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Transmitted Via Electronic Mail

June 29, 2021

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Division of Materials Management
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**Re: Lockwood Hills LLC, Lockwood Ash Disposal Site
2021 First Quarter Environmental Monitoring Report**

Dear Mr. Maseo:

On behalf of Lockwood Hills LLC, please find attached the 2021 First Quarter Environmental Monitoring Report for the Lockwood Ash Disposal Site in the Town of Torrey, Yates County, New York. The first quarter 2021 sampling event of routine water quality parameters in groundwater, surface water, and leachate was completed between March 1st and 2nd, 2021.

We trust this report satisfies your requirements for quarterly reporting for the Lockwood Ash Disposal Site. Should you have any questions or comments, please do not hesitate to contact us.

Sincerely,

EnSol, Inc.

Ryan Elliott, MS
relliott@ensolinc.com

cc: Dale Irwin, Lockwood Hills LLC
Chris Gill, Lockwood Hills LLC
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Enclosure: 2021 First Quarter Environmental Monitoring Report – Lockwood Ash Disposal Site

Environmental Monitoring Report
First Quarter 2021
Lockwood Ash Disposal Site

Lockwood Hills LLC
Dresden, New York

June 2021

Prepared by



REPORT

Environmental Monitoring Report
First Quarter 2021
Lockwood Ash Disposal Site

Lockwood Hills LLC
Dresden, New York

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Prepared by
EnSol, Inc.
661 Main Street
Niagara Falls, New York 14301

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Attachments

- 1 Environmental Monitoring Analytical Results
- 2 Time Series Plots – Routine Parameters in the Leachate and Monitoring Wells
- 3 Flow Metering System – Leachate Flow Rate Time Series

1. Introduction

Sampling activities were completed for the first quarter of 2021 between March 1 and 2, 2021 by Adirondack Environmental Services, Inc. (ADK) of Albany, New York. Sampling was performed for the routine water quality parameters this quarter consistent with the operational water quality monitoring program as detailed in the Site’s Environmental Monitoring Plan (EMP). Laboratory analysis of the environmental samples was performed by ADK. The routine parameters established for the Lockwood Ash Disposal Site are summarized in Table 1-1. A full listing of the laboratory analytical results is provided in Attachment 1.

**TABLE 1-1: LOCKWOOD ASH DISPOSAL SITE’S
ROUTINE WATER QUALITY PARAMETERS**

Field Parameters	Wet Chemical	Metals	
Dissolved Oxygen*	Alkalinity	Aluminum	Magnesium
pH	Ammonia	Arsenic	Manganese
Static Water Level	Chloride	Boron	Mercury
Turbidity	Hardness	Cadmium	Potassium
	Total Dissolved Solids	Calcium	Selenium
	Specific Conductivity	Copper	Sodium
	Sulfate	Iron	

*For surface water samples only.

The locations of the facility’s sampling points are illustrated on Figure 1-1. The original ash disposal site (OADS) is closed with final cover. The majority of the landfill Stages I and II shown in Figure 1-1 have been covered with intermediate cover under the *Layup Plan for the Lockwood Ash Disposal Site* prepared by Daigler Engineering, PC, dated May 2011.

Groundwater suppression system monitoring points, Groundwater Depression Drains 2 and 4, background monitoring well MW-8405, and leachate sampling location Under Drain 5 were not sampled during this quarterly event. They were reportedly dry as is typical for these locations. Further, no samples were taken from MW-8910SH because this well was reported as having inadequate recovery.

As required by the Site’s EMP, Section 3.3.8, the data package for this routine sampling event was reviewed internally by the laboratory. Three data points were flagged by the laboratory for failing quality control limits. The affected data points and associated reason for qualification are presented in Table 1-2. These points were accepted as usable estimates. All remaining data was accepted without qualification.

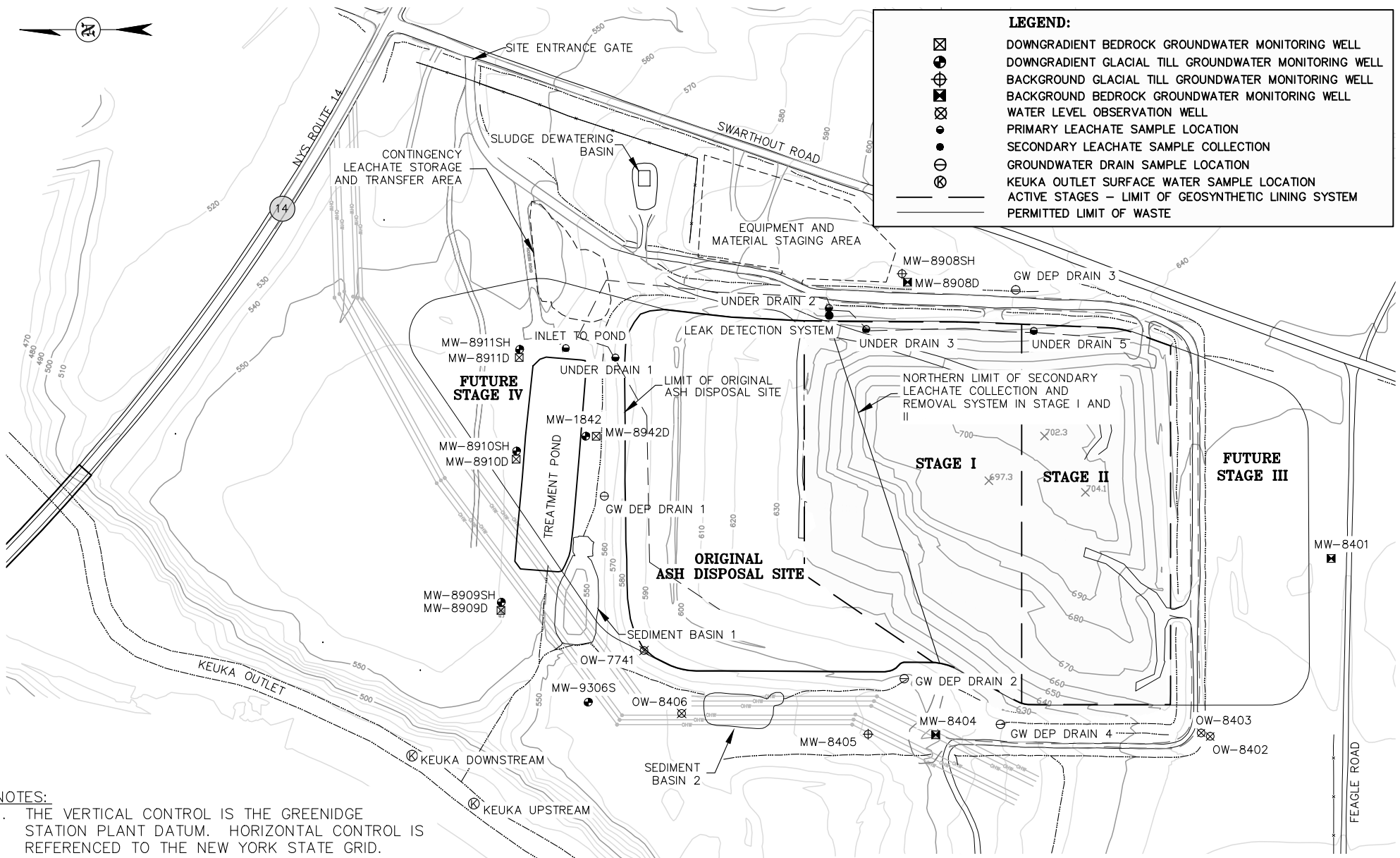
TABLE 1-2: SUMMARY OF QUALIFIED DATA POINTS

Monitoring Point	Analyte	Laboratory Flag	Definition
GW Dep Drain 3	Alkalinity	H	Hold time exceeded
MW-8401	Chloride	N	Matrix spike below acceptable limits
	Sulfate	N	

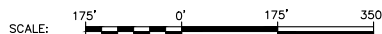


LEGEND:

- DOWNGRADIENT BEDROCK GROUNDWATER MONITORING WELL
- DOWNGRADIENT GLACIAL TILL GROUNDWATER MONITORING WELL
- BACKGROUND GLACIAL TILL GROUNDWATER MONITORING WELL
- BACKGROUND BEDROCK GROUNDWATER MONITORING WELL
- WATER LEVEL OBSERVATION WELL
- PRIMARY LEACHATE SAMPLE LOCATION
- SECONDARY LEACHATE SAMPLE LOCATION
- GROUNDWATER DRAIN SAMPLE LOCATION
- KEUKA OUTLET SURFACE WATER SAMPLE LOCATION
- ACTIVE STAGES – LIMIT OF GEOSYNTHETIC LINING SYSTEM
- PERMITTED LIMIT OF WASTE



- NOTES:**
1. THE VERTICAL CONTROL IS THE GREENIDGE STATION PLANT DATUM. HORIZONTAL CONTROL IS REFERENCED TO THE NEW YORK STATE GRID.
 2. THE TOPOGRAPHIC INFORMATION WAS PROVIDED BY KUCERA INTERNATIONAL, INC. BASED ON A FLYOVER PERFORMED ON FEBRUARY 4, 2010. PLANIMETRIC INFORMATION FROM "EXISTING SITE CONDITIONS" BY FAGAN ENGINEERS (FILE NUMBER 2K003-1) DATED APRIL 2000.
 3. THE TOPOGRAPHIC INFORMATION ON THE ACTIVE STAGES OF THE LANDFILL WERE UPDATED WITH GROUND SURVEY FROM RICHARD WILLSON, PLS OBTAINED IN APRIL 2011 AND SUPPLEMENTED WITH SURVEY FROM WILLSON ASSOCIATES IN AUGUST 2019.



SCHEMATIC SITE PLAN	
1ST QUARTER EMR	
LOCKWOOD HILLS LLC TOWN OF TORREY, STATE OF NEW YORK	
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JUNE 2021	PN: 31-0021-01c

FIGURE
1-1

2. Leachate Sampling

Primary leachate was sampled or observed at five separate locations, as follows:

- Discharge from leachate collection system under the OADS (Under Drain 1);
- Discharge from the northern overfill liner in Stage I (Under Drain 2);
- Discharge from the at grade liner system in Stage I (Under Drain 3);
- Discharge from Stage II (Under Drain 5); and,
- Treatment Pond influent, combined leachate from all Stages of the Landfill including the OADS (Inlet to Pond).

The parameters analyzed for in the leachate are the same as those for the groundwater samples, as identified in Table 1-1. A summary of the leachate sample results that exceed the corresponding Part 703 GA groundwater quality standard is included in Table 2-1. The results are consistent with historic data in which the primary leachate exhibits a distinct sodium–sulfate signature, with a correspondingly high total dissolved solids concentration in contrast to groundwater and surface water quality at the site. Boron, iron, magnesium, manganese, selenium, and turbidity concentrations in excess of the Part 703 GA standards are also typical of the leachate. Chloride concentrations in exceedance of the Part 703 GA standard are typical for Under Drain 2 and Under Drain 3, and to a lesser extent, the Inlet to Pond.

The Stage I and Stage II bottom liners include a secondary leachate collection and removal system (SLCRS) to monitor the primary geomembrane liner. Water quality in the SLCRS or Leak Detection System is also monitored quarterly. Results from this sample are included in Table 2-1.

The instantaneous flow rate measured in the Leak Detection System on the day the water quality samples were taken was 266 gallons per day (gpd). The lined area encompasses 15.8 acres, equating to a leakage rate of 17 gallons per acre per day (gpac), which is relatively high for the site, but still below the 20 gpac allowed by the regulations. Instantaneous flow measurements are taken by Lockwood personnel monthly during the site inspections as well. These manual measurements obtained during the months of January, February, and March 2021 were 25.4, 19.0, and 12.7 gpd, respectively. The leakage rates calculated from these monthly flow measurements in the Leak Detection System are 1.6, 1.2, and 0.8 gpac, respectively.

Primary and secondary leachate time-series plots are provided in Attachment 2. Changes in the leachate sewer to accommodate the flow meter in 2016 have replaced the 21” Inlet to Pond sampling point, which used to discharge leachate from only Stages I and II, including the overfill liner, with Inlet to Pond which is a single discharge including leachate from all stages of the landfill. Due to the change in composition, the Inlet to Pond data is distinguished from historic 21” Inlet to Pond data by a change in the symbol, and is not compared to the historic 21” Inlet to Pond data set.

Table 2-1
LOCKWOOD ASH DISPOSAL SITE
LEACHATE QUALITY SUMMARY
1st QUARTER 2021 EXCEEDANCES OF 6 NYCRR PART 703 GA STANDARDS
(3/1/2021)

Parameter	6 NYCRR Part 703 GA Standard (TOGS 1.1.1 GA Guidance Value)	MONITORING POINT					
		Leak Detection System	Under Drain 1	Under Drain 2	Under Drain 3	Inlet to Pond	Under Drain 5 **
Color*	< 15 C.U.						
pH	6.5 < pH < 8.5						
Turbidity	< 5 NTU	14	132	128	27	44	
Total Dissolved Solids, TDS	500 mg/L	1,630	1,430	3,530	3,920	2,680	
Ammonia, NH ₃	2,000 ug/L						
Antimony*, Sb	3 ug/L						
Arsenic, As	25 ug/L						
Barium*, Ba	1,000 ug/L						
Boron, B	1,000 ug/L	1,180	3,850	44,100	47,200	23,700	
Cadmium, Cd	5 ug/L						
Chloride, Cl ₂	250,000 ug/L			490,000	520,000	294,000	
Chromium*, Cr	50 ug/L						
Copper, Cu	200 ug/L						
Iron, Fe	300 ug/L		1,790	2,340		1,000	
Magnesium, Mg	(35,000 ug/L)	77,600	79,400	89,400	126,000	87,700	
Manganese, Mn	300 ug/L		547	1,080	431	399	
Fe + Mn	500 ug/L		2,337	3,420		1,399	
Mercury, Hg	0.7 ug/L						
Nickel*, Ni	100 ug/L						
Selenium, Se	10 ug/L	19	12	11	15	47	
Sodium, Na	20,000 ug/L	26,100	42,500	226,000	365,000	231,000	
Sulfate, SO ₄	250,000 ug/L	738,000	460,000	1,500,000	1,660,000	1,290,000	
Zinc*, Zn	(5,000 ug/L)						

* Baseline only; routine parameters were analyzed for during this quarter's sampling event.

** Reported as dry or as having insufficient recovery this quarter.

The leachate quality this quarter had several extremes. The following intralocation minima and maximum were observed during the first quarter of 2021:

- Calcium in Under Drain 3 – An interlocation leachate maximum was observed corresponding to an upward trend. Although concentrations are variable, the upward trend appears around 2011, stagnated or possibly reversed trending between 2016 and 2019, before continuing the upward trend through this quarter.
- Chloride in Under Drain 2 and Inlet to Pond – Intralocation maxima were observed for each location, continuing upward trends, which began around 2012 and in the third quarter of 2017, respectively. This marks the second quarter chloride at the Inlet to Pond has remained above the Part 703 GA standard.
- Hardness in Under Drain 3 – An interlocation leachate maximum, corresponding to an interlocation leachate maximum for calcium, was observed. The upward trend for hardness has been reported previously and follows the pattern for calcium trending.
- Iron in Inlet to Pond – An intralocation minimum was observed that may be associated with the beginning of a downward trend.
- Manganese in Inlet to Pond – An intralocation minimum that does not appear to be associated with any trending.
- Selenium in the Leak Detection System and Inlet to Pond – Intralocation maxima were observed at these locations and neither was associated with trending.

In addition to those trends associated with remarkable values, several other trends are notable.

Arsenic in Under Drain 1 and the Inlet to Pond have remained below the Part 703 GA standard for the past two quarters. It is too early to determine if the declines in arsenic are part of a trend.

Although concentrations are highly variable within a year, concentrations of boron in Under Drains 2 and 3 have been increasing since essentially the beginning of monitoring in 1994 despite a modest decline between 2008 and 2014. Boron in Under Drains 2 and 3 declined during the first quarter of 2021, after an intralocation maximum and second highest boron concentration were observed last quarter for Under Drains 2 and 3, respectively. Boron at the Inlet to Pond location has also been highly variable while exhibiting an upward trend.

Calcium in Under Drain 2 declined after an intrawell maximum was recorded last quarter but remains elevated relative to historic data, with upward trending still apparent. The downward trend reported for the Leak Detection System appears to have reestablished after two quarter with increasing values at the end of 2020.

Chloride in Under Drain 3 appears to be trending downward since the intralocation maximum observed during the second quarter of 2017.

Conductivity in the Leak Detection System continued a downward trend, which began in the fourth quarter of 2013 and is depressed relative to historic data. In Under Drain 3, conductivity has shown a downward trend since an intrawell maximum was observed in the fourth quarter of 2017. The long-term downward trend in conductivity seen in Under Drain 1 continued through the first quarter of 2021.

After an intrawell maximum value was observed for hardness in Under Drain 2 last quarter the hardness at this location has declined but remains elevated relative to historic data. The upward trend noted for this location will be watched to see if hardness increases again after this quarter.

The iron concentration in Under Drain 2 appears to be decreasing since the first quarter of 2009. Overall, recent iron concentrations have been consistent with those measured between 2005 and 2008. Iron in Under Drain 3 has been more variable than in Under Drain 2 but has decreased since the first quarter of 2017 and generally has been less than the Part 703GA standard since 2018.

Magnesium concentrations declined at all leachate sampling points this quarter after intrawell minima were observed for at all primary leachate sampling points last quarter. These declines do not appear to be associated with trending. After several years of general upward trending, the second lowest magnesium concentration for the Leak Detection System was observed this quarter.

The long-term gradual downward trend in manganese previously reported for Under Drain 1 continued through the first quarter of 2021 but was not associated with any extreme values.

Potassium results in Under Drain 2, Under Drain 3, and the Inlet to Pond declined after intrawell maxima were observed last quarter. However, potassium concentrations remain elevated in these locations.

After intralocation maxima sodium concentrations were observed during the fourth quarter for Under Drain 2, Under Drain 3, and the Inlet to Pond concentrations declined during the first quarter of 2021. Short-term upward trends beginning between late-2016 and 2018 are still apparent in all three locations, though the trend appears weaker in Under Drain 2. The downward trend previously reported for Under Drain 1 is no longer present as the sodium concentrations appear to have flattened out at levels just slightly above the Part 703GA standard. The downward trend reported for sulfate in Under Drain 1 may also be leveling out.

TDS in Under Drain 2 remains elevated relative to historic data but concentrations have declined for the last two quarters. TDS in Under Drain 3 has trended downward since the second quarter of 2017. TDS in the Leak Detection System has declined since the fourth quarter of 2017.

3. Leachate Flow Metering

The leachate flow metering system, consisting of an ultrasonic level sensor positioned above a V-shaped flume, became operational during the third quarter of 2016. Greyline Logger Software, V2.86, was used to format the data into 24-hour intervals to obtain daily maximum, minimum, and average leachate flow rates. A time-series plot illustrating daily maximum, minimum, and average flow rates between July 1st, 2016 when the system was brought online, through March 31, 2021 is presented in Attachment 3.

Precipitation data presented in the time-series chart were obtained from the National Oceanic and Atmospheric Administration (NOAA) 5.1 NNW station until December 4, 2019. Some weather data were reported for this station after this date, however the most recent data reported from this station are from July 12, 2020. Precipitation data from December 5, 2019 until June 30, 2020 (barring the exception below) were obtained from Weather Underground Station KNYPENNY16, located approximately 1.78 miles north of Lockwood. The precipitation data from the KNYPENNY16 station does not distinguish between rain or snowfall, so any precipitation data reported after December 4, 2019 was reported as rainfall. Precipitation data was not available from this station between March 3 and March 17, 2020, February 25 and March 18, 2021, and March 21, 2021, so precipitation data from the NOAA Penn Yan Airport station, located 5.38 miles southeast of the site, were substituted.

The daily average leachate flow rate for the available time period was 14.34 gallons per minute (gpm) (± 5.04 std. dev.; $n = 1,682$) with a maximum and minimum of 155.86 ($n = 1,666$)¹ and 2.38 ($n = 1,682$) gpm, respectively. The maximum and minimum flow rate values did not change with the addition of data points from the first quarter of 2021.

Monthly average leachate flow rates observed in January, February, and March 2021 were 13.06, 13.99, and 16.07 gpm, respectively.

¹ Excludes 7/1/2016, 7/5/2016, 7/6/2016 (equipment calibration), and 10/23/2017, 10/24/2017, 9/17/2018, 9/18/2018, 6/24/2019 through 6/28/2019, 10/27/2020 through 10/28/2020, 10/30/2020, and 11/2/2020 through 11/3/2020 (dates associated with annual leachate line cleaning).

4. Groundwater Sampling

As described in the EMP, two water bearing units identified at the site comprise the critical stratigraphic section, including; a water table in the unconsolidated glacial deposits; and groundwater in the fractures of the underlying bedrock. Bedrock and overburden groundwater quality monitoring is carried out through sampling of five background and nine downgradient monitoring wells, as summarized in Table 4-1. Groundwater samples are also collected from the groundwater drains installed below the liner systems in the Original Ash Disposal Site, and the lined Stages I and II.

TABLE 4-1: GROUNDWATER MONITORING WELLS

BACKGROUND		DOWNGRADIENT	
Glacial Till	Bedrock	Glacial Till	Bedrock
MW-8908SH	MW-8908D	MW-1842	MW-8909D
MW-8405	MW-8401	MW-8909SH	MW-8910D
	MW-8404	MW-8910SH	MW-8911D
		MW-8911SH	MW-8942
		MW-9306	

4.1 6 NYCRR Part 703 Standards

This report includes a comparison of the groundwater data to Class GA groundwater standards contained in 6 NYCRR Part 703 as specified in Section 3.3.7.3 of the Environmental Monitoring Plan. Table 4-2 summarizes the sample results that exceed the corresponding Part 703 GA groundwater quality standards or TOGS 1.1.1 guidance values. Both background and downgradient wells onsite routinely exceed the Part 703 GA standards or guidance values for turbidity, total dissolved solids, iron, magnesium, sodium, and sulfate.

Boron concentrations in downgradient wells MW-8910D and MW-8911D are notable since boron is a leachate indicator. The boron concentration detected this quarter is typical of the water quality normally observed in MW-8911D. The boron concentration in MW-8910D was lower than all monitoring results since the fourth quarter of 1999.

Basic pH, at or above the upper limit of 8.5, is typical for MW-8909D.

Table 4-2
 LOCKWOOD ASH DISPOSAL SITE
 GROUNDWATER QUALITY SUMMARY
 1st QUARTER 2021 EXCEEDANCES OF 6 NYCRR PART 703 GA STANDARDS
 (3/1-2/2021)

Parameter	6 NYCRR Part 703 GA Standard (TOGS 1.1.1 GA Guidance Value)	MONITORING POINT														GW Dep Drain 1	GW Dep Drain 3
		Background Wells						Downgradient Wells									
		8401D	8404D	8405S**	8908D	8908S	1842	8909D	8909S	8910D	8910S**	8911D	8911S	8942D	9306S		
Color*	< 15 C.U.																
pH	6.5 < pH < 8.5							9.2									
Turbidity	< 5 NTU		89				176	> 999					39	8	43	56	
Total Dissolved Solids, TDS	500 mg/L	595	520		965	1,020	665	775		725		580	580	735	575	1,330	
Ammonia, NH ₃	2,000 ug/l																
Antimony*, Sb	3 ug/L																
Arsenic, As	25 ug/L																
Barium*, Ba	1,000 ug/L																
Boron, B	1,000 ug/L									1,670		1,050			2,020		
Cadmium, Cd	5 ug/L																
Chloride, Cl ₂	250,000 ug/L																
Chromium*, Cr	50 ug/L																
Copper, Cu	200 ug/L																
Iron, Fe	300 ug/L				969		309	2,920					385	439	632		
Magnesium, Mg	(35,000 ug/L)				65,200	63,800	43,800	43,400						68,800	60,400	78,000	
Manganese, Mn	300 ug/L																
Fe + Mn	500 ug/L				1,068			3,013						549	691		
Mercury, Hg	0.7 ug/L																
Nickel*, Ni	100 ug/L																
Selenium, Se	10 ug/L																
Sodium, Na	20,000 ug/L	90,300			32,600	33,000	57,200	168,000	59,700	69,800		99,600	58,000	39,700	20,700	32,200	
Sulfate, SO ₄	250,000 ug/L				293,000	319,000	289,000						254,000	265,000		516,000	
Zinc*, Zn	(5,000 ug/L)																

*Baseline only; routine parameters were analyzed for during this quarter's sampling event.
 **Dry or insufficient recovery

4.2 Time-Series Plots

The time-series plots were updated for the March 2021 sampling event and are presented in Attachment 2. These graphs are used to identify atypical data and possible trending.

Groundwater quality was fairly unremarkable this quarter with some extremes. The following intralocation minima and maxima were observed during the first quarter of 2021:

- Chloride in MW-8910D – An intrawell minimum was recorded this quarter, superseding the value from the fourth quarter of 2020. This value was associated with a general downward trend that began in the fourth quarter of 2014.
- pH in MW-8909SH, MW-8910D, and MW-8911SH – Intrawell minima were observed in all three wells and do not appear to be associated with trending, although trends may be starting to emerge with large declines in pH seen over the last two to three quarters.
- TDS in MW-9306SH – An intrawell maximum value was recorded, marking the first time that the Part 703 GA standard has been exceeded in this well since the first quarter of 2003. This extreme value was associated with an upward trend that began after the second quarter of 2019.

In addition to those trends associated with remarkable values, several other trends are notable.

Aluminum in MW-8910D is variable within a year but appears to be increasing since the third quarter of 2017. Despite this upward trend the aluminum concentration in this well is still lower than most of the historic data for this well.

Boron in MW-8909D remained below the Part 703 GA standard for the third quarter in a row and appears to be trending downward since the third quarter of 2019. The concentration of boron in MW-8910D and MW-8911D remain elevated relative to early 1990s data and the Part 703 GA standard, however concentrations in both wells appear to be declining towards the standard since peaks in 2014 and 2017, respectively. After trending upwards for several years, the upward trend previously reported for MW-8911SH appears to have stalled.

The calcium concentration in MW-8910D continued its downward trend through the first quarter of 2021. The gradual upward trend for calcium in MW-8911SH and the downward trend for MW-8911D appear to have stagnated. Similar patterns are seen in the magnesium and hardness datasets for all three wells. Magnesium concentrations in MW-8942D and MW-8908D have generally increased for the duration of monitoring, with increases being more gradual in MW-8908D. While magnesium concentrations were initially higher in the upgradient well, MW-8908D, they have been similar between the two wells since around 2006. Their magnesium concentrations are now approximately twice the guidance value but appear to be leveling off. Similarly, magnesium in MW-8908SH appears to have a long term upward trend as well.

Conductivity in MW-8910D has generally decreased since the second quarter of 2014, although this trend has not been associated with any extreme values. Conductivity is now in the same range as data from 1993 and 1994.

Iron has been variable in MW-8942 but has generally decreased since an intrawell maximum recorded in the second quarter of 2012. Though the general trend remains downward iron in this well is once again above the Part 703 GA standard. Manganese in this well appears to be generally trending downwards since the third quarter of 2017. This trend is associated with values below the Part 703 GA standard representing the longest duration of time manganese concentrations in this well have met the standard since the early 2000s. Gradual downward trends for manganese and iron have been observed in MW-8401 as well.

Upward trending for potassium is no longer apparent in most background and downgradient wells in the glacial till. The potassium concentration in MW-1842 remains nearly one order of magnitude above the other glacial till wells but does not appear to be trending. Upward trends, which began around 2006 are still apparent in MW-9306SH and MW-8401.

Sodium in MW-8908SH appears to be trending upward since the second quarter of 2019, with this quarter's result nearly tying the intrawell maximum for this well, which was observed in the first quarter of 1991. The downward trends previously reported for MW-8909SH and MW-8401 appear to have stagnated.

Sulfate is trending downwards in bedrock wells MW-8910D and MW-8911D. Sulfate in MW-8910D began trending steadily downward after the third quarter of 2015. This trend stagnated between the first quarter of 2018 and the third quarter of 2020 and now appears to be reestablishing with this quarter's result marking the second quarter in a row sulfate in this well has been below the standard. This has not occurred in this well since the 1990s. Sulfate in MW-8911D has been trending downward since the second quarter of 2017 and has been below the standard for several years. In contrast, sulfate is trending upwards in the glacial till well MW-8911SH. The upward trend in MW-8911SH began in the 1990s and this quarter's result was the third highest value recorded at this location, exceeding the Part 703 GA standard for only fifth time.

TDS appears to be trending upwards in MW-8911SH since 1990s. TDS in this well was near its intrawell maximum and was above the Part 703 GA standard for only the fifth time in the duration of monitoring. Turbidity in this well appears to be generally trending downward since the last quarter of 2018, with this quarter's result marking the first time turbidity was below detection in this well since the second quarter of 2018.

Calcium, magnesium, hardness, sulfate, and TDS had observable increasing trends in the background well MW-8908SH as an apparent driving force until around 2015 when following a peak in concentrations, downward trends developed. After reaching a relative low point in the second quarter of 2019, the increasing trends in this background appeared to be re-emerging.

5. Surface Water Sampling

Surface water samples are collected from points in the Keuka Outlet 100 feet upstream (Keuka Upstream) and downstream (Keuka Downstream) of the Treatment Pond discharge location. Table 5-1 summarizes the surface water quality in the Keuka Outlet for the first quarter of 2021. Most parameters showed similar concentrations between the upstream and downstream during all four sampling events. It is noteworthy that intralocation maximum values for turbidity were observed for both the upstream and downstream locations, corresponding to elevated levels of metals, relative to historic data. The increase in turbidity is not attributed to the Facility because the Treatment Pond was not actively discharging during the monitoring event. Nor was the turbidity storm related since the monitoring event date was not preceded by a significant precipitation event.

Only one significant difference (greater than 25%) in the water quality between upstream and downstream samples occurred during the first quarter of 2021. This difference was in manganese (+26%). Other notable differences (greater than 10%) between upstream and downstream samples during the first quarter of 2021 include aluminum (-22.2%), arsenic (+13.6%), and turbidity (+14.7%).

Table 5-1
LOCKWOOD ASH DISPOSAL SITE
SURFACE WATER SUMMARY
1st QUARTER 2021 SURFACE WATER EVALUATION FOR THE KEUKA OUTLET
(3/1/2021)

Parameter	Units	Keuka Upstream	Keuka Downstream	Difference	% Increase
Alkalinity	mg/l	120	120		
Aluminum	ug/l	351	273	-78	-22.2%
Ammonia	mg/l	< 0.1	< 0.1		
Antimony	ug/l	NM	NM		
Arsenic	ug/l	8.15	9.26	1	13.6%
Barium	ug/l	NM	NM		
Boron	ug/l	< 50	< 50		
Cadmium	ug/l	< 1.4	< 1.4		
Calcium	ug/l	71,300	73,000	1,700	2.4%
Chloride	mg/l	66.1	64.7	-1.4	-2.1%
Chromium	ug/l	NM	NM		
Color	C.U.	NM	NM		
Conductivity	µmhos/cm	571	569	-2	-0.4%
Copper	ug/l	< 1.9	< 1.9		
DO	mg/l	8.02	7.30	-0.7	-9.0%
Hardness	mg/l	247	251	4	1.6%
Iron	ug/l	591	600	9	1.5%
Magnesium	ug/l	16,700	16,800	100	0.6%
Manganese	ug/l	32.1	40.4	8	26%
Mercury	ug/l	< 0.16	< 0.16		
Nickel	ug/l	NM	NM		
pH	SU	8.3	8.3		
Potassium	ug/l	5,670	5,590	-80	-1.4%
Selenium	ug/l	< 3.4	< 3.4		
Sodium	ug/l	29,600	28,200	-1,400	-4.7%
Sulfate	mg/l	37.9	37.7	-0.2	-0.5%
TDS	mg/l	495	470	-25	-5.1%
TOC	mg/l	NM	NM		
Turbidity	NTU	743	852	109	14.7%
Zinc	ug/l	< 3.8	< 3.8		

NM = Not Measured, baseline only; routine parameters measured this quarter.

6. Static Groundwater Level Measurements

Static groundwater levels are taken on a quarterly basis as directed by the Site's EMP, Section 3.3.6.1. Water level data has been analyzed since the first quarter of 2003. Time-series of the depth to water measurements and their corresponding groundwater elevation data are included at the end of Attachment E. The potentiometric surfaces of representative minimum and maximum groundwater elevations and the measurements from the first quarter of 2021 are shown on Figure 6-1 and Figure 6-2 for the bedrock and glacial till water bearing units, respectively.

Water levels in several wells remain atypical. The water level in OW-7741 was depressed during the last two quarters of 2020 but returned to a more typical value during the first quarter of 2021. The water level in the glacial till well MW-8402 has been unusually low for the past seven quarters. Water levels appeared to be declining, but this downward trend appears to have stagnated over the last three quarters. During 2020, the water elevation in MW-8403 increased slightly from the intralocation minimum observed during the fourth quarter of 2019 but remains depressed, with the first quarter 2021 result within one hundredth of a foot of the intralocation minimum. The water elevation in MW-8911D became depressed during the second quarter of 2020 and remained so the first quarter of 2021. After being slightly depressed during the fourth quarter of 2020, MW-8404 was elevated during the first quarter of 2021.

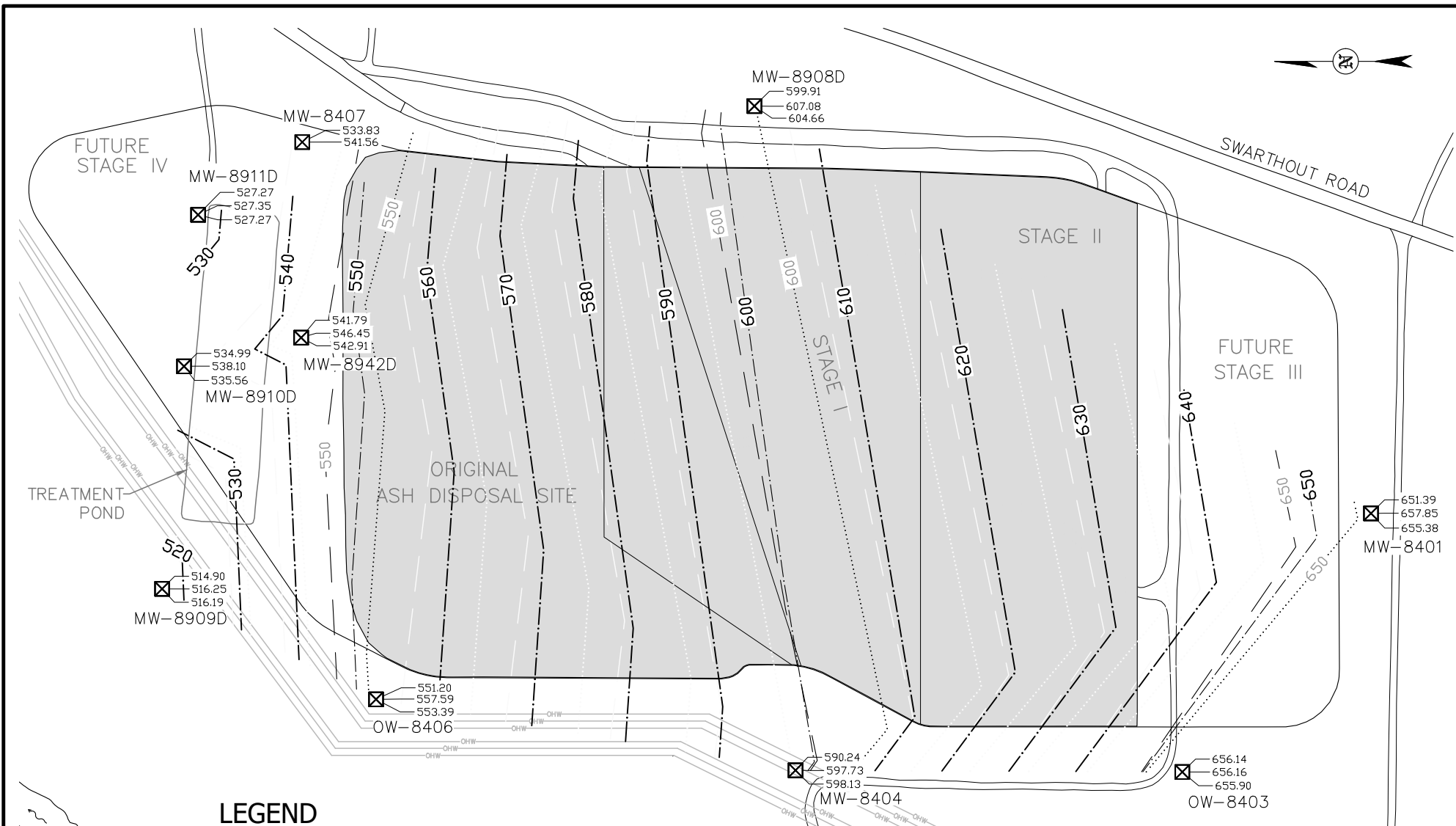
After a nearly site-wide depression in groundwater levels in the third quarter of 2020, it appears that many of the wells not mentioned above have returned to normal levels, while some remain slightly depressed.

Figure 6-3 is a comparison between current bedrock and glacial till potentiometric surfaces. Groundwater flow appears to be predominately southeast to northwest in the southern half of the site. In the northern half of the site, groundwater flow takes on a stronger downward gradient and typically shows a distinct angle towards the Keuka Outlet in the northwestern corner, especially in the glacial till.

The vertical gradient between the OW-8402 (glacial till) and OW-8403 (bedrock) couplet remains upward (average = -0.02 since the third quarter of 2019) for the seventh quarter in a row, but the strength of this upward gradient decreased since it was first observed during the third quarter of 2019 and has remained steady since the third quarter of 2020. A downward gradient (average = 0.04 prior to the third quarter of 2019) typically exists between these monitoring wells. The downward vertical gradient in the MW-8908D/SH couplet has strengthened since no gradient was observed in the third quarter of 2020. During the first quarter of 2021 this gradient was stronger than all previous quarters apart from the intra-couplet maximum observed during the fourth quarter of 2005.

Except for the vertical gradients discussed above, vertical gradients at the site were typical during the first quarter of 2021.

Q:\Lockwood Hills LLC\ACAD\Lockwood Water Levels.dwg 6/22/2021 2:58:02 PM

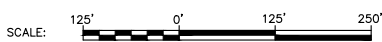


LEGEND

- BEDROCK OBSERVATION/MONITORING WELL**
- ⊠ Representative Minimum Groundwater Elevation (Measurements taken on 9/14/16)
 - ⊠ Representative Maximum Groundwater Elevation (Measurements taken on 4/7/14)
 - ⊠ Current Quarter's Groundwater Elevation (Measurements taken on 3/1/21)

- 600 — CURRENT POTENTIOMETRIC SURFACE
- 600 - REPRESENTATIVE MAXIMUM POTENTIOMETRIC SURFACE
- 600 ····· REPRESENTATIVE MINIMUM POTENTIOMETRIC SURFACE

NOTE: Computer Generated Countours - Actual conditions in the field may be different.



