JUNIPER RIDGE LANDFILL

Operated By
NEWSME Landfill Operations, LLC

April 29, 2020

Kathy Tarbuck
Department of Environmental Protection
Bureau of Remediation and Waste Management
17 State House Station
Augusta, ME 04333-0017

Re: Juniper Ridge Landfill 2019 Annual Report

Dear Ms. Tarbuck:

Enclosed for your review is the Juniper Ridge Landfill 2019 Annual Report and supporting documentation as required.

Should you require additional information or clarification, please do not hesitate to contact me at 207-249-8025 or Wayne Boyd at 207-862-4200 ext. 224.

Respectfully submitted,

NEWSME Landfill Operations, LLC.

Jeffrey Pelletier
Environmental Manager

Enclosure

Cc: John Blais, BGS
William Mayo, City of Old Town

2019 ANNUAL REPORT

JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

MEDEP LIC. #S-020700-7A-A-N,
Amendment #S-020700-WD-N-A, and
MEDEP LIC. #S-020700-WD-BI-N

April 2020

JUNIPER RIDGE LANDFILL

Operated by NEWSME Landfill Operations, LLC

2828 Bennoch Road, Old Town, Maine 04468 • (207) 394-4372

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1.0 INTRODUCTION

Pursuant to the requirements of 38 MRS §1310-N(6-D), this document, and associated attachments, serve as the 2019 Annual Report for the Juniper Ridge Landfill (JRL) located off Route 16 in Old Town, Maine. The information contained in this report also addresses the requirements of:

- Section 401.4.D of Maine Solid Waste Management Rules;
- Condition 19 of Solid Waste Order #S-020700-WD-N-A;
- Condition 4 of Solid Waste Order #S-020700-WD-W-M;
- Conditions 12, 14, 15, and 20 of Solid Waste Order #S-020700-WD-BI-N;
- Condition 1 of Solid Waste Order #S-020700-WD-BM-Z.

As the contracted operator of the Juniper Ridge Landfill, NEWSME Landfill Operations, LLC (NEWSME), an indirect subsidiary of Casella Waste Systems, Inc. (CWS) is submitting this annual report to the Maine Department of Environmental Protection (MEDEP) on behalf of the Maine Bureau of General Services (BGS). Pursuant to P.L. 2011, Chapter 655, Sec. GG-69, on July 1, 2012 the Bureau of General Services in the Department of Administrative and Financial Services became the owner and licensee of JRL. Prior to July 1, the State Planning Office (SPO) owned JRL and held its licenses. The SPO was abolished on July 1, 2012.

1.1 Overview

JRL property consists of a 780-acre site accessed off Route 16 in Alton, with a physical address of 2828 Bennoch Road, Old Town, Maine. The licensed solid waste footprint of the JRL is approximately 122 acres. A location map of the JRL site and the surrounding facilities is shown on Figure 1-1. The JRL was originally licensed (#S-020700-7A-A-N) by the Board of Environmental Protection on July 28, 1993 as a generator-owned landfill for disposal of pulp and papermaking residuals generated by the Fort James Paper Mill located in Old Town, Maine. The original approved capacity of the facility was approximately 3 million cubic yards. Landfill operations began in Cell 1 in December 1996.

In June 2003, the Maine legislature passed Resolve 2003, Chapter 93, which authorized the State of Maine to pursue the purchase of the JRL from Fort James Operating Company. The final purchase agreement between SPO and Fort James would provide disposal capacity for the mill's waste for a 30-year period. On October 30, 2003, the SPO submitted an amendment application to the MEDEP to increase the approved final elevation of the landfill, and to dispose of additional waste streams at the facility.

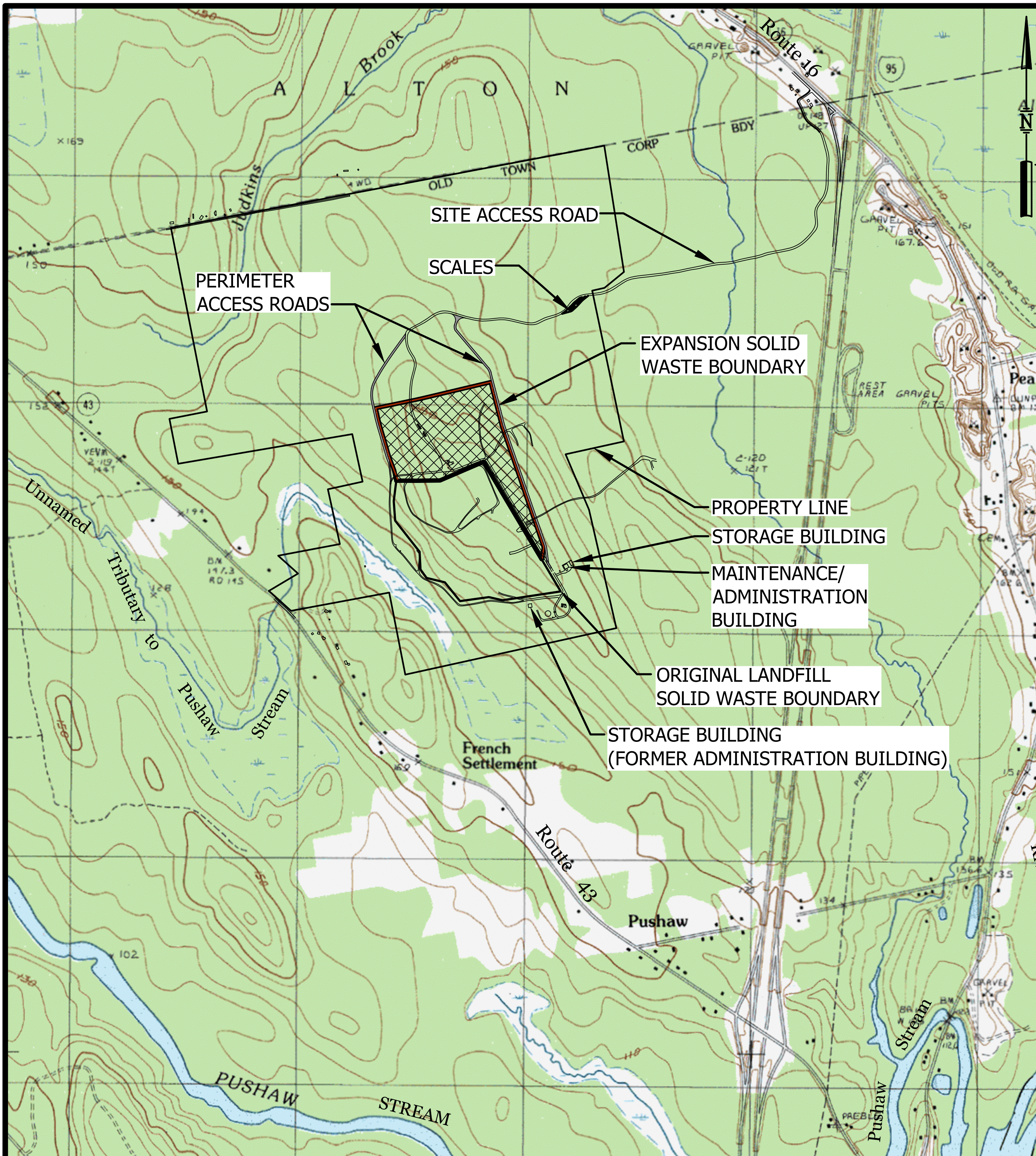
On February 5, 2004, SPO formally purchased the JRL property from Fort James and signed an Operating Services Agreement with NEWSME to operate the facility for a 30 year period. At the same time, previously approved MEDEP operating licenses for the JRL were transferred to the SPO. On April 9, 2004, the MEDEP approved the amendment application and issued permit #S-020700-WD-N-A to the SPO to increase the original JRL capacity from approximately 3.3 million cubic yards to approximately 10.2 million cubic yards. An expansion of an additional 9.35 million cubic yards of capacity was approved for the site by the Maine Board of Environmental Protection (MEBEP) on June 1, 2017 with Board Order #S-020700-WD-BI-N and #L-19015-TG-D-N.

Since the execution of the Operating Services Agreement, NEWSME has been operating the site and is responsible for costs associated with development, operation and closure/post-closure activities at the JRL.

To date, Cells 1, 2, 3A, 3B, 4, 5, 6, 7, 8, 9, and 10 of the 2004 amendment license have been constructed; this accounts for the 68-acre landfill approved by the MEDEP Solid Waste Order #S-020700-WD-N-A. The last phase of filling the originally permitted landfill includes filling over the eastern and northern outer waste side slopes of the originally permitted landfill cells to achieve final waste grades of the 2004 permitted footprint. It is NEWSME's intent to fill this capacity in conjunction with the filling of expansion cells.

Cell 11, the first of six cells to be constructed as part of the 54 acre JRL expansion, approved by MEBEP Board Order #S-020700-WD-BI-N and #L-19015-TG-D-N, was constructed in 2018. Approval to commence waste placement was issued by the MEDEP on September 19, 2018. In 2019 filling occurred primarily in Cell 11 and other adjacent cells located in the 2004 permitted footprint. Intermediate cover was placed once final waste grades were reached.

As of December 31, 2019, 8,573799 cubic yards of total permitted capacity remained at JRL. Of that total permitted capacity, 724,268 cubic yards remained in the previously constructed Cells 1 – 10 of the 2004 permitted footprint (#S-020700-WD-N-A), 414,131 cubic yards remained in the previously constructed Cell 11, the first of six landfill cells to be built as part of the JRL expansion footprint (#S-020700-WD-BI-N), and 7,849,531 cubic yards remained in 5 landfill cells that have not yet been constructed (Cells 12 – 16), but part of the JRL expansion footprint (#S-020700-WD-BI-N).



NOTE:

BASE MAP ADAPTED FROM 7.5 MIN
USGS TOPOGRAPHIC QUADRANGLE
OLD TOWN, MAINE-1988

1000 0 2000 4000 FEET

DWG: SITELOC LMN: SITELOC CTB: SME-STD REV: 4/3/2020

FIGURE 1-1
SITE LOCATION MAP
JUNIPER RIDGE LANDFILL EXPANSION
OLD TOWN, MAINE

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

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1.2 Annual Report Format

This Annual Report contains the information required by Section 401.4.D of the Maine Solid Waste Management Rules (Rules), including a general summary of activities during 2019, a compliance evaluation performed by JRL's environmental manager, a summary of 2019 operations and operational information, a summary of facility site changes, a summary of the site monitoring performed at and around the site during 2019, an update of the costs and documentation of changes to the closure and post-closure funding of the facility, and a summary of best efforts by CWS to divert MSW from landfilling at the JRL to the greatest extent practicable.

2.0 SUMMARY OF SITE ACTIVITIES

2.1 Site Activities

The following landfill related site activities occurred at JRL during 2019:

- Mining of the Cap 1 area (Cells 1 & 2) for Cell 11 soft layer material;
- Continuance of placing soft layer, frost layer, and waste material in Cell 11;
- Continuance of placing waste material in the 2004 permitted footprint adjacent to Cell 11 and in the Cap 1 area;
- Wood clearing and grubbing of Cell 12 construction/borrow areas; Cell 12 east berm corridor, the chain link fence area, and the new scale house area;
- Construction of a new scale house;
- Construction of a new administration building and operator's breakroom (an addition to the JRL Maintenance Building);
- Excavation and stockpiling of soils in the borrow area;
- Continued placement of intermediate cover on the 2004 permitted footprint and the side slopes of Cell 11 as waste grades were achieved;
- Continued installation of new landfill gas collection components on the original 2004 permitted footprint and in Cell 11 of the expansion. Components installed included new vertical LFG extraction wells, gas collection trenches, 12" header piping, and lateral extraction piping;
- Cleaning and inspection of the leachate storage tank;
- Installation of an additional manway door on the leachate storage tank; and
- Replacement of the landfill gas flare base.

2.2 Summary of Applications Submitted and/or Approved at JRL in 2019

The following MEDEP, Local, and Federal applications were submitted and/or approved during 2019 relating to operations at JRL:

Table 2-1 Summary of Applications Submitted and/or Approved at JRL, 2019

Application Discription	Agency	Permit/License Number
Cell 12 East Berm Corridor Project Drawings for Review	MEDEP	Approved (no permit issued)
Scales/Scale House and Maintence Building Minor Alteration for Review	MEDEP	Approved (no permit issued)
Maine Construction General Permit - Clearing/Grubbing Cell 12 Construction/Borrow Area, Cell 12 East Berm Corridor, the Chain Link Fence Area, and the Scale House Area	MEDEP	Approved (after 14 day waiting period)
Abandonment of 3 Pieometers and 2 Borings Prior to Cell 12 Development	MEDEP	Approved (no permit issued)
Renewal of Air Emissions Part 70 License	MEDEP	No License decision by 12/31/19
Federal Fish & Wildlife Permit Renewal (Bird Depredation)	US Department of Fish and Wildlife	MB670894-0
One Time Waste Disposal – Lead Paint Chips/Gravel/ and Misc. (US Navy - Cutler)	MEDEP	S-020700-WT-BT-N
One Time Waste Disposal – PCB Impacted Concrete (Emera Maine - Bangor)	MEDEP	S-020700-WT-BU-N
Minor Revision to Accept CRM Bypass and Processing Residues from the Lewiston Recycling Facility into the Landfill Expansion Area	MEDEP	S-020700-WD-BP-M
One Time Waste Disposal – Polyethylene and Cellulose Trimmings (Huhtamaki - Waterville)	MEDEP	S-020700-WT-BV-N
One Time Waste Disposal –Treated Lead Contaminated Soil (Former Ralph Stanley Boat Yard - Southwest Harbor)	MEDEP	S-020700-WT-CA-N
One Time Waste Disposal –Fire Brick (Dupont Nutrition- Rockland)	MEDEP	S-020700-WS-BY-N
One Time Waste Disposal –Spent Filter Sand (Dupont Nutrition- Rockland)	MEDEP	S-020700-WT-BX-N
Minor Revision to Increase the OBW limit in the JRL Landfill Expansion from 65,000 tons to 85,000 tons (Pro-rated for the Remainder of 2019 and increased to 85,000 tons for 2020).	MEDEP	S-020700-WD-BW-M
Application for Order of Compliance with a Solid Waste Condition (License Amendment #S-020700-WD-BL-A and #S-020700-WD-BM-Z- Condition #7)	MEDEP	No License decision by 12/31/19
Submittal of the Cell 12 Design Report	MEDEP	No License decision by 12/31/19

2.3 Compliance Self-Audit

As required by Section 401.4.D (1) (b) of the Rules, JRL performed an annual evaluation of landfill operations for calendar year 2019. A copy of the Audit is included as Attachment A of this report.

3.0 SUMMARY OF OPERATIONS

3.1 Types of Wastes Received at JRL during 2019

During calendar year (CY) 2019, JRL received and disposed of a total of 818,457 tons of waste material. Table 3-1 summarizes the waste types received, along with their corresponding tonnages.

In compliance with JRL's permit condition, wastes going to the landfill were screened in advance in order to assure that no out-of-state wastes were accepted at the facility.

3.2 Estimates of Capacity Utilized during 2019 and Remaining Capacity

Based on the July 24, 2019 aerial survey results, approximately 204,223 cubic yards of capacity was utilized from Cells 1 – 10 of the 2004 permitted footprint (#S-020700-WD-N-A), while approximately 1,402,645 cubic yards was utilized in Cell 11 of the JRL expansion footprint (#S-020700-WD-BI-N) during 2019.

As of December 31, 2019, 8,573799 cubic yards of total permitted capacity remained at the JRL. Of that total permitted capacity, 724,268 cubic yards remained in the previously constructed Cells 1 – 10 of the 2004 permitted footprint (#S-020700-WD-N-A), 414,131 cubic yards remained in the previously constructed Cell 11, the first of six landfill cells to be built as part of the JRL expansion footprint (#S-020700-WD-BI-N), and 7,849,531 cubic yards remained in the 5 landfill cells that have not yet been constructed (Cells 12 – 16), but part of the JRL expansion footprint (#S-020700-WD-BI-N).

These remaining capacity totals are based on survey data through June 24, 2019 and an estimate of the capacity consumed for the remainder of the year using a compaction rate of 0.81 tons/cubic yard applied to the over-the-scale tonnage. Since the survey data for the entire site is utilized to estimate the capacity consumed and remaining, these values account for capacity gained due to settlement, compaction, and/or decomposition of the waste within the landfill up until the date of the survey. Future settlement and compaction rates may vary.

Table 3-1 Summary of Wastes Accepted at JRL, 2019

Summary of Wastes Accepted at Juniper Ridge Landfill Report Year 2019				
Waste Type #	Waste Types	Total (tons)	Origin	% Total Waste
1	Bypass MSW	40,614	Maine	5.0
2	CDD/MSW Processing Residue - OBW (Disposed of in the Original 2004 Permitted Footprint)	18,460	Maine	2.3
3	CDD/MSW Processing Residue - OBW (Disposed of in the Expansion Permitted Footprint)[5]	66,094	Maine	8.1
4	CDD Processing Residue - Fines[1]	140,256	Maine	17.1
5	FEPR	105	Maine	0.0
6	Mixed CDD	299,611	Maine	36.6
7	MSW[4]	79,910	Maine	9.8
8	Wood from CDD[2]	1,472	Maine	0.2
9	Residue/Trash from Single Stream	5,083	Maine	0.6
	Special Wastes Types			
10	Burn Pile Ash and/or Hot Loads Area Ash	383	Maine	0.0
11	Catch Basin Grit & Street Sweeping	448	Maine	0.1
12	Coal, Oil & Multi-fuel Boiler Ash	7,699	Maine	0.9
13	Contaminated Soil & Debris	22,037	Maine	2.7
14	Dredged Spoils	233	Maine	0.0
15	Industrial WWTP Sludge	15,002	Maine	1.8
16	Lead Paint Chips, Gravel, Plastic Cont. Bar. & PPE	9	Maine	0.0
17	Leather Scraps	54	Maine	0.0
18	MSW Incinerator Ash	37,688	Maine	4.6
19	Municipal WWTP/POTW Sludge	67,886	Maine	8.3
20	Non-Friable Asbestos	435	Maine	0.1
21	Non-Hazardous Chemical Related	2,266	Maine	0.3
22	Oil Spill Debris	3,259	Maine	0.4
23	PCB Impacted Concrete	691	Maine	0.1
24	Polyethylene & Cellulose Trimmings	4,845	Maine	0.6
25	Pulp Mill Waste	1,134	Maine	0.1
26	Sandblast Grit	299	Maine	0.0
27	Spoiled Foods	574	Maine	0.1
28	Sulfur Scrubbing Residues	844	Maine	0.1
29	Water/Air Filtration Media	0	Maine	0.0
30	WWTP Grit Screenings	1,066	Maine	0.1
SUBTOTAL WASTE TYPES 1-9		651,605	Maine	79.6
SUBTOTAL WASTE TYPES 10-30		166,852	Maine	20.4
GRAND TOTAL WASTE RECEIVED[3]		**818,457**	Maine	

1. Used as alternative daily cover (ADC).

2. Wood from CDD was received at the Juniper Ridge Landfill wood storage facility (ADC).

3. Total derived from sum of higher significant digit numbers, not rounded whole numbers as provided in the above table.

4. Non-bypass MSW limited to 81,800 tons in the Original 2004 Permitted Footprint from 01 APR – 31 MAR. Numbers reported above are for calendar years. Total non-bypass MSW from 04/01/19 - 03/31/20 was 80,366 tons.

5. On 12/20/19, MEDEP approved an increase of OBW in the Expansion area. The previous limit of 65,000 tons per year, set by expansion license #S-020700-WD-BI-N, was modified through solid waste minor revision #S-020700-WD-BW-M. The minor revision approved additional disposal of OBW prorated for the remainder of 2019, and increased to 85,000 tons for calendar year 2020.

3.3 Estimates of the Amount of Cover Material Placed

During 2019, a mixture of synthetic and soil cover was utilized as final waste grades were reached. Approximately 8 acres of synthetic cover (30 and 40-mil) was placed on the side slopes of Cell 11. Approximately 6 acres of soil cover was utilized on the top of the 2004 permitted footprint (primarily Cell 8), where previous soil cover had been removed to add additional waste material to reach final grade elevations.

Throughout 2019 operational areas received alternate daily cover (ADC). ADC is also used as a bedding layer on the waste side slopes prior to placement of the intermediate cover. Approved ADC materials utilized throughout the year included: CDD processing residue wood fines and clean wood from CDD after being chipped. Total ADC usage for 2019 amounted to 141,728 tons. Utilization of waste-related materials for daily cover and bedding for the intermediate cover obviated the use of virgin soil material.

3.4 Summary of Changes to the Facility's Operations Manual

Included under a separate cover is a complete reissue of the JRL Expansion Operations Manual (Revised in April 2020). This new manual supplements previous versions and incorporates JRL's current operations of both the 2004 permitted footprint and the 2017 landfill expansion. During the reissue process, all sections and appendices were reviewed and updated if necessary.

3.5 Proposed Changes to the Operations Manual or Other Landfill Operations

During 2020, JRL staff plan to continue updating the revised 2020 JRL Expansion Operations Manual as changes arise. Changes will likely occur with the addition of Cell 12, set to be constructed during the 2020 construction season.

In 2020 JRL will continue filling/shaping Cell 11, until Cell 12 is constructed. Once constructed, due to the lack of availability of MSW, the preferred source of soft layer material, the Cap 1 Area will once again be mined as a source of soft layer material for Cell 12.

The Cap 1 final cover installation is currently scheduled to occur sometime in 2021 or 2022, dependent on 2020 tonnage amounts and remaining capacity at the end of the year. If the construction of Cell 13 must occur in 2021, then Cap 1 will likely occur in 2022, staggering construction of future landfill cells and final capping by one year.

3.6 Responses to Spills, Fires, Accidents or Unusual Events at the Landfill

During 2019, the JRL facility experienced spills, fires, and wind related events. Six petroleum-related, two leachate/waste-related, and one landfill gas condensate-related spills occurred during 2019. All spills were properly cleaned up by JRL Staff or a 3rd party environmental services company. Further details of the events are listed below.

Petroleum Related Spills

- (3) Small hydraulic fluid spills occurred and all were caused by broken hydraulic system components. Two of the spills were located between the former administration building and the former scale house and were caused by 3rd party haulers. The other was located near the JRL Thiopaq Facility. The MEDEP spill hotline was contacted regarding these spills.

- (2) Small diesel fuel spills occurred and were caused by broken fuel system components. Both were located between the former administration building and the former scale house and were caused by 3rd party haulers. The MEDEP spill hotline was contacted regarding these spills.

- (1) Small Engine oil spill occurred and was caused by a broken engine component. The spill occurred near the entrance of the landfill and was caused by 3rd party haulers. The MEDEP spill hotline was contacted regarding the spill.

Leachate/Waste Related Spills

- (2) Leachate/waste related spills occurred in 2019. One small leachate spill occurred near the Cell 5 pump station. The other was caused by an intense rain storm which caused stormwater to push roughly 1 cubic yard of former sand cover material out of the Cap 1 area, down a former stormwater downspout, and into a nearby stormwater pond. The MEDEP project manager was notified of the occurrence and corrective actions included: (1) removing the washed sand and angular rock for the pond inlet, (2) installing a soil plug where the former stormwater downspout was located, and (3) covering the sand plug and inlet of the pond with new synthetic cover material. Due to the low interaction time with the stormwater and the Cap 1 area waste, the conductivity of the pond measured only 178 µS/cm, which is typical for normal stormwater flow. No further corrective action was necessary.

Landfill Gas (LFG) Condensate Spills

- (1) Small LFG condensate spill occurred in 2019. The event occurred around the base of the flare when the spark arrestor was removed to resolve a flame out condition. The spill was cleaned up by a 3rd party environmental services company. The MEDEP Project Manager was contacted about the spill.

Waste Related Fires

During 2019, on-site waste-related fires occurred at JRL. All fires were resolved by JRL site personnel. Of the fire events, several occurred in both active waste placement areas and/or areas where synthetic intermediate cover was installed. The MEDEP Project Manager was notified when the fires occurred and was made aware of their causes and resolutions.

Active waste placement fires were typically extinguished with the use of both water and/or soil to cool and eliminate air. Fires where Intermediate cover was placed were typically resolved using a combination of fire extinguishers, a bentonite slurry, water and soil cover, and then making the necessary synthetic cover repairs.

Damaged Intermediate Cover

During 2019, areas of synthetic immediate cover were damaged due to heavy rain/wind events. The MEDEP Project Manager was notified after such events and 3rd party crews were called in to make necessary repairs. JRL site personnel continuously try new things to better secure the cover material to prevent reoccurrences.

3.7 Updated Cell Development Plans

Cell 11 plans will remain in the JRL Expansion Operations Manual, along with the future plans for Cell 12. Cell 12, is set to be constructed during the 2020 construction season and will represent the second cell of the 9.35 million cubic yard permitted expansion.

