12:31
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	33.9	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	52			15-110		

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-02
 Client ID: UP-I
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 13:40
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 04/03/25 11:45
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	5.81	0.479	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.90	0.327	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.45	0.363	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.81	0.828	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.45	0.225	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.45	0.189	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.45	0.218	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.45	0.123	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.45	0.240	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.81	4.37	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.45	0.182	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.45	0.240	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.45	0.240	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.45	0.189	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.81	1.11	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.45	0.182	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.45	0.436	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.45	0.160	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.45	0.123	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.45	0.087	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.45	0.436	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.45	0.196	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.45	0.167	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.45	0.145	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.81	1.45	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.81	0.341	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.45	0.218	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-02**Date Collected:** 03/17/25 13:40**Client ID:** UP-I**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.81	0.399	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.81	0.407	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.45	0.203	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.45	0.320	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.5	1.18	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.5	1.00	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.90	0.225	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.90	0.327	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.90	0.298	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.90	0.494	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.26	0.486	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	36.3	3.86	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	36.3	2.89	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-02

Date Collected: 03/17/25 13:40

Client ID: UP-I

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	110		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	112		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	112		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	112		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	96		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	98		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	114		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	120		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	91		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	104		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	104		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	116		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	85		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	82		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	106		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	97		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	99		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	92		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	86		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	115		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	61		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	68		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	92		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	99		10-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-03
 Client ID: UP-R
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 12:30
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/21/25 12:55
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	33.9	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			51		15-110	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-03
Client ID: UP-R
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 12:30
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/03/25 11:54
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	5.90	0.487	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.95	0.332	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.47	0.369	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.90	0.841	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.47	0.229	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.47	0.192	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.47	0.221	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.47	0.125	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.47	0.243	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.90	4.44	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.47	0.184	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.47	0.243	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.47	0.243	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.47	0.192	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.90	1.13	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.47	0.184	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.47	0.442	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.47	0.162	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.47	0.125	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.47	0.089	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.47	0.442	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.47	0.199	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.47	0.170	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.47	0.147	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.90	1.47	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.90	0.347	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.47	0.221	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-03**Date Collected:** 03/17/25 12:30**Client ID:** UP-R**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.90	0.406	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.90	0.413	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.47	0.206	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.47	0.324	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.7	1.20	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.7	1.02	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.95	0.229	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.95	0.332	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.95	0.302	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.95	0.501	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.37	0.494	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	36.9	3.92	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	36.9	2.94	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-03**Date Collected:** 03/17/25 12:30**Client ID:** UP-R**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	112				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	114				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	118				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	195				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	104				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	97				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	110				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	122				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	102				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	111				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	108				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	109				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	106				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	93				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	112				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	98				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	105				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	95				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	91				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	99				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	76				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	72				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	86				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	91				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-04
 Client ID: 10-0S
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 10:05
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/21/25 13:20
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	42			15-110		

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-04
 Client ID: 10-0S
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 10:05
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 04/03/25 12:03
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	5.91	0.488	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.96	0.333	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.48	0.370	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.91	0.843	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.48	0.229	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.48	0.192	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.48	0.222	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.48	0.126	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.48	0.244	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.91	4.45	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.48	0.185	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.48	0.244	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.48	0.244	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.48	0.192	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.91	1.13	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.48	0.185	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.48	0.444	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.48	0.163	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.48	0.126	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.48	0.089	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.48	0.444	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.48	0.200	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.48	0.170	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.48	0.148	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.91	1.48	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.91	0.347	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.48	0.222	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-04**Date Collected:** 03/17/25 10:05**Client ID:** 10-0S**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.91	0.406	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.91	0.414	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.48	0.207	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.48	0.325	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.8	1.20	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.8	1.02	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.96	0.229	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.96	0.333	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.96	0.303	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.96	0.503	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.39	0.495	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	37.0	3.93	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	37.0	2.94	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-04

Date Collected: 03/17/25 10:05

Client ID: 10-0S

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	113				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	122				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	109				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	93				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	110				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	114				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	132			Q	40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	110				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	80				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	101				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	91				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	82				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	59				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	45				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	66				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	92				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	48				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	67				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	61				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	117				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	56				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	59				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	84				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	88				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-05
Client ID: 10-I
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 11:40
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 03/21/25 14:34
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	51			15-110		

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-05
 Client ID: 10-I
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 11:40
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 04/03/25 12:30
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	5.78	0.477	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.89	0.325	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.44	0.361	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.78	0.823	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.44	0.224	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.44	0.188	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.44	0.217	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.44	0.123	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.44	0.238	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.78	4.35	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.44	0.180	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.44	0.238	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.44	0.238	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.44	0.188	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.78	1.10	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.44	0.180	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.44	0.433	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.44	0.159	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.44	0.123	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.44	0.087	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.44	0.433	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.44	0.195	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.44	0.166	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.44	0.144	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.78	1.44	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.78	0.339	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.44	0.217	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-05

Date Collected: 03/17/25 11:40

Client ID: 10-I

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.78	0.397	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.78	0.404	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.44	0.202	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.44	0.318	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.4	1.18	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.4	0.997	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.89	0.224	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.89	0.325	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.89	0.296	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.89	0.491	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.22	0.484	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	36.1	3.84	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	36.1	2.87	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-05

Date Collected: 03/17/25 11:40

Client ID: 10-I

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	110		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	114		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	96		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	100		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	101		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	105		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	102		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	112		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	80		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	105		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	104		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	95		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	71		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	81		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	88		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	88		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	82		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	74		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	74		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	101		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	69		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	70		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	83		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	90		10-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-06
Client ID: 10-R
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 11:10
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 03/21/25 14:59
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			46		15-110	

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-06
 Client ID: 10-R
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 11:10
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 04/03/25 12:39
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.17	0.509	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.08	0.347	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.54	0.385	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.17	0.879	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.54	0.239	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.54	0.200	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.54	0.231	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.54	0.131	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.54	0.254	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.17	4.64	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.54	0.193	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.54	0.254	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.54	0.254	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.54	0.200	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.17	1.18	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.54	0.193	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.54	0.462	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.54	0.170	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.54	0.131	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.54	0.093	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.54	0.462	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.54	0.208	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.54	0.177	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.54	0.154	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.17	1.54	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.17	0.362	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.54	0.231	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-06**Date Collected:** 03/17/25 11:10**Client ID:** 10-R**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.17	0.424	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.17	0.432	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.54	0.216	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.54	0.339	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.4	1.26	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.4	1.06	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.08	0.239	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.08	0.347	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.08	0.316	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.08	0.524	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.71	0.516	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	38.5	4.10	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	38.5	3.07	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-06

Date Collected: 03/17/25 11:10

Client ID: 10-R

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	105				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	117				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	119				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	127				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	114				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	99				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	108				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	118				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	90				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	103				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	94				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	89				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	83				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	65				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	90				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	79				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	68				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	80				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	74				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	116				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	53				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	52				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	75				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	79				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-07
 Client ID: MH-A5
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 14:00
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/21/25 15:23
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	2360		ng/l	150	33.9	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	50			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-07
Client ID: MH-A5
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 14:00
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/03/25 13:11
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	31.4		ng/l	6.28	0.518	1
Perfluoropentanoic Acid (PFPeA)	7.56		ng/l	3.14	0.353	1
Perfluorobutanesulfonic Acid (PFBS)	3.04		ng/l	1.57	0.392	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.28	0.895	1
Perfluorohexanoic Acid (PFHxA)	8.64		ng/l	1.57	0.243	1
Perfluoropentanesulfonic Acid (PFPeS)	0.589	J	ng/l	1.57	0.204	1
Perfluoroheptanoic Acid (PFHpA)	4.68		ng/l	1.57	0.235	1
Perfluorohexanesulfonic Acid (PFHxS)	2.07		ng/l	1.57	0.133	1
Perfluorooctanoic Acid (PFOA)	18.7		ng/l	1.57	0.259	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.28	4.72	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.228	J	ng/l	1.57	0.196	1
Perfluorononanoic Acid (PFNA)	36.4		ng/l	1.57	0.259	1
Perfluorooctanesulfonic Acid (PFOS)	12.2		ng/l	1.57	0.259	1
Perfluorodecanoic Acid (PFDA)	0.628	J	ng/l	1.57	0.204	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.28	1.20	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.57	0.196	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.644	J	ng/l	1.57	0.471	1
Perfluoroundecanoic Acid (PFUnA)	0.966	J	ng/l	1.57	0.173	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.57	0.133	1
Perfluorooctanesulfonamide (PFOSA)	0.408	J	ng/l	1.57	0.094	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.23	J	ng/l	1.57	0.471	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.57	0.212	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.57	0.180	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.57	0.157	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.28	1.57	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.28	0.369	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.57	0.235	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-07**Date Collected:** 03/17/25 14:00**Client ID:** MH-A5**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.28	0.432	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.28	0.440	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.57	0.220	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.57	0.345	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.7	1.28	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.7	1.08	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.14	0.243	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.14	0.353	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.14	0.322	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.14	0.534	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.85	0.526	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	39.2	4.18	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	39.2	3.12	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-07**Date Collected:** 03/17/25 14:00**Client ID:** MH-A5**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	107				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	105				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	122				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	191				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	105				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	104				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	100				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	110				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	147				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	102				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	103				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	112				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	106				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	86				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	105				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	89				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	103				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	85				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	72				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	111				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	72				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	73				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	78				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	79				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-08
Client ID: DUP031725
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 00:00
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 03/21/25 15:47
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	45			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-08
Client ID: DUP031725
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 00:00
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/03/25 13:20
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.36	0.525	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.18	0.358	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.59	0.398	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.36	0.907	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.59	0.246	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.59	0.207	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.59	0.239	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.59	0.135	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.59	0.262	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.36	4.79	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.59	0.199	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.59	0.262	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.59	0.262	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.59	0.207	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.36	1.22	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.59	0.199	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.59	0.477	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.59	0.175	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.59	0.135	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.59	0.095	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.59	0.477	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.59	0.215	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.59	0.183	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.59	0.159	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.36	1.59	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.36	0.374	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.59	0.239	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-08

Date Collected: 03/17/25 00:00

Client ID: DUP031725

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.36	0.437	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUDS)	ND		ng/l	6.36	0.445	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.59	0.223	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.59	0.350	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.9	1.30	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.9	1.10	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.18	0.246	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.18	0.358	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.18	0.326	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.18	0.541	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.95	0.533	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	39.8	4.23	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	39.8	3.16	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-08

Date Collected: 03/17/25 00:00

Client ID: DUP031725

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	101				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	119				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	116				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	117				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	110				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	109				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	110				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	107				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	95				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	117				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	109				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	113				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	90				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	73				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	99				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	82				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	75				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	91				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	76				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	120				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	65				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	66				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	77				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	81				10-130	

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-09
 Client ID: EB031725
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 12:00
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 04/03/25 13:29
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.92	0.570	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.46	0.389	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.73	0.432	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.92	0.986	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.73	0.268	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.73	0.225	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.73	0.259	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.73	0.147	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.73	0.285	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.92	5.20	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.73	0.216	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.73	0.285	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.73	0.285	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.73	0.225	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.92	1.32	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.73	0.216	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.73	0.519	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.73	0.190	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.73	0.147	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.73	0.104	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.73	0.519	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.73	0.233	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.73	0.199	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.73	0.173	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.92	1.73	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.92	0.406	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.73	0.259	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS****Lab ID:** L2515295-09**Date Collected:** 03/17/25 12:00**Client ID:** EB031725**Date Received:** 03/17/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.92	0.475	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUDS)	ND		ng/l	6.92	0.484	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.73	0.242	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.73	0.380	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	17.3	1.41	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	17.3	1.19	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.46	0.268	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.46	0.389	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.46	0.354	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.46	0.588	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.64	0.579	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	43.2	4.60	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	43.2	3.44	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-09

Date Collected: 03/17/25 12:00

Client ID: EB031725

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	109				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	125				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	121				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	97				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	108				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	115				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	110				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	113				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	78				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	128				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	111				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	118				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	81				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	83				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	112				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	98				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	72				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	92				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	87				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	112				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	66				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	70				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	91				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	98				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-12
 Client ID: PW-1
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 15:30
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Dw
 Analytical Method: 120,522
 Analytical Date: 03/24/25 11:05
 Analyst: CSP

Extraction Method: EPA 522
 Extraction Date: 03/20/25 19:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by EPA 522 - Mansfield Lab						
1,4-Dioxane	0.153		ug/l	0.150	0.150	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	93			70-130		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-12
Client ID: PW-1
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 15:30
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 03/28/25 16:47
Analyst: RDB

Extraction Method: EPA 537.1
Extraction Date: 03/28/25 07:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	2.57		ng/l	1.96	0.654	1
Perfluorohexanoic Acid (PFHxA)	2.19		ng/l	1.96	0.654	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	1.96	0.654	1
Perfluoroheptanoic Acid (PFHpA)	2.60		ng/l	1.96	0.654	1
Perfluorohexanesulfonic Acid (PFHxS)	0.783	J	ng/l	1.96	0.654	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.96	0.654	1
Perfluorooctanoic Acid (PFOA)	11.5		ng/l	1.96	0.654	1
Perfluorononanoic Acid (PFNA)	1.48	J	ng/l	1.96	0.654	1
Perfluorooctanesulfonic Acid (PFOS)	4.17		ng/l	1.96	0.654	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.96	0.654	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.96	0.654	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.96	0.654	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.96	0.654	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.96	0.654	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.96	0.654	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.96	0.654	1
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	1.96	0.654	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.96	0.654	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	72		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	75		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	91		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	100		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-13
 Client ID: PW-2
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 16:20
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Dw
 Analytical Method: 120,522
 Analytical Date: 03/24/25 11:28
 Analyst: CSP

Extraction Method: EPA 522
 Extraction Date: 03/20/25 19:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by EPA 522 - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.156	0.156	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	89			70-130		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-13 R
Client ID: PW-2
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 16:20
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 03/30/25 10:49
Analyst: RDB

Extraction Method: EPA 537.1
Extraction Date: 03/28/25 07:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.06	0.688	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.06	0.688	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	2.06	0.688	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.06	0.688	1
Perfluorohexanesulfonic Acid (PFHxS)	0.791	J	ng/l	2.06	0.688	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.06	0.688	1
Perfluorooctanoic Acid (PFOA)	3.59		ng/l	2.06	0.688	1
Perfluorononanoic Acid (PFNA)	0.696	J	ng/l	2.06	0.688	1
Perfluorooctanesulfonic Acid (PFOS)	3.26		ng/l	2.06	0.688	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.06	0.688	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.06	0.688	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.06	0.688	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.06	0.688	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.06	0.688	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.06	0.688	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.06	0.688	1
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	2.06	0.688	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.06	0.688	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	83		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	88		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	94		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	92		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-14 R
Client ID: FB031725
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 15:20
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:

Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 03/30/25 10:57
Analyst: RDB

Extraction Method: EPA 537.1
Extraction Date: 03/28/25 07:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.08	0.693	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.08	0.693	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	2.08	0.693	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.08	0.693	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.08	0.693	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.08	0.693	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.08	0.693	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.08	0.693	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.08	0.693	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.08	0.693	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.08	0.693	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.08	0.693	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.08	0.693	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.08	0.693	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.08	0.693	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.08	0.693	1
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	2.08	0.693	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.08	0.693	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	74		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	76		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	83		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	91		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-15
 Client ID: DUP031725
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 00:00
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 120,522
 Analytical Date: 03/24/25 11:50
 Analyst: CSP

Extraction Method: EPA 522
 Extraction Date: 03/20/25 19:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by EPA 522 - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.158	0.158	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			89		70-130	

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-15
 Client ID: DUP031725
 Sample Location: SUFFERN, NY

Date Collected: 03/17/25 00:00
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 133,537.1
 Analytical Date: 03/28/25 17:47
 Analyst: RDB

Extraction Method: EPA 537.1
 Extraction Date: 03/28/25 07:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	2.06		ng/l	2.00	0.667	1
Perfluorohexanoic Acid (PFHxA)	2.41		ng/l	2.00	0.667	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	2.00	0.667	1
Perfluoroheptanoic Acid (PFHpA)	3.27		ng/l	2.00	0.667	1
Perfluorohexanesulfonic Acid (PFHxS)	0.911	J	ng/l	2.00	0.667	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	0.667	1
Perfluorooctanoic Acid (PFOA)	11.3		ng/l	2.00	0.667	1
Perfluorononanoic Acid (PFNA)	1.61	J	ng/l	2.00	0.667	1
Perfluorooctanesulfonic Acid (PFOS)	3.44		ng/l	2.00	0.667	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.667	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	0.667	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.667	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.667	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.667	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.667	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	0.667	1
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	2.00	0.667	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.667	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	74		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	76		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	93		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	85		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 03/21/25 10:26
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/19/25 14:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 01-08 Batch: WG2042564-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	47		15-110

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 120,522
 Analytical Date: 03/24/25 09:59
 Analyst: CSP

Extraction Method: EPA 522
 Extraction Date: 03/20/25 06:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by EPA 522 - Mansfield Lab for sample(s): 12-13,15 Batch: WG2043148-1					
1,4-Dioxane	ND		ug/l	0.150	0.150

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	75		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 133,537.1
Analytical Date: 03/28/25 16:29
Analyst: RDB

Extraction Method: EPA 537.1
Extraction Date: 03/28/25 07:37

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab for sample(s): 12-15 Batch: WG2046318-1					
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.668
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.668
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	2.00	0.668
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.668
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.668
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	0.668
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.668
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.668
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.668
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.668
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	0.668
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.668
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.668
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.668
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.668
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	0.668
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.668
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.668

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	94		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	100		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	112		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	104		70-130



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 04/03/25 10:42
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-09 Batch: WG2047829-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	0.528
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.360
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.400
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.248
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.240
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.136
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.264
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.264
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.264
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 04/03/25 10:42
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-09 Batch: WG2047829-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Analytical Method: 144,1633
 Analytical Date: 04/03/25 10:42
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-09 Batch: WG2047829-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	109		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	144	Q	40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	118		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	102		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	113		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	115		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	110		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	111		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	92		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	128		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	112		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	109		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	84		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	73		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	110		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	102		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	85		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	101		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	95		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	116		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	61		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	65		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	100		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	102		10-130



Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab Associated sample(s): 01-08 Batch: WG2042564-2 WG2042564-3								
1,4-Dioxane	138		136		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	54		51		15-110

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by EPA 522 - Mansfield Lab Associated sample(s): 12-13,15 Batch: WG2043148-2 WG2043148-3								
1,4-Dioxane	87		92		70-130	6		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	87		87		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 12-15 Batch: WG2046318-2								
Perfluorobutanesulfonic Acid (PFBS)	77		-		50-150	-		30
Perfluorohexanoic Acid (PFHxA)	70		-		50-150	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	67		-		50-150	-		30
Perfluoroheptanoic Acid (PFHpA)	89		-		50-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	125		-		50-150	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	97		-		50-150	-		30
Perfluorooctanoic Acid (PFOA)	89		-		50-150	-		30
Perfluorononanoic Acid (PFNA)	97		-		50-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	99		-		50-150	-		30
Perfluorodecanoic Acid (PFDA)	98		-		50-150	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	122		-		50-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	97		-		50-150	-		30
Perfluoroundecanoic Acid (PFUnA)	106		-		50-150	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	116		-		50-150	-		30
Perfluorododecanoic Acid (PFDoA)	90		-		50-150	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	116		-		50-150	-		30
Perfluorotridecanoic Acid (PFTrDA)	148		-		50-150	-		30
Perfluorotetradecanoic Acid (PFTA)	126		-		50-150	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 12-15 Batch: WG2046318-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	73				70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	79				70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	98				70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	100				70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 Batch: WG2047829-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	101		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	106		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	106		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	118		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	104		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	100		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	96		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	103		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	94		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	104		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	93		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	114		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	89		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	98		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	116		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	82		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	106		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	106		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	70		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	105		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	94		-		70-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 Batch: WG2047829-2 LOW LEVEL								
Perfluorododecanoic Acid (PFDoA)	105		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	93		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	111		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	96		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	131		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	84		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	100		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	94		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	126		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	118		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	100		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	102		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	95		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	101		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	118		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	119		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	99		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	116		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	112		-		50-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 Batch: WG2047829-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	105				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	108				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	102				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	92				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	99				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	103				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	103				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	125				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	80				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	97				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	112				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	110				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	71				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	89				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	99				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	91				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	80				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	97				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	90				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	114				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	54				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	57				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	90				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	98				10-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 Batch: WG2047829-3								
Perfluorobutanoic Acid (PFBA)	105		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	100		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	104		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	115		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	109		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	97		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	106		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	96		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	108		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	106		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	97		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	95		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	97		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	97		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	100		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	89		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	93		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	104		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	85		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	97		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	114		-		70-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 Batch: WG2047829-3								
Perfluorododecanoic Acid (PFDoA)	115		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	107		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	110		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	108		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	121		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	88		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	112		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUs)	119		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	118		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	109		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	106		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	107		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	101		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	100		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	115		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	113		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	92		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	109		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	85		-		50-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 Batch: WG2047829-3								

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	105				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	119				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	108				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	94				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	108				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	113				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	113				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	97				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	79				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	112				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	91				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	107				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	80				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	78				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	96				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	82				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	69				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	85				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	88				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	112				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	45				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	47				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	75				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	80				10-130

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG2042564-4 WG2042564-5 QC Sample: L2515295-04 Client ID: 10-0S												
1,4-Dioxane	ND	4810	6500	135		6850	137		40-140	5		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	34		52		15-110

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by EPA 522 - Mansfield Lab Associated sample(s): 12-13,15 QC Batch ID: WG2043148-4 WG2043148-5 QC Sample: L2515295-12 Client ID: PW-1												
1,4-Dioxane	0.153	10.5	8.98	84		9.41	91		70-130	5		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	82		86		70-130

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 12-15 QC Batch ID: WG2046318-3 WG2046318-4 QC Sample: L2515295-12 Client ID: PW-1												
Perfluorobutanesulfonic Acid (PFBS)	2.57	1.67	3.32	45	Q	3.22	40	Q	50-150	3		30
Perfluorohexanoic Acid (PFHxA)	2.19	1.88	3.48	68		3.87	92		50-150	11		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	1.88	1.50J	80		1.51J	82		50-150	1		30
Perfluoroheptanoic Acid (PFHpA)	2.60	1.88	4.70	111		4.58	108		50-150	3		30
Perfluorohexanesulfonic Acid (PFHxS)	0.783J	1.72	2.70	157	Q	2.50	149		50-150	8		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	1.78	1.76J	99		2.01	116		50-150	13		30
Perfluorooctanoic Acid (PFOA)	11.5	1.88	13.1	85		14.0	136		50-150	7		30
Perfluorononanoic Acid (PFNA)	1.48J	1.88	2.98	158	Q	3.70	201	Q	50-150	22		30
Perfluorooctanesulfonic Acid (PFOS)	4.17	1.75	5.40	70		5.13	56		50-150	5		30
Perfluorodecanoic Acid (PFDA)	ND	1.88	1.86J	99		2.09	114		50-150	12		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)	ND	1.76	1.73J	98		1.68J	98		50-150	3		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.88	1.44J	76		1.75J	95		50-150	19		30
Perfluoroundecanoic Acid (PFUnA)	ND	1.88	1.73J	92		1.96	107		50-150	12		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.88	1.70J	90		2.46	134		50-150	37	Q	30
Perfluorododecanoic Acid (PFDoA)	ND	1.88	1.68J	89		2.00	109		50-150	17		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11CI-PF3OUdS)	ND	1.78	1.72J	97		1.42J	82		50-150	19		30
Perfluorotridecanoic Acid (PFTTrDA)	ND	1.88	2.33	124		2.21	120		50-150	5		30
Perfluorotetradecanoic Acid (PFTA)	ND	1.88	2.41	128		2.87	156	Q	50-150	17		30

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 12-15 QC Batch ID: WG2046318-3 WG2046318-4 QC Sample: L2515295-12 Client ID: PW-1

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	99		110		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	95		102		70-130
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	73		82		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	69	Q	81		70-130

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG2047829-4 WG2047829-5 QC Sample: L2515295-04 Client ID: 10-0S												
Perfluorobutanoic Acid (PFBA)	ND	80	89.3	112		81.8	102		70-140	9		30
Perfluoropentanoic Acid (PFPeA)	ND	40	47.0	118		39.9	100		65-135	16		30
Perfluorobutanesulfonic Acid (PFBS)	ND	17.8	20.1	113		17.3	97		60-145	15		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	75	86.2	115		75.2	100		70-145	14		30
Perfluorohexanoic Acid (PFHxA)	ND	20	21.6	108		22.2	111		70-145	3		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	18.8	22.5	120		21.0	112		65-140	7		30
Perfluoroheptanoic Acid (PFHpA)	ND	20	19.3	96		19.4	97		70-150	1		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	18.3	19.5	106		19.2	105		65-145	2		30
Perfluorooctanoic Acid (PFOA)	ND	20	22.8	114		19.2	96		70-150	17		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	76.1	89.9	118		87.9	116		65-155	2		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	19	23.7	124		20.4	107		70-150	15		30
Perfluorononanoic Acid (PFNA)	ND	20	22.4	112		22.4	112		70-150	0		30
Perfluorooctanesulfonic Acid (PFOS)	ND	18.6	18.6	100		16.6	89		55-150	11		30
Perfluorodecanoic Acid (PFDA)	ND	20	19.1	96		19.8	99		70-140	4		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	76.8	93.2	121		93.4	122		60-150	0		30
Perfluorononanesulfonic Acid (PFNS)	ND	19.3	15.9	82		14.5	75		65-145	9		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	20	22.1	111		22.0	110		50-140	0		30
Perfluoroundecanoic Acid (PFUnA)	ND	20	21.6	108		21.6	108		70-145	0		30
Perfluorodecanesulfonic Acid (PFDS)	ND	19.3	15.2	79		13.2	68		60-145	14		30

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG2047829-4 WG2047829-5 QC Sample: L2515295-04 Client ID: 10-0S												
Perfluorooctanesulfonamide (PFOSA)	ND	20	21.5	108		20.8	104		70-145	3		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	20	17.5	88		19.8	99		70-145	12		30
Perfluorododecanoic Acid (PFDoA)	ND	20	22.4	112		20.5	103		70-140	9		30
Perfluorotridecanoic Acid (PFTrDA)	ND	20	26.6	133		22.1	111		65-140	18		30
Perfluorotetradecanoic Acid (PFTeDA)	ND	20	28.0	140		22.1	111		60-140	24		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	80	89.9	112		94.9	119		70-140	5		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	75.6	107	142		85.9	114		65-145	22		30
Perfluorododecanesulfonic Acid (PFDoS)	ND	19.4	18.8	97		14.7	76		50-145	24		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	74.6	87.8	118		78.0	105		70-155	12		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	75.4	84.8	112		66.7	88		55-160	24		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	20	21.4	107		19.9	100		60-150	7		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	20	21.5	108		20.3	102		65-145	6		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	200	196	98		203	102		70-145	4		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	200	219	110		197	98		70-135	11		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	40	42.5	106		38.2	96		55-140	11		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	40	43.5	109		39.1	98		60-150	11		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	35.7	40.5	114		40.5	114		70-140	0		30
Nonafluoro-3,6-Dioxaheptanoic	ND	40	46.3	116		47.2	118		50-150	2		30

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG2047829-4 WG2047829-5 QC Sample: L2515295-04 Client ID: 10-0S												
Acid (NFDHA)												
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND	100	112	112		83.3	83		65-130	29		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND	500	539	108		527	105		70-135	2		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND	500	442	88		504	101		50-145	13		30

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	33	Q	44		40-300
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	84		103		40-200
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	65		73		40-200
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	53		66		10-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	35		48		25-135
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	74		88		10-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	52		61		10-130
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	39	Q	46		40-170
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	80		81		10-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	94		110		40-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	76		83		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	69		94		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	96		117		40-135
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	46		57		30-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	59		67		40-130
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	109		110		40-130

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG2047829-4 WG2047829-5 QC Sample: L2515295-04 Client ID: 10-0S												

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	109		119		40-130
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	51		61		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	54		64		10-130
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	100		110		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	110		128		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	92		105		40-130
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	68		74		40-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	113		122		40-130

METALS

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-01

Date Collected: 03/17/25 13:00

Client ID: UP-OS

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.103		mg/l	0.0100	0.00327	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00026	J	mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Barium, Total	0.00304		mg/l	0.00050	0.00017	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Boron, Total	0.0039	J	mg/l	0.0300	0.0016	1	03/21/25 15:52	03/25/25 11:13	EPA 3005A	1,6010D	EFM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Calcium, Total	29.8		mg/l	0.100	0.0394	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00147		mg/l	0.00100	0.00017	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Copper, Total	0.00114		mg/l	0.00100	0.00038	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Iron, Total	0.158		mg/l	0.0500	0.0191	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Magnesium, Total	7.65		mg/l	0.0700	0.0242	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Manganese, Total	0.00356		mg/l	0.00100	0.00044	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/21/25 16:32	03/24/25 12:34	EPA 7470A	1,7470A	CME
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Potassium, Total	0.561		mg/l	0.100	0.0309	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Sodium, Total	3.25		mg/l	0.500	0.0293	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Zinc, Total	0.00482	J	mg/l	0.01000	0.00341	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	105.8		mg/l	0.5400	NA	1	03/21/25 15:52	03/24/25 13:25	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-02

Date Collected: 03/17/25 13:40

Client ID: UP-I

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0149		mg/l	0.0100	0.00327	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00046	J	mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Barium, Total	0.00476		mg/l	0.00050	0.00017	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Boron, Total	0.0025	J	mg/l	0.0300	0.0016	1	03/21/25 15:52	03/25/25 11:18	EPA 3005A	1,6010D	EFM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Calcium, Total	24.6		mg/l	0.100	0.0394	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00172		mg/l	0.00100	0.00017	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Copper, Total	ND		mg/l	0.00100	0.00038	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Iron, Total	ND		mg/l	0.0500	0.0191	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Magnesium, Total	4.77		mg/l	0.0700	0.0242	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Manganese, Total	0.00082	J	mg/l	0.00100	0.00044	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/21/25 16:32	03/24/25 12:37	EPA 7470A	1,7470A	CME
Nickel, Total	0.01230		mg/l	0.00200	0.00055	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Potassium, Total	0.492		mg/l	0.100	0.0309	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Sodium, Total	3.73		mg/l	0.500	0.0293	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Vanadium, Total	0.00223	J	mg/l	0.00500	0.00157	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Zinc, Total	0.00778	J	mg/l	0.01000	0.00341	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	81.04		mg/l	0.5400	NA	1	03/21/25 15:52	03/24/25 13:29	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-03

Date Collected: 03/17/25 12:30

Client ID: UP-R

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0200		mg/l	0.0100	0.00327	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Barium, Total	0.00287		mg/l	0.00050	0.00017	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Boron, Total	0.0025	J	mg/l	0.0300	0.0016	1	03/21/25 15:52	03/25/25 11:23	EPA 3005A	1,6010D	EFM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Calcium, Total	15.6		mg/l	0.100	0.0394	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Chromium, Total	0.01499		mg/l	0.00100	0.00017	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00084		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Copper, Total	0.00135		mg/l	0.00100	0.00038	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Iron, Total	0.702		mg/l	0.0500	0.0191	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Magnesium, Total	3.51		mg/l	0.0700	0.0242	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Manganese, Total	0.00781		mg/l	0.00100	0.00044	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/21/25 16:32	03/24/25 12:40	EPA 7470A	1,7470A	CME
Nickel, Total	0.00218		mg/l	0.00200	0.00055	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Potassium, Total	0.565		mg/l	0.100	0.0309	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Sodium, Total	4.25		mg/l	0.500	0.0293	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Vanadium, Total	0.00200	J	mg/l	0.00500	0.00157	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Zinc, Total	0.00371	J	mg/l	0.01000	0.00341	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	53.44		mg/l	0.5400	NA	1	03/21/25 15:52	03/24/25 13:34	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-04

Date Collected: 03/17/25 10:05

Client ID: 10-0S

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.310		mg/l	0.0100	0.00327	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Antimony, Total	0.00157	J	mg/l	0.00400	0.00042	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Barium, Total	0.00927		mg/l	0.00050	0.00017	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Beryllium, Total	0.00014	J	mg/l	0.00050	0.00010	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Boron, Total	0.0025	J	mg/l	0.0300	0.0016	1	03/21/25 15:52	03/25/25 11:28	EPA 3005A	1,6010D	EFM
Cadmium, Total	0.00009	J	mg/l	0.00020	0.00005	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Calcium, Total	3.76		mg/l	0.100	0.0394	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00032	J	mg/l	0.00100	0.00017	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00030	J	mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Copper, Total	0.00043	J	mg/l	0.00100	0.00038	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Iron, Total	0.0377	J	mg/l	0.0500	0.0191	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Magnesium, Total	0.729		mg/l	0.0700	0.0242	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Manganese, Total	0.03548		mg/l	0.00100	0.00044	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/21/25 16:32	03/24/25 12:24	EPA 7470A	1,7470A	CME
Nickel, Total	0.00081	J	mg/l	0.00200	0.00055	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Potassium, Total	0.266		mg/l	0.100	0.0309	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Sodium, Total	1.97		mg/l	0.500	0.0293	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	12.40		mg/l	0.5400	NA	1	03/21/25 15:52	03/24/25 13:01	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-05

Date Collected: 03/17/25 11:40

Client ID: 10-I

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.154		mg/l	0.0100	0.00327	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Barium, Total	0.00197		mg/l	0.00050	0.00017	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Boron, Total	0.0064	J	mg/l	0.0300	0.0016	1	03/21/25 15:52	03/25/25 12:53	EPA 3005A	1,6010D	EFM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Calcium, Total	8.87		mg/l	0.100	0.0394	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00165		mg/l	0.00100	0.00017	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Copper, Total	0.00058	J	mg/l	0.00100	0.00038	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Iron, Total	0.286		mg/l	0.0500	0.0191	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Magnesium, Total	2.67		mg/l	0.0700	0.0242	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Manganese, Total	0.00269		mg/l	0.00100	0.00044	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/21/25 16:32	03/24/25 12:44	EPA 7470A	1,7470A	CME
Nickel, Total	0.00119	J	mg/l	0.00200	0.00055	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Potassium, Total	0.796		mg/l	0.100	0.0309	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Sodium, Total	3.90		mg/l	0.500	0.0293	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	33.15		mg/l	0.5400	NA	1	03/21/25 15:52	03/24/25 13:51	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-06

Date Collected: 03/17/25 11:10

Client ID: 10-R

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00810	J	mg/l	0.0100	0.00327	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Barium, Total	0.00290		mg/l	0.00050	0.00017	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Boron, Total	0.0074	J	mg/l	0.0300	0.0016	1	03/21/25 15:52	03/25/25 12:58	EPA 3005A	1,6010D	EFM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Calcium, Total	8.49		mg/l	0.100	0.0394	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00110		mg/l	0.00100	0.00017	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Copper, Total	0.00047	J	mg/l	0.00100	0.00038	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Iron, Total	ND		mg/l	0.0500	0.0191	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Magnesium, Total	1.79		mg/l	0.0700	0.0242	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Manganese, Total	0.00278		mg/l	0.00100	0.00044	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/21/25 16:32	03/24/25 12:54	EPA 7470A	1,7470A	CME
Nickel, Total	0.00195	J	mg/l	0.00200	0.00055	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Potassium, Total	0.563		mg/l	0.100	0.0309	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Sodium, Total	3.89		mg/l	0.500	0.0293	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	28.58		mg/l	0.5400	NA	1	03/21/25 15:52	03/24/25 13:56	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-08

Date Collected: 03/17/25 00:00

Client ID: DUP031725

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.146		mg/l	0.0100	0.00327	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Barium, Total	0.00179		mg/l	0.00050	0.00017	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Boron, Total	0.0059	J	mg/l	0.0300	0.0016	1	03/21/25 15:52	03/25/25 13:02	EPA 3005A	1,6010D	EFM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Calcium, Total	8.57		mg/l	0.100	0.0394	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00060	J	mg/l	0.00100	0.00017	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Copper, Total	0.00079	J	mg/l	0.00100	0.00038	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Iron, Total	0.258		mg/l	0.0500	0.0191	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Magnesium, Total	2.62		mg/l	0.0700	0.0242	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Manganese, Total	0.00221		mg/l	0.00100	0.00044	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/21/25 16:32	03/24/25 12:57	EPA 7470A	1,7470A	CME
Nickel, Total	0.00076	J	mg/l	0.00200	0.00055	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Potassium, Total	0.780		mg/l	0.100	0.0309	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Sodium, Total	3.76		mg/l	0.500	0.0293	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	32.18		mg/l	0.5400	NA	1	03/21/25 15:52	03/24/25 14:00	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-11

Date Collected: 03/17/25 17:00

Client ID: RPD RR

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	0.3107		mg/l	0.00100	0.00034	1	03/21/25 13:26	03/23/25 20:04	EPA 3005A	1,6020B	TAA



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-12

Date Collected: 03/17/25 15:30

Client ID: PW-1

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0048	J	mg/l	0.0100	0.0033	1	04/08/25 12:53	04/10/25 13:25	EPA 3005A	3,200.8	BLR
Antimony, Total	ND		mg/l	0.0040	0.0004	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Arsenic, Total	ND		mg/l	0.0010	0.0002	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Barium, Total	0.0055		mg/l	0.0010	0.0002	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Beryllium, Total	ND		mg/l	0.0010	0.0001	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Boron, Total	0.0248	J	mg/l	0.0300	0.0016	1	04/08/25 12:53	04/09/25 06:20	EPA 3005A	19,200.7	MRP
Cadmium, Total	ND		mg/l	0.0002	0.0001	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Calcium, Total	7.862		mg/l	0.1000	0.0394	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Chromium, Total	0.0004	J	mg/l	0.0010	0.0002	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Cobalt, Total	ND		mg/l	0.00100	0.00016	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Copper, Total	0.0364		mg/l	0.0010	0.0004	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Iron, Total	ND		mg/l	0.0500	0.0090	1	04/08/25 12:53	04/09/25 06:20	EPA 3005A	19,200.7	MRP
Lead, Total	0.0007	J	mg/l	0.0010	0.0003	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Magnesium, Total	2.075		mg/l	0.0700	0.0242	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Manganese, Total	0.0006	J	mg/l	0.0010	0.0004	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Mercury, Total	ND		mg/l	0.0002	0.0001	1	04/08/25 13:28	04/08/25 16:31	EPA 245.1	3,245.1	MJR
Nickel, Total	ND		mg/l	0.0020	0.0006	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Potassium, Total	0.903	J	mg/l	2.50	0.237	1	04/08/25 12:53	04/09/25 06:20	EPA 3005A	19,200.7	MRP
Selenium, Total	ND		mg/l	0.0050	0.0017	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Silver, Total	ND		mg/l	0.0004	0.0002	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Sodium, Total	14.8		mg/l	2.00	0.120	1	04/08/25 12:53	04/09/25 06:20	EPA 3005A	19,200.7	MRP
Thallium, Total	ND		mg/l	0.0010	0.0001	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Vanadium, Total	0.0036	J	mg/l	0.0050	0.0016	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Zinc, Total	0.01211		mg/l	0.00500	0.00341	1	04/08/25 12:53	04/10/25 11:01	EPA 3005A	3,200.8	BLR
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	29.9		mg/l	0.660	NA	1	04/08/25 12:53	04/09/25 06:20	EPA 3005A	19,200.7	MRP



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-13

Date Collected: 03/17/25 16:20

Client ID: PW-2

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.0033	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Antimony, Total	ND		mg/l	0.0040	0.0004	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Arsenic, Total	ND		mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Barium, Total	0.0015		mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Beryllium, Total	ND		mg/l	0.0010	0.0001	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Boron, Total	0.0081	J	mg/l	0.0300	0.0016	1	04/03/25 16:45	04/04/25 19:40	EPA 3005A	19,200.7	EFM
Cadmium, Total	ND		mg/l	0.0002	0.0001	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Calcium, Total	35.65		mg/l	0.1000	0.0394	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Chromium, Total	ND		mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Cobalt, Total	ND		mg/l	0.00100	0.00016	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Copper, Total	0.0145		mg/l	0.0010	0.0004	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Iron, Total	ND		mg/l	0.0500	0.0090	1	04/03/25 16:45	04/04/25 19:40	EPA 3005A	19,200.7	EFM
Lead, Total	ND		mg/l	0.0010	0.0003	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Magnesium, Total	3.683		mg/l	0.0700	0.0242	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Manganese, Total	0.0013		mg/l	0.0010	0.0004	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Mercury, Total	ND		mg/l	0.0002	0.0001	1	03/28/25 16:47	03/31/25 07:55	EPA 245.1	3,245.1	JWN
Nickel, Total	0.0082		mg/l	0.0020	0.0006	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Potassium, Total	1.04	J	mg/l	2.50	0.237	1	04/03/25 16:45	04/04/25 19:40	EPA 3005A	19,200.7	EFM
Selenium, Total	ND		mg/l	0.0050	0.0017	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Silver, Total	ND		mg/l	0.0004	0.0002	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Sodium, Total	9.48		mg/l	2.00	0.120	1	04/03/25 16:45	04/04/25 19:40	EPA 3005A	19,200.7	EFM
Thallium, Total	ND		mg/l	0.0010	0.0001	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Vanadium, Total	ND		mg/l	0.0050	0.0016	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Zinc, Total	0.01844		mg/l	0.00500	0.00341	1	04/03/25 16:45	04/07/25 08:43	EPA 3005A	3,200.8	BLR
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	102.		mg/l	0.660	NA	1	04/03/25 16:45	04/04/25 19:40	EPA 3005A	19,200.7	EFM



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**SAMPLE RESULTS**

Lab ID: L2515295-15

Date Collected: 03/17/25 00:00

Client ID: DUP031725

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.0033	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Antimony, Total	ND		mg/l	0.0040	0.0004	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Arsenic, Total	ND		mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Barium, Total	0.0054		mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Beryllium, Total	ND		mg/l	0.0010	0.0001	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Boron, Total	0.0204	J	mg/l	0.0300	0.0016	1	04/03/25 16:45	04/04/25 19:45	EPA 3005A	19,200.7	EFM
Cadmium, Total	ND		mg/l	0.0002	0.0001	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Calcium, Total	7.744		mg/l	0.1000	0.0394	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Chromium, Total	0.0002	J	mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Cobalt, Total	ND		mg/l	0.00100	0.00016	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Copper, Total	0.0358		mg/l	0.0010	0.0004	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Iron, Total	ND		mg/l	0.0500	0.0090	1	04/03/25 16:45	04/04/25 19:45	EPA 3005A	19,200.7	EFM
Lead, Total	0.0007	J	mg/l	0.0010	0.0003	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Magnesium, Total	1.936		mg/l	0.0700	0.0242	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Manganese, Total	0.0005	J	mg/l	0.0010	0.0004	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Mercury, Total	ND		mg/l	0.0002	0.0001	1	03/28/25 16:47	03/31/25 07:58	EPA 245.1	3,245.1	JWN
Nickel, Total	ND		mg/l	0.0020	0.0006	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Potassium, Total	0.864	J	mg/l	2.50	0.237	1	04/03/25 16:45	04/04/25 19:45	EPA 3005A	19,200.7	EFM
Selenium, Total	ND		mg/l	0.0050	0.0017	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Silver, Total	ND		mg/l	0.0004	0.0002	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Sodium, Total	15.5		mg/l	2.00	0.120	1	04/03/25 16:45	04/04/25 19:45	EPA 3005A	19,200.7	EFM
Thallium, Total	ND		mg/l	0.0010	0.0001	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Vanadium, Total	ND		mg/l	0.0050	0.0016	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Zinc, Total	0.00993		mg/l	0.00500	0.00341	1	04/03/25 16:45	04/07/25 08:49	EPA 3005A	3,200.8	BLR
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	27.0		mg/l	0.660	NA	1	04/03/25 16:45	04/04/25 19:45	EPA 3005A	19,200.7	EFM