BEDROCK GROUNDWATER POTENTIOMETRIC SURFACE
1ST QUARTER EMR

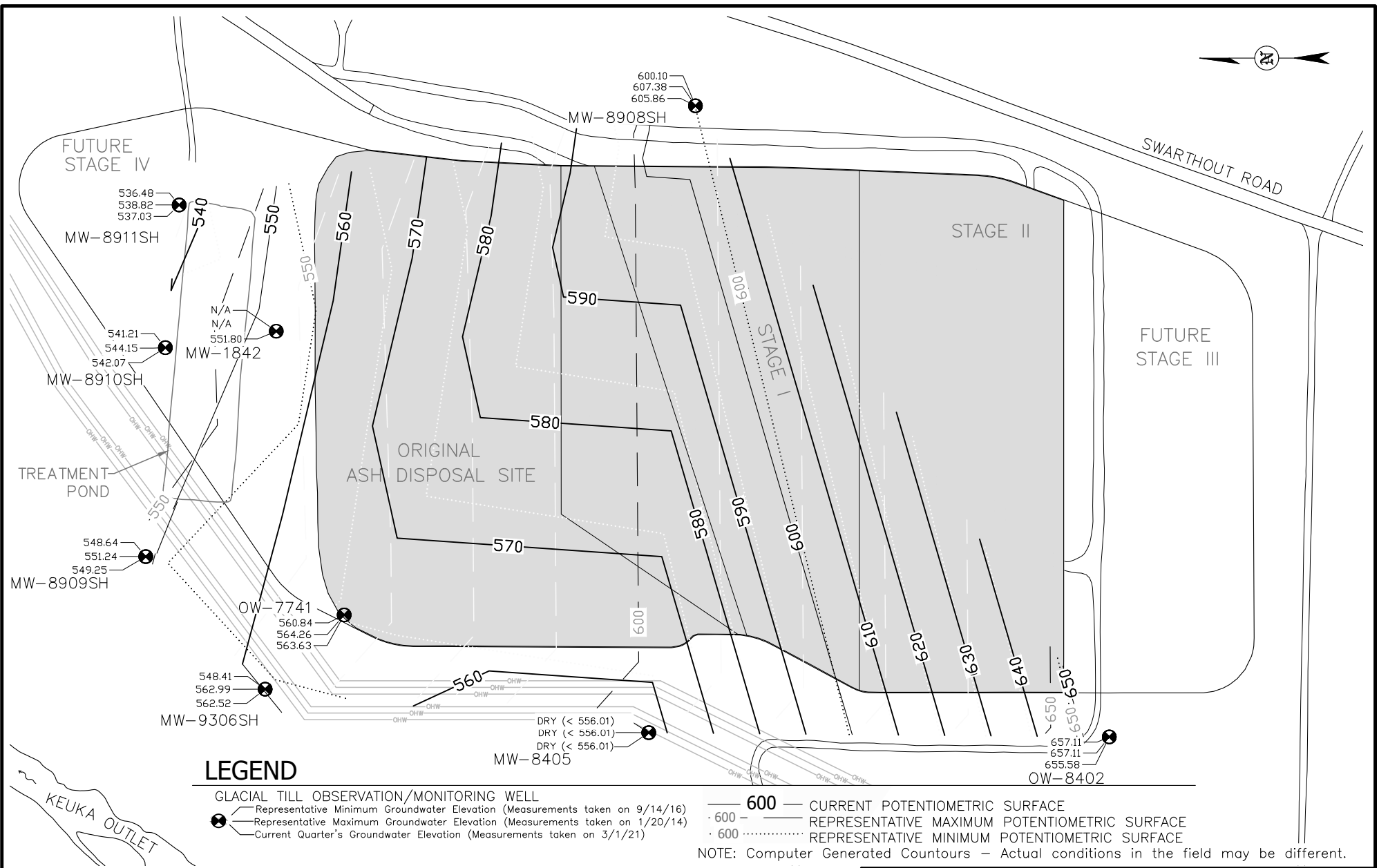
LOCKWOOD HILLS LLC
TOWN OF TORREY, STATE OF NEW YORK

EnSol, Inc.
Environmental Solutions
661 MAIN STREET
NIAGARA FALLS, NY 14301
PHONE (716) 285-3920
FAX (716) 285-3928

FIGURE
6-1

JUNE 2021 PN: 31-0021-01c

Q:\Lockwood Hills LLC\ACAD\Lockwood Water Levels.dwg 6/22/2021 2:56 PM



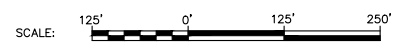
**GLACIAL TILL GROUNDWATER POTENTIOMETRIC SURFACE
1ST QUARTER EMR**

LOCKWOOD HILLS LLC
TOWN OF TORREY, STATE OF NEW YORK

EnSol, Inc.
Environmental Solutions

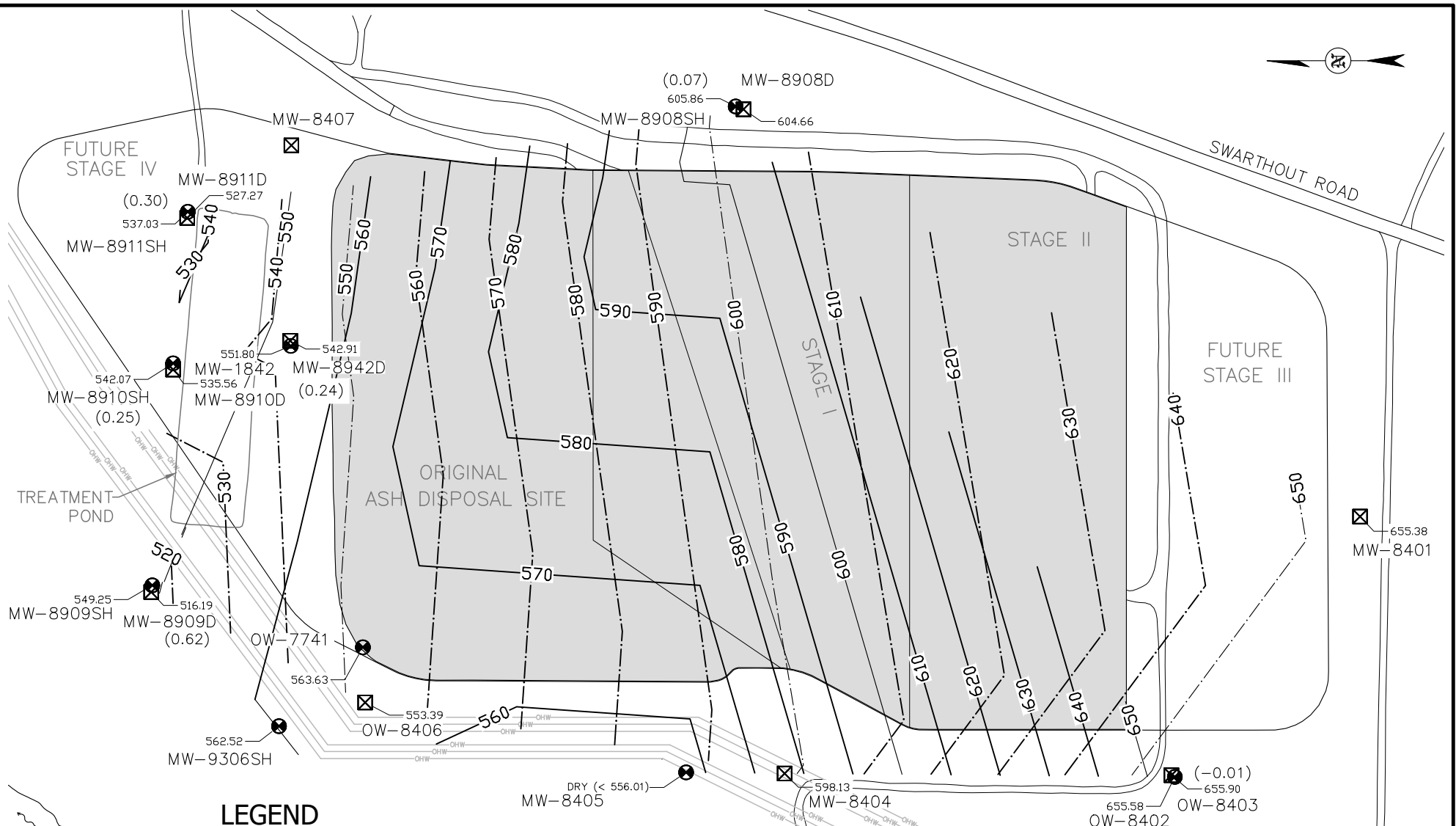
661 MAIN STREET
NIAGARA FALLS, NY 14301
PHONE (716) 285-3920
FAX (716) 285-3928

**FIGURE
6-2**



JUNE 2021

PN: 31-0021-01c



LEGEND

- GLACIAL TILL OBSERVATION/MONITORING WELL
- BEDROCK OBSERVATION/MONITORING WELL
- Current Quarter's Groundwater Elevation (Measurements taken on 3/1/21) (Vertical Gradient)

- - - - 600 CURRENT BEDROCK POTENTIOMETRIC SURFACE
- - - - 600 CURRENT GLACIAL TILL POTENTIOMETRIC SURFACE

NOTE: Computer Generated Countours – Actual conditions in the field may be different.

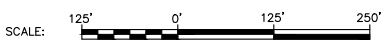
POTENTIOMETRIC SURFACES FOR FIRST QUARTER 2021
1ST QUARTER EMR

LOCKWOOD HILLS LLC
TOWN OF TORREY, STATE OF NEW YORK

EnSol, Inc.
Environmental Solutions

661 MAIN STREET
NIAGARA FALLS, NY 14301
PHONE (716) 285-3920
FAX (716) 285-3928

FIGURE
6-3



JUNE 2021

PN: 31-0021-01c

Attachment 1

**Environmental Monitoring Analytical
Results**



Experience is the solution
314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

June 22, 2021

Chris Gill
Lockwood Hills LLC
590 Plant Road, PO Box 187
Dresden, NY 14441
TEL: (315) 536-2359

Work Order No: 210303020
PO#: 20-0099AC

RE: Lockwood Ash Landfill
Quarterly

Dear Chris Gill:

Adirondack Environmental Services, Inc received 31 samples on 3/3/2021 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Hess", is written over a horizontal line.

Christopher Hess
QA Manager

ELAP#: 10709

Lockwood Hills LLC

Date: 22-Jun-21

Lockwood Ash Landfill

Lab WorkOrder: 210303020

Quarterly

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

This is an updated report to correct the Alkalinity results for samples 1842, 8404 and 8908-D.

Definitions - RL: Reporting Limit DF: Dilution factor

Qualifiers: ND : Not Detected at reporting limit	C: CCV below acceptable Limits
J: Analyte detected below quantitation limit	C+: CCV above acceptable Limits
B: Analyte detected in Blank	S: LCS Spike recovery is below acceptable limits
X : Exceeds maximum contamination limit	S+: LCS Spike recovery is above acceptable limits
H: Hold time exceeded	Z: Duplication outside acceptable limits
N: Matrix Spike below acceptable limits	T : Tentatively Identified Compound-Estimated
N+: Matrix Spike is above acceptable limits	E :Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 1842
Collection Date: 3/2/2021 7:35:00 AM
Lab Sample ID: 210303020-001
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

pH (E150.1)	7.4			S.U.		3/2/2021 7:35:00 AM
Temperature (E170.1)	5			deg C		3/2/2021 7:35:00 AM
Turbidity (E180.1)	176	1.0		NTU		3/2/2021 7:35:00 AM

ICP METALS - EPA 200.7

Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 1:30:00 PM
Arsenic	ND	5.00		µg/L	1	3/4/2021 1:30:00 PM
Boron	254	50.0		µg/L	1	3/4/2021 1:30:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 1:30:00 PM
Calcium	43500	50.0		µg/L	1	3/4/2021 1:30:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 1:30:00 PM
Iron	309	50.0		µg/L	1	3/4/2021 1:30:00 PM
Magnesium	43800	50.0		µg/L	1	3/4/2021 1:30:00 PM
Manganese	ND	20.0		µg/L	1	3/4/2021 1:30:00 PM
Potassium	19100	50.0		µg/L	1	3/4/2021 1:30:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 1:30:00 PM
Sodium	57200	5000		µg/L	10	3/4/2021 1:34:00 PM

HARDNESS - EPA 200.7 REV 4.4

Analyst: **KH**

Total Hardness (As CaCO3)	289	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0

Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:35:55 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1

Analyst: **CC**

Chloride	2.07	2.00		mg/L	2	3/24/2021 3:31:46 AM
Sulfate	289	10.0		mg/L	10	3/24/2021 3:50:49 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011

Analyst: **CP**

Alkalinity, Total (As CaCO3)	130	10		mgCaCO3/L	1	3/8/2021 3:00:00 PM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0

Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:18:53 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 1842
Collection Date: 3/2/2021 7:35:00 AM
Lab Sample ID: 210303020-001
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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CONDUCTANCE AT 25C - SM 2510B-2011 Analyst: **BG**

Specific Conductance	762	1		µmhos/cm	1	3/17/2021
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TOTAL DISSOLVED SOLIDS - SM 2540C-2011 Analyst: **JH**

TDS (Residue, Filterable)	665	5		mg/L	1	3/8/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8404
Collection Date: 3/1/2021 4:20:00 PM
Lab Sample ID: 210303020-002
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	7.0			S.U.		3/1/2021 4:20:00 PM
Temperature (E170.1)	7			deg C		3/1/2021 4:20:00 PM
Turbidity (E180.1)	89	1.0		NTU		3/1/2021 4:20:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 2:07:00 PM
Arsenic	ND	5.00		µg/L	1	3/4/2021 2:07:00 PM
Boron	109	50.0		µg/L	1	3/4/2021 2:07:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 2:07:00 PM
Calcium	104000	50.0		µg/L	1	3/4/2021 2:07:00 PM
Copper	9.88	5.00		µg/L	1	3/4/2021 2:07:00 PM
Iron	75.0	50.0		µg/L	1	3/4/2021 2:07:00 PM
Magnesium	20300	50.0		µg/L	1	3/4/2021 2:07:00 PM
Manganese	ND	20.0		µg/L	1	3/4/2021 2:07:00 PM
Potassium	893	50.0		µg/L	1	3/4/2021 2:07:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 2:07:00 PM
Sodium	8510	500		µg/L	1	3/4/2021 2:07:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	344	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:37:38 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	ND	2.00		mg/L	2	3/18/2021 6:46:09 PM
Sulfate	69.4	2.00		mg/L	2	3/18/2021 6:46:09 PM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	260	10		mgCaCO3/L	1	3/8/2021 3:00:00 PM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:20:33 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8404
Collection Date: 3/1/2021 4:20:00 PM
Lab Sample ID: 210303020-002
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	631	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	520	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8908-D
Collection Date: 3/1/2021 3:10:00 PM
Lab Sample ID: 210303020-003
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	7.1			S.U.		3/1/2021 3:10:00 PM
Temperature (E170.1)	8			deg C		3/1/2021 3:10:00 PM
Turbidity (E180.1)	< 1	1.0		NTU		3/1/2021 3:10:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 2:12:00 PM
Arsenic	6.16	5.00		µg/L	1	3/4/2021 2:12:00 PM
Boron	233	50.0		µg/L	1	3/4/2021 2:12:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 2:12:00 PM
Calcium	151000	50.0		µg/L	1	3/4/2021 2:12:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 2:12:00 PM
Iron	969	50.0		µg/L	1	3/4/2021 2:12:00 PM
Magnesium	65200	50.0		µg/L	1	3/4/2021 2:12:00 PM
Manganese	99.1	20.0		µg/L	1	3/4/2021 2:12:00 PM
Potassium	3090	50.0		µg/L	1	3/4/2021 2:12:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 2:12:00 PM
Sodium	32600	500		µg/L	1	3/4/2021 2:12:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	646	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:39:17 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	12.0	2.00		mg/L	2	3/18/2021 7:05:11 PM
Sulfate	293	10.0		mg/L	10	3/18/2021 8:42:01 PM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	370	10		mgCaCO3/L	1	3/8/2021 3:00:00 PM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	0.5	0.1		mg/L	1	3/16/2021 3:22:13 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8908-D
Collection Date: 3/1/2021 3:10:00 PM
Lab Sample ID: 210303020-003
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	1160	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	965	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8908-SH
Collection Date: 3/1/2021 3:20:00 PM
Lab Sample ID: 210303020-004
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	7.0			S.U.		3/1/2021 3:20:00 PM
Temperature (E170.1)	7			deg C		3/1/2021 3:20:00 PM
Turbidity (E180.1)	< 1	1.0		NTU		3/1/2021 3:20:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 2:16:00 PM
Arsenic	5.44	5.00		µg/L	1	3/4/2021 2:16:00 PM
Boron	157	50.0		µg/L	1	3/4/2021 2:16:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 2:16:00 PM
Calcium	176000	50.0		µg/L	1	3/4/2021 2:16:00 PM
Copper	15.3	5.00		µg/L	1	3/4/2021 2:16:00 PM
Iron	204	50.0		µg/L	1	3/4/2021 2:16:00 PM
Magnesium	63800	50.0		µg/L	1	3/4/2021 2:16:00 PM
Manganese	83.2	20.0		µg/L	1	3/4/2021 2:16:00 PM
Potassium	2590	50.0		µg/L	1	3/4/2021 2:16:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 2:16:00 PM
Sodium	33000	500		µg/L	1	3/4/2021 2:16:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	701	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:40:57 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	10.5	2.00		mg/L	2	3/19/2021 10:08:01 PM
Sulfate	319	10.0		mg/L	10	3/19/2021 11:44:49 PM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	370	10		mgCaCO3/L	1	3/8/2021 3:00:00 PM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:23:50 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8908-SH
Collection Date: 3/1/2021 3:20:00 PM
Lab Sample ID: 210303020-004
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	1200	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	1020	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8909-D
Collection Date: 3/1/2021 3:50:00 PM
Lab Sample ID: 210303020-005
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	9.2			S.U.		3/1/2021 3:50:00 PM
Temperature (E170.1)	8			deg C		3/1/2021 3:50:00 PM
Turbidity (E180.1)	> 999	1.0		NTU		3/1/2021 3:50:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	1060	100		µg/L	1	3/4/2021 2:20:00 PM
Arsenic	ND	5.00		µg/L	1	3/4/2021 2:20:00 PM
Boron	932	50.0		µg/L	1	3/4/2021 2:20:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 2:20:00 PM
Calcium	11400	50.0		µg/L	1	3/4/2021 2:20:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 2:20:00 PM
Iron	2920	50.0		µg/L	1	3/4/2021 2:20:00 PM
Magnesium	2460	50.0		µg/L	1	3/4/2021 2:20:00 PM
Manganese	93.0	20.0		µg/L	1	3/4/2021 2:20:00 PM
Potassium	1490	50.0		µg/L	1	3/4/2021 2:20:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 2:20:00 PM
Sodium	168000	5000		µg/L	10	3/4/2021 2:24:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	39	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:42:37 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	4.84	2.00		mg/L	2	3/20/2021 12:42:06 AM
Sulfate	108	2.00		mg/L	2	3/20/2021 12:42:06 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	270	10		mgCaCO3/L	1	3/8/2021 3:00:00 PM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	0.5	0.1		mg/L	1	3/16/2021 3:27:04 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8909-D
Collection Date: 3/1/2021 3:50:00 PM
Lab Sample ID: 210303020-005
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	750	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	775	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8909-SH
Collection Date: 3/1/2021 12:50:00 PM
Lab Sample ID: 210303020-006
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

pH (E150.1)	6.7			S.U.		3/1/2021 12:50:00 PM
Temperature (E170.1)	8			deg C		3/1/2021 12:50:00 PM
Turbidity (E180.1)	< 1	1.0		NTU		3/1/2021 12:50:00 PM

ICP METALS - EPA 200.7

Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 2:39:00 PM
Arsenic	5.64	5.00		µg/L	1	3/4/2021 2:39:00 PM
Boron	261	50.0		µg/L	1	3/4/2021 2:39:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 2:39:00 PM
Calcium	32400	50.0		µg/L	1	3/4/2021 2:39:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 2:39:00 PM
Iron	73.6	50.0		µg/L	1	3/4/2021 2:39:00 PM
Magnesium	16500	50.0		µg/L	1	3/4/2021 2:39:00 PM
Manganese	ND	20.0		µg/L	1	3/4/2021 2:39:00 PM
Potassium	2120	50.0		µg/L	1	3/4/2021 2:39:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 2:39:00 PM
Sodium	59700	5000		µg/L	10	3/4/2021 2:42:00 PM

HARDNESS - EPA 200.7 REV 4.4

Analyst: **KH**

Total Hardness (As CaCO3)	148	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0

Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:44:17 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1

Analyst: **CC**

Chloride	2.60	2.00		mg/L	2	3/20/2021 1:20:10 AM
Sulfate	138	2.00		mg/L	2	3/20/2021 1:20:10 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011

Analyst: **CP**

Alkalinity, Total (As CaCO3)	160	10		mgCaCO3/L	1	3/8/2021 3:00:00 PM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0

Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:28:41 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8909-SH
Collection Date: 3/1/2021 12:50:00 PM
Lab Sample ID: 210303020-006
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	545	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	485	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8910-D
Collection Date: 3/1/2021 1:50:00 PM
Lab Sample ID: 210303020-007
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

pH (E150.1)	6.9			S.U.		3/1/2021 1:50:00 PM
Temperature (E170.1)	10			deg C		3/1/2021 1:50:00 PM
Turbidity (E180.1)	< 1	1.0		NTU		3/1/2021 1:50:00 PM

ICP METALS - EPA 200.7

Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 2:49:00 PM
Arsenic	ND	5.00		µg/L	1	3/4/2021 2:49:00 PM
Boron	1670	50.0		µg/L	1	3/4/2021 2:49:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 2:49:00 PM
Calcium	55900	50.0		µg/L	1	3/4/2021 2:49:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 2:49:00 PM
Iron	ND	50.0		µg/L	1	3/4/2021 2:49:00 PM
Magnesium	16900	50.0		µg/L	1	3/4/2021 2:49:00 PM
Manganese	72.0	20.0		µg/L	1	3/4/2021 2:49:00 PM
Potassium	3030	50.0		µg/L	1	3/4/2021 2:49:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 2:49:00 PM
Sodium	69800	5000		µg/L	10	3/4/2021 2:56:00 PM

HARDNESS - EPA 200.7 REV 4.4

Analyst: **KH**

Total Hardness (As CaCO3)	209	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0

Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:49:18 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1

Analyst: **CC**

Chloride	13.7	2.00		mg/L	2	3/23/2021 12:11:37 AM
Sulfate	246	10.0		mg/L	10	3/23/2021 12:30:49 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011

Analyst: **CP**

Alkalinity, Total (As CaCO3)	130	10		mgCaCO3/L	1	3/8/2021 3:00:00 PM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0

Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:30:18 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8910-D
Collection Date: 3/1/2021 1:50:00 PM
Lab Sample ID: 210303020-007
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	745	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	725	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8911-D
Collection Date: 3/1/2021 2:20:00 PM
Lab Sample ID: 210303020-008
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	7.2			S.U.		3/1/2021 2:20:00 PM
Temperature (E170.1)	10			deg C		3/1/2021 2:20:00 PM
Turbidity (E180.1)	< 1	1.0		NTU		3/1/2021 2:20:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 3:00:00 PM
Arsenic	ND	5.00		µg/L	1	3/4/2021 3:00:00 PM
Boron	1050	50.0		µg/L	1	3/4/2021 3:00:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 3:00:00 PM
Calcium	53300	50.0		µg/L	1	3/4/2021 3:00:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 3:00:00 PM
Iron	ND	50.0		µg/L	1	3/4/2021 3:00:00 PM
Magnesium	17400	50.0		µg/L	1	3/4/2021 3:00:00 PM
Manganese	26.6	20.0		µg/L	1	3/4/2021 3:00:00 PM
Potassium	3070	50.0		µg/L	1	3/4/2021 3:00:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 3:00:00 PM
Sodium	99600	5000		µg/L	10	3/4/2021 3:32:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	205	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:50:59 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	7.69	2.00		mg/L	2	3/23/2021 12:49:51 AM
Sulfate	214	10.0		mg/L	10	3/23/2021 1:08:54 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	200	10		mgCaCO3/L	1	3/8/2021 3:00:00 PM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:35:11 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8911-D
Collection Date: 3/1/2021 2:20:00 PM
Lab Sample ID: 210303020-008
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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CONDUCTANCE AT 25C - SM 2510B-2011 Analyst: **BG**

Specific Conductance	782	1		µmhos/cm	1	3/17/2021
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TOTAL DISSOLVED SOLIDS - SM 2540C-2011 Analyst: **JH**

TDS (Residue, Filterable)	580	5		mg/L	1	3/8/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8911-SH
Collection Date: 3/2/2021 7:30:00 AM
Lab Sample ID: 210303020-009
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

pH (E150.1)	7.1			S.U.		3/2/2021 7:30:00 AM
Temperature (E170.1)	8			deg C		3/2/2021 7:30:00 AM
Turbidity (E180.1)	< 1	1.0		NTU		3/2/2021 7:30:00 AM

ICP METALS - EPA 200.7

Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 3:36:00 PM
Arsenic	12.6	5.00		µg/L	1	3/4/2021 3:36:00 PM
Boron	306	50.0		µg/L	1	3/4/2021 3:36:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 3:36:00 PM
Calcium	45100	50.0		µg/L	1	3/4/2021 3:36:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 3:36:00 PM
Iron	385	50.0		µg/L	1	3/4/2021 3:36:00 PM
Magnesium	14500	50.0		µg/L	1	3/4/2021 3:36:00 PM
Manganese	57.2	20.0		µg/L	1	3/4/2021 3:36:00 PM
Potassium	1970	50.0		µg/L	1	3/4/2021 3:36:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 3:36:00 PM
Sodium	58000	5000		µg/L	10	3/4/2021 3:42:00 PM

HARDNESS - EPA 200.7 REV 4.4

Analyst: **KH**

Total Hardness (As CaCO3)	172	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0

Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:52:39 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1

Analyst: **CC**

Chloride	10.7	2.00		mg/L	2	3/24/2021 5:29:14 AM
Sulfate	254	10.0		mg/L	10	3/24/2021 5:48:27 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011

Analyst: **CP**

Alkalinity, Total (As CaCO3)	88	4		mgCaCO3/L	1	3/12/2021 11:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0

Analyst: **KB**

Nitrogen, Ammonia (As N)	0.2	0.1		mg/L	1	3/16/2021 3:38:26 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8911-SH
Collection Date: 3/2/2021 7:30:00 AM
Lab Sample ID: 210303020-009
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	657	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	580	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8942-D
Collection Date: 3/2/2021 9:30:00 AM
Lab Sample ID: 210303020-010
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	7.2			S.U.		3/2/2021 9:30:00 AM
Temperature (E170.1)	7			deg C		3/2/2021 9:30:00 AM
Turbidity (E180.1)	39	1.0		NTU		3/2/2021 9:30:00 AM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 3:47:00 PM
Arsenic	8.72	5.00		µg/L	1	3/4/2021 3:47:00 PM
Boron	315	50.0		µg/L	1	3/4/2021 3:47:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 3:47:00 PM
Calcium	76200	50.0		µg/L	1	3/4/2021 3:47:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 3:47:00 PM
Iron	439	50.0		µg/L	1	3/4/2021 3:47:00 PM
Magnesium	68800	50.0		µg/L	1	3/4/2021 3:47:00 PM
Manganese	110	20.0		µg/L	1	3/4/2021 3:47:00 PM
Potassium	3010	50.0		µg/L	1	3/4/2021 3:47:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 3:47:00 PM
Sodium	39700	500		µg/L	1	3/4/2021 3:47:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	474	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:54:20 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	4.11	2.00		mg/L	2	3/24/2021 6:07:30 AM
Sulfate	265	10.0		mg/L	10	3/24/2021 6:26:32 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	280	10		mgCaCO3/L	1	3/12/2021 11:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:40:07 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8942-D
Collection Date: 3/2/2021 9:30:00 AM
Lab Sample ID: 210303020-010
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	916	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	735	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 9306-SH
Collection Date: 3/1/2021 4:40:00 PM
Lab Sample ID: 210303020-011
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	7.4			S.U.		3/1/2021 4:40:00 PM
Temperature (E170.1)	6			deg C		3/1/2021 4:40:00 PM
Turbidity (E180.1)	8	1.0		NTU		3/1/2021 4:40:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 3:54:00 PM
Arsenic	9.18	5.00		µg/L	1	3/4/2021 3:54:00 PM
Boron	93.0	50.0		µg/L	1	3/4/2021 3:54:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 3:54:00 PM
Calcium	67400	50.0		µg/L	1	3/4/2021 3:54:00 PM
Copper	7.44	5.00		µg/L	1	3/4/2021 3:54:00 PM
Iron	632	50.0		µg/L	1	3/4/2021 3:54:00 PM
Magnesium	60400	50.0		µg/L	1	3/4/2021 3:54:00 PM
Manganese	58.7	20.0		µg/L	1	3/4/2021 3:54:00 PM
Potassium	3220	50.0		µg/L	1	3/4/2021 3:54:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 3:54:00 PM
Sodium	20700	500		µg/L	1	3/4/2021 3:54:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	417	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:56:02 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	ND	2.00		mg/L	2	3/23/2021 1:27:57 AM
Sulfate	79.4	2.00		mg/L	2	3/23/2021 1:27:57 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	330	10		mgCaCO3/L	1	3/12/2021 11:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:41:46 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 9306-SH
Collection Date: 3/1/2021 4:40:00 PM
Lab Sample ID: 210303020-011
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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CONDUCTANCE AT 25C - SM 2510B-2011 Analyst: **BG**

Specific Conductance	711	1		µmhos/cm	1	3/17/2021
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TOTAL DISSOLVED SOLIDS - SM 2540C-2011 Analyst: **JH**

TDS (Residue, Filterable)	575	5		mg/L	1	3/8/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: GW DUP 8909D
Collection Date: 3/1/2021 3:50:00 PM
Lab Sample ID: 210303020-012
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	9.2			S.U.		3/1/2021 3:50:00 PM
Temperature (E170.1)	8			deg C		3/1/2021 3:50:00 PM
Turbidity (E180.1)	> 999	1.0		NTU		3/1/2021 3:50:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	1020	100		µg/L	1	3/4/2021 3:58:00 PM
Arsenic	ND	5.00		µg/L	1	3/4/2021 3:58:00 PM
Boron	917	50.0		µg/L	1	3/4/2021 3:58:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 3:58:00 PM
Calcium	12800	50.0		µg/L	1	3/4/2021 3:58:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 3:58:00 PM
Iron	2980	50.0		µg/L	1	3/4/2021 3:58:00 PM
Magnesium	2680	50.0		µg/L	1	3/4/2021 3:58:00 PM
Manganese	100	20.0		µg/L	1	3/4/2021 3:58:00 PM
Potassium	1390	50.0		µg/L	1	3/4/2021 3:58:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 3:58:00 PM
Sodium	167000	5000		µg/L	10	3/4/2021 4:03:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	43	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:57:43 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	4.30	2.00		mg/L	2	3/23/2021 2:25:03 AM
Sulfate	102	2.00		mg/L	2	3/23/2021 2:25:03 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	290	10		mgCaCO3/L	1	3/12/2021 11:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	0.5	0.1		mg/L	1	3/16/2021 3:43:24 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: GW DUP 8909D
Collection Date: 3/1/2021 3:50:00 PM
Lab Sample ID: 210303020-012
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	734	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	725	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: GW Dep Drain 1
Collection Date: 3/1/2021 11:24:00 AM
Lab Sample ID: 210303020-013
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	6.92	0.10		mg/L		3/1/2021 11:24:00 AM
Flow, GPD	1179			gal/day		3/1/2021 11:24:00 AM
pH (E150.1)	7.3			S.U.		3/1/2021 11:24:00 AM
Temperature (E170.1)	7			deg C		3/1/2021 11:24:00 AM
Turbidity (E180.1)	43	1.0		NTU		3/1/2021 11:24:00 AM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 4:12:00 PM
Arsenic	ND	5.00		µg/L	1	3/4/2021 4:12:00 PM
Boron	2020	50.0		µg/L	1	3/4/2021 4:12:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 4:12:00 PM
Calcium	233000	500		µg/L	10	3/4/2021 4:19:00 PM
Copper	ND	5.00		µg/L	1	3/4/2021 4:12:00 PM
Iron	ND	50.0		µg/L	1	3/4/2021 4:12:00 PM
Magnesium	78000	50.0		µg/L	1	3/4/2021 4:12:00 PM
Manganese	ND	20.0		µg/L	1	3/4/2021 4:12:00 PM
Potassium	4560	50.0		µg/L	1	3/4/2021 4:12:00 PM
Selenium	ND	5.00		µg/L	1	3/4/2021 4:12:00 PM
Sodium	32200	500		µg/L	1	3/4/2021 4:12:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	903	5		mg/L CaCO3	1	3/4/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 8:59:25 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	47.8	2.00		mg/L	2	3/23/2021 4:02:19 AM
Sulfate	516	20.0		mg/L	20	3/23/2021 4:21:37 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	310	10		mgCaCO3/L	1	3/12/2021 11:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: GW Dep Drain 1
Collection Date: 3/1/2021 11:24:00 AM
Lab Sample ID: 210303020-013
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0						Analyst: KB
Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:45:02 PM
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	1480	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	1330	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Leak Detection Syst.
Collection Date: 3/1/2021 10:50:00 AM
Lab Sample ID: 210303020-014
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	5.98	0.10		mg/L		3/1/2021 10:50:00 AM
Flow, GPD	266			gal/day		3/1/2021 10:50:00 AM
pH (E150.1)	7.7			S.U.		3/1/2021 10:50:00 AM
Temperature (E170.1)	9			deg C		3/1/2021 10:50:00 AM
Turbidity (E180.1)	14	1.0		NTU		3/1/2021 10:50:00 AM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/4/2021 4:26:00 PM
Arsenic	ND	5.00		µg/L	1	3/4/2021 4:26:00 PM
Boron	1180	50.0		µg/L	1	3/4/2021 4:26:00 PM
Cadmium	ND	5.00		µg/L	1	3/4/2021 4:26:00 PM
Calcium	293000	500		µg/L	10	3/5/2021 10:47:00 AM
Copper	5.99	5.00		µg/L	1	3/4/2021 4:26:00 PM
Iron	ND	50.0		µg/L	1	3/4/2021 4:26:00 PM
Magnesium	77600	50.0		µg/L	1	3/4/2021 4:26:00 PM
Manganese	ND	20.0		µg/L	1	3/4/2021 4:26:00 PM
Potassium	3040	50.0		µg/L	1	3/4/2021 4:26:00 PM
Selenium	18.7	5.00		µg/L	1	3/4/2021 4:26:00 PM
Sodium	26100	500		µg/L	1	3/4/2021 4:26:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	1051	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:04:28 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	62.7	2.00		mg/L	2	3/23/2021 4:59:41 AM
Sulfate	738	20.0		mg/L	20	3/23/2021 5:18:42 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	300	10		mgCaCO3/L	1	3/12/2021 11:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Leak Detection Syst.
Collection Date: 3/1/2021 10:50:00 AM
Lab Sample ID: 210303020-014
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0						Analyst: KB
Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:46:40 PM
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	1770	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	1630	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Under Drain 1
Collection Date: 3/1/2021 1:12:00 PM
Lab Sample ID: 210303020-015
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	6.3	0.10		mg/L		3/1/2021 1:12:00 PM
Flow, GPD	4565			gal/day		3/1/2021 1:12:00 PM
pH (E150.1)	8.1			S.U.		3/1/2021 1:12:00 PM
Temperature (E170.1)	9			deg C		3/1/2021 1:12:00 PM
Turbidity (E180.1)	132	1.0		NTU		3/1/2021 1:12:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/5/2021 10:51:00 AM
Arsenic	19.9	5.00		µg/L	1	3/5/2021 10:51:00 AM
Boron	3850	50.0		µg/L	1	3/5/2021 10:51:00 AM
Cadmium	ND	5.00		µg/L	1	3/5/2021 10:51:00 AM
Calcium	332000	500		µg/L	10	3/5/2021 10:58:00 AM
Copper	ND	5.00		µg/L	1	3/5/2021 10:51:00 AM
Iron	1790	50.0		µg/L	1	3/5/2021 10:51:00 AM
Magnesium	79400	50.0		µg/L	1	3/5/2021 10:51:00 AM
Manganese	547	20.0		µg/L	1	3/5/2021 10:51:00 AM
Potassium	16900	50.0		µg/L	1	3/5/2021 10:51:00 AM
Selenium	12.1	5.00		µg/L	1	3/5/2021 10:51:00 AM
Sodium	42500	500		µg/L	1	3/5/2021 10:51:00 AM

LOW LEVEL MERCURY - EPA 1631E Analyst: **WB**
 (Prep: 1631E - 3/3/2021)

Mercury	2.2	0.5		ng/L	1	3/4/2021
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HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	1156	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:09:30 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	24.1	2.00		mg/L	2	3/23/2021 5:37:44 AM
Sulfate	460	10.0		mg/L	10	3/23/2021 6:15:49 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
 Work Order: **210303020**
 Reference: Lockwood Ash Landfill / Quarterly
 PO#: 20-0099AC

Client Sample ID: Under Drain 1
 Collection Date: 3/1/2021 1:12:00 PM
 Lab Sample ID: 210303020-015
 Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ALKALINITY TO PH 4.5 -SM 2320B-2011						Analyst: CP
Alkalinity, Total (As CaCO3)	520	10		mgCaCO3/L	1	3/12/2021 11:00:00 AM
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0						Analyst: KB
Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/16/2021 3:48:18 PM
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	1640	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	1430	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Under Drain 2
Collection Date: 3/1/2021 11:05:00 AM
Lab Sample ID: 210303020-016
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	8.75	0.10		mg/L		3/1/2021 11:05:00 AM
Flow, GPD	4565			gal/day		3/1/2021 11:05:00 AM
pH (E150.1)	7.6			S.U.		3/1/2021 11:05:00 AM
Temperature (E170.1)	10			deg C		3/1/2021 11:05:00 AM
Turbidity (E180.1)	128	1.0		NTU		3/1/2021 11:05:00 AM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/5/2021 11:09:00 AM
Arsenic	11.6	5.00		µg/L	1	3/5/2021 11:09:00 AM
Boron	44100	500		µg/L	10	3/5/2021 11:13:00 AM
Cadmium	ND	5.00		µg/L	1	3/5/2021 11:09:00 AM
Calcium	709000	500		µg/L	10	3/5/2021 11:13:00 AM
Copper	ND	5.00		µg/L	1	3/5/2021 11:09:00 AM
Iron	2340	50.0		µg/L	1	3/5/2021 11:09:00 AM
Magnesium	89400	50.0		µg/L	1	3/5/2021 11:09:00 AM
Manganese	1080	20.0		µg/L	1	3/5/2021 11:09:00 AM
Potassium	107000	500		µg/L	10	3/5/2021 11:13:00 AM
Selenium	10.9	5.00		µg/L	1	3/5/2021 11:09:00 AM
Sodium	226000	5000		µg/L	10	3/5/2021 11:13:00 AM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	2139	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:11:10 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	490	10.0		mg/L	10	3/23/2021 6:34:50 AM
Sulfate	1500	50.0		mg/L	50	3/23/2021 6:53:52 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	270	10		mgCaCO3/L	1	3/12/2021 11:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Under Drain 2
Collection Date: 3/1/2021 11:05:00 AM
Lab Sample ID: 210303020-016
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0						Analyst: KB
Nitrogen, Ammonia (As N)	1.5	0.1		mg/L	1	3/16/2021 3:49:59 PM
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	3970	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	3530	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Under Drain 3
Collection Date: 3/1/2021 10:17:00 AM
Lab Sample ID: 210303020-017
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	6.88	0.10		mg/L		3/1/2021 10:17:00 AM
Flow, GPD	1408			gal/day		3/1/2021 10:17:00 AM
pH (E150.1)	7.0			S.U.		3/1/2021 10:17:00 AM
Temperature (E170.1)	10			deg C		3/1/2021 10:17:00 AM
Turbidity (E180.1)	27	1.0		NTU		3/1/2021 10:17:00 AM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/5/2021 11:16:00 AM
Arsenic	7.67	5.00		µg/L	1	3/5/2021 11:16:00 AM
Boron	47200	500		µg/L	10	3/5/2021 11:21:00 AM
Cadmium	ND	5.00		µg/L	1	3/5/2021 11:16:00 AM
Calcium	1060000	500		µg/L	10	3/5/2021 11:21:00 AM
Copper	ND	5.00		µg/L	1	3/5/2021 11:16:00 AM
Iron	ND	50.0		µg/L	1	3/5/2021 11:16:00 AM
Magnesium	126000	50.0		µg/L	1	3/5/2021 11:16:00 AM
Manganese	431	20.0		µg/L	1	3/5/2021 11:16:00 AM
Potassium	190000	500		µg/L	10	3/5/2021 11:21:00 AM
Selenium	14.7	5.00		µg/L	1	3/5/2021 11:16:00 AM
Sodium	365000	5000		µg/L	10	3/5/2021 11:21:00 AM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	3167	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:12:51 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	520	10.0		mg/L	10	3/23/2021 8:32:18 AM
Sulfate	1660	50.0		mg/L	50	3/23/2021 8:51:31 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	330	10		mgCaCO3/L	1	3/15/2021 10:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Under Drain 3
Collection Date: 3/1/2021 10:17:00 AM
Lab Sample ID: 210303020-017
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0						Analyst: KB
Nitrogen, Ammonia (As N)	0.2	0.1		mg/L	1	3/18/2021 11:22:23 AM
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	4390	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	3920	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Inlet To Pond
Collection Date: 3/1/2021 1:27:00 PM
Lab Sample ID: 210303020-018
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	7.21	0.10		mg/L		3/1/2021 1:27:00 PM
Flow, GPD	11,413			gal/day		3/1/2021 1:27:00 PM
pH (E150.1)	8.0			S.U.		3/1/2021 1:27:00 PM
Temperature (E170.1)	8			deg C		3/1/2021 1:27:00 PM
Turbidity (E180.1)	44	1.0		NTU		3/1/2021 1:27:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/5/2021 11:45:00 AM
Arsenic	18.2	5.00		µg/L	1	3/5/2021 11:45:00 AM
Boron	23700	500		µg/L	10	3/5/2021 11:54:00 AM
Cadmium	ND	5.00		µg/L	1	3/5/2021 11:45:00 AM
Calcium	602000	500		µg/L	10	3/5/2021 11:54:00 AM
Copper	ND	5.00		µg/L	1	3/5/2021 11:45:00 AM
Iron	1000	50.0		µg/L	1	3/5/2021 11:45:00 AM
Magnesium	87700	50.0		µg/L	1	3/5/2021 11:45:00 AM
Manganese	399	20.0		µg/L	1	3/5/2021 11:45:00 AM
Potassium	102000	500		µg/L	10	3/5/2021 11:54:00 AM
Selenium	47.2	5.00		µg/L	1	3/5/2021 11:45:00 AM
Sodium	231000	5000		µg/L	10	3/5/2021 11:54:00 AM