3.8 Copies of Reports Prepared in Accordance with the Landfill's Hazardous and Special Waste Handling and Exclusion Plan

During 2019, JRL submitted monthly special waste activity reports to the BGS, the Landfill Advisory Committee, and the City of Old Town, and placed these reports on the BGS's JRL website for the public and the MEDEP to access. No non-permitted special wastes or hazardous wastes were received at JRL during 2019. Consequently, no reports were required to be submitted pursuant to JRL's Hazardous and Special Waste Handling and Exclusion Plan.

3.9 Inspections and Testing

During 2019, JRL personnel performed routine inspections of the landfill and infrastructure as outlined in the JRL Operations Manual. Copies of quarterly (routine) and weekly inspection reports may be found on file in the Environmental Manager's Office. Sample completed inspection sheets are included in Attachment D of this Annual Report. Inspection items are completed with records maintained in the Environmental Manager's Office.

3.10 Description of System Failures and/or Repairs

Routine and non-routine maintenance activities were performed on the leachate and landfill gas collection infrastructure, access roads, stormwater structures, and cover systems during 2019. Leachate maintenance activities are listed chronologically in Attachment E. A summary of other identified landfill maintenance activities are in Attachment D. During report year 2019, the following routine maintenance and/or repair functions were performed at the facility:

- Leachate maintenance and cleaning activities occurred as needed and in accordance with the Facility's Operations Manual;
- On-site stormwater structures were cleaned and/or repaired in accordance with standard BMP's to maintain erosion & sedimentation control during rain events;
- Various repairs were made to the existing 30/40-mil intermediate cover systems due to tears, rips, and/or holes from movement, settlement, or wind;
- Gas collection piping was repaired in multiple locations to accommodate for normal settlement and operations;
- Landfill gas (LFG) wellheads were repaired throughout the year due to normal wear and tear; and
- Access roads were graded and maintained as necessary to allow access to the facility.

4.0 FACILITY SITE CHANGES

During 2019, the following minor facility site changes not requiring Department approval occurred:

- Mowing, brush cutting, and other site maintenance and upkeep activities.

During 2020, the following minor facility site changes not requiring Department approval are planned:

- Continued safety and visual upgrades of the landfill paved access road.
- Continued improvements to stormwater control systems.
- Continued efforts to mitigate wind-damage of landfill synthetic intermediate cover materials.
- Installation of a new fiber optic line to improve facility communications.

5.0 MONITORING

Water Quality

The 2019 Annual Water Quality Report for JRL is included as Attachment F of this report and includes an evaluation of the environmental monitoring data for the JRL site. During 2019, water quality samples were collected at JRL in accordance with the Environmental Monitoring Program (EMP), during April, July, and October.

Leachate Quality

Leachate quality was also evaluated and included as part of the 2019 Water Quality Report, Attachment F of this report. Below in Table 5-1, leachate volumes of each pump station, along with total leachate hauled for 2018 and 2019 are compared. As seen, leachate flows increased for 2019. This increase was largely attributed to higher than normal rainfall and an influx of stormwater introduced into the Cap 1 area (Cells 1 & 2) by the removal of the synthetic intermediate cover material, to allow mining for soft layer material for Cell 11. Leachate flows captured from the Cap 1 area are conveyed to the Cell 4 Pump Station.

Table 5-1 Leachate Total Comparison, 2018 & 2019

Total Leachate Pumped By Cell Pump Stations				
	Cell 4	**Cell 5**	**Cell 8**	**Cell 11**
2019	7,998,140	3,970,689	5,218,911	2,734,562
2018	6,848,245	3,682,870	4,813,650	2,150,930
Difference	14%	7%	8%	21%

Total Leachate Produced (Hauled) By Month			
	2019	**2018**	**Difference**
January	1,949,915	2,330,575	-20%
February	1,312,876	1,824,190	-39%
March	1,895,360	1,841,575	3%
April	2,573,450	1,494,900	42%
May	2,006,565	1,109,425	45%
June	1,829,710	859,060	53%
July	1,647,955	870,430	47%
August	2,342,420	810,705	65%
September	1,480,785	872,025	41%
October	1,668,845	1,839,330	-10%
November	1,447,460	2,804,680	-94%
December	2,031,960	2,384,860	-17%
TOTAL	22,187,301	19,041,755	14%

Landfill Gas Monitoring

The 2019 Landfill Gas Monitoring Evaluation for JRL is included as Attachment G of this report. This routine landfill gas monitoring took place at various on-site gas management locations with results being submitted via electronic deliverable documents to the MEDEP as required.

The 2019 monitoring data associated with the landfill gas collection and treatment system indicates that the system is operating in accordance with the facility's air license.

Air Monitoring

The 2019 Air Monitoring Evaluation for JRL is included as Attachment H of this report. Two types of air monitoring activities occurred on site during 2019; (1) hydrogen sulfide H_2S monitoring with stationary continuous monitors, and (2) quarterly methane (CH_4) emission surface scans on the landfill intermediate cover. Additionally, odor complaints from the 24-hour JRL odor complaint hotline provide an opportunity to evaluate the effectiveness of odor control measures at the JRL.

Geotechnical Monitoring

The 2019 Annual Geotechnical Monitoring Report for JRL is included as Attachment I of this report. During 2019, JRL continued to monitor site settlement and stability as in the past with the assistance of Dr. Richard Wardwell.

The report describes the geotechnical activities performed in accordance with the current Geotechnical Monitoring Plan (Appendix N of the Operations Manual) and the Stability and Settlement Monitoring Plan (Section 3.1.5 of the Design Report), prepared and included as part of the JRL Expansion Application for a new solid waste license, as approved by the Board of Environmental Protection under Solid Waste License #S-020700-WD-BI-N and Natural Resources Protection Act #L-19015-TG-D-N dated 06/01/2017.

Results of this monitoring verifies the consistency of the landfill's geotechnical performance with design parameters and assumptions, and with the goals of the JRL Expansion Operations Manual (NEWSME 2020). Specifically, geotechnical monitoring during 2019 included: (1) visual observation of landfill slope stability, settlement, and general landfill conditions, (2) assessment of site aerial topographic surveys; (3) a review of waste types, quantities, location of waste placement, and filling sequences, and (4) evaluation of fluid levels in the leachate collection layer of Cell 11.

6.0 FINANCIAL ASSURANCE

The closure and post-closure costs have been recalculated to reflect those Cells that, as of the end of calendar year 2020, have been or will be constructed, but have not received final cover. A copy of the revised closure and post-closure costs may be found in Attachment J of this report. Following approval of the estimates, a revised financial assurance package will be submitted to the MEDEP under a separate cover.

7.0 MSW DIVERSION

In accordance with Condition #5 of Solid Waste Order #S-020700-WD-BC-A, a summary of best efforts by CWS to divert MSW from landfilling at JRL to the greatest extent practicable has been completed and may be found in Attachment K of this report.

ATTACHMENT A

Compliance Self Audit

JUNIPER RIDGE LANDFILL
COMPLIANCE SELF-AUDIT EVALUATION
REPORT YEAR 2019

This Compliance Self-Audit Evaluation is to be used to perform an annual audit of landfill operations as required by of Chapter 401, Section 4.D. (1) (b) of the State of Maine Solid Waste Management Rules. The purpose of this audit is to verify general compliance with the site operations manual, licenses and regulatory requirements. Qualified facility personnel performed the audit.

Facility Name...................	**Juniper Ridge Landfill (JRL)**
Location.........................	**Old Town, Maine**
Audit for Calendar Year.....	**2019**
Compliance Auditor...........	**Jeffrey M Pelletier**
Title...............................	**Environmental Manager**
Signature of Auditor..........	Jeff

GENERAL EVALUATION:

1. Are active facility licenses kept on file at the facility?

Copies of active MEDEP licenses may be found in the Environmental Manager's office located at Pine Tree Landfill. Licenses are also available electronically to the landfill supervisor and staff at the JRL site.

2. Do the facility licenses have special license conditions relating to landfill operations?

Yes, a number of conditions are laid out in various licenses held by the facility. MEDEP licensed conditions are entered into a company Environmental Compliance Database that allows the division manager and compliance manager to monitor compliance with submission deadlines and fee requirements.

3. What pending licenses or approvals were sought from the MEDEP at the time of this audit.

- Part 70 Air License Renewal (submitted on 04-04-19).
- Cell 12 Design Report Review (submitted on 12-31-19).
- Sales and Use Tax Exemption Application for water and air pollution control facilities for the construction of Cell 11 (submitted on 01-03-20).
- Application for an on-going Special Waste License to dispose of a variety of non-hazardous special wastes at Juniper Ridge Landfill (submitted on 02-11-20).
- Application for a one-time Special Waste License to dispose of 1,000 tons of building debris containing PCBs < 50ppm and lead based painted materials at Juniper Ridge Landfill (submitted on 04-22-20).

4. Date of payment of MEDEP Annual Report/License Fees.

- MEDEP 2019 annual report fee of $3,785.00 was paid on February 27, 2020.
- MEDEP 2019 annual license fee of $14,623.00 was paid on July 29, 2019.

5. Date of submittal of previous MEDEP Annual Report & Report/License Fees.

- MEDEP 2018 annual report was submitted on April 29, 2019.
- MEDEP 2018 annual report fee of $3,785.00 was paid on March 26, 2019.
- MEDEP 2018 annual license fee of $14,174.00 was paid on August 02, 2018.

6. Does the facility have a Host Community Agreement in-place and on file?

A Host Community Compensation and Facility Oversight Agreement was signed with the City of Old Town on December 8, 2005. Although not a host community, a Community Benefits Agreement also was signed with the Town of Alton on October 6, 2005. Copies of these agreements may be found in the Division Manager's Office.

7. Does the facility have a current liability insurance policy in-place and on file at the facility?

Yes, a copy of the policy is available in the Division Manager's Office.

8. Has the facility submitted an executed financial assurance instrument for closure and post closure care along with updated closure/post closure cost estimates to the MEDEP?

Yes, performance bonds were initially provided to the MEDEP on February 19, 2004. An updated financial assurance package for the closure/post-closure care is provided to the MEDEP within the annual report.

9. Last date a certified copy of the facility Operations Manual was updated.

During December of 2019, changes were made to the revised 2018 Operations Manual. A complete re-issue of the JRL Expansion Operations manual, with all of the sections updated, will be issued alongside the 2019 Annual Report.

10. MEDEP approval date of last updated Operations Manual.

The facility Operations Manual was formally approved on June 01, 2017, Solid Waste Order #S-020700-WD-BI-N.

11. Number and locations of the Certified Copies of the Operations Manual.

Certified copies of the Operations Manual may be found at the following locations:

- The Augusta Office of the MEDEP
- The Municipal Office of the City of Old Town
- JRL's Environmental Compliance Manager's Office
- JRL's Operations Supervisor's Office
- Manager of State Landfills at the Maine Bureau of General Services

12. Operational personnel who received landfill training during audit year.

During 2019, operations personnel received monthly training sessions on a variety of topics relating to safety, environmental compliance, and landfill operations. Records relating to the ongoing training of landfill personnel are kept on file in the landfill supervisor's office.

13. Are only solid wastes or special wastes as allowed in the landfill's current license accepted and are those wastes handled as described in the landfill's Operations Manual?

Yes, only approved non-hazardous special and solid wastes from Maine are being accepted at JRL and are being characterized according to the conditions laid out in the facility's Waste Characterization Plan.

14. Are solid wastes and special wastes permitted for acceptance characterized on an ongoing basis in conformance with the characterization plan approved by the Department?

Yes, those wastes are being characterized at the required intervals and/or tonnage rates. Records associated with waste acceptance are kept on file electronically.

15. Is access to the facility controlled so that the public is not exposed to potential health and safety hazards and access is only permitted when an attendant is on duty?

Yes, an attendant is located at the scale house during operational hours. During non-operational hours the facility is manned by security personnel that perform regular site inspections. For public safety reasons, non-employee visitors entering the site during operational hours must first stop at the scalehouse and check in prior to further entry. The site is secured with fencing. Doors and gates around the site are secured unless in use.

16. Are the hours of operation and other limitations for access and use prominently posted at the entrance to the landfill?

Yes, the facility has the required signage in-place at the entrance to the landfill prior to and at the scale house. Additional signage is placed in prominent areas throughout the landfill.

17. Are the access roads within the facility maintained?

Yes, roads from the entrance to the active landfill are maintained year round to accommodate passage of vehicles.

18. Are any access roads into the active cell of the landfill constructed and maintained to prevent migration of leachate outside of the cell.

Yes, the main access road into the active cell is designed to prevent leachate from migrating outside of the cell.

19. Is a road maintenance program appropriately implemented to prevent the accumulation of dust, mud, or wastes from the facility access, public, or private roads?

Yes, paved roads are mechanically swept, scraped, and/or plowed as needed to prevent accumulation of undesirable material on the roads. Roads are additionally watered seasonally as necessary as a further dust control measure.

20. Are the appropriate signs posted or other approved means implemented to indicate clearly where solid waste is to be unloaded and the location of any separate handling areas?

Yes, drivers are directed by the scale house attendant and/or landfill operators to the proper staging/unloading area where they are then given further instructions via radio communications with the operators. Delivery vehicles utilizing the site are required to be equipped with a means of radio communication. Hand-held radios are made available as needed.

21. Are the setbacks and buffer strips approved by the Department being maintained?

Yes, required setbacks and buffers are being maintained as required.

22. Are the cell development plans up-to-date and submitted with the annual report?

Yes, cell development plans are included for Cell 12 which will be constructed throughout the 2020 construction season.

23. Is compaction performed at least once per operating day and more often as necessary unless otherwise approved by the Department?

Compaction is currently being achieved at JRL with the use of compactors that are operated in a manner to achieve favorable compaction rates.

24. Has cover been placed as outlined in the operations manual?

Yes, suitable waste materials, (i.e., alternate daily cover) are primarily being utilized as daily cover as necessary. Intermediate soil/synthetic cover materials are being installed as slopes reach appropriate elevation & grades.

25. Have storm water management and erosion control measures been implemented as outlined in the operations manual?

Yes, storm water management & erosion control measures are being utilized as outlined in JRL's Storm Water Pollution Prevention Plan, located in the Operations Manual.

26. Are leachate management systems including collection, transport, storage, and pumping systems maintained in accordance with the site Operations Manual?

Yes, systems receive regularly scheduled maintenance and are inspected at pre-determined intervals in accordance with the site Operations Manual.

27. Are landfill gas systems installed and maintained as outlined in the Operations Manual?

Yes, the landfill maintains an active gas collection system consisting of horizontal gas collection piping, vertical wells, and a flare.

28. Is a methane gas-monitoring program implemented to verify the concentration of explosive gases generated by the landfill, and if an exceedance is triggered, appropriate steps are taken to protect human health and the Department notified of the occurrence and the protective steps that were taken?

Yes, methane gas monitoring is being performed as required at the groundwater quality wells, landfill surfaces, at landfill structures, and LFG wellheads as required. The facility has developed a plan of action that needs to be followed should elevated levels be detected. One elevated level of methane was detected on November 3, 2019 in non-LFG collection infrastructure. The MEDEP was notified of the occurrence, which was also noted as required in both the JRL Monthly/Annual Reports.

29. Are routine inspections of the landfill facilities performed as outlined in the Operations Manual, and are records of the inspections kept on file at the facility?

Yes, routine inspections are performed at pre-determined frequencies in compliance with the site Operations Manual, with records of inspections kept on file in the Environmental Manager's office.

30. Does the facility have a fire protection plan in-place and is it outlined in the operations manual?

Yes, fire protection procedures are located in the JRL Operations Manual, and are being followed as required.

31. Does the facility have a hazardous and special waste handling and exclusion plan and is it implemented at the facility?

Yes, the hazardous and special waste handling and exclusion plan may be found in the Operations Manual. Appropriate response procedures are followed as required.

32. Does the facility have a litter control plan and is it implemented as outlined in the Operations Manual?

Yes, the facility controls off-site litter through the use of strategically placed fencing and regular litter patrols.

33. Has the Environmental Monitoring Program been implemented as outlined in the Operations Manual?

Yes, requirements as laid out in the environmental monitoring plan are being adhered to and is located in the Operations Manual.

34. Environmental sampling events being conducted as required and results reported to the MEDEP.

A record of environmental sampling events with corresponding dates may be found in the annual water quality report being submitted to the MEDEP as part of the Annual Report. Site Water quality monitoring was completed on a tri annual basis in April, July, and October, with monitoring reports from those events submitted to the MEDEP.

35. Are waste staging and storage areas maintained as outlined in the Operations Manual?

Yes, staging and storage areas are being operated and maintained in accordance with the site Operations Manual.

36. Is a vector control program in-place and implemented as outlined in the operations manual?

Yes, a pest control service regularly visits the site and maintains control devices. Additionally, the facility utilizes lethal & non-lethal means of deterring bird populations.

37. Does the facility accept asbestos wastes?

The facility is only licensed to accept non-friable asbestos containing wastes and manages the material in a manner that minimizes exposure during offloading.

ATTACHMENT B

Annual Solid Waste Management Report

ANNUAL SOLID WASTE MANAGEMENT REPORT FOR LICENSED LANDFILLS

FACILITY NAME: Juniper Ridge Landfill Report For Year: 2019

DEP LICENSE NUMBER #S-020700-WD-N-A & #S-020700-WD-BI-N

This report includes information on solid waste handling and disposal per 06-096 C.M.R. ch. 401, § 4(D) and § 7(G)(21), as applicable, for the following facility and/or municipalities, as applicable (please list all users):

CONTACT PERSON: Jeffrey Pelletier Title: Environmental Manager
Mailing Address: 358 Emerson Mill Rd.
City/Town: Hampden Zip Code: 04444
Phone: 207-249-8025 E-mail: jeffrey.pelletier@casella.com

LANDFILL MANAGER: Wayne Boyd
Mailing Address: 358 Emerson Mill Rd.
City/Town: Hampden Zip Code: 04444
Phone: 207-862-4200 x224 E-mail: wayne.boyd@casella.com

☒ **Please check here if a stand-alone annual report is being submitted. If so, submit this cover sheet only along with your report.**

I have examined this report to the best of my knowledge and believe this report is true, accurate and complete.

Signature of person completing this form: Jeff Date Signed 04/29/20

Printed name of person completing this form: Jeffrey Pelletier

Please return two (2) paper copies and an electronic copy of your completed form with the required annual report fee by April 30 of the reporting year to:

Geraldine Travers
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

ATTACHMENT C

Updated Operations Manual Sections

Included under a separate cover is a complete reissue of the JRL Expansion Operations Manual (Revised in April 2020). This new manual supplements previous versions and incorporates JRL's current operations of both the 2004 permitted footprint and the landfill expansion. During the reissue process, all sections and appendices were reviewed and updated if necessary. Updated sections include the Narrative Section, Appendix A, Appendix B, Appendix C, Appendix D, Appendix E, Appendix F, Appendix J, Appendix K, Appendix M, Appendix O, Appendix P, and Appendix Q.

ATTACHMENT D

Facility Inspection Reports/

Other Maintenance Activities

Appendices included within Attachment D:

D-1 Weekly/Monthly/Quarterly Site Inspection Reports

D-2 JRL Other Maintenance Activities

Weekly/Monthly Site Inspection Reports

STI SP001 MONTHLY ABOVEGROUND TANK AND CONTAINER CHECKLIST

Juniper Ridge Landfill in Old Town, ME

INSPECTOR'S SIGNATURE:	DATE:	INSPECTOR'S TITLE:
Andrew Bennett	8/27/2019	Facility Manager

The checklist shall be completed on a monthly basis and be retained with the SPCC Plan for at least 3 years.

TANK #:	1	2	3	4	5	6	7	8	9
LOCATION:	Inside Maintenance Building		Active Cell of Landfill				Office Building	Near Leachate Tank	Thiopaq Transformer
CONTENTS:	350-GAL Motor Oil	350-GAL Hydraulic Oil	1,000-GAL Gasoline	500-GAL Diesel	275-GAL Hydraulic Oil	2,500-GAL Diesel	275-GAL Heating Oil	366-GAL Diesel	270-GAL Mineral Oil
TANK CONTAINMENT:									
Water in primary tank, secondary containment, interstice, or spill container?	Yes ✓No	Yes ✓No	NA	NA	NA	NA	Yes ✓No	Yes ✓No	NA
Debris or fire hazard in containment?	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No
Drain valves operable and in a closed position?	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	NA
Containment egress pathways clear and gates/doors operable?	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	NA	✓Yes No	✓Yes No	NA
Concrete intact and in good condition with no cracks?	✓Yes No	✓Yes No	NA	NA	NA	NA	✓Yes No	✓Yes No	✓Yes No
LEAK DETECTION:									
Visible signs of leakage around the tank, concrete pad, containment, ring wall or ground?	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No	Yes ✓No
TANK ATTACHMENTS AND APPURTANCES:									
Ladder and platform structure secure with no sign of severe corrosion or damage?	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No
Tank liquid level gauge readable and in good condition?	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	NA
Tank openings properly sealed?	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No
GENERAL HOUSEKEEPING:									
Fire extinguisher nearby?	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No	✓Yes No
Spill equipment nearby?	✓Yes No	✓Yes No	NA	NA	NA	NA	✓Yes No	✓Yes No	✓Yes No

TANK #:	9	10
	Inside Maintenance Building	Inside Rubb Storage Building
	55-GAL Drums & 220-GAL Tote	55-GAL Drum
PORTABLE CONTAINERS:		
Are portable containers in designated storage area?	✓Yes No	✓Yes No
Debris, spill, or other fire hazards in containment or storage area?	Yes ✓No	Yes ✓No
Water in outdoor secondary containment?	Yes ✓No	Yes ✓No
Drain valves operable and in a closed position?	✓Yes No	✓Yes No
Egress pathways clear and gates/doors operable?	✓Yes No	✓Yes No
Container distorting, buckling, denting, or bulging?	Yes ✓No	Yes ✓No
Visible signs of leakage around the container or storage area?	Yes ✓No	Yes ✓No

COMMENTS / REPAIRS / MAINTENANCE:

None. Added absorbent pads to spill kit next to admin building.

COMMENT ON MAINTENANCE OR REPAIR NEEDED ABOVE FOR ANY MARKED RED UNDERLINED CHECK BOX.

WEEKLY/MONTHLY INSPECTION FORM

Site Name/Company	Juniper Ridge Landfill/NEWSME Landfill Operations, LLC
Location	2828 Bennoch Road, Alton, Maine
Date of Visit	11/8/2019
Inspector Name/Signature	Andrew Bennett Andrew Bennett

Note: For weekly inspections, only Table 1 and Table 3 need to be completed. For monthly inspections, Table 1, Table 2 and Table 3 need to be completed.

Table 1
Inspection of Active Areas at the Facility

Active Areas at the Facility			
Leachate	Is leachate observed on the ground, or leaking from tanks or piping, with evidence of or the potential to impact stormwater?	☐ Yes ☑ No	☐ Comments (see below)
Access Roads	Are industrial materials, residue or trash observed on roads where vehicles enter or exit the active landfill with evidence of or the potential to impact stormwater?	☐ Yes ☑ No	☐ Comments (see below)
MSW and CDD (windblown debris)	Is MSW and/or CDD on ground, tracking, blowing or whirling with evidence of or the potential to impact stormwater?	☑ Yes ☐ No	☑ Comments (see below)
Borrow Pit	Is there evidence of tracking or erosion from site soil borrow areas with potential to impact stormwater?	☐ Yes ☑ No	☐ Comments (see below)
Mobile Equipment	Is mobile equipment leaking oil or other liquids with evidence of or the potential to impact stormwater?	☐ Yes ☑ No	☐ Comments (see below)
Comments	Still some litter on site from storms. Laborers are still working to clean up.		

Table 2
Inspection of Stabilized Areas at the Facility

Stabilized Active Areas at the Facility			
Leachate	Is leachate observed on the ground, or leaking from tanks or piping, with evidence of or the potential to impact stormwater?	☐ Yes ☑ No	☐ Comments (see below)
Access Roads	Are industrial materials, residue or trash observed on roads where vehicles enter or exit the active landfill with evidence of or the potential to impact stormwater?	☐ Yes ☑ No	☐ Comments (see below)
MSW and CDD (windblown debris)	Is MSW and/or CDD on ground, tracking, blowing or whirling with evidence of or the potential to impact stormwater?	☑ Yes ☐ No	☑ Comments (see below)
Comments	Still some litter on site from recent wind storm. Laborers working to pick up.		