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 11 Batch: WG2043464-1										
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/21/25 13:26	03/23/25 19:30	1,6020B	TAA

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06,08 Batch: WG2043485-1										
Boron, Total	ND		mg/l	0.0300	0.0016	1	03/21/25 15:52	03/25/25 11:04	1,6010D	EFM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06,08 Batch: WG2043488-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/21/25 16:32	03/24/25 12:17	1,7470A	CME

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06,08 Batch: WG2043587-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Barium, Total	ND		mg/l	0.00050	0.00017	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Cadmium, Total	ND	mg/l	0.00020	0.00005	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Calcium, Total	ND	mg/l	0.100	0.0394	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Chromium, Total	ND	mg/l	0.00100	0.00017	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Cobalt, Total	ND	mg/l	0.00050	0.00016	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Copper, Total	ND	mg/l	0.00100	0.00038	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Iron, Total	ND	mg/l	0.0500	0.0191	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Lead, Total	ND	mg/l	0.00100	0.00034	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Magnesium, Total	ND	mg/l	0.0700	0.0242	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Manganese, Total	ND	mg/l	0.00100	0.00044	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Nickel, Total	ND	mg/l	0.00200	0.00055	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Potassium, Total	ND	mg/l	0.100	0.0309	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Selenium, Total	ND	mg/l	0.00500	0.00173	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Silver, Total	ND	mg/l	0.00040	0.00016	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Sodium, Total	ND	mg/l	0.500	0.0293	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Thallium, Total	ND	mg/l	0.00100	0.00014	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Vanadium, Total	ND	mg/l	0.00500	0.00157	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB
Zinc, Total	ND	mg/l	0.01000	0.00341	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 01-06,08 Batch: WG2043587-1									
Hardness	ND	mg/l	0.5400	NA	1	03/21/25 15:52	03/24/25 12:52	1,6020B	NTB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 13,15 Batch: WG2046650-1									
Mercury, Total	ND	mg/l	0.0002	0.0001	1	03/28/25 16:47	03/31/25 07:39	3,245.1	JWN



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 245.1

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 13,15 Batch: WG2049213-1									
Boron, Total	ND	mg/l	0.0300	0.0016	1	04/03/25 16:45	04/04/25 07:17	19,200.7	DMC
Iron, Total	ND	mg/l	0.0500	0.0090	1	04/03/25 16:45	04/04/25 07:17	19,200.7	DMC
Potassium, Total	ND	mg/l	2.50	0.237	1	04/03/25 16:45	04/04/25 07:17	19,200.7	DMC
Sodium, Total	ND	mg/l	2.00	0.120	1	04/03/25 16:45	04/04/25 07:17	19,200.7	DMC

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 13,15 Batch: WG2049213-1									
Hardness	ND	mg/l	0.660	NA	1	04/03/25 16:45	04/04/25 07:17	19,200.7	DMC

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 13,15 Batch: WG2049220-1									
Aluminum, Total	ND	mg/l	0.0100	0.0033	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Antimony, Total	ND	mg/l	0.0040	0.0004	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Arsenic, Total	ND	mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Barium, Total	ND	mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Beryllium, Total	ND	mg/l	0.0010	0.0001	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Cadmium, Total	ND	mg/l	0.0002	0.0001	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Calcium, Total	ND	mg/l	0.1000	0.0394	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Chromium, Total	ND	mg/l	0.0010	0.0002	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Cobalt, Total	ND	mg/l	0.00100	0.00016	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Copper, Total	ND	mg/l	0.0010	0.0004	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Lead, Total	ND	mg/l	0.0010	0.0003	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Magnesium, Total	ND	mg/l	0.0700	0.0242	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Manganese, Total	ND	mg/l	0.0010	0.0004	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Nickel, Total	ND	mg/l	0.0020	0.0006	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Selenium, Total	ND	mg/l	0.0050	0.0017	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Silver, Total	ND	mg/l	0.0004	0.0002	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Thallium, Total	ND	mg/l	0.0010	0.0001	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Vanadium, Total	ND	mg/l	0.0050	0.0016	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR
Zinc, Total	ND	mg/l	0.00500	0.00341	1	04/03/25 16:45	04/07/25 07:08	3,200.8	BLR

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 12 Batch: WG2051028-1									
Boron, Total	ND	mg/l	0.0300	0.0016	1	04/08/25 12:53	04/09/25 05:58	19,200.7	MRP
Iron, Total	ND	mg/l	0.0500	0.0090	1	04/08/25 12:53	04/09/25 05:58	19,200.7	MRP
Potassium, Total	ND	mg/l	2.50	0.237	1	04/08/25 12:53	04/09/25 05:58	19,200.7	MRP
Sodium, Total	ND	mg/l	2.00	0.120	1	04/08/25 12:53	04/09/25 05:58	19,200.7	MRP

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 12 Batch: WG2051028-1									
Hardness	ND	mg/l	0.660	NA	1	04/08/25 12:53	04/09/25 05:58	19,200.7	MRP



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 12 Batch: WG2051073-1									
Aluminum, Total	ND	mg/l	0.0100	0.0033	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Antimony, Total	ND	mg/l	0.0040	0.0004	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Arsenic, Total	ND	mg/l	0.0010	0.0002	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Barium, Total	ND	mg/l	0.0010	0.0002	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Beryllium, Total	ND	mg/l	0.0010	0.0001	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Cadmium, Total	ND	mg/l	0.0002	0.0001	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Calcium, Total	ND	mg/l	0.1000	0.0394	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Chromium, Total	ND	mg/l	0.0010	0.0002	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Cobalt, Total	ND	mg/l	0.00100	0.00016	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Copper, Total	ND	mg/l	0.0010	0.0004	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Lead, Total	ND	mg/l	0.0010	0.0003	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Magnesium, Total	ND	mg/l	0.0700	0.0242	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Manganese, Total	ND	mg/l	0.0010	0.0004	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Nickel, Total	ND	mg/l	0.0020	0.0006	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Selenium, Total	ND	mg/l	0.0050	0.0017	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Silver, Total	ND	mg/l	0.0004	0.0002	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Thallium, Total	ND	mg/l	0.0010	0.0001	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Vanadium, Total	ND	mg/l	0.0050	0.0016	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR
Zinc, Total	ND	mg/l	0.00500	0.00341	1	04/08/25 12:53	04/09/25 15:07	3,200.8	BLR

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 12 Batch: WG2051075-1									
Mercury, Total	ND	mg/l	0.0002	0.0001	1	04/08/25 13:28	04/08/25 16:25	3,245.1	MJR



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 245.1



Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 Batch: WG2043464-2								
Lead, Total	96		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 Batch: WG2043485-2								
Boron, Total	99		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 Batch: WG2043488-2								
Mercury, Total	108		-		80-120	-		

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 Batch: WG2043587-2					
Aluminum, Total	90	-	80-120	-	
Antimony, Total	82	-	80-120	-	
Arsenic, Total	104	-	80-120	-	
Barium, Total	98	-	80-120	-	
Beryllium, Total	102	-	80-120	-	
Cadmium, Total	100	-	80-120	-	
Calcium, Total	86	-	80-120	-	
Chromium, Total	96	-	80-120	-	
Cobalt, Total	101	-	80-120	-	
Copper, Total	104	-	80-120	-	
Iron, Total	106	-	80-120	-	
Lead, Total	92	-	80-120	-	
Magnesium, Total	94	-	80-120	-	
Manganese, Total	98	-	80-120	-	
Nickel, Total	103	-	80-120	-	
Potassium, Total	95	-	80-120	-	
Selenium, Total	102	-	80-120	-	
Silver, Total	98	-	80-120	-	
Sodium, Total	98	-	80-120	-	
Thallium, Total	92	-	80-120	-	
Vanadium, Total	96	-	80-120	-	

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 Batch: WG2043587-2					
Zinc, Total	102	-	80-120	-	
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06,08 Batch: WG2043587-2					
Hardness	91	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 13,15 Batch: WG2046650-2					
Mercury, Total	98	-	85-115	-	
Total Metals - Mansfield Lab Associated sample(s): 13,15 Batch: WG2049213-2					
Boron, Total	97	-	85-115	-	
Iron, Total	104	-	85-115	-	
Potassium, Total	107	-	85-115	-	
Sodium, Total	105	-	85-115	-	
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 13,15 Batch: WG2049213-2					
Hardness	103	-	85-115	-	

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13,15 Batch: WG2049220-2					
Aluminum, Total	90	-	85-115	-	
Antimony, Total	92	-	85-115	-	
Arsenic, Total	105	-	85-115	-	
Barium, Total	97	-	85-115	-	
Beryllium, Total	105	-	85-115	-	
Cadmium, Total	100	-	85-115	-	
Calcium, Total	109	-	85-115	-	
Chromium, Total	107	-	85-115	-	
Cobalt, Total	102	-	85-115	-	
Copper, Total	107	-	85-115	-	
Lead, Total	94	-	85-115	-	
Magnesium, Total	105	-	85-115	-	
Manganese, Total	107	-	85-115	-	
Nickel, Total	104	-	85-115	-	
Selenium, Total	104	-	85-115	-	
Silver, Total	96	-	85-115	-	
Thallium, Total	105	-	85-115	-	
Vanadium, Total	109	-	85-115	-	
Zinc, Total	106	-	85-115	-	

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 Batch: WG2051028-2					
Boron, Total	105	-	85-115	-	
Iron, Total	114	-	85-115	-	
Potassium, Total	102	-	85-115	-	
Sodium, Total	104	-	85-115	-	
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 12 Batch: WG2051028-2					
Hardness	112	-	85-115	-	

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 Batch: WG2051073-2					
Aluminum, Total	93	-	85-115	-	
Antimony, Total	99	-	85-115	-	
Arsenic, Total	98	-	85-115	-	
Barium, Total	94	-	85-115	-	
Beryllium, Total	102	-	85-115	-	
Cadmium, Total	106	-	85-115	-	
Calcium, Total	92	-	85-115	-	
Chromium, Total	99	-	85-115	-	
Cobalt, Total	90	-	85-115	-	
Copper, Total	90	-	85-115	-	
Lead, Total	89	-	85-115	-	
Magnesium, Total	106	-	85-115	-	
Manganese, Total	99	-	85-115	-	
Nickel, Total	93	-	85-115	-	
Selenium, Total	100	-	85-115	-	
Silver, Total	107	-	85-115	-	
Thallium, Total	92	-	85-115	-	
Vanadium, Total	96	-	85-115	-	
Zinc, Total	94	-	85-115	-	

Lab Control Sample Analysis
Batch Quality Control**Project Name:** RAMAPO LANDFILL**Project Number:** 20010**Lab Number:** L2515295**Report Date:** 04/15/25

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 Batch: WG2051075-2					
Mercury, Total	102	-	85-115	-	

Matrix Spike Analysis Batch Quality Control

Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG2043464-3 WG2043464-4 QC Sample: L2516128-03 Client ID: MS Sample												
Lead, Total	0.00123	0.53	0.5179	97		0.5150	97		75-125	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG2043485-3 WG2043485-4 QC Sample: L2515295-04 Client ID: 10-0S												
Boron, Total	0.0025J	1	1.01	101		1.02	102		75-125	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG2043488-3 WG2043488-4 QC Sample: L2515295-04 Client ID: 10-0S												
Mercury, Total	ND	0.005	0.00516	103		0.00519	104		75-125	1		20

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG2043587-3 WG2043587-4 QC Sample: L2515295-04 Client ID: 10-0S									
Aluminum, Total	0.310	2	2.09	89	1.99	84	75-125	5	20
Antimony, Total	0.00157J	0.5	0.4108	82	0.4122	82	75-125	0	20
Arsenic, Total	ND	0.12	0.1228	102	0.1139	95	75-125	8	20
Barium, Total	0.00927	2	1.986	99	1.894	94	75-125	5	20
Beryllium, Total	0.00014J	0.05	0.05259	105	0.04843	97	75-125	8	20
Cadmium, Total	0.00009J	0.053	0.05358	101	0.05074	96	75-125	5	20
Calcium, Total	3.76	10	12.6	88	11.9	81	75-125	6	20
Chromium, Total	0.00032J	0.2	0.1905	95	0.1797	90	75-125	6	20
Cobalt, Total	0.00030J	0.5	0.4897	98	0.4785	96	75-125	2	20
Copper, Total	0.00043J	0.25	0.2522	101	0.2423	97	75-125	4	20
Iron, Total	0.0377J	1	1.01	101	1.02	102	75-125	1	20
Lead, Total	ND	0.53	0.4876	92	0.4633	87	75-125	5	20
Magnesium, Total	0.729	10	9.82	91	9.26	85	75-125	6	20
Manganese, Total	0.03548	0.5	0.5145	96	0.4991	93	75-125	3	20
Nickel, Total	0.00081J	0.5	0.5041	101	0.4799	96	75-125	5	20
Potassium, Total	0.266	10	9.61	93	9.12	88	75-125	5	20
Selenium, Total	ND	0.12	0.120	100	0.118	98	75-125	2	20
Silver, Total	ND	0.05	0.04940	99	0.04674	93	75-125	6	20
Sodium, Total	1.97	10	11.4	94	10.9	89	75-125	4	20
Thallium, Total	ND	0.12	0.1097	91	0.1050	88	75-125	4	20
Vanadium, Total	ND	0.5	0.4770	95	0.4490	90	75-125	6	20

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG2043587-3 WG2043587-4 QC Sample: L2515295-04 Client ID: 10-0S									
Zinc, Total	ND	0.5	0.5196	104	0.4845	97	75-125	7	20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG2043587-3 WG2043587-4 QC Sample: L2515295-04 Client ID: 10-0S									
Hardness	12.40	66.2	71.81	90	67.76	84	75-125	6	20
Total Metals - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2046650-3 QC Sample: L2514828-04 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.0051	102	-	-	70-130	-	20
Total Metals - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2049213-3 QC Sample: L2518601-01 Client ID: MS Sample									
Boron, Total	0.035	1	1.04	100	-	-	75-125	-	20
Iron, Total	0.0280J	1	1.08	108	-	-	75-125	-	20
Potassium, Total	2.09J	10	12.9	129	Q	-	75-125	-	20
Sodium, Total	44.1	10	54.8	107	-	-	75-125	-	20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2049213-3 QC Sample: L2518601-01 Client ID: MS Sample									
Hardness	110	66.2	177	101	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2049213-7 QC Sample: L2518670-01 Client ID: MS Sample									
Boron, Total	0.083	1	1.06	98	-	-	75-125	-	20
Iron, Total	0.0385J	1	1.12	112	-	-	75-125	-	20
Potassium, Total	7.57	10	18.1	105	-	-	75-125	-	20
Sodium, Total	64.4	10	74.8	104	-	-	75-125	-	20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2049213-7 QC Sample: L2518670-01 Client ID: MS Sample									
Hardness	876	66.2	926	76	-	-	75-125	-	20

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13,15			QC Batch ID: WG2049220-3		QC Sample: L2518601-01		Client ID: MS Sample		
Aluminum, Total	0.0117	2	1.820	90	-	-	70-130	-	20
Antimony, Total	0.0006J	0.5	0.4983	100	-	-	70-130	-	20
Arsenic, Total	ND	0.12	0.1276	106	-	-	70-130	-	20
Barium, Total	0.0445	2	2.023	99	-	-	70-130	-	20
Beryllium, Total	ND	0.05	0.0526	105	-	-	70-130	-	20
Cadmium, Total	ND	0.053	0.0545	103	-	-	70-130	-	20
Calcium, Total	31.21	10	41.39	102	-	-	70-130	-	20
Chromium, Total	ND	0.2	0.2157	108	-	-	70-130	-	20
Cobalt, Total	ND	0.5	0.5181	104	-	-	70-130	-	20
Copper, Total	0.0035	0.25	0.2723	108	-	-	70-130	-	20
Lead, Total	0.0006J	0.53	0.5100	96	-	-	70-130	-	20
Magnesium, Total	8.425	10	18.88	104	-	-	70-130	-	20
Manganese, Total	0.0034	0.5	0.5403	107	-	-	70-130	-	20
Nickel, Total	0.0007J	0.5	0.5210	104	-	-	70-130	-	20
Selenium, Total	ND	0.12	0.1251	104	-	-	70-130	-	20
Silver, Total	ND	0.05	0.0486	97	-	-	70-130	-	20
Thallium, Total	ND	0.12	0.0993	83	-	-	70-130	-	20
Vanadium, Total	ND	0.5	0.5545	111	-	-	70-130	-	20
Zinc, Total	0.01865	0.5	0.5574	108	-	-	70-130	-	20

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG2051028-3 WG2051028-4 QC Sample: L2515295-12 Client ID: PW-1									
Boron, Total	0.0248J	1	1.12	112	1.10	110	75-125	2	20
Iron, Total	ND	1	1.16	116	1.15	115	75-125	1	20
Potassium, Total	0.903J	10	11.3	113	11.1	111	75-125	2	20
Sodium, Total	14.8	10	25.1	103	24.5	97	75-125	2	20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG2051028-3 WG2051028-4 QC Sample: L2515295-12 Client ID: PW-1									
Hardness	29.9	66.2	105	114	103	110	75-125	2	20

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG2051073-3 WG2051073-4 QC Sample: L2515295-12 Client ID: PW-1									
Aluminum, Total	0.0048J	2	2.151	108	2.070	104	70-130	4	20
Antimony, Total	ND	0.5	0.5162	103	0.5223	104	70-130	1	20
Arsenic, Total	ND	0.12	0.1305	109	0.1289	107	70-130	1	20
Barium, Total	0.0055	2	2.099	105	2.098	105	70-130	0	20
Beryllium, Total	ND	0.05	0.0521	104	0.0522	104	70-130	0	20
Cadmium, Total	ND	0.053	0.0567	107	0.0564	106	70-130	1	20
Calcium, Total	7.862	10	18.23	104	18.41	105	70-130	1	20
Chromium, Total	0.0004J	0.2	0.2262	113	0.2289	114	70-130	1	20
Cobalt, Total	ND	0.5	0.5332	107	0.5359	107	70-130	1	20
Copper, Total	0.0364	0.25	0.3201	113	0.3229	115	70-130	1	20
Lead, Total	0.0007J	0.53	0.5758	109	0.5731	108	70-130	0	20
Magnesium, Total	2.075	10	12.43	104	12.72	106	70-130	2	20
Manganese, Total	0.0006J	0.5	0.5456	109	0.5477	110	70-130	0	20
Nickel, Total	ND	0.5	0.5454	109	0.5446	109	70-130	0	20
Selenium, Total	ND	0.12	0.1316	110	0.1311	109	70-130	0	20
Silver, Total	ND	0.05	0.0544	109	0.0543	108	70-130	0	20
Thallium, Total	ND	0.12	0.1357	113	0.1346	112	70-130	1	20
Vanadium, Total	0.0036J	0.5	0.5734	115	0.5788	116	70-130	1	20
Zinc, Total	0.01211	0.5	0.5559	109	0.5548	108	70-130	0	20

Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG2051075-3 WG2051075-4 QC Sample: L2515295-12 Client ID: PW-1

Mercury, Total	ND	0.005	0.0049	98	0.0048	96	70-130	3	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2046650-4 QC Sample: L2514828-04 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2049213-4 QC Sample: L2518601-01 Client ID: DUP Sample						
Iron, Total	0.0280J	0.0282J	mg/l	NC		20
Potassium, Total	2.09J	2.11J	mg/l	NC		20
Sodium, Total	44.1	44.5	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2049213-8 QC Sample: L2518670-01 Client ID: DUP Sample						
Iron, Total	0.0385J	0.0402J	mg/l	NC		20
Sodium, Total	64.4	63.4	mg/l	2		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13,15 QC Batch ID: WG2049220-4 QC Sample: L2518601-01 Client ID: DUP Sample					
Antimony, Total	0.0006J	ND	mg/l	NC	20
Arsenic, Total	ND	0.0002J	mg/l	NC	20
Barium, Total	0.0445	0.0444	mg/l	0	20
Beryllium, Total	ND	ND	mg/l	NC	20
Cadmium, Total	ND	ND	mg/l	NC	20
Chromium, Total	ND	ND	mg/l	NC	20
Copper, Total	0.0035	0.0034	mg/l	3	20
Lead, Total	0.0006J	0.0005J	mg/l	NC	20
Nickel, Total	0.0007J	0.0007J	mg/l	NC	20
Selenium, Total	ND	ND	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Thallium, Total	ND	ND	mg/l	NC	20
Vanadium, Total	ND	ND	mg/l	NC	20
Zinc, Total	0.01865	0.01828	mg/l	2	20

Project Name: RAMAPO LANDFILL
Project Number: 20010

**Lab Serial Dilution
Analysis**
Batch Quality Control

Lab Number: L2515295
Report Date: 04/15/25

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG2051028-6 QC Sample: L2515295-12 Client ID: PW-1						
Hardness	29.9	28.1	mg/l	6		20

INORGANICS & MISCELLANEOUS

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-01

Client ID: UP-OS

Sample Location: SUFFERN, NY

Date Collected: 03/17/25 13:00

Date Received: 03/17/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	109.		mg CaCO3/L	2.00	NA	1	-	03/21/25 11:50	121,2320B	MKT
Nitrogen, Total Kjeldahl	0.214	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:25	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/20/25 11:30	03/20/25 16:03	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-02

Date Collected: 03/17/25 13:40

Client ID: UP-I

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	74.7		mg CaCO3/L	2.00	NA	1	-	03/21/25 11:54	121,2320B	MKT
Nitrogen, Total Kjeldahl	0.107	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:25	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/20/25 11:30	03/20/25 16:03	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-03

Date Collected: 03/17/25 12:30

Client ID: UP-R

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	41.9		mg CaCO3/L	2.00	NA	1	-	03/21/25 11:57	121,2320B	MKT
Nitrogen, Total Kjeldahl	0.182	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:26	4,351.1	AT
Chemical Oxygen Demand	8.1	J	mg/l	10	2.7	1	03/20/25 11:30	03/20/25 16:04	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-04

Date Collected: 03/17/25 10:05

Client ID: 10-0S

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	4.22		mg CaCO3/L	2.00	NA	1	-	03/21/25 11:59	121,2320B	MKT
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	0.066	1	03/28/25 22:12	03/31/25 13:01	4,351.1	KEM
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/20/25 11:30	03/20/25 16:04	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-05

Date Collected: 03/17/25 11:40

Client ID: 10-I

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	27.7		mg CaCO3/L	2.00	NA	1	-	03/21/25 12:05	121,2320B	MKT
Nitrogen, Total Kjeldahl	0.158	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:27	4,351.1	AT
Chemical Oxygen Demand	3.6	J	mg/l	10	2.7	1	03/20/25 11:30	03/20/25 16:04	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-06

Date Collected: 03/17/25 11:10

Client ID: 10-R

Date Received: 03/17/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	25.2		mg CaCO3/L	2.00	NA	1	-	03/21/25 12:07	121,2320B	MKT
Nitrogen, Total Kjeldahl	0.086	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:31	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/20/25 11:30	03/20/25 16:05	44,410.4	CVN



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-08
Client ID: DUP031725
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 00:00
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	27.5		mg CaCO3/L	2.00	NA	1	-	03/21/25 12:08	121,2320B	MKT
Nitrogen, Total Kjeldahl	0.182	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:32	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/20/25 11:30	03/20/25 16:05	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-12

Client ID: PW-1

Sample Location: SUFFERN, NY

Date Collected: 03/17/25 15:30

Date Received: 03/17/25

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	29.8		mg CaCO3/L	2.00	NA	1	-	03/21/25 12:10	121,2320B	MKT
Nitrogen, Total Kjeldahl	0.166	J	mg/l	0.300	0.066	1	04/10/25 22:48	04/11/25 10:27	4,351.1	KEM
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	04/01/25 12:15	04/01/25 15:23	44,410.4	CVN



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

SAMPLE RESULTS

Lab ID: L2515295-13
Client ID: PW-2
Sample Location: SUFFERN, NY

Date Collected: 03/17/25 16:20
Date Received: 03/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	68.0		mg CaCO3/L	2.00	NA	1	-	03/21/25 12:12	121,2320B	MKT
Nitrogen, Total Kjeldahl	0.240	J	mg/l	0.300	0.066	1	04/11/25 22:48	04/14/25 11:28	4,351.1	KEM
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	04/01/25 12:15	04/01/25 15:23	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2515295

Project Number: 20010

Report Date: 04/15/25

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-06,08 Batch: WG2042978-1										
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/20/25 11:30	03/20/25 16:02	44,410.4	CVN
General Chemistry - Westborough Lab for sample(s): 01-06,08,12-13 Batch: WG2043469-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	03/21/25 10:51	121,2320B	MKT
General Chemistry - Westborough Lab for sample(s): 01-03,05-06,08 Batch: WG2046108-1										
Nitrogen, Total Kjeldahl	0.127	J	mg/l	0.300	0.022	1	03/27/25 22:45	03/28/25 16:19	4,351.1	AT
General Chemistry - Westborough Lab for sample(s): 04 Batch: WG2046596-1										
Nitrogen, Total Kjeldahl	0.042	J	mg/l	0.300	0.022	1	03/28/25 22:12	03/31/25 12:48	4,351.1	KEM
General Chemistry - Westborough Lab for sample(s): 12-13 Batch: WG2047953-1										
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	04/01/25 12:15	04/01/25 15:22	44,410.4	CVN
General Chemistry - Westborough Lab for sample(s): 12 Batch: WG2052248-1										
Nitrogen, Total Kjeldahl	0.109	J	mg/l	0.300	0.022	1	04/10/25 22:48	04/11/25 10:24	4,351.1	KEM
General Chemistry - Westborough Lab for sample(s): 13 Batch: WG2052760-1										
Nitrogen, Total Kjeldahl	0.086	J	mg/l	0.300	0.022	1	04/11/25 22:48	04/14/25 11:25	4,351.1	KEM



Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06,08 Batch: WG2042978-2								
Chemical Oxygen Demand	94		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-06,08,12-13 Batch: WG2043469-2								
Alkalinity, Total	94		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-03,05-06,08 Batch: WG2046108-2								
Nitrogen, Total Kjeldahl	93		-		78-122	-		
General Chemistry - Westborough Lab Associated sample(s): 04 Batch: WG2046596-2								
Nitrogen, Total Kjeldahl	96		-		78-122	-		
General Chemistry - Westborough Lab Associated sample(s): 12-13 Batch: WG2047953-2								
Chemical Oxygen Demand	94		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 12 Batch: WG2052248-2								
Nitrogen, Total Kjeldahl	92		-		78-122	-		
General Chemistry - Westborough Lab Associated sample(s): 13 Batch: WG2052760-2								
Nitrogen, Total Kjeldahl	89		-		78-122	-		

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06,08 QC Batch ID: WG2042978-3 QC Sample: L2515295-04 Client ID: 10-0S												
Chemical Oxygen Demand	ND	47.6	51	107		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-06,08,12-13 QC Batch ID: WG2043469-4 QC Sample: L2515232-01 Client ID: MS Sample												
Alkalinity, Total	235.	100	260	25	Q	-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-06,08,12-13 QC Batch ID: WG2043469-6 QC Sample: L2515295-04 Client ID: 10-0S												
Alkalinity, Total	4.22	100	109	105		-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-03,05-06,08 QC Batch ID: WG2046108-4 QC Sample: L2515232-01 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	0.207J	8	7.58	95		-	-		77-111	-		24
General Chemistry - Westborough Lab Associated sample(s): 04 QC Batch ID: WG2046596-4 QC Sample: L2515295-04 Client ID: 10-0S												
Nitrogen, Total Kjeldahl	ND	8	7.92	99		-	-		77-111	-		24
General Chemistry - Westborough Lab Associated sample(s): 12-13 QC Batch ID: WG2047953-3 QC Sample: L2515295-12 Client ID: PW-1												
Chemical Oxygen Demand	ND	47.6	49	103		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 12 QC Batch ID: WG2052248-4 QC Sample: L2517074-26 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	0.291J	8	9.05	113	Q	-	-		77-111	-		24
General Chemistry - Westborough Lab Associated sample(s): 13 QC Batch ID: WG2052760-4 QC Sample: L2520176-07 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	0.158J	8	8.72	109		-	-		77-111	-		24

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515295

Report Date: 04/15/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06,08 QC Batch ID: WG2042978-4 QC Sample: L2515295-04 Client ID: 10-0S						
Chemical Oxygen Demand	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-06,08,12-13 QC Batch ID: WG2043469-3 QC Sample: L2515232-01 Client ID: DUP Sample						
Alkalinity, Total	235.	238	mg CaCO3/L	1		10
General Chemistry - Westborough Lab Associated sample(s): 01-06,08,12-13 QC Batch ID: WG2043469-5 QC Sample: L2515295-04 Client ID: 10-0S						
Alkalinity, Total	4.22	3.64	mg CaCO3/L	15	Q	10
General Chemistry - Westborough Lab Associated sample(s): 01-03,05-06,08 QC Batch ID: WG2046108-3 QC Sample: L2515232-01 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	0.207J	0.283J	mg/l	NC		24
General Chemistry - Westborough Lab Associated sample(s): 04 QC Batch ID: WG2046596-3 QC Sample: L2515295-04 Client ID: 10-0S						
Nitrogen, Total Kjeldahl	ND	ND	mg/l	NC		24
General Chemistry - Westborough Lab Associated sample(s): 12-13 QC Batch ID: WG2047953-4 QC Sample: L2515295-12 Client ID: PW-1						
Chemical Oxygen Demand	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 12 QC Batch ID: WG2052248-3 QC Sample: L2517074-26 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	0.291J	0.218J	mg/l	NC		24
General Chemistry - Westborough Lab Associated sample(s): 13 QC Batch ID: WG2052760-3 QC Sample: L2520176-07 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	0.158J	0.177J	mg/l	NC		24

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler Custody Seal**

A	Absent
B	Absent
C	Absent
D	Absent
E	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515295-01A	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-01B	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-01C	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-01D	Plastic 250ml unpreserved/No Headspace	D	NA		3.4	Y	Absent		ALK-T-2320(14)
L2515295-01E	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-01F	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-01G	Plastic 250ml HNO3 preserved	D	<2	<2	3.4	Y	Absent		SE-6020T(180),BA-6020T(180),FE-6020T(180),TL-6020T(180),CR-6020T(180),K-6020T(180),CA-6020T(180),NI-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),MG-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HARDT-6020(180),HG-T(28),CO-6020T(180)
L2515295-01H	Plastic 250ml H2SO4 preserved	D	<2	<2	3.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-01J	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-01K	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-02A	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-02B	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04152514:08
Lab Number: L2515295
Report Date: 04/15/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515295-02C	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-02D	Plastic 250ml unpreserved/No Headspace	D	NA		3.4	Y	Absent		ALK-T-2320(14)
L2515295-02E	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-02F	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-02G	Plastic 250ml HNO3 preserved	D	<2	<2	3.4	Y	Absent		SE-6020T(180),TL-6020T(180),FE-6020T(180),BA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),CA-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),AS-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),HARDT-6020(180),MG-6020T(180),CD-6020T(180),CO-6020T(180)
L2515295-02H	Plastic 250ml H2SO4 preserved	D	<2	<2	3.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-02J	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-02K	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-03A	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-03B	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-03C	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-03D	Plastic 250ml unpreserved/No Headspace	D	NA		3.4	Y	Absent		ALK-T-2320(14)
L2515295-03E	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-03F	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-03G	Plastic 250ml HNO3 preserved	D	<2	<2	3.4	Y	Absent		FE-6020T(180),SE-6020T(180),TL-6020T(180),BA-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),CA-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),B-TI(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),SB-6020T(180),AS-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),HARDT-6020(180),MG-6020T(180),CO-6020T(180)
L2515295-03H	Plastic 250ml H2SO4 preserved	D	<2	<2	3.4	Y	Absent		TKN-351(28),COD-410-LOW(28)

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515295-03J	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-03K	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-04A	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04A1	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04A2	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04B	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04B1	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04B2	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04C	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04C1	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04C2	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-04D	Plastic 250ml unpreserved/No Headspace	C	NA		2.3	Y	Absent		ALK-T-2320(14)
L2515295-04D1	Plastic 250ml unpreserved/No Headspace	C	NA		2.3	Y	Absent		ALK-T-2320(14)
L2515295-04D2	Plastic 250ml unpreserved/No Headspace	C	NA		2.3	Y	Absent		ALK-T-2320(14)
L2515295-04E	Amber 250ml unpreserved	C	6	6	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-04E1	Amber 250ml unpreserved	C	6	6	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-04E2	Amber 250ml unpreserved	C	6	6	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-04F	Amber 250ml unpreserved	C	6	6	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-04F1	Amber 250ml unpreserved	C	6	6	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-04F2	Amber 250ml unpreserved	C	6	6	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-04G	Plastic 250ml HNO3 preserved	C	<2	<2	2.3	Y	Absent		BA-6020T(180),SE-6020T(180),TL-6020T(180),FE-6020T(180),CA-6020T(180),CR-6020T(180),NI-6020T(180),K-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),AL-6020T(180),CD-6020T(180),HARDT-6020(180),HG-T(28),MG-6020T(180),AG-6020T(180),CO-6020T(180)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No:04152514:08
Lab Number: L2515295
Report Date: 04/15/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515295-04G1	Plastic 250ml HNO3 preserved	C	<2	<2	2.3	Y	Absent		BA-6020T(180),SE-6020T(180),TL-6020T(180),FE-6020T(180),CA-6020T(180),CR-6020T(180),NI-6020T(180),K-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),AL-6020T(180),CD-6020T(180),HARDT-6020(180),HG-T(28),MG-6020T(180),AG-6020T(180),CO-6020T(180)
L2515295-04G2	Plastic 250ml HNO3 preserved	C	<2	<2	2.3	Y	Absent		BA-6020T(180),SE-6020T(180),TL-6020T(180),FE-6020T(180),CA-6020T(180),CR-6020T(180),NI-6020T(180),K-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),AL-6020T(180),CD-6020T(180),HARDT-6020(180),HG-T(28),MG-6020T(180),AG-6020T(180),CO-6020T(180)
L2515295-04H	Plastic 250ml H2SO4 preserved	C	<2	<2	2.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-04H1	Plastic 250ml H2SO4 preserved	C	<2	<2	2.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-04H2	Plastic 250ml H2SO4 preserved	C	<2	<2	2.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-04J	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-04J1	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-04J2	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-04K	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-04K1	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-04K2	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-05A	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-05B	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-05C	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-05D	Plastic 250ml unpreserved/No Headspace	D	NA		3.4	Y	Absent		ALK-T-2320(14)
L2515295-05E	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04152514:08
Lab Number: L2515295
Report Date: 04/15/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515295-05F	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-05G	Plastic 250ml HNO3 preserved	D	<2	<2	3.4	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),NI-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),B-TI(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),AS-6020T(180),V-6020T(180),MG-6020T(180),AG-6020T(180),HARDT-6020(180),HG-T(28),AL-6020T(180),CD-6020T(180),CO-6020T(180)
L2515295-05H	Plastic 250ml H2SO4 preserved	D	<2	<2	3.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-05J	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-05K	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-06A	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-06B	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-06C	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-06D	Plastic 250ml unpreserved/No Headspace	D	NA		3.4	Y	Absent		ALK-T-2320(14)
L2515295-06E	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-06F	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-06G	Plastic 250ml HNO3 preserved	D	<2	<2	3.4	Y	Absent		SE-6020T(180),BA-6020T(180),FE-6020T(180),TL-6020T(180),CR-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),B-TI(180),MN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),AG-6020T(180),HG-T(28),CD-6020T(180),AL-6020T(180),HARDT-6020(180),MG-6020T(180),CO-6020T(180)
L2515295-06H	Plastic 250ml H2SO4 preserved	D	<2	<2	3.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-06J	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-06K	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-07E	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-07F	Amber 250ml unpreserved	D	6	6	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)

Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515295-07J	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-07K	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-08A	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-08B	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-08C	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-08D	Plastic 250ml unpreserved/No Headspace	E	NA		4.1	Y	Absent		ALK-T-2320(14)
L2515295-08E	Amber 250ml unpreserved	E	6	6	4.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-08F	Amber 250ml unpreserved	E	6	6	4.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515295-08G	Plastic 250ml HNO3 preserved	E	<2	<2	4.1	Y	Absent		SE-6020T(180),BA-6020T(180),TL-6020T(180),FE-6020T(180),K-6020T(180),CA-6020T(180),CR-6020T(180),NI-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),B-TI(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),AS-6020T(180),V-6020T(180),AG-6020T(180),HG-T(28),AL-6020T(180),CD-6020T(180),HARDT-6020(180),MG-6020T(180),CO-6020T(180)
L2515295-08H	Plastic 250ml H2SO4 preserved	E	<2	<2	4.1	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-08J	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-08K	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-09A	Plastic 500ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-1633(28)
L2515295-10A	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-10B	Vial HCl preserved	D	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2515295-11A	Plastic 250ml HNO3 preserved	E	<2	<2	4.1	Y	Absent		PB-6020T(180)
L2515295-12A	Vial HCl preserved	D	NA	NA	3.4	Y	Absent		8260(14)
L2515295-12B	Vial HCl preserved	D	NA	NA	3.4	Y	Absent		8260(14)
L2515295-12C	Vial HCl preserved	D	NA	NA	3.4	Y	Absent		8260(14)
L2515295-12D	Plastic 250ml unpreserved/No Headspace	E	NA		4.1	Y	Absent		ALK-T-2320(14)
L2515295-12E	Plastic 250ml H2SO4 preserved	E	<2	<2	4.1	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-12F	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-12F1	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04152514:08
Lab Number: L2515295
Report Date: 04/15/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515295-12F2	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-12G	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-12G1	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-12G2	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-12H	Plastic 950ml HNO3 preserved	E	<2	<2	4.1	Y	Absent		AL-2008T(180),CD-2008T(180),CA-2008T(180),MN-2008T(180),NI-2008T(180),ZN-2008T(180),K-UI(180),BE-2008T(180),CU-2008T(180),HARDU(180),V-2008T(180),FE-UI(180),AG-2008T(180),AS-2008T(180),CO-2008T(180),HG-U(28),SE-2008T(180),B-UI(180),MG-2008T(180),NA-UI(180),BA-2008T(180),SB-2008T(180),TL-2008T(180),CR-2008T(180),PB-2008T(180)
L2515295-12H1	Plastic 950ml HNO3 preserved	E	<2	<2	4.1	Y	Absent		AL-2008T(180),CD-2008T(180),CA-2008T(180),MN-2008T(180),NI-2008T(180),ZN-2008T(180),K-UI(180),BE-2008T(180),CU-2008T(180),HARDU(180),V-2008T(180),FE-UI(180),AG-2008T(180),AS-2008T(180),CO-2008T(180),HG-U(28),SE-2008T(180),B-UI(180),MG-2008T(180),NA-UI(180),BA-2008T(180),SB-2008T(180),TL-2008T(180),CR-2008T(180),PB-2008T(180)
L2515295-12H2	Plastic 950ml HNO3 preserved	E	<2	<2	4.1	Y	Absent		AL-2008T(180),CD-2008T(180),CA-2008T(180),MN-2008T(180),NI-2008T(180),ZN-2008T(180),K-UI(180),BE-2008T(180),CU-2008T(180),HARDU(180),V-2008T(180),FE-UI(180),AG-2008T(180),AS-2008T(180),CO-2008T(180),HG-U(28),SE-2008T(180),B-UI(180),MG-2008T(180),NA-UI(180),BA-2008T(180),SB-2008T(180),TL-2008T(180),CR-2008T(180),PB-2008T(180)
L2515295-12J	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-12J1	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-12J2	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-12K	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-12K1	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-12K2	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-13A	Vial HCl preserved	D	NA	NA	3.4	Y	Absent		8260(14)
L2515295-13B	Vial HCl preserved	D	NA	NA	3.4	Y	Absent		8260(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04152514:08
Lab Number: L2515295
Report Date: 04/15/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515295-13C	Vial HCl preserved	D	NA	NA	3.4	Y	Absent		8260(14)
L2515295-13D	Plastic 250ml unpreserved/No Headspace	E	NA		4.1	Y	Absent		ALK-T-2320(14)
L2515295-13E	Plastic 250ml H2SO4 preserved	E	<2	<2	4.1	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515295-13F	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-13G	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-13H	Plastic 950ml HNO3 preserved	E	<2	<2	4.1	Y	Absent		AL-2008T(180),CD-2008T(180),MN-2008T(180),NI-2008T(180),CA-2008T(180),K-UI(180),ZN-2008T(180),BE-2008T(180),CU-2008T(180),HARDU(180),V-2008T(180),FE-UI(180),CO-2008T(180),AS-2008T(180),HG-U(28),SE-2008T(180),AG-2008T(180),B-UI(180),MG-2008T(180),BA-2008T(180),NA-UI(180),TL-2008T(180),PB-2008T(180),SB-2008T(180),CR-2008T(180)
L2515295-13J	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-13K	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-14J	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-15F	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-15G	Amber 500ml NaSulfite/NaHSO4 preserved	E	<4	<4	4.1	Y	Absent		A2-14DIOXANE-522(28)
L2515295-15H	Plastic 950ml HNO3 preserved	E	<2	<2	4.1	Y	Absent		CD-2008T(180),AL-2008T(180),NI-2008T(180),CA-2008T(180),MN-2008T(180),K-UI(180),ZN-2008T(180),BE-2008T(180),CU-2008T(180),FE-UI(180),HARDU(180),V-2008T(180),AG-2008T(180),AS-2008T(180),CO-2008T(180),SE-2008T(180),HG-U(28),MG-2008T(180),B-UI(180),BA-2008T(180),NA-UI(180),TL-2008T(180),SB-2008T(180),CR-2008T(180),PB-2008T(180)
L2515295-15J	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)
L2515295-15K	Plastic 250ml Trizma preserved	B	NA		4.1	Y	Absent		A2-537.1(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No:04152514:08
Lab Number: L2515295
Report Date: 04/15/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: RAMAPO LANDFILL

Project Number: 20010

Serial_No:04152514:08
Lab Number: L2515295

Report Date: 04/15/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

Footnotes

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

Terms

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

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

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

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

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

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: RAMAPO LANDFILL**Lab Number:** L2515295**Project Number:** 20010**Report Date:** 04/15/25**Data Qualifiers**

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515295
Report Date: 04/15/25

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 120 Determination of 1,4-Dioxane in Drinking Water by Solid Phase Extraction (SPE) and Gas Chromatography/Mass Spectrometry (GC/MS) with Selected Ion Monitoring (SIM). EPA Method 522, EPA/600/R-08/101. Version 1.0, September 2008.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 133 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537.1, EPA/600/R-20/006. Version 2.0, March 2020.
- 144 Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. Draft EPA Method 1633, EPA Document 821-D-22-001, June 2022.