LOW LEVEL MERCURY - EPA 1631E Analyst: **WB**
 (Prep: 1631E - 3/3/2021)

Mercury	2.4	0.5		ng/L	1	3/4/2021
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HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	1864	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:14:31 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	294	20.0		mg/L	20	3/23/2021 7:12:39 PM
Sulfate	1290	20.0		mg/L	20	3/23/2021 7:12:39 PM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Inlet To Pond
Collection Date: 3/1/2021 1:27:00 PM
Lab Sample ID: 210303020-018
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ALKALINITY TO PH 4.5 -SM 2320B-2011						Analyst: CP
Alkalinity, Total (As CaCO3)	330	10		mgCaCO3/L	1	3/15/2021 10:00:00 AM
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0						Analyst: KB
Nitrogen, Ammonia (As N)	0.3	0.1		mg/L	1	3/18/2021 11:24:04 AM
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	3080	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	2680	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Keuka Upstream
Collection Date: 3/1/2021 2:15:00 PM
Lab Sample ID: 210303020-019
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

Dissolved Oxygen (E360.1)	8.02	0.10		mg/L		3/1/2021 2:15:00 PM
pH (E150.1)	8.3			S.U.		3/1/2021 2:15:00 PM
Temperature (E170.1)	2			deg C		3/1/2021 2:15:00 PM
Turbidity (E180.1)	743	1.0		NTU		3/1/2021 2:15:00 PM

ICP METALS - EPA 200.7

Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	351	100		µg/L	1	3/5/2021 11:58:00 AM
Arsenic	8.15	5.00		µg/L	1	3/5/2021 11:58:00 AM
Boron	ND	50.0		µg/L	1	3/5/2021 11:58:00 AM
Cadmium	ND	5.00		µg/L	1	3/5/2021 11:58:00 AM
Calcium	71300	50.0		µg/L	1	3/5/2021 11:58:00 AM
Copper	ND	5.00		µg/L	1	3/5/2021 11:58:00 AM
Iron	591	50.0		µg/L	1	3/5/2021 11:58:00 AM
Magnesium	16700	50.0		µg/L	1	3/5/2021 11:58:00 AM
Manganese	32.1	20.0		µg/L	1	3/5/2021 11:58:00 AM
Potassium	5670	50.0		µg/L	1	3/5/2021 11:58:00 AM
Selenium	ND	5.00		µg/L	1	3/5/2021 11:58:00 AM
Sodium	29600	500		µg/L	1	3/5/2021 11:58:00 AM

HARDNESS - EPA 200.7 REV 4.4

Analyst: **KH**

Total Hardness (As CaCO3)	247	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0

Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:16:12 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1

Analyst: **CC**

Chloride	66.1	2.00		mg/L	2	3/23/2021 7:31:42 PM
Sulfate	37.9	2.00		mg/L	2	3/23/2021 7:31:42 PM

ALKALINITY TO PH 4.5 -SM 2320B-2011

Analyst: **CP**

Alkalinity, Total (As CaCO3)	120	10		mgCaCO3/L	1	3/15/2021 10:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0

Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/18/2021 11:25:43 AM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Keuka Upstream
Collection Date: 3/1/2021 2:15:00 PM
Lab Sample ID: 210303020-019
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	571	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	495	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Keuka Downstream
Collection Date: 3/1/2021 1:48:00 PM
Lab Sample ID: 210303020-020
Matrix: SURFACE WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	7.3	0.10		mg/L		3/1/2021 1:48:00 PM
pH (E150.1)	8.3			S.U.		3/1/2021 1:48:00 PM
Temperature (E170.1)	2			deg C		3/1/2021 1:48:00 PM
Turbidity (E180.1)	852	1.0		NTU		3/1/2021 1:48:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	273	100		µg/L	1	3/5/2021 12:03:00 PM
Arsenic	9.26	5.00		µg/L	1	3/5/2021 12:03:00 PM
Boron	ND	50.0		µg/L	1	3/5/2021 12:03:00 PM
Cadmium	ND	5.00		µg/L	1	3/5/2021 12:03:00 PM
Calcium	73000	50.0		µg/L	1	3/5/2021 12:03:00 PM
Copper	ND	5.00		µg/L	1	3/5/2021 12:03:00 PM
Iron	600	50.0		µg/L	1	3/5/2021 12:03:00 PM
Magnesium	16800	50.0		µg/L	1	3/5/2021 12:03:00 PM
Manganese	40.4	20.0		µg/L	1	3/5/2021 12:03:00 PM
Potassium	5590	50.0		µg/L	1	3/5/2021 12:03:00 PM
Selenium	ND	5.00		µg/L	1	3/5/2021 12:03:00 PM
Sodium	28200	500		µg/L	1	3/5/2021 12:03:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	251	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:17:53 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	64.7	2.00		mg/L	2	3/23/2021 11:40:59 PM
Sulfate	37.7	2.00		mg/L	2	3/23/2021 11:40:59 PM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	120	10		mgCaCO3/L	1	3/15/2021 10:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/18/2021 11:27:21 AM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Keuka Downstream
Collection Date: 3/1/2021 1:48:00 PM
Lab Sample ID: 210303020-020
Matrix: SURFACE WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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CONDUCTANCE AT 25C - SM 2510B-2011 Analyst: **BG**

Specific Conductance	569	1		µmhos/cm	1	3/17/2021
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TOTAL DISSOLVED SOLIDS - SM 2540C-2011 Analyst: **JH**

TDS (Residue, Filterable)	470	5		mg/L	1	3/8/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Surface Water Dup
Collection Date: 3/1/2021 2:15:00 PM
Lab Sample ID: 210303020-021
Matrix: SURFACE WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	8.02	0.10		mg/L		3/1/2021 2:15:00 PM
pH (E150.1)	8.3			S.U.		3/1/2021 2:15:00 PM
Temperature (E170.1)	2			deg C		3/1/2021 2:15:00 PM
Turbidity (E180.1)	743	1.0		NTU		3/1/2021 2:15:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	282	100		µg/L	1	3/5/2021 12:07:00 PM
Arsenic	7.87	5.00		µg/L	1	3/5/2021 12:07:00 PM
Boron	ND	50.0		µg/L	1	3/5/2021 12:07:00 PM
Cadmium	ND	5.00		µg/L	1	3/5/2021 12:07:00 PM
Calcium	72300	50.0		µg/L	1	3/5/2021 12:07:00 PM
Copper	ND	5.00		µg/L	1	3/5/2021 12:07:00 PM
Iron	604	50.0		µg/L	1	3/5/2021 12:07:00 PM
Magnesium	16500	50.0		µg/L	1	3/5/2021 12:07:00 PM
Manganese	30.7	20.0		µg/L	1	3/5/2021 12:07:00 PM
Potassium	5520	50.0		µg/L	1	3/5/2021 12:07:00 PM
Selenium	ND	5.00		µg/L	1	3/5/2021 12:07:00 PM
Sodium	28900	500		µg/L	1	3/5/2021 12:07:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	248	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:19:34 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	66.4	2.00		mg/L	2	3/24/2021 12:59:13 AM
Sulfate	38.0	2.00		mg/L	2	3/24/2021 12:59:13 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	130	10		mgCaCO3/L	1	3/15/2021 10:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/18/2021 11:28:59 AM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Surface Water Dup
Collection Date: 3/1/2021 2:15:00 PM
Lab Sample ID: 210303020-021
Matrix: SURFACE WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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CONDUCTANCE AT 25C - SM 2510B-2011 Analyst: **BG**

Specific Conductance	567	1		µmhos/cm	1	3/17/2021
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TOTAL DISSOLVED SOLIDS - SM 2540C-2011 Analyst: **JH**

TDS (Residue, Filterable)	530	5		mg/L	1	3/8/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Pond Grab
Collection Date: 3/1/2021 2:28:00 PM
Lab Sample ID: 210303020-022
Matrix: SURFACE WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	4.72	0.10		mg/L		3/1/2021 2:28:00 PM
pH (E150.1)	8.2			S.U.		3/1/2021 2:28:00 PM
Temperature (E170.1)	1			deg C		3/1/2021 2:28:00 PM
Turbidity (E180.1)	101	1.0		NTU		3/1/2021 2:28:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/5/2021 12:12:00 PM
Arsenic	10.6	5.00		µg/L	1	3/5/2021 12:12:00 PM
Boron	3660	50.0		µg/L	1	3/5/2021 12:12:00 PM
Cadmium	ND	5.00		µg/L	1	3/5/2021 12:12:00 PM
Calcium	86000	50.0		µg/L	1	3/5/2021 12:12:00 PM
Copper	ND	5.00		µg/L	1	3/5/2021 12:12:00 PM
Iron	150	50.0		µg/L	1	3/5/2021 12:12:00 PM
Magnesium	15100	50.0		µg/L	1	3/5/2021 12:12:00 PM
Manganese	34.7	20.0		µg/L	1	3/5/2021 12:12:00 PM
Potassium	15600	50.0		µg/L	1	3/5/2021 12:12:00 PM
Selenium	ND	5.00		µg/L	1	3/5/2021 12:12:00 PM
Sodium	36300	500		µg/L	1	3/5/2021 12:12:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	277	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:21:16 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	47.2	10.0		mg/L	10	3/24/2021 1:18:32 AM
Sulfate	239	10.0		mg/L	10	3/24/2021 1:18:32 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	44	4		mgCaCO3/L	1	3/15/2021 10:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/18/2021 11:30:40 AM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Pond Grab
Collection Date: 3/1/2021 2:28:00 PM
Lab Sample ID: 210303020-022
Matrix: SURFACE WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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CONDUCTANCE AT 25C - SM 2510B-2011 Analyst: **BG**

Specific Conductance	717	1		µmhos/cm	1	3/17/2021
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TOTAL DISSOLVED SOLIDS - SM 2540C-2011 Analyst: **JH**

TDS (Residue, Filterable)	560	5		mg/L	1	3/8/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Field Blank
Collection Date: 3/1/2021 1:20:00 PM
Lab Sample ID: 210303020-023
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

Dissolved Oxygen (E360.1)	2.41	0.10		mg/L		3/1/2021 1:20:00 PM
pH (E150.1)	7.1			S.U.		3/1/2021 1:20:00 PM
Temperature (E170.1)	2			deg C		3/1/2021 1:20:00 PM
Turbidity (E180.1)	< 1	1.0		NTU		3/1/2021 1:20:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/5/2021 12:16:00 PM
Arsenic	ND	5.00		µg/L	1	3/5/2021 12:16:00 PM
Boron	ND	50.0		µg/L	1	3/5/2021 12:16:00 PM
Cadmium	ND	5.00		µg/L	1	3/5/2021 12:16:00 PM
Calcium	59.8	50.0		µg/L	1	3/5/2021 12:16:00 PM
Copper	ND	5.00		µg/L	1	3/5/2021 12:16:00 PM
Iron	ND	50.0		µg/L	1	3/5/2021 12:16:00 PM
Magnesium	ND	50.0		µg/L	1	3/5/2021 12:16:00 PM
Manganese	ND	20.0		µg/L	1	3/5/2021 12:16:00 PM
Potassium	ND	50.0		µg/L	1	3/5/2021 12:16:00 PM
Selenium	ND	5.00		µg/L	1	3/5/2021 12:16:00 PM
Sodium	ND	500		µg/L	1	3/5/2021 12:16:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	ND	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:22:58 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	ND	2.00		mg/L	2	3/24/2021 1:37:34 AM
Sulfate	ND	2.00		mg/L	2	3/24/2021 1:37:34 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	4	1		mgCaCO3/L	1	3/15/2021 10:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/18/2021 12:10:03 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: Field Blank
Collection Date: 3/1/2021 1:20:00 PM
Lab Sample ID: 210303020-023
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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CONDUCTANCE AT 25C - SM 2510B-2011 Analyst: **BG**

Specific Conductance	1	1		µmhos/cm	1	3/17/2021
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TOTAL DISSOLVED SOLIDS - SM 2540C-2011 Analyst: **JH**

TDS (Residue, Filterable)	160	5		mg/L	1	3/8/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: LLHg Field Blank
Collection Date: 3/1/2021 1:15:00 PM
Lab Sample ID: 210303020-024
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LOW LEVEL MERCURY - EPA 1631E						Analyst: WB
(Prep: 1631E - 3/3/2021)						
Mercury	2.0	0.5		ng/L	1	3/4/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8401
Collection Date: 3/1/2021 4:20:00 PM
Lab Sample ID: 210303020-025
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: **FLD**

pH (E150.1)	7.2			S.U.		3/1/2021 4:20:00 PM
Temperature (E170.1)	5			deg C		3/1/2021 4:20:00 PM
Turbidity (E180.1)	3	1.0		NTU		3/1/2021 4:20:00 PM

ICP METALS - EPA 200.7 Analyst: **KH**
 (Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/5/2021 12:21:00 PM
Arsenic	8.56	5.00		µg/L	1	3/5/2021 12:21:00 PM
Boron	829	50.0		µg/L	1	3/5/2021 12:21:00 PM
Cadmium	ND	5.00		µg/L	1	3/5/2021 12:21:00 PM
Calcium	94400	50.0		µg/L	1	3/5/2021 12:21:00 PM
Copper	ND	5.00		µg/L	1	3/5/2021 12:21:00 PM
Iron	256	50.0		µg/L	1	3/5/2021 12:21:00 PM
Magnesium	26000	50.0		µg/L	1	3/5/2021 12:21:00 PM
Manganese	71.6	20.0		µg/L	1	3/5/2021 12:21:00 PM
Potassium	2630	50.0		µg/L	1	3/5/2021 12:21:00 PM
Selenium	ND	5.00		µg/L	1	3/5/2021 12:21:00 PM
Sodium	90300	5000		µg/L	10	3/5/2021 12:27:00 PM

HARDNESS - EPA 200.7 REV 4.4 Analyst: **KH**

Total Hardness (As CaCO3)	343	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0 Analyst: **AVB**
 (Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:24:40 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1 Analyst: **CC**

Chloride	66.2	2.00	N	mg/L	2	3/24/2021 1:56:36 AM
Sulfate	99.5	2.00	N	mg/L	2	3/24/2021 1:56:36 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011 Analyst: **CP**

Alkalinity, Total (As CaCO3)	340	10		mgCaCO3/L	1	3/15/2021 10:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0 Analyst: **KB**

Nitrogen, Ammonia (As N)	1.0	0.1		mg/L	1	3/18/2021 12:14:57 PM
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC

Client Sample ID: 8401

Work Order: **210303020**

Collection Date: 3/1/2021 4:20:00 PM

Reference: Lockwood Ash Landfill / Quarterly

Lab Sample ID: 210303020-025

PO#: 20-0099AC

Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	955	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	595	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: GW-DEP-Drain 3
Collection Date: 3/1/2021
Lab Sample ID: 210303020-026
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

Dissolved Oxygen (E360.1)	5.31	0.10		mg/L		3/1/2021
Flow, GPD	1712			gal/day		3/1/2021
pH (E150.1)	7.4			S.U.		3/1/2021
Temperature (E170.1)	4			deg C		3/1/2021
Turbidity (E180.1)	56	1.0		NTU		3/1/2021

ICP METALS - EPA 200.7

Analyst: **KH**

(Prep: SW3010A - 3/4/2021)

Aluminum	ND	100		µg/L	1	3/5/2021 12:55:00 PM
Arsenic	5.02	5.00		µg/L	1	3/5/2021 12:55:00 PM
Boron	73.6	50.0		µg/L	1	3/5/2021 12:55:00 PM
Cadmium	ND	5.00		µg/L	1	3/5/2021 12:55:00 PM
Calcium	102000	50.0		µg/L	1	3/5/2021 12:55:00 PM
Copper	ND	5.00		µg/L	1	3/5/2021 12:55:00 PM
Iron	ND	50.0		µg/L	1	3/5/2021 12:55:00 PM
Magnesium	23400	50.0		µg/L	1	3/5/2021 12:55:00 PM
Manganese	ND	20.0		µg/L	1	3/5/2021 12:55:00 PM
Potassium	2370	50.0		µg/L	1	3/5/2021 12:55:00 PM
Selenium	ND	5.00		µg/L	1	3/5/2021 12:55:00 PM
Sodium	6360	500		µg/L	1	3/5/2021 12:55:00 PM

HARDNESS - EPA 200.7 REV 4.4

Analyst: **KH**

Total Hardness (As CaCO3)	350	5		mg/L CaCO3	1	3/5/2021
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MERCURY - EPA 245.1 REV 3.0

Analyst: **AVB**

(Prep: E245.1 - 3/3/2021)

Mercury	ND	0.0002		mg/L	1	3/4/2021 9:29:42 AM
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ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1

Analyst: **CC**

Chloride	2.93	2.00		mg/L	2	3/24/2021 2:34:39 AM
Sulfate	165	4.00		mg/L	2	3/24/2021 2:34:39 AM

ALKALINITY TO PH 4.5 -SM 2320B-2011

Analyst: **CP**

Alkalinity, Total (As CaCO3)	180	10	H	mgCaCO3/L	1	3/15/2021 10:00:00 AM
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AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0

Analyst: **KB**

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: GW-DEP-Drain 3
Collection Date: 3/1/2021
Lab Sample ID: 210303020-026
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0						Analyst: KB
Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	3/18/2021 12:16:38 PM
CONDUCTANCE AT 25C - SM 2510B-2011						Analyst: BG
Specific Conductance	641	1		µmhos/cm	1	3/17/2021
TOTAL DISSOLVED SOLIDS - SM 2540C-2011						Analyst: JH
TDS (Residue, Filterable)	475	5		mg/L	1	3/8/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: GW Dep Drain 2
Collection Date: 3/1/2021
Lab Sample ID: 210303020-027
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

Observation	Dry			NA		3/1/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: **210303020**
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: GW Dep Drain 4
Collection Date: 3/1/2021
Lab Sample ID: 210303020-028
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: FLD
Observation	Dry			NA		3/1/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC

Client Sample ID: Under Drain 5

Work Order: 210303020

Collection Date: 3/1/2021

Reference: Lockwood Ash Landfill / Quarterly

Lab Sample ID: 210303020-029

PO#: 20-0099AC

Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

Observation

Dry

NA

3/1/2021

Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC
Work Order: 210303020
Reference: Lockwood Ash Landfill / Quarterly
PO#: 20-0099AC

Client Sample ID: 8910-SH
Collection Date: 3/2/2021
Lab Sample ID: 210303020-030
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

Observation	Poor Recovery			NA		3/2/2021
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Adirondack Environmental Services, Inc

Date: 22-Jun-21

CLIENT: Lockwood Hills LLC

Client Sample ID: 8405

Work Order: 210303020

Collection Date: 3/1/2021

Reference: Lockwood Ash Landfill / Quarterly

Lab Sample ID: 210303020-031

PO#: 20-0099AC

Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Analyst: **FLD**

Observation

Dry

NA

3/1/2021



314 North Pearl Street
 Albany, New York 12207
 518-434-4546 ♦ Fax: 518-434-0891

CHAIN OF CUSTODY RECORD

AES Work Order#:

210303020

EXPERIENCE IS THE SOLUTION

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Client Name: Lockwood Hills LLC		Address:							
Send Report to: Dale Irwin		Project Name (Location): Lockwood Ash LF Quarterly			Samplers Name: <i>Ryan Bailely / Kevin Aubrey</i>				
Client Phone No:		PO #:			Samplers Signature: <i>[Signature]</i>				
Client Fax No:									
AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm	Sample Type			# of Cont's	Analysis	
				Matrix	C	G			
001	1842	3/2/21	0735	A P	GW		G	4	Lockwood Ash LF Quarterly
002	8404	3/1/21	1620	A P	GW		G	4	Field pH, Temp, Turbidity
003	8908-D	3/1/21	1510	A P	GW		G	4	
004	8908-SH	3/1/21	1520	A P	GW		G	4	
005	8909-D	3/1/21	1550	A P	GW		G	4	
006	8909-SH	3/1/21	1250	A P	GW		G	4	
007	8910-D	3/1/21	1350	A P	GW		G	4	
008	8911-D	3/1/21	1420	A P	GW		G	4	
009	8911-SH	3/2/21	0730	A P	GW		G	4	
010	8942-D	3/2/21	0930	A P	GW		G	4	
011	9306-SH	3/1/21	1640	A	GW		G	4	
012	GW Dup 8909-D	3/1/21	1550		GW		G	4	

Shipment Arrived Via:
 FedEx UPS Client AES Other: _____

Turnaround Time Requested:
 1 Day 3 Day Normal
 2 -Day 5 Day

Special Instructions/Remarks:
 Page 1 of 3

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received for Laboratory by: <i>[Signature]</i>	Date 3/3/21	Time 100am

Sample Temperature Ambient Chilled Chilling Process begun Notes: _____	Properly Preserved <input checked="" type="radio"/> Y <input type="radio"/> N Notes: _____	Received Within Holding Times <input checked="" type="radio"/> Y <input type="radio"/> N Notes: _____
-------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------



210303020



314 North Pearl Street
 Albany, New York 12207
 518-434-4546 ♦ Fax: 518-434-0891

CHAIN OF CUSTODY RECORD

AES Work Order#: 210303020

EXPERIENCE IS THE SOLUTION

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Client Name: Lockwood Hills LLC		Address:							
Send Report to: Dale Irwin		Project Name (Location): Lockwood Ash LF Quarterly			Samplers Name: <i>Ryan Baisley / Kevin Ambig</i>				
Client Phone No:		PO #:			Samplers Signature: <i>[Signature]</i>				
Client Fax No:									
AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm	Sample Type			# of Cont's	Analysis	
				Matrix	C	G			
C13	GW Dep Drain 1	3/1/21	1124	A P	GW		G	4	Lockwood Q Field pH, Temp, Turb, Field Flow Reading, DO
C14	Leak Detection Syst.	3/1/21	1050	A P	GW		G	4	"
C15	Under Drain 1	3/1/21	1312	A P	GW		G	5	"
C16	Under Drain 2	3/1/21	1105	A P	GW		G	4	"
C17	Under Drain 3	3/1/21	1017	A P	GW		G	4	"
C18	Inlet to Pond	3/1/21	1327	A P	GW		G	5	"
C19	Keuka Upstream	3/1/21	1415	A P	GW		G	4	Lockwood Quarterly Field pH, Temp, Turb, DO
C20	Keuka Downstream	3/1/21	1348	A P	SF		G	4	"
C21	Surface Water Dup	3/1/21	1415	A P	SF		G	4	"
C22	Pond Grab	3/1/21	1428	A P	SF		G	4	"
C23	Field Blank	3/1/21	1320	A	GW		G	4	"
C24	LLHg Field Blank	3/1/21	1315	P	GW		G	1	EPA 1631
Shipment Arrived Via: FedEx UPS Client <u>(AES)</u> Other: _____				Special Instructions/Remarks: Page 2 of 3					
Turnaround Time Requested: <input type="checkbox"/> 1 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> Normal <input type="checkbox"/> 2 -Day <input type="checkbox"/> 5 Day									
Relinquished by: (Signature)		Received by: (Signature)			Date	Time			
Relinquished by: (Signature)		Received by: (Signature)			Date	Time			
Relinquished by: (Signature)		Received for Laboratory by:			Date	Time			
<i>[Signature]</i>		<i>[Signature]</i>			3/3/21	1000am			
Sample Temperature Ambient <input checked="" type="checkbox"/> Chilled <input type="checkbox"/> Chilling Process begun		Properly Preserved <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			Received Within Holding Times <input checked="" type="checkbox"/> Y <input type="checkbox"/> N				
Notes: <u>40C</u>		Notes: _____			Notes: _____				



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CHAIN OF CUSTODY RECORD

AES Work Order#:

210303020

EXPERIENCE IS THE SOLUTION

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Client Name: Lockwood Hills LLC		Address:						
Send Report to: Dale Irwin		Project Name (Location): Lockwood Ash LF Quarterly			Samplers Name: Ryan Baigley / Kevin Ambrose			
Client Phone No:		PO #:			Samplers Signature: <i>[Signature]</i>			
Client Fax No:								
AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm	Sample Type			# of Cont's	Analysis
				Matrix	C	G		
025	8401	3/1/21	1620	GW			4	Lockwood Ash LF Quarterly Field pH, Temp, Turbidity,
026	GW Dep Drain 3	3/1/21		GW			4	Lockwood Q Field pH, Temp, Turb, Field Flow, DO
	GW Dep Drain 3	3/1/21		A P	GW		0	Observation Only
027	GW Dep Drain 2	3/1/21	1656	A P	GW		0	Observation Only
028	GW Dep Drain 4	3/1/21	1658	A P	GW		0	Observation Only
029	Under Drain 5	3/1/21	0940	A P	GW		0	Observation Only
030	8910-SH	3/2/21	0830	A P	GW		0	Observation Only
031	8405	3/1/21	1654	A P	GW		0	observation only
				A P				
				A P				
				A P				
				A P				
				A P				
Shipment Arrived Via: FedEx UPS Client AES Other: _____				Special Instructions/Remarks: Page 3 of 3				
Turnaround Time Requested: <input type="checkbox"/> 1 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> Normal <input type="checkbox"/> 2 -Day <input type="checkbox"/> 5 Day								
Relinquished by: (Signature)		Received by: (Signature)			Date	Time		
Relinquished by: (Signature)		Received by: (Signature)			Date	Time		
Relinquished by: (Signature)		Received for Laboratory by: <i>[Signature]</i>			Date 3/3/21	Time 1006am		
Sample Temperature Ambient <input checked="" type="checkbox"/> Chilled <input type="checkbox"/> Chilling Process begun		Properly Preserved <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			Received Within Holding Times <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			
Notes: <u>40C</u>		Notes: _____			Notes: _____			



Experience is the solution

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TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

- (a) Neither **Adirondack Environmental Services, Inc.**, nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.**'s performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.
- (b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.
- (c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.
- (d) In no event shall **Adirondack Environmental Services, Inc.**, its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.
- (e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**
- (f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.
- (g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

Lockwood Ash Disposal Site Second Quarter 2020

Collection Date	Sample ID	Depth	Elevation	Units
3/1/2021	8908-D	8.31	604.66	feet
3/1/2021	8909-D	45.71	516.19	feet
3/1/2021	8910-D	22.78	535.56	feet
3/1/2021	8911-D	29.64	527.27	feet
3/1/2021	8942-D	16.04	542.91	feet
3/1/2021	8908-SH	6.91	605.86	feet
3/1/2021	8909-SH	12.38	549.25	feet
3/1/2021	8910-SH	16.48	542.07	feet
3/1/2021	8911-SH	19.89	537.03	feet
3/1/2021	9306-SH	3.70	562.52	feet
3/1/2021	7741	24.42	563.63	feet
3/1/2021	1842	7.40	551.80	feet
3/1/2021	8406	16.16	553.39	feet
3/1/2021	8401	4.91	655.38	feet
3/1/2021	8402	8.51	655.58	feet
3/1/2021	8403	8.17	655.90	feet
3/1/2021	8404	4.60	598.13	feet
3/1/2021	8405	DRY	<556.01	feet

Attachment 2

Time-Series Plots – Routine Parameters in the Leachate and Monitoring Wells Updated Through 1st Quarter 2021

Table of Contents

Leachate Time-Series Plots (alphabetical order)	A2-2 thru A2-16
Monitoring Well Time-Series Plots (alphabetical order).....	A2-17 thru A2-45
Static Groundwater Level Time-Series Plots.....	A2-46 thru A2-47

ATTACHMENT 2

Time-Series Plots

Routine Parameters in the Leachate and Monitoring Wells

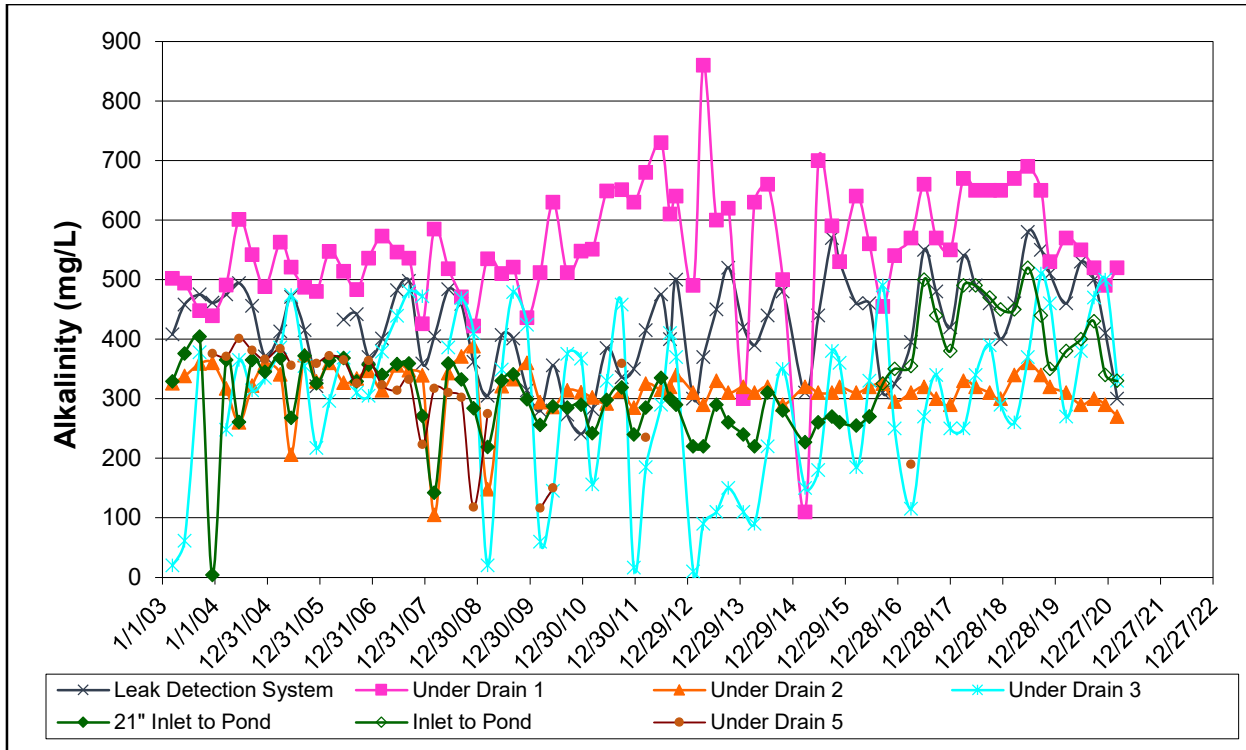
Updated Through 1st Quarter 2021

Table of Contents:

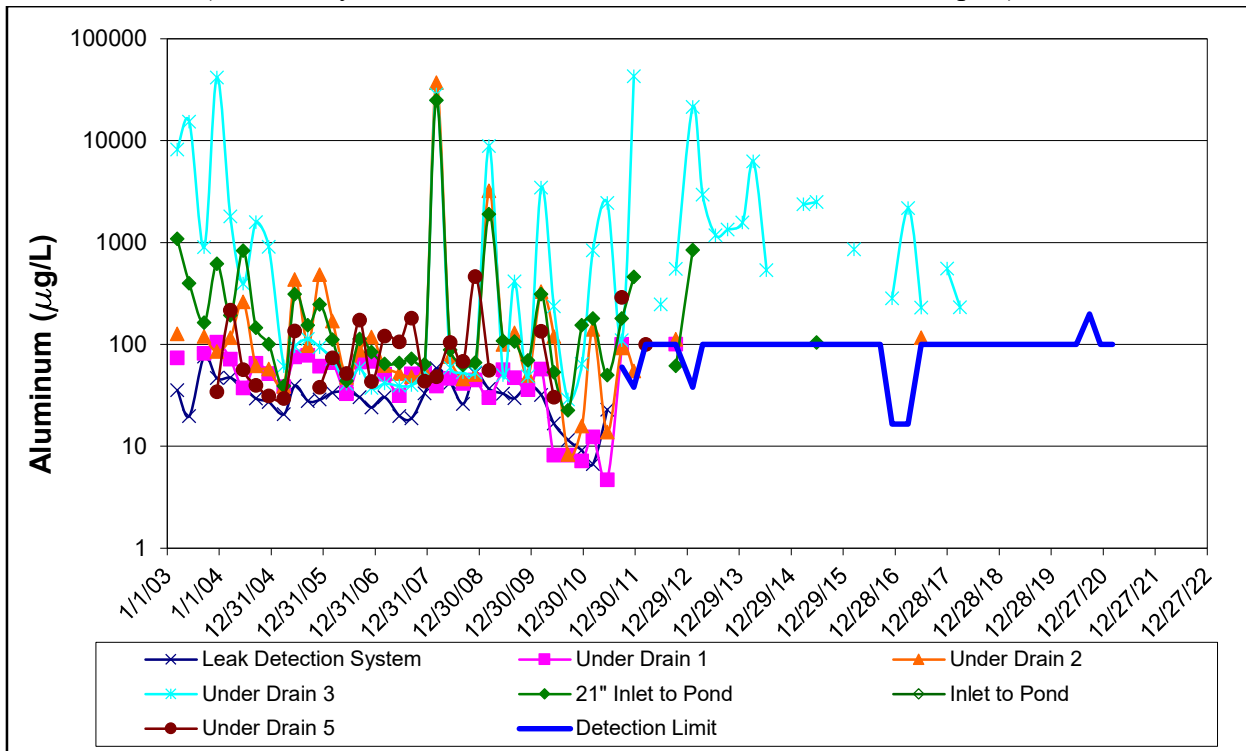
Leachate Time-Series Plots (alphabetical order).....	A2-2 thru A2-13
Monitoring Well Time-Series Plots (alphabetical order)	A2-14 thru A2-35
Static Groundwater Level Time-Series Plots.....	A2-36 thru A2-37

LEACHATE TIME-SERIES PLOTS

ALKALINITY

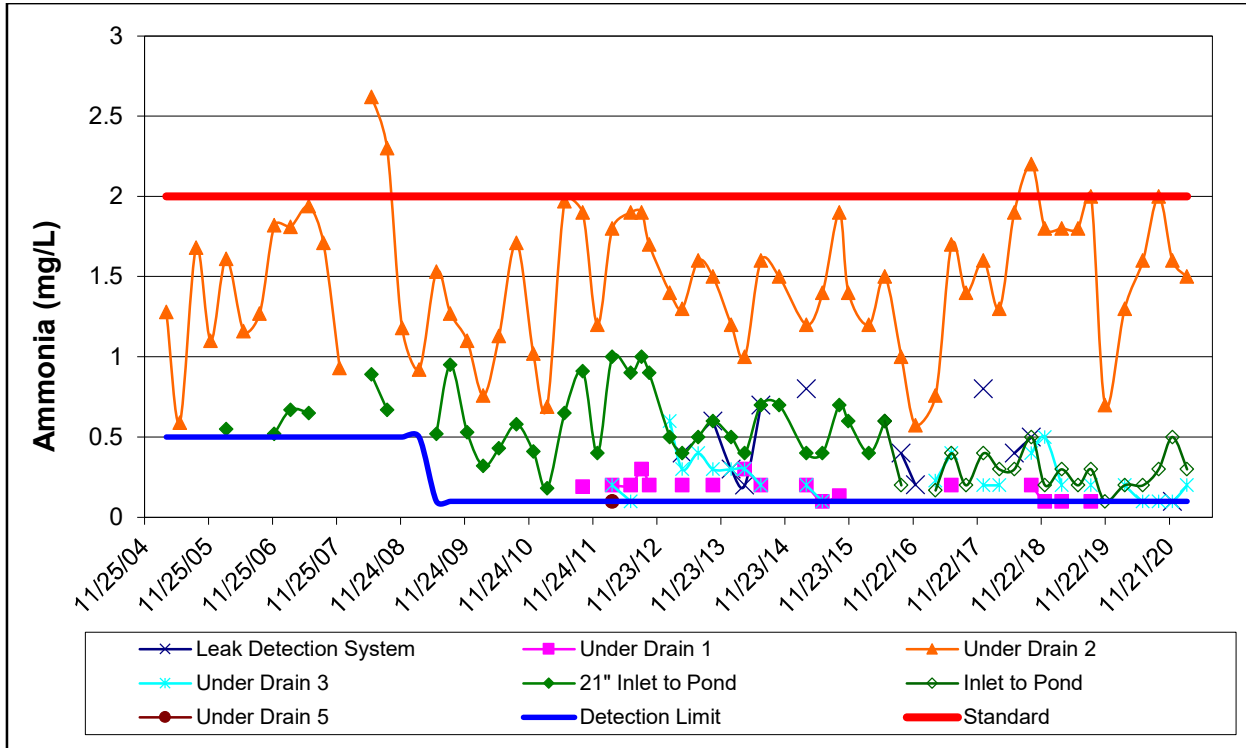


ALUMINUM (Note: Only data above detection has been included in this plot)

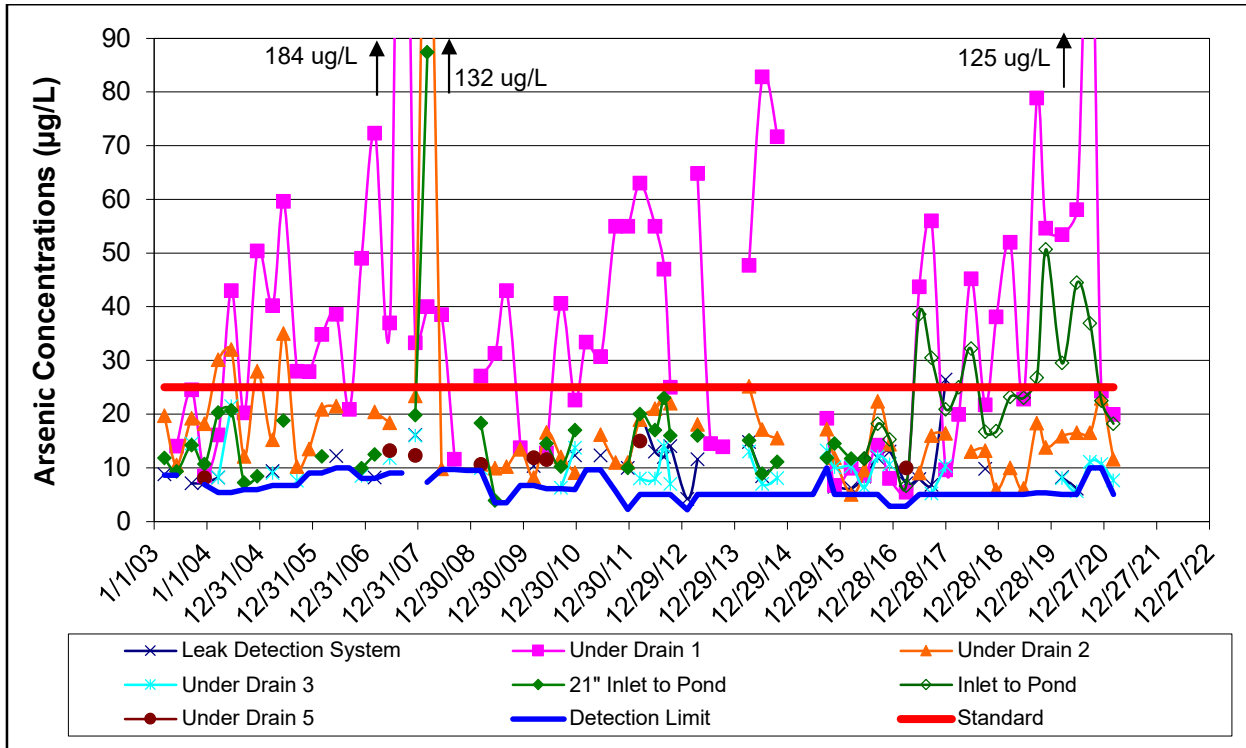


LEACHATE TIME-SERIES PLOTS, CONT.