Table 3
Inspection of Stormwater BMPs, Conveyances and Outfalls

BMP	Describe where any of the following were observed: • Any evidence that the BMP is not functioning properly.
Detention Pond 1	None
Geomembrane Lined Storage Pond	None
Detention Pond 2	None
Detention Pond 6	None
Litter Fence	None

Table 3
Inspection of Stormwater BMPs, Conveyances and Outfalls

BMP	Describe where any of the following were observed: • Any evidence that the BMP is not functioning properly.
Lechate Storage Tank Containment Area	None
Leachate Storage Tank Containment Area Riprap Outlet	None
Leachate Loading Rack Catch Basin	None
Detention Pond 9	None
2,000-Gallon Underground Storage Tank	None
Detention Pond 5	None. Pond has been cleaned out.
Outfall No. 1	None
Outfall No. 2	None
Outfall No. 3	None
Outfall No. 4	None
Outfall No. 5	

Table 4
New Potential Pollutant Source and/or Recommendations for Additional BMPs

Reference	Description	Schedule

Certification

☑ Site is in compliance with SWPPP and MSGP. ☐ Site is not in compliance with SWPPP and MSGP and either structural control measure maintenance, additional controls, or modifications to the SWPPP are required.	
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	
Name: Andrew Bennett	**Telephone:** 249-3536
Signature: Andrew Bennett	**Date:** 11/8/2019

Quarterly
Site Inspection
Reports

Standard Operating Procedure
Bureau of Water Quality
Attachment B
Date: April 20, 2006
Revised: June 12, 2017
Doc Number: DEPLW0768

Visual Monitoring Form

Facility Name: Juniper Ridge Landfill
Facility Address: 2828 Bennoch Rd
Old Town, ME 04468

Sampler's Name: Andrew Bennett
MSGP Permit Number: MER05000

72 Hours Since last Qualifying Storm? Yes or No (circle)

Measurable Discharge from outfall? Yes or No (circle)

Outfall Number	#1	#2	#3	#4	#5	
Observation Time	1:18pm	1:12pm-4:00pm	1:25pm	1:10 pm	1:00 pm	
Est. Time from Onset of Discharge	50 mins	No flow	55 mins	40 mins	30 mins	
Discharge Type (rain, snow melt or ice melt)	rain	No flow	rain	rain	rain	
Sample Volume (ml)	1000 ml		1000	1000	1000	
Color	clear		slight tan	clear	clear	
Odor	Normal		Normal	Normal	Normal	
Clarity	Clear		cloudy	Clear	cle	
Floating Solids*	None		slight	None	None	
Settled Solid*	None		slight	None	None	
Suspended Solid*	None		None	None	None	
Foam	None		None	None	None	
Oil Sheen	None		None	None	None	
Possible Source of Any Observed Contamination						

*Enter a description of corresponding criteria for each outfall and any corrective actions in the General Comments section of this document.

Signature of Responsible Official: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate and compete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowingly violating the law.

Name: Andrew Bennett Date: 5/7/2018

Signature: Andrew Bennett Date: 5/7/2019

Standard Operating Procedure
Bureau of Water Quality
Attachment B
Date: April 20, 2006
Revised: June 12, 2017
Doc Number: DEPLW0768

General Comments

In the comments section, enter physical description of floating, settled, and suspended solids for each outfall sampled. Enter general comments on the condition and appearance of each outfall in the comments as well as any corrective actions taken as indicated in the instructions.	
Outfall 1	Comments: None
Outfall 2	Comments: None
Outfall 3	Comments: Very slight ~~opacity~~ tint. May be from vegetation in the outfall. Detention pond is working properly.
Outfall 4	Comments: None
Outfall 5	Comments: None
Outfall 6	Comments:

ROUTINE INSPECTION REPORT

Site Name/Company	Juniper Ridge Landfill/NEWSME Landfill Operations, LLC
Location	2828 Bennoch Road, Alton, Maine
Date of Visit	5/7/2019
Inspector Name/Signature	Andrew Barrett Andrew Barrett
Weather	Rain

Does this inspection qualify as the one required annual inspection conducted during qualifying storm event? ☑ Yes ☐ No

Are there any new discharges or pollutants at the site? ☐ Yes ☑ No

Table 1
Inspection of Potential Pollutant Sources (PPS)

	Description
Industrial Activity or Area	**Describe where any of the following were observed:** • **Any discharges present at the time of inspection;** • **Any evidence of pollutants entering the drain system or outfalls;** • **The condition of the outfalls, including any restricted flow;** • **Industrial materials, residue or trash on the ground;** • **Leaks or spills from industrial equipment, drums, barrels, tanks or other containers;** • **Offsite tracking of industrial or waste materials or sediment; and** • **Tracking or blowing of raw, final, or waste materials.**
Scale House and Scale	None
Office Building	None
Soil Stockpile Areas	None
Borrow Pit	None
Wood Waste Handling Area	None

Table 1
Inspection of Potential Pollutant Sources (PPS)

Maintenance Building	None
Rubb Building	None
LFG Treatment Facility	None
Leachate Storage Tank	None
Leachate Loading Rack	None
Leachate Collection System	None
Gravel Laydown Area	None
Employee Parking Area	None
1,500-Gallon Gasoline Tank	None
1,500-Gallon Diesel Tank	None
2,500-Gallon Diesel Delivery Truck	None
Access Roads	None

Table 2
Inspection of Structural Control Measures and Outfalls

BMP	Describe where any of the following were observed: • Any evidence that the BMP is not functioning properly; • Any evidence of erosion; and • Industrial materials, residue, or trash.
Detention Pond 1	None
Geomembrane Lined Storage Pond	None
Detention Pond 2	None, Much less flow than before repairs.
Detention Pond 6	None
Litter Fence	None
Leachate Storage Tank Containment Area	None
Leachate Storage Tank Containment Area Riprap Outlet	None
Leachate Loading Rack Catch Basin	None
Detention Pond 9	Small outlet was partially obstructed by vegetation. It was immediately cleaned.
2,000-Gallon Underground Storage Tank	None
Detention Pond 5	None
Outfall No. 1	None
Outfall No. 2	None

Table 2
Inspection of Structural Control Measures and Outfalls

Outfall No. 3	None
Outfall No. 4	None
Outfall No. 5	None

Table 3
Corrective Actions Required for PPS(s) and/or Existing Structural Control Measures

Reference	Description/Schedule	Date Completed

Table 4
Recommendation for New PPS(s) and/or Structural Control Measures

Reference	Description/Schedule	Date Completed

Table 5
Modifications Required to SWPPP or Site Plan

Reference	Description

Certification

☑ Site is in compliance with SWPPP and MSGP. ☐ Site is not in compliance with SWPPP and MSGP and either structural control measure maintenance, additional controls, or modifications to the SWPPP are required.
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Andrew Benet	**Telephone:** 207-249-5536
Signature: Andrew Bennett	**Date:** 5/7/2019

2019 Juniper Ridge Landfill Other Maintenance Activities	
Below is a list of all other maintenance activities that occurred throughout 2019. A list of all leachate maintenance and cleaning activities is chronologically listed in Attachment E of the 2019 JRL Annual Report.	
Access Road Maintenance	
●	Access roads going to the top of the landfill and around the north, west, and south sides of the landfill perimeter were graded as necessary.
●	All access roads were swept and watered as necessary.
Landfill Cover System Maintenance	
●	Various repairs were made to the existing 30/40 mil intermediate cover system due to tears, rips, and holes from liner movement, settlement, and the wind.
Landfill Gas System (LFG) Maintenance	
●	Roughly 160 improvements were made to the LFG system throughout 2019. These improvements included: well/gas collection trench installations/extensions, maintenance to all collection well head components (valves, ports, hoses), and torn well boots.
●	A new pump was installed in the Flare condensate KOP. The flare flame arrestor was also cleaned periodically.
●	Routine maintenance was performed at the JRL Thiopaq Facility in accordance with the Facility's operations manual.
●	Condensate knockout pots (KOP) were cleaned as necessary.
●	The landfill gas flare base was replaced due to corrosion.
Scale House Maintenance	
●	Scales were cleaned, de-iced, and calibrated as necessary.
Stormwater Maintenance	
●	A soil plug was installed and lined over with synthetic cover material in the former stormwater downspout of Cells 1 & 2 (near the Cap 1 area) leading to Detention Pond #1. Washed sand and angular rock was removed from the pond inlet and the inlet lined over with synthetic cover material.
●	Part of Detention Pond #2 was cleaned. New erosion control mix and hay bales were added prior to Outfall #2.
●	All stormwater ditches on the north, west, and south sides of the landfill were cleaned. Culverts were cleaned if necessary.
●	Detention Pond #1A was drained and the silt/sand was cleaned out of it.
●	Both sides of Detention Pond #5 were cleaned.
●	New erosion control mix was added around the level lip spreader.
●	Seeding and mulching occurred as necessary to prevent erosion.
●	Continuous litter patrols were performed by 3rd party temporary personnel.

ATTACHMENT E

Leachate Collection Maintenance Activities

2019 Juniper Ridge Landfill Leachate Maintenance and Repairs	
03/29/19	Inspected the leachate force main manholes and pressure gauges.
06/13/19	Emptied the surface water from the leachate force main manholes.
06/28/19	Inspected the leachate force main manholes and pressure gauges.
08/08/19	Removed and cleaned the Cell 5 pump station pumps, hoses, discharge lines, valves, sumps, and transducers.
08/12/19	Opened the leachate tank personnel hatch to visually inspect the solids in the tank prior to cleaning.
08/13/19	Begin cleaning the leachate tank. A leachate force main inspection was performed at the same time. Cleaning of the force main was not required.
08/14/19	Finished cleaning the leachate tank.
08/15/19	The tank manufacture installed an additional leachate tank personnel hatch to assist with future leachate tank cleanings.
09/16/19	Removed and cleaned the Cell 4 pump station pumps, hoses, discharge lines, valves, sumps, and transducers. Replaced the 4" PVC force main discharge valve.
09/17/19	Removed and cleaned the Cell 8 pump station pumps, hoses, discharge lines, valves, sumps, and transducers. Replaced the 4" PVC force main discharge valve.
09/20/19	Replaced the pump in the flare trap pump station.
09/30/19	Removed and cleaned pump #2 in the Cell 4 pump station. Inspected the leachate force main manholes and pressure gauges.
10/10/19	Replaced the motor on pump #2 in the Cell 4 pump station.
10/22/19	Removed and cleaned pump #2 in the Cell 4 pump station. Replaced the wiring and changed the two 3" PVC valves that were worn.
12/23/19	Emptied the surface water from leachate force main manholes and inspected the pressure gauges.

ATTACHMENT F

Water Quality Monitoring Report

2019 ANNUAL WATER QUALITY REPORT
JUNIPER RIDGE LANDFILL

Prepared for

NEWSME LANDFILL OPERATIONS, LLC

STATE OF MAINE
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2019 ANNUAL WATER QUALITY REPORT
JUNIPER RIDGE LANDFILL

EXECUTIVE SUMMARY

Water quality samples were obtained in April, July, and October 2019 at the JRL in accordance with the current site Environmental Monitoring Plan. 2019 was the first year of detection water quality monitoring per the expansion EMP at eight monitoring locations downgradient from Cell 11. The 2019 water quality data for the Juniper Ridge Landfill (JRL) is consistent with the historical data for the site. The 2019 water quality data from monitoring locations at the JRL are consistent with their setting among the construction and operational activities of the landfill. Site groundwater and surface water quality data do not show adverse effects from the performance of the landfill cells or leachate collection and transport systems. The evaluation of site water quality, which incorporates the 2019 water quality data, identified trends at multiple locations and for a number of parameters, both upgradient and downgradient from the landfill. Historical groundwater quality data through 2019 indicate that these trends, however, are largely attributable to changes in redox conditions, which occur as expected around the landfill due to the construction and operations of the landfill (e.g., from removal of vegetation, disturbance of native soils, and the cutoff of precipitation in the landfill area), and do not indicate any significant landfill related impacts to water quality from malfunction of the landfill liners.[1]

Leachate parameter values from monitoring location LT-C4LR during 2019 and historically since July 2013 are generally characterized by high parameter values. Generally, at a given water quality monitoring location, if landfill leachate were present, there would be a notable, significant increase in specific conductance values and chloride and arsenic concentrations (in conjunction with changes in other parameter concentrations) due to their presence at high concentrations in the JRL leachate. In 2019, the annual maximum value of specific conductance in JRL leachate (i.e., monitoring location LT-C4LR) was 21,908 µmhos/cm in July 2019. The annual maximum concentrations of chloride and arsenic at monitoring location LT-C4LR were 14,000 mg/L (July 2019) and 0.24 mg/L (July 2019), respectively.

The 2019 water quality data from underdrain monitoring locations do not show adverse effects from the performance of the landfill cells or leachate collection and transport systems. There were no specific conductance values above 500 µmhos/cm at the underdrain monitoring locations in 2019. During 2019, annual maximum chloride concentrations from the sampled underdrain monitoring locations were low (i.e., ranging from 1.9 mg/L to 15 mg/L) relative to the JRL leachate. The arsenic concentrations in the underdrain monitoring locations were very low (i.e., ranging from less than the laboratory reporting limit

[1] The MEDEP agreed with this assessment in its review of the 2017 Annual Report. MEDEP, February 20, 2018, Memorandum regarding the 2017 Annual Report, Juniper Ridge Landfill, Old Town, Maine, MEDEP Lic. #S-020700-7A-A-N and Amendment #S-020700-WD-N-A, Prepared by Sevee and Maher Engineers, Inc., April 2015.

of 0.005 mg/L to 0.005 mg/L) and generally consistent with those at groundwater monitoring wells across the site, including multiple upgradient monitoring locations. Volatile organic compounds (VOCs) were analyzed at all sampled underdrain locations (both landfill and former leachate pond underdrains) in April 2019. There were no VOCs detected in 2019 above laboratory reporting limits at any of the sampled underdrain locations.

Based on review of 2019 and historical data, SME has identified 19 of the 30 site-wide groundwater monitoring locations with water quality that: (1) does not indicate influence from landfill leachate; and (2) shows limited influence from landfill construction operations (see Table 7-3). The specific conductance values at these wells range from 85 µmhos/cm to 448 µmhos/cm. With the exception of one anomalously high chloride concentration of 18 mg/L at MW-402B, the chloride concentrations at these monitoring locations were very low and ranged from 1.4 mg/L to 10 mg/L.

More pronounced water quality changes have been observed at 11 of the site groundwater monitoring locations (see Table 7-3), which include wells both upgradient and downgradient from the landfill. These changes are evidenced by the statistically significant trends (95% confidence level) for multiple parameters and monitoring locations. These trends are largely attributable to changes in redox conditions, which occur as expected around the landfill due to the construction and operations of the landfill (e.g., from removal of vegetation, disturbance of native soils, and the cutoff of precipitation in the landfill area), and do not indicate landfill related impacts to water quality from malfunction of the landfill liners. These monitoring locations are discussed in detail in Section 7.3 and include: (1) upgradient monitoring locations MW12-303R and P-206A; (2) side-gradient monitoring locations MW-302R, the Office Well, and the Scale House Well; (3) downgradient monitoring locations MW-223A, MW223B, MW09-901 and MW-301; and (4) OW-601A and OW-602B, which are downgradient from Cell 11 of the landfill expansion. They are not interpreted to be influenced by performance of the landfill cells or leachate collection and transport systems. This is supported by the current values and trends of key indicator parameters at the landfill underdrain monitoring locations.

Only one of the parameters analyzed in groundwater monitoring wells, arsenic, was detected above an MCL in 2019. During 2019, arsenic concentrations were generally low at the site-wide monitoring locations. There were only four monitoring wells in the detection monitoring analytical program with arsenic concentrations detected above its MCL (0.01 mg/L) during 2019. The maximum arsenic concentration detected at site-wide monitoring locations was 0.021 mg/L at MW-401B in April 2019. There were no arsenic concentrations detected above its MCL at pore-water sampling locations in 2019. The Office Well and the Scale House Well, which are bedrock groundwater supply wells that were sampled in April 2019 and July 2019, did not have arsenic MCL exceedances. There were no arsenic MFCCC exceedances during 2019 at surface water monitoring locations SW-1, SW-2, and SW-3.

The 2019 surface water, stormwater, and pore-water monitoring location data are characterized by low values of key indicator parameters by comparison to the JRL leachate (i.e., LT-C4LR) and do not indicate influence from landfill leachate. This is generally consistent with historical data at these locations. There are currently no statistically significant increasing trends (95% confidence level) for the key indicator parameters over the past three years and five years. There are also not statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) at any of the JRL surface water, stormwater, and pore-water monitoring locations for the past three years and five years.

2019 was the seventh year of supplemental monitoring for dissolved methane at monitoring well MW-223B and the fifth year of supplemental monitoring for dissolved methane at the three pore-water sampling locations. Dissolved methane was not detected above its laboratory reporting limit of 20 µg/L at MW-223B in April, July, and October 2019. Dissolved methane concentrations at pore-water sampling locations PWS10-1, PWS10-2, and PWS10-3 in 2019 were low or non-detect during 2019 monitoring (i.e., ranging from less than the laboratory reporting limit of 20 µg/L at each of the pore-water monitoring locations to 280 µg/L in July 2019 at PWS10-3). Historical dissolved methane detections at the pore-water monitoring locations are consistent with their hydrologic setting in a freshwater wetland and are attributed to anaerobic biological processes in the saturated wetland soils. Historical dissolved methane sampling data from monitoring well MW-223B and the pore-water sampling locations do not indicate influence by subsurface migration of landfill gas.

1.0 INTRODUCTION

The Juniper Ridge Landfill (JRL) is a secure landfill located on a 780-acre parcel in Old Town, Maine. It is owned by the Maine Bureau of General Services (BGS) and is operated by NEWSME Landfill Operations, LLC (NEWSME). Since 2004, JRL has been an integral part of the State of Maine's overall solid waste management program, providing environmentally sound disposal capacity for non-hazardous solid waste generated throughout the State of Maine. Figure 1-1 shows the location of the site. Figures 1-2 and 1-3 show the general site layout and monitoring locations of the site in 2019.

Water quality has been monitored at the site since 1990 when the site was first selected for a landfill.[2] This report describes the results of the water quality sampling and an analysis of site water quality in 2019 completed by Sevee & Maher Engineers, Inc. (SME). The analysis compares the 2019 results to historical water quality at the Site, using statistical and graphical evaluations of trends in the data by sample location, and to State and Federal water quality standards. The analysis also looks at the water quality data in terms of the site conditions that exist at the JRL.

Sampling during 2019 was completed in general accordance with the current Environmental Monitoring Plan (EMP) for the JRL (revised April 2016) and the EMP for the JRL expansion (revised June 2017).[3,4] 2019 was the first year of detection water quality monitoring at the Cell 11 monitoring wells. Descriptions of the 2019 water quality monitoring results are provided in this report. There were supplemental components to the 2019 water quality monitoring program, consisting of sampling and analyses for dissolved methane at one monitoring well and three pore-water sampling locations.

Descriptions of the site setting, facility layout, monitoring locations, analytical parameters, and 2019 site activities are also included herein. This report was preceded by a similar report prepared by SME in 2019 evaluating the 2018 site water quality.[5]

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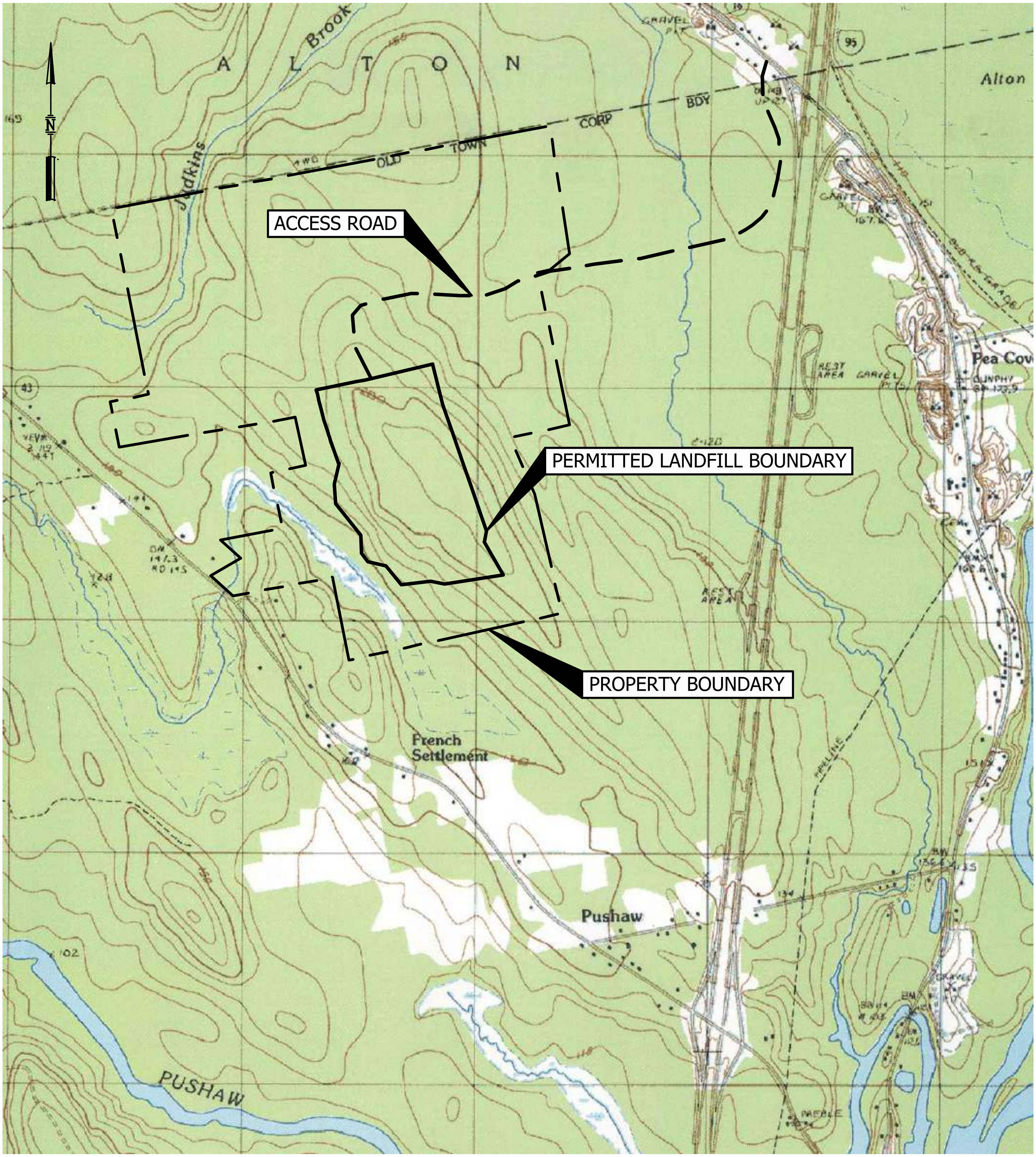
[2] The JRL was formerly known as the West Old Town Landfill and was owned and operated by Georgia-Pacific (previously known as Fort James and James River Paper Company) as a secure, non-hazardous, generator-owned waste disposal facility. A comprehensive description of the site setting and hydrogeology is contained in the 1991 report by SME entitled: *James River Paper Company Inc., West Old Town Landfill Project, Old Town Maine, Volume III, Site Investigation and Hydrogeologic Evaluation, August 1991*).

[3] SME, April 2016, Environmental Monitoring Plan, Juniper Ridge Landfill, Old Town, Maine, Prepared for NEWSME Landfill Operations LLC, Revised April 2016.

[4] SME, June 2017, Juniper Ridge Landfill Expansion Application Environmental Monitoring Plan, Submitted by: State of Maine Bureau of General Services, as Owner and NEWSME Landfill Operations, LLC, as Operator, July 2015 (Revised June 2017).

[5] SME, April 2019, 2018 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.