LIMITATION OF LIABILITIES

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

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



Pace Analytical Services LLCFacility: **Northeast**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 27

Published Date: 01/24/2025

Page 1 of 2

Certification Information

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

MADEP-APH.**Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

Pace Analytical Services LLCID No.:**17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

Page 2 of 2

Certification IDs:**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

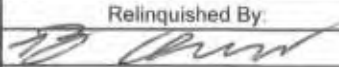
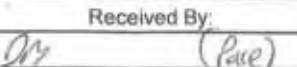
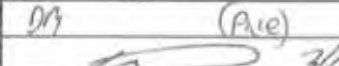
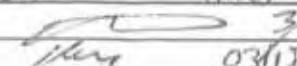
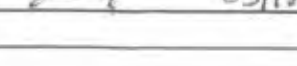
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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

L2515295
STERLINGENV

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 3		Date Rec'd in Lab 3/18/25																																																																																																																																																																																																											
		Project Information Project Name: Ramapo Landfill Project Location: Suffern, NY Project # 20010 (Use Project name as Project #) ☐		Deliverables ☒ ASP-A ☒ ASP-B ☒ Same as Client Info ☐ EQuIS (1 File) ☐ EQuIS (4 File) ☐ Other *ASP-B for PFAS and 1,4-Dioxane ONLY																																																																																																																																																																																																													
Client Information Client: Sterling Env. Eng. Address: 24 Wade Rd Latham, NY 12110 Phone: (518) 456-4900 Fax: Email: See Below		Project Manager: Andrew Millspaugh ALPHAQuote #: 27359 Turn-Around Time Standard ☒ Due Date: Rush (only if pre approved) ☐ # of Days:		Regulatory Requirement ☒ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other:																																																																																																																																																																																																											
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: andrew.millspaugh@sterlingenvironmental.com brian.chew@sterlingenvironmental.com Please specify Metals or TAL. *VOCs: 1,1-Dichloroethane, Benzene, Chlorobenzene, Ethylbenzene **Baseline Metals: Al, Sb, As, B, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Ti, V, Zn		ANALYSIS		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)																																																																																																																																																																																																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2">*Total Metals (6010D)</th> <th rowspan="2">TKN, COD</th> <th rowspan="2">Alkalinity</th> <th rowspan="2">*VOCs (8260D)</th> <th rowspan="2">1,4-Dioxane (8270E-SIM)</th> <th rowspan="2">PFAS (1631)</th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>15295-01</td> <td>UP-OS</td> <td>3/17/25</td> <td>13:00</td> <td>GL</td> <td>BTC</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-02</td> <td>UP-I</td> <td></td> <td>13:40</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-03</td> <td>UP-R</td> <td></td> <td>12:30</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-04</td> <td>10-OS</td> <td></td> <td>10:05</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>↓</td> <td>10-OS MS</td> <td></td> <td>10:15</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>↓</td> <td>10-OS MSD</td> <td></td> <td>10:25</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-05</td> <td>10-I</td> <td></td> <td>11:40</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-06</td> <td>10-R</td> <td></td> <td>11:10</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-07</td> <td>MH-A5</td> <td></td> <td>14:00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-08</td> <td>DUP031725</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	*Total Metals (6010D)	TKN, COD	Alkalinity	*VOCs (8260D)	1,4-Dioxane (8270E-SIM)	PFAS (1631)							Date	Time	15295-01	UP-OS	3/17/25	13:00	GL	BTC	X	X	X	X	X	X							-02	UP-I		13:40			X	X	X	X	X	X							-03	UP-R		12:30			X	X	X	X	X	X							-04	10-OS		10:05			X	X	X	X	X	X							↓	10-OS MS		10:15			X	X	X	X	X	X							↓	10-OS MSD		10:25			X	X	X	X	X	X							-05	10-I		11:40			X	X	X	X	X	X							-06	10-R		11:10			X	X	X	X	X	X							-07	MH-A5		14:00							X	X							-08	DUP031725					X	X	X	X	X	X							Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		P P P V A P C D A B A A		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
ALPHA Lab ID (Lab Use Only)	Sample ID			Collection																Sample Matrix	Sampler's Initials	*Total Metals (6010D)	TKN, COD	Alkalinity	*VOCs (8260D)	1,4-Dioxane (8270E-SIM)	PFAS (1631)																																																																																																																																																																																						
		Date	Time																																																																																																																																																																																																														
15295-01	UP-OS	3/17/25	13:00	GL	BTC	X	X	X	X	X	X																																																																																																																																																																																																						
-02	UP-I		13:40			X	X	X	X	X	X																																																																																																																																																																																																						
-03	UP-R		12:30			X	X	X	X	X	X																																																																																																																																																																																																						
-04	10-OS		10:05			X	X	X	X	X	X																																																																																																																																																																																																						
↓	10-OS MS		10:15			X	X	X	X	X	X																																																																																																																																																																																																						
↓	10-OS MSD		10:25			X	X	X	X	X	X																																																																																																																																																																																																						
-05	10-I		11:40			X	X	X	X	X	X																																																																																																																																																																																																						
-06	10-R		11:10			X	X	X	X	X	X																																																																																																																																																																																																						
-07	MH-A5		14:00							X	X																																																																																																																																																																																																						
-08	DUP031725					X	X	X	X	X	X																																																																																																																																																																																																						
Relinquished By:  Date/Time: 03/17/25 18:30 Received By:  (Pac) Date/Time: 3/17/25 (18:36)		Relinquished By:  (Ave) Date/Time: 3/17/25 (18:40) Received By:  Date/Time: 3/17/25 23:00		Relinquished By:  Date/Time: 3/18/25 01:40 Received By:  Date/Time: 03/18/25 01:40																																																																																																																																																																																																													

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 2 of 3		Date Rec'd In Lab 3/18/25		ALPHA Job # 42515295																																																																																																																																																																																																																																																																							
		Project Information Project Name: Ramapo Landfill Project Location: Suffern, NY Project # 20010 (Use Project name as Project #) ☐ Project Manager: Andrew Millspaugh ALPHAQuote #: 27359 Turn-Around Time Standard ☒ Due Date: Rush (only if pre approved) ☐ # of Days:		Deliverables ☒ ASP-A ☒ ASP-B ☐ EQuIS (1 File) ☐ EQuIS (4 File) ☐ Other *ASP-B for PFAS and 1,4-Dioxane ONLY		Billing Information ☒ Same as Client Info PO #																																																																																																																																																																																																																																																																									
Client Information Client: Sterling Env. Eng. Address: 24 Wade Rd Latham, NY 12110 Phone: (518) 456-4900 Fax: Email: See Below		Regulatory Requirement ☒ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other:																																																																																																																																																																																																																																																																											
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: andrew.millspaugh@sterlingenvironmental.com brian.chew@sterlingenvironmental.com Please specify Metals or TAL. *VOCs: 1,1-Dichloroethane, Benzene, Chlorobenzene, Ethylbenzene **Baseline Metals: Al, Sb, As, B, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Ti, V, Zn		ANALYSIS		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)																																																																																																																																																																																																																																																																											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2">**Total Metals (6010D)</th> <th rowspan="2">TKN, COD</th> <th rowspan="2">Alkalinity</th> <th rowspan="2">*VOCs (8260D)</th> <th rowspan="2">1,4-Dioxane (8270E-SIM)</th> <th rowspan="2">PFAS (1631)</th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>15295-09</td> <td>EB031725</td> <td>3/17/25</td> <td>12:00</td> <td>LW</td> <td>BTC</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-10</td> <td>TR031725</td> <td>↓</td> <td>—</td> <td>↓</td> <td>↓</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-11</td> <td>RPD RR</td> <td>↓</td> <td>17:00</td> <td>↓</td> <td>↓</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Lead only</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	**Total Metals (6010D)	TKN, COD	Alkalinity	*VOCs (8260D)	1,4-Dioxane (8270E-SIM)	PFAS (1631)								Date	Time	15295-09	EB031725	3/17/25	12:00	LW	BTC							X							-10	TR031725	↓	—	↓	↓				X										-11	RPD RR	↓	17:00	↓	↓	X												Lead only																																																																																																																																																																																															Sample Specific Comments	
ALPHA Lab ID (Lab Use Only)	Sample ID			Collection																	Sample Matrix	Sampler's Initials	**Total Metals (6010D)	TKN, COD	Alkalinity	*VOCs (8260D)	1,4-Dioxane (8270E-SIM)	PFAS (1631)																																																																																																																																																																																																																																																			
		Date	Time																																																																																																																																																																																																																																																																												
15295-09	EB031725	3/17/25	12:00	LW	BTC							X																																																																																																																																																																																																																																																																			
-10	TR031725	↓	—	↓	↓				X																																																																																																																																																																																																																																																																						
-11	RPD RR	↓	17:00	↓	↓	X												Lead only																																																																																																																																																																																																																																																													
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>P</td><td>P</td><td>P</td><td>V</td><td>A</td><td>P</td><td></td><td></td> </tr> <tr> <td>C</td><td>D</td><td>A</td><td>B</td><td>A</td><td>A</td><td></td><td></td> </tr> </table>		P	P	P	V	A	P			C	D	A	B	A	A			Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side)																																																																																																																																																																																																																																																					
P	P	P	V	A	P																																																																																																																																																																																																																																																																										
C	D	A	B	A	A																																																																																																																																																																																																																																																																										
Relinquished By: <i>[Signature]</i> Date/Time: 03/17/25 18:30		Received By: <i>[Signature]</i> Date/Time: 3/17/25 (1836)		Relinquished By: <i>[Signature]</i> Date/Time: 3/17/25 (1840)		Received By: <i>[Signature]</i> Date/Time: 03/18/25 01:40		Form No. 01-25 HC (rev. 30-Sept-2013)																																																																																																																																																																																																																																																																							

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>3</u> of <u>3</u>		Date Rec'd In Lab <u>3/18/25</u>		ALPHA Job # <u>L2518295</u>																																																																																																																																																								
		Project Information Project Name: <u>Ramapo Landfill</u> Project Location: <u>Suffern, NY</u> Project # <u>20010</u> (Use Project name as Project #) ☐		Deliverables ☒ ASP-A ☒ ASP-B ☐ EQuIS (1 File) ☐ EQuIS (4 File) <u>PO#</u> <u>*</u> ☐ Other <u>*ASP-B for PFAS and 1,4-Dioxane ONLY</u>		Billing Information ☒ Same as Client Info																																																																																																																																																										
Client Information Client: <u>Sterling Env. Eng.</u> Address: <u>24 Wade Rd</u> <u>Latham, NY 12110</u> Phone: <u>(518) 456-4900</u> Fax: _____ Email: <u>See Below</u>		Project Manager: <u>Andrew Millspaugh</u> ALPHAQuote #: <u>27359</u> Turn-Around Time Standard ☒ Due Date: _____ Rush (only if pre approved) ☐ # of Days: _____		Regulatory Requirement ☒ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other: _____																																																																																																																																																										
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: <u>andrew.millspaugh@sterlingenvironmental.com</u> <u>brian.chew@sterlingenvironmental.com</u> Please specify Metals or TAL. *VOCs: 1,1-Dichloroethane, Benzene, Chlorobenzene, Ethylbenzene **Baseline Metals: Al, Sb, As, B, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Ti, V, Zn		ANALYSIS		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)		Total Bottle																																																																																																																																																										
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2">**Total Metals (200.7)</th> <th rowspan="2">TKN, COD</th> <th rowspan="2">Alkalinity</th> <th rowspan="2">*VOCs (8260D)</th> <th rowspan="2">1,4-Dioxane (\$22)</th> <th rowspan="2">PFAS (\$37.1)</th> <th rowspan="2"></th> <th rowspan="2"></th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td><u>18211-12</u></td> <td><u>PW-1</u></td> <td><u>3/17/25</u></td> <td><u>15:30</u></td> <td><u>DW</u></td> <td><u>BTC</u></td> <td><u>X</u></td> <td><u>X</u></td> <td><u>X</u></td> <td><u>X</u></td> <td><u>X</u></td> <td><u>X</u></td> <td></td> <td></td> </tr> <tr> <td><u>✓</u></td> <td><u>PW-1 MS</u></td> <td><u>↓</u></td> <td><u>15:40</u></td> <td><u>↓</u></td> <td><u>↓</u></td> <td><u>X</u></td> <td></td> <td></td> <td></td> <td><u>X</u></td> <td><u>X</u></td> <td></td> <td></td> </tr> <tr> <td><u>✓</u></td> <td><u>PW-1 MSD</u></td> <td><u>↓</u></td> <td><u>15:50</u></td> <td><u>↓</u></td> <td><u>↓</u></td> <td><u>X</u></td> <td></td> <td></td> <td></td> <td><u>X</u></td> <td><u>X</u></td> <td></td> <td></td> </tr> <tr> <td><u>-13</u></td> <td><u>PW-2</u></td> <td><u>↓</u></td> <td><u>16:20</u></td> <td><u>↓</u></td> <td><u>↓</u></td> <td><u>X</u></td> <td><u>X</u></td> <td><u>X</u></td> <td><u>X</u></td> <td><u>X</u></td> <td><u>X</u></td> <td></td> <td></td> </tr> <tr> <td><u>-14</u></td> <td><u>FB031725</u></td> <td><u>↓</u></td> <td><u>15:20</u></td> <td><u>LW</u></td> <td><u>↓</u></td> <td></td> <td></td> <td></td> <td></td> <td><u>X</u></td> <td></td> <td></td> <td><u>FB031725</u></td> </tr> <tr> <td><u>-15</u></td> <td><u>PUP031725</u></td> <td><u>↓</u></td> <td><u>—</u></td> <td><u>DW</u></td> <td><u>↓</u></td> <td><u>X</u></td> <td></td> <td></td> <td></td> <td><u>X</u></td> <td><u>X</u></td> <td></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection			Sample Matrix	Sampler's Initials	**Total Metals (200.7)	TKN, COD	Alkalinity	*VOCs (8260D)	1,4-Dioxane (\$22)	PFAS (\$37.1)			Date	Time	<u>18211-12</u>	<u>PW-1</u>	<u>3/17/25</u>	<u>15:30</u>	<u>DW</u>	<u>BTC</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			<u>✓</u>	<u>PW-1 MS</u>	<u>↓</u>	<u>15:40</u>	<u>↓</u>	<u>↓</u>	<u>X</u>				<u>X</u>	<u>X</u>			<u>✓</u>	<u>PW-1 MSD</u>	<u>↓</u>	<u>15:50</u>	<u>↓</u>	<u>↓</u>	<u>X</u>				<u>X</u>	<u>X</u>			<u>-13</u>	<u>PW-2</u>	<u>↓</u>	<u>16:20</u>	<u>↓</u>	<u>↓</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			<u>-14</u>	<u>FB031725</u>	<u>↓</u>	<u>15:20</u>	<u>LW</u>	<u>↓</u>					<u>X</u>			<u>FB031725</u>	<u>-15</u>	<u>PUP031725</u>	<u>↓</u>	<u>—</u>	<u>DW</u>	<u>↓</u>	<u>X</u>				<u>X</u>	<u>X</u>																																																											Sample Specific Comments	
ALPHA Lab ID (Lab Use Only)	Sample ID			Collection													Sample Matrix	Sampler's Initials	**Total Metals (200.7)	TKN, COD	Alkalinity	*VOCs (8260D)	1,4-Dioxane (\$22)	PFAS (\$37.1)																																																																																																																																								
		Date	Time																																																																																																																																																													
<u>18211-12</u>	<u>PW-1</u>	<u>3/17/25</u>	<u>15:30</u>	<u>DW</u>	<u>BTC</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>																																																																																																																																																				
<u>✓</u>	<u>PW-1 MS</u>	<u>↓</u>	<u>15:40</u>	<u>↓</u>	<u>↓</u>		<u>X</u>				<u>X</u>	<u>X</u>																																																																																																																																																				
<u>✓</u>	<u>PW-1 MSD</u>	<u>↓</u>	<u>15:50</u>	<u>↓</u>	<u>↓</u>		<u>X</u>				<u>X</u>	<u>X</u>																																																																																																																																																				
<u>-13</u>	<u>PW-2</u>	<u>↓</u>	<u>16:20</u>	<u>↓</u>	<u>↓</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>																																																																																																																																																				
<u>-14</u>	<u>FB031725</u>	<u>↓</u>	<u>15:20</u>	<u>LW</u>	<u>↓</u>						<u>X</u>			<u>FB031725</u>																																																																																																																																																		
<u>-15</u>	<u>PUP031725</u>	<u>↓</u>	<u>—</u>	<u>DW</u>	<u>↓</u>		<u>X</u>				<u>X</u>	<u>X</u>																																																																																																																																																				
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type: P P P V A P Preservative: C D A B G/O O		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																																																																																																								
Relinquished By: <u>[Signature]</u> (Pate)		Date/Time: <u>03/17/25 18:30</u>		Received By: <u>[Signature]</u> (Pace)		Date/Time: <u>3/17/25 18:30</u>		Date/Time: <u>3/18/25 01:40</u>																																																																																																																																																								



ANALYTICAL REPORT

Lab Number:	L2515755
Client:	Sterling Environmental Engineering 24 Wade Road Latham, NY 12110
ATTN:	Andrew Millspaugh
Phone:	(518) 456-4900
Project Name:	RAMAPO LANDFILL
Project Number:	20010
Report Date:	04/04/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2515755-01	SVWC-93	WATER	SUFFERN, NY	03/18/25 09:30	03/18/25
L2515755-02	SVWC-94	WATER	SUFFERN, NY	03/18/25 10:00	03/18/25
L2515755-03	SVWC-95	WATER	SUFFERN, NY	03/18/25 10:30	03/18/25
L2515755-04	SVWC-96	WATER	SUFFERN, NY	03/18/25 11:00	03/18/25
L2515755-05	8-OS	WATER	SUFFERN, NY	03/18/25 14:20	03/18/25
L2515755-06	8-I	WATER	SUFFERN, NY	03/18/25 15:30	03/18/25
L2515755-07	8-R	WATER	SUFFERN, NY	03/18/25 14:55	03/18/25
L2515755-08	9-OS	WATER	SUFFERN, NY	03/18/25 13:25	03/18/25
L2515755-09	9-I	WATER	SUFFERN, NY	03/18/25 12:05	03/18/25
L2515755-10	9-R	WATER	SUFFERN, NY	03/18/25 12:50	03/18/25
L2515755-11	EB031825	WATER	SUFFERN, NY	03/18/25 13:40	03/18/25
L2515755-12	TB031825	WATER	SUFFERN, NY	03/18/25 00:00	03/18/25
L2515755-13	4-OS	WATER	SUFFERN, NY	03/18/25 16:30	03/18/25
L2515755-14	4-I	WATER	SUFFERN, NY	03/18/25 17:20	03/18/25
L2515755-15	4-R	WATER	SUFFERN, NY	03/18/25 18:00	03/18/25

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Case Narrative

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

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

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

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

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

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

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Case Narrative (continued)

Report Submission

April 04, 2025: This final report includes the results of all requested analyses.

March 31, 2025: This is a preliminary report.

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

Perfluorinated Alkyl Acids by 1633

L2515755-06, -07, and -10: The sample was centrifuged and decanted prior to extraction due to sample matrix.

L2515755-06: The Extracted Internal Standard recoveries were above the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]hexanesulfonic acid (m2-4:2fts) (289%), perfluoro[1,2,3,4,6-13c5]hexanoic acid (m5pfhxa) (132%), 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (281%), and 2,3,3,3-tetrafluoro-2-[1,1,2,2,3,3,3-heptafluoropropoxy]-13c3-propanoic acid (m3hfpo-da) (141%); however, any associated target analytes detected above the RL are not reported from this analysis.

L2515755-06: The sample was re-analyzed on dilution due to EIS failure in the original analysis. The results of the re-analysis are reported for the associated target compounds.

L2515755-06D: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[1,2,3,4,5,6,7-13c7]undecanoic acid (m7-pfuda) (164%); however, this recovery does not apply to the abbreviated list of target analytes reported.

L2515755-07: The sample was re-analyzed on dilution in order to quantitate the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

L2515755-07: The Extracted Internal Standard recoveries were above the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]hexanesulfonic acid (m2-4:2fts) (234%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (233%). Since the sample was non-detect to the RL for all associated

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Case Narrative (continued)

target analytes, re-analysis was not required.

L2515755-07D: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanoic acid (m8pfoa) (136%); however, this recovery does not apply to the abbreviated list of target analytes reported.

L2515755-09: The Extracted Internal Standard recoveries were above the acceptance criteria for perfluoro[13c5]pentanoic acid (m5pfpea) (132%) and perfluoro[1,2,3,4-13c4]heptanoic acid (m4pfhpa) (131%); however, any associated target analytes detected above the RL are not reported from this analysis.

L2515755-09: The sample was re-analyzed on dilution due to EIS failure in the original analysis. The results of the re-analysis are reported for the associated target compounds.

L2515755-09D: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanoic acid (m8pfoa) (141%); however, this recovery does not apply to the abbreviated list of target analytes reported.

L2515755-10: The Extracted Internal Standard recovery was above the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]hexanesulfonic acid (m2-4:2fts) (203%). Since the sample was non-detect to the RL for all associated target analytes, re-analysis was not required.

WG2047829-1: The Extracted Internal Standard recovery was above the acceptance criteria for perfluoro[13c5]pentanoic acid (m5pfpea) (144%). Since the blank was non-detect to the RL for all associated target analytes, re-analysis was not required.

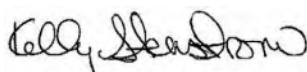
Total Metals

The WG2044391-3 MS recoveries performed on L2515755-01 are outside the acceptance criteria for calcium (148%) and iron (130%). A post digestion spike was performed and was within acceptance criteria.

The WG2044391-6 serial dilution analysis, associated with L2515755-01, had a %D above the acceptance criteria for calcium (24%).

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 04/04/25

ORGANICS

VOLATILES

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-01
Client ID: SVWC-93
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 09:30
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 12:14
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	106		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-02
Client ID: SVWC-94
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 10:00
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 12:38
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	102		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-03
Client ID: SVWC-95
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 10:30
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 13:03
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	102		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-04
Client ID: SVWC-96
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 11:00
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 13:27
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	105		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-05
Client ID: 8-OS
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:20
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 13:52
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	106		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-06
Client ID: 8-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 15:30
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 14:17
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	103		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-07
Client ID: 8-R
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:55
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 14:41
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	105		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-08
Client ID: 9-OS
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 13:25
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 15:06
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	105		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-09
Client ID: 9-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:05
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 15:30
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	109		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-10
Client ID: 9-R
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:50
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 15:55
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	108		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-12
Client ID: TB031825
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 00:00
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 16:19
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	107		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-13
Client ID: 4-OS
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 16:30
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 16:43
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	108		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-14
Client ID: 4-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 17:20
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 17:08
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	108		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-15
Client ID: 4-R
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 18:00
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 17:32
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	107		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 03/24/25 09:45
 Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-10,12-15 Batch: WG2044960-5					
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Ethylbenzene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	104		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10,12-15 Batch: WG2044960-3 WG2044960-4								
1,1-Dichloroethane	120		100		70-130	18		20
Chlorobenzene	110		95		75-130	15		20
Benzene	110		93		70-130	17		20
Ethylbenzene	110		96		70-130	14		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	118		117		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	111		112		70-130
Dibromofluoromethane	102		99		70-130

SEMIVOLATILES

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-01
Client ID: SVWC-93
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 09:30
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 03/26/25 09:05
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	153	34.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	35			15-110		

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-01
 Client ID: SVWC-93
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 09:30
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 03/25/25 18:55
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 03/25/25 07:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	2.64	J	ng/l	6.55	0.540	1
Perfluoropentanoic Acid (PFPeA)	2.26	J	ng/l	3.28	0.368	1
Perfluorobutanesulfonic Acid (PFBS)	1.51	J	ng/l	1.64	0.409	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.55	0.933	1
Perfluorohexanoic Acid (PFHxA)	2.32		ng/l	1.64	0.254	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.64	0.213	1
Perfluoroheptanoic Acid (PFHpA)	1.14	J	ng/l	1.64	0.246	1
Perfluorohexanesulfonic Acid (PFHxS)	0.909	J	ng/l	1.64	0.139	1
Perfluorooctanoic Acid (PFOA)	3.30		ng/l	1.64	0.270	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.55	4.93	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.64	0.205	1
Perfluorononanoic Acid (PFNA)	0.827	J	ng/l	1.64	0.270	1
Perfluorooctanesulfonic Acid (PFOS)	2.21		ng/l	1.64	0.270	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.64	0.213	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.55	1.25	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.64	0.205	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.64	0.491	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.64	0.180	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.64	0.139	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.64	0.098	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.64	0.491	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.64	0.221	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.64	0.188	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.64	0.164	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.55	1.64	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.55	0.385	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.64	0.246	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS****Lab ID:** L2515755-01**Date Collected:** 03/18/25 09:30**Client ID:** SVWC-93**Date Received:** 03/18/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.55	0.450	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.55	0.458	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.64	0.229	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.64	0.360	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.4	1.33	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.4	1.13	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.28	0.254	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.28	0.368	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.28	0.336	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.28	0.557	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.19	0.548	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.9	4.36	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.9	3.26	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-01

Date Collected: 03/18/25 09:30

Client ID: SVWC-93

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	96				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	96				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	95				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	98				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	95				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	92				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	93				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	99				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	92				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	90				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	85				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	89				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	78				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	81				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	75				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	75				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	64				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	62				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	62				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	93				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	54				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	57				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	62				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	61				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-02
Client ID: SVWC-94
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 10:00
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 03/26/25 09:26
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	61.0	J	ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	33			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-02
Client ID: SVWC-94
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 10:00
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 03/25/25 19:04
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 03/25/25 07:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	2.84	J	ng/l	6.23	0.514	1
Perfluoropentanoic Acid (PFPeA)	3.08	J	ng/l	3.11	0.350	1
Perfluorobutanesulfonic Acid (PFBS)	1.72		ng/l	1.56	0.389	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.23	0.888	1
Perfluorohexanoic Acid (PFHxA)	3.00		ng/l	1.56	0.241	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.56	0.202	1
Perfluoroheptanoic Acid (PFHpA)	1.60		ng/l	1.56	0.234	1
Perfluorohexanesulfonic Acid (PFHxS)	0.966	J	ng/l	1.56	0.132	1
Perfluorooctanoic Acid (PFOA)	4.72		ng/l	1.56	0.257	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.23	4.69	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.56	0.195	1
Perfluorononanoic Acid (PFNA)	1.76		ng/l	1.56	0.257	1
Perfluorooctanesulfonic Acid (PFOS)	2.11		ng/l	1.56	0.257	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.56	0.202	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.23	1.19	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.56	0.195	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.56	0.467	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.56	0.171	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.56	0.132	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.56	0.093	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.56	0.467	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.56	0.210	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.56	0.179	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.56	0.156	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.23	1.56	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.23	0.366	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.56	0.234	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-02

Date Collected: 03/18/25 10:00

Client ID: SVWC-94

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.23	0.428	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.23	0.436	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.56	0.218	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.56	0.343	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.6	1.27	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.6	1.07	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.11	0.241	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.11	0.350	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.11	0.319	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.11	0.530	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.79	0.522	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	38.9	4.14	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	38.9	3.10	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-02

Date Collected: 03/18/25 10:00

Client ID: SVWC-94

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	96				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	96				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	93				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	107				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	93				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	93				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	90				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	92				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	93				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	99				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	96				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	92				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	76				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	97				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	83				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	78				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	73				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	71				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	67				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	95				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	74				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	76				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	74				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	75				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-03
 Client ID: SVWC-95
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 10:30
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/26/25 09:46
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	691.		ng/l	142	32.0	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	31			15-110		

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-03
 Client ID: SVWC-95
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 10:30
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 03/25/25 19:13
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 03/25/25 07:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.89	J	ng/l	6.42	0.530	1
Perfluoropentanoic Acid (PFPeA)	1.96	J	ng/l	3.21	0.361	1
Perfluorobutanesulfonic Acid (PFBS)	1.69		ng/l	1.61	0.402	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.42	0.915	1
Perfluorohexanoic Acid (PFHxA)	1.95		ng/l	1.61	0.249	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.61	0.209	1
Perfluoroheptanoic Acid (PFHpA)	1.25	J	ng/l	1.61	0.241	1
Perfluorohexanesulfonic Acid (PFHxS)	1.04	J	ng/l	1.61	0.136	1
Perfluorooctanoic Acid (PFOA)	4.14		ng/l	1.61	0.265	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.42	4.83	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.61	0.201	1
Perfluorononanoic Acid (PFNA)	17.7		ng/l	1.61	0.265	1
Perfluorooctanesulfonic Acid (PFOS)	2.71		ng/l	1.61	0.265	1
Perfluorodecanoic Acid (PFDA)	0.321	J	ng/l	1.61	0.209	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.42	1.23	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.61	0.201	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.61	0.482	1
Perfluoroundecanoic Acid (PFUnA)	0.281	J	ng/l	1.61	0.177	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.61	0.136	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.61	0.096	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.61	0.482	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.61	0.217	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.61	0.185	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.61	0.161	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.42	1.61	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.42	0.377	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.61	0.241	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-03

Date Collected: 03/18/25 10:30

Client ID: SVWC-95

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.42	0.442	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.42	0.450	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.61	0.225	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.61	0.353	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.1	1.31	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.1	1.11	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.21	0.249	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.21	0.361	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.21	0.329	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.21	0.546	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.03	0.538	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.2	4.27	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.2	3.20	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-03

Date Collected: 03/18/25 10:30

Client ID: SVWC-95

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	87				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	87				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	85				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	91				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	81				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	81				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	83				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	90				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	83				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	82				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	80				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	83				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	71				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	95				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	74				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	76				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	64				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	69				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	65				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	86				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	68				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	69				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	68				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	72				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-04
 Client ID: SVWC-96
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 11:00
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/26/25 10:07
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	130.	J	ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	34			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-04
Client ID: SVWC-96
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 11:00
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 03/25/25 19:22
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 03/25/25 07:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	2.98	J	ng/l	6.04	0.499	1
Perfluoropentanoic Acid (PFPeA)	2.75	J	ng/l	3.02	0.340	1
Perfluorobutanesulfonic Acid (PFBS)	1.47	J	ng/l	1.51	0.378	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.04	0.862	1
Perfluorohexanoic Acid (PFHxA)	2.78		ng/l	1.51	0.234	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.51	0.196	1
Perfluoroheptanoic Acid (PFHpA)	1.40	J	ng/l	1.51	0.227	1
Perfluorohexanesulfonic Acid (PFHxS)	0.982	J	ng/l	1.51	0.128	1
Perfluorooctanoic Acid (PFOA)	3.86		ng/l	1.51	0.249	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.04	4.55	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.51	0.189	1
Perfluorononanoic Acid (PFNA)	4.06		ng/l	1.51	0.249	1
Perfluorooctanesulfonic Acid (PFOS)	2.55		ng/l	1.51	0.249	1
Perfluorodecanoic Acid (PFDA)	0.249	J	ng/l	1.51	0.196	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.04	1.16	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.51	0.189	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.51	0.453	1
Perfluoroundecanoic Acid (PFUnA)	0.174	J	ng/l	1.51	0.166	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.51	0.128	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.51	0.091	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.51	0.453	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.51	0.204	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.51	0.174	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.51	0.151	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.04	1.51	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.04	0.355	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.51	0.227	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-04

Date Collected: 03/18/25 11:00

Client ID: SVWC-96

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.04	0.416	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.04	0.423	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.51	0.212	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.51	0.332	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.1	1.23	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.1	1.04	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.02	0.234	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.02	0.340	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.02	0.310	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.02	0.514	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.56	0.506	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	37.8	4.02	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	37.8	3.01	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-04

Date Collected: 03/18/25 11:00

Client ID: SVWC-96

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	102				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	98				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	104				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	114				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	97				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	93				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	98				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	102				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	96				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	96				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	90				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	91				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	87				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	99				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	84				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	76				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	72				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	70				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	64				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	100				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	61				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	61				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	67				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	66				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-05
 Client ID: 8-OS
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:20
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/26/25 10:27
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	1430		ng/l	153	34.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	36			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-05
Client ID: 8-OS
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:20
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 03/25/25 19:48
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 03/25/25 07:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	29.2		ng/l	6.57	0.542	1
Perfluoropentanoic Acid (PFPeA)	4.75		ng/l	3.29	0.370	1
Perfluorobutanesulfonic Acid (PFBS)	1.72		ng/l	1.64	0.411	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.57	0.937	1
Perfluorohexanoic Acid (PFHxA)	4.27		ng/l	1.64	0.255	1
Perfluoropentanesulfonic Acid (PFPeS)	0.214	J	ng/l	1.64	0.214	1
Perfluoroheptanoic Acid (PFHpA)	3.52		ng/l	1.64	0.246	1
Perfluorohexanesulfonic Acid (PFHxS)	1.02	J	ng/l	1.64	0.140	1
Perfluorooctanoic Acid (PFOA)	8.50		ng/l	1.64	0.271	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.57	4.95	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.64	0.205	1
Perfluorononanoic Acid (PFNA)	18.1		ng/l	1.64	0.271	1
Perfluorooctanesulfonic Acid (PFOS)	4.81		ng/l	1.64	0.271	1
Perfluorodecanoic Acid (PFDA)	0.427	J	ng/l	1.64	0.214	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.57	1.26	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.64	0.205	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.64	0.493	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.64	0.181	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.64	0.140	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.64	0.099	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.64	0.493	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.64	0.222	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.64	0.189	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.64	0.164	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.57	1.64	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.57	0.386	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.64	0.246	1



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-05
Client ID: 8-OS
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:20
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.57	0.452	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.57	0.460	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.64	0.230	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.64	0.362	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.4	1.34	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.4	1.13	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.29	0.255	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.29	0.370	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.29	0.337	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.29	0.559	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.22	0.550	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	41.1	4.37	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	41.1	3.27	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-05

Date Collected: 03/18/25 14:20

Client ID: 8-OS

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	101				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	98				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	96				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	130				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	94				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	89				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	91				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	97				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	98				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	87				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	88				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	85				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	79				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	96				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	74				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	74				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	70				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	67				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	63				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	95				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	61				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	60				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	65				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	64				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-06
 Client ID: 8-I
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 15:30
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/26/25 10:56
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	37400		ng/l	150	33.9	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	40			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-06
Client ID: 8-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 15:30
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/03/25 13:38
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	563		ng/l	6.50	0.536	1
Perfluoropentanoic Acid (PFPeA)	25.2		ng/l	3.25	0.366	1
Perfluorobutanesulfonic Acid (PFBS)	6.50		ng/l	1.62	0.406	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.50	0.926	1
Perfluoropentanesulfonic Acid (PFPeS)	2.67	F	ng/l	1.62	0.211	1
Perfluoroheptanoic Acid (PFHpA)	27.3		ng/l	1.62	0.244	1
Perfluorohexanesulfonic Acid (PFHxS)	10.0		ng/l	1.62	0.138	1
Perfluorooctanoic Acid (PFOA)	58.3		ng/l	1.62	0.268	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.292	JF	ng/l	1.62	0.203	1
Perfluorononanoic Acid (PFNA)	446		ng/l	1.62	0.268	1
Perfluorooctanesulfonic Acid (PFOS)	12.4		ng/l	1.62	0.268	1
Perfluorodecanoic Acid (PFDA)	1.37	J	ng/l	1.62	0.211	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.50	1.24	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.62	0.203	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.593	J	ng/l	1.62	0.488	1
Perfluoroundecanoic Acid (PFUnA)	0.991	J	ng/l	1.62	0.179	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.62	0.138	1
Perfluorooctanesulfonamide (PFOSA)	0.520	J	ng/l	1.62	0.098	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	5.35		ng/l	1.62	0.488	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.62	0.219	1
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	1.62	0.187	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.62	0.162	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.50	1.62	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.50	0.382	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.62	0.244	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.50	0.447	1



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-06
Client ID: 8-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 15:30
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.50	0.455	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.62	0.228	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.62	0.358	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.2	1.32	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.2	1.12	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	0.715	J	ng/l	3.25	0.252	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	0.390	J	ng/l	3.25	0.366	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.25	0.333	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.25	0.552	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	9.37		ng/l	8.12	0.544	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	152		ng/l	40.6	4.32	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.6	3.23	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-06

Date Collected: 03/18/25 15:30

Client ID: 8-I

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	61				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	112				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	119				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	289			Q	40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	132			Q	40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	116				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	112				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	124				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	281			Q	40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	120				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	100				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	122				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	223				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	72				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	102				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	89				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	107				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	79				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	62				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	141			Q	40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	68				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	62				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	65				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	67				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-06 D
 Client ID: 8-I
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 15:30
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 04/04/25 02:41
 Analyst: SL

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorohexanoic Acid (PFHxA)	48.8		ng/l	16.2	2.52	10
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	65.0	48.9	10

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-06 D

Date Collected: 03/18/25 15:30

Client ID: 8-I

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	64				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	90				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	119				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	136				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	94				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	102				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	107				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	111				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	156				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	98				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	71				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	87				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	145				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	69				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	164			Q	30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	87				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	90				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	91				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	94				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	91				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	60				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	47				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	48				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	45				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-07
 Client ID: 8-R
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:55
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/26/25 11:20
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	23500		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	47			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-07
Client ID: 8-R
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:55
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/03/25 13:47
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	41.0		ng/l	6.12	0.505	1
Perfluoropentanoic Acid (PFPeA)	18.3		ng/l	3.06	0.344	1
Perfluorobutanesulfonic Acid (PFBS)	9.68		ng/l	1.53	0.383	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.12	0.873	1
Perfluorohexanoic Acid (PFHxA)	24.6		ng/l	1.53	0.237	1
Perfluoropentanesulfonic Acid (PFPeS)	2.37		ng/l	1.53	0.199	1
Perfluoroheptanoic Acid (PFHpA)	16.5		ng/l	1.53	0.230	1
Perfluorohexanesulfonic Acid (PFHxS)	13.0		ng/l	1.53	0.130	1
Perfluorooctanoic Acid (PFOA)	53.5		ng/l	1.53	0.253	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.12	4.61	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.390	J	ng/l	1.53	0.191	1
Perfluorononanoic Acid (PFNA)	811	E	ng/l	1.53	0.253	1
Perfluorooctanesulfonic Acid (PFOS)	17.2		ng/l	1.53	0.253	1
Perfluorodecanoic Acid (PFDA)	2.53		ng/l	1.53	0.199	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.12	1.17	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.53	0.191	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.53	0.459	1
Perfluoroundecanoic Acid (PFUnA)	2.08		ng/l	1.53	0.168	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.53	0.130	1
Perfluorooctanesulfonamide (PFOSA)	0.475	J	ng/l	1.53	0.092	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2.70		ng/l	1.53	0.459	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.53	0.207	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.53	0.176	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.53	0.153	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.12	1.53	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.12	0.360	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.53	0.230	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-07

Date Collected: 03/18/25 14:55

Client ID: 8-R

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.12	0.421	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.12	0.429	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.53	0.214	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.53	0.337	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.3	1.25	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.3	1.06	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.06	0.237	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.06	0.344	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.06	0.314	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.06	0.521	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.66	0.513	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	38.3	4.07	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	38.3	3.05	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-07

Date Collected: 03/18/25 14:55

Client ID: 8-R

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	104				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	107				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	117				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	234			Q	40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	120				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	111				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	122				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	124				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	233			Q	40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	121				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	115				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	110				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	153				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	98				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	97				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	100				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	113				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	84				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	76				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	126				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	82				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	80				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	89				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	88				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-07 D
Client ID: 8-R
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:55
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/04/25 02:50
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab

Perfluorononanoic Acid (PFNA)	1220		ng/l	15.3	2.53	10



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-07 D

Date Collected: 03/18/25 14:55

Client ID: 8-R

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	118				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	116				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	123				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	129				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	118				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	119				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	119				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	136			Q	40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	109				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	108				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	113				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	115				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	99				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	144				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	111				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	98				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	100				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	87				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	71				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	105				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	79				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	76				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	74				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	69				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-08
 Client ID: 9-OS
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 13:25
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/26/25 11:44
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			38		15-110	

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-08
 Client ID: 9-OS
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 13:25
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 04/03/25 13:56
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	2.70	J	ng/l	6.40	0.528	1
Perfluoropentanoic Acid (PFPeA)	1.44	J	ng/l	3.20	0.360	1
Perfluorobutanesulfonic Acid (PFBS)	0.960	J	ng/l	1.60	0.400	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912	1
Perfluorohexanoic Acid (PFHxA)	2.30		ng/l	1.60	0.248	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208	1
Perfluoroheptanoic Acid (PFHpA)	1.77		ng/l	1.60	0.240	1
Perfluorohexanesulfonic Acid (PFHxS)	0.544	J	ng/l	1.60	0.136	1
Perfluorooctanoic Acid (PFOA)	5.44		ng/l	1.60	0.264	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200	1
Perfluorononanoic Acid (PFNA)	0.568	J	ng/l	1.60	0.264	1
Perfluorooctanesulfonic Acid (PFOS)	1.96		ng/l	1.60	0.264	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS****Lab ID:** L2515755-08**Date Collected:** 03/18/25 13:25**Client ID:** 9-OS**Date Received:** 03/18/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.20	0.328	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-08

Date Collected: 03/18/25 13:25

Client ID: 9-OS

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	110				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	117				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	112				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	102				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	109				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	102				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	100				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	118				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	73				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	90				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	102				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	102				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	73				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	70				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	94				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	94				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	71				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	93				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	85				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	111				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	56				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	67				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	87				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	91				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-09
Client ID: 9-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:05
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 03/26/25 12:09
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	38			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-09
Client ID: 9-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:05
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/03/25 14:05
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.95	J	ng/l	6.37	0.525	1
Perfluoropentanoic Acid (PFPeA)	2.51	J	ng/l	3.18	0.358	1
Perfluorobutanesulfonic Acid (PFBS)	1.53	J	ng/l	1.59	0.398	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.37	0.907	1
Perfluorohexanoic Acid (PFHxA)	2.32		ng/l	1.59	0.247	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.59	0.207	1
Perfluorohexanesulfonic Acid (PFHxS)	0.358	J	ng/l	1.59	0.135	1
Perfluorooctanoic Acid (PFOA)	5.53		ng/l	1.59	0.263	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.37	4.79	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.59	0.199	1
Perfluorononanoic Acid (PFNA)	1.11	J	ng/l	1.59	0.263	1
Perfluorooctanesulfonic Acid (PFOS)	2.51		ng/l	1.59	0.263	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.59	0.207	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.37	1.22	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.59	0.199	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.59	0.477	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.59	0.175	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.59	0.135	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.59	0.096	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.59	0.477	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.59	0.215	1
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	1.59	0.183	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.59	0.159	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.37	1.59	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.37	0.374	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.59	0.239	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS****Lab ID:** L2515755-09**Date Collected:** 03/18/25 12:05**Client ID:** 9-I**Date Received:** 03/18/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.37	0.438	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.37	0.446	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.59	0.223	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.59	0.350	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.9	1.30	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.9	1.10	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.18	0.247	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.18	0.358	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.18	0.326	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.18	0.541	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.96	0.533	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	39.8	4.23	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	39.8	3.17	1

Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-09

Date Collected: 03/18/25 12:05

Client ID: 9-I

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	109		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	132	Q	40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	118		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	109		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	129		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	131	Q	40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	110		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	108		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	89		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	114		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	110		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	126		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	77		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	87		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	118		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	99		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	82		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	104		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	95		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	127		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	69		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	75		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	91		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	95		10-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-09 D
Client ID: 9-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:05
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/04/25 03:08
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	15.9	2.39	10

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-09 D

Date Collected: 03/18/25 12:05

Client ID: 9-I

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	122			5-130		
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	110			40-130		
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	124			40-135		
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	114			40-200		
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	109			40-130		
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	113			40-130		
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	122			40-130		
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	141		Q	40-130		
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	94			40-200		
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	126			40-130		
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	104			40-130		
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	117			40-130		
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	106			40-300		
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	105			40-170		
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	112			30-130		
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	93			40-130		
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	88			25-135		
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	107			10-130		
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	89			10-130		
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	100			40-130		
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	69			10-130		
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	61			10-130		
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	71			10-130		
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	75			10-130		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-10
 Client ID: 9-R
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:50
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 03/26/25 12:34
 Analyst: GRS

Extraction Method: EPA 3510C
 Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	9830		ng/l	147	33.2	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	45			15-110		

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-10
Client ID: 9-R
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:50
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/03/25 14:14
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	134		ng/l	6.17	0.509	1
Perfluoropentanoic Acid (PFPeA)	8.66		ng/l	3.08	0.347	1
Perfluorobutanesulfonic Acid (PFBS)	2.84		ng/l	1.54	0.385	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.17	0.879	1
Perfluorohexanoic Acid (PFHxA)	13.1		ng/l	1.54	0.239	1
Perfluoropentanesulfonic Acid (PFPeS)	0.848	JF	ng/l	1.54	0.200	1
Perfluoroheptanoic Acid (PFHpA)	8.61		ng/l	1.54	0.231	1
Perfluorohexanesulfonic Acid (PFHxS)	2.58		ng/l	1.54	0.131	1
Perfluorooctanoic Acid (PFOA)	18.6		ng/l	1.54	0.254	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	7.76		ng/l	6.17	4.64	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.54	0.193	1
Perfluorononanoic Acid (PFNA)	63.2		ng/l	1.54	0.254	1
Perfluorooctanesulfonic Acid (PFOS)	5.70		ng/l	1.54	0.254	1
Perfluorodecanoic Acid (PFDA)	0.262	JF	ng/l	1.54	0.200	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.17	1.18	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.54	0.193	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.54	0.462	1
Perfluoroundecanoic Acid (PFUnA)	0.185	J	ng/l	1.54	0.170	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.54	0.131	1
Perfluorooctanesulfonamide (PFOSA)	0.208	J	ng/l	1.54	0.093	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.41	J	ng/l	1.54	0.462	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.54	0.208	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.54	0.177	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.54	0.154	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.17	1.54	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.17	0.362	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.54	0.231	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS****Lab ID:** L2515755-10**Date Collected:** 03/18/25 12:50**Client ID:** 9-R**Date Received:** 03/18/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.17	0.424	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.17	0.432	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.54	0.216	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.54	0.339	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.4	1.26	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.4	1.06	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.08	0.239	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.08	0.347	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.08	0.316	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.08	0.524	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	0.832	J	ng/l	7.71	0.516	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	13.9	J	ng/l	38.5	4.10	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	38.5	3.07	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-10

Date Collected: 03/18/25 12:50

Client ID: 9-R

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	105				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	109				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	102				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	203			Q	40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	120				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	109				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	101				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	115				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	192				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	104				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	83				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	100				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	107				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	63				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	94				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	82				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	71				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	75				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	69				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	117				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	62				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	59				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	62				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	66				10-130	

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-11
 Client ID: EB031825
 Sample Location: SUFFERN, NY

Date Collected: 03/18/25 13:40
 Date Received: 03/18/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 144,1633
 Analytical Date: 04/03/25 14:23
 Analyst: AC

Extraction Method: EPA 1633
 Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.86	0.566	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.43	0.386	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.72	0.429	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.86	0.978	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.72	0.266	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.72	0.223	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.72	0.257	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.72	0.146	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.72	0.283	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.86	5.16	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.72	0.214	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.72	0.283	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.72	0.283	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.72	0.223	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.86	1.31	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.72	0.214	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.72	0.514	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.72	0.189	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.72	0.146	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.72	0.103	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.72	0.514	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.72	0.232	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.72	0.197	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.72	0.172	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.86	1.72	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.86	0.403	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.72	0.257	1



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS****Lab ID:** L2515755-11**Date Collected:** 03/18/25 13:40**Client ID:** EB031825**Date Received:** 03/18/25**Sample Location:** SUFFERN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.86	0.472	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.86	0.480	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.72	0.240	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.72	0.377	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	17.2	1.40	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	17.2	1.18	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.43	0.266	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.43	0.386	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	3.43	0.352	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.43	0.583	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.58	0.575	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	42.9	4.56	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	42.9	3.41	1

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-11

Date Collected: 03/18/25 13:40

Client ID: EB031825

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	106				5-130	
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	121				40-130	
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	113				40-135	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	95				40-200	
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	113				40-130	
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	102				40-130	
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	111				40-130	
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	116				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	77				40-200	
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	120				40-130	
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	93				40-130	
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	109				40-130	
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	82				40-300	
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	89				40-170	
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	103				30-130	
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	93				40-130	
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	105				25-135	
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	99				10-130	
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	89				10-130	
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	130				40-130	
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	65				10-130	
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	65				10-130	
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	89				10-130	
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	98				10-130	

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Method Blank Analysis Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 03/25/25 15:48
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 03/25/25 07:30

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-05 Batch: WG2044693-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	0.528
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.360
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.400
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.248
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.240
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.136
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.264
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.264
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.264
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Method Blank Analysis Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 03/25/25 15:48
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 03/25/25 07:30

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-05 Batch: WG2044693-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 144,1633
Analytical Date: 03/25/25 15:48
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 03/25/25 07:30

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-05 Batch: WG2044693-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	105		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	101		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	115		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	99		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	103		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	98		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	104		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	117		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	100		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	102		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	90		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	97		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	86		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	88		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	86		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	85		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	74		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	78		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	76		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	104		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	52		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	55		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	73		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	77		10-130



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 03/26/25 08:04
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/25/25 17:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 01-10 Batch: WG2045053-1					
1,4-Dioxane	47.3	J	ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	32		15-110

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Method Blank Analysis Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 04/03/25 10:42
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 06-11 Batch: WG2047829-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	0.528
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.360
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.400
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.248
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.240
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.136
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.264
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.264
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.264
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Method Blank Analysis Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 04/03/25 10:42
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 06-11 Batch: WG2047829-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Method Blank Analysis Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 04/03/25 10:42
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 04/01/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 06-11 Batch: WG2047829-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	109		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	144	Q	40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	118		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	102		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	113		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	115		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	110		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	111		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	92		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	128		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	112		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	109		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	84		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	73		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	110		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	102		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	85		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	101		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	95		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	116		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	61		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	65		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	100		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	102		10-130



Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-05 Batch: WG2044693-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	94		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	87		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	88		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	103		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	93		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	97		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	94		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	97		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	91		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	113		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	95		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	114		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	96		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	92		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	96		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	84		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	106		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	100		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	84		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	96		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	93		-		70-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-05 Batch: WG2044693-2 LOW LEVEL								
Perfluorododecanoic Acid (PFDoA)	86		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	102		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	101		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	92		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	93		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	81		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	101		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	98		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	113		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	109		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	97		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	94		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	87		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	86		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	96		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	89		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	106		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	86		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	76		-		50-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-05 Batch: WG2044693-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	104				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	103				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	111				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	94				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	102				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	96				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	98				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	112				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	93				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	104				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	96				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	101				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	88				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	103				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	88				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	87				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	78				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	85				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	78				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	103				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	56				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	52				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	71				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	74				10-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-05 Batch: WG2044693-3								
Perfluorobutanoic Acid (PFBA)	98		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	99		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	94		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	102		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	97		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	95		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	99		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	94		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	94		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	106		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	103		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	102		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	99		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	104		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	106		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	93		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	112		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	96		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	84		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	96		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	111		-		70-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-05 Batch: WG2044693-3								
Perfluorododecanoic Acid (PFDoA)	106		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	108		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	99		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	102		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	93		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	73		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	108		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUs)	96		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	92		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	88		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	92		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	94		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	93		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	102		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	101		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	106		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	123		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	95		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	64		-		50-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-05 Batch: WG2044693-3								

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	108				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	105				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	118				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	110				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	105				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	105				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	117				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	111				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	104				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	110				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	97				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	103				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	98				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	95				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	101				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	84				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	69				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	84				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	84				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	110				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	55				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	58				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	74				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	73				10-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG2045053-2 WG2045053-3								
1,4-Dioxane	124		125		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	32		31		15-110

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	<i>Low Level LCS %Recovery</i>	<i>Qual</i>	<i>Low Level LCSD %Recovery</i>	<i>Qual</i>	<i>%Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 06-11 Batch: WG2047829-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	101		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	106		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	106		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	118		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	104		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	100		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	96		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	103		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	94		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	104		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	93		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	114		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	89		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	98		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	116		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	82		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	106		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	106		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	70		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	105		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	94		-		70-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 06-11 Batch: WG2047829-2 LOW LEVEL								
Perfluorododecanoic Acid (PFDoA)	105		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	93		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	111		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	96		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	131		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	84		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	100		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUDS)	94		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	126		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	118		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	100		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	102		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	95		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	101		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	118		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	119		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	99		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	116		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	112		-		50-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

Parameter	<i>Low Level LCS %Recovery</i>	<i>Qual</i>	<i>Low Level LCSD %Recovery</i>	<i>Qual</i>	<i>%Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 06-11 Batch: WG2047829-2 LOW LEVEL								

<i>Surrogate</i>	<i>LCS %Recovery</i>	<i>Qual</i>	<i>LCSD %Recovery</i>	<i>Qual</i>	<i>Acceptance Criteria</i>
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	105				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	108				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	102				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	92				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	99				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	103				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	103				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	125				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	80				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	97				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	112				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	110				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	71				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	89				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	99				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	91				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	80				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	97				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	90				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	114				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	54				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	57				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	90				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	98				10-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 06-11 Batch: WG2047829-3								
Perfluorobutanoic Acid (PFBA)	105		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	100		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	104		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	115		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	109		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	97		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	106		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	96		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	108		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	106		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	97		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	95		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	97		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	97		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	100		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	89		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	93		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	104		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	85		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	97		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	114		-		70-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 06-11 Batch: WG2047829-3								
Perfluorododecanoic Acid (PFDoA)	115		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	107		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	110		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	108		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	121		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	88		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	112		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUs)	119		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	118		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	109		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	106		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	107		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	101		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	100		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	115		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	113		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	92		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	109		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	85		-		50-145	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 06-11 Batch: WG2047829-3								

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	105				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	119				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	108				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	94				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	108				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	113				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	113				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	97				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	79				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	112				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	91				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	107				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	80				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	78				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	96				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	82				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	69				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	85				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	88				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	112				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	45				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	47				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	75				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	80				10-130

METALS

Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-01

Date Collected: 03/18/25 09:30

Client ID: SVWC-93

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Barium, Total	0.01073		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Boron, Total	0.0217	J	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 17:55	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Calcium, Total	25.0		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Chromium, Total	0.00022	J	mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Copper, Total	0.00399		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Iron, Total	ND		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Magnesium, Total	6.87		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Manganese, Total	ND		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:06	EPA 7470A	1,7470A	CME
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Potassium, Total	1.75		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Sodium, Total	55.1		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	90.75		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 08:20	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-02

Date Collected: 03/18/25 10:00

Client ID: SVWC-94

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Barium, Total	0.01556		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Boron, Total	0.0211	J	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:13	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Calcium, Total	34.6		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Copper, Total	0.00618		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Iron, Total	ND		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Magnesium, Total	7.07		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Manganese, Total	ND		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 13:49	EPA 7470A	1,7470A	CME
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Potassium, Total	1.87		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Sodium, Total	58.7		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Zinc, Total	0.00993	J	mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	115.4		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 09:26	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-03

Date Collected: 03/18/25 10:30

Client ID: SVWC-95

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Barium, Total	0.01093		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Boron, Total	0.0238	J	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:16	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Calcium, Total	25.2		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Chromium, Total	0.00020	J	mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Copper, Total	0.00339		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Iron, Total	ND		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Magnesium, Total	5.82		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Manganese, Total	0.03022		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:16	EPA 7470A	1,7470A	CME
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Potassium, Total	1.69		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Sodium, Total	48.8		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Zinc, Total	0.00672	J	mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	86.81		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 09:30	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-04

Date Collected: 03/18/25 11:00

Client ID: SVWC-96

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Barium, Total	0.01228		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Boron, Total	0.0243	J	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:20	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Calcium, Total	28.3		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Copper, Total	0.00320		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Iron, Total	0.0514		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Magnesium, Total	6.84		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Manganese, Total	0.00562		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:19	EPA 7470A	1,7470A	CME
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Potassium, Total	1.76		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Sodium, Total	58.0		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	98.74		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 09:35	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-05

Date Collected: 03/18/25 14:20

Client ID: 8-OS

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00604	J	mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Barium, Total	0.00681		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Boron, Total	0.0284	J	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:33	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Calcium, Total	30.0		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Chromium, Total	0.02213		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Cobalt, Total	0.00033	J	mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Copper, Total	0.00103		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Iron, Total	0.225		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Magnesium, Total	6.96		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Manganese, Total	0.08160		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:23	EPA 7470A	1,7470A	CME
Nickel, Total	0.00934		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Potassium, Total	1.39		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Sodium, Total	26.8		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	103.7		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 09:40	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-06

Date Collected: 03/18/25 15:30

Client ID: 8-I

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00559	J	mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Arsenic, Total	0.00276		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Barium, Total	0.03864		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Boron, Total	0.200		mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:36	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Calcium, Total	107.		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Chromium, Total	0.00048	J	mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Cobalt, Total	0.00741		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Copper, Total	ND		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Iron, Total	5.66		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Magnesium, Total	29.0		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Manganese, Total	3.562		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:26	EPA 7470A	1,7470A	CME
Nickel, Total	0.01367		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Potassium, Total	14.2		mg/l	0.200	0.0618	2	03/24/25 13:11	03/25/25 13:15	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Sodium, Total	88.5		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	387.5		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 09:45	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-07

Date Collected: 03/18/25 14:55

Client ID: 8-R

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0133		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Arsenic, Total	0.00032	J	mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Barium, Total	0.01096		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Boron, Total	0.120		mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:40	EPA 3005A	1,6010D	DHL
Cadmium, Total	0.00032		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Calcium, Total	161.		mg/l	1.00	0.394	10	03/24/25 13:11	03/25/25 13:33	EPA 3005A	1,6020B	BLR
Chromium, Total	0.00629		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Cobalt, Total	0.00812		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Copper, Total	0.03647		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Iron, Total	0.500		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Magnesium, Total	38.0		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Manganese, Total	2.728		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:29	EPA 7470A	1,7470A	CME
Nickel, Total	0.01675		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Potassium, Total	2.61		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Sodium, Total	38.3		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	554.2		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 09:49	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-08

Date Collected: 03/18/25 13:25

Client ID: 9-OS

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Barium, Total	0.00405		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Boron, Total	0.0138	J	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:43	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Calcium, Total	7.87		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Chromium, Total	0.00038	J	mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Copper, Total	ND		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Iron, Total	ND		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Magnesium, Total	1.80		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Manganese, Total	ND		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:33	EPA 7470A	1,7470A	CME
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Potassium, Total	0.716		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Sodium, Total	3.05		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	27.07		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 09:54	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-09

Date Collected: 03/18/25 12:05

Client ID: 9-I

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0104		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Barium, Total	0.00657		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Boron, Total	0.0193	J	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:47	EPA 3005A	1,6010D	DHL
Cadmium, Total	0.00007	J	mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Calcium, Total	7.75		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Chromium, Total	0.00662		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Copper, Total	0.00043	J	mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Iron, Total	0.0669		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Magnesium, Total	1.86		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Manganese, Total	0.2303		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:36	EPA 7470A	1,7470A	CME
Nickel, Total	0.00065	J	mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Potassium, Total	0.701		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Sodium, Total	8.96		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	27.02		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 09:59	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-10

Date Collected: 03/18/25 12:50

Client ID: 9-R

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0219		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Arsenic, Total	0.00478		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Barium, Total	0.02250		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Boron, Total	0.0722		mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:50	EPA 3005A	1,6010D	DHL
Cadmium, Total	0.00083		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Calcium, Total	31.7		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Chromium, Total	0.09332		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Cobalt, Total	0.00199		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Copper, Total	0.00201		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Iron, Total	7.22		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Magnesium, Total	9.05		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Manganese, Total	2.542		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:39	EPA 7470A	1,7470A	CME
Nickel, Total	0.03567		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Potassium, Total	7.39		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Sodium, Total	45.9		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	116.4		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 10:04	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-13

Date Collected: 03/18/25 16:30

Client ID: 4-OS

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.147		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Arsenic, Total	0.00070		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Barium, Total	0.03633		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Boron, Total	0.0108	J	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:54	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Calcium, Total	32.2		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Chromium, Total	0.3816		mg/l	0.00500	0.00089	5	03/24/25 13:11	03/25/25 14:17	EPA 3005A	1,6020B	BLR
Cobalt, Total	0.00439		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Copper, Total	0.00423		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Iron, Total	4.65		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Magnesium, Total	14.8		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Manganese, Total	0.1822		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:43	EPA 7470A	1,7470A	CME
Nickel, Total	0.02384		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Potassium, Total	0.840		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Sodium, Total	108.		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Vanadium, Total	0.00178	J	mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	141.4		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 10:09	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**SAMPLE RESULTS**

Lab ID: L2515755-14

Date Collected: 03/18/25 17:20

Client ID: 4-I

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00398	J	mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Arsenic, Total	0.00469		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Barium, Total	0.03262		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Boron, Total	0.0758		mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 18:57	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Calcium, Total	70.8		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Chromium, Total	0.04083		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Cobalt, Total	0.00182		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Copper, Total	0.00166		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Iron, Total	8.55		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Magnesium, Total	19.5		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Manganese, Total	2.598		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:46	EPA 7470A	1,7470A	CME
Nickel, Total	0.04314		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Potassium, Total	2.20		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Sodium, Total	79.3		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	257.4		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 13:05	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-15

Date Collected: 03/18/25 18:00

Client ID: 4-R

Date Received: 03/18/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.184		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Arsenic, Total	0.00108		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Barium, Total	0.01344		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Boron, Total	0.0450		mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 19:01	EPA 3005A	1,6010D	DHL
Cadmium, Total	0.00008	J	mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Calcium, Total	71.1		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Chromium, Total	0.02430		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Cobalt, Total	0.00082		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Copper, Total	0.00338		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Iron, Total	1.77		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Lead, Total	0.00046	J	mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Magnesium, Total	20.8		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Manganese, Total	0.3849		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Mercury, Total	ND		mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 14:56	EPA 7470A	1,7470A	CME
Nickel, Total	0.03502		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Potassium, Total	2.76		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Sodium, Total	49.5		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	263.2		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 13:10	EPA 3005A	1,6020B	BLR



Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-10,13-15 Batch: WG2044391-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Barium, Total	ND		mg/l	0.00050	0.00017	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Calcium, Total	ND		mg/l	0.100	0.0394	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Copper, Total	ND		mg/l	0.00100	0.00038	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Iron, Total	ND		mg/l	0.0500	0.0191	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Manganese, Total	ND		mg/l	0.00100	0.00044	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Potassium, Total	ND		mg/l	0.100	0.0309	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Sodium, Total	ND		mg/l	0.500	0.0293	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 01-10,13-15 Batch: WG2044391-1										
Hardness	ND		mg/l	0.5400	NA	1	03/24/25 13:11	03/25/25 08:10	1,6020B	BLR



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-10,13-15 Batch: WG2044393-1									
Boron, Total	ND	mg/l	0.0300	0.0016	1	03/24/25 13:11	03/25/25 17:48	1,6010D	DHL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-10,13-15 Batch: WG2044395-1									
Mercury, Total	ND	mg/l	0.00020	0.00009	1	03/24/25 14:12	03/25/25 13:43	1,7470A	CME

Prep Information

Digestion Method: EPA 7470A



Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 Batch: WG2044391-2								
Aluminum, Total	101		-		80-120	-		
Antimony, Total	99		-		80-120	-		
Arsenic, Total	105		-		80-120	-		
Barium, Total	102		-		80-120	-		
Beryllium, Total	105		-		80-120	-		
Cadmium, Total	105		-		80-120	-		
Calcium, Total	106		-		80-120	-		
Chromium, Total	104		-		80-120	-		
Cobalt, Total	104		-		80-120	-		
Copper, Total	106		-		80-120	-		
Iron, Total	109		-		80-120	-		
Lead, Total	93		-		80-120	-		
Magnesium, Total	100		-		80-120	-		
Manganese, Total	105		-		80-120	-		
Nickel, Total	108		-		80-120	-		
Potassium, Total	102		-		80-120	-		
Selenium, Total	104		-		80-120	-		
Silver, Total	94		-		80-120	-		
Sodium, Total	81		-		80-120	-		
Thallium, Total	95		-		80-120	-		
Vanadium, Total	103		-		80-120	-		

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 Batch: WG2044391-2					
Zinc, Total	103	-	80-120	-	
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-10,13-15 Batch: WG2044391-2					
Hardness	102	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 Batch: WG2044393-2					
Boron, Total	97	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 Batch: WG2044395-2					
Mercury, Total	101	-	80-120	-	

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044391-3 QC Sample: L2515755-01 Client ID: SVWC-93												
Aluminum, Total	ND	2	2.07	104		-	-		75-125	-		20
Antimony, Total	ND	0.5	0.5155	103		-	-		75-125	-		20
Arsenic, Total	ND	0.12	0.1267	106		-	-		75-125	-		20
Barium, Total	0.01073	2	2.126	106		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.05386	108		-	-		75-125	-		20
Cadmium, Total	ND	0.053	0.05575	105		-	-		75-125	-		20
Calcium, Total	25.0	10	39.8	148	Q	-	-		75-125	-		20
Chromium, Total	0.00022J	0.2	0.2116	106		-	-		75-125	-		20
Cobalt, Total	ND	0.5	0.5320	106		-	-		75-125	-		20
Copper, Total	0.00399	0.25	0.2802	110		-	-		75-125	-		20
Iron, Total	ND	1	1.30	130	Q	-	-		75-125	-		20
Lead, Total	ND	0.53	0.5265	99		-	-		75-125	-		20
Magnesium, Total	6.87	10	17.0	101		-	-		75-125	-		20
Manganese, Total	ND	0.5	0.5302	106		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.5455	109		-	-		75-125	-		20
Potassium, Total	1.75	10	12.1	104		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.126	105		-	-		75-125	-		20
Silver, Total	ND	0.05	0.04780	96		-	-		75-125	-		20
Sodium, Total	55.1	10	67.2	121		-	-		75-125	-		20
Thallium, Total	ND	0.12	0.1132	94		-	-		75-125	-		20
Vanadium, Total	ND	0.5	0.5362	107		-	-		75-125	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044391-3 QC Sample: L2515755-01 Client ID: SVWC-93									
Zinc, Total	ND	0.5	0.5276	106	-	-	75-125	-	20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044391-3 QC Sample: L2515755-01 Client ID: SVWC-93									
Hardness	90.75	66.2	169.4	119	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044393-3 QC Sample: L2515755-01 Client ID: SVWC-93									
Boron, Total	0.0217J	1	0.995	100	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044395-3 QC Sample: L2515755-02 Client ID: SVWC-94									
Mercury, Total	ND	0.005	0.00472	94	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044391-4 QC Sample: L2515755-01 Client ID: SVWC-93						
Aluminum, Total	ND	ND	mg/l	NC		20
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	ND	ND	mg/l	NC		20
Barium, Total	0.01073	0.01062	mg/l	1		20
Beryllium, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Calcium, Total	25.0	28.3	mg/l	12		20
Chromium, Total	0.00022J	0.00022J	mg/l	NC		20
Cobalt, Total	ND	ND	mg/l	NC		20
Copper, Total	0.00399	0.00409	mg/l	2		20
Iron, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Magnesium, Total	6.87	6.98	mg/l	2		20
Manganese, Total	ND	ND	mg/l	NC		20
Nickel, Total	ND	ND	mg/l	NC		20
Potassium, Total	1.75	1.91	mg/l	9		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Sodium, Total	55.1	61.2	mg/l	10		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044391-4 QC Sample: L2515755-01 Client ID: SVWC-93					
Thallium, Total	ND	ND	mg/l	NC	20
Vanadium, Total	ND	ND	mg/l	NC	20
Zinc, Total	ND	ND	mg/l	NC	20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044391-4 QC Sample: L2515755-01 Client ID: SVWC-93					
Hardness	90.75	99.35	mg/l	9	20
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044393-4 QC Sample: L2515755-01 Client ID: SVWC-93					
Boron, Total	0.0217J	0.0226J	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044395-4 QC Sample: L2515755-02 Client ID: SVWC-94					
Mercury, Total	ND	ND	mg/l	NC	20

Project Name: RAMAPO LANDFILL
Project Number: 20010

**Lab Serial Dilution
Analysis
Batch Quality Control**

Lab Number: L2515755
Report Date: 04/04/25

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044391-6 QC Sample: L2515755-01 Client ID: SVWC-93						
Calcium, Total	25.0	30.9	mg/l	24	Q	20
Magnesium, Total	6.87	7.39	mg/l	8		20
Sodium, Total	55.1	61.8	mg/l	12		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-10,13-15 QC Batch ID: WG2044391-6 QC Sample: L2515755-01 Client ID: SVWC-93						
Hardness	90.75	107.6	mg/l	19		20

INORGANICS & MISCELLANEOUS

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-01

Client ID: SVWC-93

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 09:30

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	49.2		mg CaCO3/L	2.00	NA	1	-	03/24/25 11:02	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.092	J	mg/l	0.300	0.066	1	03/24/25 13:35	03/25/25 11:18	4,351.1	KEM
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:32	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-02

Client ID: SVWC-94

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 10:00

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	49.8		mg CaCO3/L	2.00	NA	1	-	03/24/25 11:23	121,2320B	MRW
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	0.066	1	03/24/25 13:35	03/25/25 11:19	4,351.1	KEM
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:32	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-03

Client ID: SVWC-95

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 10:30

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	58.3		mg CaCO3/L	2.00	NA	1	-	03/24/25 11:26	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.114	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:33	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:33	44,410.4	MRW



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-04
Client ID: SVWC-96
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 11:00
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	52.9		mg CaCO ₃ /L	2.00	NA	1	-	03/24/25 11:29	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.067	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:34	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:24	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-05

Client ID: 8-OS

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:20

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	83.5		mg CaCO3/L	2.00	NA	1	-	03/24/25 11:31	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.315		mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:35	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:25	44,410.4	MRW



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-06
Client ID: 8-I
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 15:30
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	438.		mg CaCO3/L	2.00	NA	1	-	03/24/25 13:15	121,2320B	MRW
Nitrogen, Total Kjeldahl	10.4		mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:36	4,351.1	AT
Chemical Oxygen Demand	46.		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:25	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-07

Client ID: 8-R

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 14:55

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	483.		mg CaCO3/L	2.00	NA	1	-	03/24/25 13:24	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.739		mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:37	4,351.1	AT
Chemical Oxygen Demand	3.2	J	mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:25	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-08

Client ID: 9-OS

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 13:25

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	19.1		mg CaCO3/L	2.00	NA	1	-	03/24/25 11:53	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.081	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:38	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:25	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-09

Client ID: 9-I

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:05

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	24.2		mg CaCO3/L	2.00	NA	1	-	03/24/25 11:54	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.083	J	mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:39	4,351.1	AT
Chemical Oxygen Demand	41.		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:26	44,410.4	MRW



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-10
Client ID: 9-R
Sample Location: SUFFERN, NY

Date Collected: 03/18/25 12:50
Date Received: 03/18/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	174.		mg CaCO3/L	2.00	NA	1	-	03/24/25 11:56	121,2320B	MRW
Nitrogen, Total Kjeldahl	2.47		mg/l	0.300	0.066	1	03/27/25 22:45	03/28/25 16:40	4,351.1	AT
Chemical Oxygen Demand	23.		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:26	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-13

Client ID: 4-OS

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 16:30

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	43.2		mg CaCO3/L	2.00	NA	1	-	03/24/25 12:01	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.214	J	mg/l	0.300	0.066	1	03/28/25 22:12	03/31/25 12:55	4,351.1	KEM
Chemical Oxygen Demand	12.		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:26	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-14

Client ID: 4-I

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 17:20

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	182.		mg CaCO3/L	2.00	NA	1	-	03/24/25 12:03	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.189	J	mg/l	0.300	0.066	1	03/28/25 22:12	03/31/25 12:56	4,351.1	KEM
Chemical Oxygen Demand	14.		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:28	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

SAMPLE RESULTS

Lab ID: L2515755-15

Client ID: 4-R

Sample Location: SUFFERN, NY

Date Collected: 03/18/25 18:00

Date Received: 03/18/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	171.		mg CaCO3/L	2.00	NA	1	-	03/24/25 12:08	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.992		mg/l	0.300	0.066	1	03/28/25 22:12	03/31/25 12:57	4,351.1	KEM
Chemical Oxygen Demand	23.		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:28	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Lab Number: L2515755

Project Number: 20010

Report Date: 04/04/25

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG2044224-1										
Nitrogen, Total Kjeldahl	0.027	J	mg/l	0.300	0.022	1	03/24/25 13:35	03/25/25 10:54	4,351.1	KEM
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG2044322-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	03/24/25 11:22	121,2320B	MRW
General Chemistry - Westborough Lab for sample(s): 02-10,13-15 Batch: WG2044324-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	03/24/25 14:19	121,2320B	MRW
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG2044329-1										
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:30	44,410.4	MRW
General Chemistry - Westborough Lab for sample(s): 04-10,13-15 Batch: WG2044331-1										
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:18	44,410.4	MRW
General Chemistry - Westborough Lab for sample(s): 03-10 Batch: WG2046108-1										
Nitrogen, Total Kjeldahl	0.127	J	mg/l	0.300	0.022	1	03/27/25 22:45	03/28/25 16:19	4,351.1	AT
General Chemistry - Westborough Lab for sample(s): 13-15 Batch: WG2046596-1										
Nitrogen, Total Kjeldahl	0.042	J	mg/l	0.300	0.022	1	03/28/25 22:12	03/31/25 12:48	4,351.1	KEM



Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG2044224-2								
Nitrogen, Total Kjeldahl	98		-		78-122	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG2044322-2								
Alkalinity, Total	100		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 02-10,13-15 Batch: WG2044324-2								
Alkalinity, Total	102		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG2044329-2								
Chemical Oxygen Demand	108		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 04-10,13-15 Batch: WG2044331-2								
Chemical Oxygen Demand	108		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 03-10 Batch: WG2046108-2								
Nitrogen, Total Kjeldahl	93		-		78-122	-		
General Chemistry - Westborough Lab Associated sample(s): 13-15 Batch: WG2046596-2								
Nitrogen, Total Kjeldahl	96		-		78-122	-		

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2044224-4 QC Sample: L2512358-02 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	0.111J	8	7.82	98		-	-		77-111	-		24
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2044322-4 QC Sample: L2515382-01 Client ID: MS Sample												
Alkalinity, Total	34.4	100	143	109		-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 02-10,13-15 QC Batch ID: WG2044324-4 QC Sample: L2515964-04 Client ID: MS Sample												
Alkalinity, Total	173.	100	160	0	Q	-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG2044329-4 QC Sample: L2515979-10 Client ID: MS Sample												
Chemical Oxygen Demand	19.	47.6	66	99		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 04-10,13-15 QC Batch ID: WG2044331-4 QC Sample: L2515755-04 Client ID: SVWC-96												
Chemical Oxygen Demand	ND	47.6	43	90		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 03-10 QC Batch ID: WG2046108-4 QC Sample: L2515232-01 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	0.207J	8	7.58	95		-	-		77-111	-		24
General Chemistry - Westborough Lab Associated sample(s): 13-15 QC Batch ID: WG2046596-4 QC Sample: L2515295-04 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	ND	8	7.92	99		-	-		77-111	-		24

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2515755

Report Date: 04/04/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2044224-3 QC Sample: L2512358-02 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	0.111J	0.153J	mg/l	NC		24
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2044322-3 QC Sample: L2515382-01 Client ID: DUP Sample						
Alkalinity, Total	34.4	36.0	mg CaCO3/L	5		10
General Chemistry - Westborough Lab Associated sample(s): 02-10,13-15 QC Batch ID: WG2044324-3 QC Sample: L2515964-04 Client ID: DUP Sample						
Alkalinity, Total	173.	176	mg CaCO3/L	2		10
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG2044329-3 QC Sample: L2515979-10 Client ID: DUP Sample						
Chemical Oxygen Demand	19.	21	mg/l	10		20
General Chemistry - Westborough Lab Associated sample(s): 04-10,13-15 QC Batch ID: WG2044331-3 QC Sample: L2515755-04 Client ID: SVWC-96						
Chemical Oxygen Demand	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 03-10 QC Batch ID: WG2046108-3 QC Sample: L2515232-01 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	0.207J	0.283J	mg/l	NC		24
General Chemistry - Westborough Lab Associated sample(s): 13-15 QC Batch ID: WG2046596-3 QC Sample: L2515295-04 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	ND	ND	mg/l	NC		24

Project Name: RAMAPO LANDFILL**Lab Number:** L2515755**Project Number:** 20010**Report Date:** 04/04/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

B Absent

C Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515755-01A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-01B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-01C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-01D	Plastic 250ml unpreserved/No Headspace	A	NA		4.3	Y	Absent		ALK-T-2320(14)
L2515755-01E	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		SE-6020T(180),FE-6020T(180),TL-6020T(180),BA-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),CA-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),HARDT-6020(180),AL-6020T(180),CD-6020T(180),CO-6020T(180)
L2515755-01F	Plastic 250ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-01G	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-01H	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-01I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-01J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-02A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-02B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-02C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-02D	Plastic 250ml unpreserved/No Headspace	A	NA		4.3	Y	Absent		ALK-T-2320(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04042513:28
Lab Number: L2515755
Report Date: 04/04/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515755-02E	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		SE-6020T(180),FE-6020T(180),BA-6020T(180),TL-6020T(180),CR-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),B-TI(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),CD-6020T(180),HARDT-6020(180),AG-6020T(180),MG-6020T(180),HG-T(28),AL-6020T(180),CO-6020T(180)
L2515755-02F	Plastic 250ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-02G	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-02H	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-02I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-02J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-03A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-03B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-03C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-03D	Plastic 250ml unpreserved/No Headspace	A	NA		4.3	Y	Absent		ALK-T-2320(14)
L2515755-03E	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		TL-6020T(180),SE-6020T(180),FE-6020T(180),BA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),CA-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),HARDT-6020(180),MG-6020T(180),CO-6020T(180)
L2515755-03F	Plastic 250ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-03G	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-03H	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-03I	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-NY-1633(28)
L2515755-03J	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-NY-1633(28)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04042513:28
Lab Number: L2515755
Report Date: 04/04/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515755-04A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-04B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-04C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-04D	Plastic 250ml unpreserved/No Headspace	A	NA		4.3	Y	Absent		ALK-T-2320(14)
L2515755-04E	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		FE-6020T(180),TL-6020T(180),BA-6020T(180),SE-6020T(180),K-6020T(180),CR-6020T(180),CA-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),CD-6020T(180),AL-6020T(180),MG-6020T(180),AG-6020T(180),HARDT-6020(180),HG-T(28),CO-6020T(180)
L2515755-04F	Plastic 250ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-04G	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-04H	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-04I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-04J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-05A	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-05B	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-05C	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-05D	Plastic 250ml unpreserved/No Headspace	B	NA		2.4	Y	Absent		ALK-T-2320(14)
L2515755-05E	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	Y	Absent		TL-6020T(180),BA-6020T(180),FE-6020T(180),SE-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),CA-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),HARDT-6020(180),AL-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),CD-6020T(180),CO-6020T(180)
L2515755-05F	Plastic 500ml H2SO4 preserved	B	<2	<2	2.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-05G	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No:04042513:28
Lab Number: L2515755
Report Date: 04/04/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515755-05H	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-05I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-05J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-06A	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-06B	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-06C	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-06D	Plastic 250ml unpreserved/No Headspace	B	NA		2.4	Y	Absent		ALK-T-2320(14)
L2515755-06E	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	Y	Absent		SE-6020T(180),TL-6020T(180),BA-6020T(180),FE-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),CD-6020T(180),HG-T(28),AL-6020T(180),MG-6020T(180),AG-6020T(180),HARDT-6020(180),CO-6020T(180)
L2515755-06F	Plastic 250ml H2SO4 preserved	B	<2	<2	2.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-06G	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-06H	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-06I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-06J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-07A	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-07B	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-07C	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-07D	Plastic 250ml unpreserved/No Headspace	B	NA		2.4	Y	Absent		ALK-T-2320(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No:04042513:28
Lab Number: L2515755
Report Date: 04/04/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515755-07E	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),HARDT-6020(180),HG-T(28),MG-6020T(180),AL-6020T(180),CD-6020T(180),CO-6020T(180)
L2515755-07F	Plastic 250ml H2SO4 preserved	B	<2	<2	2.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-07G	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-07H	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-07I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-07J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-08A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-08B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-08C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-08D	Plastic 250ml unpreserved/No Headspace	A	NA		4.3	Y	Absent		ALK-T-2320(14)
L2515755-08E	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		SE-6020T(180),BA-6020T(180),TL-6020T(180),FE-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),PB-6020T(180),B-TI(180),MN-6020T(180),BE-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),CD-6020T(180),AG-6020T(180),HG-T(28),AL-6020T(180),HARDT-6020(180),MG-6020T(180),CO-6020T(180)
L2515755-08F	Plastic 250ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-08G	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-08H	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-08I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-08J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-09A	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04042513:28
Lab Number: L2515755
Report Date: 04/04/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515755-09B	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-09C	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-09D	Plastic 250ml unpreserved/No Headspace	B	NA		2.4	Y	Absent		ALK-T-2320(14)
L2515755-09E	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	Y	Absent		SE-6020T(180),TL-6020T(180),BA-6020T(180),FE-6020T(180),CR-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),HARDT-6020(180),HG-T(28),CD-6020T(180),AG-6020T(180),AL-6020T(180),MG-6020T(180),CO-6020T(180)
L2515755-09F	Plastic 250ml H2SO4 preserved	B	<2	<2	2.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-09G	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-09H	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-09I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-09J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-10A	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-10B	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-10C	Vial HCl preserved	B	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2515755-10D	Plastic 250ml unpreserved/No Headspace	B	NA		2.4	Y	Absent		ALK-T-2320(14)
L2515755-10E	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	Y	Absent		BA-6020T(180),SE-6020T(180),TL-6020T(180),FE-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HARDT-6020(180),AL-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L2515755-10F	Plastic 250ml H2SO4 preserved	B	<2	<2	2.4	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-10G	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2515755-10H	Amber 250ml unpreserved	B	7	7	2.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No:04042513:28
Lab Number: L2515755
Report Date: 04/04/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515755-10I	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-10J	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-11A	Plastic 500ml unpreserved	C	NA		2.1	Y	Absent		A2-NY-1633(28)
L2515755-12A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-12B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-13A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-13B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-13C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-13D	Plastic 250ml unpreserved/No Headspace	A	NA		4.3	Y	Absent		ALK-T-2320(14)
L2515755-13E	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		FE-6020T(180),SE-6020T(180),TL-6020T(180),BA-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),CA-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),V-6020T(180),SB-6020T(180),AS-6020T(180),HARDT-6020(180),AG-6020T(180),AL-6020T(180),MG-6020T(180),CD-6020T(180),HG-T(28),CO-6020T(180)
L2515755-13F	Plastic 250ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-14A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-14B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-14C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-14D	Plastic 250ml unpreserved/No Headspace	A	NA		4.3	Y	Absent		ALK-T-2320(14)
L2515755-14E	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		SE-6020T(180),TL-6020T(180),BA-6020T(180),FE-6020T(180),K-6020T(180),CA-6020T(180),NI-6020T(180),CR-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),MG-6020T(180),AL-6020T(180),AG-6020T(180),CD-6020T(180),HARDT-6020(180),HG-T(28),CO-6020T(180)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04042513:28
Lab Number: L2515755
Report Date: 04/04/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515755-14F	Plastic 250ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2515755-15A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-15B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-15C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-R2(14)
L2515755-15D	Plastic 250ml unpreserved/No Headspace	A	NA		4.3	Y	Absent		ALK-T-2320(14)
L2515755-15E	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		FE-6020T(180),BA-6020T(180),SE-6020T(180),TL-6020T(180),NI-6020T(180),CR-6020T(180),CA-6020T(180),K-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),B-TI(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),MG-6020T(180),CD-6020T(180),HARDT-6020(180),HG-T(28),AL-6020T(180),CO-6020T(180)
L2515755-15F	Plastic 250ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TKN-351(28),COD-410-LOW(28)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No:04042513:28
Lab Number: L2515755
Report Date: 04/04/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafuoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafuoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No:04042513:28
Lab Number: L2515755
Report Date: 04/04/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Footnotes

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

Terms

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

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

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

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

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

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2515755
Report Date: 04/04/25

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 144 Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. Draft EPA Method 1633, EPA Document 821-D-22-001, June 2022.