AMMONIA (Note: Only data above detection has been included in this plot)

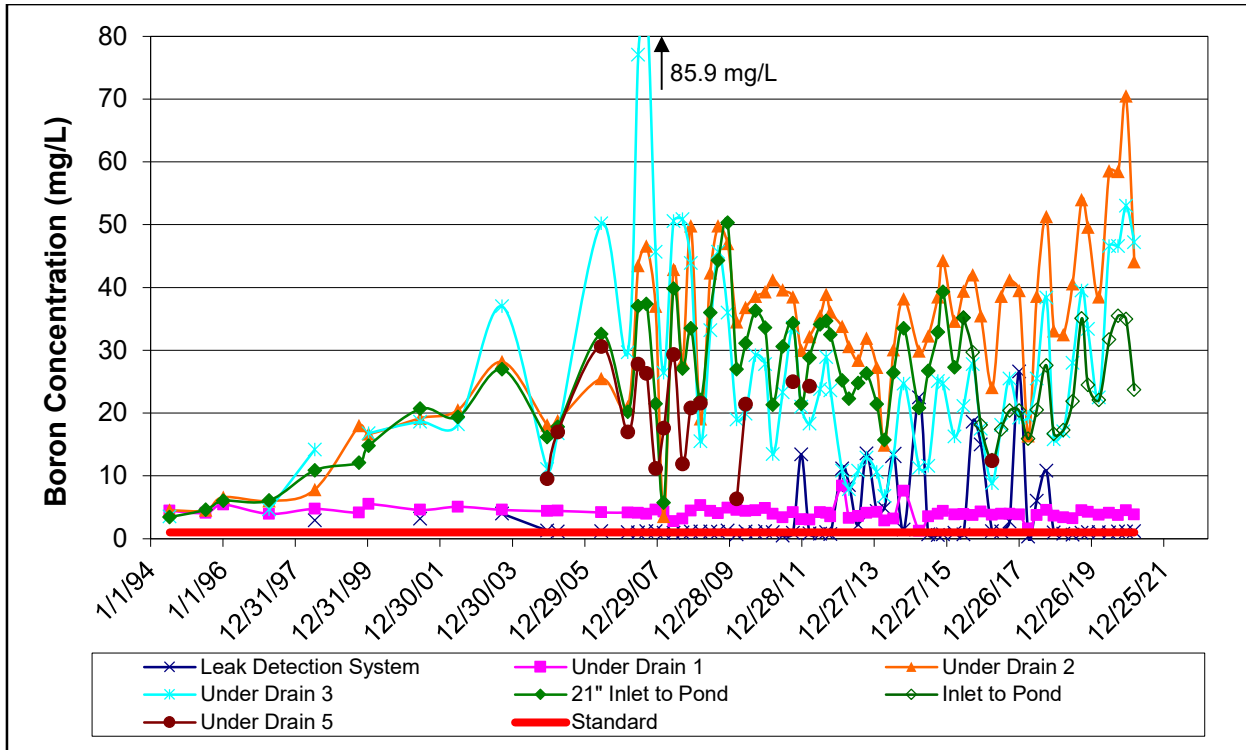


ARSENIC (Note: Only data above detection has been included in this plot)

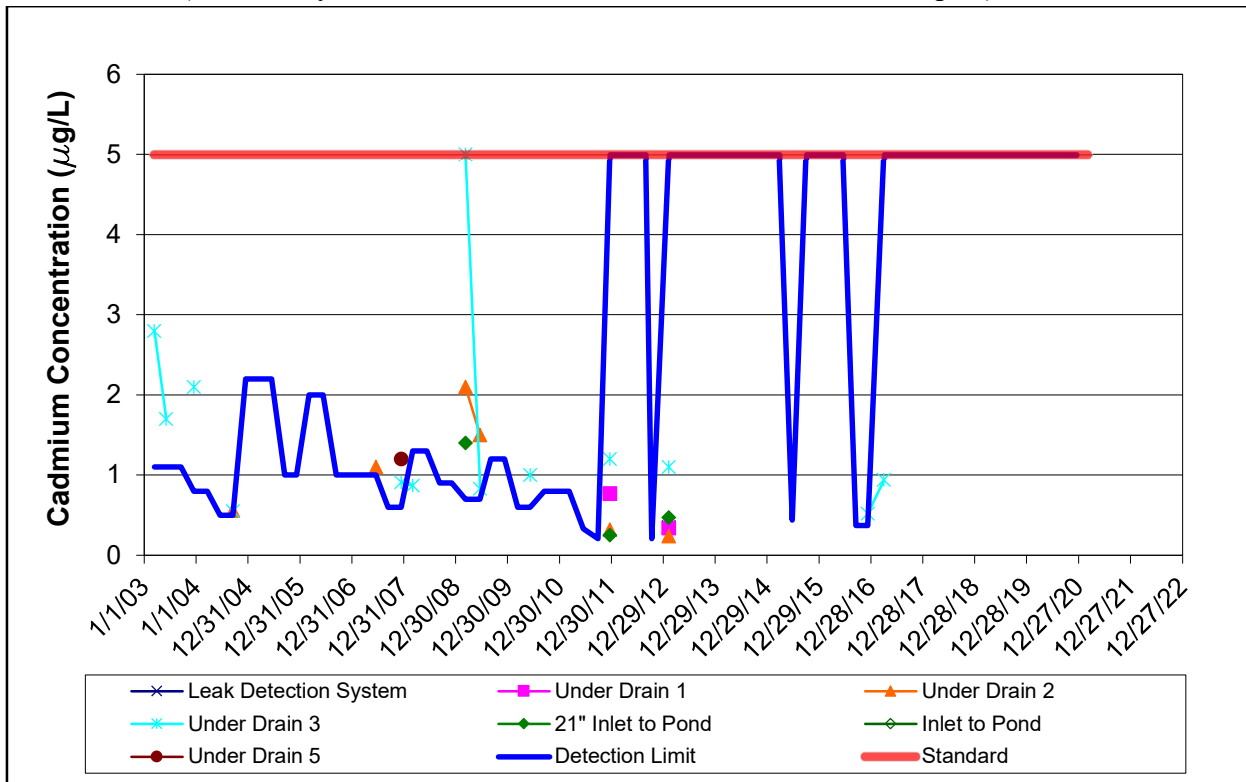


LEACHATE TIME-SERIES PLOTS, CONT.

BORON

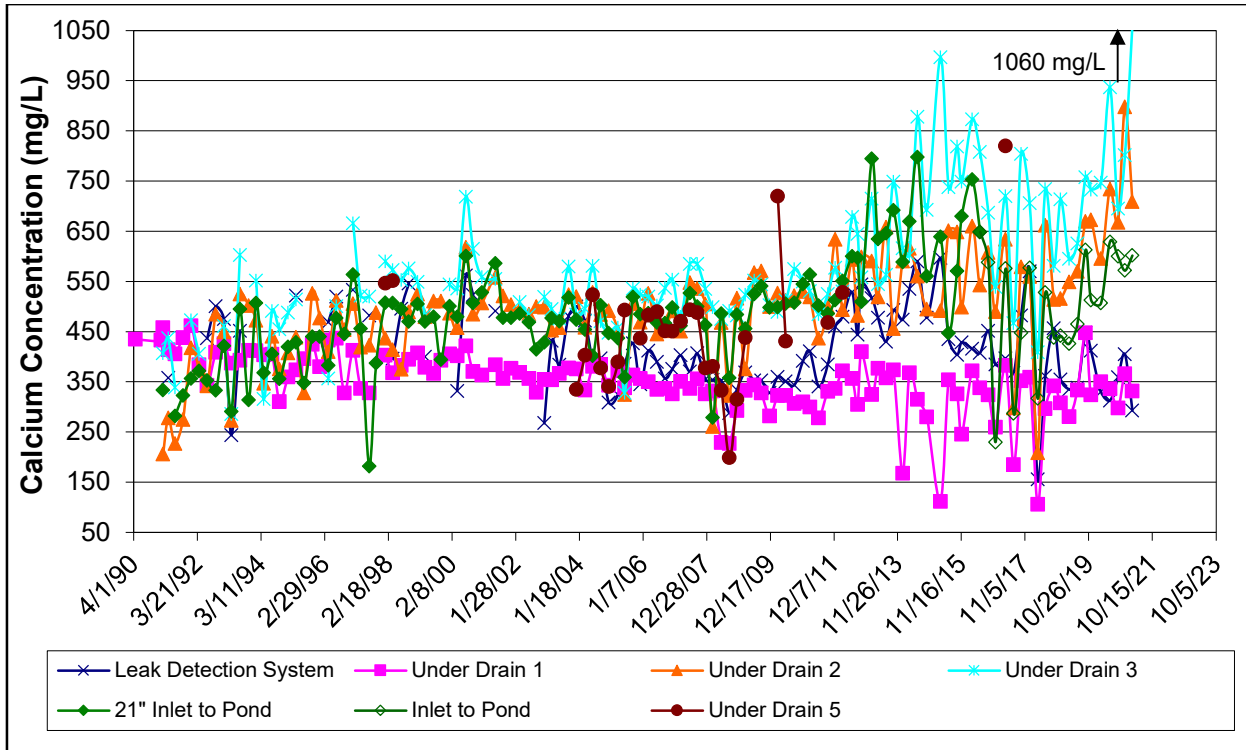


CADMIUM (Note: Only data above detection has been included in this plot)

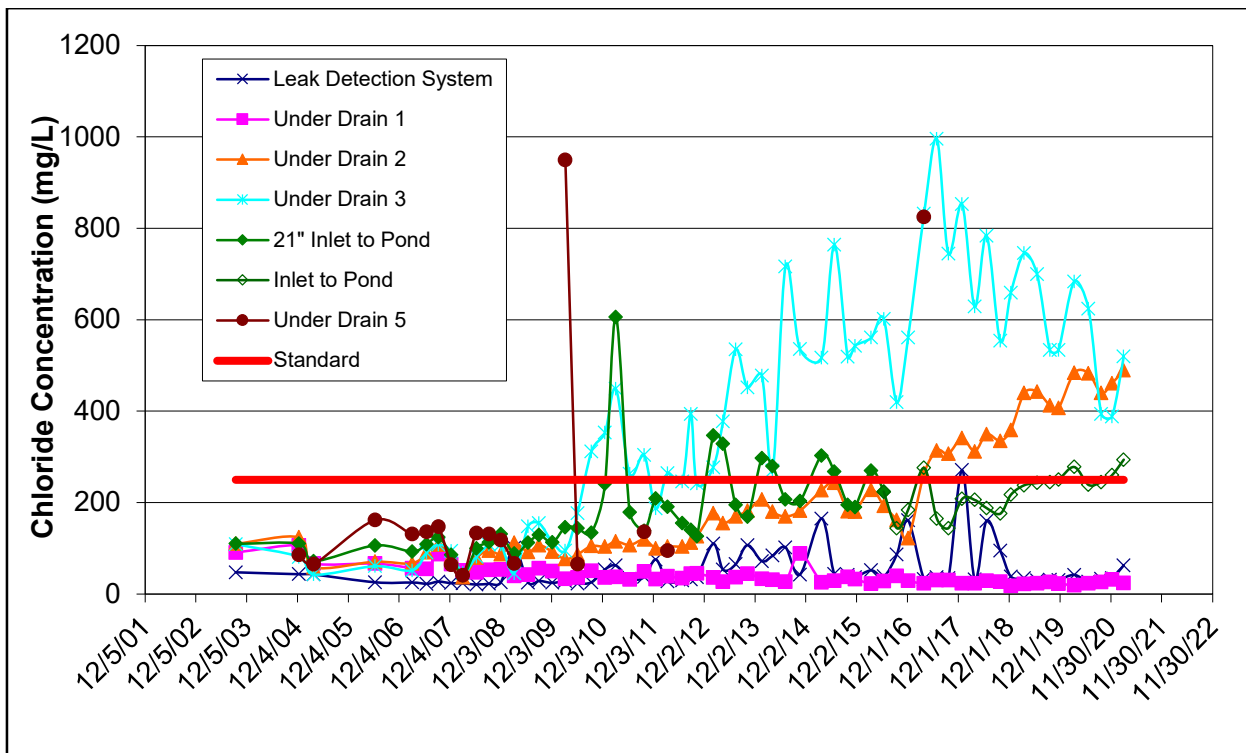


LEACHATE TIME-SERIES PLOTS, CONT.

CALCIUM

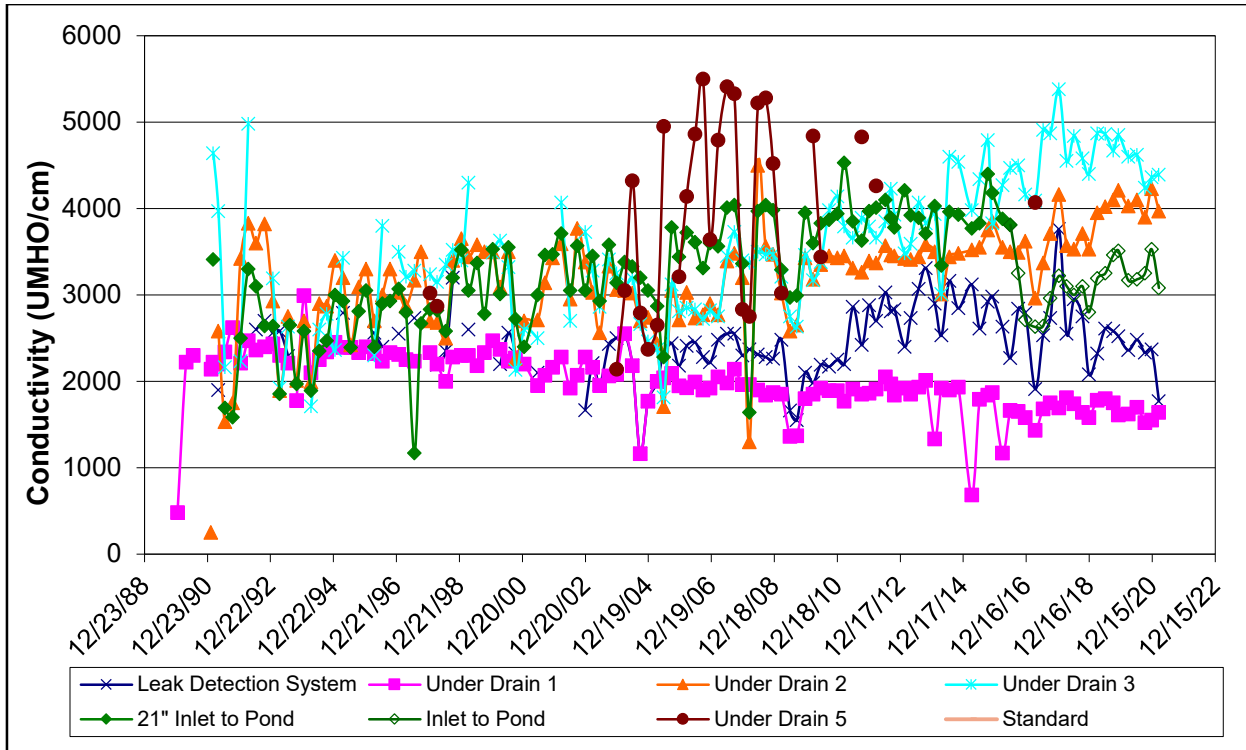


CHLORIDE

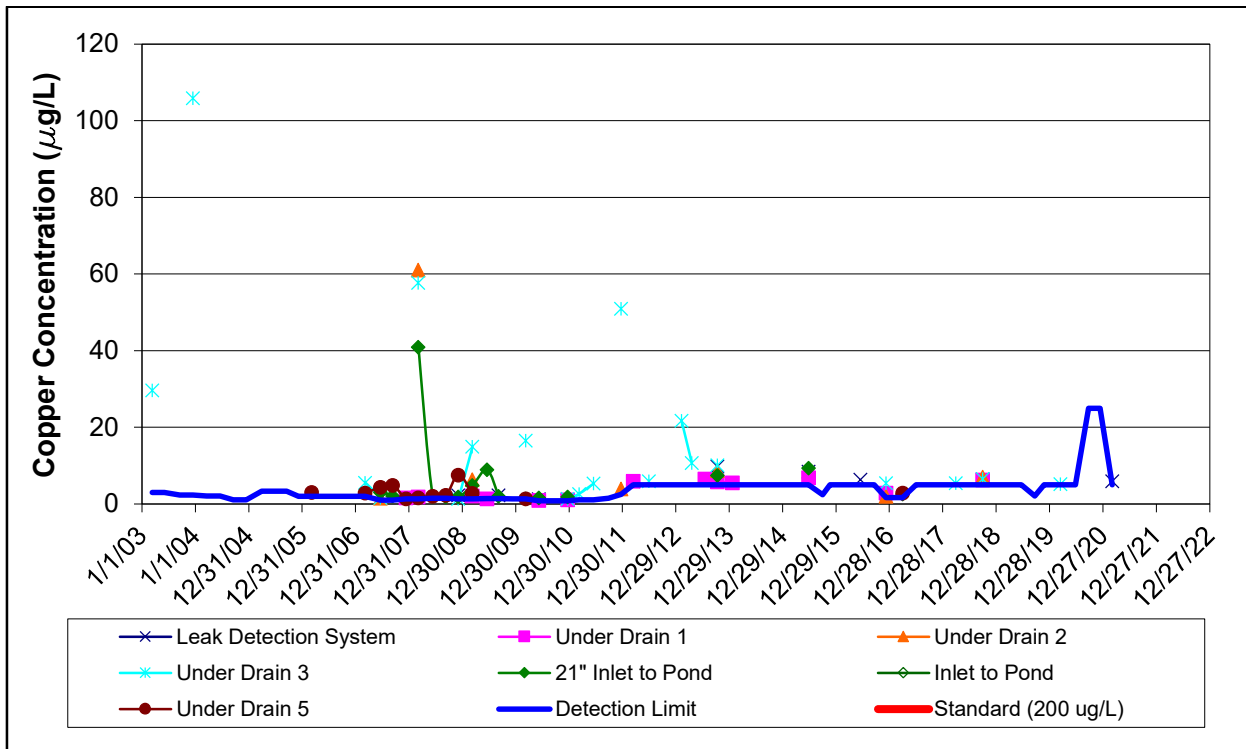


LEACHATE TIME-SERIES PLOTS, CONT.

CONDUCTIVITY

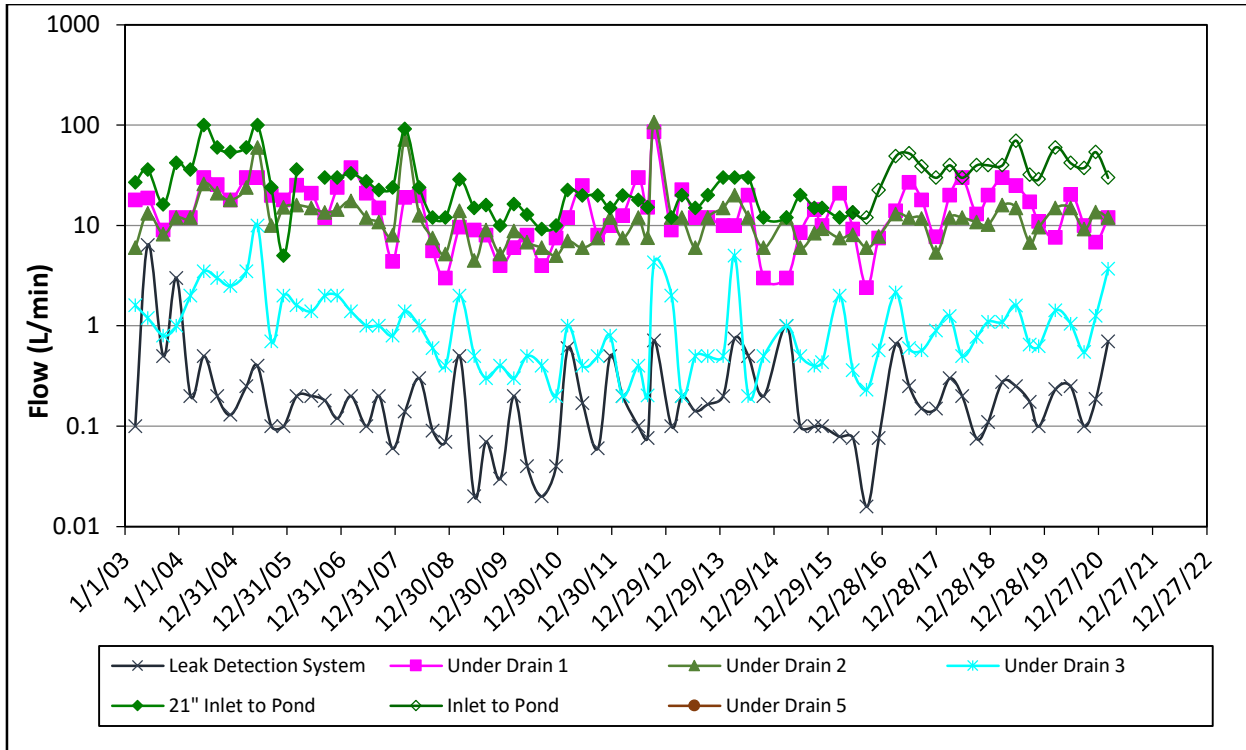


COPPER (Note: Only data above detection has been included in this plot)

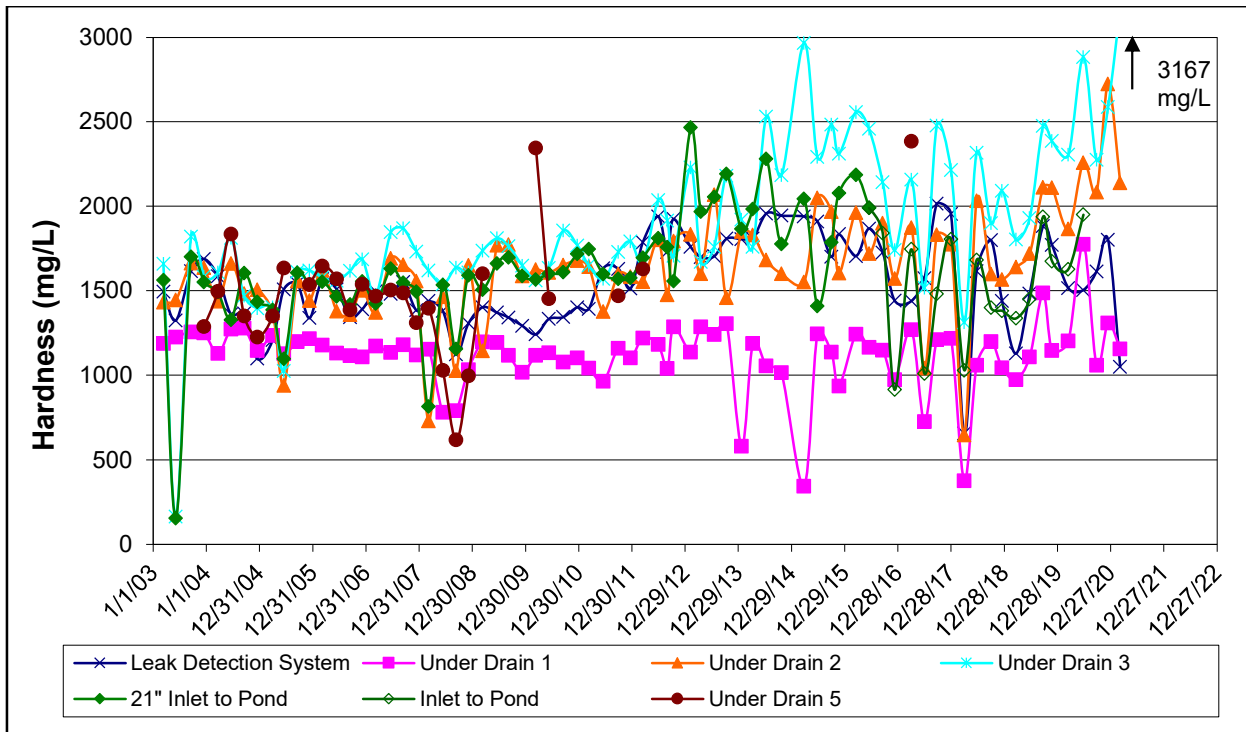


LEACHATE TIME-SERIES PLOTS, CONT.

FLOW

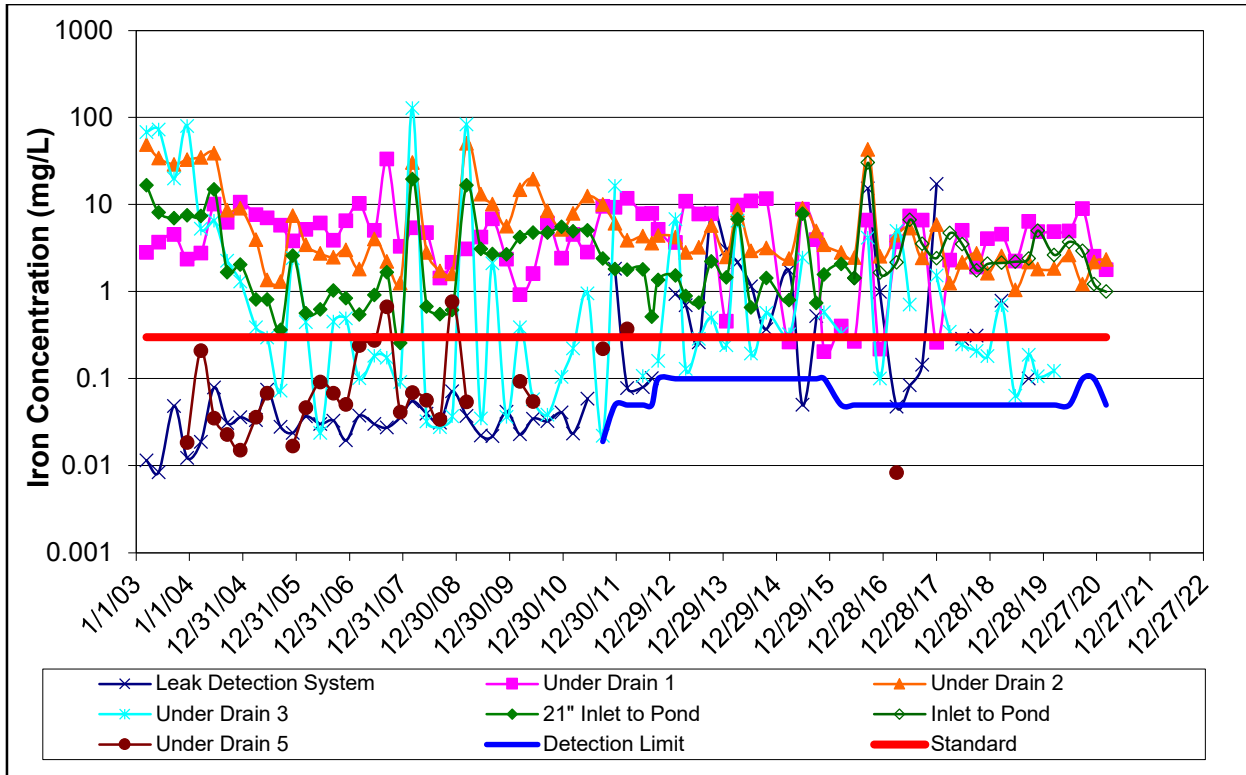


HARDNESS

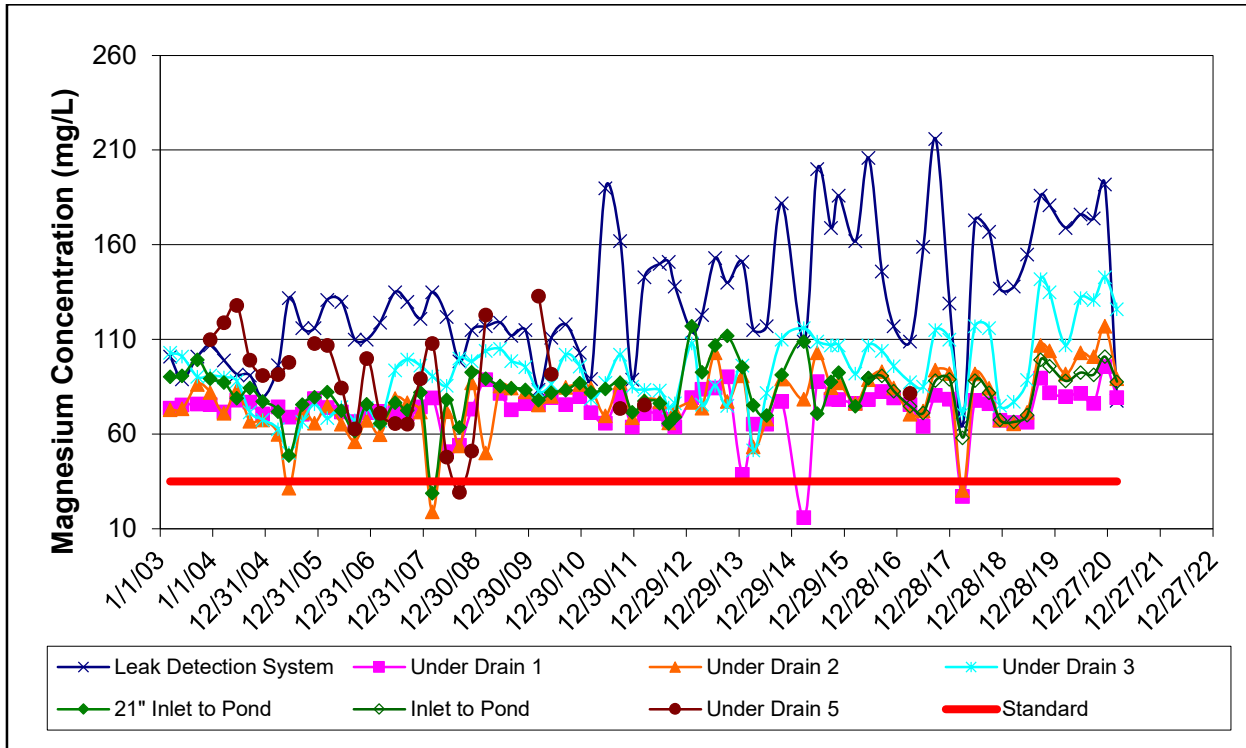


LEACHATE TIME-SERIES PLOTS, CONT.

IRON

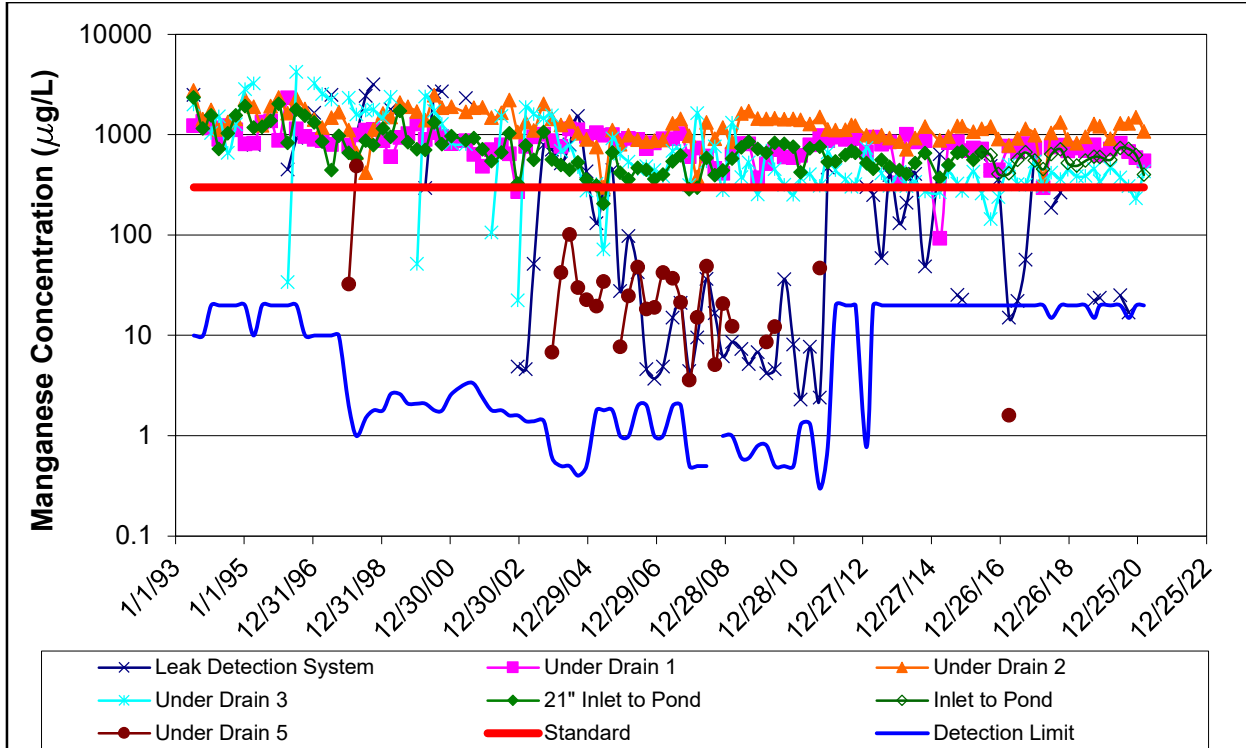


MAGNESIUM

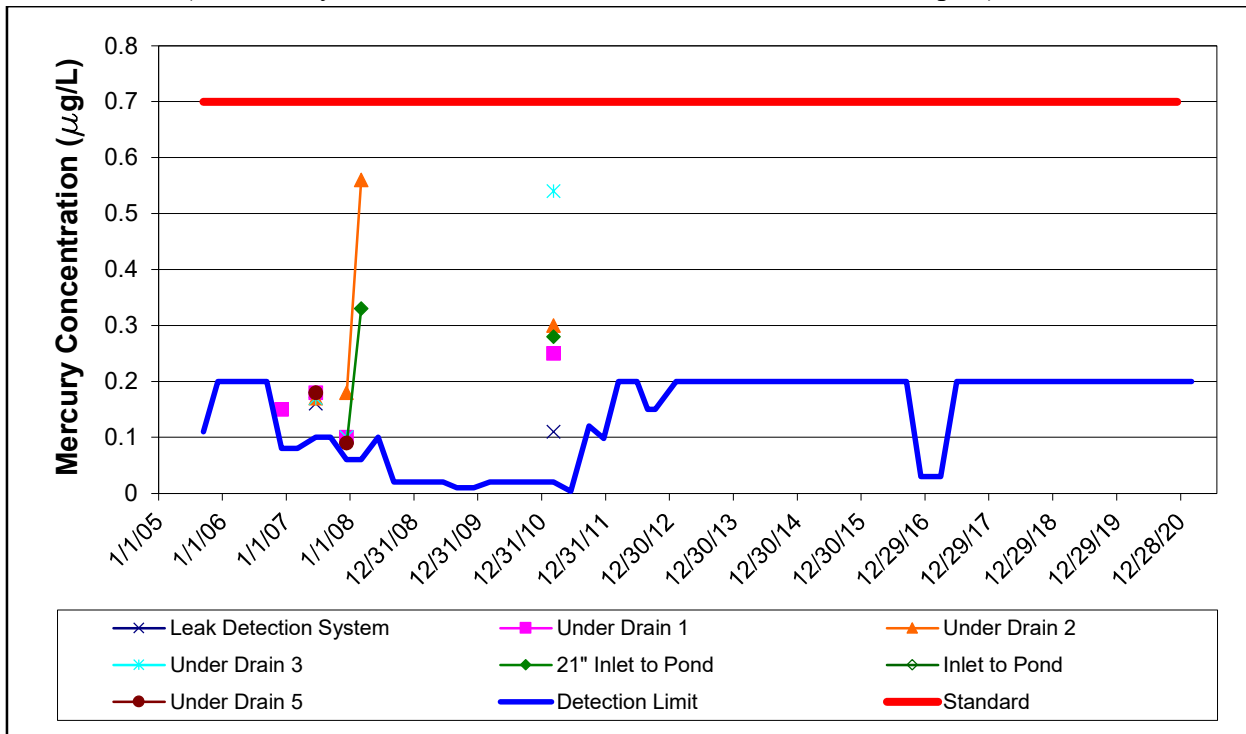


LEACHATE TIME-SERIES PLOTS, CONT.