BASE MAP ADAPTED FROM 7.5 MIN
USGS TOPOGRAPHIC QUADRANGLE
OLD TOWN, MAINE-1988

1000 0 2000 FEET

FIGURE 1-1
SITE LOCATION MAP
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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DWG: SITELOC LMN: FIG 1 CTB: HPSTD REV: 3/5/2019

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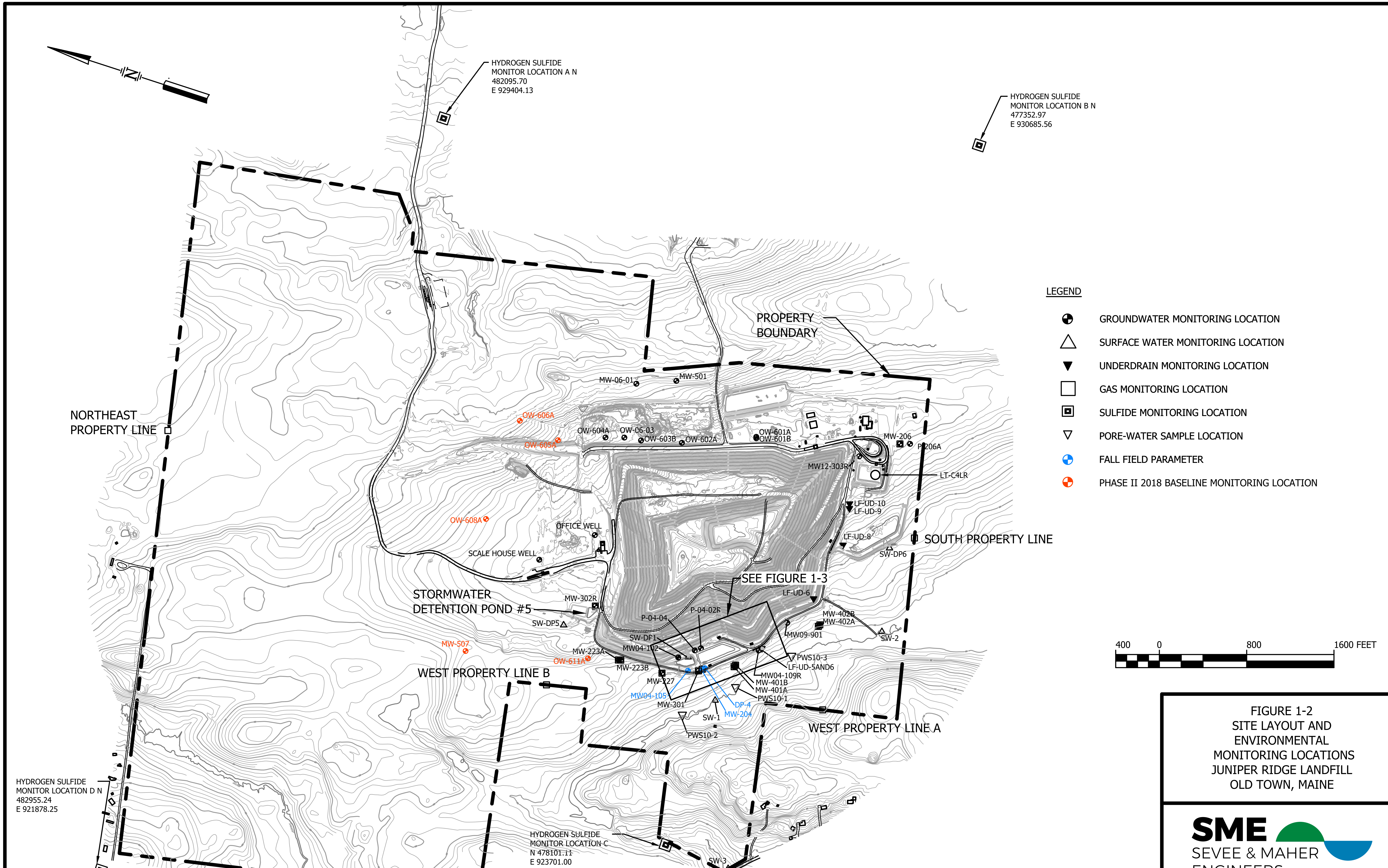

FIGURE 1-2
SITE LAYOUT AND ENVIRONMENTAL MONITORING LOCATIONS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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DWG: EMP | LMN: WQ-FIG 1-2 | CTB: SME-STD | REV: 3/12/2020

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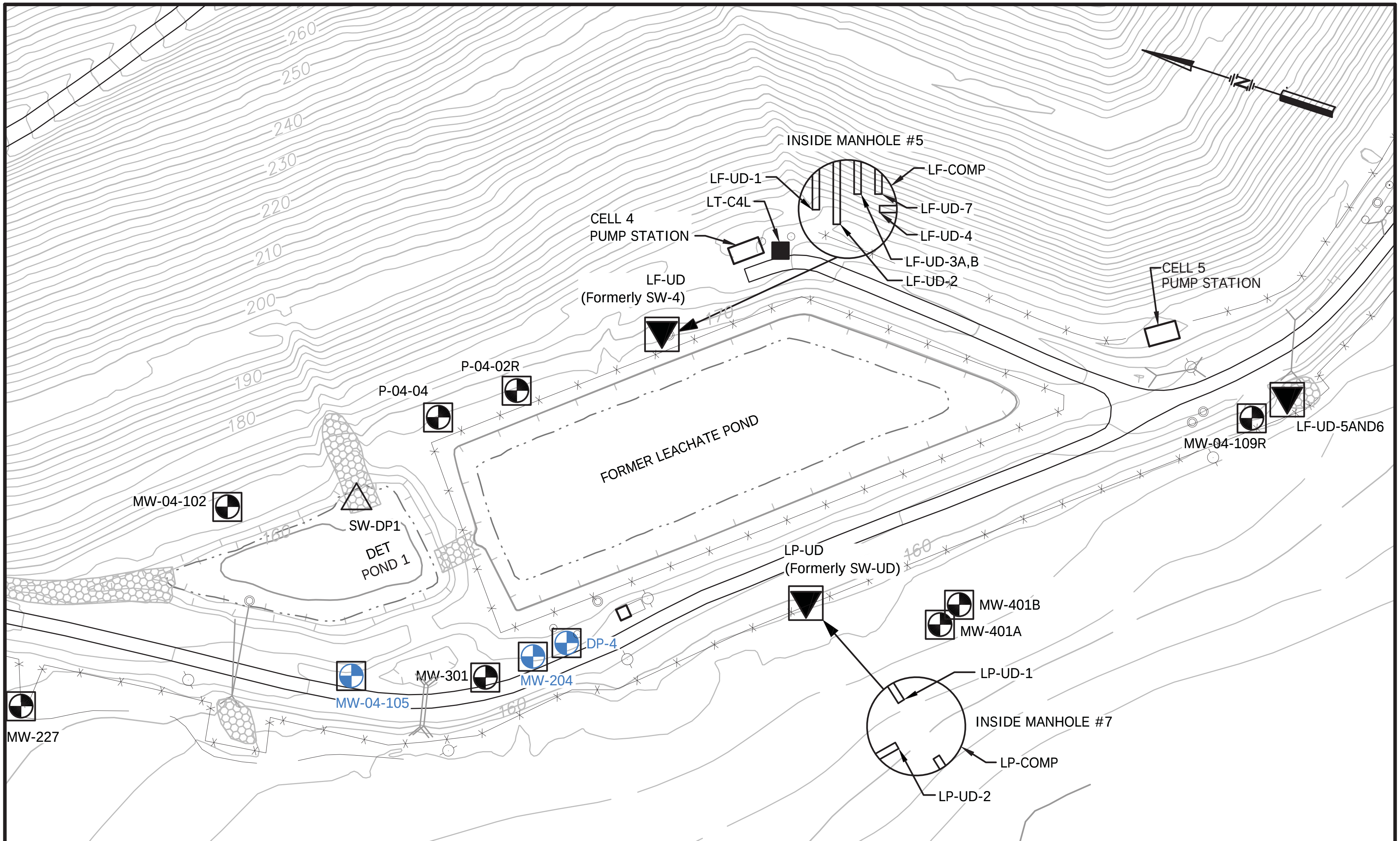

NOTE

USE OF LEACHATE POND TO STORE LEACHATE DISCONTINUED WITH CONSTRUCTION OF CELL 4 IN 2008.

50 0 100 FEET

LEGEND

GROUNDWATER MONITORING LOCATION

SURFACE WATER MONITORING LOCATION

UNDERDRAIN MONITORING LOCATION

GAS MONITORING LOCATION

LEACHATE PUMP STATION

FALL FIELD PARAMETER ONLY

FIGURE 1-3
ENVIRONMENTAL MONITORING LOCATIONS
ADJACENT TO
FORMER LEACHATE POND
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

SME
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ENGINEERS

DWG: EMP LMN: EML-100 CTB: EML REV: 2/21/2018

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1.1 Landfill Conditions

The JRL is designed and constructed as a secure waste disposal facility in that the groundwater beneath and adjacent to the site is protected by a composite liner and a leachate collection system. Leachate generated at the site in 2019 was collected and stored in an on-site storage tank and then transported to either the MEDEP licensed wastewater treatment facility at the Old Town Mill owned by Nine Dragons Paper or the City of Brewer's treatment facility for treatment.

Cells 1, 2, 3A, 3B, 4, 5, 6, 7, 8, 9, and 10, have been constructed; this accounts for the 68-acre landfill approved by the Maine Department of Environmental Protection (MEDEP) Solid Waste Order #S-020700-WD-N-A. In 2018, Cell 11 was constructed. This cell is the first of expansion Cells 11 through 16, approved by Board Order #S-020700-WD-BI-N. Development of Cell 11 included the site grading, construction of the landfill perimeter dike and temporary pump station, installation of a new leachate force main and landfill gas header, and modifications to perimeter stormwater drainage ditches around the southeast side of the landfill.

Waste filling in 2019 occurred primarily in Cell 7, Cell 9, Cell 10 and Cell 11. Waste placement in Cell 7 and Cell 9 was allocated to sideslope make up capacity and filling second elevation to final grades. In 2019, JRL received 818,457 tons of non-hazardous waste streams including, but not limited to, construction and demolition debris, municipal solid waste, front end process residue (FEPR), incinerator and boiler ashes, sludges, construction and demolition debris (CDD) fines, contaminated soils, oil spill debris, and other solid waste for which the facility has either blanket or individual permits. As of December 2019, approximately 724,268 cubic yards of permitted capacity remains in Cells 1-10 and approximately 7,849,531 cubic yards of permitted capacity remains in Cells 11-16. Intermediate cover and landfill gas collection piping and wells were installed within several areas of the active landfill cells.

1.2 Hydrogeologic Setting

The existing JRL facility is located on the southwestern side of a northwest-southeast trending drumlin. The natural topography in the landfill area slopes downward to the southwest, towards a large wetland and an unnamed stream that empties into Pushaw Stream (Class B). Pushaw Stream empties into the Stillwater River (Class B), which flows to the Penobscot River (Class B). Groundwater beneath the landfill is interpreted to follow the natural surficial topography and, therefore, generally flows towards the southwest and towards the unnamed stream. The large change in elevation from northeast to southwest across the landfill area results in upward groundwater seepage gradients near the unnamed stream and wetland area. Horizontal groundwater seepage gradients on the western side of the stream indicate that groundwater also moves from the west towards the stream; thus, the stream acts as a hydrologic barrier for groundwater flow from the landfill beyond the east side of the stream.

The site is underlain primarily by glacial till with marine clay of the Presumpscot Formation in the lower topographic areas (e.g., the wetlands in the southwestern portion of the site). Throughout the site, the glacial till generally consists of a very dense brown till grading to very dense gray till with depth. The till typically ranges from 20 to 50 feet thick beneath the landfill and thus provides a natural containment layer for the landfill. In addition, there are several isolated, discontinuous washed, till zones found beneath the till.

Bedrock beneath the facility has been identified as a light gray and brown metagraywacke and metaquartzite interbedded with dark gray phyllite. The metasediments are typically competent and unfoliated, except for zones within the phyllite. The bedrock is mostly unweathered, although some discontinuous weathered zones have been observed. No faulting has been observed in bedrock cores and there are no faults mapped in the vicinity of the site. The bedrock surface beneath the landfill is locally variable; however, the surface generally slopes towards the southeast towards a bedrock trough that exists in the vicinity of the wetlands and unnamed stream at the southwest corner of the site.

The interpreted shallow groundwater phreatic surface and upper bedrock groundwater potentiometric surface contour maps for the JRL site are provided in Appendix B. These maps represent interpretations of the potentiometric surfaces using site data from 2007 and 2008. As expected, the groundwater elevations at the site monitoring wells have declined since then as a result of the cut-off of recharge from precipitation in the area of the landfill liner systems. The 2019 site groundwater level conditions do not result in a significant change to the interpreted groundwater flow directions or the groundwater flow divides at the site, particularly with regard to monitoring groundwater and surface water. Linear trendlines of groundwater elevations later than 2007 were calculated (see Appendix B) for eighteen of the site's twenty-eight current groundwater monitoring locations (excluding the Office Well and the Scale House Well) to evaluate water level changes during this period. The average slopes of linear trendlines during this period were used to quantify the approximate rates of groundwater elevation changes at site groundwater monitoring locations, which are summarized in Table 1-1.

TABLE 1-1

2019 SUMMARY OF SITE GROUNDWATER ELEVATION TRENDS

Location Designation [1]	Position Relative to Landfill	Date Range for Analysis	Average Groundwater Elevation Change During Date Range for Analysis (feet-NGVD)	Rate of Groundwater Elevation Change (feet/year)
P-206A	Upgradient	Jul-13 to Oct-19	-3.9	-0.621
MW12-303R	Upgradient	Oct-12 to Oct-19	-3.1	-0.438
MW-302R	Side-Gradient	May-08 to Oct-19	-4.2	-0.365
MW-206	Upgradient	May-07 to Oct-19	-1.4	-0.110
MW04-102	Downgradient	May-07 to Oct-19	-1.4	-0.110
P-04-04	Downgradient	May-07 to Oct-19	-0.9	-0.073
MW04-105	Downgradient	May-07 to Oct-19	-0.9	-0.073
MW-223B	Downgradient	May-07 to Oct-19	-0.9	-0.073
MW-223A	Downgradient	May-07 to Oct-19	-0.9	-0.073
MW-204	Downgradient	May-07 to Oct-19	-0.5	-0.037
MW-227	Downgradient	May-07 to Oct-19	-0.5	-0.037
MW04-109R	Downgradient	Dec-09 to Oct-19	-0.4	-0.037
MW-402B	Downgradient	May-07 to Oct-19	-0.4	-0.029
MW-401B	Downgradient	May-07 to Oct-19	-0.2	-0.015
MW-401A	Downgradient	May-07 to Oct-19	-0.2	-0.015
DP-4	Downgradient	May-07 to Oct-19	-0.1	-0.011
P-04-02R	Downgradient	Jul-15 to Oct-19	-0.02	-0.004
MW09-901	Downgradient	Dec-09 to Oct-19	+0.7	+0.073

Notes:
1 Site monitoring locations are described in Section 2.0.

As shown in Table 1-1, seventeen of the eighteen monitoring wells included in this analysis have downward water level trends for data collected later than 2007. The cut-off of recharge from precipitation by the landfill liner systems has generally resulted in the greatest rates of groundwater elevation decline at the three upgradient monitoring locations. The upgradient monitoring locations have a range in groundwater elevation change rates from -0.621 feet per year (feet/year) at P-206A to -0.110 feet/year at MW-206. Side-gradient monitoring location MW-302R is among the wells with the greatest rates of groundwater elevation decline; however, the declining groundwater elevation rate of -0.365 feet/year at MW-302R is partly attributed to the lining of the adjacent Detention Pond #5 in 2013.

Thirteen of the fourteen downgradient monitoring locations analyzed for groundwater elevation trends for data collected later than 2007 have declining groundwater elevation trends, but at lesser rates than at the upgradient monitoring locations. These downgradient monitoring locations have a range in groundwater elevation decrease rates from -0.110 feet/year at MW04-102 to -0.004 feet/year at P-04-02R. The one downgradient monitoring location with an increasing groundwater elevation trend is MW09-901, which is a deep groundwater well located west of Cell 5.

The site monitoring wells that are not included in the analysis summarized in Table 1-1 include MW-301, MW-402A, and eight landfill expansion monitoring locations. Monitoring locations MW-301 and MW-402A also show indications of declining water levels but were not included since the rates of decline cannot be quantified with available data. Monitoring wells MW-301 and MW-402A are located downgradient from the JRL and the former leachate pond. Groundwater elevation data from MW-301 shows slight declines from 2007 through 2012. MW-301 was found to be damaged during the April 2013 monitoring round. It was repaired prior to the July 2013 monitoring round and since that time has had reported average groundwater elevations in the order of 4 feet higher than values prior to the repair. Groundwater elevation data from MW-301 does show slight declines from 2013 through 2019. As discussed in Section 7.3, there have been water quality changes observed at MW-301 since 2013 and an investigation of the groundwater elevation changes in 2013 and water quality since that time is recommended.

Groundwater from MW-402A was reported as flowing from the top of the well casing from when it was first sampled in April 2009 through October 2012. Since then, the groundwater has been reported as intermittently flowing and measured at elevations below the top of the well casing through April 2016. Since April 2016, the groundwater has only been observed as flowing from the top of the well casing once in July 2019. These observations signify an overall decline of groundwater elevations at MW-402A from 2009 through 2019.

The eight landfill expansion monitoring locations are not included in the analysis yet since there is only data for 2018 and 2019. Landfill expansion monitoring locations will be included in this analysis in the future.

In addition to the cut-off of recharge from precipitation by the landfill liner systems, groundwater elevations at the site are affected by the amount of precipitation that falls on the site. Preliminary monthly climate data from the National Climatic Data Center (NCDC) for Bangor, Maine indicates a 2019 total precipitation of 52.00 inches, which is 10.07 inches above the normal precipitation reported by the NCDC for Bangor, Maine. The average groundwater elevations were generally higher in 2019 at most groundwater monitoring wells compared to 2018; the elevations were generally higher in 2018 compared to 2017. The groundwater elevation increases from 2017 to 2019 are attributed to a recent increasing trend in precipitation totals. Total precipitation in 2018 was 5.06 inches above normal precipitation and total precipitation in 2017 was 0.6 inches below normal precipitation. Despite the recent increasing trend in precipitation totals, historical site groundwater elevations continue to indicate overall declining trends through 2019 at most monitoring locations.

2.0 MONITORING LOCATIONS

Sampling during 2019 was completed in general accordance with the current EMP for the JRL (revised April 2016) and the EMP for the JRL expansion (revised June 2017).[6,7]

2.1 2019 Monitoring Locations

Sampling events during 2019 were completed in April, July, and October 2019. In 2019, water quality samples for the detection monitoring program were obtained by SME from 28 groundwater monitoring wells and piezometers,[8] three pore-water sample locations, three surface water locations, three stormwater locations, eight underdrain locations,[9] and one leachate monitoring location. Two on-site water supply wells (i.e., the Office Well and the Scale House Well) were included in the sampling program in April 2019 and July 2019, which was the fourth year of sampling of these wells. Measurement of field parameters (e.g., temperature and specific conductance) at the underdrain locations that contained water were completed on a monthly basis by NEWSME personnel.

The site monitoring points are summarized in Table 2-1 and Table 2-2 and their locations are shown in Figures 1-2 and 1-3. Information on the geologic formation in which each monitoring well is screened, as well as the elevation and distance below ground of each monitoring well screened interval, is listed in Table 2-1.

The sampling frequencies and monitoring parameters for each monitoring location are listed in Table 2-3. Monitoring parameters are discussed in Section 3.0.

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[6] SME, April 2016, Environmental Monitoring Plan, Juniper Ridge Landfill, Old Town, Maine, Prepared for NEWSME Landfill Operations LLC, Revised April 2016.

[7] SME, June 2017, Juniper Ridge Landfill Expansion Application Environmental Monitoring Plan, Submitted by: State of Maine Bureau of General Services, as Owner and NEWSME Landfill Operations, LLC, as Operator, July 2015 (Revised June 2017).

[8] Three of the site groundwater monitoring wells (DP-4, MW04-105, and MW-204) are sampled only during the fall monitoring event for field parameters only.

[9] Samples were obtained from eight underdrain monitoring locations during one or more of the three 2019 sampling events. Four additional locations were not sampled due to dry conditions (LF-UD-3A,B, LF-UD-7, LF-UD-9, and LF-UD-10). No composite samples were required to be taken at Manhole #5 (LF-COMP) and Manhole #7 (LP-COMP).

TABLE 2-1

2019 GROUNDWATER MONITORING LOCATIONS

Location Designation	Position Relative to Landfill	Screen Depth Interval (feet below ground surface)	Ground Surface Elevation (feet-NGVD)	Screen Interval Elevation (feet-NGVD)	Geologic Formation Screened
MW-204 [1]	Downgradient	13.8 – 18.8	164.0	150.2 – 145.2	Till
MW-206	Upgradient	15.0 – 20.0	200.9	185.9 – 180.9	Till
P-206A	Upgradient	85.5 – 90.5	201.5	116.0 – 111.0	Bedrock
MW-223A	Downgradient	28.0 – 33.0	173.4	145.4 – 140.4	Bedrock
MW-223B	Downgradient	12.6 – 17.6	173.3	160.7 – 155.7	Till
MW-227	Downgradient	15.0 – 20.0	160.8	145.8 – 140.8	Till
MW-301	Downgradient	162.7 – 182.7	163.5	0.8 – -19.2	Bedrock
MW-302R	Side-gradient	19.5 – 29.5	204.5	185.0 – 175.0	Bedrock
MW12-303R	Upgradient	30.4 – 40.4	206.1	175.7 – 165.7	Till
MW-401A	Downgradient	98.8 – 108.8	153.6	54.8 – 44.8	Bedrock
MW-401B	Downgradient	10.0 – 20.0	154.2	144.2 – 134.2	Till
MW-402A	Downgradient	95.5 – 105.5	149.3	53.8 – 43.8	Bedrock
MW-402B	Downgradient	12.0 – 22.0	149.7	137.7 – 127.7	Till
DP-4 [1]	Downgradient (In proximity of former leachate pond)	18.5 – 24.5	165.5	147.0 – 141.0	Till
P-04-02R	Downgradient (In proximity of former leachate pond)	27.1 – 32.1	168.0	140.9 – 135.9	Till
P-04-04	Downgradient (In proximity of former leachate pond)	27.2 – 32.2	166.7	142.1 – 137.1	Till
MW04-102	Downgradient (In proximity of former leachate pond)	10.0 – 15.0	167.0	157.0 – 152.0	Till
MW04-105 [1]	Downgradient (In proximity of former leachate pond)	14.8 – 19.8	162.2	147.4 – 142.4	Till
MW04-109R	Downgradient (In proximity of former leachate pond)	15.0 – 20.0	157.1	142.1 – 137.1	Till
MW09-901	Downgradient	15.0 – 20.0	161.9	146.9 – 141.9	Till
Office Well [2]	Side-gradient	18.0 – 202 [3]	213.5	195.5 – 11.5 [3]	Bedrock
Scale House Well [2]	Side-gradient	45.0 – 325 [3]	208.3	163.3 – 166.7 [3]	Bedrock
OW-06-03	Downgradient Expansion (Cell 11)	10.0 – 15.0	203.0	188.0 – 193.0	Overburden
OW-601A	Downgradient Expansion (Cell 11)	88.0 – 98.0	214.9	116.9 – 126.9	Bedrock
OW-601B	Downgradient Expansion (Cell 11)	51.0 – 61.0	214.5	153.5 – 163.5	Overburden
OW-602A	Downgradient Expansion (Cell 11)	52.0 – 62.0	211.7	149.7 – 159.7	Bedrock
OW-603B	Downgradient Expansion (Cell 11)	34.0 – 44.0	205.1	161.1 – 171.1	Overburden
OW-604A	Downgradient Expansion (Cell 11)	39.0 – 49.0	195.8	146.8 – 156.8	Bedrock
MW-501	Downgradient Expansion (Cell 11)	57.0 – 67.0	163.2	96.2 – 106.2	Shallow Bedrock
MW-06-01	Downgradient Expansion (Cell 11)	10.0 – 20.0	163.3	143.3 – 153.3	Overburden

Notes

1 MW-204, DP-4, and MW04-105 were sampled only during the fall sampling event for field parameters only.

2 The Office Well and the Scale House Well were sampled only during the April 2019 and July 2019 monitoring events.

3 Open bedrock borehole.

TABLE 2-2

2019 SURFACE WATER, STORMWATER, LEACHATE, AND UNDERDRAIN MONITORING LOCATIONS

Location Designation	Water Body Description
SW-1	Unnamed tributary of Pushaw Stream
SW-2	Unnamed tributary of Pushaw Stream
SW-3	Unnamed tributary of Pushaw Stream
SW-DP1	Stormwater Detention Pond #1
SW-DP5	Stormwater Detention Pond #5
SW-DP6	Stormwater Detention Pond #6
PWS10-1	Downgradient Stream Alluvium
PWS10-2	Downgradient Stream Alluvium
PWS10-3	Downgradient Stream Alluvium
LF-UD-1	Cell 1 underdrain at MH #5
LF-UD-2	Cell 2 underdrain at MH #5
LF-UD-3A,B	Cell 3A & Cell 3B underdrain at MH #5
LF-UD-4	Cell 4 underdrain at MH #5
LF-UD-5and6	Cell 5 & Cell 6 Underdrain (combined flow)
LF-UD-6	Cell 6 Underdrain
LF-UD-7	Cell 7 Underdrain at MH #5
LF-UD-8	Cell 8 Underdrain
LF-UD-9	Cell 9 Underdrain
LF-UD-10	Cell 10 Underdrain
LP-UD-1	Former leachate pond underdrain south end at MH #7
LP-UD-2	Former leachate pond underdrain north end at MH #7
LF-COMP	Composite sample of LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, and LF-UD-7 when water level in manhole covers the inlet pipes at MH #5
LP-COMP	Composite sample of LP-UD-1 and LP-UD-2 when water level in manhole covers both of the inlet pipes at MH #7
LT-C4LR	Leachate – On-site leachate storage tank

TABLE 2-3

2019 SAMPLING FREQUENCY

Sample Type	Location Designation	Monitoring: Detection Parameters (D) Field Parameters Only (FP)			Parameters Monthly
		Spring	Summer	Fall	
Groundwater	MW-204			FP	
	MW-206	D	D	D	
	P-206A	D	D	D	
	MW-223A	D	D	D	
	MW-223B	D	D	D	
	MW-227	D	D	D	
	MW-301	D	D	D	
	MW-302R	D	D	D	
	MW12-303R	D	D	D	
	MW-401A	D	D	D	
	MW-401B	D	D	D	
	MW-402A	D	D	D	
	MW-402B	D	D	D	
	DP-4			FP	
	P-04-02R	D	D	D	
	P-04-04	D	D	D	
	MW04-102	D	D	D	
	MW04-105			FP	
	MW04-109R	D	D	D	
	MW09-901	D	D	D	
	Office Well	D	D		
	Scale House Well	D	D		
	OW-06-03	FP	D	FP	
	OW-601A	FP	D	FP	
	OW-601B	FP	D	FP	
	OW-602A	FP	D	FP	
	OW-603B	FP	D	FP	
	OW-604A	FP	D	FP	
	MW-501	D	D	D	
	MW-06-01	D	D	D	
Surface Water	SW-1	D	D	D	
	SW-2	D	D	D	
	SW-3	D	D	D	
Stormwater Detention Pond	SW-DP1	D	D	D	
	SW-DP5	D	D	D	
	SW-DP6	D	D	D	
Pore-Water	PWS10-1	D	D	D	
	PWS10-2	D	D	D	
	PWS10-3	D	D	D	

TABLE 2-3 (cont'd)

Sample Type	Location Designation	Monitoring: Detection Parameters (D) Field Parameters Only (FP)			Parameters Monthly
		Spring	Summer	Fall	
Underdrains[1]	LF-UD-1	D	D	D	X
	LF-UD-2	D	D	D	X
	LF-UD-3A,B	D	D	D	X
	LF-UD-4	D	D	D	X
	LF-UD-5/6	D	D	D	X
	LF-UD-6	D	D	D	X
	LF-UD-7	D	D	D	X
	LF-UD-8	D	D	D	X
	LF-UD-9	D	D	D	X
	LF-UD-10	D	D	D	X
	LP-UD-1	D	D	D	X
	LP-UD-2	D	D	D	X
	LF-COMP	D	D	D	X
	LP-COMP	D	D	D	X
Leachate	LT-C4LR	D	D	D	

Notes
[1] Juniper Ridge personnel complete monthly underdrain and leak detection monitoring.