LIMITATION OF LIABILITIES

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

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



Pace Analytical Services LLCFacility: **Northeast**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 27

Published Date: 01/24/2025

Page 1 of 2

Certification Information

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

MADEP-APH.**Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

Pace Analytical Services LLCID No.: **17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

Page 2 of 2

Certification IDs:**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>1</u> of <u>2</u>		Date Rec'd in Lab <u>3/19/25</u>		L2515755 STERLINGENV 																																																																																			
		Project Information Project Name: <u>Ramapo Landfill</u> Project Location: <u>Suffern, NY</u> Project # <u>20010</u> (Use Project name as Project #) ☐ Project Manager: <u>Andrew Millspaugh</u> ALPHAQuote #: <u>27359</u> Turn-Around Time Standard ☒ Due Date: Rush (only if pre approved) ☐ # of Days:		Deliverables ☒ ASP-A ☒ ASP-B ☐ EQuIS (1 File) ☐ EQuIS (4 File) ☐ Other *ASP-B for PFAS and 1,4-Dioxane ONLY		Billing Information ☒ Same as Client Info PO #																																																																																					
Client Information Client: <u>Sterling Env. Eng.</u> Address: <u>24 Wade Rd</u> <u>Latham, NY 12110</u> Phone: <u>(518) 456-4900</u> Fax: Email: <u>See Below</u>		Regulatory Requirement ☒ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other:																																																																																							
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: <u>andrew.millspaugh@sterlingenvironmental.com</u> <u>brian.chew@sterlingenvironmental.com</u> Please specify Metals or TAL. *VOCs: 1,1-Dichloroethane, Benzene, Chlorobenzene, Ethylbenzene **Baseline Metals: Al, Sb, As, B, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Ti, V, Zn		ANALYSIS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>**Total Metals (6010D)</th> <th>TKN, COD</th> <th>Alkalinity</th> <th>*VOCs (8260D)</th> <th>1,4-Dioxane (8270E-SIM)</th> <th>PFAS (1633)</th> </tr> <tr> <td>Hardness</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		**Total Metals (6010D)	TKN, COD	Alkalinity	*VOCs (8260D)	1,4-Dioxane (8270E-SIM)	PFAS (1633)	Hardness						Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)																																																																											
**Total Metals (6010D)	TKN, COD	Alkalinity	*VOCs (8260D)	1,4-Dioxane (8270E-SIM)	PFAS (1633)																																																																																						
Hardness																																																																																											
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>ALPHA Lab ID (Lab Use Only)</th> <th>Sample ID</th> <th colspan="2">Collection</th> <th>Sample Matrix</th> <th>Sampler's Initials</th> </tr> <tr> <th></th> <th></th> <th>Date</th> <th>Time</th> <th></th> <th></th> </tr> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			Date	Time			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>15755-01</td> <td>SVWC-93</td> <td>3/18/25</td> <td>09:30</td> <td>GW</td> <td>BTC</td> </tr> <tr> <td>02</td> <td>SVWC-94</td> <td></td> <td>10:00</td> <td></td> <td></td> </tr> <tr> <td>03</td> <td>SVWC-95</td> <td></td> <td>10:30</td> <td></td> <td></td> </tr> <tr> <td>04</td> <td>SVWC-96</td> <td></td> <td>11:00</td> <td></td> <td></td> </tr> <tr> <td>05</td> <td>8-05</td> <td></td> <td>14:20</td> <td></td> <td></td> </tr> <tr> <td>06</td> <td>8-I</td> <td></td> <td>15:30</td> <td></td> <td></td> </tr> <tr> <td>07</td> <td>8-R</td> <td></td> <td>14:55</td> <td></td> <td></td> </tr> <tr> <td>08</td> <td>9-05</td> <td></td> <td>13:25</td> <td></td> <td></td> </tr> <tr> <td>09</td> <td>9-I</td> <td></td> <td>12:05</td> <td></td> <td></td> </tr> <tr> <td>10</td> <td>9-R</td> <td></td> <td>12:50</td> <td></td> <td></td> </tr> </table>		15755-01	SVWC-93	3/18/25	09:30	GW	BTC	02	SVWC-94		10:00			03	SVWC-95		10:30			04	SVWC-96		11:00			05	8-05		14:20			06	8-I		15:30			07	8-R		14:55			08	9-05		13:25			09	9-I		12:05			10	9-R		12:50			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Container Type</td> <td>P</td> <td>P</td> <td>P</td> <td>V</td> <td>A</td> <td>P</td> </tr> <tr> <td>Preservative</td> <td>C</td> <td>D</td> <td>A</td> <td>B</td> <td>A</td> <td>A</td> </tr> </table>		Container Type	P	P	P	V	A	P	Preservative	C	D	A	B	A	A
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials																																																																																						
		Date	Time																																																																																								
15755-01	SVWC-93	3/18/25	09:30	GW	BTC																																																																																						
02	SVWC-94		10:00																																																																																								
03	SVWC-95		10:30																																																																																								
04	SVWC-96		11:00																																																																																								
05	8-05		14:20																																																																																								
06	8-I		15:30																																																																																								
07	8-R		14:55																																																																																								
08	9-05		13:25																																																																																								
09	9-I		12:05																																																																																								
10	9-R		12:50																																																																																								
Container Type	P	P	P	V	A	P																																																																																					
Preservative	C	D	A	B	A	A																																																																																					
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																																					
Form No: 01-25 HC (rev. 30-Sept-2013)		Relinquished By: <u>[Signature]</u> Date/Time: <u>03/18/25 18:35</u> <u>3/18 1840</u> <u>3/18/25</u> <u>3/19/25 0945</u>		Received By: <u>[Signature]</u> Date/Time: <u>3/18 1835</u> <u>3/18/25 1840</u> <u>3/18/25 2300</u> <u>3/19 0145</u>																																																																																							



ANALYTICAL REPORT

Lab Number:	L2516149
Client:	Sterling Environmental Engineering 24 Wade Road Latham, NY 12110
ATTN:	Andrew Millspaugh
Phone:	(518) 456-4900
Project Name:	RAMAPO LANDFILL
Project Number:	20010
Report Date:	04/01/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2516149

Report Date: 04/01/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2516149-01	1-OS	WATER	SUFFERN, NY	03/19/25 12:50	03/19/25
L2516149-02	1-I	WATER	SUFFERN, NY	03/19/25 11:50	03/19/25
L2516149-03	1-R	WATER	SUFFERN, NY	03/19/25 12:20	03/19/25
L2516149-04	2-OS	WATER	SUFFERN, NY	03/19/25 10:40	03/19/25
L2516149-05	2-I	WATER	SUFFERN, NY	03/19/25 16:00	03/19/25
L2516149-06	3-OS/I	WATER	SUFFERN, NY	03/19/25 16:50	03/19/25
L2516149-07	3-R	WATER	SUFFERN, NY	03/19/25 17:50	03/19/25
L2516149-08	6-I	WATER	SUFFERN, NY	03/19/25 08:55	03/19/25
L2516149-09	6-R	WATER	SUFFERN, NY	03/19/25 09:20	03/19/25
L2516149-10	7-OS	WATER	SUFFERN, NY	03/19/25 13:55	03/19/25
L2516149-11	7-I	WATER	SUFFERN, NY	03/19/25 15:00	03/19/25
L2516149-12	7-R	WATER	SUFFERN, NY	03/19/25 14:25	03/19/25
L2516149-13	TB031925	WATER	SUFFERN, NY	03/19/25 00:00	03/19/25

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Case Narrative

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

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

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

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

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

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

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Case Narrative (continued)

Report Submission

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

Total Metals

The WG2045032-3 MS recovery performed on L2516149-01 is outside the acceptance criteria for iron (126%).

A post digestion spike was performed and was within acceptance criteria.

The WG2045032-3 MS recovery performed on L2516149-01 does not apply for sodium (38%) because the sample concentration is greater than four times the spike amount added.

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

Authorized Signature:

Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative

Date: 04/01/25

ORGANICS

VOLATILES

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-01
Client ID: 1-OS
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 12:50
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 02:03
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	120		70-130
Dibromofluoromethane	104		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-02
 Client ID: 1-I
 Sample Location: SUFFERN, NY

Date Collected: 03/19/25 11:50
 Date Received: 03/19/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 03/26/25 02:25
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	104		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-03
Client ID: 1-R
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 12:20
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 02:48
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	107		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-04
Client ID: 2-OS
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 10:40
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 03:10
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	105		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-05
Client ID: 2-I
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 16:00
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 03:32
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	108		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-06
Client ID: 3-OS/I
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 16:50
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 03:54
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	109		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-07
Client ID: 3-R
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 17:50
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 04:17
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	111		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-08
Client ID: 6-I
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 08:55
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 04:39
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	113		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-09
Client ID: 6-R
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 09:20
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 05:01
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	111		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-10
Client ID: 7-OS
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 13:55
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 05:24
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	115		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-11
Client ID: 7-I
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 15:00
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 05:46
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	115		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-12
Client ID: 7-R
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 14:25
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/26/25 06:08
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	117		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-13
Client ID: TB031925
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 00:00
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/24/25 11:56
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Ethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	114		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/24/25 11:11
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG2045355-5					
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Ethylbenzene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	116		70-130

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 03/25/25 22:43
 Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12 Batch: WG2045548-5					
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Ethylbenzene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	113		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG2045355-3 WG2045355-4								
1,1-Dichloroethane	98		93		70-130	5		20
Chlorobenzene	100		98		75-130	2		20
Benzene	87		83		70-130	5		20
Ethylbenzene	98		93		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		108		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	98		100		70-130
Dibromofluoromethane	103		99		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12 Batch: WG2045548-3 WG2045548-4								
1,1-Dichloroethane	100		100		70-130	0		20
Chlorobenzene	110		100		75-130	10		20
Benzene	92		89		70-130	3		20
Ethylbenzene	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		100		70-130
Toluene-d8	107		107		70-130
4-Bromofluorobenzene	111		111		70-130
Dibromofluoromethane	95		100		70-130

METALS

Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-01

Date Collected: 03/19/25 12:50

Client ID: 1-OS

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0271		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Antimony, Total	0.00210	J	mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00033	J	mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Barium, Total	0.00889		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Boron, Total	0.057		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Cadmium, Total	0.00015	J	mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Calcium, Total	49.5		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Chromium, Total	0.09520		mg/l	0.00100	0.00017	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00080		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Copper, Total	0.00258		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Iron, Total	1.50		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Magnesium, Total	10.2		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Manganese, Total	0.5610		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 11:42	EPA 7470A	1,7470A	WKP
Nickel, Total	0.01372		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Potassium, Total	2.00		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Sodium, Total	64.3		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	165.6		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 22:21	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-02

Date Collected: 03/19/25 11:50

Client ID: 1-I

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.341		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Antimony, Total	0.00071	J	mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00096		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Barium, Total	0.05267		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Boron, Total	0.095		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Cadmium, Total	0.00010	J	mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Calcium, Total	133.		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Chromium, Total	0.2312		mg/l	0.00500	0.00089	5	03/25/25 21:17	03/27/25 09:32	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.01456		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Copper, Total	0.00842		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Iron, Total	2.12		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Lead, Total	0.00077	J	mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Magnesium, Total	31.7		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Manganese, Total	0.3799		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 11:25	EPA 7470A	1,7470A	WKP
Nickel, Total	0.03484		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Potassium, Total	8.55		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Sodium, Total	32.1		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Vanadium, Total	0.00241	J	mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Zinc, Total	0.00440	J	mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	463.5		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 22:44	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL**Lab Number:** L2516149**Project Number:** 20010**Report Date:** 04/01/25**SAMPLE RESULTS**

Lab ID: L2516149-03

Date Collected: 03/19/25 12:20

Client ID: 1-R

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0970		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Antimony, Total	0.00259	J	mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00081		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Barium, Total	0.03423		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Boron, Total	0.018		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Calcium, Total	31.3		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Chromium, Total	0.2480		mg/l	0.00500	0.00089	5	03/25/25 21:17	03/27/25 09:37	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00456		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Copper, Total	0.03376		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Iron, Total	1.98		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Lead, Total	0.00102		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Magnesium, Total	6.68		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Manganese, Total	0.1901		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 11:45	EPA 7470A	1,7470A	WKP
Nickel, Total	0.03908		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Potassium, Total	8.53		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Sodium, Total	10.5		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Vanadium, Total	0.00205	J	mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Zinc, Total	0.00358	J	mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	105.7		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 22:48	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL**Lab Number:** L2516149**Project Number:** 20010**Report Date:** 04/01/25**SAMPLE RESULTS**

Lab ID: L2516149-04

Date Collected: 03/19/25 10:40

Client ID: 2-OS

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.149		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Antimony, Total	0.00074	J	mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00111		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Barium, Total	0.03554		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Boron, Total	0.069		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Calcium, Total	99.1		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Chromium, Total	0.3412		mg/l	0.00500	0.00089	5	03/25/25 21:17	03/27/25 09:41	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00199		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Copper, Total	0.01795		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Iron, Total	3.12		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Lead, Total	0.00051	J	mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Magnesium, Total	11.2		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Manganese, Total	0.05433		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 11:49	EPA 7470A	1,7470A	WKP
Nickel, Total	0.03794		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Potassium, Total	5.69		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Sodium, Total	22.1		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Vanadium, Total	0.00281	J	mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Zinc, Total	0.00502	J	mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	293.9		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 22:53	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL**Lab Number:** L2516149**Project Number:** 20010**Report Date:** 04/01/25**SAMPLE RESULTS**

Lab ID: L2516149-05

Date Collected: 03/19/25 16:00

Client ID: 2-I

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0424		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00083		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Barium, Total	0.06226		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Boron, Total	0.309		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Cadmium, Total	0.00011	J	mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Calcium, Total	79.8		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00275		mg/l	0.00100	0.00017	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00043	J	mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Copper, Total	0.00124		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Iron, Total	2.93		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Magnesium, Total	29.2		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Manganese, Total	0.5015		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 11:52	EPA 7470A	1,7470A	WKP
Nickel, Total	0.00472		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Potassium, Total	4.11		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Sodium, Total	104.		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	319.5		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 23:06	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-06

Date Collected: 03/19/25 16:50

Client ID: 3-OS/I

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0388		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00025	J	mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Barium, Total	0.01334		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Boron, Total	0.049		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Calcium, Total	80.4		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Chromium, Total	0.6726		mg/l	0.01000	0.00178	10	03/25/25 21:17	03/27/25 09:46	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00260		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Copper, Total	0.00692		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Iron, Total	8.17		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Magnesium, Total	11.8		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Manganese, Total	0.3066		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 11:55	EPA 7470A	1,7470A	WKP
Nickel, Total	0.1972		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Potassium, Total	2.01		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Sodium, Total	19.1		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Vanadium, Total	0.00200	J	mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	249.2		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 23:11	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL**Lab Number:** L2516149**Project Number:** 20010**Report Date:** 04/01/25**SAMPLE RESULTS**

Lab ID: L2516149-07

Date Collected: 03/19/25 17:50

Client ID: 3-R

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0578		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00084		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Barium, Total	0.03876		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Boron, Total	0.069		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Cadmium, Total	0.00020		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Calcium, Total	42.9		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Chromium, Total	0.1018		mg/l	0.00100	0.00017	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.01312		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Copper, Total	0.00317		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Iron, Total	2.86		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Magnesium, Total	12.6		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Manganese, Total	9.385		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 11:58	EPA 7470A	1,7470A	WKP
Nickel, Total	0.1055		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Potassium, Total	1.59		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Sodium, Total	81.7		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Zinc, Total	0.00386	J	mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	159.0		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 23:15	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-08

Date Collected: 03/19/25 08:55

Client ID: 6-I

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0102		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Barium, Total	0.01165		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Boron, Total	0.020		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Calcium, Total	27.6		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Chromium, Total	0.01276		mg/l	0.00100	0.00017	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00045	J	mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Copper, Total	0.00161		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Iron, Total	0.283		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Magnesium, Total	5.44		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Manganese, Total	0.08701		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 12:02	EPA 7470A	1,7470A	WKP
Nickel, Total	0.00138	J	mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Potassium, Total	1.31		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Sodium, Total	8.86		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	91.30		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 23:20	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-09

Date Collected: 03/19/25 09:20

Client ID: 6-R

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0157		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Barium, Total	0.01995		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Boron, Total	0.027		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Calcium, Total	43.6		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00255		mg/l	0.00100	0.00017	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00025	J	mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Copper, Total	0.00136		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Iron, Total	0.0985		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Magnesium, Total	10.6		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Manganese, Total	0.2757		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 12:05	EPA 7470A	1,7470A	WKP
Nickel, Total	0.02083		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Potassium, Total	1.80		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Sodium, Total	15.8		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Zinc, Total	0.01372		mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	152.6		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 23:24	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL**Lab Number:** L2516149**Project Number:** 20010**Report Date:** 04/01/25**SAMPLE RESULTS**

Lab ID: L2516149-10

Date Collected: 03/19/25 13:55

Client ID: 7-OS

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00912	J	mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Barium, Total	0.03535		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Boron, Total	0.027		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Calcium, Total	71.7		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Chromium, Total	0.00538		mg/l	0.00100	0.00017	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Copper, Total	0.00048	J	mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Iron, Total	0.0258	J	mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Magnesium, Total	15.9		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Manganese, Total	0.00156		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 12:08	EPA 7470A	1,7470A	WKP
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Potassium, Total	4.22		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Sodium, Total	26.7		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	244.4		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 23:29	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-11

Date Collected: 03/19/25 15:00

Client ID: 7-I

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.355		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00116		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Barium, Total	0.08682		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Boron, Total	0.035		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Cadmium, Total	0.00009	J	mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Calcium, Total	85.6		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Chromium, Total	0.3783		mg/l	0.00500	0.00089	5	03/25/25 21:17	03/27/25 09:51	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00774		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Copper, Total	0.01501		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Iron, Total	0.647		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Lead, Total	0.00093	J	mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Magnesium, Total	16.0		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Manganese, Total	0.08604		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 12:18	EPA 7470A	1,7470A	WKP
Nickel, Total	0.00838		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Potassium, Total	4.63		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Selenium, Total	0.00339	J	mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Sodium, Total	64.3		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Vanadium, Total	0.00328	J	mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Zinc, Total	0.00970	J	mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	279.8		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 23:33	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-12

Date Collected: 03/19/25 14:25

Client ID: 7-R

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.10		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.00098		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Barium, Total	0.02476		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Boron, Total	0.062		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Cadmium, Total	0.00031		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Calcium, Total	70.5		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Chromium, Total	0.05816		mg/l	0.00100	0.00017	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.00496		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Copper, Total	0.01121		mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Iron, Total	15.1		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Lead, Total	0.00361		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Magnesium, Total	12.2		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Manganese, Total	1.731		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Mercury, Total	0.00016	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 12:22	EPA 7470A	1,7470A	WKP
Nickel, Total	0.05643		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Potassium, Total	1.82		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Sodium, Total	8.13		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Vanadium, Total	0.00233	J	mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Zinc, Total	0.03434		mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	226.1		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 23:38	EPA 3005A	1,6020B	NTB



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-12 Batch: WG2045032-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Antimony, Total	ND		mg/l	0.00400	0.00042	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Barium, Total	ND		mg/l	0.00050	0.00017	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Boron, Total	ND		mg/l	0.010	0.0005	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Calcium, Total	ND		mg/l	0.100	0.0394	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Copper, Total	0.00047	J	mg/l	0.00100	0.00038	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Iron, Total	ND		mg/l	0.0500	0.0191	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Manganese, Total	ND		mg/l	0.00100	0.00044	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Potassium, Total	ND		mg/l	0.100	0.0309	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Selenium, Total	ND		mg/l	0.00500	0.00173	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Silver, Total	ND		mg/l	0.00040	0.00016	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Sodium, Total	ND		mg/l	0.500	0.0293	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Thallium, Total	ND		mg/l	0.00100	0.00014	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB
Zinc, Total	ND		mg/l	0.01000	0.00341	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 01-12 Batch: WG2045032-1										
Hardness	ND		mg/l	0.5400	NA	1	03/25/25 21:17	03/26/25 22:12	1,6020B	NTB



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-12 Batch: WG2045033-1										
Mercury, Total	0.00012	J	mg/l	0.00020	0.00009	1	03/25/25 23:00	03/26/25 11:19	1,7470A	WKP

Prep Information

Digestion Method: EPA 7470A



Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2516149

Report Date: 04/01/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 Batch: WG2045032-2								
Aluminum, Total	97		-		80-120	-		
Antimony, Total	89		-		80-120	-		
Arsenic, Total	113		-		80-120	-		
Barium, Total	101		-		80-120	-		
Beryllium, Total	109		-		80-120	-		
Boron, Total	100		-		80-120	-		
Cadmium, Total	102		-		80-120	-		
Calcium, Total	109		-		80-120	-		
Chromium, Total	106		-		80-120	-		
Cobalt, Total	109		-		80-120	-		
Copper, Total	114		-		80-120	-		
Iron, Total	111		-		80-120	-		
Lead, Total	97		-		80-120	-		
Magnesium, Total	98		-		80-120	-		
Manganese, Total	108		-		80-120	-		
Nickel, Total	111		-		80-120	-		
Potassium, Total	102		-		80-120	-		
Selenium, Total	109		-		80-120	-		
Silver, Total	102		-		80-120	-		
Sodium, Total	96		-		80-120	-		
Thallium, Total	96		-		80-120	-		

Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2516149

Report Date: 04/01/25

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 Batch: WG2045032-2					
Vanadium, Total	105	-	80-120	-	
Zinc, Total	113	-	80-120	-	
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-12 Batch: WG2045032-2					
Hardness	102	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-12 Batch: WG2045033-2					
Mercury, Total	97	-	80-120	-	

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2516149

Report Date: 04/01/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12			QC Batch ID: WG2045032-3			QC Sample: L2516149-01			Client ID: 1-OS			
Aluminum, Total	0.0271	2	2.05	101		-	-		75-125	-		20
Antimony, Total	0.00210J	0.5	0.5151	103		-	-		75-125	-		20
Arsenic, Total	0.00033J	0.12	0.1416	118		-	-		75-125	-		20
Barium, Total	0.00889	2	2.077	103		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.05575	112		-	-		75-125	-		20
Boron, Total	0.057	1	1.10	104		-	-		75-125	-		20
Cadmium, Total	0.00015J	0.053	0.05612	106		-	-		75-125	-		20
Calcium, Total	49.5	10	61.1	116		-	-		75-125	-		20
Chromium, Total	0.09520	0.2	0.3157	110		-	-		75-125	-		20
Cobalt, Total	0.00080	0.5	0.5626	112		-	-		75-125	-		20
Copper, Total	0.00258	0.25	0.2964	118		-	-		75-125	-		20
Iron, Total	1.50	1	2.76	126	Q	-	-		75-125	-		20
Lead, Total	ND	0.53	0.5335	101		-	-		75-125	-		20
Magnesium, Total	10.2	10	20.4	102		-	-		75-125	-		20
Manganese, Total	0.5610	0.5	1.148	117		-	-		75-125	-		20
Nickel, Total	0.01372	0.5	0.5833	114		-	-		75-125	-		20
Potassium, Total	2.00	10	12.5	105		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.137	114		-	-		75-125	-		20
Silver, Total	ND	0.05	0.05206	104		-	-		75-125	-		20
Sodium, Total	64.3	10	68.1	38	Q	-	-		75-125	-		20
Thallium, Total	ND	0.12	0.1182	98		-	-		75-125	-		20

Matrix Spike Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2516149

Report Date: 04/01/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12			QC Batch ID: WG2045032-3		QC Sample: L2516149-01		Client ID: 1-OS		
Vanadium, Total	ND	0.5	0.5418	108	-	-	75-125	-	20
Zinc, Total	ND	0.5	0.5832	117	-	-	75-125	-	20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-12			QC Batch ID: WG2045032-3		QC Sample: L2516149-01		Client ID: 1-OS		
Hardness	165.6	66.2	236.4	107	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-12			QC Batch ID: WG2045033-3		QC Sample: L2516149-02		Client ID: 1-I		
Mercury, Total	0.00012J	0.005	0.00486	97	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG2045032-4 QC Sample: L2516149-01 Client ID: 1-OS						
Aluminum, Total	0.0271	0.0257	mg/l	5		20
Antimony, Total	0.00210J	0.00156J	mg/l	NC		20
Arsenic, Total	0.00033J	0.00032J	mg/l	NC		20
Barium, Total	0.00889	0.00906	mg/l	2		20
Beryllium, Total	ND	ND	mg/l	NC		20
Boron, Total	0.057	0.057	mg/l	1		20
Cadmium, Total	0.00015J	ND	mg/l	NC		20
Calcium, Total	49.5	46.9	mg/l	5		20
Chromium, Total	0.09520	0.09144	mg/l	4		20
Cobalt, Total	0.00080	0.00084	mg/l	5		20
Copper, Total	0.00258	0.00238	mg/l	8		20
Iron, Total	1.50	1.47	mg/l	2		20
Lead, Total	ND	ND	mg/l	NC		20
Magnesium, Total	10.2	9.67	mg/l	5		20
Manganese, Total	0.5610	0.5478	mg/l	2		20
Nickel, Total	0.01372	0.01294	mg/l	6		20
Potassium, Total	2.00	1.90	mg/l	5		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG2045032-4 QC Sample: L2516149-01 Client ID: 1-OS					
Sodium, Total	64.3	60.5	mg/l	6	20
Thallium, Total	ND	ND	mg/l	NC	20
Vanadium, Total	ND	ND	mg/l	NC	20
Zinc, Total	ND	ND	mg/l	NC	20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG2045032-4 QC Sample: L2516149-01 Client ID: 1-OS					
Hardness	165.6	156.9	mg/l	5	20
Total Metals - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG2045033-4 QC Sample: L2516149-02 Client ID: 1-I					
Mercury, Total	0.00012J	0.00012J	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-01
Client ID: 1-OS
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 12:50
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	229.		mg CaCO3/L	2.00	NA	1	-	03/25/25 13:25	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.271	J	mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:02	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:35	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-02

Date Collected: 03/19/25 11:50

Client ID: 1-I

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	381.		mg CaCO3/L	2.00	NA	1	-	03/25/25 13:31	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.412		mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:03	4,351.1	AT
Chemical Oxygen Demand	12.		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:35	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-03

Date Collected: 03/19/25 12:20

Client ID: 1-R

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	67.7		mg CaCO3/L	2.00	NA	1	-	03/25/25 13:40	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.540		mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:07	4,351.1	AT
Chemical Oxygen Demand	34.		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:35	44,410.4	MRW



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-04
Client ID: 2-OS
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 10:40
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	269.		mg CaCO3/L	2.00	NA	1	-	03/25/25 13:43	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.426		mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:08	4,351.1	AT
Chemical Oxygen Demand	3.2	J	mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:37	44,410.4	MRW



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-05
Client ID: 2-I
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 16:00
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	412.		mg CaCO3/L	2.00	NA	1	-	03/25/25 17:33	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.386		mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:09	4,351.1	AT
Chemical Oxygen Demand	3.2	J	mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:37	44,410.4	MRW



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-06

Date Collected: 03/19/25 16:50

Client ID: 3-OS/I

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	234.		mg CaCO3/L	2.00	NA	1	-	03/25/25 14:00	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.101	J	mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:10	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/25/25 10:40	03/25/25 14:55	44,410.4	CVN



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-07
Client ID: 3-R
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 17:50
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	193.		mg CaCO3/L	2.00	NA	1	-	03/25/25 14:06	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.287	J	mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:10	4,351.1	AT
Chemical Oxygen Demand	12.		mg/l	10	2.7	1	03/25/25 10:40	03/25/25 14:56	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-08

Date Collected: 03/19/25 08:55

Client ID: 6-I

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	72.1		mg CaCO3/L	2.00	NA	1	-	03/25/25 14:11	121,2320B	MRW
Nitrogen, Total Kjeldahl	0.086	J	mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:11	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/25/25 10:40	03/25/25 14:56	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2516149

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-09

Client ID: 6-R

Sample Location: SUFFERN, NY

Date Collected: 03/19/25 09:20

Date Received: 03/19/25

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	124.		mg CaCO3/L	2.00	NA	1	-	03/25/25 14:14	121,2320B	MRW
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:12	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/25/25 10:40	03/25/25 14:56	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-10

Date Collected: 03/19/25 13:55

Client ID: 7-OS

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	88.0		mg CaCO3/L	2.00	NA	1	-	03/25/25 14:18	121,2320B	MRW
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:13	4,351.1	AT
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/25/25 10:40	03/25/25 14:56	44,410.4	CVN



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-11
Client ID: 7-I
Sample Location: SUFFERN, NY

Date Collected: 03/19/25 15:00
Date Received: 03/19/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	68.1		mg CaCO3/L	2.00	NA	1	-	03/25/25 14:21	121,2320B	MRW
Nitrogen, Total Kjeldahl	1.45		mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:14	4,351.1	AT
Chemical Oxygen Demand	19.		mg/l	10	2.7	1	03/25/25 10:40	03/25/25 14:57	44,410.4	CVN



Project Name: RAMAPO LANDFILL

Lab Number: L2516149

Project Number: 20010

Report Date: 04/01/25

SAMPLE RESULTS

Lab ID: L2516149-12

Date Collected: 03/19/25 14:25

Client ID: 7-R

Date Received: 03/19/25

Sample Location: SUFFERN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	213.		mg CaCO3/L	2.00	NA	1	-	03/25/25 14:24	121,2320B	MRW
Nitrogen, Total Kjeldahl	1.16		mg/l	0.300	0.066	1	03/30/25 12:20	03/31/25 22:15	4,351.1	AT
Chemical Oxygen Demand	26.		mg/l	10	2.7	1	03/25/25 10:40	03/25/25 14:57	44,410.4	CVN



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2044329-1										
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/24/25 11:15	03/24/25 14:30	44,410.4	MRW
General Chemistry - Westborough Lab for sample(s): 01-12 Batch: WG2044830-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	03/25/25 12:56	121,2320B	MRW
General Chemistry - Westborough Lab for sample(s): 06-12 Batch: WG2044884-1										
Chemical Oxygen Demand	ND		mg/l	10	2.7	1	03/25/25 10:40	03/25/25 14:55	44,410.4	CVN
General Chemistry - Westborough Lab for sample(s): 01-12 Batch: WG2047020-1										
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	0.022	1	03/30/25 12:20	03/31/25 21:54	4,351.1	AT



Lab Control Sample Analysis **Batch Quality Control**

Project Name: RAMAPO LANDFILL

Project Number: 20010

Lab Number: L2516149

Report Date: 04/01/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2044329-2								
Chemical Oxygen Demand	108		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-12 Batch: WG2044830-2								
Alkalinity, Total	102		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 06-12 Batch: WG2044884-2								
Chemical Oxygen Demand	98		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-12 Batch: WG2047020-2								
Nitrogen, Total Kjeldahl	91		-		78-122	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05				QC Batch ID: WG2044329-4			QC Sample: L2515979-10			Client ID: MS Sample		
Chemical Oxygen Demand	19.	47.6	66	99		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-12				QC Batch ID: WG2044830-4			QC Sample: L2516107-02			Client ID: MS Sample		
Alkalinity, Total	49.7	100	152	102		-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 06-12				QC Batch ID: WG2044884-3			QC Sample: L2516218-02			Client ID: MS Sample		
Chemical Oxygen Demand	5.6J	47.6	51	107		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-12				QC Batch ID: WG2047020-4			QC Sample: L2515964-05			Client ID: MS Sample		
Nitrogen, Total Kjeldahl	0.226J	8	6.26	78		-	-		77-111	-		24

Lab Duplicate Analysis

Batch Quality Control

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2044329-3 QC Sample: L2515979-10 Client ID: DUP Sample						
Chemical Oxygen Demand	19.	21	mg/l	10		20
General Chemistry - Westborough Lab Associated sample(s): 01-12 QC Batch ID: WG2044830-3 QC Sample: L2516107-02 Client ID: DUP Sample						
Alkalinity, Total	49.7	49.6	mg CaCO3/L	0		10
General Chemistry - Westborough Lab Associated sample(s): 06-12 QC Batch ID: WG2044884-4 QC Sample: L2516218-02 Client ID: DUP Sample						
Chemical Oxygen Demand	5.6J	7.9J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-12 QC Batch ID: WG2047020-3 QC Sample: L2515964-05 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	0.226J	0.321	mg/l	NC		24

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No:04012516:12
Lab Number: L2516149
Report Date: 04/01/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516149-01A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-01B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-01C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-01D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-01E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		SE-6020T(180),BA-6020T(180),TL-6020T(180),FE-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),CA-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),B-6020T(180),AG-6020T(180),MG-6020T(180),HG-T(28),AL-6020T(180),CD-6020T(180),HARDT-6020(180),CO-6020T(180)
L2516149-01F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-02A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-02B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-02C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-02D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-02E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),B-6020T(180),SB-6020T(180),AS-6020T(180),AG-6020T(180),HARDT-6020(180),HG-T(28),AL-6020T(180),MG-6020T(180),CD-6020T(180),CO-6020T(180)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04012516:12
Lab Number: L2516149
Report Date: 04/01/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516149-02F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-03A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-03B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-03C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-03D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-03E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		SE-6020T(180),TL-6020T(180),BA-6020T(180),FE-6020T(180),NI-6020T(180),CR-6020T(180),K-6020T(180),CA-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),V-6020T(180),AS-6020T(180),B-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HARDT-6020(180),HG-T(28),MG-6020T(180),AL-6020T(180),CO-6020T(180)
L2516149-03F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-04A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-04B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-04C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-04D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-04E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		FE-6020T(180),BA-6020T(180),TL-6020T(180),SE-6020T(180),CR-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),SB-6020T(180),B-6020T(180),V-6020T(180),AS-6020T(180),CD-6020T(180),AG-6020T(180),HARDT-6020(180),MG-6020T(180),HG-T(28),AL-6020T(180),CO-6020T(180)
L2516149-04F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-05A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-05B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-05C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04012516:12
Lab Number: L2516149
Report Date: 04/01/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516149-05D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-05E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		BA-6020T(180),SE-6020T(180),FE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),B-6020T(180),SB-6020T(180),AS-6020T(180),V-6020T(180),MG-6020T(180),AG-6020T(180),HARDT-6020(180),AL-6020T(180),CD-6020T(180),HG-T(28),CO-6020T(180)
L2516149-05F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-06A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-06B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-06C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-06D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-06E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),B-6020T(180),SB-6020T(180),V-6020T(180),HG-T(28),MG-6020T(180),CD-6020T(180),AG-6020T(180),AL-6020T(180),HARDT-6020(180),CO-6020T(180)
L2516149-06F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-07A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-07B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-07C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-07D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04012516:12
Lab Number: L2516149
Report Date: 04/01/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516149-07E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		FE-6020T(180),BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),B-6020T(180),V-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28),AL-6020T(180),HARDT-6020(180),MG-6020T(180),CO-6020T(180)
L2516149-07F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-08A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-08B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-08C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-08D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-08E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		TL-6020T(180),BA-6020T(180),FE-6020T(180),SE-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),CU-6020T(180),ZN-6020T(180),NA-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),B-6020T(180),V-6020T(180),HARDT-6020(180),MG-6020T(180),HG-T(28),AL-6020T(180),CD-6020T(180),AG-6020T(180),CO-6020T(180)
L2516149-08F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-09A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-09B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-09C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-09D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04012516:12
Lab Number: L2516149
Report Date: 04/01/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516149-09E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		SE-6020T(180),BA-6020T(180),FE-6020T(180),TL-6020T(180),CA-6020T(180),NI-6020T(180),CR-6020T(180),K-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),B-6020T(180),SB-6020T(180),AG-6020T(180),AL-6020T(180),MG-6020T(180),HARDT-6020(180),HG-T(28),CD-6020T(180),CO-6020T(180)
L2516149-09F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-10A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-10B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-10C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-10D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-10E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		SE-6020T(180),FE-6020T(180),BA-6020T(180),TL-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CA-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),B-6020T(180),AL-6020T(180),HARDT-6020(180),HG-T(28),MG-6020T(180),CD-6020T(180),AG-6020T(180),CO-6020T(180)
L2516149-10F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-11A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-11B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-11C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-11D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Serial_No: 04012516:12
Lab Number: L2516149
Report Date: 04/01/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516149-11E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		BA-6020T(180),TL-6020T(180),SE-6020T(180),FE-6020T(180),NI-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),B-6020T(180),AS-6020T(180),V-6020T(180),HG-T(28),AG-6020T(180),AL-6020T(180),MG-6020T(180),CD-6020T(180),HARDT-6020(180),CO-6020T(180)
L2516149-11F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-12A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-12B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-12C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-12D	Plastic 250ml unpreserved/No Headspace	A	NA		2.8	Y	Absent		ALK-T-2320(14)
L2516149-12E	Plastic 250ml HNO3 preserved	A	<2	<2	2.8	Y	Absent		TL-6020T(180),SE-6020T(180),BA-6020T(180),FE-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CA-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),B-6020T(180),V-6020T(180),AS-6020T(180),HARDT-6020(180),CD-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),AL-6020T(180),CO-6020T(180)
L2516149-12F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.8	Y	Absent		TKN-351(28),COD-410-LOW(28)
L2516149-13A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2516149-13B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Footnotes

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

Terms

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

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

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

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

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

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: RAMAPO LANDFILL
Project Number: 20010

Lab Number: L2516149
Report Date: 04/01/25

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Pace Analytical Services LLCFacility: **Northeast**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 27

Published Date: 01/24/2025

Page 1 of 2

Certification Information

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

MADEP-APH.**Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

Pace Analytical Services LLCID No.:**17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

Page 2 of 2

Certification IDs:**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>1</u> of <u>2</u>		Date Rec'd in Lab <u>3/20/25</u>		ALPHA Job # <u>12516149</u>							
		Project Information Project Name: <u>Ramapo Landfill</u> Project Location: <u>Suffern, NY</u> Project # <u>20010</u> (Use Project name as Project #) ☐		Deliverables ☒ ASP-A ☒ ASP-B ☐ EQuIS (1 File) ☐ EQuIS (4 File) ☐ Other <u>ASP-B for PFAS and L4-Dioxane ONLY</u>		Billing Information ☒ Same as Client Info PO # _____									
Client Information Client: <u>Sterling Env. Eng.</u> Address: <u>24 Wade Rd</u> <u>Latham, NY 12110</u> Phone: <u>(518) 456-4900</u> Fax: _____ Email: <u>See Below</u>		Project Manager: <u>Andrew Millspaugh</u> ALPHAQuote #: <u>27359</u> Turn-Around Time Standard ☒ Due Date: _____ Rush (only if pre approved) ☐ # of Days: _____		Regulatory Requirement ☒ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other _____ ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other: _____									
These samples have been previously analyzed by Alpha ☐		ANALYSIS		Sample Filtration ☐ Done ☐ Lab to do ☐ Preservation ☐ Lab to do (Please Specify below)		Other project specific requirements/comments: <u>andrew.millspaugh@sterlingenvironmental.com</u> <u>brian.chew@sterlingenvironmental.com</u> Please specify Metals or TAL: *VOCs: 1,1-Dichloroethane, Benzene, Chlorobenzene, Ethylbenzene **Baseline Metals: Al, Sb, As, B, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Ti, V, Zn									
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler's Initials		**Total Metals (6010D) Hardness TKN, COD Alkalinity *VOCs (8260D)		Sample Specific Comments			
<u>16149 -01</u>		<u>1-OS</u>		<u>3/19/25 12:50</u>		<u>GW</u>		<u>BTC</u>		<u>X X X X</u>		<u>6</u>			
<u>-02</u>		<u>1-I</u>		<u>11:50</u>						<u>X X X X</u>		<u>6</u>			
<u>-03</u>		<u>1-R</u>		<u>12:20</u>						<u>X X X X</u>		<u>6</u>			
<u>-04</u>		<u>2-OS</u>		<u>10:40</u>						<u>X X X X</u>		<u>6</u>			
<u>-05</u>		<u>2-I</u>		<u>16:00</u>						<u>X X X X</u>		<u>6</u>			
<u>-06</u>		<u>3-OS/I</u>		<u>16:50</u>						<u>X X X X</u>		<u>6</u>			
<u>-07</u>		<u>3-R</u>		<u>17:50</u>						<u>X X X X</u>		<u>6</u>			
<u>-08</u>		<u>6-OS 6-I</u>		<u>08:55</u>						<u>X X X X</u>		<u>6</u>			
<u>-09</u>		<u>6-R</u>		<u>09:20</u>						<u>X X X X</u>		<u>6</u>			
<u>-10</u>		<u>7-OS</u>		<u>13:55</u>						<u>X X X X</u>		<u>6</u>			
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		P P P V C D A B		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side)					
Relinquished By: <u>[Signature]</u>		Date/Time: <u>03/19/25 18:40</u>		Received By: <u>[Signature]</u>		Date/Time: <u>3/19/25 (1940)</u>		Relinquished By: <u>[Signature]</u>		Date/Time: <u>3/19/25 (1943)</u>		Received By: <u>[Signature]</u>		Date/Time: <u>3/19/25 (1945)</u>	
Form No: 01-25 HC (rev. 30-Sept-2013)															

APPENDIX E

LABORATORY ANALYTICAL RESULTS - LEACHATE / GROUNDWATER



Rockland County

Ed Day, Rockland County Executive

ROCKLAND COUNTY SEWER DISTRICT NO. 1

4 Route 340
Orangeburg, New York 10962
Phone: (845) 365-6111 Fax: (845) 365-6686
RCSD@co.rockland.ny.us

Michael Specht
Chairman

Michael R. Saber, P.E.
Executive Director

August 29, 2024

Michael Sadowski, PE
Deputy Director
Town of Ramapo, DPW
Pioneer Avenue
Tallman, N.Y. 10982

TOWN OF RAMAPO

SEP - 3 2024

Re: Wastewater Analysis Report/s - 2024

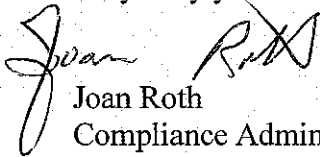
DEPARTMENT OF
PUBLIC WORKS

Dear Mr. Sadowski:

Enclosed is the analysis report/s for the sample/s collected from your facility on August 7, 2024. The sampling is conducted to comply with the requirements of the Wastewater Discharge Permit and the Pretreatment Program. The charges for such services as deemed applicable by the district will be billed to you in the early part of 2025.

Should you have any questions or need additional information please call this office.

Very truly yours



Joan Roth
Compliance Administrator

Encl

CC: M.R. Saber, PE M. Dolphin, PE

File: Ramapo Landfill (P) - 2024
Reader

ROCKLAND COUNTY SEWER DISTRICT NO. 1

4 Route 340

Orangeburg, N.Y. 10962

PRETREATMENT PROGRAM - SAMPLE ANALYSIS REPORT

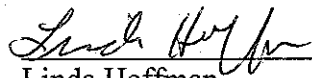
REPORT FOR: RAMAPO LANDFILL, HILBURN, NY

LOCATION SAMPLED: Manhole Immediately Upstream of Wetwell

MATRIX: Water DATE SAMPLED: 08/07/24 Sample ID: IS-2400807-RLF

PARAMETER	RESULTS	DATE OF ANALYSIS	ANALYST INITIALS	METHOD AS PER 40CFR
pH	7.16	08/07/24	VP	SM 4500-H-B
BIOCHEMICAL OXYGEN DEMAND (mg/L)	4	08/13/24	KW	SM 5210 B
CHEMICAL OXYGEN DEMAND (mg/L)	25	08/08/24	VP	SM 5220 D
TOTAL SUSPENDED SOLIDS (mg/L)	12	08/08/24	VP	SM 2540 D
Other Analyses	See Attached			

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



Linda Hoffman

Laboratory Director

NYSDOH ID No. 10447

August 29, 2024

No. of pages in this report: 67



Client: Rockland County Sewer District #1
Project: RC240807
Sample Matrix: Water

Service Request: R2407447
Date Received: 08/09/2024

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

One water sample was received for analysis at ALS Environmental on 08/09/2024. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 625, 08/16/2024: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Semivolatile GC:

Method 608 Modified: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV) on one detector. All recoveries were acceptable on the secondary detector. Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 608 Modified, 08/16/2024: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 608 Modified, 08/16/2024: The lower control limit for the spike recovery of the Laboratory Control Sample (LCS) was exceeded for one or more analyte. There were no detections of the analyte(s) in the associated field samples. The discrepancy associated with reduced recovery equates to a potential low bias. Samples are scheduled for re-extraction. The analytes affected are flagged in the LCS Summary.