MANGANESE (Note: Only data above detection has been included in this plot)

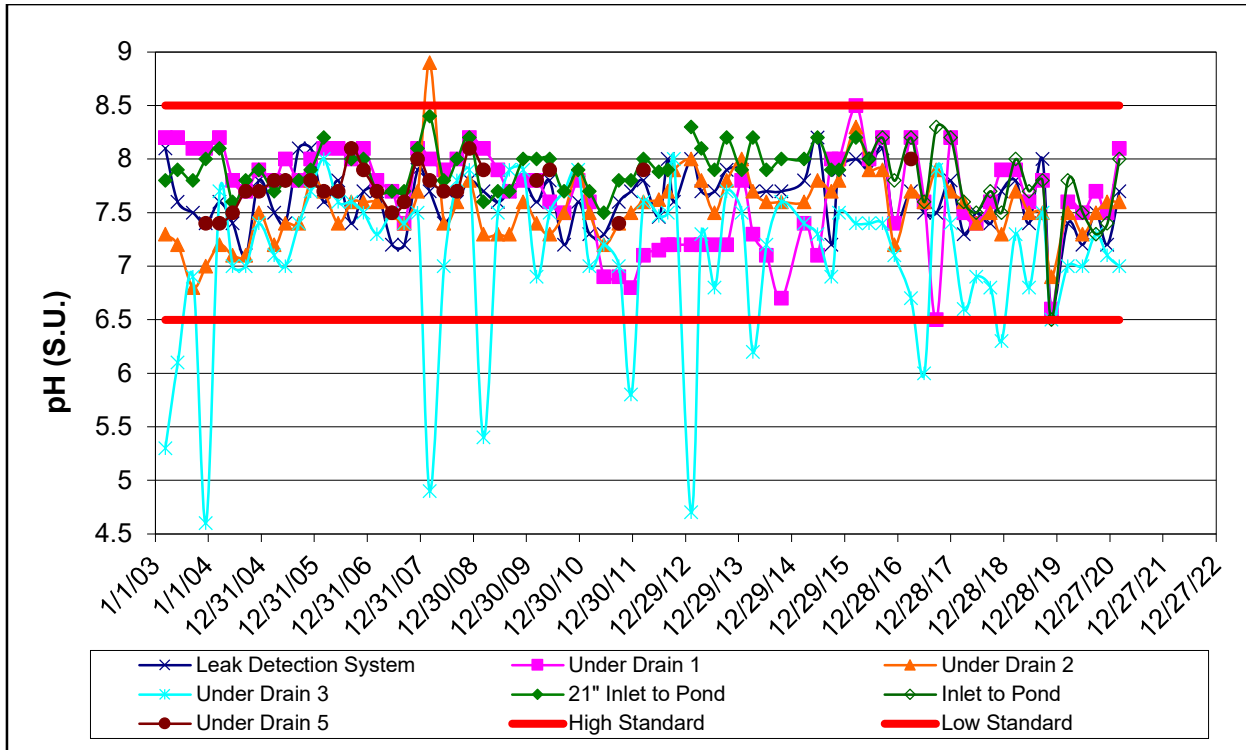


MERCURY (Note: Only data above detection has been included in this plot)

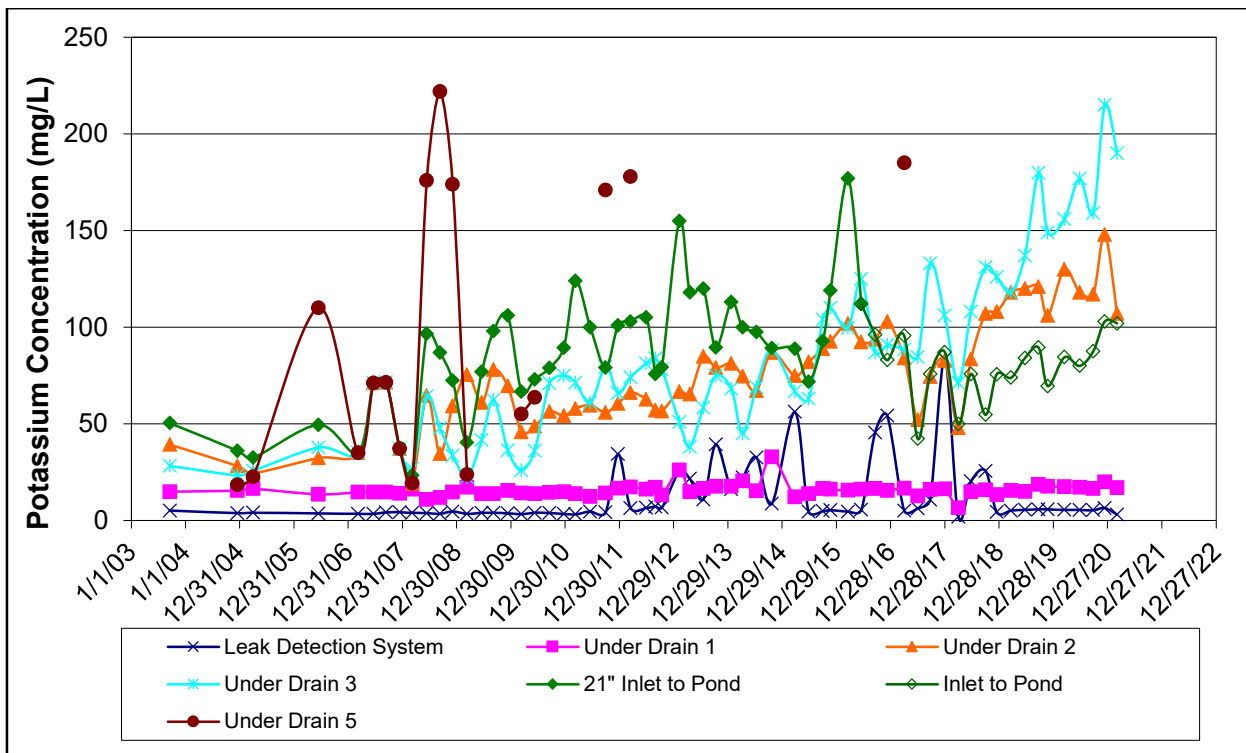


LEACHATE TIME-SERIES PLOTS, CONT.

pH

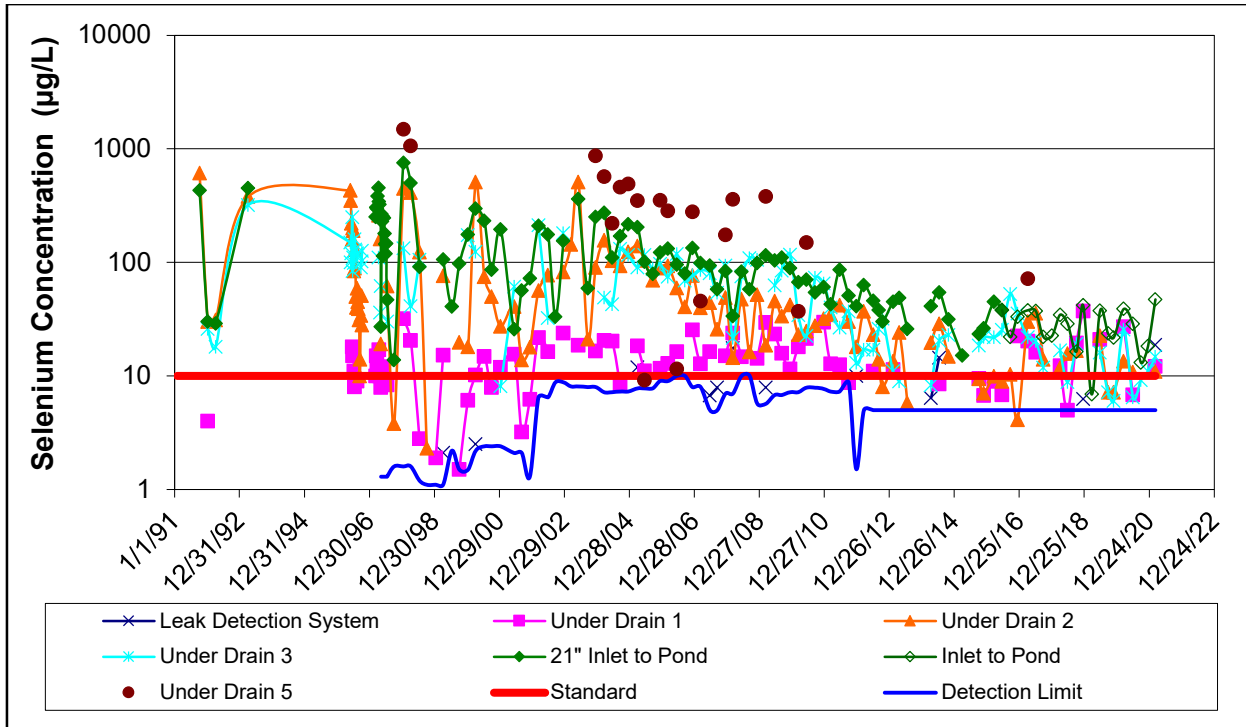


POTASSIUM

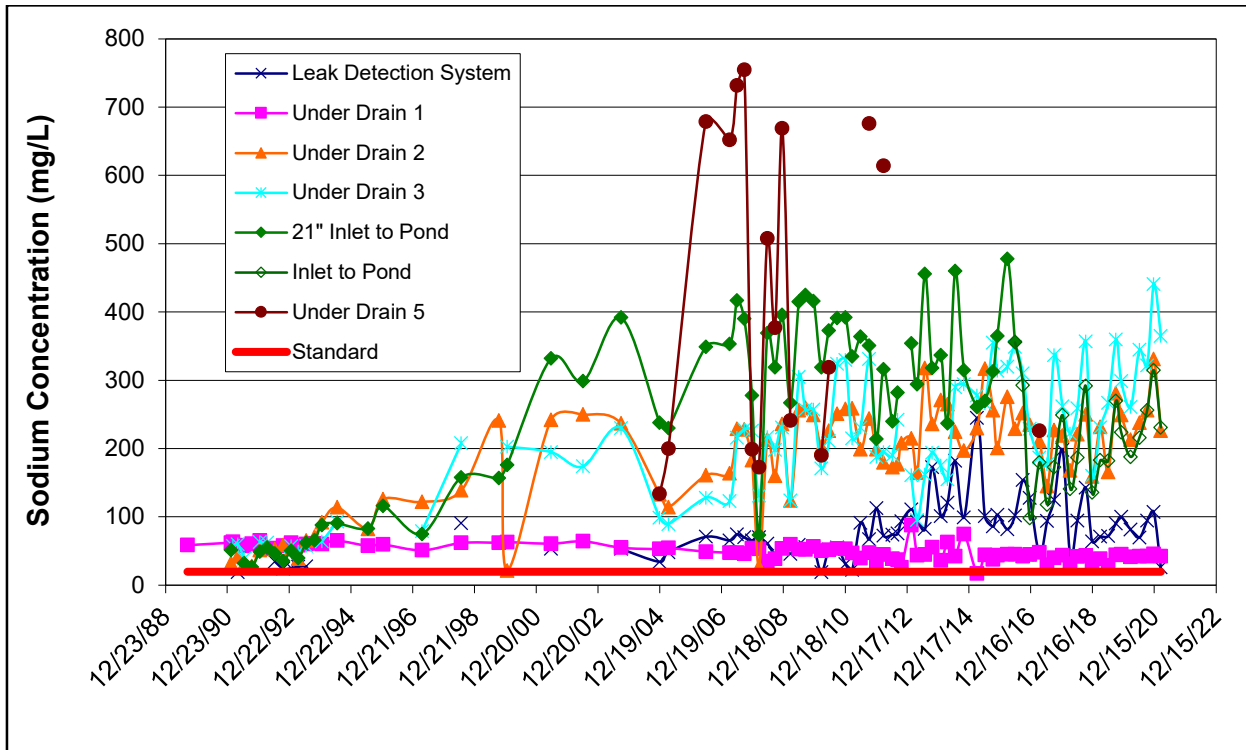


LEACHATE TIME-SERIES PLOTS, CONT.

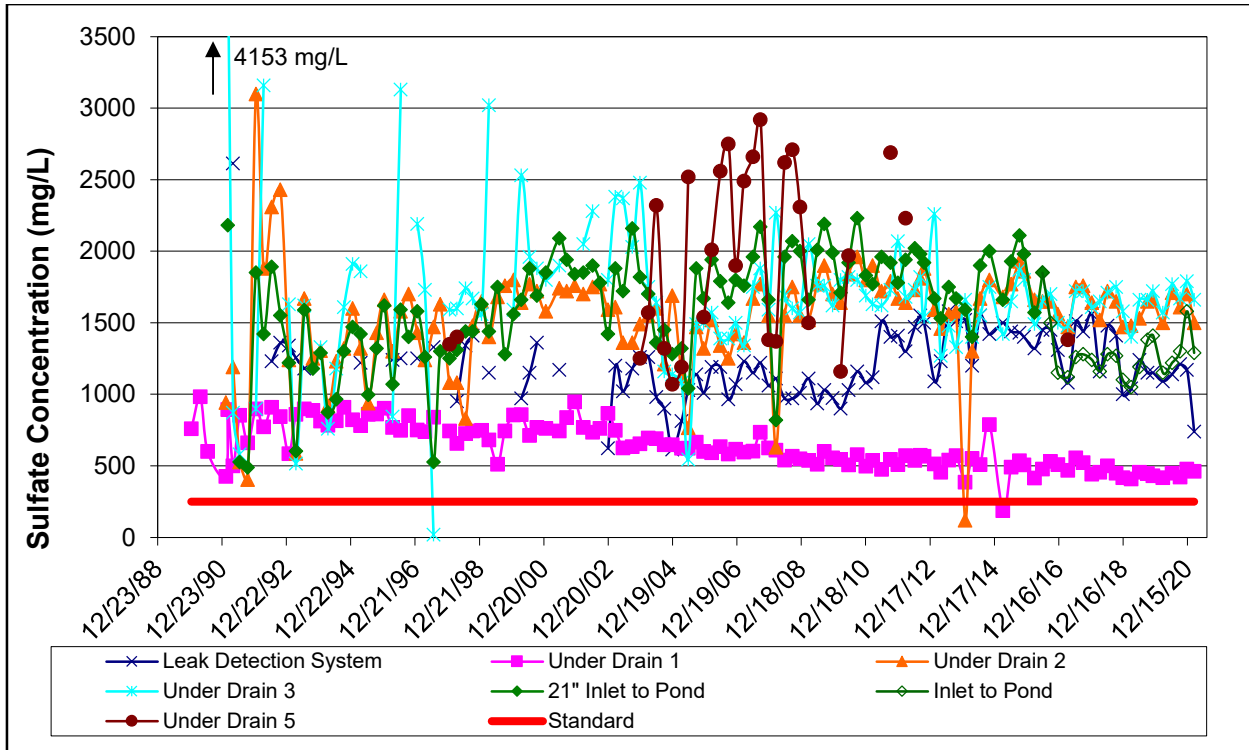
SELENIUM (Note: Only data above detection has been included in this plot)



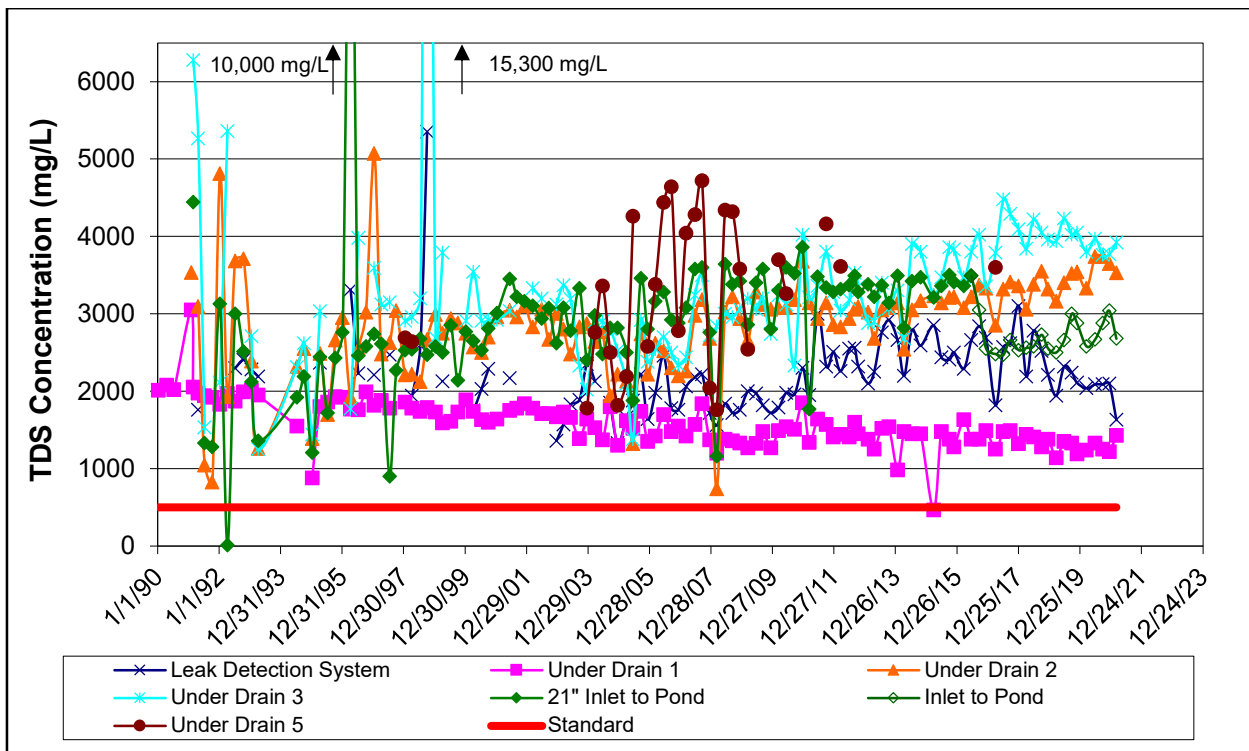
SODIUM



LEACHATE TIME-SERIES PLOTS, CONT.
SULFATE

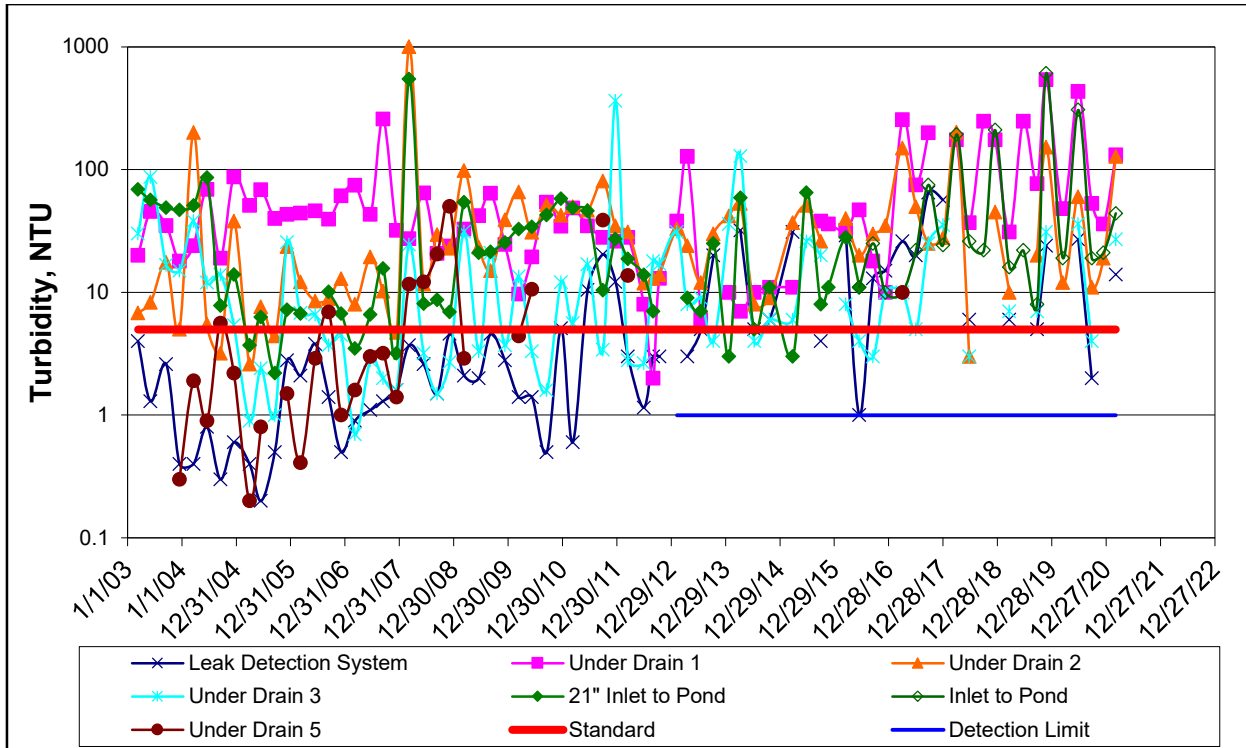


TOTAL DISSOLVED SOLIDS



LEACHATE TIME-SERIES PLOTS, CONT.

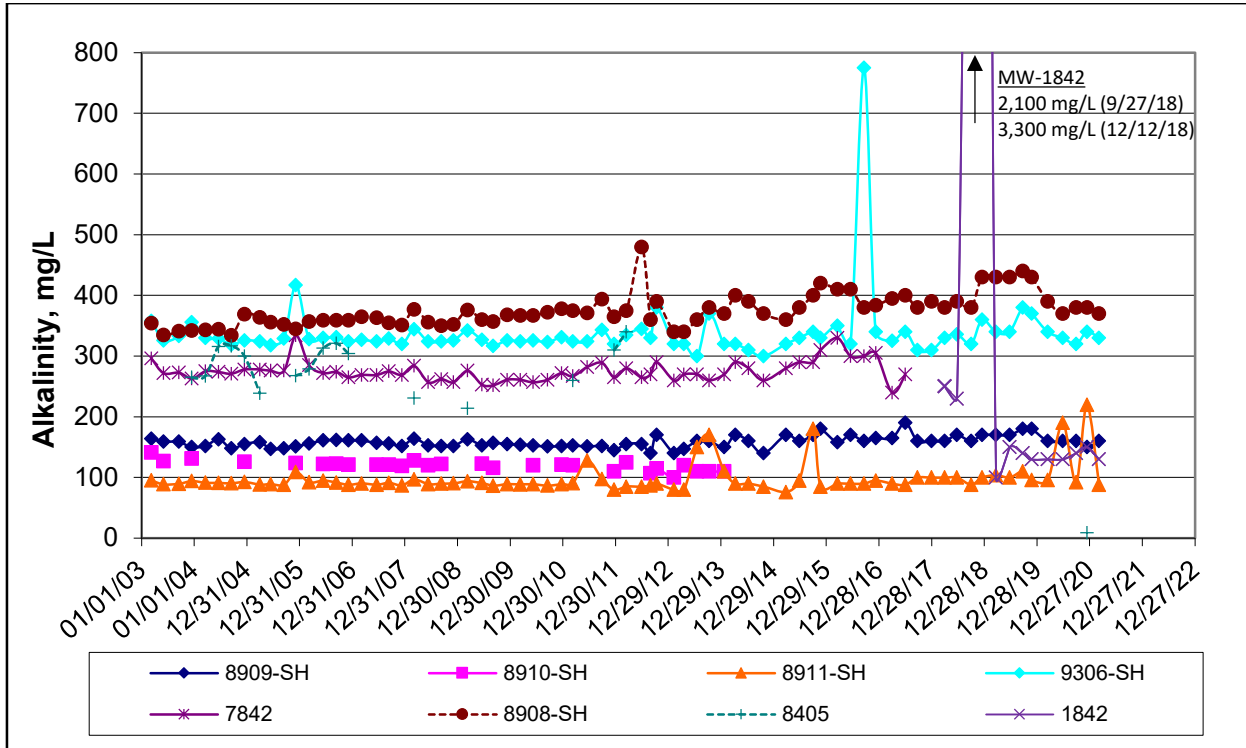
TURBIDITY (Note: Only data above detection has been included in this plot)



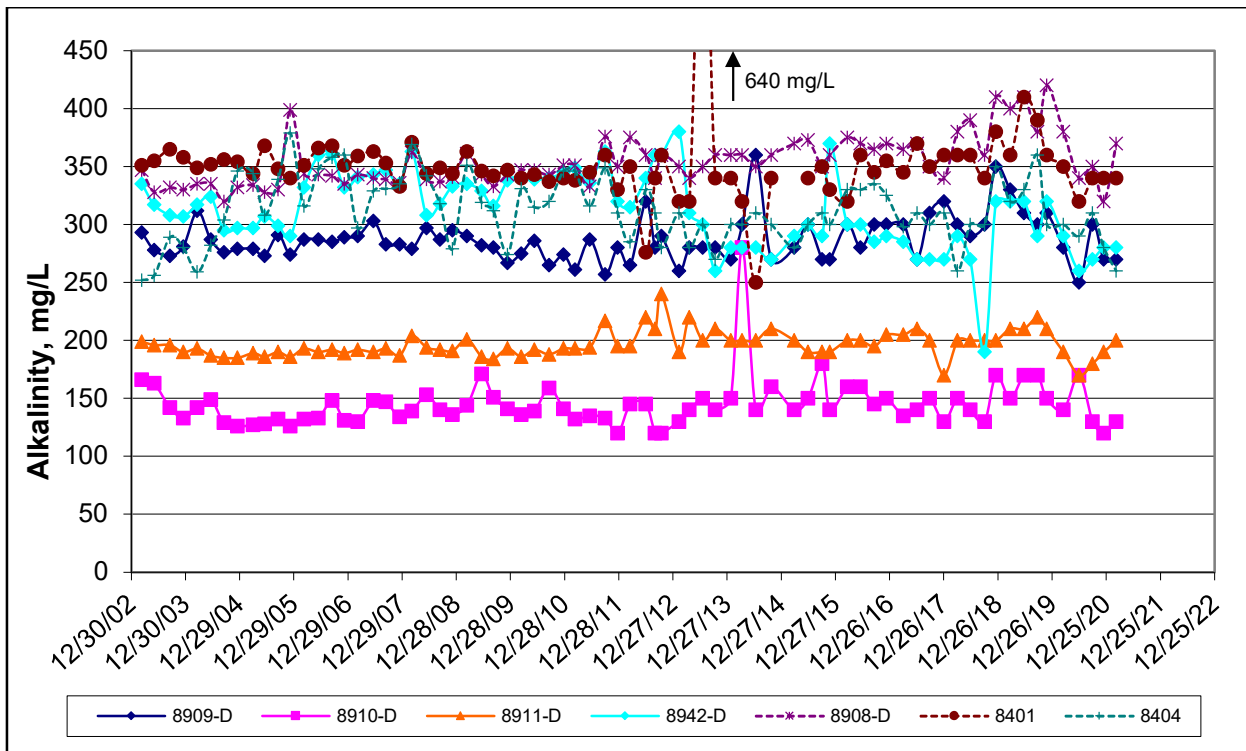
MONITORING WELL TIME-SERIES PLOTS

ALKALINITY

GLACIAL TILL



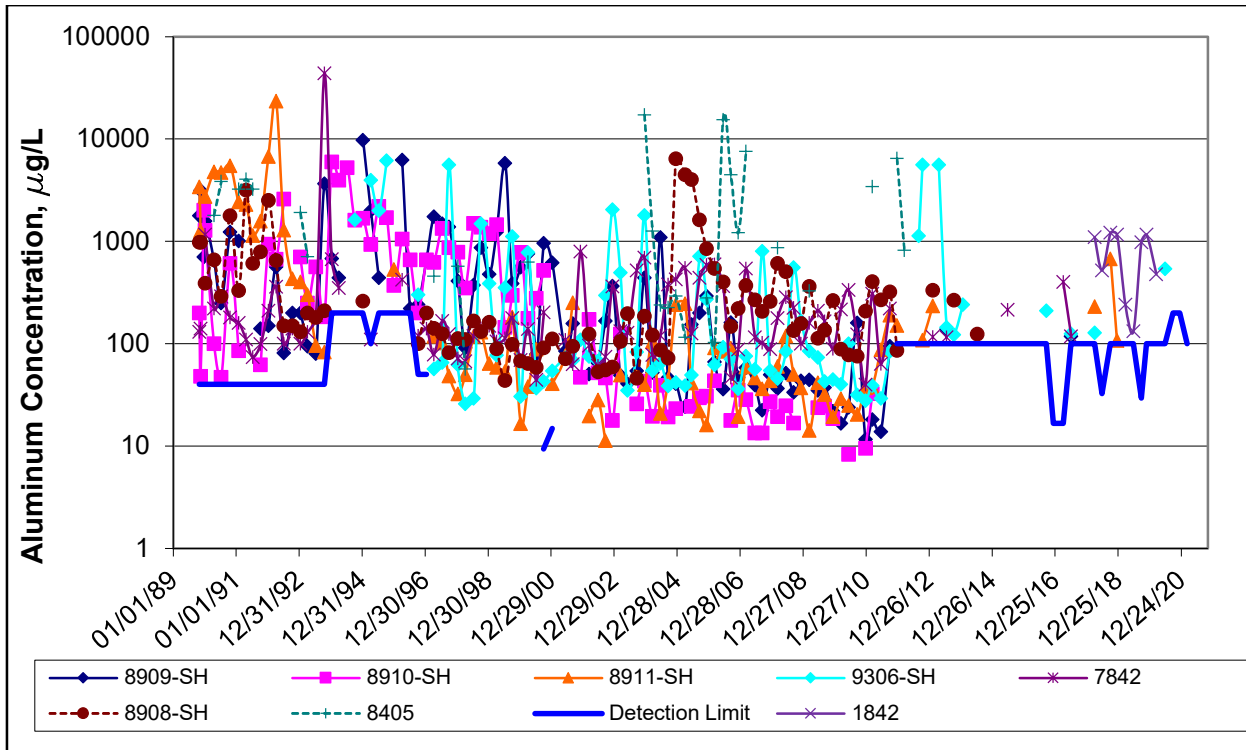
BEDROCK



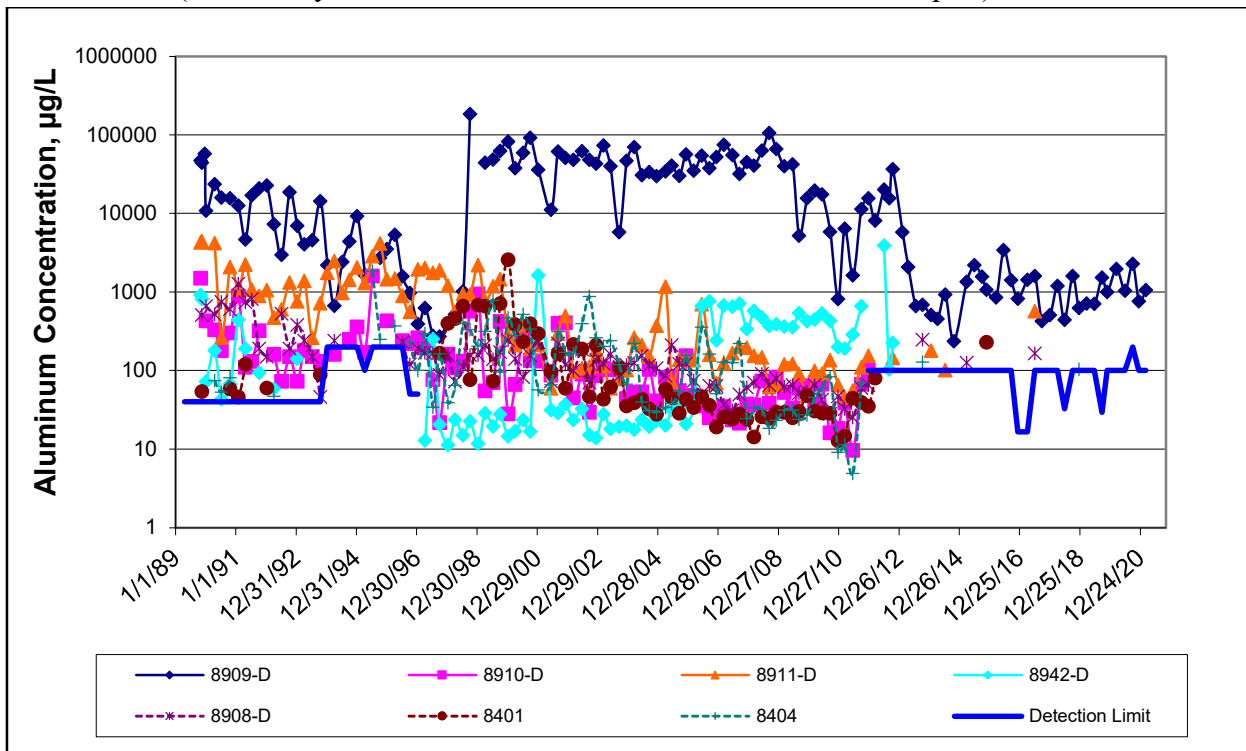
MONITORING WELL TIME-SERIES PLOTS, CONT.

ALUMINUM

GLACIAL TILL (Note: Only data above detection has been included in this plot)



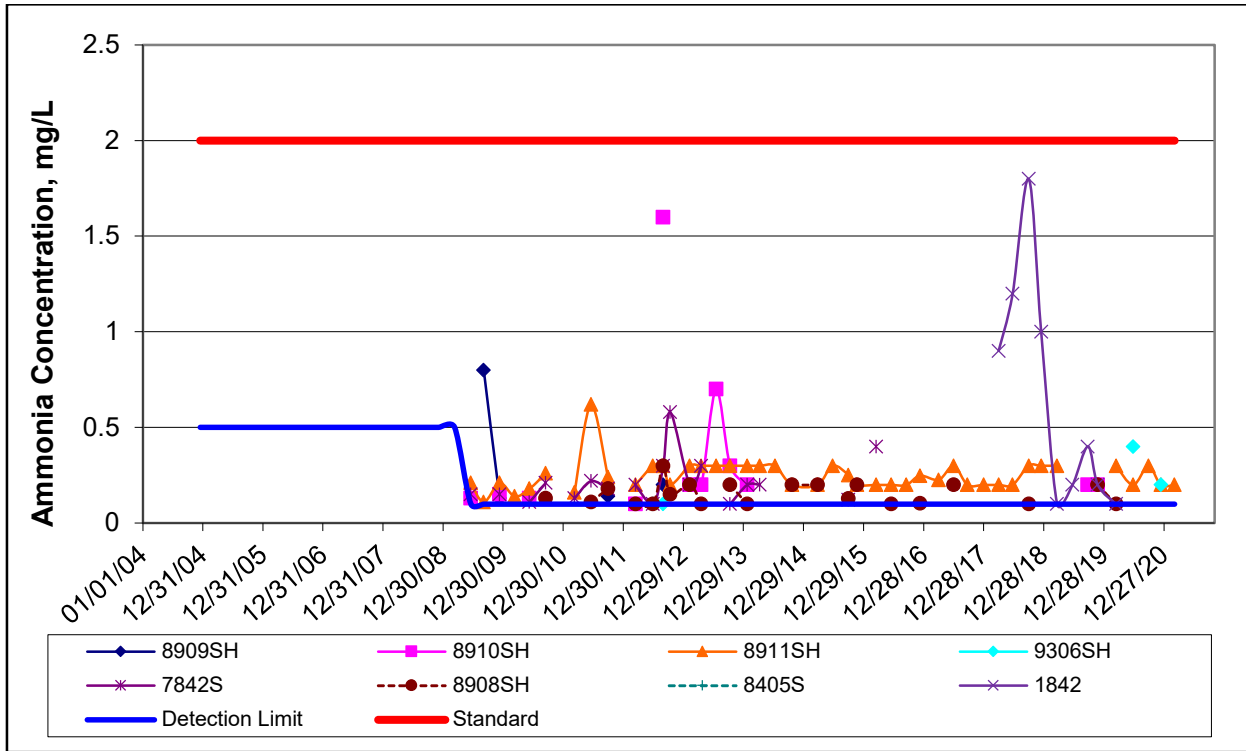
BEDROCK (Note: Only data above detection has been included in this plot)



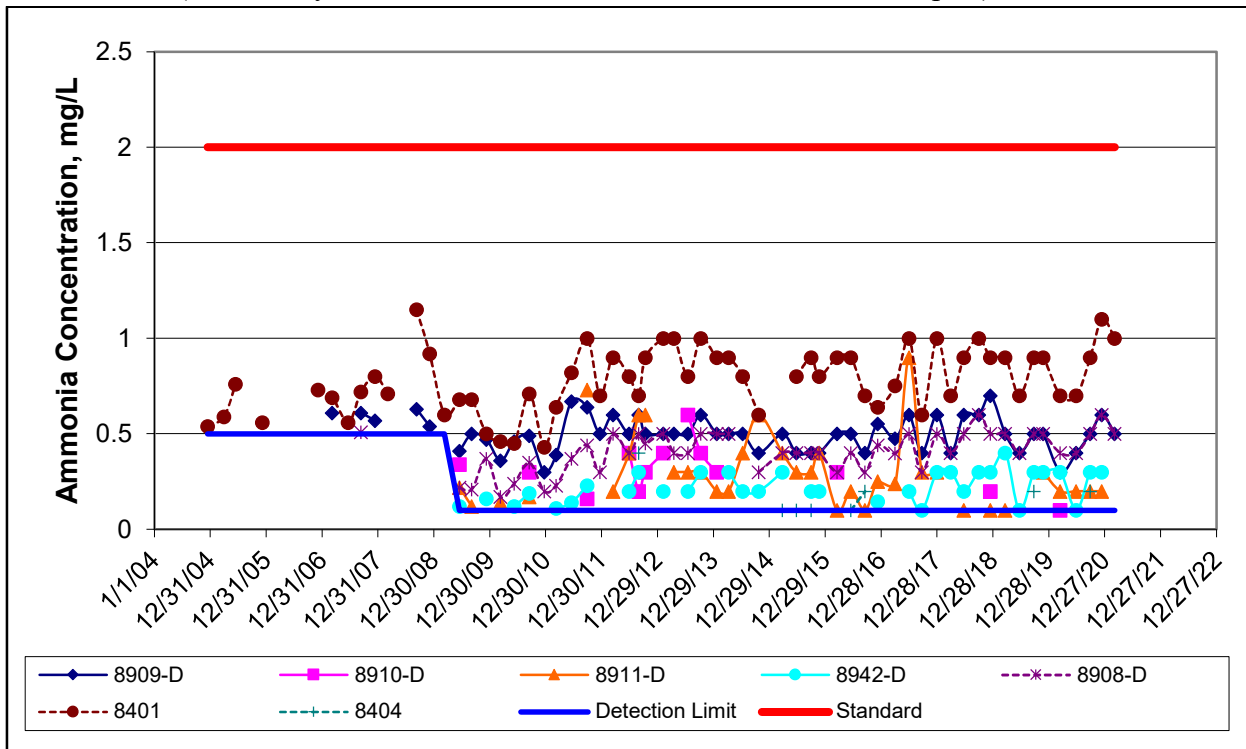
MONITORING WELL TIME-SERIES PLOTS, CONT.

AMMONIA

GLACIAL TILL (Note: Only data above detection has been included in this plot)



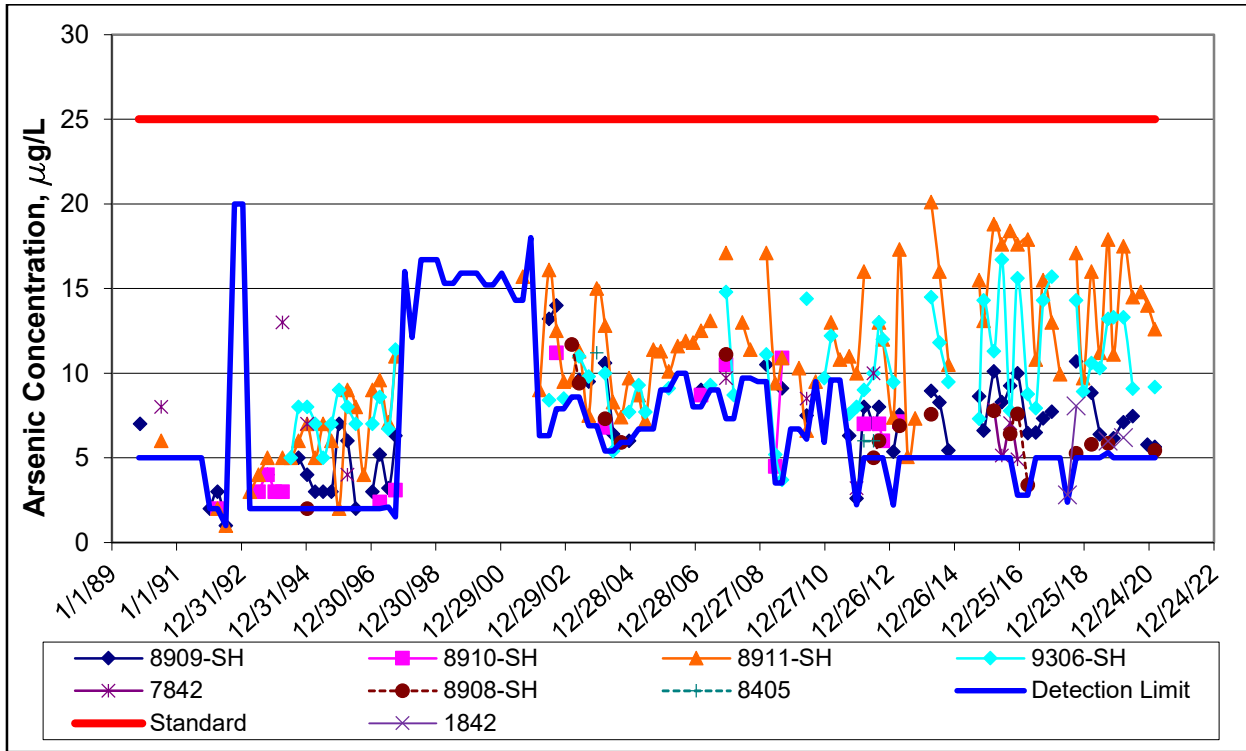
BEDROCK (Note: Only data above detection has been included in this plot)



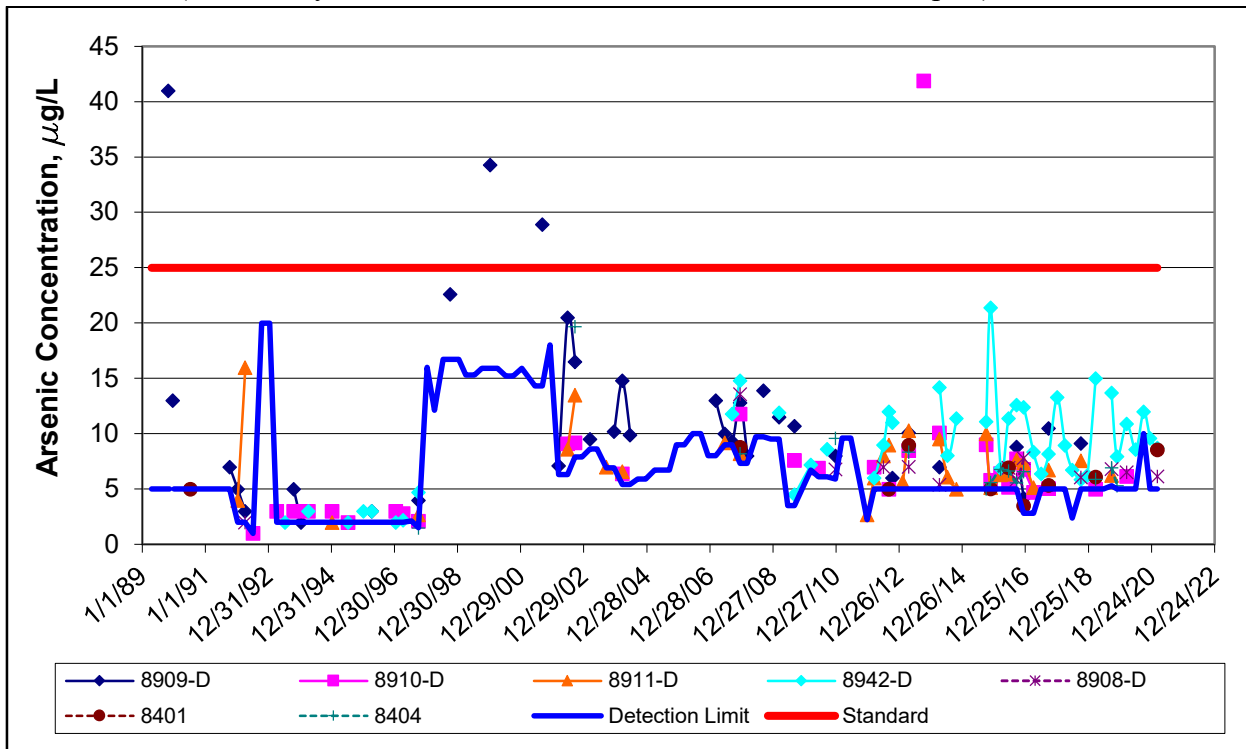
MONITORING WELL TIME-SERIES PLOTS, CONT.