2.2 Groundwater Locations

Groundwater monitoring wells MW-206, P-206A, and MW12-303R are positioned upgradient of the landfill.

Groundwater monitoring wells MW-204, MW-223A, MW-223B, MW-227, MW-301, MW-401A, MW-401B, MW-402A, MW-402B, and MW09-901 are positioned downgradient of the landfill. Groundwater monitoring wells P-04-02R, P-04-04, MW04-102, MW04-105, MW04-109R, and DP-4 are located in the proximity of the former leachate pond[10] and are also downgradient of the landfill. Monitoring well MW-302R is considered to be side-gradient to the landfill and directly adjacent to Detention Pond #5. The Office Well and Scale House Well are also considered to be side-gradient to the landfill.

Groundwater monitoring wells MW-501, OW-06-01, OW-06-03, OW-601A, OW-601B, OW-602A, OW-603B, and OW-604A are positioned northeast and downgradient of Cell 11 of the landfill expansion.

[10] The former leachate pond has been used as a stormwater storage pond since the summer of 2008.

2.3 Surface Water and Stormwater Locations

Surface water samples SW-1, SW-2, and SW-3 were obtained at the unnamed tributary to Pushaw Stream. SW-1 and SW-3 are located downstream of the landfill while SW-2 is located upstream of the landfill. Stormwater samples SW-DP1, SW-DP5, and SW-DP6 were obtained at the discharge locations of Detention Pond #1, Detention Pond #5, and Detention Pond #6, respectively.

2.4 Pore-Water Locations

Stream-based pore-water sample locations PWS10-1, PWS10-2, and PWS10-3 are located downgradient of the landfill along the unnamed tributary to Pushaw Stream and represent water in the overburden adjacent to the stream.

2.5 Leachate Sample Location

During the 2019 sampling events, leachate samples were obtained from the on-site leachate storage tank (i.e., LT-C4LR). Leachate samples associated with compliance monitoring for off-site wastewater treatment are also obtained at the same location. The sampling location at the leachate storage tank, LT-C4LR, is shown on Figure 1-2.

2.6 Underdrain Monitoring

The sample locations where underdrain samples were obtained in 2019 are shown on Figures 1-2 and 1-3 and a diagram of the underdrain collection system is included on Figure 2-1. By design, the sampling of the landfill underdrain system provides a means to monitor for landfill cell leakage as the underdrains underlie the landfill liner system. Manhole MH #5, located northeast of the former leachate pond, is the sample location which receives groundwater entering the underdrains beneath Cells 1, 2, 3A, 3B, 4, and 7. The sampling location for the underdrain for Cell 6 (LF-UD-6) is from a stilling well in the underdrain line. Flow from the Cell 6 underdrain is also connected to the Cell 5 underdrain line. The combined flow from the Cell 5 and Cell 6 underdrains then drains to a 6-inch diameter pipe outfall located on the southern perimeter of the landfill. Beginning in June 2010, samples obtained from this 6-inch diameter pipe outfall are now a composite sample from the Cell 5 and Cell 6 underdrains (LF-UD-5and6); prior to June 2010, samples obtained from this 6-inch diameter outfall pipe were for the Cell 5 underdrain only (LF-UD-5).

The underdrain for Cell 8 was constructed in 2012 at a discrete location shown on Figure 2-1. LF-UD-8 was added to the monitoring program during the April 2013 sampling event as the underdrain monitoring location for Cell 8. The underdrain for Cell 9, LF-UD-9, was constructed in 2015 and was added to the monitoring program during the April 2016 sampling event. With the construction of Cell 10 in 2017, the underdrain piping and sample collection location for the underdrain for LF-UD-9, which was located in a temporary underdrain manhole adjacent to Cell 9, were extended to the south outside of the Cell 10 perimeter berm. The underdrain for Cell 10, LF-UD-10, was constructed in 2017 outside of the southern perimeter berm of Cell 10 and was added to the monitoring program during the October 2017 sampling event.

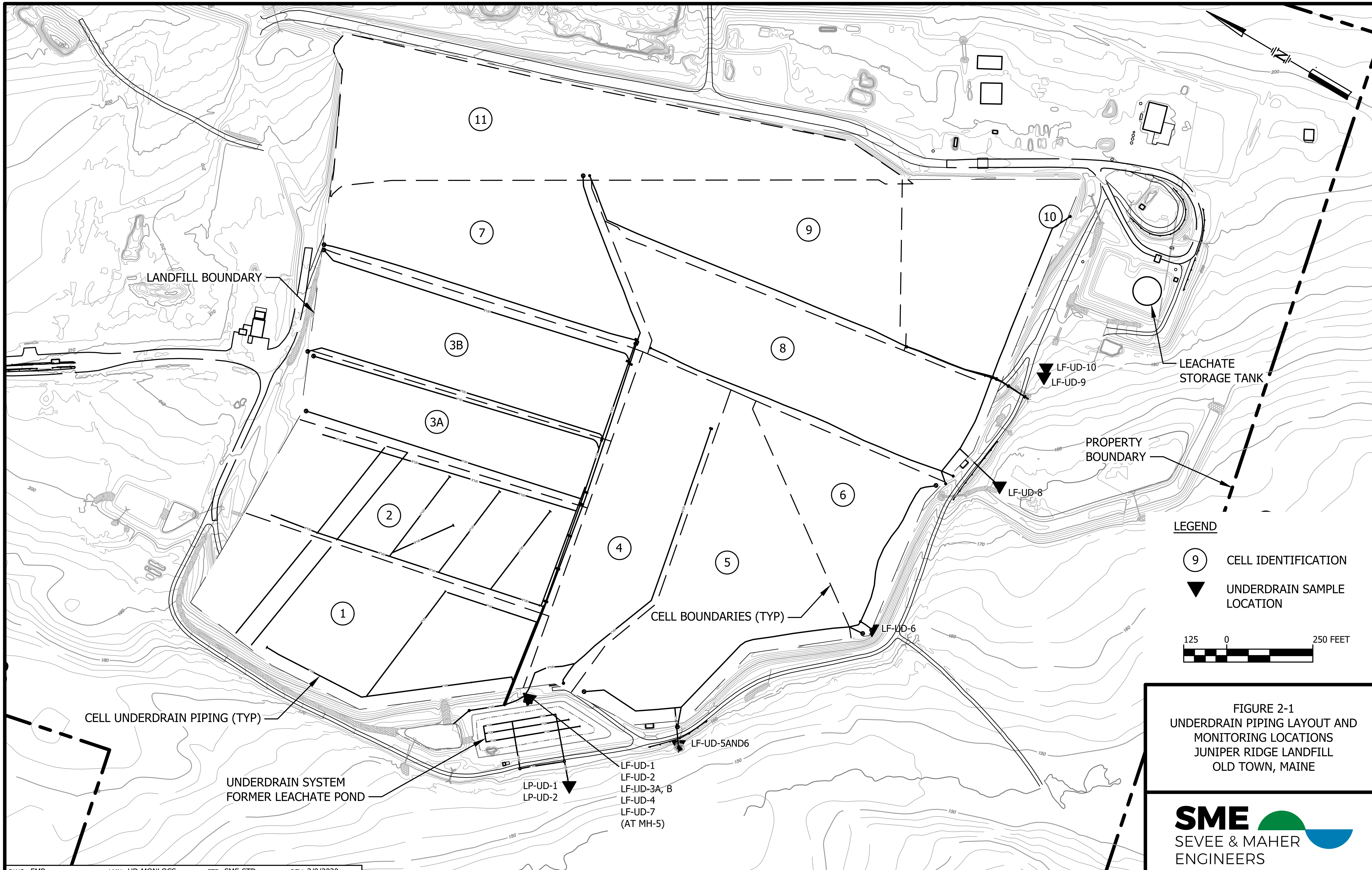

FIGURE 2-1
UNDERDRAIN PIPING LAYOUT AND
MONITORING LOCATIONS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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Manhole location MH #7, which is located southwest of the former leachate pond, is the sample location for LP-UD-1 and LP-UD-2, which monitor groundwater entering the southern and northern underdrains, respectively, of the former leachate pond.

Underdrain samples were obtained by SME as part of routine monitoring and analyzed for the detection monitoring parameters. Samples were also obtained monthly by NEWSME for field parameters. The underdrain sample locations LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, LF-UD-5 and 6, LF-UD-6, LF-UD-7, LF-UD-8, LF-UD-9, LF-UD-10, LP-UD-1, and LP-UD-2 were sampled during 2019, unless those locations were dry or their sample pipe inverts were submerged.

Historically, during times when LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, and LF-UD-7 were not able to be sampled separately due to pipe invert submergence, LF-COMP has been obtained from the manhole MH #5. This sample provides a composite sample of the aforementioned underdrain locations. Sample pipe submergence did not occur during the three 2019 detection monitoring events. LF-COMP samples were obtained from manhole MH #5 and analyzed for field parameters during each of the twelve 2019 monthly monitoring events.

Composite LP-COMP samples were not obtained during the routine monitoring events in 2019 because pipe invert submergence did not occur at individual sample locations LP-UD-1 and LP-UD-2, which were therefore sampled separately; however, LP-COMP samples were obtained and analyzed for field parameters during each of the twelve 2019 monthly monitoring events.

2.7 Annual Monitoring Well Specific Conductance Measurements

Specific conductance measurements were taken in 2019 from an expanded list of monitoring wells surrounding the existing landfill operations at JRL during the October monitoring event. This specific conductance sampling has occurred since 2008 when the MEDEP made a request that these samples be obtained. Locations measured annually for specific conductance are listed in Table 2-3 and shown on Figure 2-2. The results of the 2019 and historical fall specific conductance measurements are included in Appendix C.

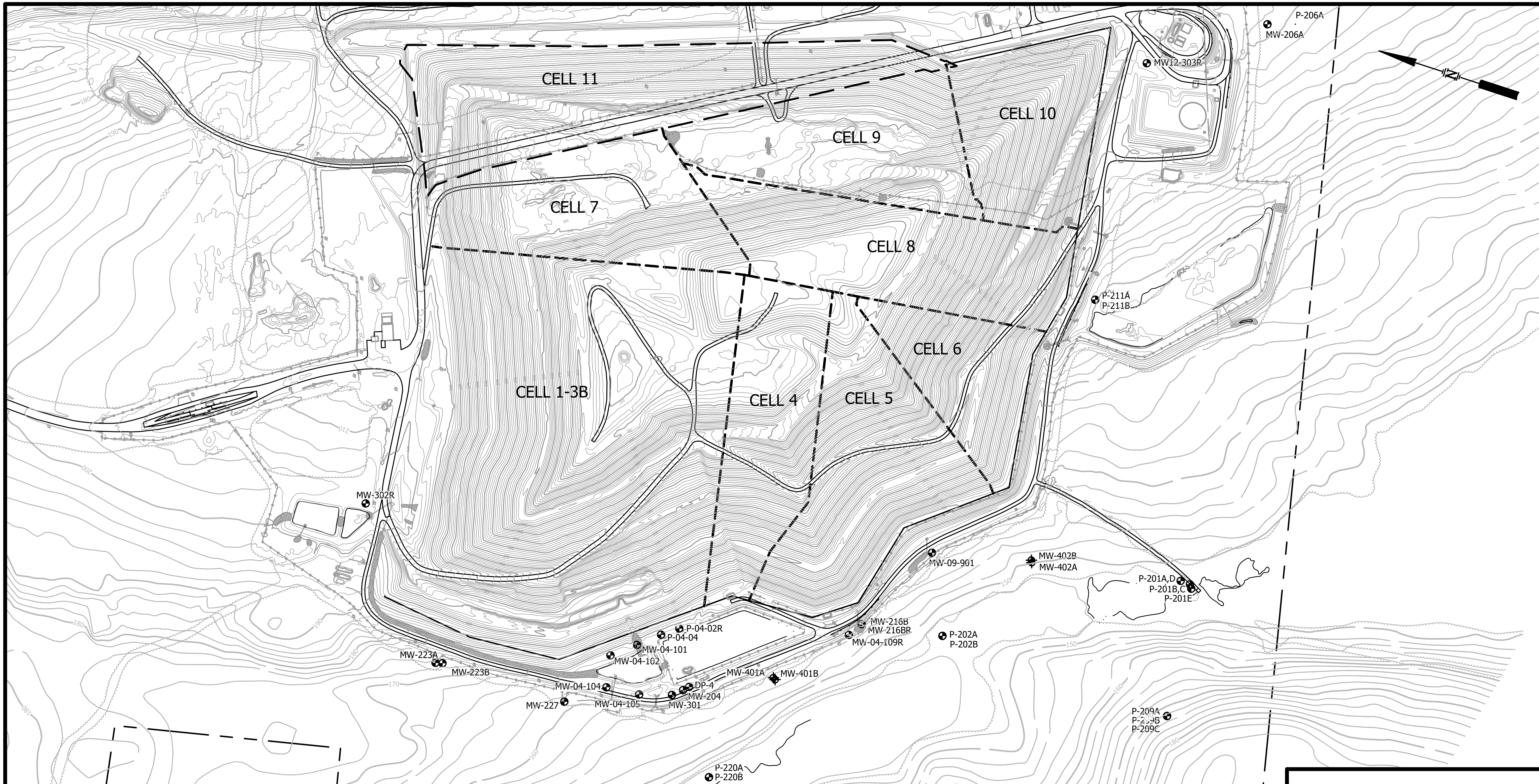
TABLE 2-4

2019 MONITORING WELL AND PIEZOMETER LOCATIONS
USED FOR ANNUAL SPECIFIC CONDUCTANCE MEASUREMENTS

Location Designation	
DP-4	MW-402B
MW04-101	P-04-02R
MW04-102	P-04-04
MW04-104	P-201A
MW04-105	P-201B
MW04-109R	P-201C
MW12-303R	P-201D
MW-204	P-201E
MW-206	P-202A
MW-216BR	P-202B
MW-223A	P-206A
MW09-901	P-209A
MW-223B	P-209B
MW-227	P-209C
MW-301	P-211A
MW-302R	P-211B
MW-401A	P-220A
MW-401B	P-220B
MW-402A	

2.8 Water Quality Landfill Gas Monitoring Program

Concurrent with the site routine water quality monitoring events in 2019, site monitoring wells, underdrain locations, leachate manholes, a leak detection manhole, and JRL site property boundaries were monitored for the presence of landfill-related gases using a hand-held GEM 2000 gas meter. Figures 1-2 and 1-3 show the gas monitoring locations associated with the landfill's water quality monitoring program. The results of the 2019 and historical landfill gas monitoring are included in Appendix H.



NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO INC., NORRIDGEWOCK, MAINE. PHOTO DATE 6/28/2018. VERTICAL DATUM: BRASS PLUG AT PUMP STATION AND AT THE ADMINISTRATION BUILDING. HORIZONTAL DATUM: MAINE STATE COORDINATES EAST ZONE NAD 83. GROUND CONTROL BY SEVEE & MAHER ENGINEERS, INC, CUMBERLAND, MAINE.
CONTOURS WITHIN EXISTING CELL LINER LIMIT FROM LOW ALTITUDE AERIAL PHOTOGRAMMETRIC MAPPING PERFORMED BY SEVEE & MAHER ENGINEERS, INC. (SME) OF CUMBERLAND, MAINE, DATED NOVEMBER 15,2019. GROUND CONTROL BY SEVEE & MAHER ENGINEERS, INC (SME) OF CUMBERLAND, MAINE USING PROPELLER AEROPOINTS, DATED NOVEMBER 15, 2019:
HORIZONTAL DATUM - NAD83 MAINE, EAST, US FT.
VERTICAL DATUM - NAVD 88, US FT.

2. PROPERTY LINE LOCATIONS ARE A RESULT OF FIELD SURVEY PERFORMED BY HERRICK AND SALSBURY, INC. LAND SURVEYORS, ELLSWORTH, MAINE FOR TRYTON TREE FARM PROJECT, PATTEN CORPORATION-DOWNEAST, OLD TOWN, MAINE, FEBRUARY 23, 1988, REVISED APRIL 7, 1988.

3. LOCATIONS OF EXPLORATIONS ARE APPROXIMATE.

150 0 300 FEET

FIGURE 2-2
MONITORING WELL LOCATIONS USED FOR ANNUAL CONDUCTIVITY MEASUREMENTS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

SME
SEVEE & MAHER ENGINEERS

DWG: GW LMN: FIG3-3 CONDUCTIVITY CTB: CONDUCTIVITY REV: 3/8/2020

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3.0 MONITORING PARAMETERS

3.1 Detection Monitoring Program

Table 2-3 shows the monitoring locations where detection monitoring was performed in 2019. Sampling during 2019 was completed in general accordance with the current EMP for the JRL (revised April 2016) and the EMP for the JRL expansion (revised June 2017).[11,12] The detection monitoring parameters are listed in Table 3-1. In instances where Table 2-3 shows a monitoring location is monitored for field parameters only, measurements are taken for groundwater elevation, specific conductance, dissolved oxygen, pH, temperature, turbidity, monitoring well pumping rate, and surface water flow rate.

Analysis for volatile organic compounds (VOCs) was included during the April monitoring event for multiple locations (LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, LF-UD-5and6, LF-UD-6, LF-UD-7, LF-UD-8, LF-UD-9, LF-UD-10, LP-UD-1, LP-UD-2, and MW-401B), provided that there was sufficient water available to sample at these locations. The leachate samples from LT-C4LR were analyzed for the same VOCs list during the April, July, and October monitoring events. The leachate location (LT-C4LR) was also analyzed for the parameters listed in Appendix A, Column 3 of the Chapter 405 MEDEP Solid Waste Regulations during the April 2019 monitoring event.

A supplementary addition to the 2019 monitoring program included sampling and analysis for dissolved methane at monitoring well MW-223B and pore-water sampling locations PWS10-1, PWS10-2, and PWS10-3 in April 2019. The results of the supplementary dissolved methane monitoring are discussed in Sections 7.3 and 7.4.

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[11] SME, April 2016, Environmental Monitoring Plan, Juniper Ridge Landfill, Old Town, Maine, Prepared for NEWSME Landfill Operations LLC, Revised April 2016.

[12] SME, June 2017, Juniper Ridge Landfill Expansion Application Environmental Monitoring Plan, Submitted by: State of Maine Bureau of General Services, as Owner and NEWSME Landfill Operations, LLC, as Operator, July 2015 (Revised June 2017).

TABLE 3-1

2019 DETECTION MONITORING ANALYTICAL PROGRAM

Water Quality Parameter[1]	Method	Practical Quantitation Limit (PQL)[2] (mg/L)
Total Dissolved Solids	SM 2540C	10
Total Suspended Solids	SM 2540D	2.5
Arsenic (As)	SW846/6010B/3010A	0.005
Calcium (Ca)	SW846/6010B/3010A	0.3
Iron (Fe)	SW846/6010B/3010A	0.05
Magnesium (Mg)	SW846/6010B/3010A	0.3
Manganese (Mn)	SW846/6010B/3010A	0.05
Potassium (K)	SW846/6010B/3010A	0.3
Sodium (Na)	SW846/6010B/3010A	0.3
Total Organic Carbon (TOC)	SW846/9060A	2.0
Chloride (Cl)	SW846/9056	1.0
Bromide (Br)	SW846/9056	0.1
Sulfate (SO_4)	SW846/9056	2.0
Nitrate/Nitrite (NO_3-N/NO_2-N)	U.S. EPA 353.2	0.05
Bicarbonate (HCO_3-$CaCO_3$)	SM 2320B	1.5
Volatile Organic Compounds (VOCs)[4,8]	U.S.EPA 8260B	0.0005 – 0.02
Total Kjeldahl Nitrogen (TKN)[5]	US EPA 351.2	0.25
Total Phosphorous[6]	U.S.EPA 365.3	0.04
Biochemical Oxygen Demand (BOD)[7]	SM 5210B	1.0
<u>Field Parameters</u> Groundwater Elevation	Field Measurement	NA [3]
Specific Conductance	Field Measurement	NA
Dissolved Oxygen (DO)	Field Measurement	NA
pH	Field Measurement	NA
Eh	Field Measurement	NA
Temperature	Field Measurement	NA
Turbidity	Field Measurement (APHA 2130)	NA
Surface Water Flow Rate	Field Measurement	NA
Field Observations	Visual Observations	NA
Total Alkalinity (as $CaCO_3$) [9]	Field Measurement	NA

Notes:

1. In April 2019, leachate samples from LT-C4LR were analyzed for Appendix A, Column 3 parameters (from Chapter 405 MEDEP Solid Waste Regulations).
2. At dilution factor of unity. Some PQLs may differ for surface and stormwater analysis.
3. NA = Not Applicable.
4. VOCs are the 47 organic constituents listed in Appendix I of 40 CFR Part 258. Diethyl ether and tetrahydrofuran were added to the list of VOCs in 2016 at the request of MEDEP. PQLs for VOCs are reported at a dilution factor of unity.
5. Monitoring wells and leachate only.
6. Surface waters, stormwater, pore-water, and underdrain only.
7. Surface waters only (excluding stormwater detention ponds and underdrains).
8. In April 2019, LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, LF-UD-5and6, LF-UD-6, LF-UD-7, LF-UD-8, LF-UD-9, LF-UD-10, LP-UD-1, LP-UD-2, and MW-401B were analyzed for VOC compounds, unless those locations were dry.
9. Underdrain monitoring locations only.

4.0 SAMPLING TECHNIQUES

4.1 Monitoring Wells

Groundwater samples from monitoring wells and piezometers are obtained utilizing the low-flow sample collection techniques in general accordance with the EMP for the JRL. The low-flow sampling program includes dedication of 1/8-inch diameter (I.D.) polyethylene tubing in each well. The tubing is secured at the top of the well such that the inlet of the tubing is placed approximately at the middle of the screen zone in each well. Prior to sampling, the static water level is measured in each well. A peristaltic pump with an adjustable flow rate is used to purge and sample monitoring wells with relatively shallow water tables. Monitoring wells with water tables greater than 28 feet below ground surface are sampled with dedicated submersible pumps rather than a peristaltic pump due to the depth of the groundwater.

The low-flow sampling procedure at the JRL consists of purging the monitoring wells at approximately 100 to 200 milliliters per minute. While the wells are purged, water levels and measurements of specific conductance, temperature, pH, Eh, dissolved oxygen, and turbidity are taken through a flow-through-cell at regular intervals. Field parameters and water level measurements are monitored to determine if parameter stabilization has occurred as outlined in the EMP. Once stabilization of the field parameters has occurred, in particular water levels and turbidity, a sample is obtained for chemical analysis. Several of the wells have very low recharge rates and, therefore, do not stabilize even under these low purge rates. For these wells, a sample is obtained after purging the liquid present in the sampling tube and pump.

4.2 On-Site Bedrock Groundwater Supply Wells

The samples from the on-site bedrock groundwater supply wells (i.e., the Office Well and the Scale House Well) are obtained from outside faucets at the facilities that they serve.

4.3 Surface Water, Stormwater, Underdrain, and Leachate Sampling Locations

Grab samples are obtained at the surface water, stormwater, underdrain, and leachate sampling locations, which is consistent with historical sampling methods and in accordance with the EMP. These samples are not filtered prior to analysis.