Method 608 Modified: The extraction of one or more sample(s) was initially performed within holding time, but were re-extracted due to a QC failure. Efforts were made to re-extract the samples as soon as possible. The re-extraction was performed past the recommended holding time. The data are flagged to indicate the holding time exceedance.

Method 608 Modified, 08/26/2024: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 608 Modified: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV) on one detector. All recoveries were acceptable on the secondary detector. Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 608 Modified: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV) on one detector. All recoveries were acceptable on the secondary detector. Since there were no detections of the analyte

Approved by _____

Meghan Pado

Date _____

08/27/2024



ALS Environmental

(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 624, 08/11/2024: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Approved by

Meghan Pedro

Date

08/27/2024



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: IS-240807-RLF		Lab ID: R2407447-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Ammonia as Nitrogen, undistilled	0.335			0.050	mg/L	350.1
Chloride	89.6			4.0	mg/L	300.0
Copper, Total	27			20	ug/L	200.7
Formaldehyde	48			20	ug/L	8315A
Manganese, Total	324			10	ug/L	200.7
Nitrogen, Total Kjeldahl (TKN)	0.71			0.20	mg/L	351.2
Phosphorus, Total	0.111			0.050	mg/L	365.1
Solids, Total Dissolved (TDS)	421			10	mg/L	SM 2540 C-2015
Zinc, Total	79			20	ug/L	200.7



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5

Service Request:R2407447

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2407447-001	IS-240807-RLF	8/7/2024	1132



Chain of Custody / Analytical Request Form

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380 • alsglobal.com

SR#:		Page 5 of 6	
Report To:		Preservative	
Company: Rockland County Sewer District		2	
Contact: Linda Hoffman		0	
Email: hoffmanl@co.rockland.ny.us		4	
Phone: 845-365-6626		3	
Address: 4 Route 340		1	
Orangeburg, NY 10962		0	
State Samples Collected (Date or Write): NY		3	
Sample ID:		0	
IS-240807-RLF		3	
Date: 08/07/2024		3	
Time: 11:32		0	
Matrix		3	
GW WW		1	
SW DW		3	
S L		0	
NA		3	
Number of Containers		0	
MERCURY, METALS		3	
CHLORIDES, FORMALDEHYDE		1	
TOTAL AND AVAILABLE CYANIDE		3	
OIL AND GREASE		1	
VOC		0	
SEMI VOLATILES		3	
TOTAL PHENOLS		0	
TDS		3	
AMMONIA, TKN		0	
TOTAL PHOSPHATE		3	
TPH		0	
PCBS & PESTICIDES		3	
Notes:		0	
1. HCl		0	
2. HNO3		0	
3. H2SO4		0	
4. NaOH		0	
5. Zn Acet.		0	
6. MeOH		0	
7. NaHSO4		0	
8. Other		0	

Special Instructions / Comments:		Turnaround Requirements		Report Requirements		Metals: RCRA 86 PP 13 • TAL 23 • TCLP • Other (List)	
METALS (15) Ag,As,B,Be,Cd,Cr,Cu,Mo,Mn,Ni,Pb,Sb,Se,Tl,Zn		Rush (Surcharges Apply) *Subject to Availability*		X Tier II/Cat A - Results/QC		VOA/SVOA Report List: TCL • 6TEX • TCLP •	
		Please Check with your PM		Tier IV/Cat B - Data Validation Report w/ Data		CR-5/Stars • THM • Other:	
		Date Required:		EDD: Yes No		Invoice To: (Same as Report To)	
		Relinquished By:		Relinquished By:		PO #: 116192	
		Received By:		Received By:		Company:	
Signature: <i>[Signature]</i>		Relinquished By:		Relinquished By:		Contact:	
Printed Name: Linda Hoffman		Relinquished By:		Relinquished By:		Email:	
Company: RCSD#1		Relinquished By:		Relinquished By:		Phone:	
Date/Time: 8/7/24 1:00 p		Relinquished By:		Relinquished By:		Address:	



R2407447
Rockland County Sewer District #1
RCSD#0807



Cooler Receipt and Preservation Check Form

R2407447

5

Rockland County Sewer District #1
RC240807



Project/Client Rockland

Folder Number _____

Cooler received on 8/9/24

by: SES

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>Y</u>	<u>N</u>
2	Custody papers properly completed (ink, signed)?	<u>Y</u>	<u>N</u>
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u>	<u>N</u>
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u>	<u>N</u>

5a	Did VOA vials have sig* bubbles?	<u>Y</u>	<u>N</u>	<u>NA</u>
5b	Sig* bubbles: Alk? <u>Y</u> <u>N</u> <u>NA</u> Sulfide? <u>Y</u> <u>N</u> <u>NA</u>			
6	Where did the bottles originate?	<u>ALS/ROC</u>	<u>CLIENT</u>	
7	Soil VOA received as: Bulk Encore 5035set <u>NA</u>			

8. Temperature Readings

Date: 8/9/24 Time: 1119

ID: IR#12 IR#11

From: Temp Blank Sample Bottle

Temp (°C)							
Within 0-6°C?	<u>Y</u>	<u>N</u>	<u>Y</u>	<u>N</u>	<u>Y</u>	<u>N</u>	<u>Y</u>
If <0°C, were samples frozen?	<u>Y</u>	<u>N</u>	<u>Y</u>	<u>N</u>	<u>Y</u>	<u>N</u>	<u>Y</u>

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: ROC by SES off 8/9/24 at 1121
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 8/9/24 Time: 1209 by: SES

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
- Were dissolved metals filtered in the field? YES NO N/A
- Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Y / N Tedlar® Bags Inflated N/A

pH	Lot of test	Reagent	Preserved?	Lot Received	Exp	Sample ID	Vol.	Lot Added	Final
	paper		Yes No			Adjusted	Added		pH
≥12	<u>221523</u>	NaOH	<u>✓</u>	<u>233043</u>	<u>10/25</u>				
2	<u>✓</u>	HNO ₃	<u>✓</u>	<u>24005367</u>	<u>9/25</u>				
2	<u>✓</u>	H ₂ SO ₄	<u>✓</u>	<u>24000404</u>	<u>4/26</u>				
<4		NaHSO ₄							
5-9	<u>021523</u>	For 608pest		No=Notify for 3day					
Residual Chlorine (-)		For CN ₂ <u>Phenol 625, 608pest, 022</u>	<u>✓</u>	If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃							
		ZnAcetate	- -						
		HCl	** **						

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 091823-4EKT, 042924-1EKP, 076824-2ADD, 042224-1DD5

Explain all Discrepancies/ Other Comments: 1024.22-1AM, 042224-2ELS,

H2SO4 for phenols & 06: 22520047 exp 4/26

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: SES

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.
- MRL Method Reporting Limit. Also known as:
- LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
- MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
- LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
- ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations¹



NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to <https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx>.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5

Service Request: R2407447

Sample Name: IS-240807-RLF
Lab Code: R2407447-001
Sample Matrix: Water

Date Collected: 08/7/24**Date Received:** 08/9/24

Analysis Method	Extracted/Digested By	Analyzed By
1664B		SZOGBY
200.7	CDISTEFANO	NMANSEN
245.1	ECASTROVINCI	ECASTROVINCI
300.0		KAWONG
350.1		GNITAJOUPPI
351.2	SZOGBY	GNITAJOUPPI
365.1	KAWONG	MROGERSON
420.4		BBOWE
608 Modified	JVANHEYNINGEN	AFELSER
624		FNAEGLER
625	JVANHEYNINGEN	EDEGRAY
8315A	KPROCOPIO	KPROCOPIO
SM 2540 C-2015		MMISIUREWICZ
SM 4500-CN-N-2016	GNITAJOUPPI	MROGERSON

Sample Name: IS-240807-RLF
Lab Code: R2407447-001.R01
Sample Matrix: Water

Date Collected: 08/7/24**Date Received:** 08/9/24

Analysis Method	Extracted/Digested By	Analyzed By
608 Modified	JVANHEYNINGEN	AFELSER



PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

INORGANIC

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C or 6010D	3005A/3010A
6020A or 6020B	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-N-2016 Amenable and Residual Cyanide	SM 4500-CN-G and SM 4500-CN-B,C-2016
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C or 6010D	3050B
6020A or 6020B	3050B
6010C or 6010D TCLP (1311) extract	3005A/3010A
6010C or 6010D SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

ORGANIC

Preparation Methods for Organic methods are listed in the header of the Results pages.

Regarding "Bulk/5035A":

For soil/solid samples submitted in soil jars for Volatiles analysis, the prep method is listed as "Bulk/5035A". The lab follows the closed-system EPA 5035A protocols once the sample is transferred to a sealed vial, but collection in bulk in soil jars does not follow the collection protocols listed in EPA 5035A. In accordance with the NYSDOH technical notice of October 2012, all results or reporting limits <200 ug/kg are to be considered estimated due to potential low bias.



Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.00 U	1.00	1	08/11/24 23:04	
1,1,2,2-Tetrachloroethane	1.00 U	1.00	1	08/11/24 23:04	
1,1,2-Trichloroethane	1.00 U	1.00	1	08/11/24 23:04	
1,1-Dichloroethane (1,1-DCA)	1.00 U	1.00	1	08/11/24 23:04	
1,1-Dichloroethene (1,1-DCE)	1.00 U	1.00	1	08/11/24 23:04	
1,2-Dichlorobenzene	1.00 U	1.00	1	08/11/24 23:04	
1,2-Dichloroethane	1.00 U	1.00	1	08/11/24 23:04	
1,2-Dichloropropane	1.00 U	1.00	1	08/11/24 23:04	
1,3-Dichlorobenzene	1.00 U	1.00	1	08/11/24 23:04	
1,4-Dichlorobenzene	1.00 U	1.00	1	08/11/24 23:04	
2-Chloroethyl Vinyl Ether	10.0 U	10.0	1	08/11/24 23:04	
Acrylonitrile	10.0 U	10.0	1	08/11/24 23:04	
Benzene	1.00 U	1.00	1	08/11/24 23:04	
Bromodichloromethane	1.00 U	1.00	1	08/11/24 23:04	
Bromoform	1.00 U	1.00	1	08/11/24 23:04	
Bromomethane	1.00 U	1.00	1	08/11/24 23:04	
Carbon Tetrachloride	1.00 U	1.00	1	08/11/24 23:04	
Chlorobenzene	1.00 U	1.00	1	08/11/24 23:04	
Chloroethane	1.00 U	1.00	1	08/11/24 23:04	
Chloroform	1.00 U	1.00	1	08/11/24 23:04	
Chloromethane	1.00 U	1.00	1	08/11/24 23:04	
Dibromochloromethane	1.00 U	1.00	1	08/11/24 23:04	
Dichloromethane	1.00 U	1.00	1	08/11/24 23:04	
Ethylbenzene	1.00 U	1.00	1	08/11/24 23:04	
Tetrachloroethene (PCE)	1.00 U	1.00	1	08/11/24 23:04	
Toluene	1.00 U	1.00	1	08/11/24 23:04	
Trichloroethene (TCE)	1.00 U	1.00	1	08/11/24 23:04	
Trichlorofluoromethane (CFC 11)	1.00 U	1.00	1	08/11/24 23:04	
Vinyl Chloride	1.00 U	1.00	1	08/11/24 23:04	
Xylenes, Total	2.00 U	2.00	1	08/11/24 23:04	
cis-1,3-Dichloropropene	1.00 U	1.00	1	08/11/24 23:04	
m,p-Xylenes	2.00 U	2.00	1	08/11/24 23:04	
o-Xylene	1.00 U	1.00	1	08/11/24 23:04	
trans-1,2-Dichloroethene	1.00 U	1.00	1	08/11/24 23:04	
trans-1,3-Dichloropropene	1.00 U	1.00	1	08/11/24 23:04	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	08/11/24 23:04	
Dibromofluoromethane	94	80 - 116	08/11/24 23:04	
Toluene-d8	98	87 - 121	08/11/24 23:04	



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 625.1
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
1,2-Diphenylhydrazine	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2,4,6-Trichlorophenol	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2,4-Dichlorophenol	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2,4-Dimethylphenol	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2,4-Dinitrophenol	48.1 U	48.1	1	08/16/24 20:33	8/12/24	
2,4-Dinitrotoluene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2,6-Dinitrotoluene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2-Chloronaphthalene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2-Chlorophenol	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2-Nitrophenol	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
3,3'-Dichlorobenzidine	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
4,6-Dinitro-o-cresol	48.1 U	48.1	1	08/16/24 20:33	8/12/24	
4-Bromophenyl Phenyl Ether	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
4-Chloro-m-cresol	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
4-Chlorophenyl Phenyl Ether	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
4-Nitrophenol	48.1 U	48.1	1	08/16/24 20:33	8/12/24	
Acenaphthene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Acenaphthylene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Anthracene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Benz(a)anthracene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Benzidine	96.2 U	96.2	1	08/16/24 20:33	8/12/24	
Benzo(a)pyrene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
3,4-Benzofluoranthene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Benzo(g,h,i)perylene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Benzo(k)fluoranthene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
2,2'-Oxybis(1-chloropropane)	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Bis(2-chloroethoxy)methane	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Bis(2-chloroethyl) Ether	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Bis(2-ethylhexyl) Phthalate	9.62 U	9.62	1	08/16/24 20:33	8/12/24	
Butyl Benzyl Phthalate	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Chrysene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Di-n-butyl Phthalate	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Di-n-octyl Phthalate	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Dibenz(a,h)anthracene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Diethyl Phthalate	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Dimethyl Phthalate	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Fluoranthene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Fluorene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Hexachlorobenzene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Hexachlorobutadiene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Hexachlorocyclopentadiene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Hexachloroethane	4.81 U	4.81	1	08/16/24 20:33	8/12/24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 625.1
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Indeno(1,2,3-cd)pyrene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Isophorone	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
N-Nitrosodi-n-propylamine	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
N-Nitrosodimethylamine	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
N-Nitrosodiphenylamine	9.62 U	9.62	1	08/16/24 20:33	8/12/24	
Naphthalene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Nitrobenzene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Pentachlorophenol (PCP)	48.1 U	48.1	1	08/16/24 20:33	8/12/24	
Phenanthrene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Phenol	4.81 U	4.81	1	08/16/24 20:33	8/12/24	
Pyrene	4.81 U	4.81	1	08/16/24 20:33	8/12/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	106	35 - 141	08/16/24 20:33	
2-Fluorobiphenyl	62	31 - 118	08/16/24 20:33	
2-Fluorophenol	45	16 - 75	08/16/24 20:33	
Nitrobenzene-d5	67	31 - 110	08/16/24 20:33	
Phenol-d6	28	11 - 56	08/16/24 20:33	
p-Terphenyl-d14	75	10 - 165	08/16/24 20:33	



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Units: ug/L
Basis: NA

Polychlorinated Biphenyls by GC/ECD Modified for Extraction

Analysis Method: 608.3
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.00 U	1.00	1	08/15/24 20:49	8/12/24	
Aroclor 1221	2.00 U	2.00	1	08/15/24 20:49	8/12/24	
Aroclor 1232	1.00 U	1.00	1	08/15/24 20:49	8/12/24	
Aroclor 1242	1.00 U	1.00	1	08/15/24 20:49	8/12/24	
Aroclor 1248	1.00 U	1.00	1	08/15/24 20:49	8/12/24	
Aroclor 1254	1.00 U	1.00	1	08/15/24 20:49	8/12/24	
Aroclor 1260	1.00 U	1.00	1	08/15/24 20:49	8/12/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	66	13 - 131	08/15/24 20:49	
Decachlorobiphenyl	43	10 - 156	08/15/24 20:49	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Units: ug/L
Basis: NA

Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
4,4'-DDE	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
4,4'-DDT	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Aldrin	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Chordane, Technical	0.250 U	0.250	1	08/16/24 00:55	8/12/24	
Dieldrin	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Endosulfan I	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Endosulfan II	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Endosulfan Sulfate	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Endrin	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Endrin Aldehyde	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Heptachlor	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Heptachlor Epoxide	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
Toxaphene	0.500 U	0.500	1	08/16/24 00:55	8/12/24	
alpha-BHC	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
beta-BHC	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
delta-BHC	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	
gamma-BHC (Lindane)	0.0500 U	0.0500	1	08/16/24 00:55	8/12/24	

ALS Group USA, Corp.

dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Units: ug/L**Basis:** NA**Organochlorine Pesticides by GC/ECD**

Analysis Method: 608.3
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	68	10 - 95	08/16/24 00:55	
Decachlorobiphenyl	64	10 - 110	08/16/24 00:55	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Units: ug/L
Basis: NA

Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
4,4'-DDE	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
4,4'-DDT	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Aldrin	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Chordane, Technical	0.272 U	0.272	1	08/26/24 18:37	8/22/24	*
Dieldrin	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Endosulfan I	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Endosulfan II	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Endosulfan Sulfate	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Endrin	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Endrin Aldehyde	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Heptachlor	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Heptachlor Epoxide	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
Toxaphene	0.544 U	0.544	1	08/26/24 18:37	8/22/24	*
alpha-BHC	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
beta-BHC	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
delta-BHC	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*
gamma-BHC (Lindane)	0.0543 U	0.0543	1	08/26/24 18:37	8/22/24	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Units: ug/L
Basis: NA

Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	81	10 - 95	08/26/24 18:37	
Decachlorobiphenyl	85	10 - 110	08/26/24 18:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40
Units: ug/L
Basis: NA

Carbonyl Compounds by High Performance Liquid Chromatography (HPLC)

Analysis Method: 8315A
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Formaldehyde	48	20	1	08/12/24 22:54	8/9/24	



Metals

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total	200.7	60 U	ug/L	60	1	08/15/24 01:01	08/13/24	
Arsenic, Total	200.7	10 U	ug/L	10	1	08/15/24 01:01	08/13/24	
Beryllium, Total	200.7	3.0 U	ug/L	3.0	1	08/15/24 01:01	08/13/24	
Boron, Total	200.7	200 U	ug/L	200	1	08/15/24 01:01	08/13/24	
Cadmium, Total	200.7	5.0 U	ug/L	5.0	1	08/15/24 01:01	08/13/24	
Chromium, Total	200.7	10 U	ug/L	10	1	08/15/24 01:01	08/13/24	
Copper, Total	200.7	27	ug/L	20	1	08/15/24 01:01	08/13/24	
Lead, Total	200.7	50 U	ug/L	50	1	08/15/24 01:01	08/13/24	
Manganese, Total	200.7	324	ug/L	10	1	08/15/24 01:01	08/13/24	
Mercury, Total	245.1	0.20 U	ug/L	0.20	1	08/14/24 10:00	08/13/24	
Molybdenum, Total	200.7	25 U	ug/L	25	1	08/15/24 01:01	08/13/24	
Nickel, Total	200.7	40 U	ug/L	40	1	08/15/24 01:01	08/13/24	
Selenium, Total	200.7	10 U	ug/L	10	1	08/15/24 01:01	08/13/24	
Silver, Total	200.7	10 U	ug/L	10	1	08/15/24 01:01	08/13/24	
Thallium, Total	200.7	10 U	ug/L	10	1	08/15/24 01:01	08/13/24	
Zinc, Total	200.7	79	ug/L	20	1	08/15/24 01:01	08/13/24	



General Chemistry

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Service Request: R2407447
Date Collected: 08/07/24 11:32
Date Received: 08/09/24 09:40

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	350.1	0.335	mg/L	0.050	1	08/15/24 15:27	NA	
Chloride	300.0	89.6	mg/L	4.0	20	08/15/24 11:05	NA	
Cyanide	SM 4500-CN-N-2016	0.010 U	mg/L	0.010	1	08/14/24 23:32	08/14/24	
Cyanide, Amenable to Chlorination	SM 4500-CN- G	0.010 U	mg/L	0.010	1	NA	NA	
Cyanide, Residual	SM 4500-CN-N-2016	0.010 U	mg/L	0.010	1	08/14/24 23:46	08/14/24	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.71	mg/L	0.20	1	08/22/24 10:44	08/21/24	
Oil and Grease, Nonpolar (SGT-HEM)	1664B	5.0 U	mg/L	5.0	1	08/19/24 08:00	NA	
Oil and Grease, Total (HEM)	1664B	4.6 U	mg/L	4.6	1	08/19/24 08:00	NA	
Phenolics, Total Recoverable	420.4	0.0050 U	mg/L	0.0050	1	08/12/24 14:47	NA	
Phosphorus, Total	365.1	0.111	mg/L	0.050	1	08/13/24 00:16	08/12/24	
Solids, Total Dissolved (TDS)	SM 2540 C-2015	421	mg/L	10	1	08/12/24 12:20	NA	



QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85 - 122	80 - 116	87 - 121
IS-240807-RLF	R2407447-001	91	94	98
Lab Control Sample	RQ2409722-02	103	100	101
Lab Control Sample	RQ2409722-04	96	98	100
Method Blank	RQ2409722-05	95	100	99
Method Detection Limit Verification MDLV	RQ2409722-07	95	98	101

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ2409722-05

Service Request: R2407447
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.00 U	1.00	1	08/11/24 18:31	
1,1,2,2-Tetrachloroethane	1.00 U	1.00	1	08/11/24 18:31	
1,1,2-Trichloroethane	1.00 U	1.00	1	08/11/24 18:31	
1,1-Dichloroethane (1,1-DCA)	1.00 U	1.00	1	08/11/24 18:31	
1,1-Dichloroethene (1,1-DCE)	1.00 U	1.00	1	08/11/24 18:31	
1,2-Dichlorobenzene	1.00 U	1.00	1	08/11/24 18:31	
1,2-Dichloroethane	1.00 U	1.00	1	08/11/24 18:31	
1,2-Dichloropropane	1.00 U	1.00	1	08/11/24 18:31	
1,3-Dichlorobenzene	1.00 U	1.00	1	08/11/24 18:31	
1,4-Dichlorobenzene	1.00 U	1.00	1	08/11/24 18:31	
2-Chloroethyl Vinyl Ether	10.0 U	10.0	1	08/11/24 18:31	
Acrylonitrile	10.0 U	10.0	1	08/11/24 18:31	
Benzene	1.00 U	1.00	1	08/11/24 18:31	
Bromodichloromethane	1.00 U	1.00	1	08/11/24 18:31	
Bromoform	1.00 U	1.00	1	08/11/24 18:31	
Bromomethane	1.00 U	1.00	1	08/11/24 18:31	
Carbon Tetrachloride	1.00 U	1.00	1	08/11/24 18:31	
Chlorobenzene	1.00 U	1.00	1	08/11/24 18:31	
Chloroethane	1.00 U	1.00	1	08/11/24 18:31	
Chloroform	1.00 U	1.00	1	08/11/24 18:31	
Chloromethane	1.00 U	1.00	1	08/11/24 18:31	
Dibromochloromethane	1.00 U	1.00	1	08/11/24 18:31	
Dichloromethane	1.00 U	1.00	1	08/11/24 18:31	
Ethylbenzene	1.00 U	1.00	1	08/11/24 18:31	
Tetrachloroethene (PCE)	1.00 U	1.00	1	08/11/24 18:31	
Toluene	1.00 U	1.00	1	08/11/24 18:31	
Trichloroethene (TCE)	1.00 U	1.00	1	08/11/24 18:31	
Trichlorofluoromethane (CFC 11)	1.00 U	1.00	1	08/11/24 18:31	
Vinyl Chloride	1.00 U	1.00	1	08/11/24 18:31	
Xylenes, Total	2.00 U	2.00	1	08/11/24 18:31	
cis-1,3-Dichloropropene	1.00 U	1.00	1	08/11/24 18:31	
m,p-Xylenes	2.00 U	2.00	1	08/11/24 18:31	
o-Xylene	1.00 U	1.00	1	08/11/24 18:31	
trans-1,2-Dichloroethene	1.00 U	1.00	1	08/11/24 18:31	
trans-1,3-Dichloropropene	1.00 U	1.00	1	08/11/24 18:31	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2409722-05

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	08/11/24 18:31	
Dibromofluoromethane	100	80 - 116	08/11/24 18:31	
Toluene-d8	99	87 - 121	08/11/24 18:31	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/11/24

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L
Basis:NA

Lab Control Sample
RQ2409722-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	624.1	22.6	20.0	113	70-130
1,1,2,2-Tetrachloroethane	624.1	18.8	20.0	94	60-140
1,1,2-Trichloroethane	624.1	20.2	20.0	101	70-130
1,1-Dichloroethane (1,1-DCA)	624.1	20.3	20.0	102	70-130
1,1-Dichloroethene (1,1-DCE)	624.1	21.6	20.0	108	50-150
1,2-Dichlorobenzene	624.1	20.5	20.0	102	65-135
1,2-Dichloroethane	624.1	20.6	20.0	103	70-130
1,2-Dichloropropane	624.1	18.7	20.0	93	35-165
1,3-Dichlorobenzene	624.1	21.3	20.0	106	70-130
1,4-Dichlorobenzene	624.1	20.5	20.0	103	65-135
2-Chloroethyl Vinyl Ether	624.1	81.4	20.0	407 *	1-225
Acrylonitrile	624.1	83.0	100	83	60-140
Benzene	624.1	21.3	20.0	107	65-135
Bromodichloromethane	624.1	21.8	20.0	109	65-135
Bromoform	624.1	22.3	20.0	111	70-130
Bromomethane	624.1	23.5	20.0	117	15-185
Carbon Tetrachloride	624.1	22.8	20.0	114	70-130
Chlorobenzene	624.1	20.0	20.0	100	65-135
Chloroethane	624.1	16.0	20.0	80	40-160
Chloroform	624.1	21.1	20.0	105	70-135
Chloromethane	624.1	21.9	20.0	109	1-205
Dibromochloromethane	624.1	21.7	20.0	108	70-135
Dichloromethane	624.1	20.0	20.0	100	60-140
Ethylbenzene	624.1	21.6	20.0	108	60-140
Tetrachloroethene (PCE)	624.1	21.8	20.0	109	70-130
Toluene	624.1	21.9	20.0	109	70-130
Trichloroethene (TCE)	624.1	21.0	20.0	105	65-135
Trichlorofluoromethane (CFC 11)	624.1	22.1	20.0	111	50-150
Vinyl Chloride	624.1	19.4	20.0	97	5-195
Xylenes, Total	624.1	64.2	60.0	107	78-121
cis-1,3-Dichloropropene	624.1	23.2	20.0	116	25-175
m,p-Xylenes	624.1	43.3	40.0	108	80-126
o-Xylene	624.1	20.9	20.0	104	79-123

Printed 8/27/2024 4:57:12 PM

Superset Reference:24-0000705459 rev 00

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447

Date Analyzed: 08/11/24

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L

Basis:NA

Lab Control Sample
RQ2409722-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,2-Dichloroethene	624.1	20.3	20.0	101	70-130
trans-1,3-Dichloropropene	624.1	23.6	20.0	118	50-150



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1**Service Request:** R2407447**Project:** RC240807/RC240807-5**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY**
Semivolatile Organic Compounds by GC/MS**Analysis Method:** 625.1**Extraction Method:** Method

Sample Name	Lab Code	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol
		35 - 141	31 - 118	16 - 75
IS-240807-RLF	R2407447-001	106	62	45
Method Blank	RQ2409732-01	116	68	54
Lab Control Sample	RQ2409732-02	112	68	48
Duplicate Lab Control Sample	RQ2409732-03	106	66	49

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 625.1
Extraction Method: Method

Sample Name	Lab Code	Nitrobenzene-d5	Phenol-d6	p-Terphenyl-d14
		31 - 110	11 - 56	10 - 165
IS-240807-RLF	R2407447-001	67	28	75
Method Blank	RQ2409732-01	78	34	97
Lab Control Sample	RQ2409732-02	73	35	80
Duplicate Lab Control Sample	RQ2409732-03	72	36	74

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2409732-01

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 625.1
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
1,2-Diphenylhydrazine	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2,4,6-Trichlorophenol	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2,4-Dichlorophenol	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2,4-Dimethylphenol	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2,4-Dinitrophenol	50.0 U	50.0	1	08/16/24 17:15	8/12/24	
2,4-Dinitrotoluene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2,6-Dinitrotoluene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2-Chloronaphthalene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2-Chlorophenol	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2-Nitrophenol	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
3,3'-Dichlorobenzidine	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
4,6-Dinitro-o-cresol	50.0 U	50.0	1	08/16/24 17:15	8/12/24	
4-Bromophenyl Phenyl Ether	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
4-Chloro-m-cresol	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
4-Chlorophenyl Phenyl Ether	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
4-Nitrophenol	50.0 U	50.0	1	08/16/24 17:15	8/12/24	
Acenaphthene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Acenaphthylene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Anthracene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Benz(a)anthracene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Benzidine	100 U	100	1	08/16/24 17:15	8/12/24	
Benzo(a)pyrene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
3,4-Benzofluoranthene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Benzo(g,h,i)perylene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Benzo(k)fluoranthene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
2,2'-Oxybis(1-chloropropane)	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Bis(2-chloroethoxy)methane	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Bis(2-chloroethyl) Ether	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Bis(2-ethylhexyl) Phthalate	10.0 U	10.0	1	08/16/24 17:15	8/12/24	
Butyl Benzyl Phthalate	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Chrysene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Di-n-butyl Phthalate	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Di-n-octyl Phthalate	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Dibenz(a,h)anthracene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Diethyl Phthalate	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Dimethyl Phthalate	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Fluoranthene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Fluorene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Hexachlorobenzene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Hexachlorobutadiene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Hexachlorocyclopentadiene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Hexachloroethane	5.00 U	5.00	1	08/16/24 17:15	8/12/24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2409732-01

Service Request: R2407447
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 625.1
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Indeno(1,2,3-cd)pyrene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Isophorone	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
N-Nitrosodi-n-propylamine	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
N-Nitrosodimethylamine	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
N-Nitrosodiphenylamine	10.0 U	10.0	1	08/16/24 17:15	8/12/24	
Naphthalene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Nitrobenzene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Pentachlorophenol (PCP)	50.0 U	50.0	1	08/16/24 17:15	8/12/24	
Phenanthrene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Phenol	5.00 U	5.00	1	08/16/24 17:15	8/12/24	
Pyrene	5.00 U	5.00	1	08/16/24 17:15	8/12/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	116	35 - 141	08/16/24 17:15	
2-Fluorobiphenyl	68	31 - 118	08/16/24 17:15	
2-Fluorophenol	54	16 - 75	08/16/24 17:15	
Nitrobenzene-d5	78	31 - 110	08/16/24 17:15	
Phenol-d6	34	11 - 56	08/16/24 17:15	
p-Terphenyl-d14	97	10 - 165	08/16/24 17:15	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/16/24

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample Duplicate Lab Control Sample
RQ2409732-02 RQ2409732-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	625.1	47.4	80.0	59	46.1	80.0	58	44-142	3	50
1,2-Diphenylhydrazine	625.1	62.4	80.0	78	58.2	80.0	73	51-110	7	30
2,4,6-Trichlorophenol	625.1	74.1	80.0	93	71.0	80.0	89	37-144	4	58
2,4-Dichlorophenol	625.1	61.4	80.0	77	60.9	80.0	76	39-135	<1	50
2,4-Dimethylphenol	625.1	51.2	80.0	64	46.6	80.0	58	32-120	9	58
2,4-Dinitrophenol	625.1	111	80.0	138	106	80.0	132	1-191	4	132
2,4-Dinitrotoluene	625.1	83.8	80.0	105	80.5	80.0	101	39-139	4	42
2,6-Dinitrotoluene	625.1	84.4	80.0	106	81.1	80.0	101	50-158	4	48
2-Chloronaphthalene	625.1	55.6	80.0	69	51.5	80.0	64	60-120	8	24
2-Chlorophenol	625.1	53.2	80.0	66	54.0	80.0	67	23-134	2	61
2-Nitrophenol	625.1	72.2	80.0	90	70.6	80.0	88	29-182	2	55
4,6-Dinitro-o-cresol	625.1	102	80.0	127	98.2	80.0	123	1-181	3	203
4-Bromophenyl Phenyl Ether	625.1	69.2	80.0	86	64.3	80.0	80	53-127	7	43
4-Chloro-m-cresol	625.1	66.7	80.0	83	64.8	80.0	81	22-147	3	73
4-Chlorophenyl Phenyl Ether	625.1	62.2	80.0	78	57.5	80.0	72	25-158	8	61
4-Nitrophenol	625.1	13.8 J	80.0	17	13.4 J	80.0	17	1-132	3	131
Acenaphthene	625.1	58.3	80.0	73	54.4	80.0	68	47-145	7	48
Acenaphthylene	625.1	62.2	80.0	78	57.8	80.0	72	33-145	7	74
Anthracene	625.1	74.0	80.0	92	70.5	80.0	88	27-133	5	66
Benz(a)anthracene	625.1	69.6	80.0	87	66.5	80.0	83	33-143	5	53
Benzo(a)pyrene	625.1	76.5	80.0	96	73.6	80.0	92	17-163	4	72
3,4-Benzofluoranthene	625.1	67.6	80.0	85	65.8	80.0	82	24-159	3	71
Benzo(g,h,i)perylene	625.1	71.1	80.0	89	70.8	80.0	88	1-219	<1	97
Benzo(k)fluoranthene	625.1	76.7	80.0	96	73.1	80.0	91	11-162	5	63
2,2'-Oxybis(1-chloropropane)	625.1	53.7	80.0	67	53.1	80.0	66	36-166	1	76
Bis(2-chloroethoxy)methane	625.1	64.2	80.0	80	62.4	80.0	78	33-184	3	54
Bis(2-chloroethyl) Ether	625.1	54.1	80.0	68	54.7	80.0	68	12-158	1	108
Bis(2-ethylhexyl) Phthalate	625.1	69.7	80.0	87	66.3	80.0	83	8-158	5	82
Butyl Benzyl Phthalate	625.1	68.7	80.0	86	66.1	80.0	83	1-152	4	60
Chrysene	625.1	74.8	80.0	93	71.0	80.0	89	17-168	5	87
Di-n-butyl Phthalate	625.1	71.1	80.0	89	67.7	80.0	85	1-120	5	47
Di-n-octyl Phthalate	625.1	70.9	80.0	89	67.4	80.0	84	4-146	5	69
Dibenz(a,h)anthracene	625.1	75.1	80.0	94	74.4	80.0	93	1-200	<1	126

Printed 8/27/2024 4:57:18 PM

Superset Reference:24-0000705459 rev 00

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/16/24

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2409732-02

Duplicate Lab Control Sample
RQ2409732-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Diethyl Phthalate	625.1	71.8	80.0	90	69.8	80.0	87	1-120	3	100
Dimethyl Phthalate	625.1	71.7	80.0	90	69.6	80.0	87	1-120	3	183
Fluoranthene	625.1	72.4	80.0	90	70.1	80.0	88	26-137	3	66
Fluorene	625.1	63.0	80.0	79	59.0	80.0	74	59-121	7	38
Hexachlorobenzene	625.1	73.6	80.0	92	70.3	80.0	88	1-152	5	55
Hexachlorobutadiene	625.1	45.1	80.0	56	44.1	80.0	55	24-120	2	62
Hexachlorocyclopentadiene	625.1	44.9	80.0	56	42.9	80.0	54	10-99	5	30
Hexachloroethane	625.1	40.4	80.0	50	40.8	80.0	51	40-120	<1	52
Indeno(1,2,3-cd)pyrene	625.1	74.7	80.0	93	73.1	80.0	91	1-171	2	99
Isophorone	625.1	64.2	80.0	80	62.3	80.0	78	21-196	3	93
N-Nitrosodi-n-propylamine	625.1	56.6	80.0	71	55.6	80.0	70	1-200	2	87
N-Nitrosodimethylamine	625.1	40.0	80.0	50	41.6	80.0	52	31-70	4	30
N-Nitrosodiphenylamine	625.1	75.0	80.0	94	72.4	80.0	91	45-123	3	30
Naphthalene	625.1	50.6	80.0	63	48.7	80.0	61	21-133	4	65
Nitrobenzene	625.1	58.9	80.0	74	57.7	80.0	72	35-180	2	62
Pentachlorophenol (PCP)	625.1	73.7	80.0	92	73.0	80.0	91	14-176	<1	86
Phenanthrene	625.1	70.3	80.0	88	67.2	80.0	84	54-120	4	39
Phenol	625.1	29.5	80.0	37	31.5	80.0	39	5-120	6	64
Pyrene	625.1	69.6	80.0	87	66.3	80.0	83	52-120	5	49



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447

SURROGATE RECOVERY SUMMARY
Polychlorinated Biphenyls by GC/ECD Modified for Extraction

Analysis Method: 608.3
Extraction Method: Method

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10 - 156	13 - 131
IS-240807-RLF	R2407447-001	43	66
Method Blank	RQ2409766-01	57	53
Lab Control Sample	RQ2409766-02	56	59
Duplicate Lab Control Sample	RQ2409766-03	59	57

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ2409766-01

Service Request: R2407447
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls by GC/ECD Modified for Extraction

Analysis Method: 608.3
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.00 U	1.00	1	08/15/24 20:09	8/12/24	
Aroclor 1221	2.00 U	2.00	1	08/15/24 20:09	8/12/24	
Aroclor 1232	1.00 U	1.00	1	08/15/24 20:09	8/12/24	
Aroclor 1242	1.00 U	1.00	1	08/15/24 20:09	8/12/24	
Aroclor 1248	1.00 U	1.00	1	08/15/24 20:09	8/12/24	
Aroclor 1254	1.00 U	1.00	1	08/15/24 20:09	8/12/24	
Aroclor 1260	1.00 U	1.00	1	08/15/24 20:09	8/12/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	53	13 - 131	08/15/24 20:09	
Decachlorobiphenyl	57	10 - 156	08/15/24 20:09	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/15/24

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls by GC/ECD Modified for Extraction

Units:ug/L
Basis:NA

Lab Control Sample
RQ2409766-02

Duplicate Lab Control Sample
RQ2409766-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	608.3	3.59	4.00	90	3.49	4.00	87	50-140	3	36
Aroclor 1260	608.3	3.31	4.00	83	3.50	4.00	87	10-140	6	38

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3
Extraction Method: Method

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10 - 110	10 - 95
IS-240807-RLF	R2407447-001	64	68
IS-240807-RLF RE	R2407447-001	85	81
Method Blank	RQ2409766-01	83	51
Lab Control Sample	RQ2409766-04	47	33
Duplicate Lab Control Sample	RQ2409766-05	37	23
Method Blank	RQ2410293-01	63	56
Lab Control Sample	RQ2410293-02	77	61
Duplicate Lab Control Sample	RQ2410293-03	72	63

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2409766-01

Units: ug/L
Basis: NA

Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
4,4'-DDE	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
4,4'-DDT	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Aldrin	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Chordane, Technical	0.250 U	0.250	1	08/16/24 00:02	8/12/24	
Dieldrin	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Endosulfan I	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Endosulfan II	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Endosulfan Sulfate	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Endrin	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Endrin Aldehyde	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Heptachlor	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Heptachlor Epoxide	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
Toxaphene	0.500 U	0.500	1	08/16/24 00:02	8/12/24	
alpha-BHC	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
beta-BHC	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
delta-BHC	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	
gamma-BHC (Lindane)	0.0500 U	0.0500	1	08/16/24 00:02	8/12/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	51	10 - 95	08/16/24 00:02	
Decachlorobiphenyl	83	10 - 110	08/16/24 00:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2410293-01

Service Request: R2407447
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
4,4'-DDE	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
4,4'-DDT	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Aldrin	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Chordane, Technical	0.250 U	0.250	1	08/26/24 14:13	8/22/24	
Dieldrin	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Endosulfan I	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Endosulfan II	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Endosulfan Sulfate	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Endrin	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Endrin Aldehyde	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Heptachlor	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Heptachlor Epoxide	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
Toxaphene	0.500 U	0.500	1	08/26/24 14:13	8/22/24	
alpha-BHC	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
beta-BHC	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
delta-BHC	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	
gamma-BHC (Lindane)	0.0500 U	0.0500	1	08/26/24 14:13	8/22/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	56	10 - 95	08/26/24 14:13	
Decachlorobiphenyl	63	10 - 110	08/26/24 14:13	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/16/24

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by GC/ECD

Units:ug/L
Basis:NA

Lab Control Sample
RQ2409766-04

Duplicate Lab Control Sample
RQ2409766-05

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	608.3	0.175	0.400	44	0.117	0.400	29 *	31-141	39	39
4,4'-DDE	608.3	0.176	0.400	44	0.119	0.400	30	30-145	39*	35
4,4'-DDT	608.3	0.179	0.400	45	0.119	0.400	30	25-160	41	42
Aldrin	608.3	0.152	0.400	38 *	0.105	0.400	26 *	42-140	37*	35
Dieldrin	608.3	0.193	0.400	48	0.127	0.400	32 *	36-146	41	49
Endosulfan I	608.3	0.186	0.400	46	0.125	0.400	31 *	45-153	39*	28
Endosulfan II	608.3	0.188	0.400	47	0.130	0.400	33	10-202	37	53
Endosulfan Sulfate	608.3	0.189	0.400	47	0.132	0.400	33	26-144	35	38
Endrin	608.3	0.172	0.400	43	0.119	0.400	30	30-147	36	48
Endrin Aldehyde	608.3	0.217	0.400	54	0.148	0.400	37	10-103	38*	30
Heptachlor	608.3	0.167	0.400	42	0.107	0.400	27 *	34-140	44*	43
Heptachlor Epoxide	608.3	0.202	0.400	51	0.137	0.400	34 *	37-142	38*	26
alpha-BHC	608.3	0.186	0.400	47	0.121	0.400	30 *	37-140	43*	36
beta-BHC	608.3	0.200	0.400	50	0.137	0.400	34	17-147	37	44
delta-BHC	608.3	0.182	0.400	46	0.121	0.400	30	19-140	40	52
gamma-BHC (Lindane)	608.3	0.188	0.400	47	0.119	0.400	30 *	32-140	45*	39