ARSENIC

GLACIAL TILL (Note: Only data above detection has been included in this plot)



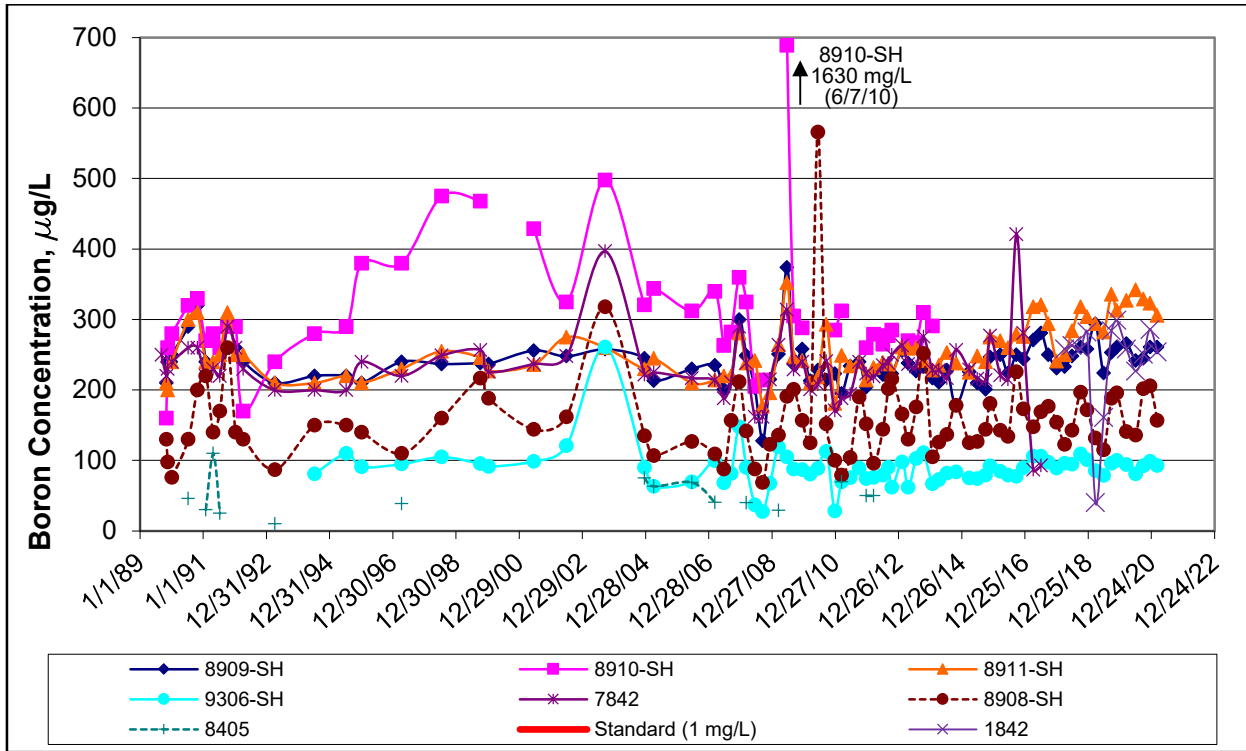
BEDROCK (Note: Only data above detection has been included in this plot)



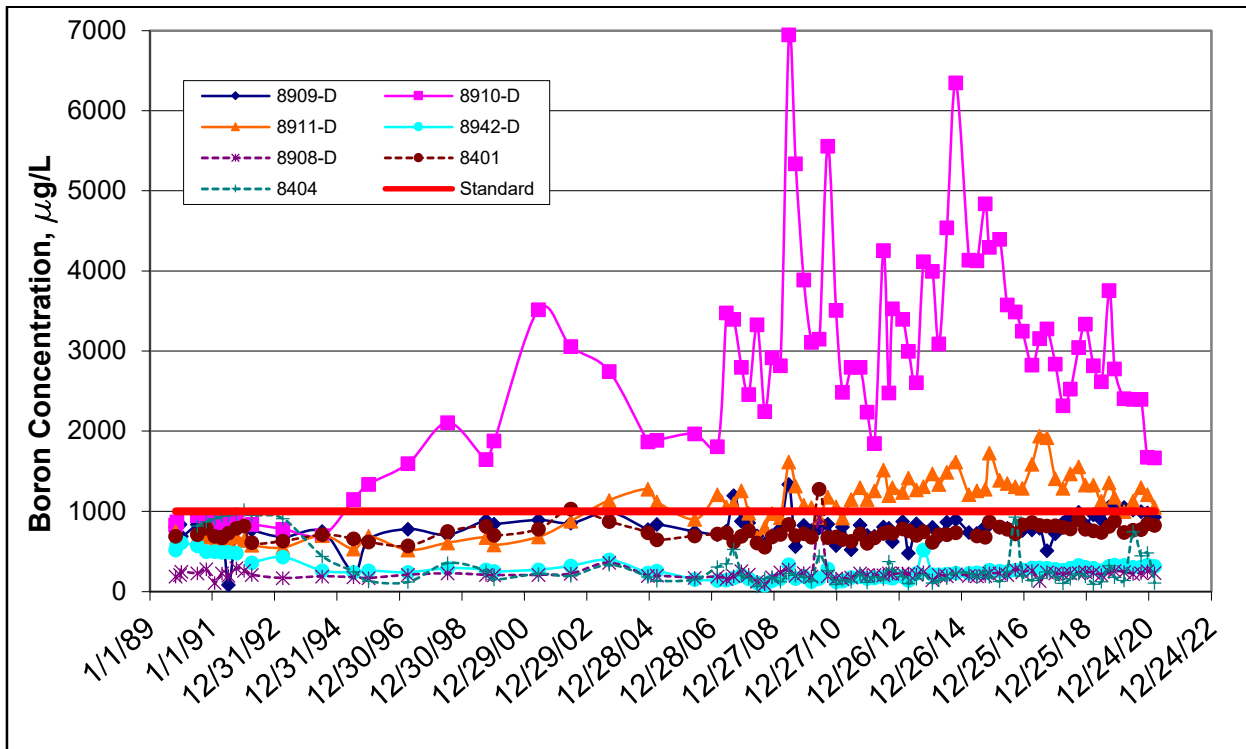
MONITORING WELL TIME-SERIES PLOTS, CONT.

BORON

GLACIAL TILL



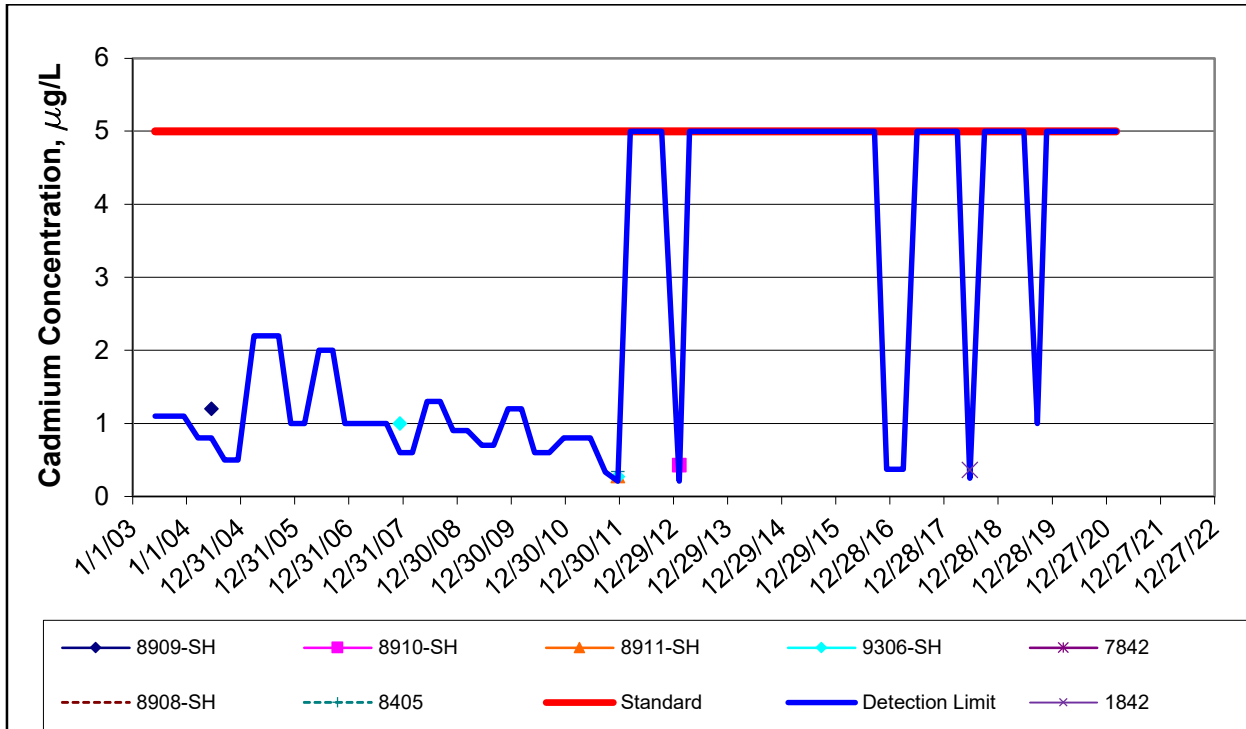
BEDROCK



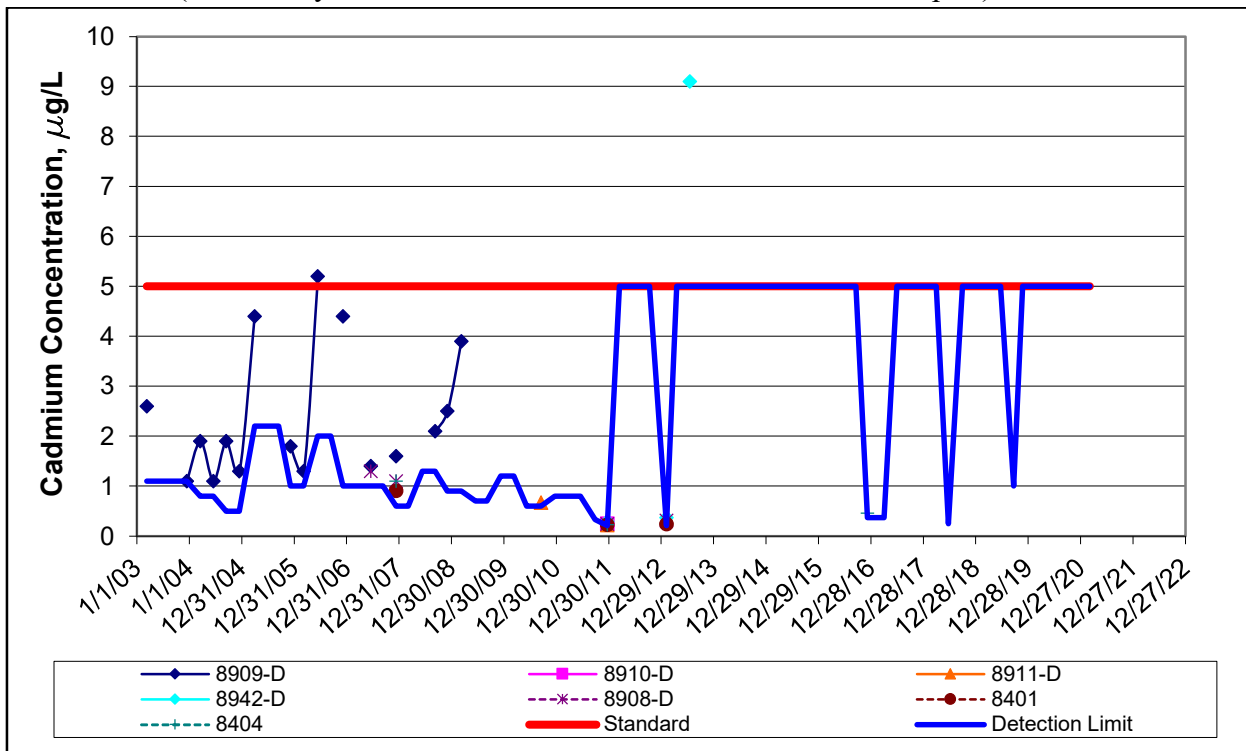
MONITORING WELL TIME-SERIES PLOTS, CONT.

CADMIUM

GLACIAL TILL (Note: Only data above detection has been included in this plot)



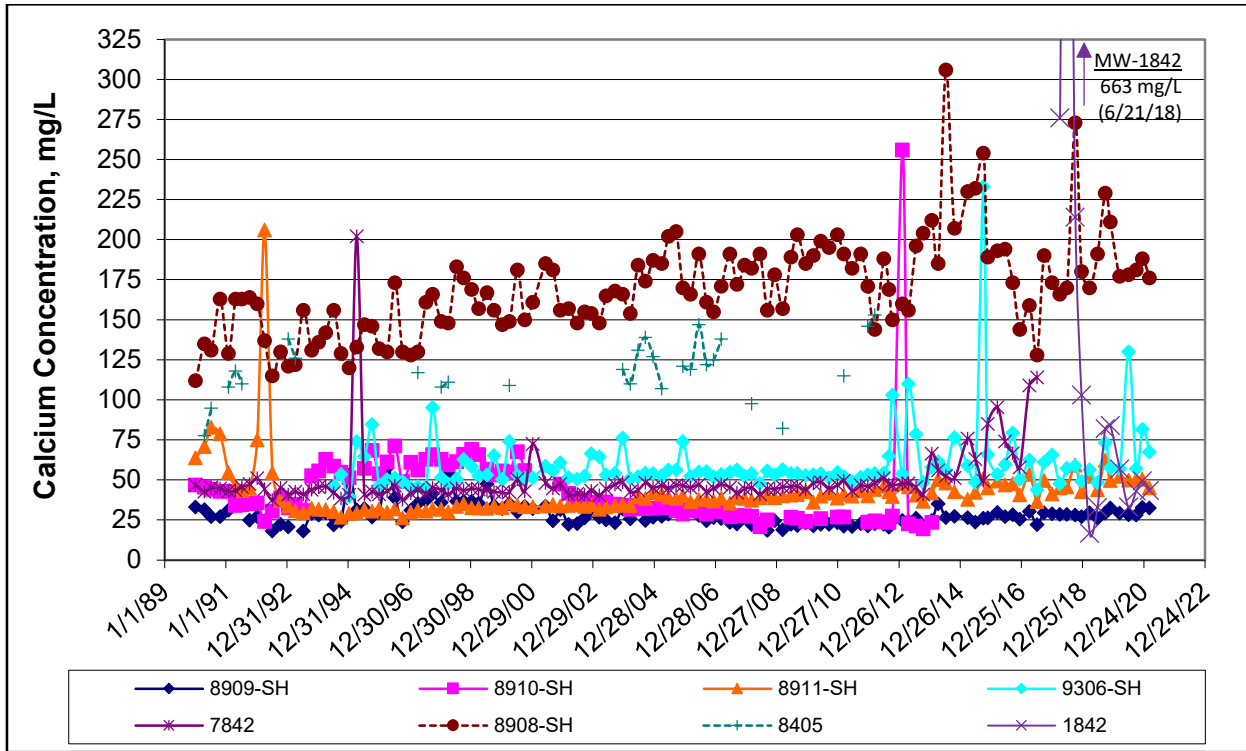
BEDROCK (Note: Only data above detection has been included in this plot)



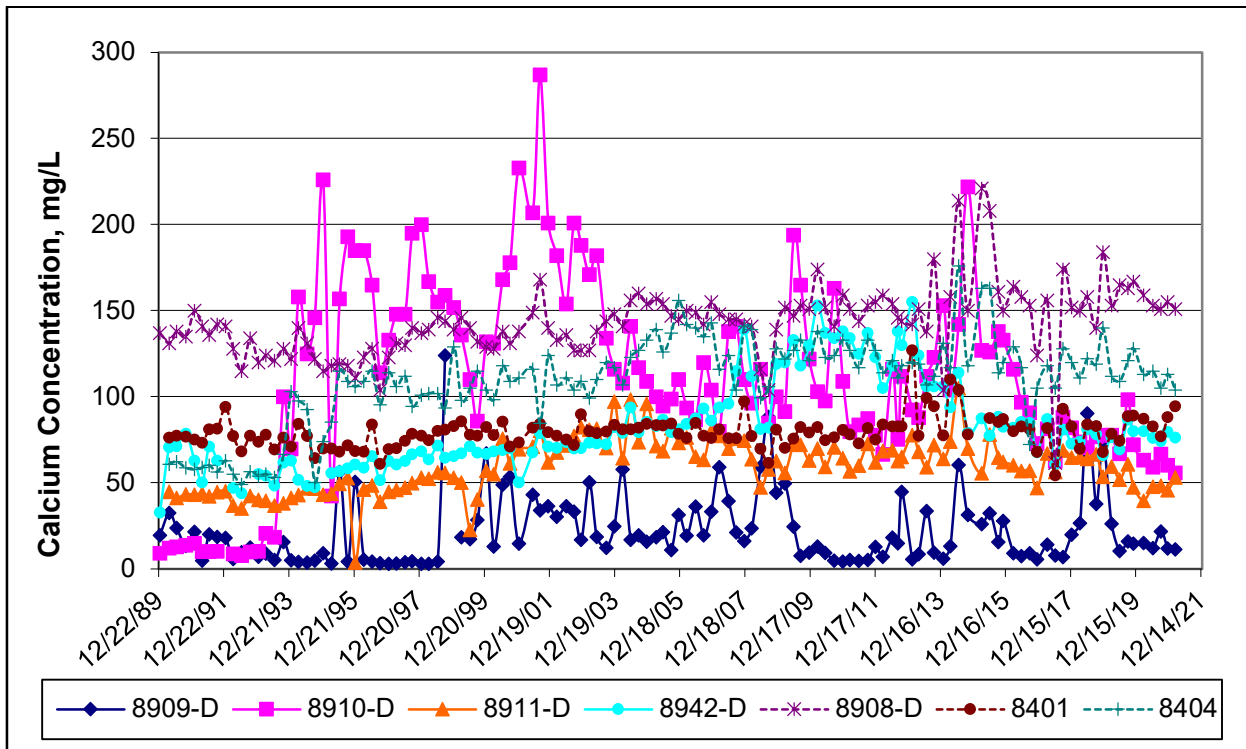
MONITORING WELL TIME-SERIES PLOTS, CONT.

CALCIUM

GLACIAL TILL

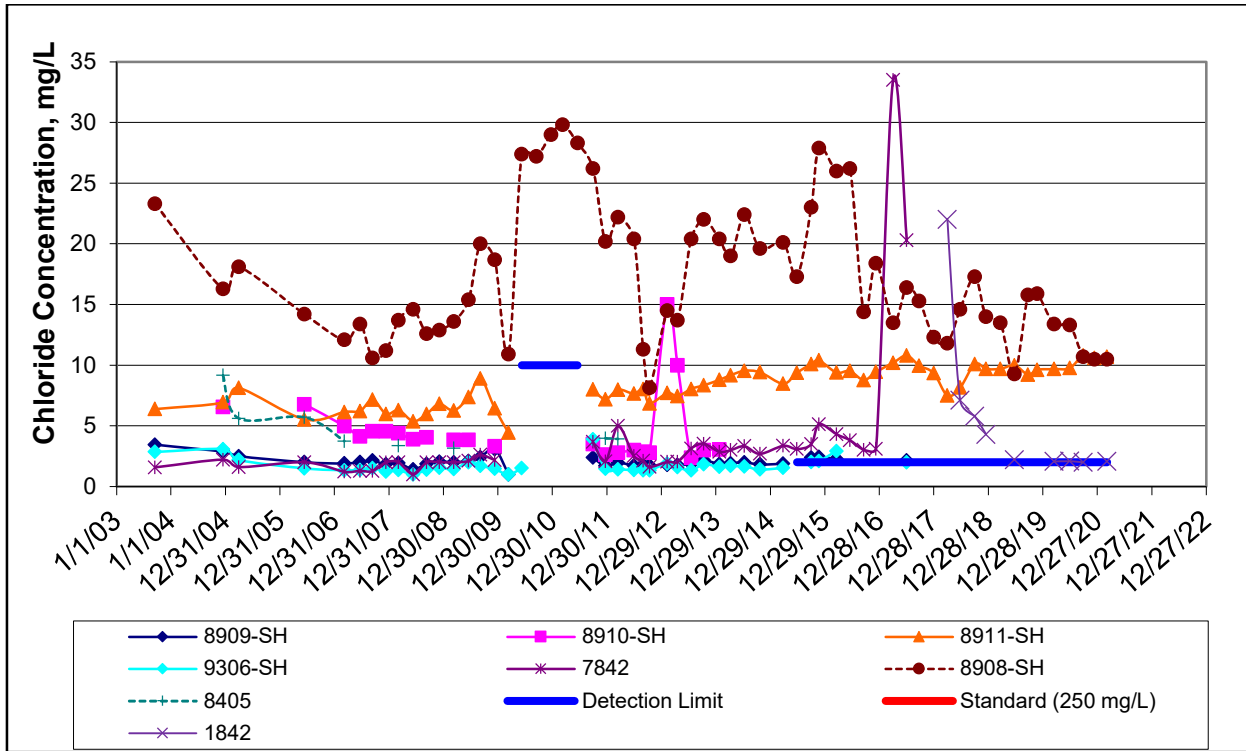


BEDROCK

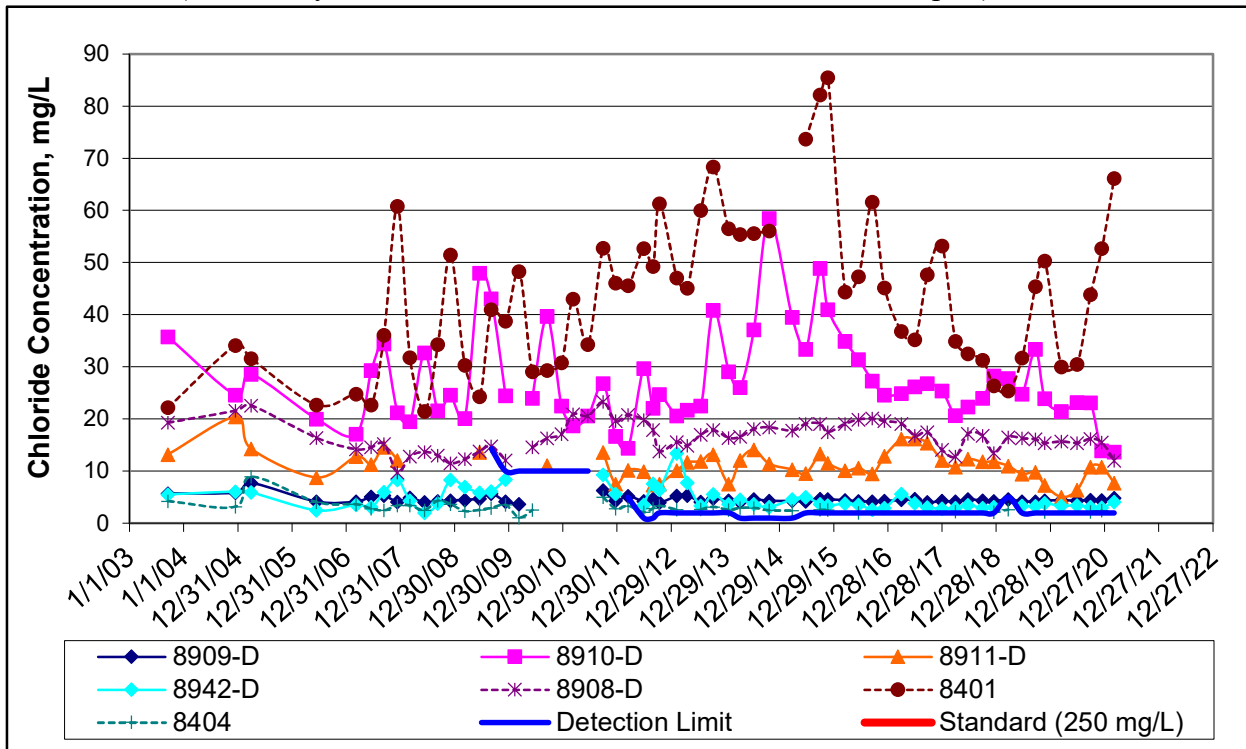


MONITORING WELL TIME-SERIES PLOTS, CONT.
CHLORIDE

GLACIAL TILL (Note: Only data above detection has been included in this plot)

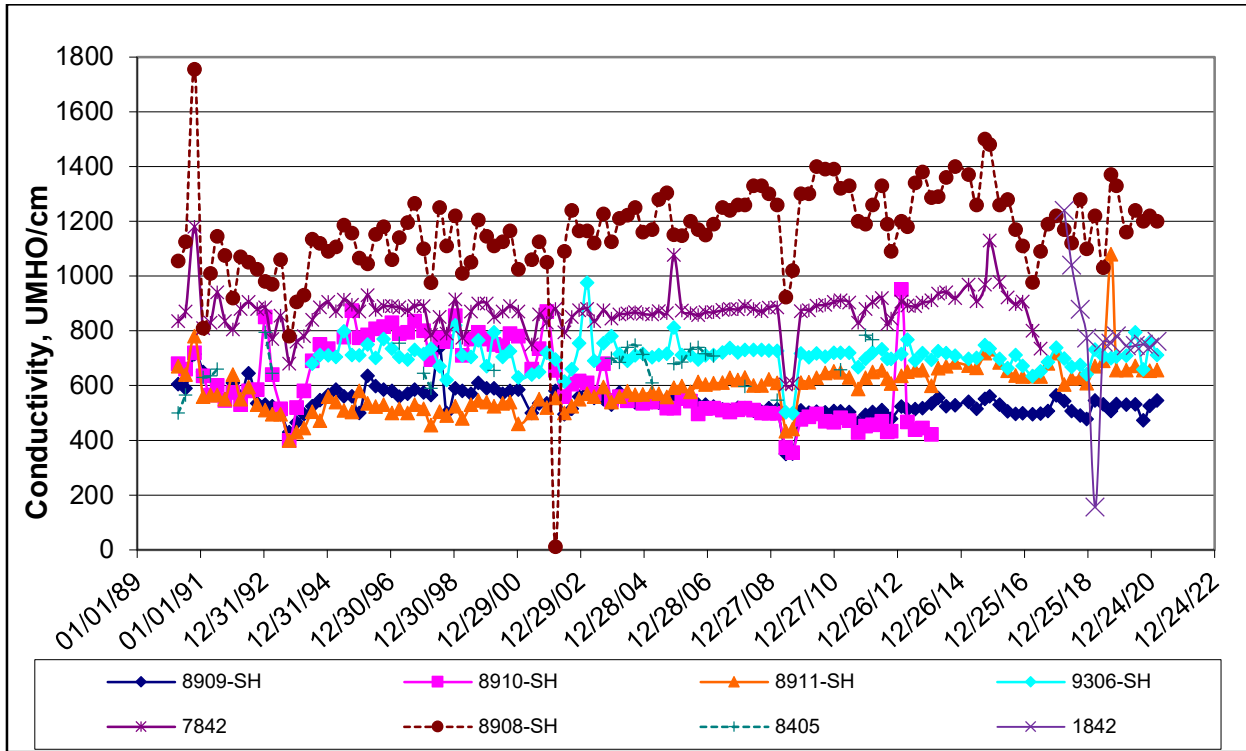


BEDROCK (Note: Only data above detection has been included in this plot)

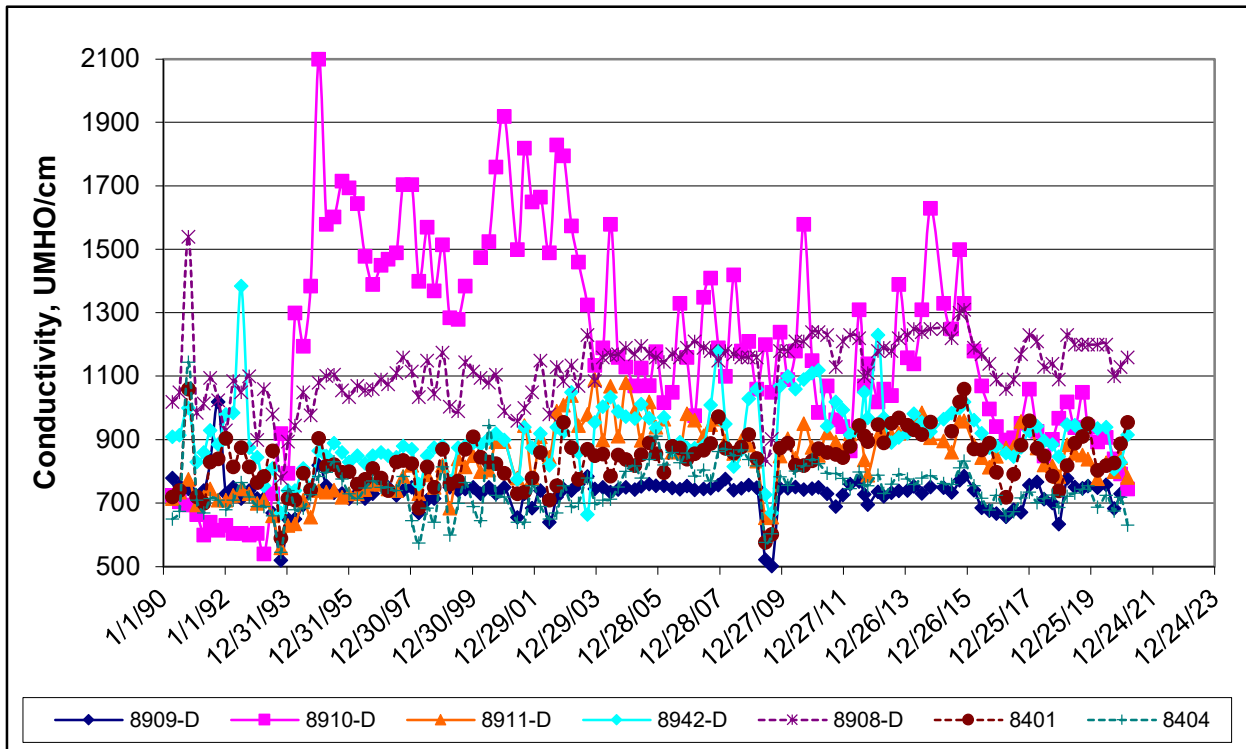


MONITORING WELL TIME-SERIES PLOTS, CONT.
CONDUCTIVITY

GLACIAL TILL



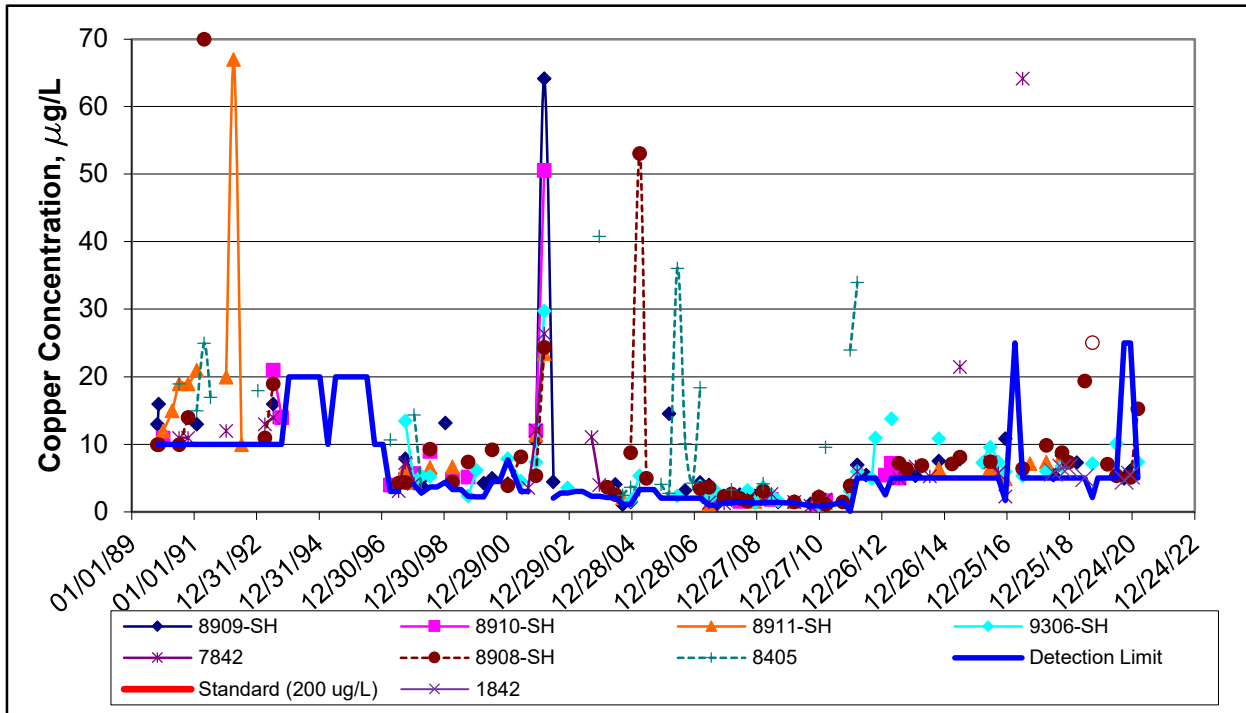
BEDROCK



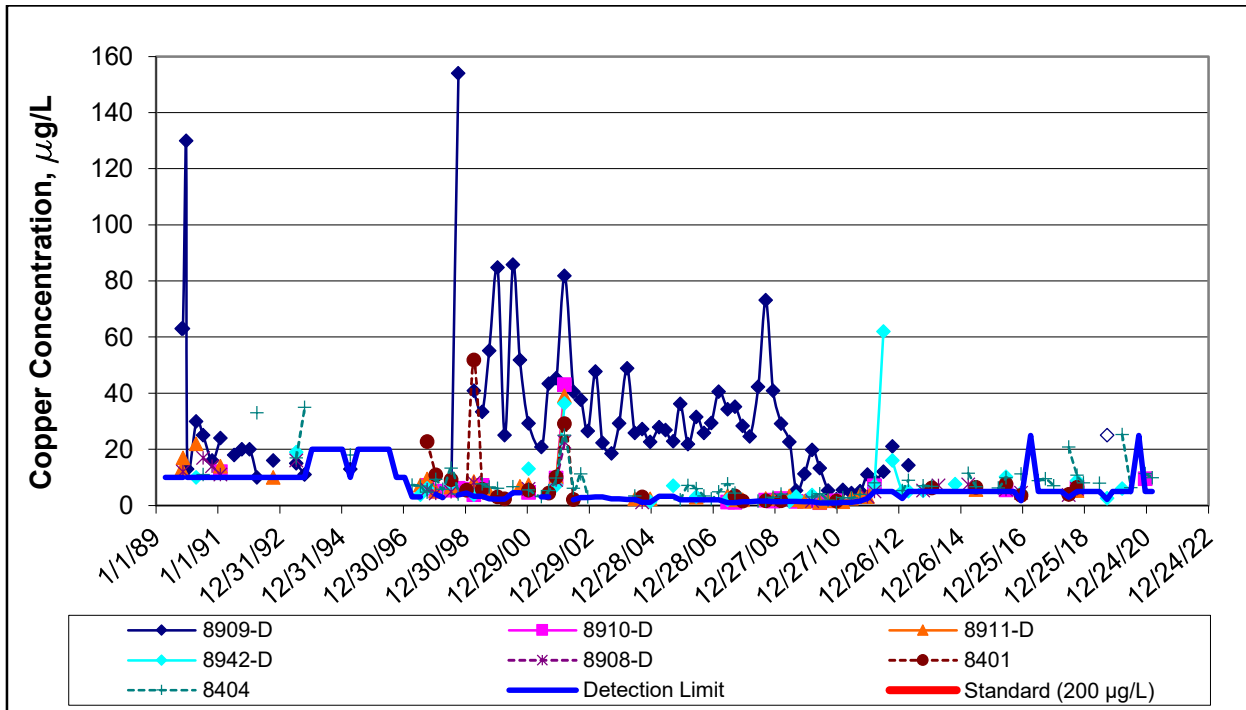
MONITORING WELL TIME-SERIES PLOTS, CONT.

COPPER

GLACIAL TILL (Note: Only data above detection has been included in this plot. The unfilled point is less than detection but the detection limit was higher for this point than for other data.)



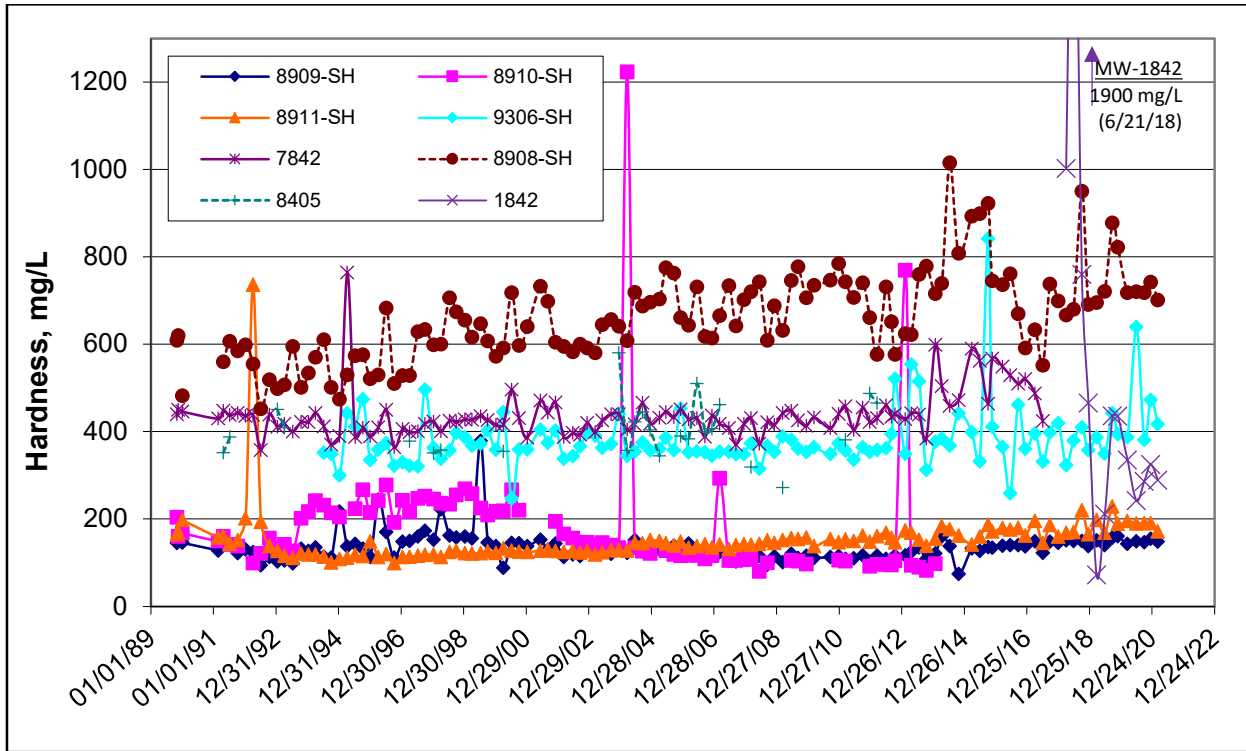
BEDROCK (Note: Only data above detection has been included in this plot. The unfilled point is less than detection but the detection limit was higher for this point than for other data.)