4.4 Pore-Water Sampling Locations

The pore-water samples are obtained in the following manner:

1. The pore-water sampling apparatus (i.e., pore-water sampler) is decontaminated with an Alconox® and deionized water solution followed by several deionized water rinses.
2. The area to be sampled is entered from an area downstream from the sample point. Caution is used not to disrupt the area where the pore-water sampler will be used.
3. The pore-water sampler is gently pushed approximately two feet into the soil surface in the sampling location area specified in the EMP. The inner rod remains inside of the pore-water sampler as it is pushed into the soil surface in order to maintain the integrity of the pore-water sample.
4. Once the pore-water sampler is advanced approximately two feet into the soil surface, the inner rod is removed and a new, clean piece of polyethylene tubing is attached to the top of the pore-water sampler using a new, clean silicone tube coupling.
5. Water is pumped from the pore-water sampler at a rate of approximately 100 to 200 milliliters per minute with a peristaltic pump.
6. Field parameters are monitored at a regular interval until stabilization criteria are met, or until the pore-water sampler runs out of water. If the pore-water sampler runs out of water, it is allowed to recharge and samples are then obtained for laboratory analyses.
7. After sampling is complete, the pore-water sampler is removed from the soils and a labeled grade stake is installed at the sampling location that clearly identifies the location for future sample collection from the same general location.

4.5 Water Quality Landfill Gas Monitoring

Gas monitoring at the monitoring wells, underdrain locations/manholes, leak detection manhole, and JRL site property boundaries is done using a GEM 2000 gas meter manufactured by Landtec of Colton, California with an auxiliary H_2S pod. Measurement of headspace gas in the monitoring wells is accomplished by placing the probe tip into the upper few inches of the well casing immediately after the well cap is removed. Gas measurements at underdrain and leak detection manhole locations are measured by placing the probe at the manhole opening where samples are obtained. The meter is calibrated daily before use. Methane-equivalent, carbon dioxide, and oxygen are reported as percent by volume. Hydrogen sulfide is reported in parts per million by volume.

4.6 Sample Handling and Chain-of-Custody

After obtaining the water quality samples in 2019, the samples were preserved on ice in coolers and shipped by SME to Maine Environmental Laboratory (MEL) of Yarmouth, Maine for analyses. Eastern Analytical, Inc of Concord, New Hampshire, under subcontract to MEL, performed the nitrate plus nitrite, dissolved methane, VOC, and semi-volatile organic compound (SVOC) analyses. Katahdin Analytical Services (Katahdin) of Scarborough, Maine, under subcontract to MEL, performed the total Kjeldahl nitrogen analyses. Katahdin was contracted by SME in 2019 to perform the herbicides, pesticides, and polychlorinated biphenyls (PCBs) analyses. Chain-of-custody sheets prepared by the sampling personnel accompanied the samples and contain the signatures documenting the transfer of the water quality samples from the field sampler to the receiving laboratory.

5.0 DATA VALIDATION AND QUALITY ASSURANCE (QA)/QUALITY CONTROL (QC)

QA/QC activities associated with sampling include the utilization of standardized collection procedures and sample data records, calibration of field instruments, and the use of chain-of-custody procedures. SME followed the EMP procedures to ensure that both the field instruments and protocols employed generate data that is reliable and provide valid analysis results. Instruments were calibrated, analyses were conducted to determine potential matrix interference as necessary, precision and accuracy were checked, and hold-times were verified. Analytical QA/QC involves the use of approved analytical protocols by a qualified laboratory. Water quality samples were all analyzed within the required hold-times.

Data validation and laboratory quality control procedures were followed and documented as described in the MEDEP Solid Waste Management Rules, Chapter 405. During 2019 monitoring events, duplicate water quality samples were obtained from several monitoring locations, as discussed in water quality data submittals for each round. Reports on Relative Percent Difference (RPD), calculated ratios of total dissolved solids to specific conductance, and values falling outside of historical ranges for each monitoring event were presented in each of the three data transmittals provided in 2019.

6.0 DATA ANALYSIS

Detailed discussion and evaluations of the water quality from sampling locations are presented in Section 7.0. Appendix D contains tables of historical water quality data collected over the past ten years, including 2019, for the sampling locations and parameters identified in this report. Water quality data for the site have been quantitatively evaluated using the methods described below and qualitatively evaluated based on the knowledge of the site hydrogeologic conditions developed from the extensive site investigations completed onsite and the status of site development and operations. Conclusions about site water quality are based on a combination of the quantitative and qualitative methods used to evaluate the water quality data.

6.1 Concentrations above MCL, MEG, MFCCC

Parameters measured at the site groundwater monitoring wells and pore-water sample locations that were above their respective U.S.EPA Maximum Contamination Levels (MCLs) or Maine Maximum Exposure Guidelines (MEGs) during 2019 are identified in detail in Sections 7.3 and 7.4. Parameters measured at the site surface water and stormwater monitoring locations that were above their Maine Freshwater Criterion Continuous Concentrations (MFCCCs) are identified in detail in Section 7.4.

6.2 Key Indicator Parameters for Comparison to JRL Leachate

For each of the site monitoring locations, specific conductance, chloride, and arsenic concentrations are summarized as key indicator parameters for comparison to JRL leachate concentrations. Generally, at a given water quality monitoring location, if landfill leachate were present, there would be a notable, significant increase in specific conductance values and chloride and arsenic concentrations (in conjunction with changes in other parameter concentrations) due to their presence at high concentrations in the JRL leachate. In 2019, the annual maximum value of specific conductance in JRL leachate (i.e., monitoring location LT-C4LR) was 21,908 µmhos/cm in July 2019. The annual maximum concentrations of chloride and arsenic at monitoring location LT-C4LR were 14,000 mg/L (July 2019) and 0.24 mg/L (July 2019), respectively.

Specific conductance gives an indication of the total dissolved constituents at each monitoring location. Chloride is useful in assessing the site water quality in comparison to JRL leachate due to its conservative nature in terms of adsorption, precipitation, and degradation in the groundwater environment. It is important to note that increases in chloride may also be due to runoff and recharge from salting or dust control of nearby roadways. Therefore, increases in chloride levels also need to be reviewed in terms of site conditions.

Currently, there are limited occurrences of arsenic MCL/MEG (0.01 mg/L) exceedances in site groundwater that are attributed to reducing conditions associated with decreasing groundwater recharge from site development. These reducing conditions are interpreted to favor reductive dissolution of arsenic and iron hydroxides that are present naturally in the soils and bedrock, which results in the release and mobility of dissolved arsenic in the groundwater. The highest arsenic concentration at JRL water quality monitoring locations in 2019 (0.021 mg/L at MW-401B in April 2019) is approximately an order of magnitude lower than in the JRL leachate in 2019. The historical maximum arsenic concentration in the JRL leachate is 0.6 mg/L (July 2017). The occurrence of arsenic concentration increases in JRL water quality monitoring locations, accompanied by increases in specific conductance values and chloride concentrations, may be a reliable indicator of landfill impacts resulting from the presence of JRL leachate.

6.3 Box and Whisker Plots and Data Summary Sheets

Water quality data for each monitoring location are summarized in the data summary sheets contained in Appendix E of this document. The summary sheet prepared for each sampling location contains a map and description of the monitoring point, a 2019 water quality data summary, and a statistical summary of the historical data prior to 2019. Parameter concentrations that exceeded historical minimum and maximum concentration values in 2019 at site monitoring locations are identified on the individual water quality summary sheets contained in Appendix E.

Also included in Appendix E are box and whisker plots of select monitoring parameter data for each of the sampling locations. The box and whisker plots graphically illustrate the annual concentration ranges and annual median value for the analytical results of each parameter shown and also provide a useful way to visually identify long-term and short-term trends in the water quality data. Where trends occur in the data, the trends are typically visually detectable on the plots. Plotting the range of annual values on the box and whisker plots also provides a sense of the variability of the annual data (statistically expressed as a standard deviation) and whether or not an apparent trend may be real or lies within the inherent variability of the data. Visual observation of water quality trends over time using the historical data (including 2019 data) is aided by using a fast-Fourier transform regression of each of the select parameter annual mean concentration values. Graphs of the fast-Fourier regression are part of the box and whisker plots in Appendix E.

6.4 Mann-Kendall Trend Analyses

Mann-Kendall trend analyses were run for the JRL water quality data to screen for potential statistically significant changes in water quality parameter concentrations over time. The Mann-Kendall analysis was chosen because it is nonparametric and is robust to outliers, missing data, and non-detects. Time-series plots of water quality parameter concentrations often contain multiple trends over time, due to various factors. In order to evaluate current trends for this annual report, the Mann-Kendall trend analyses were run for the site data over two time periods; from the end of 2019 back five years and three years. The three-year and five-year timeframes are suitable for evaluating changes in water quality related to more recent conditions, and to identify ongoing longer trends.

The Mann-Kendall test was run with a 0.05 Type-I error (i.e., 95% confidence level). For this evaluation, we consider a statistically significant trend to be one in which the potential Type-I error (i.e., false positive) is less than 0.05. The Mann-Kendall results for groundwater, surface water, stormwater, leachate, and underdrain locations are included in Appendix F and are discussed by location in Section 7.0. It should be noted that individual parameter trend analysis calculations using analytical data that is typically non-detect are at times positive for increasing or decreasing trend screenings due to changes in the laboratory reporting limit. In those cases, trends are interpreted and reported as no trends; these instances are identified in Appendix F. This occurrence is somewhat frequent for JRL site water quality due to the generally low parameter concentrations in groundwater at the site. Parameters for which this occurred at some monitoring locations in 2019 analyses are five-year statistically significant decreasing trends (95% confidence level) for total suspended solids, total Kjeldahl nitrogen, biological oxygen demand, and nitrate plus nitrogen, which are consistently or mostly non-detect at some groundwater monitoring locations but had decreases in reporting limits over the past five years.

Although rapid increases in concentrations of multiple parameters at a monitoring location may reflect site operational impacts such as spillage of leachate or landfill liner leakage, changes in multiple parameter values at a given monitoring location can also result from changes in groundwater conditions unrelated to the landfill leachate (e.g., decreases in natural precipitation recharge to the groundwater will change redox, alkalinity, and pH conditions, which results in the release of various constituents such as iron, manganese, and arsenic from soils and bedrock into the groundwater). Nearly all chemical constituents are subject to changes in concentrations resulting from interactions between soil, rock, and groundwater.

Increases in multiple (four or more) parameters,[13] especially when including key indicator parameters, are noted in our evaluation of the water quality in the site monitoring locations. At locations where this criterion is met, further assessment of water quality data and site conditions is completed to ascertain the potential causes for the change in water quality.

The trend analyses are used as a screening tool to review the water quality and must be viewed in conjunction with other factors such as the specific parameters exhibiting trends and the parameter concentrations detected at the monitoring locations (i.e., a specific parameter could have an increasing trend, but remain within a range consistent with upgradient concentrations). The results of the trend

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[13] Water temperatures, water elevations at groundwater monitoring locations, and flow rates at underdrain monitoring locations are included in the Mann-Kendall results in Appendix F but are not included in discussions related to water quality changes based on the number of parameters with increasing or decreasing trends at a given location.

screening analyses are compared visually with the time-series plots (box and whisker plots) described above to aid in assessing the actual significance of a statistical trend.

6.5 Bromide Analysis

Bromide was added to the monitoring program during 2013. Section 7.1 includes an evaluation of the chloride to bromide ratios for the JRL leachate during 2019 and how they compare to chloride to bromide ratios for site monitoring locations during 2019.

6.6 Stiff and Piper Diagram Construction

Stiff and Piper Diagrams were constructed for several of the monitoring locations to assist in the evaluation of water quality at these locations in 2019. These diagrams are graphical representations of select parameters that display the major ion composition of a water quality sample. They were used at several of the monitoring locations to compare the ionic composition of the water quality samples to other sample results such as upgradient locations and/or the landfill leachate to assess potential sources of water at the wells. This can be a valuable tool to compare water quality between various locations since it can be used to "fingerprint" ionic ratios, independent of concentration. See Appendix G for Stiff and Piper diagrams.

7.0 WATER QUALITY EVALUATION

Groundwater, surface water, stormwater, leachate, and underdrain water quality samples were obtained in 2019 at monitoring locations as described in Section 2.0 of this report. Samples were obtained during April, July, and October 2019. Laboratory analytical reports, field data sheets, and data validation documentation have been presented in tri-annual data submittals forwarded to the MEDEP during 2019 for each monitoring event.

The 2019 water quality data for the JRL is generally consistent with the historical data for the site. The 2019 water quality data from monitoring locations at the JRL are consistent with their setting among the construction and operational activities of the landfill. Site groundwater, surface water, and underdrain quality data do not show adverse effects from the performance of the landfill cells or leachate collection and transport systems. Water quality changes have been observed at the JRL, both upgradient and downgradient from the landfill, as evidenced by the statistically significant trends discussed in this section for multiple parameters and monitoring locations. These trends are largely attributable to changes in redox conditions, which occur as expected around the landfill due to the construction and operations of the landfill (e.g., from removal of vegetation, disturbance of native soils, and the cutoff of precipitation in the landfill area), and do not indicate any significant landfill related impacts to water quality from malfunction of the landfill liners.[14]

Only one of the parameters analyzed in groundwater monitoring wells, arsenic, was detected above an MCL in 2019. During 2019, arsenic concentrations were generally low at the site-wide monitoring locations. There were only four monitoring wells in the detection monitoring analytical program with arsenic concentrations detected above its MCL (0.01 mg/L) during 2019. The maximum arsenic concentration detected at site-wide monitoring locations was 0.021 mg/L at MW-401B in April 2019. There were no arsenic concentrations detected above its MCL at pore-water sampling locations in 2019. The Office Well and the Scale House Well, which are bedrock groundwater supply wells that were sampled in April 2019 and July 2019, did not have arsenic MCL exceedances. There were no arsenic MFCCC exceedances during 2019 at surface water monitoring locations SW-1, SW-2, and SW-3.

The low arsenic concentrations at the JRL in 2019 are a continuation since 2017 of generally site-wide lower concentrations of arsenic compared to recent previous concentrations. In contrast to 2019 arsenic data, all 19 routine monitoring wells and two of the three pore-water sampling locations had arsenic MCL exceedances during one or more sampling event in 2016.

[14] The MEDEP agreed with this assessment in its review of the 2017 Annual Report. MEDEP, February 20, 2018, Memorandum regarding the 2017 Annual Report, Juniper Ridge Landfill, Old Town, Maine, MEDEP Lic. #S-020700-7A-A-N and Amendment #S-020700-WD-N-A, Prepared by Sevee and Maher Engineers, Inc., April 2015.

The limited presence of arsenic at JRL monitoring locations in 2019 is attributed to reducing conditions associated with decreasing groundwater recharge from site development. These reducing conditions are interpreted to favor reductive dissolution of arsenic and iron hydroxides that are present naturally in the soils and bedrock, which results in the release and mobility of dissolved arsenic in the groundwater.

Observations relative to the site water quality data for 2019, in terms of historical and regulatory comparisons, and site setting, are discussed below for: leachate (Section 7.1); underdrains (Section 7.2); groundwater (Section 7.3); and surface water, stormwater, and pore-water (Section 7.4) monitoring locations. Water quality parameter data not specifically discussed in this report are considered to be consistent with the previously obtained water quality data for the JRL.

7.1 Leachate

The landfill leachate is sampled and analyzed as part of the ongoing water quality monitoring program. Leachate samples were obtained from the on-site leachate storage tank (i.e., LT-C4LR) during 2019. Leachate sampling location LT-C4LR replaced the former leachate sampling location in July 2013 in order to obtain leachate samples that are representative of leachate from all of the landfill cells. The leachate at LT-C4LR was sampled for the parameters in the detection monitoring analytical program (see Table 3-1) in July 2019 and October 2019 and was sampled for the parameters listed in Appendix A, Column 3 of the Chapter 405 MEDEP Solid Waste Rules during the April 2019 monitoring event. Leachate samples associated with compliance monitoring for off-site wastewater treatment are also obtained at the leachate storage tank when transport tanker trucks are being loaded. During 2019, approximately 22.1 million gallons of leachate were loaded into tanker trucks and transported from JRL for off-site treatment.

Leachate parameter values during 2019 and historically since July 2013 are generally characterized by high parameter values. There were six parameters with new historical minimum concentrations and one parameter with a new historical maximum concentration (see Appendix E). The specific conductance values recorded at LT-C4LR in 2019 ranged from 13,730 µmhos/cm in April 2019 to 21,908 µmhos/cm in July 2019. Chloride concentrations at LT-C4LR in 2019 ranged from 11,000 mg/L in October 2019 to 14,000 mg/L in July 2019. Arsenic concentrations at LT-C4LR in 2019 ranged from 0.14 mg/L in April 2019 to 0.24 mg/L in July 2019. The 2019 data from the leachate monitoring location is included in Appendix D.

There are not multiple (four or more) parameters with statistically significant increasing trends (95% confidence level) over the past three years or five years. There are statistically significant decreasing trends (95% confidence level) at LT-C4LR for arsenic, potassium, sodium, and bicarbonate over the past three years, and for nickel, potassium, sodium, total dissolved solids, and bicarbonate over the past five years.

Leachate was monitored for VOCs, SVOCs, herbicides, pesticides, and PCBs during the April 2019 monitoring event at LT-C4LR and for VOCs during the July 2019 and October 2019 monitoring events at LT-C4LR. Appendix D includes the monitoring results at LT-C4LR for 2019 and the results of parameters detected at levels above their respective laboratory reporting limits are summarized below:

- Acetone (2,000 µg/L in April 2019, 1,200 µg/L in July 2019, 2,100 µg/L in October 2019);
- Methyl ethyl ketone (2,000 µg/L in April 2019, 1,000 µg/L in July 2019, 2,100 µg/L in October 2019);
- Toluene (25 µg/L in April 2019, 16 µg/L in July 2019, 53 µg/L in October 2019);
- Ethylbenzene (12 µg/L in October 2019);
- m,p-xylene (10 µg/L in July 2019);
- Tetrahydrofuran (280 µg/L in April 2019, 390 µg/L in July 2019, 370 µg/L in October 2019);
- Phenol (85 µg/L in April 2019);
- Naphthalene (6.7 µg/L in April 2019);
- 2-methylnaphthalene (1.4 µg/L in April 2019);
- 3&4-methylphenol (540 µg/L in April 2019);
- Acenaphthene (1.5 µg/L in April 2019); and
- Endosulfan sulfate (0.036 µg/L in April 2019).

There were no detections of the VOC parameters listed above in groundwater or underdrain samples obtained during 2019. The detections of the VOCs and SVOCs shown above are consistent with historical detections of those parameters at LT-C4LR and/or LT-C4L (i.e., the former leachate collection location). Only one of the herbicides, pesticides, or PCBs parameters were detected above the laboratory reporting limits in 2019 at LT-C4LR. The detection of endosulfan sulfate above the laboratory limit was a first-time detection; however, the April 2019 laboratory detection limit for endosulfan sulfate was lower than that achieved during multiple past monitoring events.

Bromide was present in the leachate (LT-C4LR) samples obtained during 2019 at concentrations ranging from less than the laboratory reporting limit of 40 mg/L in July 2019 to 83 mg/L in April 2019. The chloride to bromide ratio for the leachate and site monitoring locations is being evaluated for its potential to be a useful screening tool for assessing possible leachate influence in water samples obtained from site monitoring locations. The chloride to bromide ratios for the leachate during 2019 were approximately 145 to 1 in April 2019, greater than 350 to 1 in July 2019, and approximately 234 to 1 in October 2019.

While the ratio of chloride to bromide can be used to differentiate a variety of bromide sources,[15] the bromide concentrations in the JRL water quality sampling locations in 2019 were either non-detect or at very low values, with the exception of an anomalously high bromide concentration of 2.4 mg/L detected at upgradient monitoring well MW12-303R in April 2019. This exceeded the previous historical maximum value of 0.42 mg/L at MW12-303R in October 2013. The bromide concentration at MW12-303R decreased to a concentration of 0.27 mg/L in October 2019. Other than MW12-303R, the highest bromide concentration detected at the JRL water quality monitoring locations in 2019 was 0.27 mg/L at MW09-901. There were four other monitoring locations (LF-UD-5and 6, MW09-901, MW-401B, and P-206A) with bromide detected at new historical maximum values in 2019, but only at slightly higher values than previous historical maximum values.

The 2019 bromide detections and chloride to bromide ratios are summarized in Table 7-1. The bromide concentrations above the laboratory reporting limits during 2019 are generally within the range of naturally occurring bromide concentrations in Maine, particularly in locations such as the JRL site that were in the area of post-glacial sea submergence.[16] The chloride to bromide ratios summarized in Table 7-1 ranged from less than 5 to 1 in October 2019 at MW04-109R to 323 to 1 in July 2019 at MW-223B, with a median ratio of approximately 92 to 1. The range of the chloride to bromide ratio results in 2019 is generally similar to those calculated for previous years.

Based on a study on 32 locations across 24 states in the United States, potable groundwater that has less than 10 mg/L chloride (which is a similar concentration range to most JRL sampling locations) had chloride to bromide ratios ranging from 43 to 1 to 285 to 1 with a median value of 101 to 1.[17] These values are very consistent with those shown in Table 7-1 for site monitoring locations where bromide was detected at low concentrations.

Unless site chloride concentrations become greater, the presence of bromide at low concentrations at some monitoring locations is currently of limited value for the chloride to bromide ratio analysis. However, this analysis is a helpful tool for future monitoring in the event that a monitoring location exhibits increasing concentrations for bromide and/or chloride and it should continue to be included in the monitoring program.

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[15] Panno, S.V., Hackley, K.C., Hwang, H.H., Greenberg, S.E., Krapac, I.G., Landsbergger, S., and O'Kelly, D.J., 2006, Characterization and identification of Na-Cl sources in ground water. Ground Water. 2006 Mar-Apr; 44(2):129.

[16] Snow, M.S., Kahl, J.S., Norton, S.A., Olson, C., 1990. Geochemical determination of salinity sources in ground water wells in Maine. Proc., Focus Conference on Eastern Regional Ground Water Issues, Ground Water, Management No. 3, 1990, pp. 313-327.

[17] Davis, S.N., Fabryka-Martin, J.T., Wolfsberg, L.E., 2004. Variations of bromide in potable groundwater in the United States. Groundwater 42 (6), 902-909.

TABLE 7-1

SUMMARY OF CHLORIDE TO BROMIDE RATIOS FOR 2019 BROMIDE DETECTIONS ABOVE LABORATORY REPORTING LIMITS

Location Designation	Date	Chloride Concentration (mg/L)	Bromide Concentration (mg/L)	Chloride to Bromide Ratio
LT-C4LR	April 2019	12,000	83	145
	July 2019	14,000	40 U	>350
	October 2019	11,000	47	234
LF-UD-2	July 2019	15	0.11	136
	October 2019	11	0.12	92
LF-UD-4	October 2019	12	0.13	92
LF-UD-5and6	April 2019	1.5	0.10	15
	October 2019	2.1	0.15	14
MW04-109R	April 2019	3.8	0.16	24
	July 2019	6.8	0.15	45
	October 2019	1.0 U	0.20	<5
MW09-901	April 2019	4.8	0.26	18
	July 2019	8.6	0.23	37
	October 2019	5.1	0.27	19
MW-223A	April 2019	26	0.11	236
	July 2019	34	0.11	309
	October 2019	32	0.12	267
MW-223B	April 2019	32	0.11	291
	July 2019	42	0.13	323
	October 2019	39	0.15	260
MW-301	April 2019	21	0.10	210
	October 2019	26	0.15	173
MW-302R	October 2019	44	0.16	275
MW12-303R	April 2019	27	2.4	11
	July 2019	40	0.62	65
	October 2019	15	0.27	56
MW-401B	April 2019	6.4	0.14	46
	July 2019	9.1	0.15	61
	October 2019	10	0.23	43
MW-402B	October 2019	18	0.11	164
MW-501	April 2019	10	0.12	83
OW-601A	July 2019	26	0.18	144
OW-601B	July 2019	26	0.20	130
P-206A	October 2019	21	0.10	210

Note:
U = not detected above indicated laboratory reporting limit

7.2 Underdrains

The JRL underdrain monitoring locations for the landfill and former leachate pond are listed in Table 7-2. There was no flow at LF-UD-3A,B, LF-UD-7, LF-UD-9, and LF-UD-10 during any of the three 2019 monitoring events; thus, no samples were obtained at these locations during 2019. There were also no samples obtained from LF-UD-1 in July 2019 and October 2019, LF-UD-2 in April 2019, LF-UD-4 in April 2019 and July 2019, and LP-UD-1 in April 2019 and October 2019. The occurrences of no flow at these underdrain monitoring locations is consistent with previous observed patterns.

The 2019 annual maximum specific conductance values and chloride and arsenic concentrations for underdrain monitoring locations are summarized in Table 7-2. The Mann-Kendall analyses results for statistically significant trends (95% confidence level) for these parameters are also provided in Table 7-2. The complete results for Mann-Kendall analyses are provided in Appendix F.