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/26/24

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by GC/ECD

Units:ug/L
Basis:NA

Lab Control Sample
RQ2410293-02

Duplicate Lab Control Sample
RQ2410293-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	608.3	0.303	0.400	76	0.301	0.400	75	31-141	<1	39
4,4'-DDE	608.3	0.311	0.400	78	0.309	0.400	77	30-145	<1	35
4,4'-DDT	608.3	0.353	0.400	88	0.350	0.400	88	25-160	<1	42
Aldrin	608.3	0.282	0.400	70	0.293	0.400	73	42-140	4	35
Dieldrin	608.3	0.338	0.400	84	0.326	0.400	82	36-146	4	49
Endosulfan I	608.3	0.312	0.400	78	0.310	0.400	77	45-153	<1	28
Endosulfan II	608.3	0.316	0.400	79	0.315	0.400	79	10-202	<1	53
Endosulfan Sulfate	608.3	0.319	0.400	80	0.316	0.400	79	26-144	<1	38
Endrin	608.3	0.343	0.400	86	0.337	0.400	84	30-147	2	48
Endrin Aldehyde	608.3	0.343	0.400	86	0.334	0.400	84	10-103	3	30
Heptachlor	608.3	0.322	0.400	80	0.331	0.400	83	34-140	3	43
Heptachlor Epoxide	608.3	0.341	0.400	85	0.337	0.400	84	37-142	1	26
alpha-BHC	608.3	0.323	0.400	81	0.321	0.400	80	37-140	<1	36
beta-BHC	608.3	0.320	0.400	80	0.305	0.400	76	17-147	5	44
delta-BHC	608.3	0.330	0.400	83	0.328	0.400	82	19-140	<1	52
gamma-BHC (Lindane)	608.3	0.337	0.400	84	0.320	0.400	80	32-140	5	39

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24
Date Received: 08/09/24
Date Analyzed: 08/12/24
Date Extracted: 08/9/24

Duplicate Matrix Spike Summary
Carbonyl Compounds by High Performance Liquid Chromatography (HPLC)

Sample Name: IS-240807-RLF
Lab Code: R2407447-001
Analysis Method: 8315A
Prep Method: Method

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ2409680-04				Duplicate Matrix Spike RQ2409680-05				RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec Limits			
Formaldehyde	48	86.5	40.0	97	80.5	40.0	82	41-160	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2409680-01

Units: ug/L
Basis: NA

Carbonyl Compounds by High Performance Liquid Chromatography (HPLC)

Analysis Method: 8315A
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Formaldehyde	20 U	20	1	08/12/24 21:26	8/9/24	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/12/24

Duplicate Lab Control Sample Summary
Carbonyl Compounds by High Performance Liquid Chromatography (HPLC)

Units:ug/L

Basis:NA

Lab Control Sample
RQ2409680-02

Duplicate Lab Control Sample
RQ2409680-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Formaldehyde	8315A	40.9	40.0	102	41.0	40.0	102	70-134	<1	30



Metals

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R2407447-MB

Service Request: R2407447
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total	200.7	60 U	ug/L	60	1	08/14/24 23:26	08/13/24	
Arsenic, Total	200.7	10 U	ug/L	10	1	08/14/24 23:26	08/13/24	
Beryllium, Total	200.7	3.0 U	ug/L	3.0	1	08/14/24 23:26	08/13/24	
Boron, Total	200.7	200 U	ug/L	200	1	08/14/24 23:26	08/13/24	
Cadmium, Total	200.7	5.0 U	ug/L	5.0	1	08/14/24 23:26	08/13/24	
Chromium, Total	200.7	10 U	ug/L	10	1	08/14/24 23:26	08/13/24	
Copper, Total	200.7	20 U	ug/L	20	1	08/14/24 23:26	08/13/24	
Lead, Total	200.7	50 U	ug/L	50	1	08/14/24 23:26	08/13/24	
Manganese, Total	200.7	10 U	ug/L	10	1	08/14/24 23:26	08/13/24	
Mercury, Total	245.1	0.20 U	ug/L	0.20	1	08/14/24 08:54	08/13/24	
Molybdenum, Total	200.7	25 U	ug/L	25	1	08/14/24 23:26	08/13/24	
Nickel, Total	200.7	40 U	ug/L	40	1	08/14/24 23:26	08/13/24	
Selenium, Total	200.7	10 U	ug/L	10	1	08/14/24 23:26	08/13/24	
Silver, Total	200.7	10 U	ug/L	10	1	08/14/24 23:26	08/13/24	
Thallium, Total	200.7	10 U	ug/L	10	1	08/14/24 23:26	08/13/24	
Zinc, Total	200.7	20 U	ug/L	20	1	08/14/24 23:26	08/13/24	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447

Date Analyzed: 08/14/24

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L

Basis:NA

Lab Control Sample
R2407447-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Antimony, Total	200.7	477	500	95	85-115
Arsenic, Total	200.7	38	40	94	85-115
Beryllium, Total	200.7	48.2	50.0	96	85-115
Boron, Total	200.7	960	1000	96	85-115
Cadmium, Total	200.7	49.5	50.0	99	85-115
Chromium, Total	200.7	199	200	100	85-115
Copper, Total	200.7	240	250	96	85-115
Lead, Total	200.7	502	500	100	85-115
Manganese, Total	200.7	467	500	93	85-115
Mercury, Total	245.1	1.04	1.00	104	85-115
Molybdenum, Total	200.7	491	500	98	85-115
Nickel, Total	200.7	493	500	99	85-115
Selenium, Total	200.7	953	1010	94	85-115
Silver, Total	200.7	46	50	92	85-115
Thallium, Total	200.7	1910	2000	95	85-115
Zinc, Total	200.7	485	500	97	85-115



General Chemistry

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R2407447-MB

Service Request: R2407447
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	1	08/15/24 15:03	NA	
Chloride	300.0	0.20 U	mg/L	0.20	1	08/15/24 09:33	NA	
Cyanide	SM 4500-CN-N-2016	0.010 U	mg/L	0.010	1	08/14/24 23:27	08/14/24	
Cyanide, Residual	SM 4500-CN-N-2016	0.010 U	mg/L	0.010	1	08/14/24 23:43	08/14/24	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	1	08/22/24 10:34	08/21/24	
Oil and Grease, Nonpolar (SGT-HEM)	1664B	5.1 U	mg/L	5.1	1	08/19/24 08:00	NA	
Oil and Grease, Total (HEM)	1664B	5.2 U	mg/L	5.2	1	08/19/24 08:00	NA	
Phenolics, Total Recoverable	420.4	0.0050 U	mg/L	0.0050	1	08/12/24 12:45	NA	
Phosphorus, Total	365.1	0.050 U	mg/L	0.050	1	08/12/24 23:52	08/12/24	
Solids, Total Dissolved (TDS)	SM 2540 C-2015	10 U	mg/L	10	1	08/12/24 12:20	NA	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Collected: 08/07/24
Date Received: 08/09/24
Date Analyzed: 08/14/24

Replicate Sample Summary
General Chemistry Parameters

Sample Name: IS-240807-RLF
Lab Code: R2407447-001

Units: mg/L
Basis: NA

		Duplicate Sample R2407447- 001DUP					
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Cyanide, Residual	SM 4500-CN-N-2016	0.010	0.010 U	0.010 U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/12/24 - 08/22/24

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2407447-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen, undistilled	350.1	0.260	0.250	104	90-110
Chloride	300.0	1.96	2.00	98	90-110
Cyanide	SM 4500-CN-N-2016	0.107	0.100	107	85-115
Cyanide, Residual	SM 4500-CN-N-2016	0.010 U	0.833	0	0-10
Nitrogen, Total Kjeldahl (TKN)	351.2	2.27	2.50	91	90-110
Phenolics, Total Recoverable	420.4	0.0391	0.0400	98	90-110
Phosphorus, Total	365.1	0.242	0.261	93	90-110
Solids, Total Dissolved (TDS)	SM 2540 C-2015	888	914	97	90-110

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/14/24

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2407447-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Cyanide	SM 4500-CN-N-2016	0.593	0.600	99	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Rockland County Sewer District #1
Project: RC240807/RC240807-5
Sample Matrix: Water

Service Request: R2407447
Date Analyzed: 08/19/24

Duplicate Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

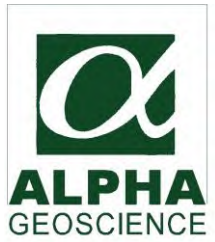
Lab Control Sample
R2407447-LCS1

Duplicate Lab Control Sample
R2407447-DLCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Oil and Grease, Nonpolar (SGT-HEM)	1664B	17.6	20.9	84	17.7	20.6	86	64-132	<1	34
Oil and Grease, Total (HEM)	1664B	37.7	41.2	92	38.9	41.3	94	78-114	3	18

APPENDIX F

DATA USABILITY SUMMARY REPORT



Geology

Hydrology

Remediation

Water Supply

April 21, 2025

Mr. Brian Chew, EIT
Environmental Engineer
Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

Re: Data Validation Report
Ramapo Landfill (#20010)
March 2025 Ground Water Sampling Events

Dear Mr. Chew:

The data usability summary reports (DUSRs) and QA/QC reviews are attached to this letter for the March 2025 sampling events. The data for Alpha Analytical, SDG numbers L2515295 and L2515755 are acceptable with some minor issues that are identified and discussed in the validation summaries. There are no data that were flagged unusable, rejected (R) in the data packs.

A list of common data validation acronyms is attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Sterling Environmental Engineering, P.C.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA:dca
attachments

z:\projects\2022\22600-22620\22615-ramapo landfill\temp review\ramapo landfill-251.ltr.docx

Alpha Geoscience: Acronyms and Definitions

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlorophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Polyfluorinated Alkyl Substances (PFAS) Acronyms

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTriA or PFTrDA	Perfluorotridecanoic acid
PFTeA or PFTA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
FOSA	Perfluorooctane Sulfonamide
NMeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid
4:2 FTS or 4:2	1H, 1H, 2H, 2H-perfluorohexanesulfonic acid
6:2 FTS or 6:2	1H, 1H, 2H, 2H-perfluorooctanesulfonic acid or 6:2 Fluorotelomersulfonate
8:2 FTS or 8:2	1H, 1H, 2H, 2H-perfluorodecanesulfonic acid or 8:2 Fluorotelomersulfonate

L2515295



Geology

Hydrology

Remediation

Water Supply

**Data Usability Summary Report
for Pace Analytical Services
SDG Number: L2515295**

**7 Ground Water Samples, 2 Drinking Water Samples,
2 Field Duplicates, 1 Field Blank, and 1 Equipment Blank
Collected March 17, 2025**

Prepared by: Donald Anné
April 21, 2025

The data package contained the documentation as required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results for PFAS analyses for 7 ground water samples, 2 drinking water samples, 2 field duplicate, 1 field blank, and 1 equipment blank, and results for 1,4-dioxane analyses for 7 ground water samples, 2 drinking water samples, and 2 field duplicates.

The overall performances of the analyses are acceptable. Pace Analytical Services did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The positive PFAS result for PFBS was qualified as “estimated, biased low” (J-) for sample PW-1 because 2 of 2 percent recoveries for PFBS were below QC limits, but not below 30% in the aqueous MS/MSD sample.
- The positive PFAS results for PFHxS and PFNA were qualified as “estimated, biased high” (J+) for sample PW-1 because 1 or 2 percent recoveries for PFHxS and PFNA were above QC limits in the aqueous MS/MSD sample.
- The positive PFAS results for PFHpA were qualified as estimated (J) for samples PW-1 and DUP031725 because the relative percent difference for PFHpA was above the allowable maximum for the drinking water field duplicate pair PW-1/DUP031725.
- The positive PFAS results for PFBS was qualified as estimated (J) for sample DUP031725 because the relative percent difference for PFBS was above the allowable maximum for the drinking water field duplicate pair PW-1/DUP031725.

All data are considered usable with estimated (J+, J, or J-) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

z:\projects\2022\22600-22620\22615-ramapo landfill\temp review\l2515295.dus.docx

Qualified Data Section

Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-01	Date Collected	: 03/17/25 13:00
Client ID	: UP-OS	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/21/25 12:06
Sample Matrix	: WATER	Date Extracted	: 03/19/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603212511	Analyst	: GRS
Sample Amount	: 230 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	163	36.8	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-02	Date Collected	: 03/17/25 13:40
Client ID	: UP-I	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/21/25 12:31
Sample Matrix	: WATER	Date Extracted	: 03/19/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603212512	Analyst	: GRS
Sample Amount	: 250 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	150	33.9	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-03	Date Collected	: 03/17/25 12:30
Client ID	: UP-R	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/21/25 12:55
Sample Matrix	: WATER	Date Extracted	: 03/19/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603212513	Analyst	: GRS
Sample Amount	: 250 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	150	33.9	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-04	Date Collected	: 03/17/25 10:05
Client ID	: 10-0S	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/21/25 13:20
Sample Matrix	: WATER	Date Extracted	: 03/19/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603212514	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	144	32.6	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-05	Date Collected	: 03/17/25 11:40
Client ID	: 10-I	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/21/25 14:34
Sample Matrix	: WATER	Date Extracted	: 03/19/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603212517	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	144	32.6	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-06	Date Collected	: 03/17/25 11:10
Client ID	: 10-R	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/21/25 14:59
Sample Matrix	: WATER	Date Extracted	: 03/19/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603212518	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	144	32.6	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-07	Date Collected	: 03/17/25 14:00
Client ID	: MH-A5	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/21/25 15:23
Sample Matrix	: WATER	Date Extracted	: 03/19/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603212519	Analyst	: GRS
Sample Amount	: 250 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	2360	150	33.9	



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-08	Date Collected	: 03/17/25 00:00
Client ID	: DUP031725	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/21/25 15:47
Sample Matrix	: WATER	Date Extracted	: 03/19/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603212520	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	144	32.6	U



Results Summary
Form 1
1,4 Dioxane by EPA 522

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-12	Date Collected	: 03/17/25 15:30
Client ID	: PW-1	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/24/25 11:05
Sample Matrix	: DW	Date Extracted	: 03/20/25
Analytical Method	: 120,522	Dilution Factor	: 1
Lab File ID	: F2203242505	Analyst	: CSP
Sample Amount	: 500 ml	Instrument ID	: PAH22
Extraction Method	: EPA 522	GC Column	: ZB-SVOC
Extract Volume	: 10000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	0.153	0.150	0.150	



Results Summary

Form 1

1,4 Dioxane by EPA 522

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-13	Date Collected	: 03/17/25 16:20
Client ID	: PW-2	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/24/25 11:28
Sample Matrix	: DW	Date Extracted	: 03/20/25
Analytical Method	: 120,522	Dilution Factor	: 1
Lab File ID	: F2203242506	Analyst	: CSP
Sample Amount	: 480 ml	Instrument ID	: PAH22
Extraction Method	: EPA 522	GC Column	: ZB-SVOC
Extract Volume	: 10000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	0.156	0.156	U



Results Summary

Form 1

1,4 Dioxane by EPA 522

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-15	Date Collected	: 03/17/25 00:00
Client ID	: DUP031725	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/24/25 11:50
Sample Matrix	: DW	Date Extracted	: 03/20/25
Analytical Method	: 120,522	Dilution Factor	: 1
Lab File ID	: F2203242507	Analyst	: CSP
Sample Amount	: 475 ml	Instrument ID	: PAH22
Extraction Method	: EPA 522	GC Column	: ZB-SVOC
Extract Volume	: 10000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	0.158	0.158	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 537.1

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-12
 Client ID : PW-1
 Sample Location : SUFFERN, NY
 Sample Matrix : DW
 Analytical Method : 133,537.1
 Lab File ID : SCI03_250328_45
 Sample Amount : 255.31 g
 Extraction Method : EPA 537.1
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 15:30
 Date Received : 03/17/25
 Date Analyzed : 03/28/25 16:47
 Date Extracted : 03/28/25
 Dilution Factor : 1
 Analyst : RDB
 Instrument ID : LCMS03
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	2.57	1.96	0.654	J-
307-24-4	Perfluorohexanoic Acid (PFHxA)	2.19	1.96	0.654	
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	1.96	0.654	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	2.60	1.96	0.654	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.783	1.96	0.654	J J+
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	1.96	0.654	U
335-67-1	Perfluorooctanoic Acid (PFOA)	11.5	1.96	0.654	
375-95-1	Perfluorononanoic Acid (PFNA)	1.48	1.96	0.654	J J+
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	4.17	1.96	0.654	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.96	0.654	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9Cl-PF3ONS)	ND	1.96	0.654	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.96	0.654	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.96	0.654	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.96	0.654	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.96	0.654	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11Cl-PF3OUdS)	ND	1.96	0.654	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 537.1

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515295-12	Date Collected	: 03/17/25 15:30
Client ID	: PW-1	Date Received	: 03/17/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/28/25 16:47
Sample Matrix	: DW	Date Extracted	: 03/28/25
Analytical Method	: 133,537.1	Dilution Factor	: 1
Lab File ID	: SCI03_250328_45	Analyst	: RDB
Sample Amount	: 255.31 g	Instrument ID	: LCMS03
Extraction Method	: EPA 537.1	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.96	0.654	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.96	0.654	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 537.1

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-13R
 Client ID : PW-2
 Sample Location : SUFFERN, NY
 Sample Matrix : DW
 Analytical Method : 133,537.1
 Lab File ID : SCI03_250330_08
 Sample Amount : 242.85 g
 Extraction Method : EPA 537.1
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 16:20
 Date Received : 03/17/25
 Date Analyzed : 03/30/25 10:49
 Date Extracted : 03/28/25
 Dilution Factor : 1
 Analyst : RDB
 Instrument ID : LCMS03
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	2.06	0.688	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	2.06	0.688	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	2.06	0.688	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	2.06	0.688	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.791	2.06	0.688	J
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	2.06	0.688	U
335-67-1	Perfluorooctanoic Acid (PFOA)	3.59	2.06	0.688	
375-95-1	Perfluorononanoic Acid (PFNA)	0.696	2.06	0.688	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	3.26	2.06	0.688	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	2.06	0.688	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9Cl-PF3ONS)	ND	2.06	0.688	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	2.06	0.688	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	2.06	0.688	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	2.06	0.688	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.06	0.688	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11Cl-PF3OUdS)	ND	2.06	0.688	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 537.1

Client : Sterling Environmental Engineering	Lab Number : L2515295
Project Name : RAMAPO LANDFILL	Project Number : 20010
Lab ID : L2515295-13R	Date Collected : 03/17/25 16:20
Client ID : PW-2	Date Received : 03/17/25
Sample Location : SUFFERN, NY	Date Analyzed : 03/30/25 10:49
Sample Matrix : DW	Date Extracted : 03/28/25
Analytical Method : 133,537.1	Dilution Factor : 1
Lab File ID : SCI03_250330_08	Analyst : RDB
Sample Amount : 242.85 g	Instrument ID : LCMS03
Extraction Method : EPA 537.1	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	2.06	0.688	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.06	0.688	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 537.1

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-14R
 Client ID : FB031725
 Sample Location : SUFFERN, NY
 Sample Matrix : DW
 Analytical Method : 133,537.1
 Lab File ID : SCI03_250330_09
 Sample Amount : 240.92 g
 Extraction Method : EPA 537.1
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 15:20
 Date Received : 03/17/25
 Date Analyzed : 03/30/25 10:57
 Date Extracted : 03/28/25
 Dilution Factor : 1
 Analyst : RDB
 Instrument ID : LCMS03
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	2.08	0.693	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	2.08	0.693	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	2.08	0.693	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	2.08	0.693	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	2.08	0.693	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	2.08	0.693	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	2.08	0.693	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	2.08	0.693	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	2.08	0.693	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	2.08	0.693	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9Cl-PF3ONS)	ND	2.08	0.693	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	2.08	0.693	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	2.08	0.693	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	2.08	0.693	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.08	0.693	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11Cl-PF3OUdS)	ND	2.08	0.693	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 537.1

Client : Sterling Environmental Engineering Project Name : RAMAPO LANDFILL Lab ID : L2515295-14R Client ID : FB031725 Sample Location : SUFFERN, NY Sample Matrix : DW Analytical Method : 133,537.1 Lab File ID : SCI03_250330_09 Sample Amount : 240.92 g Extraction Method : EPA 537.1 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2515295 Project Number : 20010 Date Collected : 03/17/25 15:20 Date Received : 03/17/25 Date Analyzed : 03/30/25 10:57 Date Extracted : 03/28/25 Dilution Factor : 1 Analyst : RDB Instrument ID : LCMS03 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	2.08	0.693	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.08	0.693	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 537.1

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-15
 Client ID : DUP031725
 Sample Location : SUFFERN, NY
 Sample Matrix : DW
 Analytical Method : 133,537.1
 Lab File ID : SCI03_250328_52
 Sample Amount : 250.22 g
 Extraction Method : EPA 537.1
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 00:00
 Date Received : 03/17/25
 Date Analyzed : 03/28/25 17:47
 Date Extracted : 03/28/25
 Dilution Factor : 1
 Analyst : RDB
 Instrument ID : LCMS03
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	2.06	2.00	0.667	J
307-24-4	Perfluorohexanoic Acid (PFHxA)	2.41	2.00	0.667	
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	2.00	0.667	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	3.27	2.00	0.667	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.911	2.00	0.667	J
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	2.00	0.667	U
335-67-1	Perfluorooctanoic Acid (PFOA)	11.3	2.00	0.667	
375-95-1	Perfluorononanoic Acid (PFNA)	1.61	2.00	0.667	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	3.44	2.00	0.667	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	2.00	0.667	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9Cl-PF3ONS)	ND	2.00	0.667	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	2.00	0.667	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	2.00	0.667	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	2.00	0.667	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.00	0.667	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11Cl-PF3OUdS)	ND	2.00	0.667	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 537.1

Client : Sterling Environmental Engineering	Lab Number : L2515295
Project Name : RAMAPO LANDFILL	Project Number : 20010
Lab ID : L2515295-15	Date Collected : 03/17/25 00:00
Client ID : DUP031725	Date Received : 03/17/25
Sample Location : SUFFERN, NY	Date Analyzed : 03/28/25 17:47
Sample Matrix : DW	Date Extracted : 03/28/25
Analytical Method : 133,537.1	Dilution Factor : 1
Lab File ID : SCI03_250328_52	Analyst : RDB
Sample Amount : 250.22 g	Instrument ID : LCMS03
Extraction Method : EPA 537.1	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	2.00	0.667	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.00	0.667	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-01
 Client ID : UP-OS
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_38
 Sample Amount : 544.08 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 13:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:27
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	5.88	0.485	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	2.94	0.331	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.47	0.368	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.88	0.838	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.47	0.228	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.47	0.191	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.47	0.220	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.47	0.125	U
335-67-1	Perfluorooctanoic Acid (PFOA)	0.500	1.47	0.243	J
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.88	4.42	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.47	0.184	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.47	0.243	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	0.272	1.47	0.243	J
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.47	0.191	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.88	1.12	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.47	0.184	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.47	0.441	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.47	0.162	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-01
 Client ID : UP-OS
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_38
 Sample Amount : 544.08 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 13:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:27
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.47	0.125	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.47	0.088	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.47	0.441	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.47	0.198	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.47	0.169	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.47	0.147	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.88	1.47	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.88	0.346	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.47	0.220	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.88	0.404	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.88	0.412	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.47	0.206	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.47	0.323	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.7	1.20	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-01
 Client ID : UP-OS
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_38
 Sample Amount : 544.08 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 13:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:27
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.7	1.01	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.94	0.228	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.94	0.331	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	2.94	0.301	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.94	0.500	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.35	0.492	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	36.8	3.91	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	36.8	2.93	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-02
 Client ID : UP-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_40
 Sample Amount : 550.8 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 13:40
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:45
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	5.81	0.479	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	2.90	0.327	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.45	0.363	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.81	0.828	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.45	0.225	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.45	0.189	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.45	0.218	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.45	0.123	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.45	0.240	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.81	4.37	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.45	0.182	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.45	0.240	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.45	0.240	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.45	0.189	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.81	1.11	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.45	0.182	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.45	0.436	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.45	0.160	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-02
 Client ID : UP-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SC105_250403_40
 Sample Amount : 550.8 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 13:40
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:45
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.45	0.123	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.45	0.087	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.45	0.436	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.45	0.196	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.45	0.167	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.45	0.145	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.81	1.45	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.81	0.341	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.45	0.218	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.81	0.399	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.81	0.407	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.45	0.203	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.45	0.320	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.5	1.18	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-02
 Client ID : UP-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_40
 Sample Amount : 550.8 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 13:40
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:45
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.5	1.00	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.90	0.225	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.90	0.327	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	2.90	0.298	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.90	0.494	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.26	0.486	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	36.3	3.86	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	36.3	2.89	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-03
 Client ID : UP-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_41
 Sample Amount : 542.38 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 12:30
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:54
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	5.90	0.487	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	2.95	0.332	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.47	0.369	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.90	0.841	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.47	0.229	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.47	0.192	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.47	0.221	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.47	0.125	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.47	0.243	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.90	4.44	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.47	0.184	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.47	0.243	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.47	0.243	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.47	0.192	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.90	1.13	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.47	0.184	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.47	0.442	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.47	0.162	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-03
 Client ID : UP-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_41
 Sample Amount : 542.38 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 12:30
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:54
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.47	0.125	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.47	0.089	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.47	0.442	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.47	0.199	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.47	0.170	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.47	0.147	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.90	1.47	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.90	0.347	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.47	0.221	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.90	0.406	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.90	0.413	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.47	0.206	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.47	0.324	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.7	1.20	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-03
 Client ID : UP-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_41
 Sample Amount : 542.38 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 12:30
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 11:54
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.7	1.02	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.95	0.229	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.95	0.332	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	2.95	0.302	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.95	0.501	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.37	0.494	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	36.9	3.92	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	36.9	2.94	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-04
 Client ID : 10-0S
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_42
 Sample Amount : 541.11 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 10:05
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:03
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	5.91	0.488	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	2.96	0.333	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.48	0.370	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.91	0.843	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.48	0.229	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.48	0.192	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.48	0.222	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.48	0.126	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.48	0.244	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.91	4.45	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.48	0.185	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.48	0.244	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.48	0.244	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.48	0.192	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.91	1.13	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.48	0.185	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.48	0.444	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.48	0.163	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-04
 Client ID : 10-0S
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_42
 Sample Amount : 541.11 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 10:05
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:03
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.48	0.126	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.48	0.089	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.48	0.444	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.48	0.200	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.48	0.170	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.48	0.148	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.91	1.48	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.91	0.347	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.48	0.222	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.91	0.406	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.91	0.414	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.48	0.207	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.48	0.325	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.8	1.20	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-04
 Client ID : 10-0S
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_42
 Sample Amount : 541.11 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 10:05
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:03
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.8	1.02	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.96	0.229	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.96	0.333	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	2.96	0.303	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.96	0.503	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.39	0.495	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.0	3.93	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.0	2.94	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-05
 Client ID : 10-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_45
 Sample Amount : 553.77 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 11:40
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:30
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	5.78	0.477	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	2.89	0.325	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.44	0.361	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.78	0.823	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.44	0.224	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.44	0.188	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.44	0.217	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.44	0.123	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.44	0.238	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.78	4.35	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.44	0.180	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.44	0.238	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.44	0.238	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.44	0.188	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.78	1.10	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.44	0.180	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.44	0.433	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.44	0.159	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-05
 Client ID : 10-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_45
 Sample Amount : 553.77 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 11:40
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:30
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.44	0.123	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.44	0.087	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.44	0.433	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.44	0.195	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.44	0.166	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.44	0.144	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.78	1.44	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.78	0.339	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.44	0.217	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.78	0.397	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.78	0.404	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.44	0.202	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.44	0.318	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.4	1.18	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-05
 Client ID : 10-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_45
 Sample Amount : 553.77 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 11:40
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:30
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.4	0.997	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.89	0.224	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.89	0.325	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	2.89	0.296	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.89	0.491	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.22	0.484	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	36.1	3.84	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	36.1	2.87	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-06
 Client ID : 10-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SC105_250403_46
 Sample Amount : 518.84 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 11:10
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:39
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	6.17	0.509	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.08	0.347	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.54	0.385	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.17	0.879	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.54	0.239	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.54	0.200	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.54	0.231	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.54	0.131	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.54	0.254	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.17	4.64	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.54	0.193	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.54	0.254	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.54	0.254	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.54	0.200	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.17	1.18	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.54	0.193	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.54	0.462	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.54	0.170	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-06
 Client ID : 10-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_46
 Sample Amount : 518.84 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 11:10
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:39
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.54	0.131	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.54	0.093	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.54	0.462	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.54	0.208	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.54	0.177	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.54	0.154	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.17	1.54	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.17	0.362	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.54	0.231	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.17	0.424	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.17	0.432	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.54	0.216	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.54	0.339	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.4	1.26	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-06
 Client ID : 10-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_46
 Sample Amount : 518.84 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 11:10
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 12:39
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.4	1.06	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.08	0.239	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.08	0.347	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.08	0.316	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.08	0.524	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.71	0.516	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	38.5	4.10	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.5	3.07	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-07
 Client ID : MH-A5
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_49
 Sample Amount : 509.56 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 14:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 13:11
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	31.4	6.28	0.518	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	7.56	3.14	0.353	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	3.04	1.57	0.392	
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.28	0.895	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	8.64	1.57	0.243	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	0.589	1.57	0.204	J
375-85-9	Perfluoroheptanoic Acid (PFHpA)	4.68	1.57	0.235	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	2.07	1.57	0.133	
335-67-1	Perfluorooctanoic Acid (PFOA)	18.7	1.57	0.259	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.28	4.72	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.228	1.57	0.196	J
375-95-1	Perfluorononanoic Acid (PFNA)	36.4	1.57	0.259	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	12.2	1.57	0.259	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.628	1.57	0.204	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.28	1.20	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.57	0.196	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	0.644	1.57	0.471	J
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.966	1.57	0.173	J



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-07
 Client ID : MH-A5
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_49
 Sample Amount : 509.56 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 14:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 13:11
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.57	0.133	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.408	1.57	0.094	J
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.23	1.57	0.471	J
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.57	0.212	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.57	0.180	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.57	0.157	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.28	1.57	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.28	0.369	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.57	0.235	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.28	0.432	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.28	0.440	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.57	0.220	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.57	0.345	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.7	1.28	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering Project Name : RAMAPO LANDFILL Lab ID : L2515295-07 Client ID : MH-A5 Sample Location : SUFFERN, NY Sample Matrix : WATER Analytical Method : 144,1633 Lab File ID : SCI05_250403_49 Sample Amount : 509.56 g Extraction Method : EPA 1633 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L2515295 Project Number : 20010 Date Collected : 03/17/25 14:00 Date Received : 03/17/25 Date Analyzed : 04/03/25 13:11 Date Extracted : 04/01/25 Dilution Factor : 1 Analyst : AC Instrument ID : LCMS05 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.7	1.08	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.14	0.243	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.14	0.353	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.14	0.322	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.14	0.534	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.85	0.526	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	39.2	4.18	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	39.2	3.12	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-08
 Client ID : DUP031725
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_50
 Sample Amount : 502.89 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 00:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 13:20
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	6.36	0.525	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.18	0.358	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.59	0.398	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.36	0.907	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.59	0.246	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.59	0.207	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.59	0.239	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.59	0.135	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.59	0.262	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.36	4.79	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.59	0.199	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.59	0.262	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.59	0.262	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.59	0.207	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.36	1.22	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.59	0.199	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.59	0.477	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.59	0.175	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-08
 Client ID : DUP031725
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_50
 Sample Amount : 502.89 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 00:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 13:20
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.59	0.135	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.59	0.095	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.59	0.477	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.59	0.215	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.59	0.183	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.59	0.159	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.36	1.59	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.36	0.374	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.59	0.239	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.36	0.437	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.36	0.445	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.59	0.223	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.59	0.350	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.9	1.30	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering Project Name : RAMAPO LANDFILL Lab ID : L2515295-08 Client ID : DUP031725 Sample Location : SUFFERN, NY Sample Matrix : WATER Analytical Method : 144,1633 Lab File ID : SCI05_250403_50 Sample Amount : 502.89 g Extraction Method : EPA 1633 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L2515295 Project Number : 20010 Date Collected : 03/17/25 00:00 Date Received : 03/17/25 Date Analyzed : 04/03/25 13:20 Date Extracted : 04/01/25 Dilution Factor : 1 Analyst : AC Instrument ID : LCMS05 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.9	1.10	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.18	0.246	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.18	0.358	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.18	0.326	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.18	0.541	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.95	0.533	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	39.8	4.23	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	39.8	3.16	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-09
 Client ID : EB031725
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_51
 Sample Amount : 462.69 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 12:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 13:29
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	6.92	0.570	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.46	0.389	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.73	0.432	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.92	0.986	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.73	0.268	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.73	0.225	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.73	0.259	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.73	0.147	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.73	0.285	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.92	5.20	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.73	0.216	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.73	0.285	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.73	0.285	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.73	0.225	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.92	1.32	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.73	0.216	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.73	0.519	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.73	0.190	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-09
 Client ID : EB031725
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_51
 Sample Amount : 462.69 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 12:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 13:29
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.73	0.147	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.73	0.104	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.73	0.519	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.73	0.233	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.73	0.199	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.73	0.173	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.92	1.73	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.92	0.406	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.73	0.259	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.92	0.475	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.92	0.484	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.73	0.242	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.73	0.380	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	17.3	1.41	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515295-09
 Client ID : EB031725
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_51
 Sample Amount : 462.69 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515295
 Project Number : 20010
 Date Collected : 03/17/25 12:00
 Date Received : 03/17/25
 Date Analyzed : 04/03/25 13:29
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	17.3	1.19	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.46	0.268	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.46	0.389	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.46	0.354	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.46	0.588	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	8.64	0.579	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	43.2	4.60	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	43.2	3.44	U



1,4-Dioxane

Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 522 1,4-Dioxane Data
for Pace Analytical Services, SDG Number: L2515295**

**2 Drinking Water Samples and 1 Field Duplicate
Collected March 17, 2025**

Prepared by: Donald Anné
April 21, 2025

Holding Times: The samples were extracted and analyzed within USEPA SW-846 holding times.

Initial Calibration: The average RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %RSD was below the allowable maximum (30%), as required.

Continuing Calibration: The RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %Ds were below the allowable maximum (40%), as required.

Blanks: The analysis of the method blank reported 1,4-dioxane as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the drinking water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample PW-1.

Laboratory Control Sample: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries were within QC limits for aqueous samples WG2043148-2/3.

Field Duplicates: The analyses of aqueous field duplicate PW-1/DUP031725 reported 1,4-dioxane as not detected; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked surrogate and 1,4-dioxane results were within quantitation limits.

z:\projects\2022\22600-22620\22615-ramapo landfill\temp review\l2515295-522.dix.docx



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 8270D SIM 1,4-Dioxane Data
for Pace Analytical Services, SDG Number: L2515295**

**7 Ground Water Samples and 1 Field Duplicate
Collected March 17, 2025**

Prepared by: Donald Anné
April 21, 2025

Holding Times: The samples were extracted and analyzed within USEPA SW-846 holding times.

Initial Calibration: The average RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %RSD was below the allowable maximum (30%), as required.

Continuing Calibration: The RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %D was below the allowable maximum (20%), as required.

Blanks: The analysis of the method blank reported 1,4-dioxane as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples.

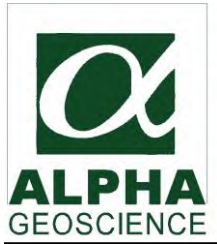
Laboratory Control Sample: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries were within QC limits for aqueous samples WG2042564-2/3 and WG2042564-4/5.

Field Duplicates: The analyses of aqueous field duplicate 10-I/DUP031725 reported 1,4-dioxane as not detected; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked surrogate and 1,4-dioxane results were within quantitation limits.

PFAS

Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 537 PFAS Data for
Pace Analytical Services SDG Number: L2515295**

**2 Drinking Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected March 17, 2025**

Prepared by: Donald Anné
April 21, 2025

Holding Times: Samples were extracted and analyzed within USEPA holding time.

Initial Calibration: The %RSDs for applicable PFASs were below the method maximum (20%) or the R or R squared were above the method minimums, as required.

Continuing Calibration: The percent recoveries for target PFAS were within QC limits, as required.

Blanks: The analyses of the method and field blanks reported target PFAS as not detected.

Surrogate Recovery: The surrogate recoveries were within QC limits for the drinking water samples and field blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for NEtFOSAA was above the allowable maximum; 2 of 2 percent recoveries (%Rs) for PFNA and 1 of 2 %Rs for PFHxS and PFTA were above QC limits; and 2 of 2 %Rs for PFBS were below QC limits, but not below 30% for aqueous MS/MSD sample PW-1. Positive results for PFNA and PFHxS should be considered estimated, biased high (J+) and the positive result for PFBS estimated, biased low (J-) in sample PW-1

Laboratory Control Sample: The percent recoveries for target PFAS were within QC limits for aqueous sample WG2046318-2.

Field Duplicates: The relative percent differences for PFBS and PFHpA were above the allowable maximum (30%) for aqueous field duplicate pair PW-1/DUP031725 (attached table). Positive results for PFBS and PFHpA should be considered estimated (J) in samples PW-1 and DUP031725.

Compound ID: Checked compound and surrogate results were within LC quantitation limits.

z:\projects\2022\22600-22620\22615-ramapo landfill\temp review\L2515295-537.pfs.docx

Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Client Sample ID : PW-1
 Lab Sample ID : L2515295-12
 Matrix Spike : WG2046318-3
 Matrix Spike Dup : WG2046318-4

Lab Number : L2515295
 Project Number : 20010
 Matrix (Level) : DW ()
 Analysis Date : 03/28/25 16:47
 MS Analysis Date : 03/28/25 16:55
 MSD Analysis Date : 03/28/25 17:04

Parameter	Sample Conc. (ng/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ng/l)	Spike Conc. (ng/l)	%R	Spike Added (ng/l)	Spike Conc. (ng/l)	%R			
Perfluorobutanesulfonic Acid (PFBS)	2.57	1.67	3.32	45 Q	1.63	3.22	40 Q	3	50-150	30
Perfluorohexanoic Acid (PFHxA)	2.19	1.88	3.48	68	1.84	3.87	92	11	50-150	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	1.88	1.50J	80	1.84	1.51J	82	1	50-150	30
Perfluoroheptanoic Acid (PFHpA)	2.60	1.88	4.70	111	1.84	4.58	108	3	50-150	30
Perfluorohexanesulfonic Acid (PFHxS)	0.783J	1.72	2.70	157 Q	1.68	2.50	149	8	50-150	30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	1.78	1.76J	99	1.73	2.01	116	13	50-150	30
Perfluorooctanoic Acid (PFOA)	11.5	1.88	13.1	85	1.84	14.0	136	7	50-150	30
Perfluorononanoic Acid (PFNA)	1.48J	1.88	2.98	158 Q	1.84	3.70	201 Q	22	50-150	30
Perfluorooctanesulfonic Acid (PFOS)	4.17	1.75	5.40	70	1.7	5.13	56	5	50-150	30
Perfluorodecanoic Acid (PFDA)	ND	1.88	1.86J	99	1.84	2.09	114	12	50-150	30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)	ND	1.76	1.73J	98	1.71	1.68J	98	3	50-150	30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.88	1.44J	76	1.84	1.75J	95	19	50-150	30
Perfluoroundecanoic Acid (PFUnA)	ND	1.88	1.73J	92	1.84	1.96	107	12	50-150	30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.88	1.70J	90	1.84	2.46	134	37 Q	50-150	30



Matrix Spike Sample Summary

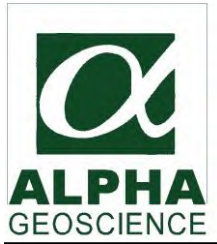
Form 3

Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2515295
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Client Sample ID	: PW-1	Matrix (Level)	: DW ()
Lab Sample ID	: L2515295-12	Analysis Date	: 03/28/25 16:47
Matrix Spike	: WG2046318-3	MS Analysis Date	: 03/28/25 16:55
Matrix Spike Dup	: WG2046318-4	MSD Analysis Date	: 03/28/25 17:04

Parameter	Sample Conc. (ng/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ng/l)	Spike Conc. (ng/l)	%R	Spike Added (ng/l)	Spike Conc. (ng/l)	%R			
Perfluorododecanoic Acid (PFDoA)	ND	1.88	1.68J	89	1.84	2.00	109	17	50-150	30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	1.78	1.72J	97	1.73	1.42J	82	19	50-150	30
Perfluorotridecanoic Acid (PFTTrDA)	ND	1.88	2.33	124	1.84	2.21	120	5	50-150	30
Perfluorotetradecanoic Acid (PFTA)	ND	1.88	2.41	128	1.84	2.87	156 Q	17	50-150	30





Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 1633 PFAS Data for
Pace Analytical Services SDG Number: L2515295**

**7 Ground Water Samples, 1 Field Duplicate,
and 1 Equipment Blank
Collected March 17, 2025**

Prepared by: Donald Anné
April 21, 2025

Holding Times: Samples were extracted and analyzed within USEPA holding time.

Initial Calibration: The %RSDs for applicable PFASs were below the method maximum (20%) or the R or R squared were above the method minimums, as required.

Continuing Calibration: The percent recoveries for target PFAS were within QC limits (70-130%), as required.

Blanks: The analyses of the method and equipment blanks reported target PFAS as not detected.

Surrogate Recovery: One of twenty-eight surrogate recoveries for sample 10-OS was above QC limits. Positive results for PFAS that were quantitated using this surrogate should be considered estimated (J) in the samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target PFAS were below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample 10-OS.

Laboratory Control Sample: The percent recoveries for target PFAS were within QC limits for aqueous samples WG2047829-2 and WG2047829-3.