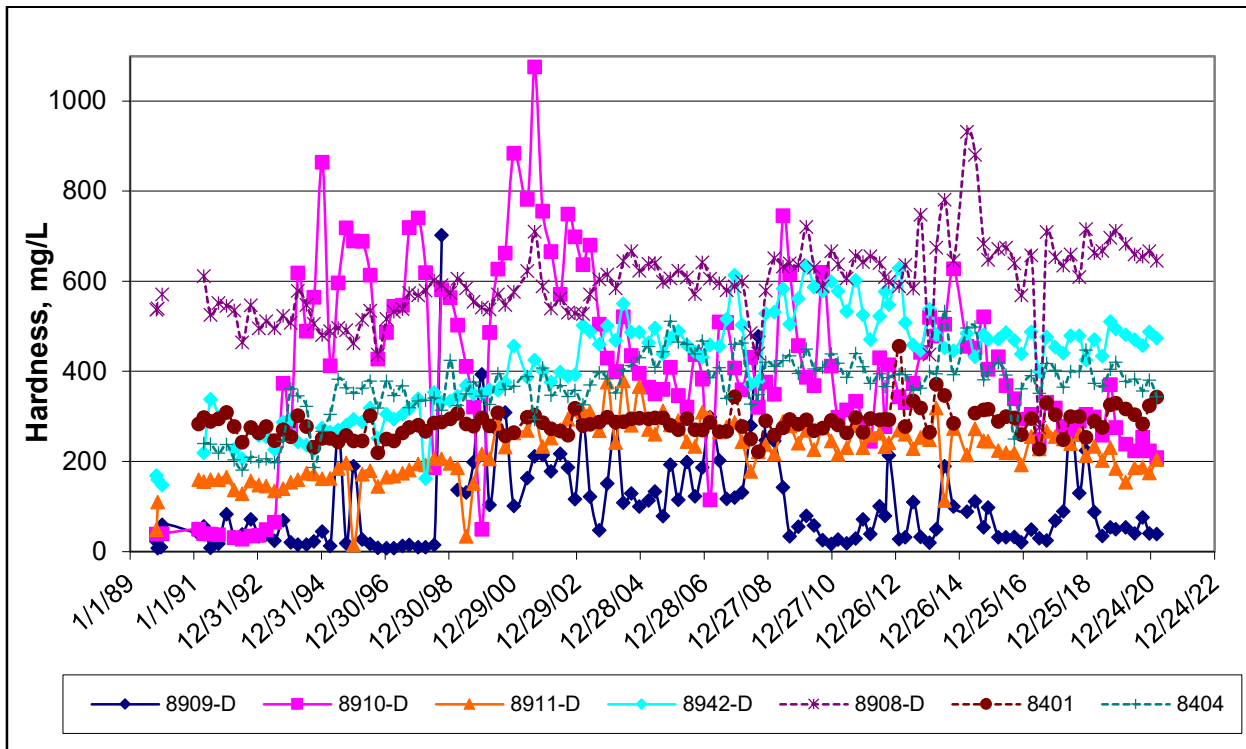
MONITORING WELL TIME-SERIES PLOTS, CONT.

HARDNESS

GLACIAL TILL



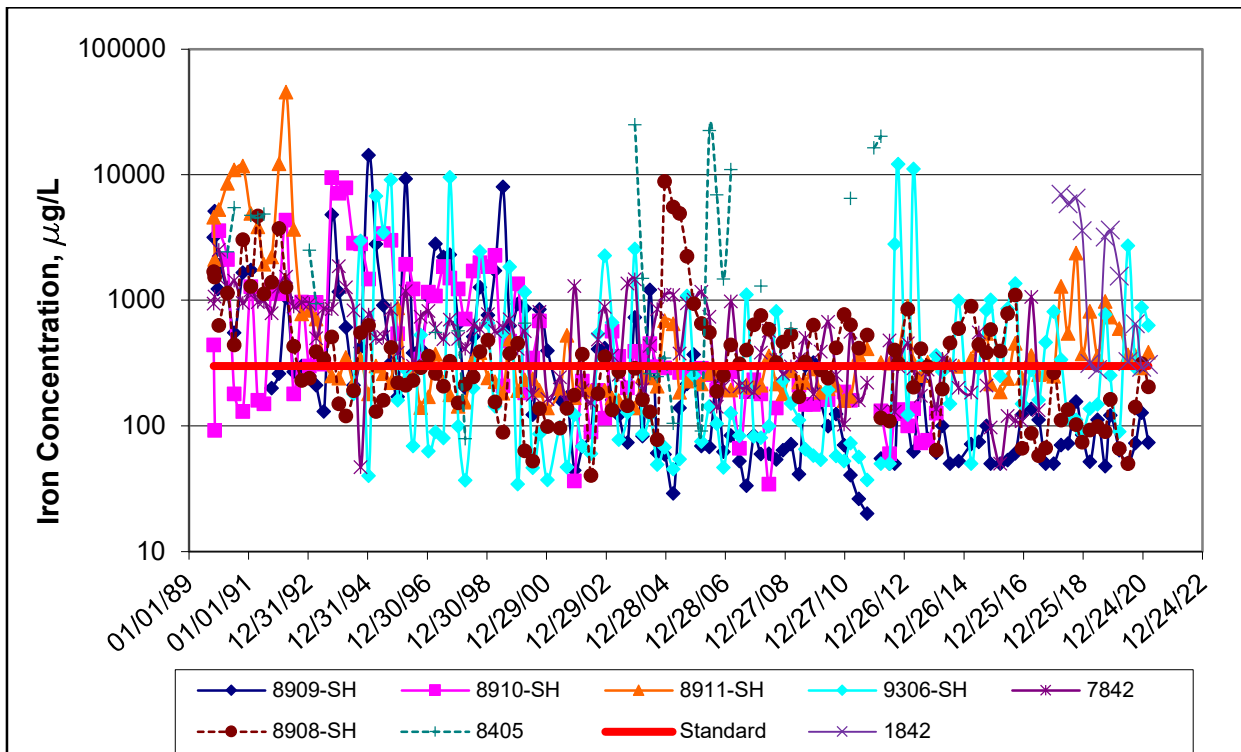
BEDROCK



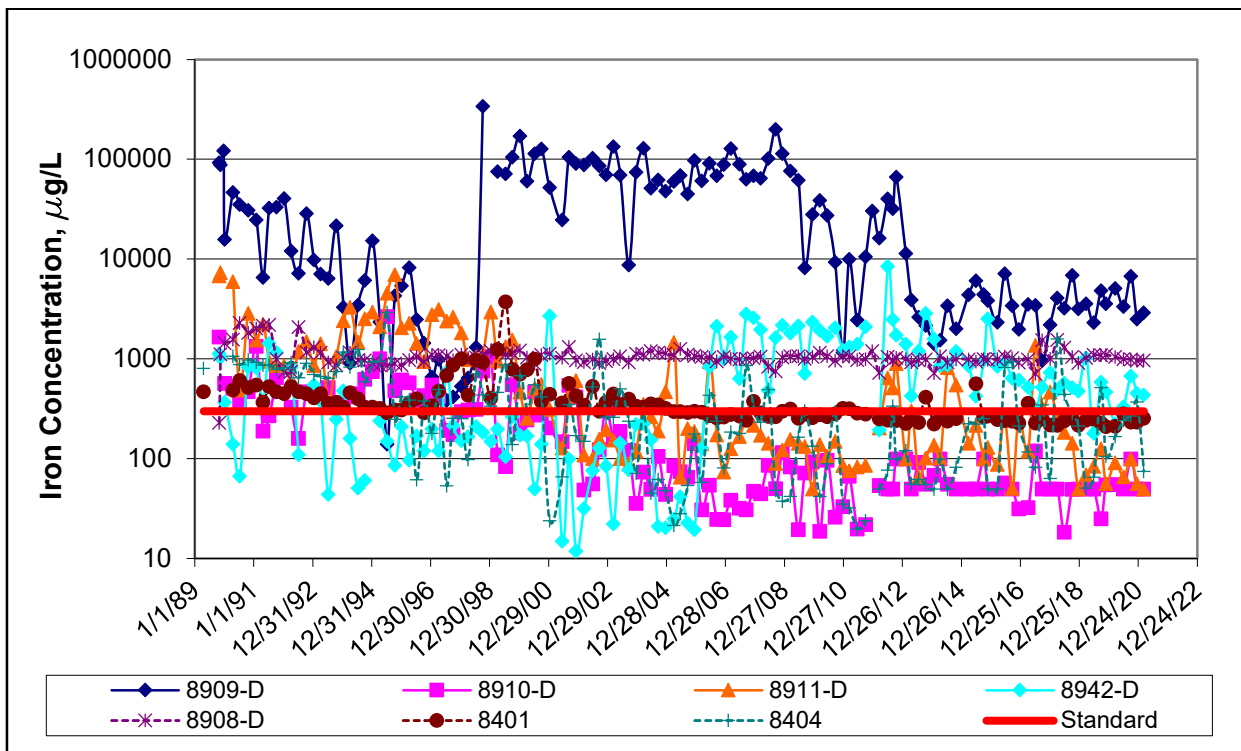
MONITORING WELL TIME-SERIES PLOTS, CONT.

IRON

GLACIAL TILL

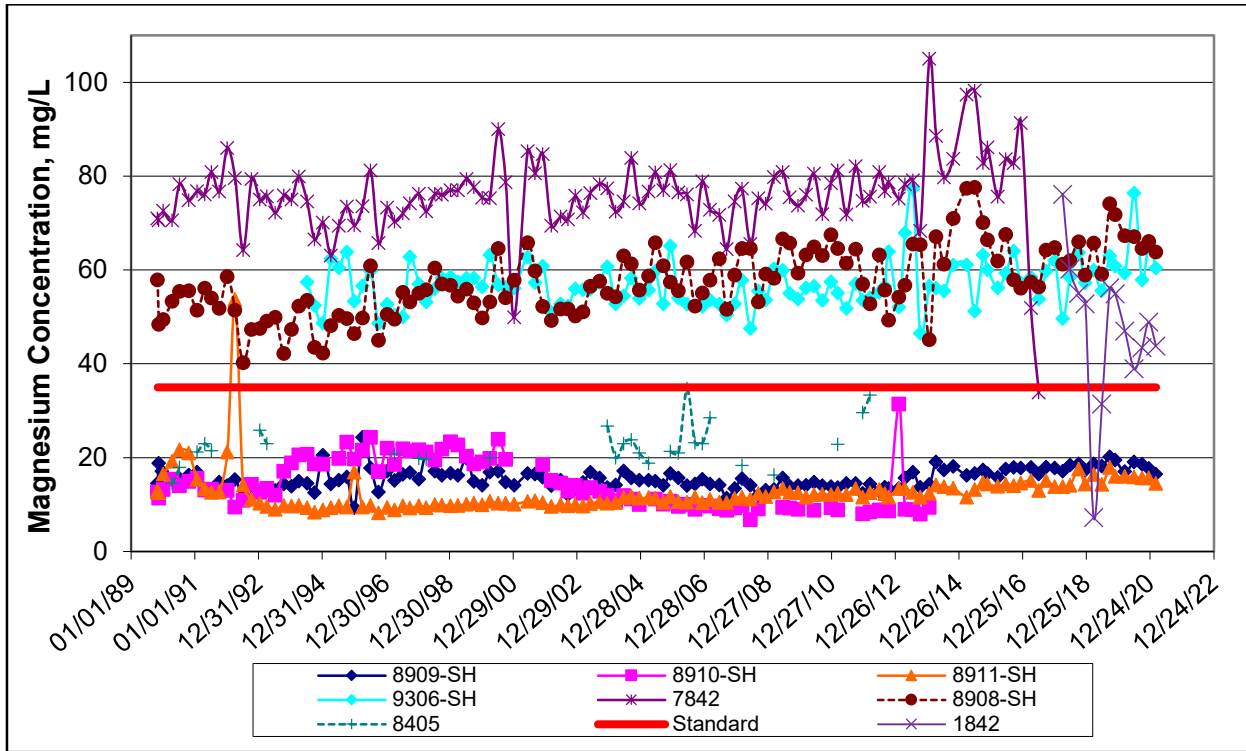


BEDROCK

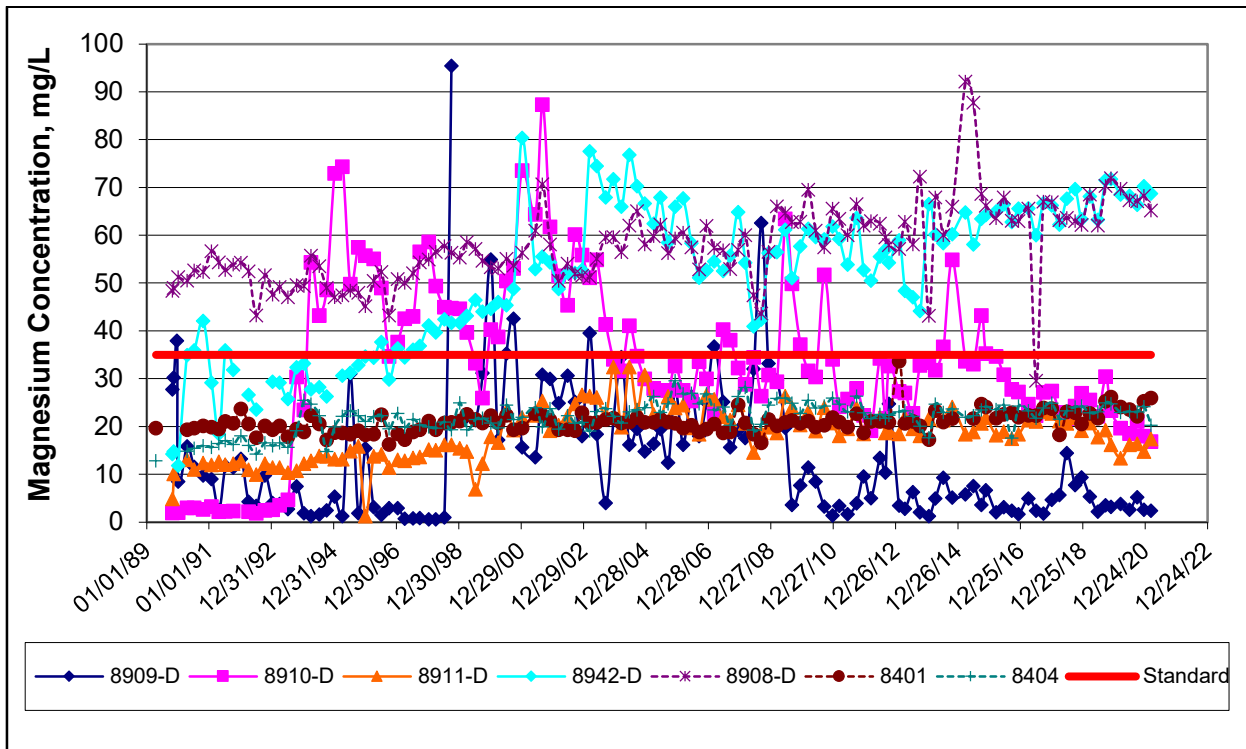


MONITORING WELL TIME-SERIES PLOTS, CONT.
MAGNESIUM

GLACIAL TILL

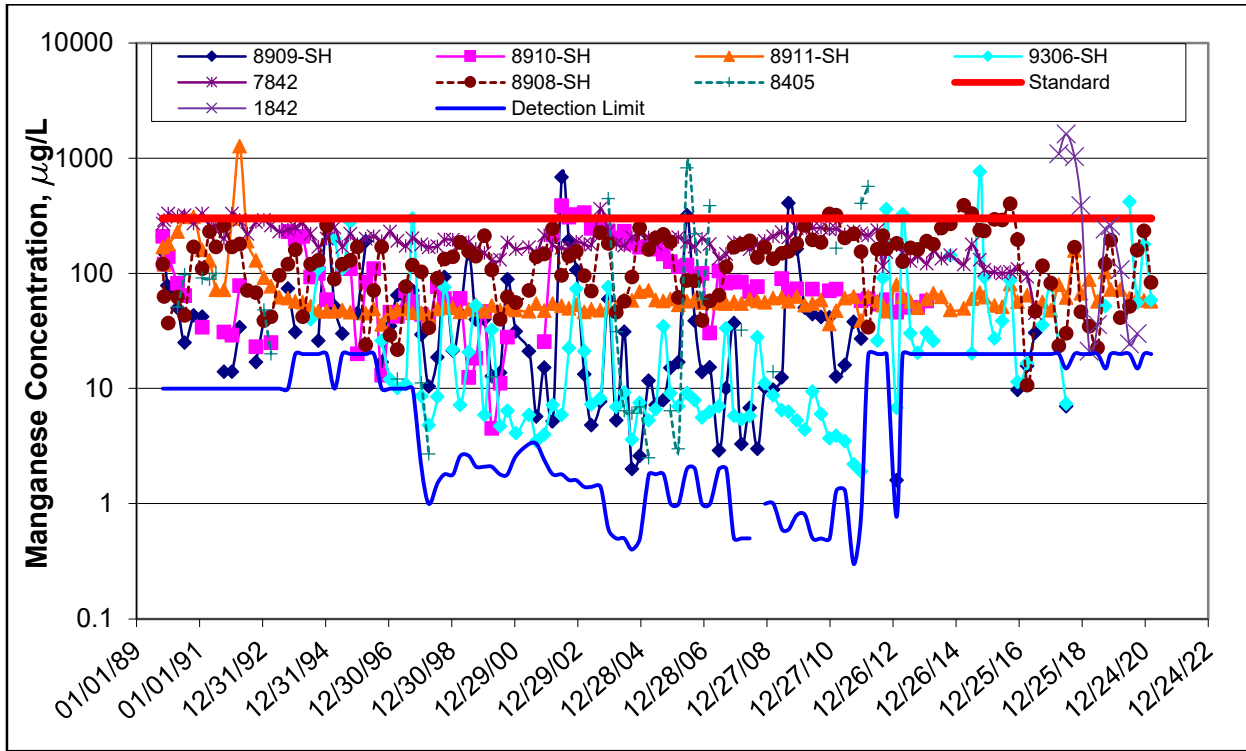


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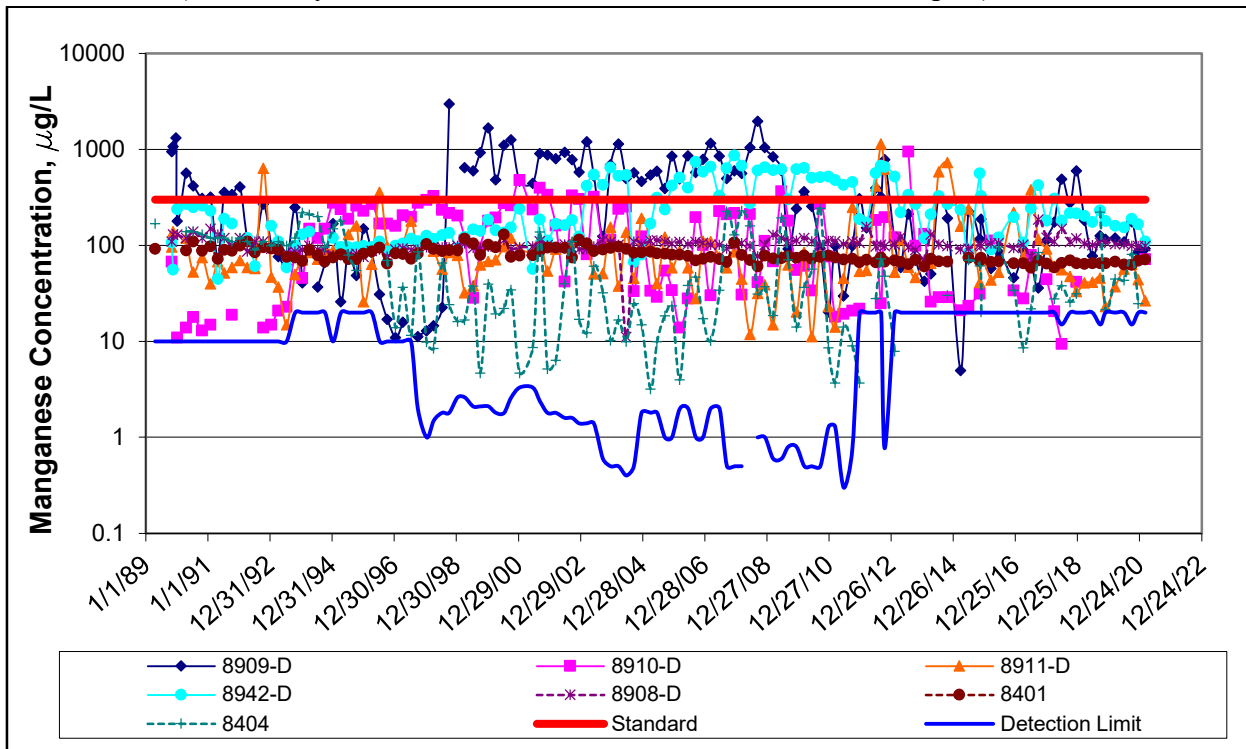


MONITORING WELL TIME-SERIES PLOTS, CONT.
MANGANESE

GLACIAL TILL (Note: Only data above detection has been included in this plot)

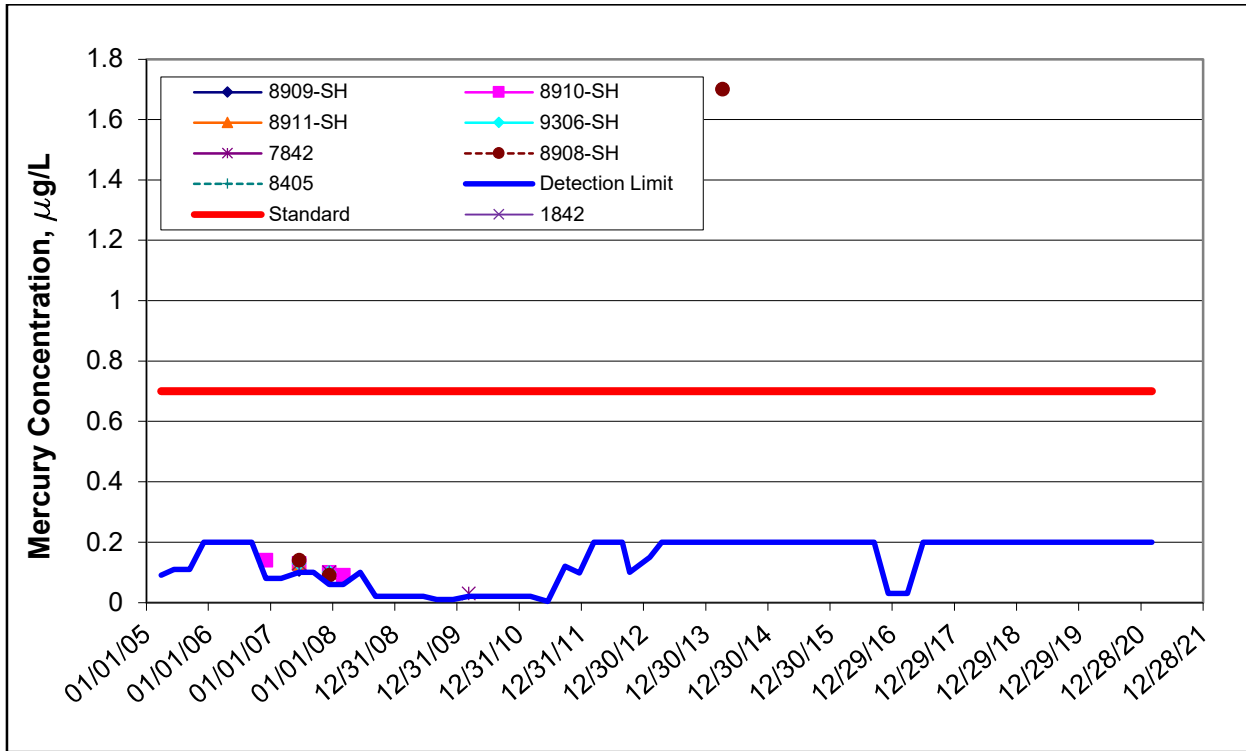


BEDROCK (Note: Only data above detection has been included in this plot)

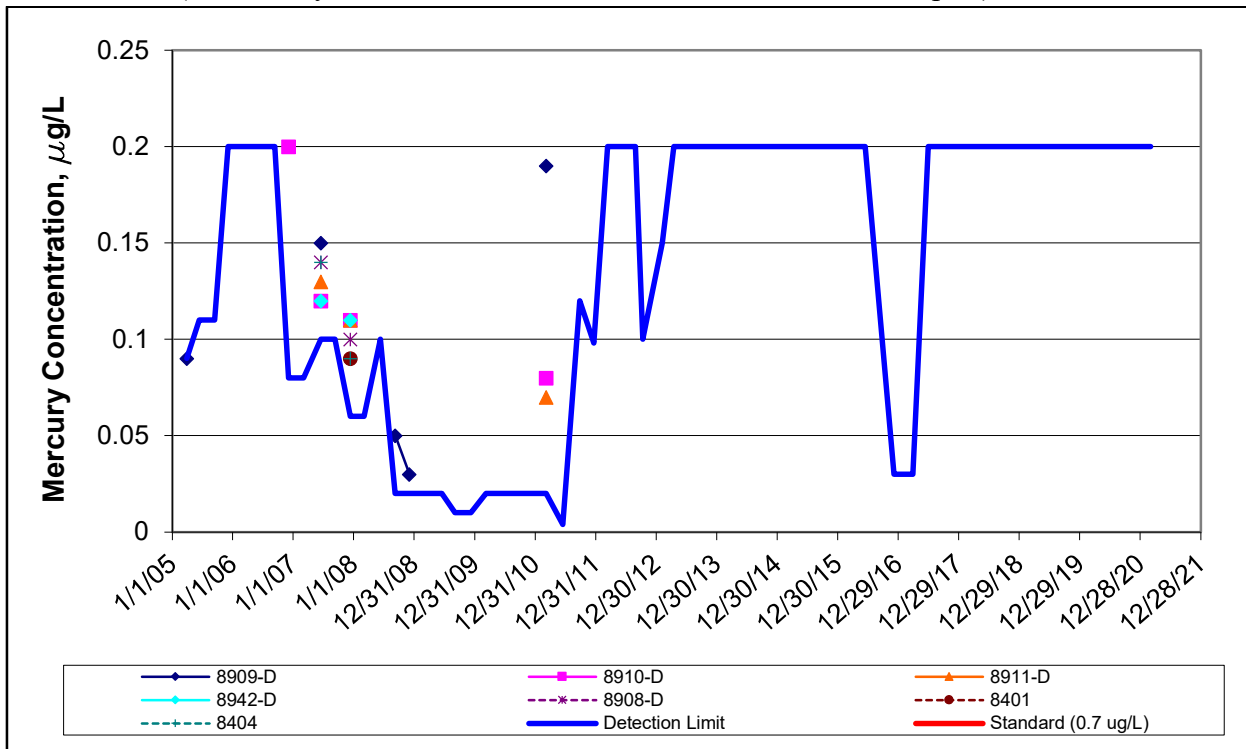


MONITORING WELL TIME-SERIES PLOTS, CONT.
MERCURY

GLACIAL TILL (Note: Only data above detection has been included in this plot)



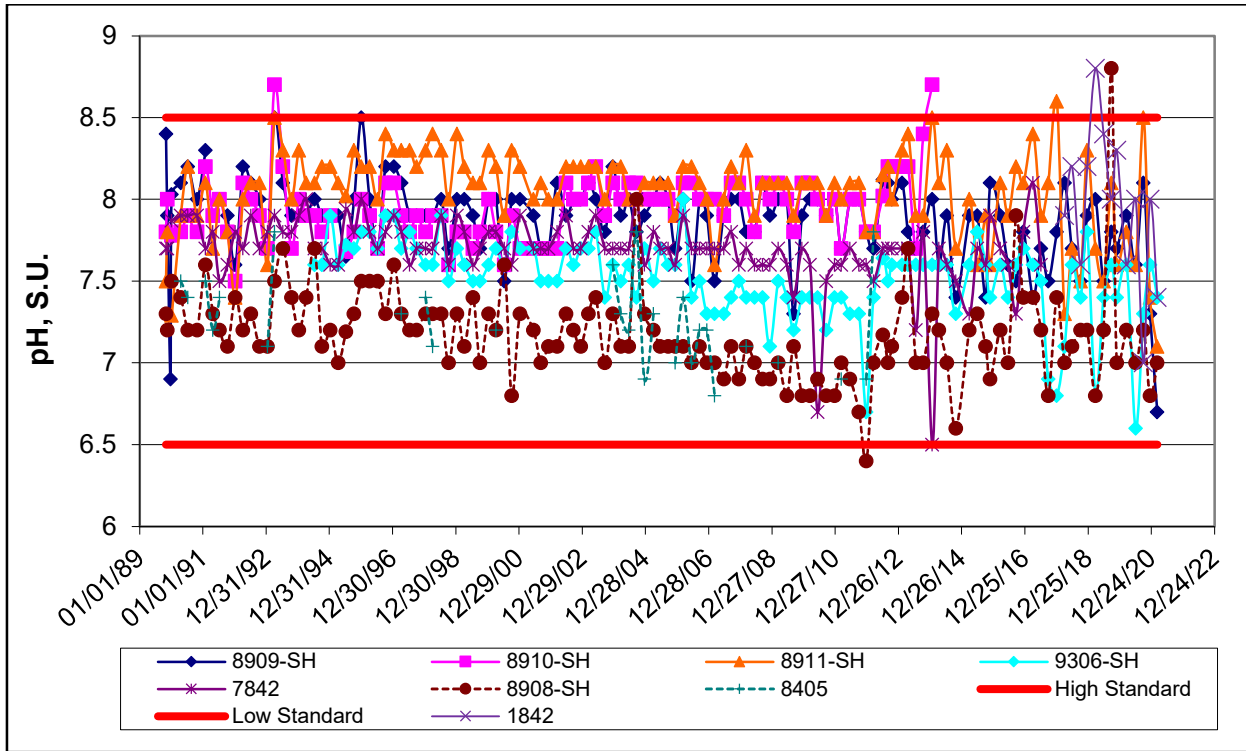
BEDROCK (Note: Only data above detection has been included in this plot)



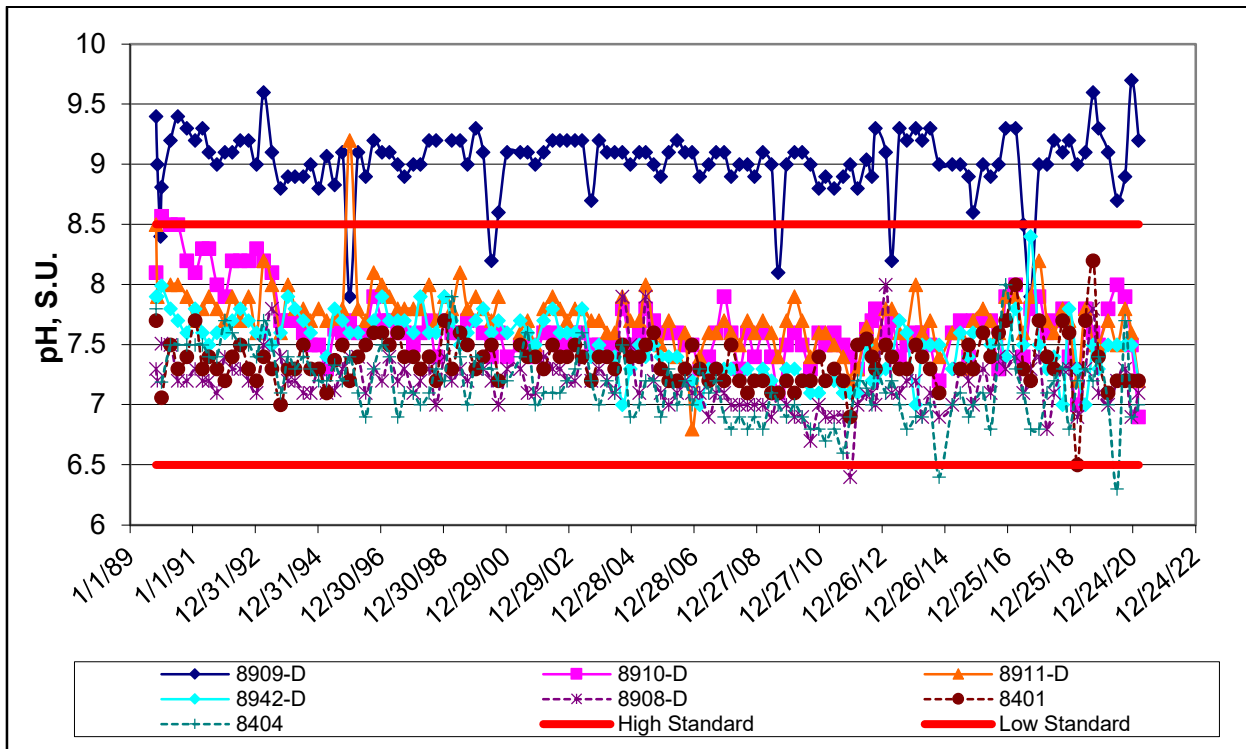
MONITORING WELL TIME-SERIES PLOTS, CONT.

pH

GLACIAL TILL

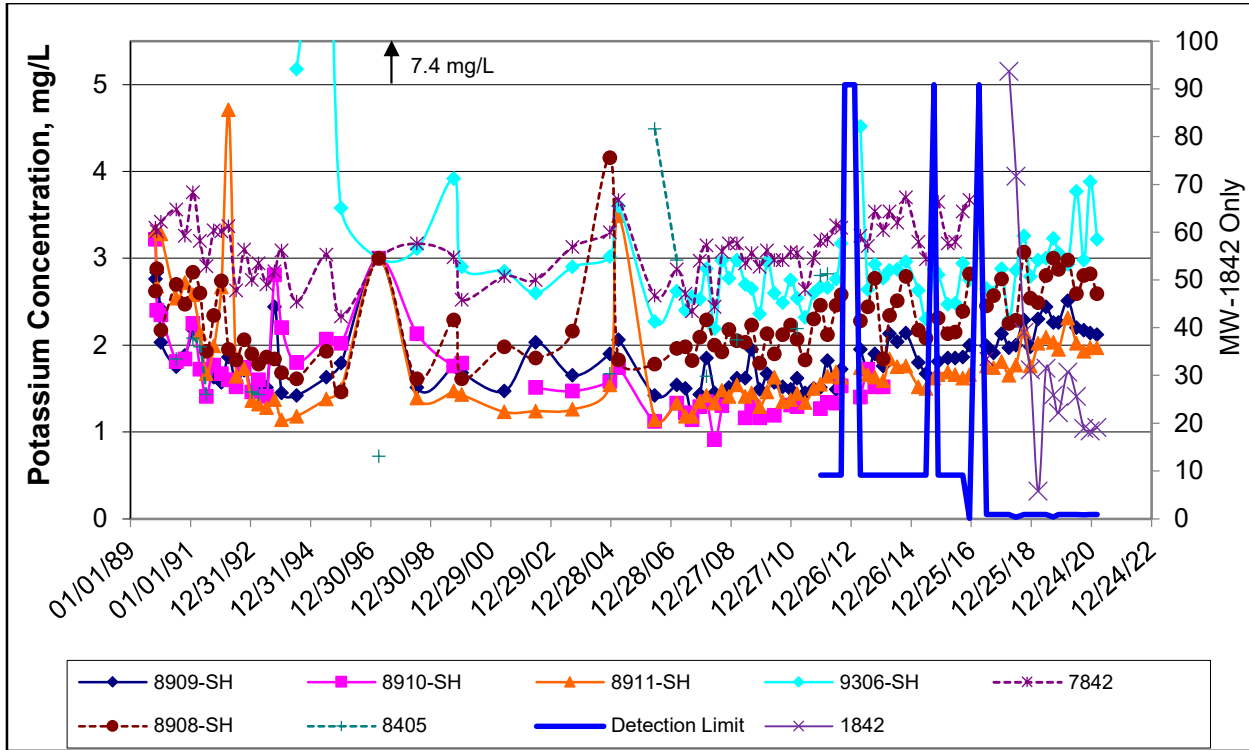


BEDROCK

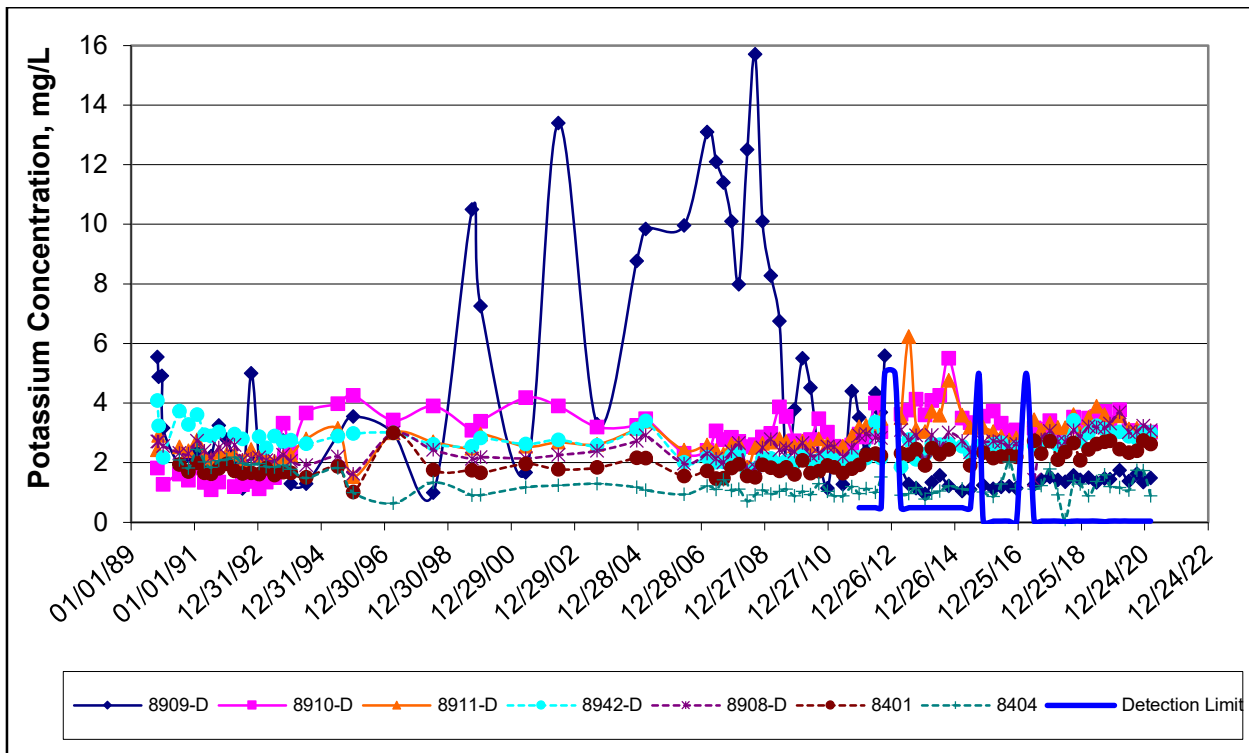


MONITORING WELL TIME-SERIES PLOTS, CONT.