TABLE 7-2

2019 ANNUAL MAXIMUM SPECIFIC CONDUCTANCE VALUES AND CHLORIDE AND ARSENIC CONCENTRATIONS AT UNDERDRAIN MONITORING LOCATIONS

Location Designation	Specific Conductance (21,908 µmhos/cm in JRL Leachate in July 2019)			Chloride (14,000 mg/L in JRL Leachate in July 2019)			Arsenic (0.24 mg/L in JRL Leachate in July 2019)		
	µmhos/cm	Statistically Significant Trend (95% Confidence Level)		mg/L	Statistically Significant Trend (95% Confidence Level)		mg/L	Statistically Significant Trend (95% Confidence Level)	
		3-Year	5-Year		3-Year	5-Year		3-Year	5-Year
LF-COMP	453	–	–	NS	I	I	NS	I	I
LF-UD-1	355	–	Increasing	2.2	I	–	0.005 U	I	–
LF-UD-2	430	–	–	15	–	Decreasing	0.005 U	–	Decreasing
LF-UD-3A,B	NS	I	I	NS	I	I	NS	I	I
LF-UD-4	390	–	I	12	I	I	0.005	I	I
LF-UD-5and6	338	–	Decreasing	2.1	–	Decreasing	0.005 U	–	Decreasing
LF-UD-6	380	Decreasing	Decreasing	1.9	–	Decreasing	0.005	–	Decreasing
LF-UD-7	NS	I	I	NS	I	I	NS	I	I
LF-UD-8	105	–	–	7.1	–	–	0.005 U	–	–
LF-UD-9	201	I	I	NS	I	I	NS	I	I
LF-UD-10	111	I	I	NS	I	I	NS	I	I
LP-COMP	429	–	–	NS	I	I	NS	I	I
LP-UD-1	241	I	I	3.1	I	I	0.005 U	I	I
LP-UD-2	444	Decreasing	Increasing	4.0	Decreasing	Decreasing	0.005 U	–	Decreasing

Notes:
U = not detected above indicated laboratory reporting limit
NS = not sampled in 2019
– = no trend
I = insufficient data

Specific conductance values from the sampled underdrain monitoring locations were low relative to the JRL leachate (specific conductance values ranged from 13,730 µmhos/cm in April 2019 to 21,908 µmhos/cm in July 2019 at LT-C4LR). There were no specific conductance values above 500 µmhos/cm at the underdrain monitoring locations in 2019. Specific conductance values for all underdrain locations monitored in 2019 were below their respective historical maximum values.

During 2019, chloride concentrations from the sampled underdrain monitoring locations were low relative to the JRL leachate (chloride was detected in leachate at a concentration of 14,000 mg/L at LT-C4LR in July 2019) and do not indicate influence from the presence of landfill leachate.

The arsenic concentrations in the underdrain monitoring locations were low and generally consistent with those at groundwater monitoring wells across the site, including multiple upgradient monitoring locations.

For underdrain monitoring locations with sufficient data for analysis, the Mann-Kendall trend analyses for specific conductance, chloride, and arsenic indicate generally improving or stable water quality conditions. The only noted statistically significant increasing trends (95% confidence level) for these parameters at underdrain monitoring locations are for specific conductance at LF-UD-1 and LP-UD-2 over the past five years. Review of specific conductance data at these locations shows that these trends are very gradual and specific conductance values over the past five years are close to or within range of specific conductance values before that period. There is also a statistically significant decreasing trend (95% confidence level) for specific conductance over the past three years at LP-UD-2.

Sample pipe submergence conditions did not occur for the LF-COMP and LP-COMP sampling locations during the three 2019 annual monitoring events for field parameters and the detection monitoring analytical parameters, so those locations did not require sampling. LF-COMP and LP-COMP samples were obtained and analyzed by JRL for field parameters during each month of 2019.

There were insufficient data for three-year and/or five-year trend analyses at multiple underdrain monitoring locations due to those locations being always or intermittently dry during sampling events. Those instances are identified in Appendix F. At locations with sufficient data, Mann-Kendall trend analyses were run to determine the presence of three-year and five-year statistically significant increasing and/or decreasing trends (95% confidence level) for parameters analyzed at the landfill and former leachate pond underdrain locations. There were no underdrain monitoring locations with statistically significant increasing trends (95% confidence level) for multiple parameters (i.e., four or more) over the past three years or five years. Underdrain sampling locations with statistically significant decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) include the following:

- LF-UD-5and6 – Nine parameters have statistically significant decreasing trends (95% confidence level) over the past five years: specific conductance, arsenic, calcium, magnesium, potassium, total dissolved solids, bicarbonate, alkalinity (field), and chloride.
- LF-UD-6
    - Thirteen parameters have statistically significant decreasing trends (95% confidence level) over the past five years: specific conductance, pH, dissolved oxygen, arsenic, calcium, magnesium, sodium, total dissolved solids, sulfate, bicarbonate, alkalinity (field), organic carbon, and chloride.

- Seven parameters have statistically significant decreasing trends (95% confidence level) over the past three years: specific conductance, pH, Eh, calcium, magnesium, bicarbonate, and alkalinity (field).

- LP-UD-2
  - Five parameters have statistically significant decreasing trends (95% confidence level) over the past five years: pH, arsenic, bicarbonate, alkalinity (field), and chloride.
  - Seven parameters have statistically significant decreasing trends (95% confidence level) over the past three years: specific conductance, Eh, magnesium, sodium, total dissolved solids, alkalinity (field), and chloride.

VOCs were analyzed at all sampled underdrain locations (both landfill and former leachate pond underdrains) in April 2019. There were no VOCs detected in 2019 above laboratory reporting limits at any of the sampled underdrain locations.

7.3 Groundwater Quality

During 2019, routine water quality samples were obtained from: (1) 28 detection monitoring well locations at the JRL during April, July, and October 2019; and (2) two site bedrock groundwater supply wells, the Scale House Well and the Office Well in April 2019 and July 2019. This was the fourth consecutive year that the Office Well and Scale House Well have been included in one or more of the routine monitoring events for the site.

With few exceptions, historical water quality data from groundwater monitoring locations at the JRL are consistent with their setting, the groundwater flow conditions at the monitoring locations, and normal construction and operational activities of the landfill. Site groundwater data do not show adverse effects from the performance of the landfill cells or leachate collection and transport systems. The 2019 water quality data remain consistent with these interpretations.

Comparison of Key Indicator Parameters to JRL Leachate and Summary of Statistically Significant Trend (95% Confidence Level) Results

A summary of site-wide groundwater quality in 2019 at the JRL is provided in Table 7-3. The table contains a comparison of 2019 values of key indicator parameters (i.e., specific conductance, chloride, and arsenic) from leachate monitoring location LT-C4LR to the site's 30 groundwater monitoring locations and current statistically significant trends (95% confidence level) of the key indicator parameters. The table also includes a summary of locations identified with statistically significant trends (95% confidence level) for multiple (i.e., four or more) parameters. The complete results of the Mann-Kendall trend analyses are

TABLE 7-3

2019 ANNUAL MAXIMUM SPECIFIC CONDUCTANCE VALUES AND CHLORIDE AND ARSENIC CONCENTRATIONS AT GROUNDWATER MONITORING LOCATIONS

Location Designation	Position Relative to Landfill	Material Screened	Specific Conductance (21,908 µmhos/cm in JRL Leachate in July 2019)			Chloride (14,000 mg/L in JRL Leachate in July 2019)			Arsenic (0.24 mg/L in JRL Leachate in July 2019)			Multiple Parameters with Decreasing Trends [1]		Multiple Parameters with Increasing Trends [1]	
			µmhos/cm	Statistically Significant Trend (95% Confidence Level)		mg/L	Statistically Significant Trend (95% Confidence Level)		mg/L	Statistically Significant Trend (95% Confidence Level)					
				3-Year	5-Year		3-Year	5-Year		3-Year	5-Year	3-Year	5-Year	3-Year	5-Year
MW-223A	**Downgradient**	**Bedrock**	**559**	**–**	**Increasing**	**34**	**–**	**–**	**0.005 U**	**–**	**Decreasing**	**No**	**No**	**No**	**Yes (11)**
Scale House Well	**Side-gradient**	**Bedrock (Open Borehole)**	**540**	**I**	**I**	**75**	**I**	**I**	**0.005 U**	**I**	**I**	**I**	**I**	**I**	**I**
MW12-303R	**Upgradient**	**Overburden**	**494**	**–**	**–**	**40**	**Decreasing**	**–**	**0.005 U**	**–**	**Decreasing**	**No**	**No**	**No**	**Yes (5)**
MW-223B	**Downgradient**	**Overburden**	**491**	**–**	**Increasing**	**42**	**–**	**–**	**0.005 U**	**–**	**Decreasing**	**No**	**No**	**Yes (4)**	**Yes (9)**
OW-06-03	Downgradient Expansion (Cell 11)	Overburden	448	I	I	NS	I	I	NS	I	I	I	I	I	I
MW04-109R	Downgradient (in proximity of former leachate pond)	Overburden	446	–	–	6.8	–	–	0.005 U	–	Decreasing	No	No	No	No
OW-601A	**Downgradient Expansion (Cell 11)**	**Bedrock**	**410**	**I**	**I**	**26**	**I**	**I**	**0.005 U**	**I**	**I**	**I**	**I**	**I**	**I**
P-04-02R	Downgradient (in proximity of former leachate pond)	Overburden	401	Decreasing	Decreasing	6.2	Decreasing	Decreasing	0.008	–	Decreasing	Yes (7)	Yes (8)	No	No
MW09-901	**Downgradient**	**Overburden**	**398**	**–**	**Increasing**	**8.6**	**–**	**Increasing**	**0.005 U**	**–**	**Decreasing**	**No**	**Yes (5)**	**No**	**Yes (7)**
Office Well	**Side-gradient**	**Bedrock**	**372**	**I**	**I**	**30**	**I**	**I**	**0.005 U**	**I**	**I**	**I**	**I**	**I**	**I**
OW-601B	**Downgradient Expansion (Cell 11)**	**Overburden**	**369**	**I**	**I**	**26**	**I**	**I**	**0.005 U**	**I**	**I**	**I**	**I**	**I**	**I**
MW-501	Downgradient Expansion (Cell 11)	Bedrock	367	I	I	10	I	I	0.009	I	I	I	I	I	I
MW-302R	**Side-gradient**	**Bedrock**	**335**	**–**	**–**	**51**	**–**	**–**	**0.005 U**	**–**	**Decreasing**	**No**	**No**	**No**	**No**
MW-401B	Downgradient	Overburden	327	–	–	10	–	Decreasing	0.021	–	Decreasing	No	No	No	No
DP-4	Downgradient (in proximity of former leachate pond)	Overburden	272	I	–	NS	I	I	NS	I	I	Not Assessed			
MW-204	Downgradient	Overburden	253	I	–	NS	I	I	NS	I	I	Not Assessed			
MW-301	**Downgradient**	**Bedrock**	**248**	**Increasing**	**Increasing**	**26**	**Increasing**	**Increasing**	**0.005**	**Decreasing**	**Decreasing**	**No**	**No**	**Yes (4)**	**Yes (6)**
P-206A	**Upgradient**	**Bedrock**	**225**	**–**	**Increasing**	**22**	**–**	**Increasing**	**0.007**	**–**	**Decreasing**	**No**	**No**	**No**	**Yes (6)**
MW04-105	Downgradient (in proximity of former leachate pond)	Overburden	218	I	–	NS	I	I	NS	I	I	Not Assessed			
MW04-102	Downgradient (in proximity of former leachate pond)	Overburden	216	–	–	1.9	–	Decreasing	0.005	–	Decreasing	No	No	No	No
MW-227	Downgradient	Overburden	194	–	–	1.4	–	Decreasing	0.015	–	–	No	No	No	No
P-04-04	Downgradient (in proximity of former leachate pond)	Overburden	190	–	Increasing	5.9	Increasing	Increasing	0.007	–	Decreasing	No	No	Yes (4)	Yes (6)
OW-603B	Downgradient Expansion (Cell 11)	Overburden	185	I	I	2.0	I	I	0.008	I	I	I	I	I	I
MW-402B	Downgradient	Overburden	151	–	–	18 [2]	–	Decreasing	0.020	I	Decreasing	No	No	No	No
MW-206	Upgradient	Overburden	149	–	–	2.2	–	–	0.006	–	Decreasing	No	No	No	No
MW-401A	Downgradient	Bedrock	140	–	Increasing	4.9	Increasing	–	0.007	–	Decreasing	No	No	No	No
MW-402A	Downgradient	Bedrock	128	–	–	1.7	–	Decreasing	0.020	–	–	No	No	No	No
OW-604A	Downgradient Expansion (Cell 11)	Bedrock	124	I	I	1.5	I	I	0.005 U	I	I	I	I	I	I
OW-602A	Downgradient Expansion (Cell 11)	Bedrock	120	I	I	5.6	I	I	0.005 U	I	I	I	I	I	I
MW06-01	Downgradient Expansion (Cell 11)	Overburden	85	I	I	7.5	I	I	0.005 U	I	I	I	I	I	I

Notes:

1. Number of parameters with trends shown in parenthesis for analyses with four or more trends (95% confidence level). Locations monitored for field parameters only (i.e., DP-4, MW04-105, MW-204) are not assessed for multiple (i.e., four or more) parameters.
2. The October 2019 chloride concentration of 18 mg/L at MW-402B is an anomalous value. The average chloride concentrations at MW-402B prior to October 2019 for the past ten years was 1.8 mg/L and the chloride concentrations were low in April 2019 (1.5 mg/L) and July 2019 (1.3 mg/L).
3. Locations shown with non-bold text have water quality that: (1) does not indicate influence from landfill leachate; and (2) shows limited influence from landfill construction operations. Locations shown with bold text currently have more pronounced water quality changes that are largely attributable to changes in redox conditions related to construction of the landfill and landfill operations, and do not indicate significant landfill related impacts to water quality from malfunction of landfill liners.

U = not detected above indicated laboratory reporting limit
NS = not sampled in 2019
– = no trend
I = insufficient data

provided in Appendix F. The groundwater monitoring locations shown in Table 7-3 are listed in order of 2019 annual maximum specific conductance values from high to low.

Of note is that arsenic concentrations at all groundwater quality monitoring locations with sufficient data for Mann-Kendall trend analyses, except for MW-402A, indicate that there are statistically significant decreasing trend (95% confidence level) for arsenic over the past five years. Arsenic concentrations site-wide are generally low with values less than the MCL and MEG of 0.01 mg/L at 22 of the 26 monitoring locations where arsenic was sampled in 2019. At the four groundwater monitoring locations where arsenic did exceed the MCL and MEG, MW-227, MW-402B, MW-402A, and MW-402B, arsenic concentrations were only detected as high as 0.021 mg/L (at MW-401B in April 2019). The noted exceedances did not occur in conjunction with elevated or increasing chloride concentrations (see Table 7-3).

Based on review of Table 7-3 and a visual review of plotted 2019 and historical data, SME has identified 19 of the 30 site-wide groundwater monitoring locations with water quality that: (1) does not indicate influence from landfill leachate; and (2) shows limited influence from landfill construction operations. These 19 groundwater monitoring locations are identified on Table 7-3 as the locations with non-bold text. The specific conductance values at these wells range from 85 µmhos/cm to 448 µmhos/cm. With one exception, the chloride concentrations at these monitoring locations were very low and ranged from 1.4 mg/L to 10 mg/L. The one exception was an anomalous chloride detection of 18 mg/L in October 2019 at MW-402B. The average of chloride concentrations at MW-402B prior to October 2019 for the past ten years was 1.8 mg/L and the chloride concentrations were low in April 2019 (1.5 mg/L) and July 2019 (1.3 mg/L). These wells also exhibit limited to no statistically significant increasing trends (95% confidence level). For these reasons, extended discussion on these wells is not warranted at this time.

More pronounced water quality changes have been observed at multiple groundwater monitoring locations the JRL, both upgradient and downgradient from the landfill. These changes are evidenced by the statistically significant trends (95% confidence level), as summarized in Table 7-3, for multiple parameters and monitoring locations. These trends are largely attributable to changes in redox conditions, which occur as expected around the landfill due to the construction and operations of the landfill (e.g., from removal of vegetation, disturbance of native soils, and the cutoff of precipitation in the landfill area), and do not indicate any significant landfill related impacts to water quality from malfunction of the landfill liners.

SME has identified 11 of the site monitoring locations that warrant additional discussions. These monitoring locations, shown by bold text in Table 7-3, comprise: (1) upgradient monitoring locations MW12-303R and P-206A; (2) side-gradient monitoring locations MW-302R, the Office Well, and the Scale House Well; (3) downgradient monitoring locations MW-223A, MW223B, MW09-901 and MW-301; and (4) OW-601A and OW-602B, which are downgradient from Cell 11 of the landfill expansion. Groundwater quality at these monitoring locations are discussed below.

Extended Discussion on JRL Groundwater Quality

Upgradient Monitoring Locations MW12-303R and P-206A: Groundwater monitoring locations MW12-303R and P-206A are categorized as upgradient from the JRL; however, as the east side of the JRL (i.e., the upslope edge) is situated along the crest of a northwest-southeast trending drumlin, these upgradient monitoring locations are not fully hydraulically isolated from the landfill and operations outside of the area of landfill construction (see interpreted phreatic surface and groundwater potentiometric surface maps in Appendix B).

P-206A is a bedrock piezometer located southeast from the landfill and outside of the area of landfill construction. P-206A was added to the monitoring program during the July 2013 sampling event to provide an additional upgradient bedrock monitoring location. Review of the water quality data at P-206A shows that there were increases for several parameters over the past several years at P-206A; however, the groundwater quality at P-206A is still characterized by low parameter concentrations. The 2019 annual maximum values for parameters identified with current or recent increasing trends are shown below:

- Specific conductance (225 µmhos/cm in July 2019);
- Calcium (23 mg/L in April 2019);
- Magnesium (6.2 mg/L in April 2019);
- Sodium (9.7 mg/L in July 2019);
- Potassium (1.3 mg/L in July 2019);
- Total dissolved solids (136 mg/L in July 2019);
- Bicarbonate (79 mg/L in July 2019); and
- Chloride (22 mg/L in July 2019).

There were no MCL and/or MEG exceedances for parameters analyzed at P-206A during 2019. The Mann-Kendall analyses indicate that there are not statistically significant decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) at P-206A for the past three-year and five-year periods or increasing trends for multiple parameters (i.e., four or more) the past three years. The Mann-Kendall analyses indicate that there are statistically significant increasing trends (95% confidence level) for six parameters at P-206A for the past five years (specific conductance, calcium, magnesium, potassium, sodium, and chloride). In comparison to the same analyses done for data going back from 2018, when there were statistically significant increasing trends (95% confidence level) for seven parameters going back three years and five parameters going back five-years, the recent trends appear to be stabilizing.

The noted increasing parameter values at P-206A appear to have subsided in 2019 compared to 2018. Where there were eight parameters at P-206A with new historical maximum values (specific conductance, pH, calcium, magnesium, sodium, total dissolved solids, bicarbonate, and chloride), only total dissolved solids and bicarbonate had new historical maximum values detected in 2019.

Since groundwater quality at P-206A is still characterized by low parameter concentrations and the increasing water quality trends appear to be subsiding, the current water quality at P-206A is not interpreted to be related to the performance of landfill cells or leachate collection and transport systems. Monitoring location P-206A is located proximate to the looped road that accesses the JRL leachate storage tank. SME recommends that on-site snow removal and winter roadway maintenance practices minimize stockpiling of snow around this well.

MW12-303R is located in an area that historically has been influenced by roadway maintenance and runoff and from site construction activities. Water quality at MW12-303R was generally consistent with that at upgradient well MW-206 from when it was first sampled in 2012 until between 2015 and 2016. Since that time, multiple water quality parameters at MW12-303R have increased. Previous investigations at the site are discussed in previous annual water quality reports to assess three ancillary landfill structures related to landfill leachate and gas condensate in the vicinity of the well as potential sources responsible for the change in water quality at MW12-303R.[18] This program identified that the water quality at MW12-303R was not associated with these three structures.

After review of the April 2018 water quality sampling results at MW12-303R, when there were eight water quality parameters detected at new historical maximum values, SME further investigated the water quality changes at MW12-303R. Visual observations of the area surrounding the well indicated the well was located in a topographic depression and that it is located near the beginning of the access road to Cell 10, which began receiving waste in October 2017. It is likely that stormwater runoff from the vicinity of access road to Cell 10 had contributed to the water quality changes at MW12-303R. It was also determined that plowed snow was piled in the area surrounding MW12-303R during the winter of 2018 and during previous years.

The water quality signature at MW12-303R and the timing of the April 2018 monitoring event is consistent with what would be anticipated from impacts associated with surface water. Increases in dissolved oxygen and sulfate concentrations (see Appendix E) in this well suggest that MW12-303R was being influenced by an oxygenated source such as stormwater from precipitation and/or spring snow melting. In early summer of 2018, the access roadway and the area surrounding MW12-303R were regraded to divert stormwater runoff away from the well and the well was purged.

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[18] SME, August 2015, Juniper Ridge Landfill, June 2015 Supplemental Water Quality Data and July 2015 Water Quality Data Results.

In general, the recent water quality parameter value increases observed at MW12-303R appear to be stabilizing. Where there were seven parameters identified with statistically significant increasing trends (95% confidence level) for data from 2013 through 2017, which included specific conductance and chloride among other parameters, there are currently only five parameters for the past five years (potassium, total Kjeldahl nitrogen, sulfate, bromide, and turbidity). There are no statistically significant increasing trends (95% confidence level) for any parameters over the past three years at MW12-303R. There are not statistically significant decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) over the past three years or five years at MW12-303R.

There were four parameters (potassium, total Kjeldahl nitrogen, organic carbon, and bromide) at MW12-303R with new historical maximum values detected in April 2019. Each of these parameters had lower values in July and October 2019.

Specific conductance, chloride, and arsenic values have declined substantially since they were recently reported at historical maximum values, which are shown in Table 7-4.

TABLE 7-4

SUMMARY OF 2019 KEY INDICATOR PARAMETER VALUES AT MW12-303R

Parameter	October 2012 Value	Historical Maximum Value	2019 Range of Values
Specific Conductance (µmhos/cm)	189	1,711 (April 2018)	380 (October 2019) to 494 (July 2019)
Chloride (mg/L)	4.9	220 (April 2018)	15 (October 2019) to 40 (July 2019)
Arsenic (mg/L)	0.005 U	0.036 mg/L (July 2016)	0.005 U (April, July, October 2019)

Notes:
U = not detected above indicated laboratory reporting limit

Manganese exceeded its MEG of 0.3 mg/L at MW12-303R with a concentration of 0.76 mg/L in April 2019. Sodium exceeded its MEG of 20 mg/L at MW12-303R with concentrations of 25 mg/L in April 2019 and 29 mg/L in July 2019. There were no other parameters analyzed at MW12-303R with MCL and/or MEG exceedances in 2019.

The recent water quality trends at MW12-303R and P-206A are not interpreted to be related to the performance of landfill cells or leachate collection and transport systems. This is supported by the current values and trends of key indicator parameters at the landfill underdrain monitoring locations (see Section 7.2).

Down- and Side-gradient Monitoring Locations MW-223A, MW-223B, MW-302R, Office Well, and Scale House Well: Groundwater monitoring wells MW-223A and MW223B monitor the bedrock and overburden groundwater, respectively, hydraulically downgradient and northwest of the JRL. Bedrock groundwater monitoring locations MW-302R, the Office Well, and the Scale House Well are categorized as being northwest and side-gradient from the JRL, but as the JRL is situated along the crest of a northwest-southeast trending drumlin, these side-gradient monitoring locations are not fully hydraulically isolated from the landfill and operations outside of the area of landfill construction (see interpreted phreatic surface and groundwater potentiometric surface maps in Appendix B). Monitoring well MW-302R is located directly adjacent to one of the site's stormwater detention ponds.

In previous years' site water quality evaluations, SME has specifically addressed monitoring wells MW-302R, MW-223A, and MW-223B, located along the northwest perimeter of the landfill, and potential site activities responsible for the water quality in these wells.[19,20] Additional insight into the water quality changes at these wells was discussed in the 2016 through 2018 site water quality evaluations, with the sampling of the Scale House Well and Office Well during those years.[21,22,23] The evaluation determined that similarities exist among the Scale House Well, the Office Well, MW-302R, MW-223A, and MW-223B, and showed that they are distinct from the chemical signature of the leachate from LT-C4LR. The similarities in water quality in these wells are consistent with the known hydrogeology in this area of the site. Bedrock pumping tests completed between March 17, 2009 and March 19, 2009 at pumping well PW-08-02,[24] located proximate to the Scale House Well, showed preferential drawdown patterns in the surrounding wells that demonstrated a preferential groundwater flow direction exists from northeast to southwest from the vicinity of the Scale House (i.e., in the direction from the Scale House Well toward MW-302R, MW-223A, and MW-223B). This suggests that water quality in MW-302R, MW-223A, and MW-223B may in part be associated with upgradient water quality in the vicinity of the Office Well and Scale House Well in addition to the sources previously identified. A former topsoil and stump stockpile area and a subsurface wastewater disposal field are also located along this preferential groundwater flow direction. The Office Well and Scale House Well were sampled again in April 2019 and July 2019 and the water quality data continues to support this association.

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[19] SME, April 2015. 2014 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

[20] SME, April 2016, 2015 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

[21] SME, March 2017. 2016 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

[22] SME, April 2018. 2017 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations, LLC.

[23] SME, April 2019, 2018 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

[24] SME, May 13, 2016, Letter to MEDEP regarding Juniper Ridge Landfill Expansion Application, MEDEP #S-020700WD-BI-N, follow-up to Department Staff's responses to the March 4, 2016 submittal on Staff's review comments as presented in the Department's April 5, 2016 letter (Attachment SME-D3, Figures U-14B- Bedrock Amended and Figure U-14B- Till Amended).