Field Duplicates: The analyses of aqueous field duplicate pair 10-I/DUP031725 reported target PFAS as either not detected or below the lowest standard; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked compound and surrogate results were within LC quantitation limits.

z:\projects\2022\22600-22620\22615-ramapo landfill\temp review\l2515295-1633.pfs.docx

Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Sterling Environmental Engineering
Project Name: RAMAPO LANDFILL

Lab Number: L2515295
Project Number: 20010
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	S7 ()
UP-OS (L2515295-01)	109	120	112	109	122	105	113
UP-I (L2515295-02)	110	112	112	112	96	98	114
UP-R (L2515295-03)	112	114	118	195	104	97	110
10-OS (L2515295-04)	113	122	109	93	110	114	132*
10-I (L2515295-05)	110	114	96	100	101	105	102
10-R (L2515295-06)	105	117	119	127	114	99	108
MH-A5 (L2515295-07)	107	105	122	191	105	104	100
DUP031725 (L2515295-08)	101	119	116	117	110	109	110
EB031725 (L2515295-09)	109	125	121	97	108	115	110
WG2047829-1BLANK	109	144*	118	102	113	115	110
WG2047829-2LCS	105	108	102	92	99	103	103
WG2047829-3LCS	105	119	108	94	108	113	113
10-OSMS	100	110	96	84	109	109	94
10-OSMSD	110	128	117	103	110	119	110

QC LIMITS

(5-130) S1 = PERFLUORO[13C4]BUTANOIC ACID (MPFBA)
 (40-130) S2 = PERFLUORO[13C5]PENTANOIC ACID (M5PFPEA)
 (40-135) S3 = PERFLUORO[2,3,4-13C3]BUTANESULFONIC ACID (M3PFBS)
 (40-200) S4 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]HEXANESULFONIC ACID (M2-4:2FTS)
 (40-130) S5 = PERFLUORO[1,2,3,4,6-13C5]HEXANOIC ACID (M5PFHXA)
 (40-130) S6 = PERFLUORO[1,2,3,4-13C4]HEPTANOIC ACID (M4PFHPA)
 (40-130) S7 = PERFLUORO[1,2,3-13C3]HEXANESULFONIC ACID (M3PFHXS)

* Values outside of QC limits

FORM II A2-NY-1633



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Sterling Environmental Engineering
Project Name: RAMAPO LANDFILL

Lab Number: L2515295
Project Number: 20010
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S8 ()	S9 ()	S10 ()	S11 ()	S12 ()	S13 ()	S14 ()
UP-OS (L2515295-01)	116	89	113	117	89	90	83
UP-I (L2515295-02)	120	91	104	104	116	85	82
UP-R (L2515295-03)	122	102	111	108	109	106	93
10-OS (L2515295-04)	110	80	101	91	82	59	45
10-I (L2515295-05)	112	80	105	104	95	71	81
10-R (L2515295-06)	118	90	103	94	89	83	65
MH-A5 (L2515295-07)	110	147	102	103	112	106	86
DUP031725 (L2515295-08)	107	95	117	109	113	90	73
EB031725 (L2515295-09)	113	78	128	111	118	81	83
WG2047829-1BLANK	111	92	128	112	109	84	73
WG2047829-2LCS	125	80	97	112	110	71	89
WG2047829-3LCS	97	79	112	91	107	80	78
10-OSMS	92	65	68	69	59	33*	39*
10-OSMSD	105	73	74	94	67	44	46

QC LIMITS

- (40-130) S8 = PERFLUORO[13C8]OCTANOIC ACID (M8PFOA)
 (40-200) S9 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]OCTANESULFONIC ACID (M2-6:2FTS)
 (40-130) S10 = PERFLUORO[13C9]NONANOIC ACID (M9PFNA)
 (40-130) S11 = PERFLUORO[13C8]OCTANESULFONIC ACID (M8PFOS)
 (40-130) S12 = PERFLUORO[1,2,3,4,5,6-13C6]DECANOIC ACID (M6PFDA)
 (40-300) S13 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]DECANESULFONIC ACID (M2-8:2FTS)
 (40-170) S14 = N-DEUTERIOMETHYLPERFLUORO-1-OCTANESULFONAMIDOACETIC ACID (D3-NMEFOSAA)

* Values outside of QC limits

FORM II A2-NY-1633 (Continued)



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Sterling Environmental Engineering
Project Name: RAMAPO LANDFILL

Lab Number: L2515295
Project Number: 20010
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S15 ()	S16 ()	S17 ()	S18 ()	S19 ()	S20 ()	S21 ()
UP-OS (L2515295-01)	94	102	92	80	73	119	66
UP-I (L2515295-02)	106	97	99	92	86	115	61
UP-R (L2515295-03)	112	98	105	95	91	99	76
10-OS (L2515295-04)	66	92	48	67	61	117	56
10-I (L2515295-05)	88	88	82	74	74	101	69
10-R (L2515295-06)	90	79	68	80	74	116	53
MH-A5 (L2515295-07)	105	89	103	85	72	111	72
DUP031725 (L2515295-08)	99	82	75	91	76	120	65
EB031725 (L2515295-09)	112	98	72	92	87	112	66
WG2047829-1BLANK	110	102	85	101	95	116	61
WG2047829-2LCS	99	91	80	97	90	114	54
WG2047829-3LCS	96	82	69	85	88	112	45
10-OSMS	46	76	35	51	54	113	52
10-OSMSD	57	83	48	61	64	122	61

QC LIMITS

- (30-130) S15 = PERFLUORO[1,2,3,4,5,6,7-13C7]UNDECANOIC ACID (M7-PFUDA)
 (40-130) S16 = PERFLUORO[13C8]OCTANESULFONAMIDE (M8FOSA)
 (25-135) S17 = N-DEUTERIOETHYLPERFLUORO-1-OCTANESULFONAMIDOACETIC ACID (D5-NETFOSAA)
 (10-130) S18 = PERFLUORO[1,2-13C2]DODECANOIC ACID (MPFDOA)
 (10-130) S19 = PERFLUORO[1,2-13C2]TETRADECANOIC ACID (M2PFTEDA)
 (40-130) S20 = 2,3,3,3-TETRAFLUORO-2-[1,1,2,2,3,3,3-HEPTAFLUOROPROPOXY]-13C3-PROPANOIC ACID (M3HFPO-DA)
 (10-130) S21 = N-METHYL-D3-PERFLUORO-1-OCTANESULFONAMIDE (D3-NMEFOSA)

* Values outside of QC limits

FORM II A2-NY-1633 (Continued)



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Sterling Environmental Engineering
Project Name: RAMAPO LANDFILL

Lab Number: L2515295
Project Number: 20010
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S22 ()	S23 ()	S24 ()	S25 ()	S26 ()	S27 ()	S28 ()	TOT OUT
UP-OS (L2515295-01)	69	94	98	--	--	--	--	0
UP-I (L2515295-02)	68	92	99	--	--	--	--	0
UP-R (L2515295-03)	72	86	91	--	--	--	--	0
10-OS (L2515295-04)	59	84	88	--	--	--	--	1
10-I (L2515295-05)	70	83	90	--	--	--	--	0
10-R (L2515295-06)	52	75	79	--	--	--	--	0
MH-A5 (L2515295-07)	73	78	79	--	--	--	--	0
DUP031725 (L2515295-08)	66	77	81	--	--	--	--	0
EB031725 (L2515295-09)	70	91	98	--	--	--	--	0
WG2047829-1BLANK	65	100	102	--	--	--	--	1
WG2047829-2LCS	57	90	98	--	--	--	--	0
WG2047829-3LCS	47	75	80	--	--	--	--	0
10-OSMS	53	80	74	--	--	--	--	2
10-OSMSD	66	81	88	--	--	--	--	0

QC LIMITS

- (10-130) S22 = N-ETHYL-D5-PERFLUORO-1-OCTANESULFONAMIDE (D5-NETFOSA)
 (10-130) S23 = 2-(N-METHYL-D3-PERFLUORO-1-OCTANESULFONAMIDO)ETHAN-D4-OL (D7-NMEFOSE)
 (10-130) S24 = 2-(N-ETHYL-D5-PERFLUORO-1-OCTANESULFONAMIDO)ETHAN-D4-OL (D9-NETFOSA)

* Values outside of QC limits

FORM II A2-NY-1633 (Continued)



Field Duplicate Calculation Section

EPA Method 537 PFC

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2515295

S1= PW-1

S2= DUP031725

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>	
Perfluorobutanesulfonic Acid (PFBS)	2.57	2.06	22%	*
Perfluorohexanoic Acid (PFHxA)	2.19	2.41	10%	
Perfluoroheptanoic Acid (PFHpA)	2.60	3.27	23%	*
Perfluorohexanesulfonic Acid (PFHxS)	0.783	0.911	NC	
Perfluorooctanoic Acid (PFOA)	11.5	11.3	2%	
Perfluorononanoic Acid (PFNA)	1.48	1.61	NC	
Perfluorooctanesulfonic Acid (PFOS)	4.17	3.44	19%	

* RPD is above the allowable maximum (20%).

All results are in ng/L.

Bold numbers were values that are below the CRQL or above the high standard.

ND - Not detected.

NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

L2515755



Geology

Hydrology

Remediation

Water Supply

**Data Usability Summary Report
for Pace Analytical Services
SDG Number: L2515755**

**10 Ground Water Samples and 1 Equipment Blank
Collected March 18, 2025**

Prepared by: Donald Anné
April 21, 2025

The data package contained the documentation as required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results for PFAS analyses for 10 ground water samples and 1 equipment blank, and results for 1,4-dioxane analyses for 10 ground water samples.

The overall performances of the analyses are acceptable. Pace Analytical Services did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- Positive SIM semi-volatile results for 1,4-dioxane were qualified as “not detected” (U) for the samples SVWC-94 and SVWC-96 because the level reported in the samples were not significantly greater than (more than 5 times) the highest associated blank level.
- The PFAS result for PFNA in sample 8-R was quantitated using data that was extrapolated beyond the highest calibration standard and flagged “E” by the laboratory. The result for PFNA marked “E” in the undiluted sample was qualified as estimated (J).
- The positive PFAS result for PFPeA was qualified as “estimated” (J) for sample 9-I because percent recovery for the surrogate used to quantitate PFPeA was above QC limits in the sample.

All data are considered usable with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

Qualified Data Section

Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-01	Date Collected	: 03/18/25 09:30
Client ID	: SVWC-93	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 09:05
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F503262507	Analyst	: GRS
Sample Amount	: 245 ml	Instrument ID	: PAH5
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	153	34.6	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-02	Date Collected	: 03/18/25 10:00
Client ID	: SVWC-94	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 09:26
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F503262508	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: PAH5
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	61.0	144	32.6	J U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-03	Date Collected	: 03/18/25 10:30
Client ID	: SVWC-95	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 09:46
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F503262509	Analyst	: GRS
Sample Amount	: 265 ml	Instrument ID	: PAH5
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	691.	142	32.0	



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-04	Date Collected	: 03/18/25 11:00
Client ID	: SVWC-96	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 10:07
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F503262510	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: PAH5
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	130.	144	32.6	J U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-05	Date Collected	: 03/18/25 14:20
Client ID	: 8-OS	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 10:27
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F503262511	Analyst	: GRS
Sample Amount	: 245 ml	Instrument ID	: PAH5
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	1430	153	34.6	



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-06	Date Collected	: 03/18/25 15:30
Client ID	: 8-I	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 10:56
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603262503	Analyst	: GRS
Sample Amount	: 250 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	37400	150	33.9	

Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-07	Date Collected	: 03/18/25 14:55
Client ID	: 8-R	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 11:20
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603262504	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	23500	144	32.6	



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-08	Date Collected	: 03/18/25 13:25
Client ID	: 9-OS	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 11:44
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603262505	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	144	32.6	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-09	Date Collected	: 03/18/25 12:05
Client ID	: 9-I	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 12:09
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603262506	Analyst	: GRS
Sample Amount	: 260 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	144	32.6	U



Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: L2515755-10	Date Collected	: 03/18/25 12:50
Client ID	: 9-R	Date Received	: 03/18/25
Sample Location	: SUFFERN, NY	Date Analyzed	: 03/26/25 12:34
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F603262507	Analyst	: GRS
Sample Amount	: 255 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	9830	147	33.2	



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-01
 Client ID : SVWC-93
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_78
 Sample Amount : 488.54 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 09:30
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 18:55
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	2.64	6.55	0.540	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	2.26	3.28	0.368	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	1.51	1.64	0.409	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.55	0.933	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	2.32	1.64	0.254	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.64	0.213	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	1.14	1.64	0.246	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.909	1.64	0.139	J
335-67-1	Perfluorooctanoic Acid (PFOA)	3.30	1.64	0.270	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.55	4.93	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.64	0.205	U
375-95-1	Perfluorononanoic Acid (PFNA)	0.827	1.64	0.270	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	2.21	1.64	0.270	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.64	0.213	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.55	1.25	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.64	0.205	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.64	0.491	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.64	0.180	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-01
 Client ID : SVWC-93
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_78
 Sample Amount : 488.54 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 09:30
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 18:55
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.64	0.139	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.64	0.098	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.64	0.491	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.64	0.221	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.64	0.188	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.64	0.164	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.55	1.64	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.55	0.385	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.64	0.246	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.55	0.450	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.55	0.458	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.64	0.229	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.64	0.360	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	16.4	1.33	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering Project Name : RAMAPO LANDFILL Lab ID : L2515755-01 Client ID : SVWC-93 Sample Location : SUFFERN, NY Sample Matrix : WATER Analytical Method : 144,1633 Lab File ID : SCI08_250325_78 Sample Amount : 488.54 g Extraction Method : EPA 1633 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L2515755 Project Number : 20010 Date Collected : 03/18/25 09:30 Date Received : 03/18/25 Date Analyzed : 03/25/25 18:55 Date Extracted : 03/25/25 Dilution Factor : 1 Analyst : AC Instrument ID : LCMS08 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	16.4	1.13	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.28	0.254	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.28	0.368	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.28	0.336	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.28	0.557	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	8.19	0.548	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	40.9	4.36	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	40.9	3.26	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-02
 Client ID : SVWC-94
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_79
 Sample Amount : 513.65 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 10:00
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:04
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	2.84	6.23	0.514	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	3.08	3.11	0.350	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	1.72	1.56	0.389	
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.23	0.888	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	3.00	1.56	0.241	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.56	0.202	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	1.60	1.56	0.234	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.966	1.56	0.132	J
335-67-1	Perfluorooctanoic Acid (PFOA)	4.72	1.56	0.257	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.23	4.69	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.56	0.195	U
375-95-1	Perfluorononanoic Acid (PFNA)	1.76	1.56	0.257	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	2.11	1.56	0.257	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.56	0.202	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.23	1.19	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.56	0.195	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.56	0.467	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.56	0.171	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-02
 Client ID : SVWC-94
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_79
 Sample Amount : 513.65 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 10:00
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:04
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.56	0.132	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.56	0.093	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.56	0.467	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.56	0.210	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.56	0.179	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.56	0.156	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.23	1.56	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.23	0.366	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.56	0.234	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.23	0.428	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.23	0.436	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.56	0.218	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.56	0.343	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.6	1.27	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-02
 Client ID : SVWC-94
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_79
 Sample Amount : 513.65 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 10:00
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:04
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.6	1.07	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.11	0.241	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.11	0.350	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.11	0.319	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.11	0.530	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.79	0.522	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	38.9	4.14	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.9	3.10	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-03
 Client ID : SVWC-95
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_80
 Sample Amount : 498.12 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 10:30
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:13
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	3.89	6.42	0.530	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	1.96	3.21	0.361	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	1.69	1.61	0.402	
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.42	0.915	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	1.95	1.61	0.249	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.61	0.209	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	1.25	1.61	0.241	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	1.04	1.61	0.136	J
335-67-1	Perfluorooctanoic Acid (PFOA)	4.14	1.61	0.265	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.42	4.83	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.61	0.201	U
375-95-1	Perfluorononanoic Acid (PFNA)	17.7	1.61	0.265	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	2.71	1.61	0.265	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.321	1.61	0.209	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.42	1.23	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.61	0.201	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.61	0.482	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.281	1.61	0.177	J



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-03
 Client ID : SVWC-95
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_80
 Sample Amount : 498.12 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 10:30
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:13
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.61	0.136	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.61	0.096	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.61	0.482	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.61	0.217	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.61	0.185	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.61	0.161	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.42	1.61	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.42	0.377	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.61	0.241	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.42	0.442	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.42	0.450	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.61	0.225	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.61	0.353	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	16.1	1.31	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering Project Name : RAMAPO LANDFILL Lab ID : L2515755-03 Client ID : SVWC-95 Sample Location : SUFFERN, NY Sample Matrix : WATER Analytical Method : 144,1633 Lab File ID : SCI08_250325_80 Sample Amount : 498.12 g Extraction Method : EPA 1633 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L2515755 Project Number : 20010 Date Collected : 03/18/25 10:30 Date Received : 03/18/25 Date Analyzed : 03/25/25 19:13 Date Extracted : 03/25/25 Dilution Factor : 1 Analyst : AC Instrument ID : LCMS08 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	16.1	1.11	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.21	0.249	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.21	0.361	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.21	0.329	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.21	0.546	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	8.03	0.538	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	40.2	4.27	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	40.2	3.20	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-04
 Client ID : SVWC-96
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_81
 Sample Amount : 529.28 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 11:00
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:22
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	2.98	6.04	0.499	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	2.75	3.02	0.340	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	1.47	1.51	0.378	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.04	0.862	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	2.78	1.51	0.234	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.51	0.196	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	1.40	1.51	0.227	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.982	1.51	0.128	J
335-67-1	Perfluorooctanoic Acid (PFOA)	3.86	1.51	0.249	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.04	4.55	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.51	0.189	U
375-95-1	Perfluorononanoic Acid (PFNA)	4.06	1.51	0.249	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	2.55	1.51	0.249	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.249	1.51	0.196	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.04	1.16	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.51	0.189	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.51	0.453	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.174	1.51	0.166	J



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-04
 Client ID : SVWC-96
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_81
 Sample Amount : 529.28 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 11:00
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:22
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.51	0.128	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.51	0.091	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.51	0.453	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.51	0.204	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.51	0.174	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.51	0.151	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.04	1.51	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.04	0.355	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.51	0.227	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.04	0.416	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.04	0.423	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.51	0.212	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.51	0.332	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.1	1.23	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-04
 Client ID : SVWC-96
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_81
 Sample Amount : 529.28 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 11:00
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:22
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.1	1.04	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.02	0.234	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.02	0.340	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.02	0.310	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.02	0.514	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.56	0.506	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.8	4.02	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.8	3.01	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-05
 Client ID : 8-OS
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_84
 Sample Amount : 486.78 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 14:20
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:48
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	29.2	6.57	0.542	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	4.75	3.29	0.370	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	1.72	1.64	0.411	
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.57	0.937	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	4.27	1.64	0.255	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	0.214	1.64	0.214	J
375-85-9	Perfluoroheptanoic Acid (PFHpA)	3.52	1.64	0.246	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	1.02	1.64	0.140	J
335-67-1	Perfluorooctanoic Acid (PFOA)	8.50	1.64	0.271	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.57	4.95	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.64	0.205	U
375-95-1	Perfluorononanoic Acid (PFNA)	18.1	1.64	0.271	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	4.81	1.64	0.271	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.427	1.64	0.214	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.57	1.26	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.64	0.205	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.64	0.493	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.64	0.181	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-05
 Client ID : 8-OS
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_84
 Sample Amount : 486.78 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 14:20
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:48
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.64	0.140	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.64	0.099	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.64	0.493	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.64	0.222	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.64	0.189	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.64	0.164	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.57	1.64	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.57	0.386	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.64	0.246	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.57	0.452	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.57	0.460	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.64	0.230	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.64	0.362	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	16.4	1.34	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-05
 Client ID : 8-OS
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI08_250325_84
 Sample Amount : 486.78 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 14:20
 Date Received : 03/18/25
 Date Analyzed : 03/25/25 19:48
 Date Extracted : 03/25/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS08
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	16.4	1.13	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.29	0.255	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.29	0.370	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.29	0.337	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.29	0.559	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	8.22	0.550	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	41.1	4.37	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	41.1	3.27	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-06
 Client ID : 8-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_52
 Sample Amount : 492.29 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 15:30
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 13:38
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	563	6.50	0.536	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	25.2	3.25	0.366	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	6.50	1.62	0.406	
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.50	0.926	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	2.67	1.62	0.211	F
375-85-9	Perfluoroheptanoic Acid (PFHpA)	27.3	1.62	0.244	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	10.0	1.62	0.138	
335-67-1	Perfluorooctanoic Acid (PFOA)	58.3	1.62	0.268	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.292	1.62	0.203	JF
375-95-1	Perfluorononanoic Acid (PFNA)	446	1.62	0.268	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	12.4	1.62	0.268	
335-76-2	Perfluorodecanoic Acid (PFDA)	1.37	1.62	0.211	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.50	1.24	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.62	0.203	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.593	1.62	0.488	J
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.991	1.62	0.179	J
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.62	0.138	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.520	1.62	0.098	J
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic	5.35	1.62	0.488	



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-06
 Client ID : 8-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_52
 Sample Amount : 492.29 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 15:30
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 13:38
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
	Acid (NEtFOSAA)				
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.62	0.219	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.62	0.187	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.62	0.162	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.50	1.62	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.50	0.382	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.62	0.244	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9Cl-PF3ONS)	ND	6.50	0.447	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11Cl-PF3OUdS)	ND	6.50	0.455	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.62	0.228	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.62	0.358	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	16.2	1.32	U
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	16.2	1.12	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid	0.715	3.25	0.252	J



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-06
 Client ID : 8-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_52
 Sample Amount : 492.29 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 15:30
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 13:38
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
	(PFMPA)				
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	0.390	3.25	0.366	J
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid	ND	3.25	0.333	U
	(PFEEESA)				
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid	ND	3.25	0.552	U
	(NFDHA)				
356-02-5	3-Perfluoropropyl Propanoic Acid (3:3FTCA)	9.37	8.12	0.544	
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	152	40.6	4.32	
812-70-4	3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND	40.6	3.23	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering Project Name : RAMAPO LANDFILL Lab ID : L2515755-06D Client ID : 8-I Sample Location : SUFFERN, NY Sample Matrix : WATER Analytical Method : 144,1633 Lab File ID : SCI08_250403_103 Sample Amount : 492.29 g Extraction Method : EPA 1633 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L2515755 Project Number : 20010 Date Collected : 03/18/25 15:30 Date Received : 03/18/25 Date Analyzed : 04/04/25 02:41 Date Extracted : 04/01/25 Dilution Factor : 10 Analyst : SL Instrument ID : LCMS08 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-24-4	Perfluorohexanoic Acid (PFHxA)	48.8	16.2	2.52	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	65.0	48.9	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-07
 Client ID : 8-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_53
 Sample Amount : 522.38 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 14:55
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 13:47
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	41.0	6.12	0.505	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	18.3	3.06	0.344	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	9.68	1.53	0.383	
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.12	0.873	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	24.6	1.53	0.237	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	2.37	1.53	0.199	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	16.5	1.53	0.230	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	13.0	1.53	0.130	
335-67-1	Perfluorooctanoic Acid (PFOA)	53.5	1.53	0.253	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.12	4.61	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.390	1.53	0.191	J
375-95-1	Perfluorononanoic Acid (PFNA)	811	1.53	0.253	E J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	17.2	1.53	0.253	
335-76-2	Perfluorodecanoic Acid (PFDA)	2.53	1.53	0.199	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.12	1.17	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.53	0.191	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.53	0.459	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	2.08	1.53	0.168	



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-07
 Client ID : 8-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_53
 Sample Amount : 522.38 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 14:55
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 13:47
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.53	0.130	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.475	1.53	0.092	J
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2.70	1.53	0.459	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.53	0.207	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.53	0.176	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.53	0.153	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.12	1.53	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.12	0.360	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.53	0.230	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.12	0.421	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.12	0.429	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.53	0.214	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.53	0.337	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.3	1.25	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-07
 Client ID : 8-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_53
 Sample Amount : 522.38 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 14:55
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 13:47
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.3	1.06	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.06	0.237	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.06	0.344	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.06	0.314	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.06	0.521	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.66	0.513	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	38.3	4.07	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.3	3.05	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering	Lab Number : L2515755
Project Name : RAMAPO LANDFILL	Project Number : 20010
Lab ID : L2515755-07D	Date Collected : 03/18/25 14:55
Client ID : 8-R	Date Received : 03/18/25
Sample Location : SUFFERN, NY	Date Analyzed : 04/04/25 02:50
Sample Matrix : WATER	Date Extracted : 04/01/25
Analytical Method : 144,1633	Dilution Factor : 10
Lab File ID : SCI08_250403_104	Analyst : SL
Sample Amount : 522.38 g	Instrument ID : LCMS08
Extraction Method : EPA 1633	GC Column : Acquity UPLC BEH C18
Extract Volume : 4000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-95-1	Perfluorononanoic Acid (PFNA)	1220	15.3	2.53	



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-08
 Client ID : 9-OS
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_54
 Sample Amount : 499.77 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 13:25
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 13:56
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	2.70	6.40	0.528	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	1.44	3.20	0.360	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	0.960	1.60	0.400	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.40	0.912	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	2.30	1.60	0.248	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.60	0.208	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	1.77	1.60	0.240	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.544	1.60	0.136	J
335-67-1	Perfluorooctanoic Acid (PFOA)	5.44	1.60	0.264	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.40	4.82	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.60	0.200	U
375-95-1	Perfluorononanoic Acid (PFNA)	0.568	1.60	0.264	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	1.96	1.60	0.264	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.60	0.208	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.40	1.22	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.60	0.200	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.60	0.480	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.60	0.176	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-08
 Client ID : 9-OS
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_54
 Sample Amount : 499.77 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 13:25
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 13:56
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.60	0.136	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.60	0.096	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.60	0.480	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.60	0.216	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.60	0.184	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.60	0.160	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.40	1.60	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.40	0.376	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.60	0.240	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.40	0.440	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.40	0.448	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.60	0.224	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.60	0.352	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	16.0	1.30	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
Project Name : RAMAPO LANDFILL
Lab ID : L2515755-08
Client ID : 9-OS
Sample Location : SUFFERN, NY
Sample Matrix : WATER
Analytical Method : 144,1633
Lab File ID : SCI05_250403_54
Sample Amount : 499.77 g
Extraction Method : EPA 1633
Extract Volume : 4000 uL
GPC Cleanup : N

Lab Number : L2515755
Project Number : 20010
Date Collected : 03/18/25 13:25
Date Received : 03/18/25
Date Analyzed : 04/03/25 13:56
Date Extracted : 04/01/25
Dilution Factor : 1
Analyst : AC
Instrument ID : LCMS05
GC Column : Acquity UPLC BEH C18
%Solids : N/A
Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	16.0	1.10	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.20	0.248	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.20	0.360	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.20	0.328	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.20	0.544	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	8.00	0.536	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	40.0	4.26	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	40.0	3.18	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-09
 Client ID : 9-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_55
 Sample Amount : 502.66 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 12:05
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:05
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	3.95	6.37	0.525	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	2.51	3.18	0.358	J J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	1.53	1.59	0.398	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.37	0.907	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	2.32	1.59	0.247	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.59	0.207	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.358	1.59	0.135	J
335-67-1	Perfluorooctanoic Acid (PFOA)	5.53	1.59	0.263	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.37	4.79	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.59	0.199	U
375-95-1	Perfluorononanoic Acid (PFNA)	1.11	1.59	0.263	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	2.51	1.59	0.263	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.59	0.207	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.37	1.22	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.59	0.199	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.59	0.477	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.59	0.175	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.59	0.135	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-09
 Client ID : 9-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_55
 Sample Amount : 502.66 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 12:05
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:05
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.59	0.096	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.59	0.477	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.59	0.215	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.59	0.183	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.59	0.159	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.37	1.59	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.37	0.374	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.59	0.239	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.37	0.438	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.37	0.446	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.59	0.223	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.59	0.350	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.9	1.30	U
1691-99-2	N-Ethyl Perfluorooctanesulfonamido	ND	15.9	1.10	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-09
 Client ID : 9-I
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_55
 Sample Amount : 502.66 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 12:05
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:05
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
	Ethanol (NEtFOSE)				
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.18	0.247	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.18	0.358	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.18	0.326	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.18	0.541	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.96	0.533	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	39.8	4.23	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	39.8	3.17	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering Project Name : RAMAPO LANDFILL Lab ID : L2515755-09D Client ID : 9-I Sample Location : SUFFERN, NY Sample Matrix : WATER Analytical Method : 144,1633 Lab File ID : SCI08_250403_106 Sample Amount : 502.66 g Extraction Method : EPA 1633 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L2515755 Project Number : 20010 Date Collected : 03/18/25 12:05 Date Received : 03/18/25 Date Analyzed : 04/04/25 03:08 Date Extracted : 04/01/25 Dilution Factor : 10 Analyst : SL Instrument ID : LCMS08 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	15.9	2.39	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-10
 Client ID : 9-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_56
 Sample Amount : 518.88 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 12:50
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:14
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	134	6.17	0.509	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	8.66	3.08	0.347	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	2.84	1.54	0.385	
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.17	0.879	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	13.1	1.54	0.239	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	0.848	1.54	0.200	JF
375-85-9	Perfluoroheptanoic Acid (PFHpA)	8.61	1.54	0.231	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	2.58	1.54	0.131	
335-67-1	Perfluorooctanoic Acid (PFOA)	18.6	1.54	0.254	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	7.76	6.17	4.64	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.54	0.193	U
375-95-1	Perfluorononanoic Acid (PFNA)	63.2	1.54	0.254	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	5.70	1.54	0.254	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.262	1.54	0.200	JF
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.17	1.18	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.54	0.193	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.54	0.462	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.185	1.54	0.170	J



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-10
 Client ID : 9-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_56
 Sample Amount : 518.88 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 12:50
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:14
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.54	0.131	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.208	1.54	0.093	J
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.41	1.54	0.462	J
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.54	0.208	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.54	0.177	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.54	0.154	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.17	1.54	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.17	0.362	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.54	0.231	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.17	0.424	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.17	0.432	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.54	0.216	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.54	0.339	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.4	1.26	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-10
 Client ID : 9-R
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_56
 Sample Amount : 518.88 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 12:50
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:14
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.4	1.06	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.08	0.239	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.08	0.347	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.08	0.316	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.08	0.524	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	0.832	7.71	0.516	J
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	13.9	38.5	4.10	J
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.5	3.07	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-11
 Client ID : EB031825
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_57
 Sample Amount : 466.4 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 13:40
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:23
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	6.86	0.566	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.43	0.386	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.72	0.429	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.86	0.978	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.72	0.266	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.72	0.223	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.72	0.257	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.72	0.146	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.72	0.283	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.86	5.16	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.72	0.214	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.72	0.283	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.72	0.283	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.72	0.223	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.86	1.31	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.72	0.214	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.72	0.514	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.72	0.189	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-11
 Client ID : EB031825
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_57
 Sample Amount : 466.4 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 13:40
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:23
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.72	0.146	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.72	0.103	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.72	0.514	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.72	0.232	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.72	0.197	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.72	0.172	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.86	1.72	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.86	0.403	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.72	0.257	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.86	0.472	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.86	0.480	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.72	0.240	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.72	0.377	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	17.2	1.40	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Sterling Environmental Engineering
 Project Name : RAMAPO LANDFILL
 Lab ID : L2515755-11
 Client ID : EB031825
 Sample Location : SUFFERN, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_250403_57
 Sample Amount : 466.4 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

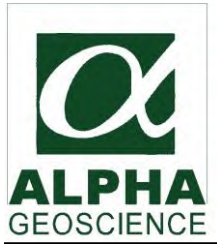
Lab Number : L2515755
 Project Number : 20010
 Date Collected : 03/18/25 13:40
 Date Received : 03/18/25
 Date Analyzed : 04/03/25 14:23
 Date Extracted : 04/01/25
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	17.2	1.18	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.43	0.266	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.43	0.386	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.43	0.352	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.43	0.583	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	8.58	0.575	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	42.9	4.56	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	42.9	3.41	U



1,4-Dioxane

Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 8270D SIM 1,4-Dioxane
Data for Alpha Analytical, SDG Number: L2515755**

**10 Ground Water Samples
Collected March 18, 2025**

Prepared by: Donald Anné
April 21, 2025

Holding Times: The samples were extracted and analyzed within USEPA SW-846 holding times.

Initial Calibration: The average RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %RSD was below the allowable maximum (30%), as required.

Continuing Calibration: The RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %D was below the allowable maximum (20%), as required.

Blanks: Method blank WG2045053-1BLANK contained a trace of 1,4-dioxane (47.3 ug/L). Positive results for 1,4-dioxane that are less than 5 times the highest blank level should be reported as not detected (U) in associated samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples.

Laboratory Control Sample: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries were within QC limits for aqueous samples WG2045053-2/3.

Compound ID: Checked surrogate and 1,4-dioxane results were within quantitation limits.

Results Summary

Form 1

1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	Lab Number	: L2515755
Project Name	: RAMAPO LANDFILL	Project Number	: 20010
Lab ID	: WG2045053-1	Date Collected	: NA
Client ID	: WG2045053-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 03/26/25 08:04
Sample Matrix	: WATER	Date Extracted	: 03/25/25
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F503262504	Analyst	: GRS
Sample Amount	: 250 ml	Instrument ID	: PAH5
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	47.3	150	33.9	J



PFAS

Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 1633 PFAS Data for
Pace Analytical Services SDG Number: L2515755**

**10 Ground Water Samples and 1 Equipment Blank
Collected March 18, 2025**

Prepared by: Donald Anné
April 21, 2025

Holding Times: Samples were extracted and analyzed within USEPA holding time.

Initial Calibration: The %RSDs for applicable PFASs were below the method maximum (20%) or the R or R squared were above the method minimums, as required.

Continuing Calibration: The percent recoveries for target PFAS were within QC limits (70-130%), as required.

Blanks: The analyses of the method and equipment blanks reported target PFAS as not detected.

Surrogate Recovery: Four of twenty-eight surrogate recoveries for sample 8-I were above QC limits. Two of twenty-eight surrogate recoveries for samples 8-R and 9-1 were above QC limits. One of twenty-eight surrogate recoveries for samples 8-I DL, 8-R DL, 9-I DL, and 9-R was above QC limits. Positive results for PFAS that were quantitated using these surrogates should be considered estimated (J) in the samples.

Laboratory Control Sample: The percent recoveries for target PFAS were within QC limits for aqueous samples WG2044693-2, WG2044693-3, WG2047829-2, and WG2047829-3.

Compound ID: Checked compound and surrogate results were within LC quantitation limits.

The result for PFNA in sample 8-R was quantitated by extrapolating data above the highest calibration standard and marked 'E' by the laboratory. The sample was diluted by the laboratory and re-analyzed; therefore, the result that is flagged as 'E' in the undiluted sample should be considered estimated (J). The use of the diluted result for trichloroethylene is recommended for sample 8-R. It is recommended that the undiluted results be used for all other compounds.

Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Sterling Environmental Engineering
Project Name: RAMAPO LANDFILL

Lab Number: L2515755
Project Number: 20010
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	S7 ()
SVWC-93 (L2515755-01)	96	96	95	98	95	92	93
SVWC-94 (L2515755-02)	96	96	93	107	93	93	90
SVWC-95 (L2515755-03)	87	87	85	91	81	81	83
SVWC-96 (L2515755-04)	102	98	104	114	97	93	98
8-OS (L2515755-05)	101	98	96	130	94	89	91
8-I (L2515755-06)	61	112	119	289*	132*	116	112
8-I (L2515755-06D)	64	90	119	136	94	102	107
8-R (L2515755-07D)	118	116	123	129	118	119	119
8-R (L2515755-07)	104	107	117	234*	120	111	122
9-OS (L2515755-08)	110	117	112	102	109	102	100
9-I (L2515755-09D)	122	110	124	114	109	113	122
9-I (L2515755-09)	109	132*	118	109	129	131*	110
9-R (L2515755-10)	105	109	102	203*	120	109	101
EB031825 (L2515755-11)	106	121	113	95	113	102	111
WG2044693-1BLANK	105	101	115	99	103	98	104
WG2044693-2LCS	104	103	111	94	102	96	98
WG2044693-3LCS	108	105	118	110	105	105	117
WG2047829-1BLANK	109	144*	118	102	113	115	110
WG2047829-2LCS	105	108	102	92	99	103	103
WG2047829-3LCS	105	119	108	94	108	113	113

QC LIMITS

- (5-130) S1 = PERFLUORO[13C4]BUTANOIC ACID (MPFBA)
 (40-130) S2 = PERFLUORO[13C5]PENTANOIC ACID (M5PFPEA)
 (40-135) S3 = PERFLUORO[2,3,4-13C3]BUTANESULFONIC ACID (M3PFBS)
 (40-200) S4 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]HEXANESULFONIC ACID (M2-4:2FTS)
 (40-130) S5 = PERFLUORO[1,2,3,4,6-13C5]HEXANOIC ACID (M5PFHXA)
 (40-130) S6 = PERFLUORO[1,2,3,4-13C4]HEPTANOIC ACID (M4PFHPA)
 (40-130) S7 = PERFLUORO[1,2,3-13C3]HEXANESULFONIC ACID (M3PFHXS)

* Values outside of QC limits

FORM II A2-NY-1633



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Sterling Environmental Engineering
Project Name: RAMAPO LANDFILL

Lab Number: L2515755
Project Number: 20010
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S8 ()	S9 ()	S10 ()	S11 ()	S12 ()	S13 ()	S14 ()
SVWC-93 (L2515755-01)	99	92	90	85	89	78	81
SVWC-94 (L2515755-02)	92	93	99	96	92	76	97
SVWC-95 (L2515755-03)	90	83	82	80	83	71	95
SVWC-96 (L2515755-04)	102	96	96	90	91	87	99
8-OS (L2515755-05)	97	98	87	88	85	79	96
8-I (L2515755-06)	124	281*	120	100	122	223	72
8-I (L2515755-06D)	111	156	98	71	87	145	69
8-R (L2515755-07D)	136*	109	108	113	115	99	144
8-R (L2515755-07)	124	233*	121	115	110	153	98
9-OS (L2515755-08)	118	73	90	102	102	73	70
9-I (L2515755-09D)	141*	94	126	104	117	106	105
9-I (L2515755-09)	108	89	114	110	126	77	87
9-R (L2515755-10)	115	192	104	83	100	107	63
EB031825 (L2515755-11)	116	77	120	93	109	82	89
WG2044693-1BLANK	117	100	102	90	97	86	88
WG2044693-2LCS	112	93	104	96	101	88	103
WG2044693-3LCS	111	104	110	97	103	98	95
WG2047829-1BLANK	111	92	128	112	109	84	73
WG2047829-2LCS	125	80	97	112	110	71	89
WG2047829-3LCS	97	79	112	91	107	80	78

QC LIMITS

- (40-130) S8 = PERFLUORO[13C8]OCTANOIC ACID (M8PFOA)
 (40-200) S9 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]OCTANESULFONIC ACID (M2-6:2FTS)
 (40-130) S10 = PERFLUORO[13C9]NONANOIC ACID (M9PFNA)
 (40-130) S11 = PERFLUORO[13C8]OCTANESULFONIC ACID (M8PFOS)
 (40-130) S12 = PERFLUORO[1,2,3,4,5,6-13C6]DECANOIC ACID (M6PFDA)
 (40-300) S13 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]DECANESULFONIC ACID (M2-8:2FTS)
 (40-170) S14 = N-DEUTERIOMETHYLPERFLUORO-1-OCTANESULFONAMIDOACETIC ACID (D3-NMEFOSAA)

* Values outside of QC limits

FORM II A2-NY-1633 (Continued)



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Sterling Environmental Engineering
Project Name: RAMAPO LANDFILL

Lab Number: L2515755
Project Number: 20010
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S15 ()	S16 ()	S17 ()	S18 ()	S19 ()	S20 ()	S21 ()
SVWC-93 (L2515755-01)	75	75	64	62	62	93	54
SVWC-94 (L2515755-02)	83	78	73	71	67	95	74
SVWC-95 (L2515755-03)	74	76	64	69	65	86	68
SVWC-96 (L2515755-04)	84	76	72	70	64	100	61
8-OS (L2515755-05)	74	74	70	67	63	95	61
8-I (L2515755-06)	102	89	107	79	62	141*	68
8-I (L2515755-06D)	164*	87	90	91	94	91	60
8-R (L2515755-07D)	111	98	100	87	71	105	79
8-R (L2515755-07)	97	100	113	84	76	126	82
9-OS (L2515755-08)	94	94	71	93	85	111	56
9-I (L2515755-09D)	112	93	88	107	89	100	69
9-I (L2515755-09)	118	99	82	104	95	127	69
9-R (L2515755-10)	94	82	71	75	69	117	62
EB031825 (L2515755-11)	103	93	105	99	89	130	65
WG2044693-1BLANK	86	85	74	78	76	104	52
WG2044693-2LCS	88	87	78	85	78	103	56
WG2044693-3LCS	101	84	69	84	84	110	55
WG2047829-1BLANK	110	102	85	101	95	116	61
WG2047829-2LCS	99	91	80	97	90	114	54
WG2047829-3LCS	96	82	69	85	88	112	45

QC LIMITS

- (30-130) S15 = PERFLUORO[1,2,3,4,5,6,7-13C7]UNDECANOIC ACID (M7-PFUDA)
 (40-130) S16 = PERFLUORO[13C8]OCTANESULFONAMIDE (M8FOSA)
 (25-135) S17 = N-DEUTERIOETHYLPERFLUORO-1-OCTANESULFONAMIDOACETIC ACID (D5-NETFOSAA)
 (10-130) S18 = PERFLUORO[1,2-13C2]DODECANOIC ACID (MPFDOA)
 (10-130) S19 = PERFLUORO[1,2-13C2]TETRADECANOIC ACID (M2PFTEDA)
 (40-130) S20 = 2,3,3,3-TETRAFLUORO-2-[1,1,2,2,3,3,3-HEPTAFLUOROPROPOXY]-13C3-PROPANOIC ACID (M3HFPO-DA)
 (10-130) S21 = N-METHYL-D3-PERFLUORO-1-OCTANESULFONAMIDE (D3-NMEFOSA)

* Values outside of QC limits

FORM II A2-NY-1633 (Continued)



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Sterling Environmental Engineering
Project Name: RAMAPO LANDFILL

Lab Number: L2515755
Project Number: 20010
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S22 ()	S23 ()	S24 ()	S25 ()	S26 ()	S27 ()	S28 ()	TOT OUT
SVWC-93 (L2515755-01)	57	62	61	--	--	--	--	0
SVWC-94 (L2515755-02)	76	74	75	--	--	--	--	0
SVWC-95 (L2515755-03)	69	68	72	--	--	--	--	0
SVWC-96 (L2515755-04)	61	67	66	--	--	--	--	0
8-OS (L2515755-05)	60	65	64	--	--	--	--	0
8-I (L2515755-06)	62	65	67	--	--	--	--	4
8-I (L2515755-06D)	47	48	45	--	--	--	--	1
8-R (L2515755-07D)	76	74	69	--	--	--	--	1
8-R (L2515755-07)	80	89	88	--	--	--	--	2
9-OS (L2515755-08)	67	87	91	--	--	--	--	0
9-I (L2515755-09D)	61	71	75	--	--	--	--	1
9-I (L2515755-09)	75	91	95	--	--	--	--	2
9-R (L2515755-10)	59	62	66	--	--	--	--	1
EB031825 (L2515755-11)	65	89	98	--	--	--	--	0
WG2044693-1BLANK	55	73	77	--	--	--	--	0
WG2044693-2LCS	52	71	74	--	--	--	--	0
WG2044693-3LCS	58	74	73	--	--	--	--	0
WG2047829-1BLANK	65	100	102	--	--	--	--	1
WG2047829-2LCS	57	90	98	--	--	--	--	0
WG2047829-3LCS	47	75	80	--	--	--	--	0

QC LIMITS

(10-130) S22 = N-ETHYL-D5-PERFLUORO-1-OCTANESULFONAMIDE (D5-NETFOSA)
 (10-130) S23 = 2-(N-METHYL-D3-PERFLUORO-1-OCTANESULFONAMIDO)ETHAN-D4-OL (D7-NMEFOSE)
 (10-130) S24 = 2-(N-ETHYL-D5-PERFLUORO-1-OCTANESULFONAMIDO)ETHAN-D4-OL (D9-NETFOSE)

* Values outside of QC limits

FORM II A2-NY-1633 (Continued)