**POTASSIUM
GLACIAL TILL**

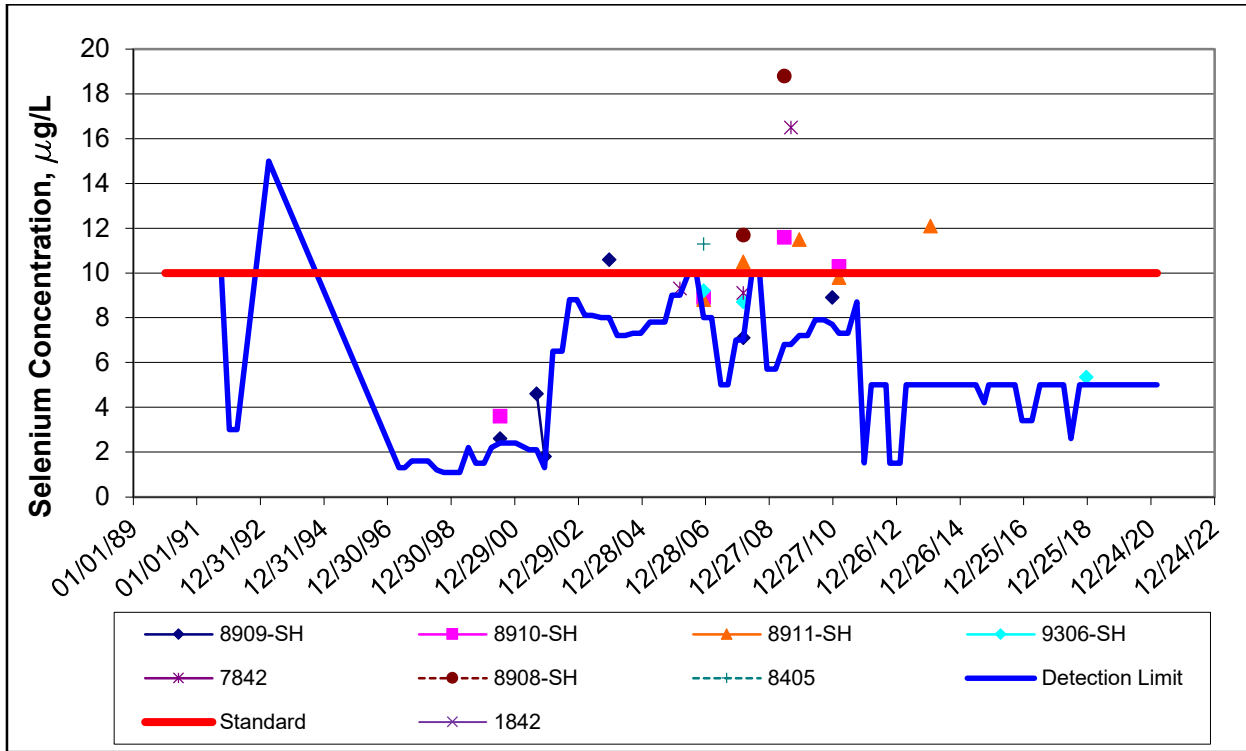


BEDROCK

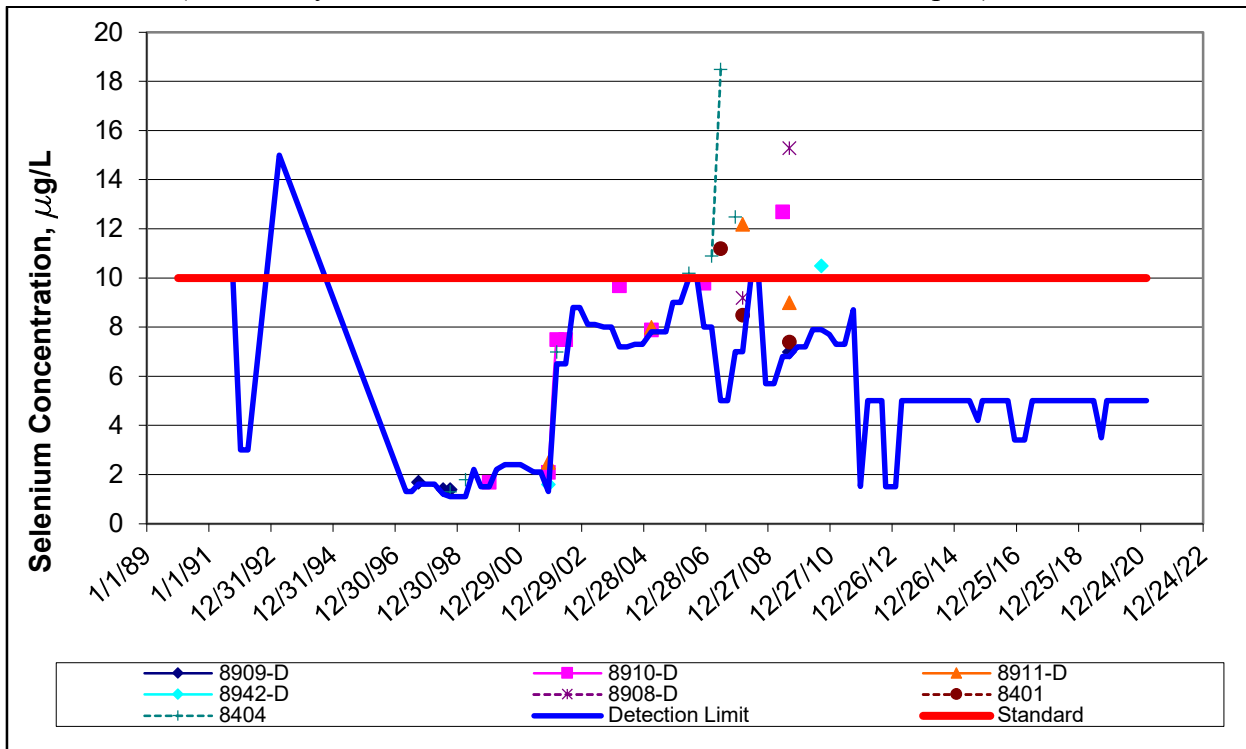


MONITORING WELL TIME-SERIES PLOTS, CONT.
SELENIUM

GLACIAL TILL (Note: Only data above detection has been included in this plot)



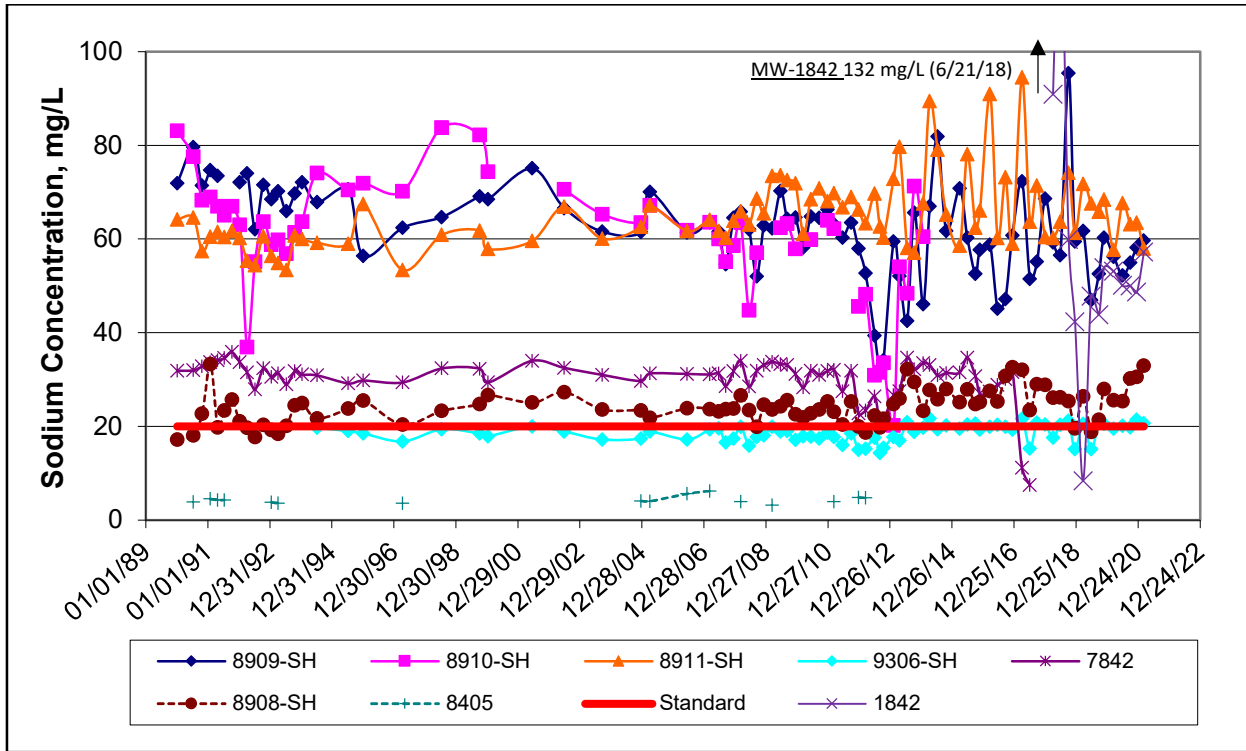
BEDROCK (Note: Only data above detection has been included in this plot)



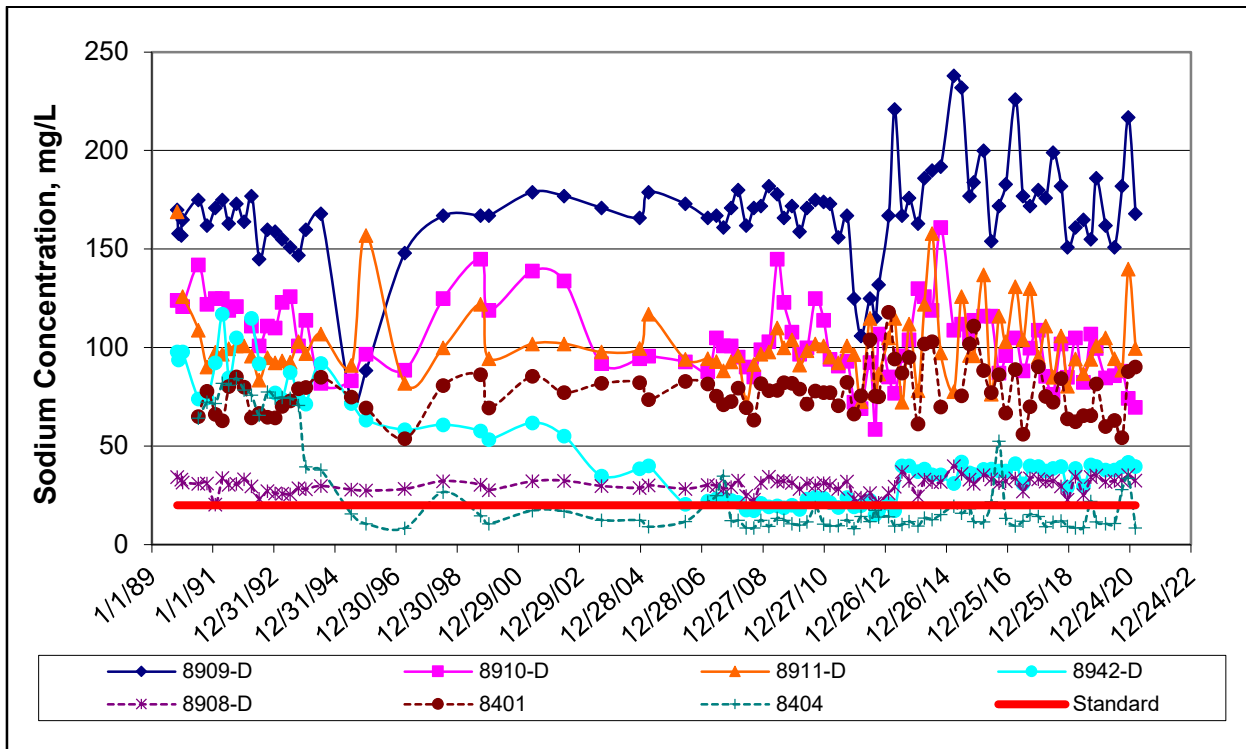
MONITORING WELL TIME-SERIES PLOTS, CONT.

SODIUM

GLACIAL TILL



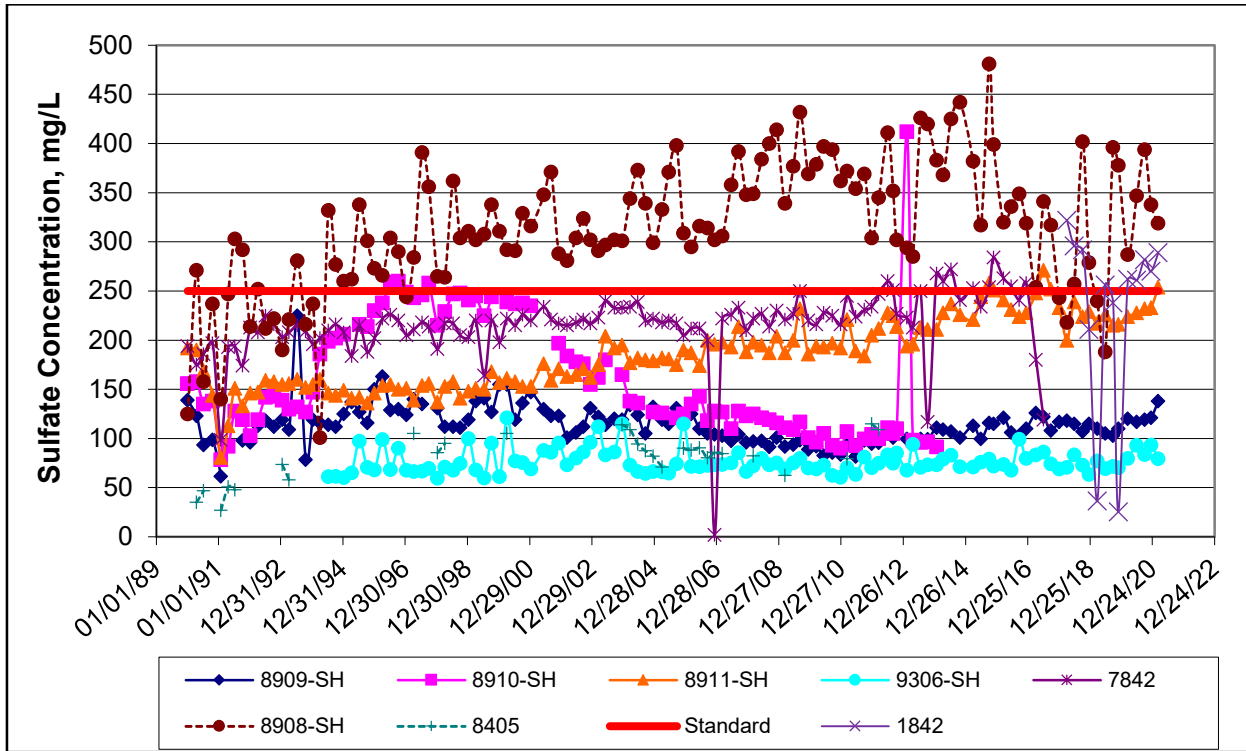
BEDROCK



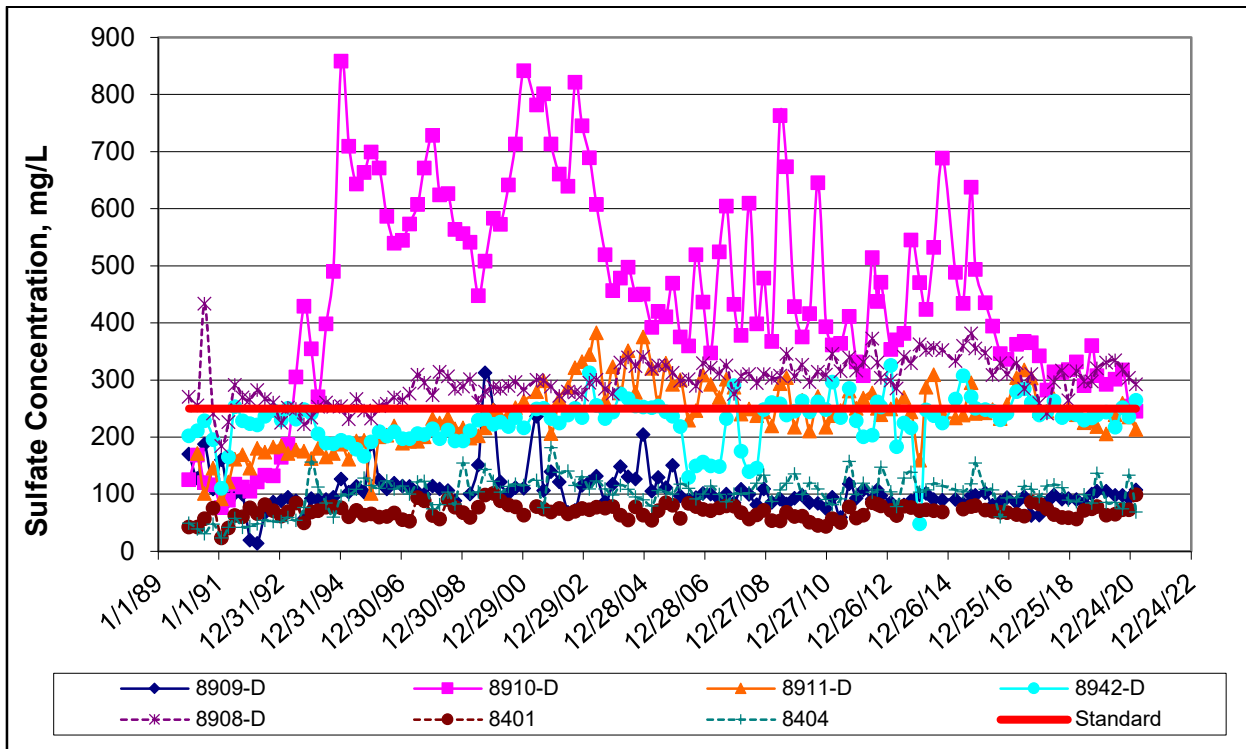
MONITORING WELL TIME-SERIES PLOTS, CONT.

SULFATE

GLACIAL TILL

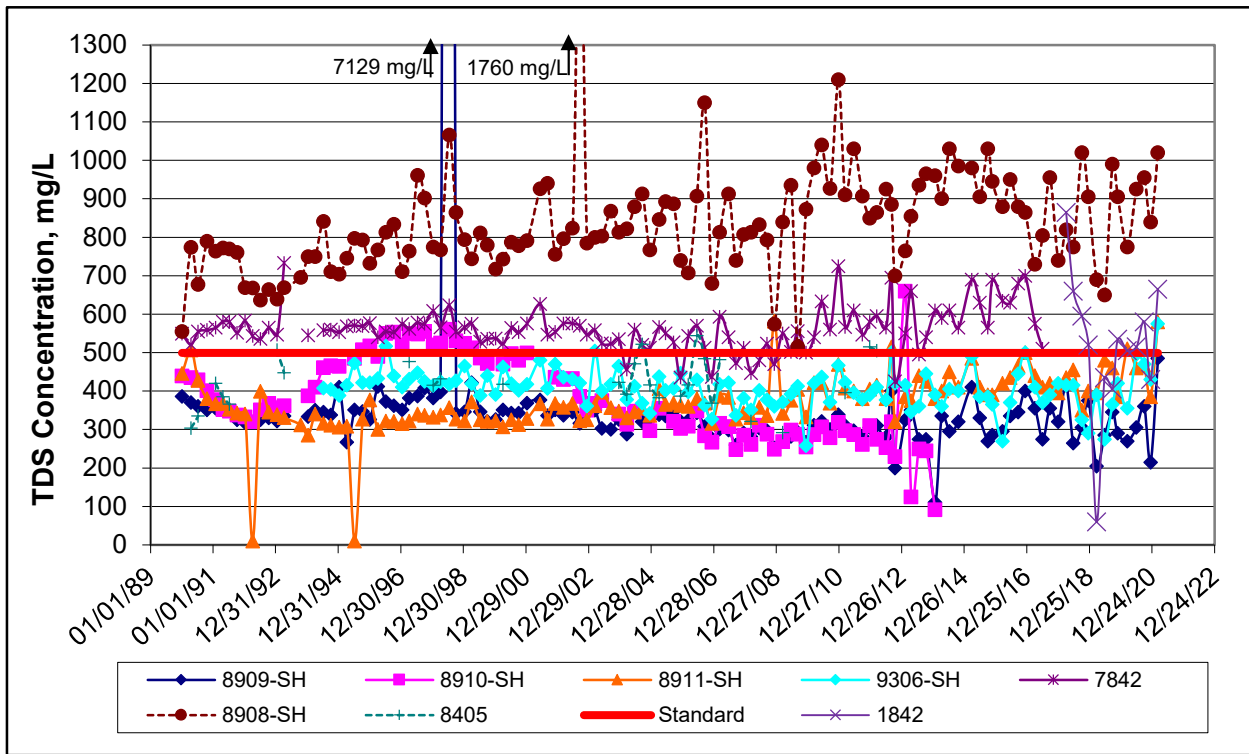


BEDROCK

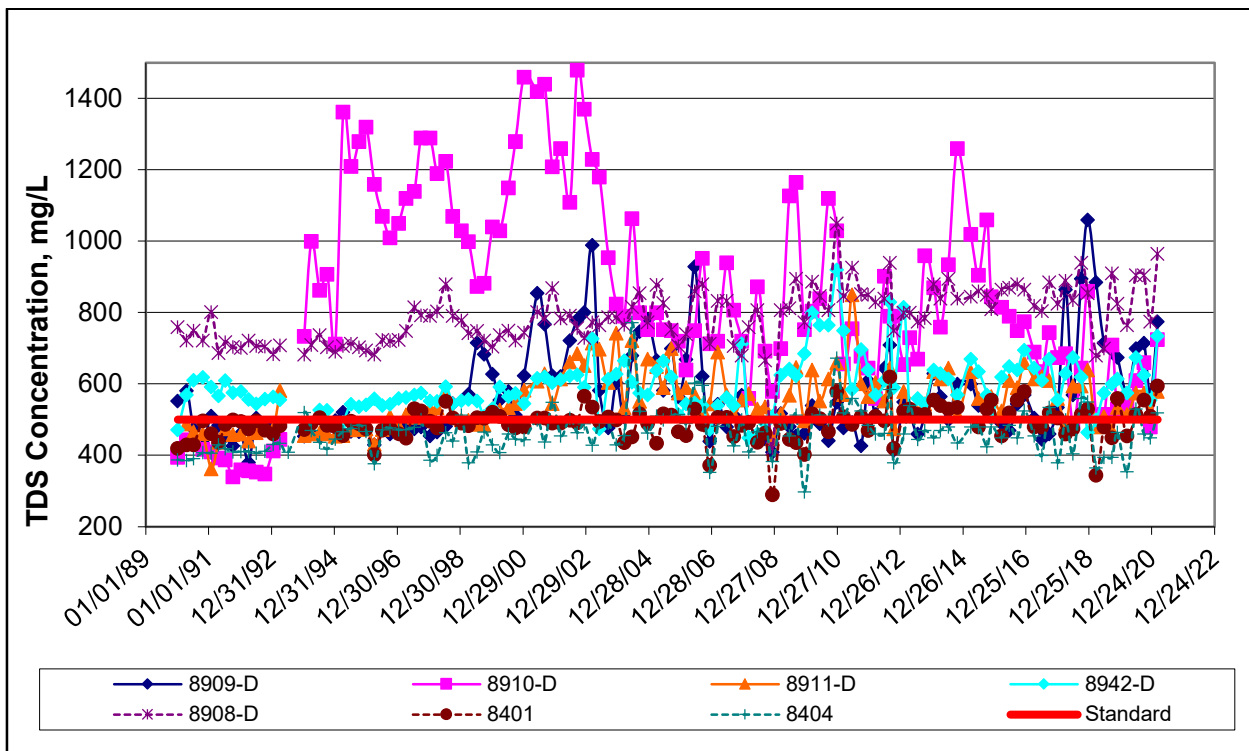


MONITORING WELL TIME-SERIES PLOTS, CONT.
TOTAL DISSOLVED SOLIDS

GLACIAL TILL



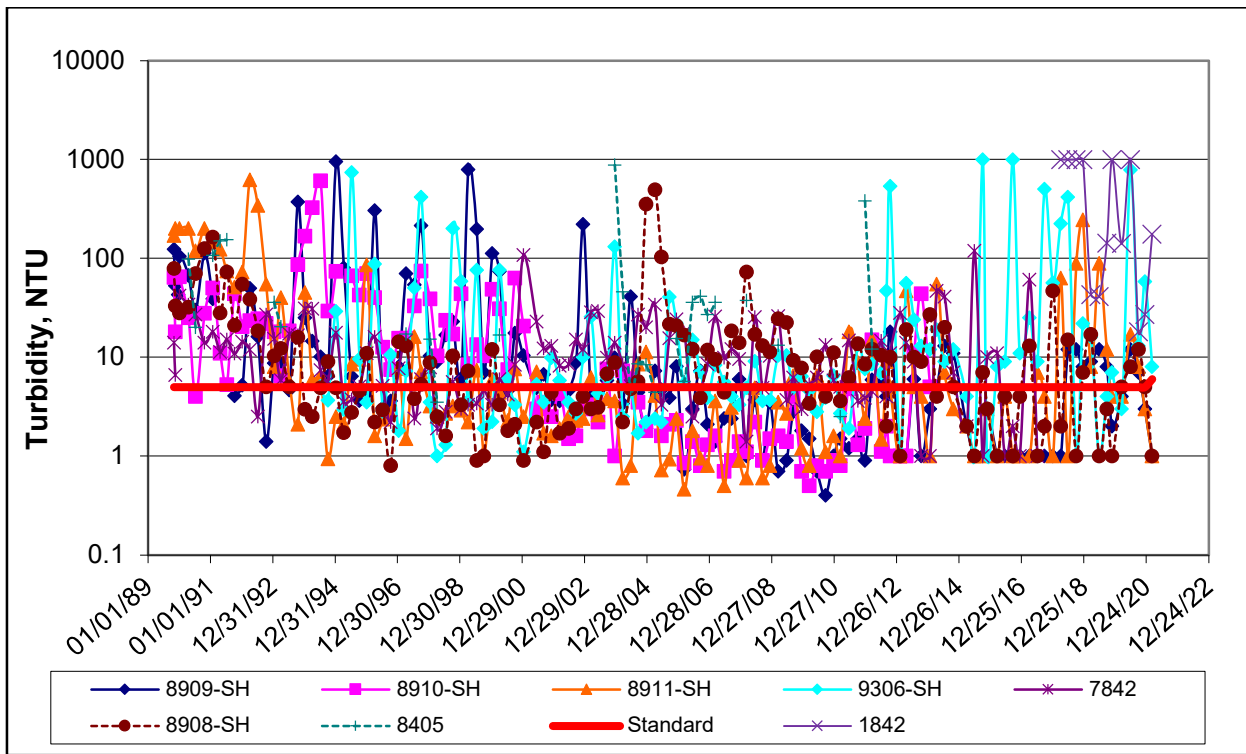
BEDROCK



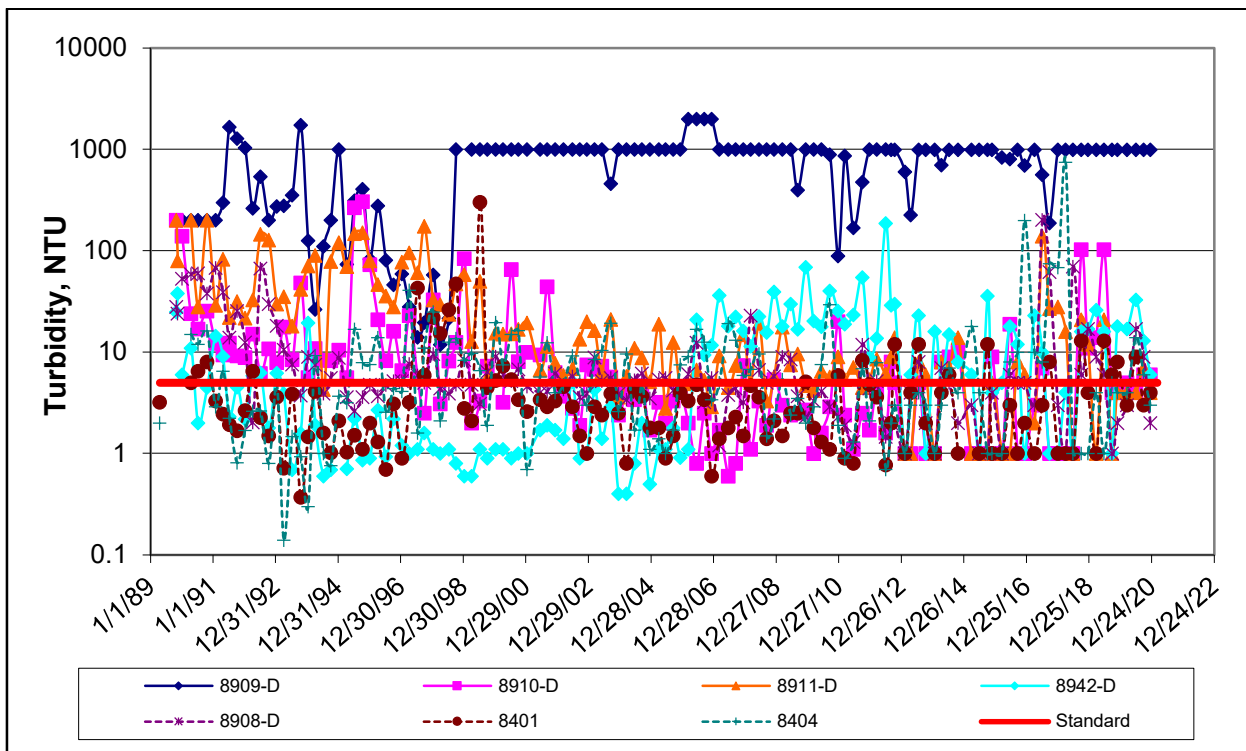
MONITORING WELL TIME-SERIES PLOTS, CONT.

TURBIDITY

GLACIAL TILL



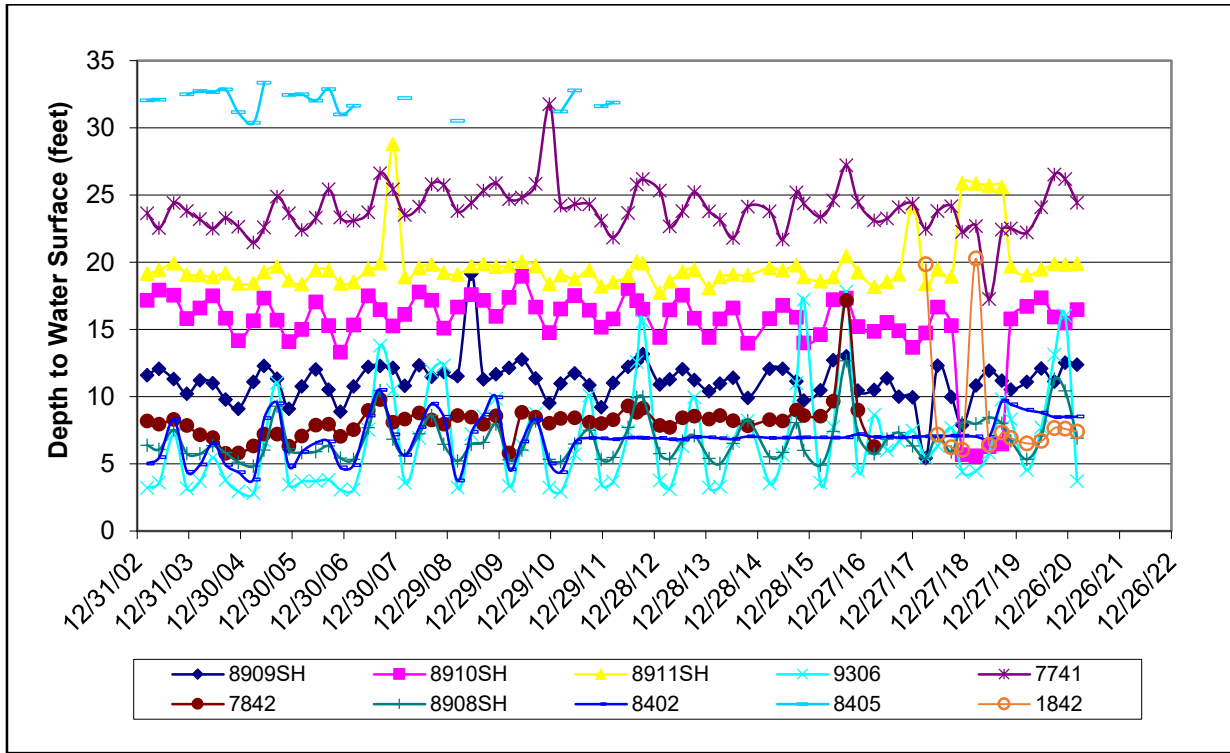
BEDROCK



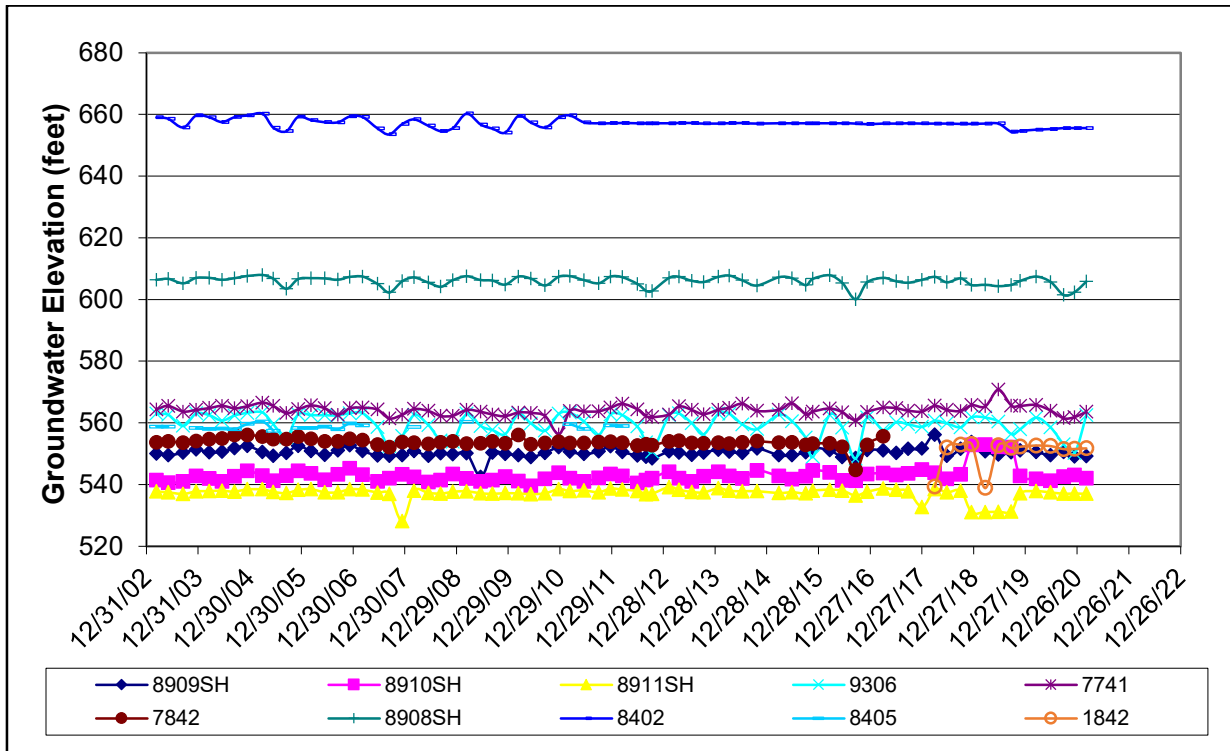
STATIC GROUNDWATER LEVEL TIME-SERIES PLOTS

GLACIAL TILL

DEPTH TO WATER SURFACE

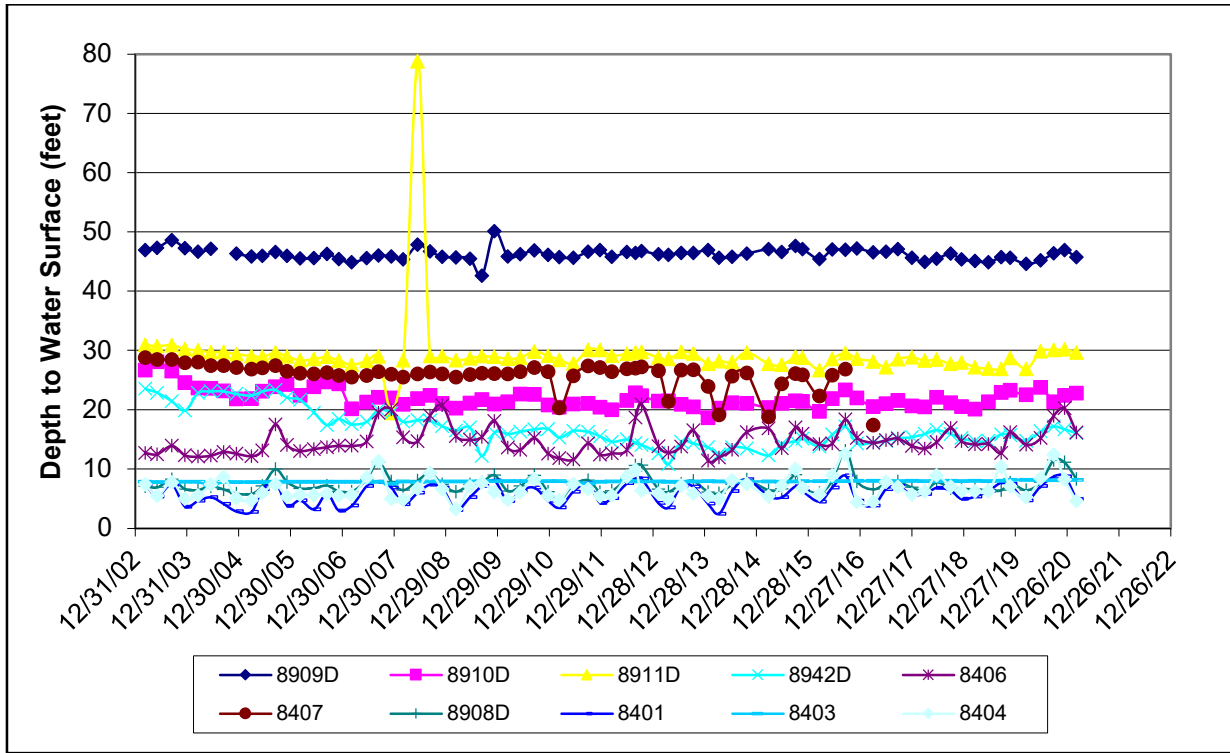


GROUNDWATER ELEVATION

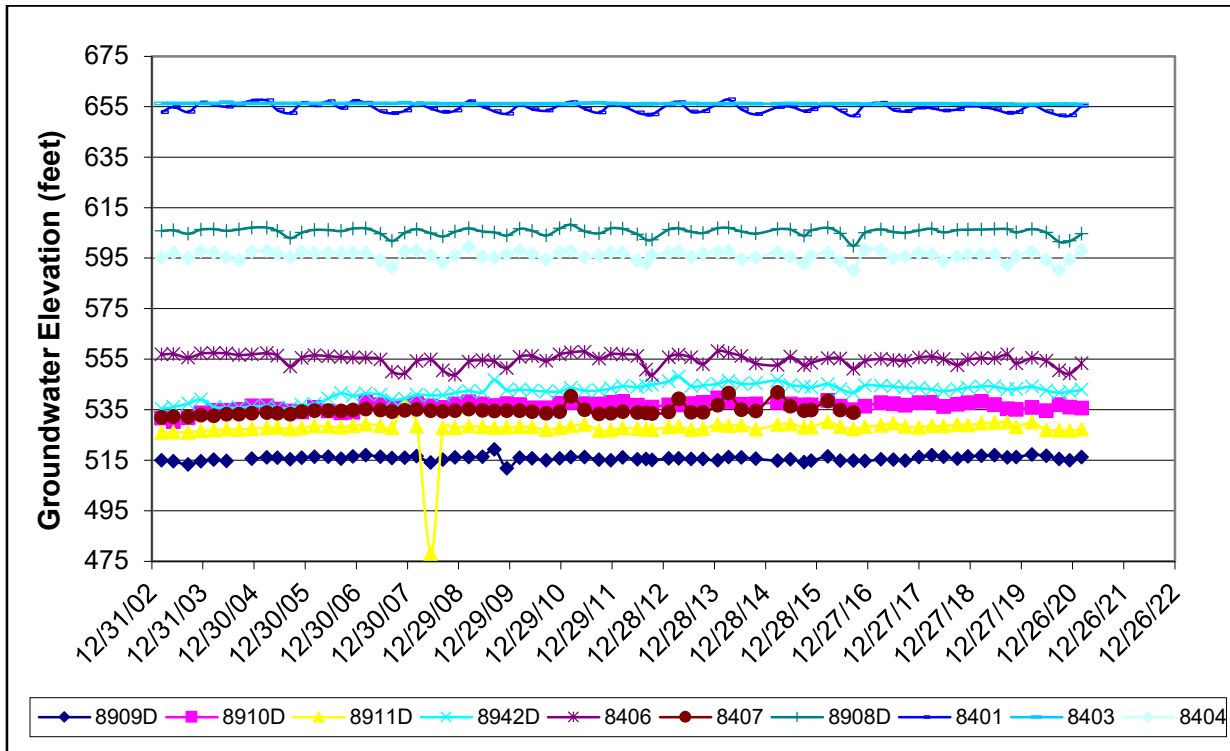


STATIC GROUNDWATER LEVEL TIME-SERIES PLOTS BEDROCK

DEPTH TO WATER SURFACE



GROUNDWATER ELEVATION



Attachment 3

**Flow Metering System – Leachate Flow
Rate Time Series
Updated through March 31st, 2021**

Daily Average Leachate Flow Rate