The Office Well, which is southeast of the Scale House Well and closer to the northern boundary of the landfill, generally has 2019 parameter values slightly to moderately lower than at the Scale House Well. As shown in Table 7-5, multiple parameters at the Office Well and Scale House Well generally had comparable values to those at MW-302R, MW-223A, and MW-223B in 2019. A summary of 2019 water quality at upgradient monitoring well MW-206 is also included in Table 7-5 and shows that the subject wells have elevated parameter values with respect to upgradient groundwater quality.

TABLE 7-5

SUMMARY OF 2019 ANNUAL MAXIMUM WATER QUALITY PARAMETER VALUES AT THE OFFICE WELL, SCALE HOUSE WELL, MW-302R, MW-223A, AND MW-223B

Parameter	Office Well	Scale House Well	MW-302R	MW-223A	MW-223B	Upgradient Comparison (MW-206)
Specific Conductance (µmhos/cm)	372	540	335	559	491	149
Arsenic (mg/L)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.006
Calcium (mg/L)	50	64	30	92	68	18
Magnesium (mg/L)	5.6	8.8	3.0	10	17	5.4
Sodium (mg/L)	14	26	26	6.0	6.4	5.2
Total Dissolved Solids (mg/L)	230	329	212	345	285	99
Sulfate (mg/L)	19	24	31	19	15	2.3
Bicarbonate (mg/L)	120	130	61	230	180	71
Chloride (mg/L)	30	75	51	34	42	2.2

Notes:
U – not detected above the indicated laboratory reporting limit

Piper and Stiff diagrams were plotted using April 2019 data for the Scale House Well, Office Well, MW-302R, MW-223A, MW-223B, upgradient monitoring well MW-206, and the leachate sampled at LT-C4LR. The Piper and Stiff diagrams for these locations, which are included in Appendix G, show similar chemical signatures among the Scale House Well, the Office Well, MW-302R, MW-223A, and MW-223B, and show that they are distinct from the chemical signature of the leachate from LT-C4LR and upgradient water quality at MW-206.

The water quality at MW-302R is characterized by a relatively large seasonal variation in parameter values, including groundwater levels. The groundwater levels are influenced by stormwater levels in adjacent Detention Pond #5. There is typically a correlation between low groundwater level elevations, when MW-302R is less influenced by stormwater from Detention Pond #5, and higher values for multiple parameters (see box and whisker plots in Appendix E). During these periods, the higher parameter concentrations at MW-302R are more characteristic of the upgradient water quality at the Scale House Well and Office Well.

The correlation between seasonal water level fluctuations and water quality at MW-302R (i.e., seasonal changes in influence on water quality at MW-302R by stormwater from Detention Pond #5) are further demonstrated by the Stiff diagrams in Appendix G. While water similarities exist in April 2019 between MW-302R and the upgradient Scale House Well and Office Well, the similarities are not as distinct as they are for MW-223A, and MW-223B.

Aside from the seasonal fluctuation in water quality data at MW-302R, the water quality is generally stable. Dissolved oxygen (9 mg/L in April 2019) was the only parameter analyzed at MW-302R with a new historical maximum value in 2019. There are not statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) over the past three years or five years.

Visual review of water quality trends at MW-223A and MW-223B show distinct increases in parameter concentrations since about 2005 or later. There are statistically significant increasing trends (95% confidence level) at MW-223A for eleven parameters (specific conductance, calcium, magnesium, potassium, sodium, total dissolved solids, sulfate, bicarbonate, bromide, turbidity, and nitrate plus nitrate) over the past five years. There are statistically significant increasing trends (95% confidence level) at MW-223B for four parameters (magnesium, total dissolved solids, bicarbonate, and nitrate plus nitrate) over the past three years, and for nine parameters (specific conductance, calcium, magnesium, potassium, sodium, total dissolved solids, sulfate, bicarbonate, and nitrate plus nitrate) over the past five years.

There are not statistically significant decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) at MW-223A and MW-223B over the past three years or five years or increasing trends at MW-223A over the past three years.

Previous increasing concentrations of chloride have generally been decreasing over the past two years at MW-223A and have generally been stable at MW-223B.

Bicarbonate (230 mg/L in October 2019) was the only parameter analyzed at MW-223A with a new historical maximum value in 2019. There were three groundwater quality parameters detected at new historical maximum values at MW-223B in 2019, including magnesium (17 mg/L in April 2019 and July 2019), sodium (6.4 mg/L in July 2019), and bicarbonate (180 mg/L in July 2019 and October 2019).

There were no MCL or MEG exceedances of analyzed parameters at the Office Well, MW-223A, and MW-223B in 2019. Sodium exceeded its MEG of 20 mg/L at the Scale House in April 2019 (25 mg/L) and July 2019 (26 mg/L) and at MW-302R in July 2019 (26 mg/L) and October 2019 (22 mg/L). Sodium has previously exceeded its MEG at these locations. There were no other MCL or MEG exceedances of analyzed parameters at the Scale House Well and MW-302R in 2019.

The recent water quality and noted trends at the Office Well, the Scale House Well, MW-223A, MW-223B, and MW-302R are not interpreted to be related to the performance of landfill cells or leachate collection and transport systems. This is supported by the current values and trends of key indicator parameters at the landfill underdrain monitoring locations (see Section 7.2).

The Office Well and the Scale House Well will not be sampled in 2020 since their associated structures have been/will be removed in 2020 in preparation for the construction of Cell 12. The Office Well will be abandoned in accordance with Maine regulations, and the Scale House Well will be equipped with a transducer during the construction of Cell 13 and then sealed to the ground surface. These tasks are being planned collaboratively with MEDEP.

Downgradient location MW09-901: At MW09-901, specific conductance, calcium, magnesium, total dissolved solids, bicarbonate, chloride, and bromide have five-year statistically significant increasing trends (95% confidence level). Dissolved oxygen, pH, arsenic, sodium, and total Kjeldahl nitrogen have five-year statistically significant decreasing trends (95% confidence level). There were not statistically significant increasing or decreasing trends (95% confidence level) over the past three years for multiple parameters (i.e., four or more). There was a new historical maximum value of bromide (0.27 mg/L) in October 2019 and a new historical minimum value of dissolved oxygen (less than 0.1 mg/L) in October 2019.

Despite the recent noted parameter increases, most parameter values at MW09-901 remain similar to or marginally greater than upgradient overburden values at MW-206. Chloride values remain low at MW09-901 (e.g., ranging from 4.8 mg/L to 8.6 mg/L during 2019) and do not indicate the presence of landfill leachate at this monitoring location. It is likely that recent changes to water quality in this well are attributable to site development and changes in redox conditions related to precipitation cutoff over the area of the landfill liner.

Downgradient location MW-301: MW-301 is a deep bedrock monitoring well (screened between 162.7 and 182.7 feet below ground surface) located downgradient from the landfill in proximity of the former leachate pond. The groundwater quality at MW-301 is consistent with its setting as a monitoring location downgradient from the landfill. There are no current concerns with water quality results at this location related to the performance of landfill cells or leachate collection and transport systems.

There were no parameters analyzed at MW-301 that exceeded MCL or MEG standards in 2019. Although parameter concentrations at MW-301 remained relatively low during 2019, the Mann-Kendall analyses indicate that there are four parameters (specific conductance, magnesium, total dissolved solids, and chloride) at MW-301 with statistically significant increasing trends (95% confidence level) for the past three years and six parameters (specific conductance, calcium, magnesium, potassium, total dissolved solids, and chloride) for the past five years. There were not multiple parameters (i.e., four or more) with statistically significant decreasing trends (95% confidence level) for the past three years and five years. Review of the 2019 data for these parameters shows that their values are steadily increasing. The specific conductance values at MW-301 (e.g., ranging from 242 µmhos/cm to 248 µmhos/cm during 2019) remain generally consistent with those at upgradient monitoring location MW-206, which has a historical maximum value of 269 µmhos/cm (April 2018).

Chloride concentrations have been increasing relatively sharply since about 2013. While the 2013 chloride concentrations at MW-301 were 2.3 mg/L (July 2013) and 3.1 mg/L (October 2013), the annual and historical maximum detection concentration was 26 mg/L in October 2019. There was also a new historical maximum value at MW-301 in 2019 for magnesium (6.6 mg/L in July 2019) and total dissolved solids (161 mg/L in October 2019).

Review of water quality data at MW-301 suggests that there may be a correlation between the noted parameter value increases and a repair of the well in 2013. MW-301 was reported damaged in April 2013 and was not sampled. Following repairs to MW-301 (prior to the July 2013 monitoring event), there was a distinct increase in reported groundwater elevations at MW-301 in the order of approximately 4 feet. Since the repairs, multiple parameters began to increase at MW-301. The parameters with the most evident changes starting in 2013 include specific conductance, calcium, magnesium, sodium, and chloride. SME recommends that MW-301 be investigated in the spring of 2020. This investigation should include a survey check of the monitoring point elevation (top of PVC), inspection of the well condition, and inspection of topographic drainage conditions surrounding the well.

OW-601A and OW-601B, downgradient from Cell 11: Monitoring locations OW-601A and OW-601B are two of the eight new monitoring locations downgradient from Cell 11 of the landfill expansion. The chloride concentration was 26 mg/L in July 2019 at both of these monitoring locations. The chloride concentrations at the remaining six monitoring locations downgradient from the Cell 11 landfill expansion did not exceed 10 mg/L in 2019. Monitoring locations OW-601A and OW-601B are located in close proximity to the landfill access road and may be influenced by winter road salting.

VOCs

VOCs were analyzed at MW-401B in April 2019. No VOCs were detected above the laboratory reporting limits at MW-401B in 2019.

MCL and MEG Exceedances

Parameters detected at concentrations that were above MCLs or MEGs at groundwater monitoring locations in 2019 are identified in Table 7-6.

TABLE 7-6

2019 MCL AND MEG EXCEEDANCES AT GROUNDWATER MONITORING LOCATIONS

Location Designation	Manganese (mg/L) (0.3 mg/L MEG)	Sodium (mg/L) (20 mg/L MEG)	Arsenic (mg/L) (0.01mg/L MCL and MEG)
MW04-109R	0.53 (April 2019) 1.2 (July 2019) 1.3 (October 2019)	–	–
MW12-303R	0.76 (April 2019)	25 (April 2019) 29 (July 2019)	–
MW-227	–	–	0.015 (April 2019) 0.015 (July 2019) 0.013 (October 2019)
MW-302R	–	26 (July 2019) 22 (October 2019)	–
MW-401B	–	–	0.021 (April 2019) 0.020 (July 2019) 0.013 (October 2019)
MW-402A	–	–	0.017 (April 2019) 0.020 (July 2019) 0.019 (October 2019)
MW-402B	–	–	0.020 (April 2019) 0.017 (July 2019) 0.020 (October 2019)
OW-601B	0.64 (July 2019)	–	–
P-04-02R	–	50 (April 2019) 61 (July 2019) 49 (October 2019)	–
Scale House Well	–	25 (April 2019) 26 (July 2019)	–

Each of the MCL and/or MEG exceedances listed in Table 7-6 have occurred at their respective locations in the past. The occurrence of arsenic MCL and MEG exceedances in groundwater is largely attributable to reducing conditions associated with decreasing groundwater recharge from site development and did not occur in conjunction with elevated or increasing chloride concentrations (see Table 7-3). They are not interpreted to be related to landfill liner system performance.

Dissolved Methane

Samples were obtained for dissolved methane analysis at monitoring well MW-223B during the April, July, and October 2019 monitoring rounds, as recommended by the MEDEP. Dissolved methane was not detected above the laboratory reporting limit of 20 µg/L in April, July, and October 2019.

7.4 Surface Water, Stormwater, and Pore-Water

Surface water at the site was monitored in 2019 at three locations on the southwest side of the landfill along an unnamed tributary to Pushaw Stream (SW-1, SW-2, and SW-3). Stormwater was monitored at three stormwater detention ponds (SW-DP1, SW-DP5, and SW-DP6) during 2019. Additionally, three pore-water sampling locations were monitored in 2019 at PWS10-1, PWS10-2, and PWS10-3, which are located along the landfill side of the bank of the unnamed tributary to Pushaw Stream.

The 2019 annual maximum specific conductance values and chloride and arsenic concentrations for the JRL surface water, stormwater, and pore-water monitoring locations are summarized in Table 7-7. The Mann-Kendall analyses results for statistically significant trends (95% confidence level) for these parameters are also provided in Table 7-7. The complete results for Mann-Kendall analyses are provided in Appendix F.

TABLE 7-7

2019 ANNUAL MAXIMUM SPECIFIC CONDUCTANCE VALUES AND CHLORIDE AND ARSENIC CONCENTRATIONS AT SURFACE WATER, STORMWATER, AND PORE-WATER MONITORING LOCATIONS

Location Designation	Specific Conductance (21,908 µmhos/cm in JRL Leachate in July 2019)			Chloride (14,000 mg/L in JRL Leachate in July 2019)			Arsenic (0.24 mg/L in JRL Leachate in July 2019)		
	µmhos/cm	Statistically Significant Trend (95% Confidence Level)		mg/L	Statistically Significant Trend (95% Confidence Level)		mg/L	Statistically Significant Trend (95% Confidence Level)	
		3-Year	5-Year		3-Year	5-Year		3-Year	5-Year
SW-1	228	–	–	9.7	–	–	0.006	–	–
SW-2	85	–	–	16	–	–	0.005 U	–	–
SW-3	99	–	–	10	–	–	0.005 U	–	–
SW-DP1	106	–	–	3.2	–	Decreasing	0.005	–	–
SW-DP5	133	–	–	4.5	–	Decreasing	0.005 U	–	–
SW-DP6	78	–	–	6.7	Decreasing	–	0.005	–	–
PWS10-1	187	–	–	8.7	–	–	0.010	–	Decreasing
PWS10-2	276	–	–	8.5	–	–	0.005	–	Decreasing
PWS10-3	98	–	–	15	–	–	0.010	–	–

Notes:
U = not detected above indicated laboratory reporting limit
– = no trend

The 2019 surface water, stormwater, and pore-water monitoring location data are characterized by low values of key indicator parameters by comparison to the JRL leachate (i.e., LT-C4LR). This is generally consistent with historical data at these locations. There are currently no statistically significant increasing trends (95% confidence level) for the key indicator parameters over the past three years and five years. There are also not statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) at any of the JRL surface water, stormwater, and pore-water monitoring locations for the past three years and five years.

Further description of the JRL surface water, stormwater, and pore-water sampling locations and notable observations from their 2019 water quality data are provided below.

Surface Water Monitoring Locations: Along the unnamed tributary to Pushaw Stream, surface water quality at SW-1, SW-2, and SW-3 has been very consistent since sampling began at these locations in the early 1990s. Parameter concentrations during the 2019 sampling events at downstream locations SW-1 and SW-3 were generally similar to those measured at SW-2, which is located upstream from the landfill. Parameters analyzed at SW-1 and SW-3, located downstream from the landfill, remain at relatively low values that do not indicate influence from landfill leachate. The few parameter concentrations at SW-1, SW-2, and SW-3 that exceeded historical minimum and maximum concentration values for these monitoring locations in 2019 are identified on the individual water quality summary sheets contained in Appendix E.

The iron concentrations at SW-1, SW-2, and SW-3 exceeded the MFCCC standard of 1 mg/L during the July 2019 monitoring event at concentrations of 4.8 mg/L, 1.7 mg/L, and 2.1 mg/L, respectively. MFCCC exceedances for iron have occurred historically at these locations, and the 2019 iron concentrations at each of these locations were within their respective historical ranges. Iron concentrations were below the MFCCC standard at SW-1, SW-2, and SW-3 in April 2019 and October 2019 and there were no other MFCCC exceedances at these locations for parameters analyzed during 2019.

Stormwater Monitoring Locations: Samples from SW-DP1 are obtained from a stormwater detention pond at the downstream western edge of the JRL site. Samples from SW-DP5 are obtained from an outfall on the west side of Detention Pond #5. Samples from SW-DP6 are obtained from a stormwater detention pond sampling location at the southern end of the site.

The historical range of parameter concentrations at SW-DP1 have generally been low since sampling began at this location in 2004 and have not indicated influences from landfill leachate or landfill operations. All parameters analyzed at SW-DP1 in 2019 were within their respective historical ranges.

Stormwater quality monitoring at SW-DP5 began in April 2013. The 2019 water quality from SW-DP5 included low parameter values that do not indicate influences from landfill leachate or landfill operations. There were new historical maximum values for iron, manganese, and total suspended solids and new historical minimum values for sodium and total suspended solids in 2019 at SW-DP5; however, there had only been nine rounds of sampling data for comparison prior to 2019.

Stormwater quality monitoring at SW-DP6 began in October 2009. The stormwater quality at SW-DP6 during 2019 is characterized by continued low parameter concentrations that do not indicate influences from landfill leachate or landfill operations. There were new historical minimum values for specific conductance, pH, calcium, magnesium, sodium, and total dissolved solids and a new historical maximum value for dissolved oxygen in 2019 at SW-DP6.

The iron concentrations at SW-DP1, SW-DP5, and SW-DP6 exceeded the MFCCC standard of 1 mg/L during one or more of the 2019 monitoring events. The exceedances are summarized below:

- 1.4 mg/L iron in October 2019 at SW-DP1;
- 1.7 mg/L iron in April 2019 and 1.1 mg/L iron in October 2019 at SW-DP5; and
- 1.3 mg/L iron in April 2019 and 1.6 mg/L iron in July 2019 at SW-DP6.

MFCCC exceedances for iron have occurred historically at these locations. There were no other MFCCC exceedances at these locations for parameters analyzed during 2019.

Pore-Water Monitoring Locations: Pore-water sample locations PWS10-1, PWS10-2, and PWS10-3, which are located along the landfill side of the bank of the unnamed tributary to Pushaw Stream, have been sampled since 2010. These sampling locations are intended to be representative of groundwater quality as it discharges to the stream. Due to their local hydrologic setting (i.e., shallow fluctuating water table with high natural organic matter associated with the wetland and stream), they are characterized by iron and total organic carbon concentrations that are typically greater than in groundwater from other areas of the site. Groundwater quality has been generally consistent at all three pore-water sampling locations since sampling began at these locations in 2010 and does not indicate influences from landfill leachate or landfill operations.

While visual review of the 2019 and historical pore-water quality data and the abovementioned statistically significant trend analyses (95% confidence level) indicate generally stable water quality, there are multiple parameter concentrations at PWS10-1, PWS10-2, and PWS10-3 that were outside of the range of historical minimum and maximum concentration values for these monitoring locations in 2019. These occurrences are identified on the individual water quality summary sheets contained in Appendix E.

The pore-water samples were analyzed for dissolved methane during the April, July, and October 2019 monitoring events, as recommended by the MEDEP. The dissolved methane concentrations for pore-water samples in 2019 are summarized in Table 7-8.

TABLE 7-8

2019 DISSOLVED METHANE CONCENTRATIONS AT PORE-WATER MONITROING LOCATIONS

Location Designation	April 2019 (µg/L)	July 2019 (µg/L)	October 2019 (µg/L)
PWS10-1	79	130	20 U
PWS10-2	20 U	110	20 U
PWS10-3	20 U	280	20 U

Notes:
U – not detected above the indicated laboratory reporting limit

These concentrations are lower than the historical maximum concentrations detected at these locations in July 2015: 4,600 µg/L dissolved methane at PWS10-1, 690 µg/L at PWS10-2, and 260 µg/L at PWS10-3. The historical methane detections at these locations are consistent with their hydrologic setting in a freshwater wetland and are attributed to anaerobic biological processes in the saturated wetland soils. Studies of freshwater wetlands in the southeastern portion of the United States show wetland pore-water samples with dissolved methane concentrations of more than 20,000 µg/L in the top 25 centimeters of saturated soils[25]. The lower dissolved methane concentrations at JRL wetlands are likely attributed to the cooler climate in the northeastern portion of the United States, which limits anaerobic biological activity. The greatest concentrations of dissolved methane detected at pore-water monitoring locations in 2019 occurred during the July monitoring event.

While the pore-water sampling locations are grouped with surface monitoring locations, the samples are obtained from soil and the sampling results from these locations are compared to MCL and MEG standards for groundwater. Manganese was above its MEG of 0.3 mg/L in 2019 at PWS10-1 (0.80 mg/L in July 2019), PWS10-2 (0.94 mg/L in October 2019), and PWS10-3 (0.34 mg/L in July 2019). Iron was above its MEG of 5 mg/L at PWS10-3 with a concentration on 5.9 mg/L in July 2019. These parameters have exceeded their MEG at their respective locations in the past. There were no other MCL or MEG exceedances for analyzed parameters at PWS10-1, PWS10-2, and PWS10-3 during 2019.

7.5 Leak Detection System

The approved permitted landfill expansion liner system for Cell 11 through Cell 16 includes a leak detection layer under the primary liner system. The 2015 Liner Action Plan (LAP) describes the methods to monitor the performance of the primary liner system of Cell 11 through Cell 16 and outlines response actions should action levels be exceeded in the leak detection layer. The LAP uses a calculated Leak Detection System Action Level (LDSAL) to determine the need for additional actions. The LDSAL formula is based on the flow measured in the leak detection layer and the specific conductance measured in the leachate and leak detection layers. The LDSAL is compared to the leak detection specific conductance

[25] Schipper LA, Reddy KR (1994) Methane production and emissions from four reclaimed and pristine wetlands of southeastern U.S. *Soil Science Society of America Journal* 58, 1270-1275.

that is measured each month. If the LDSAL is equal to or greater than the leak detection specific conductance no further action is needed. The Cell 11 leak detection system was monitored throughout 2019 in accordance with the LAP and there were no LDSAL exceedances.

8.0 WATER QUALITY GAS MONITORING

As part of the 2019 environmental monitoring program, methane gas was measured during the collection of water quality samples at the site monitoring well standpipes, underdrain outfalls, leachate collection system, leak detection system, and JRL site property boundaries using a hand-held gas meter. During 2019, all methane gas monitoring results were below the meter detection limit. Hydrogen sulfide (H_2S) was monitored at the above-mentioned locations in 2019 and was not detected at any of the locations. These results include monitoring at the eight new landfill expansion monitoring wells located downgradient from Cell 11. Historical and 2019 gas monitoring results for the site are contained in Appendix H. The 2019 gas monitoring results indicate no landfill-related gases are present at the monitored locations.

9.0 SUMMARY AND RECOMMENDATIONS

9.1 Summary

Water quality samples were obtained in April, July, and October 2019 at the JRL in accordance with the current site EMP. The 2019 water quality data for the JRL is consistent with the historical data for the site. The 2019 water quality data from monitoring locations at the JRL are consistent with their setting among the construction and operational activities of the landfill. Site groundwater and surface water quality data do not show adverse effects from the performance of the landfill cells or leachate collection and transport systems. The evaluation of site water quality, which incorporates the 2019 water quality data, identified trends at multiple locations and for a number of parameters, both upgradient and downgradient from the landfill. Historical groundwater quality data through 2019 indicate that these trends, however, are largely attributable to changes in redox conditions, which occur as expected around the landfill due to the construction and operations of the landfill (e.g., from removal of vegetation, disturbance of native soils, and the cutoff of precipitation in the landfill area), and do not indicate any significant landfill related impacts to water quality from malfunction of the landfill liners.[26]

Leachate parameter values from monitoring location LT-C4LR during 2019 and historically since July 2013 are generally characterized by high parameter values. Generally, at a given water quality monitoring location, if landfill leachate were present, there would be a notable, significant increase in specific conductance values and chloride and arsenic concentrations (in conjunction with changes in other parameter concentrations) due to their presence at high concentrations in the JRL leachate. In 2019, the annual maximum value of specific conductance in JRL leachate (i.e., monitoring location LT-C4LR) was 21,908 µmhos/cm in July 2019. The annual maximum concentrations of chloride and arsenic at monitoring location LT-C4LR were 14,000 mg/L (July 2019) and 0.24 mg/L (July 2019), respectively.

The 2019 water quality data from underdrain monitoring locations do not show adverse effects from the performance of the landfill cells or leachate collection and transport systems. There were no specific conductance values above 500 µmhos/cm at the underdrain monitoring locations in 2019. During 2019, annual maximum chloride concentrations from the sampled underdrain monitoring locations were low (i.e., ranging from 1.9 mg/L to 15 mg/L) relative to the JRL leachate. The arsenic concentrations in the underdrain monitoring locations were very low (i.e., ranging from less than the laboratory reporting limit of 0.005 mg/L to 0.005 mg/L) and generally consistent with those at groundwater monitoring wells across the site, including multiple upgradient monitoring locations. VOCs were analyzed at all sampled underdrain locations (both landfill and former leachate pond underdrains) in April 2019. There were no VOCs detected in 2019 above laboratory reporting limits at any of the sampled underdrain locations.

[26] The MEDEP agreed with this assessment in its review of the 2017 Annual Report. MEDEP, February 20, 2018, Memorandum regarding the 2017 Annual Report, Juniper Ridge Landfill, Old Town, Maine, MEDEP Lic. #S-020700-7A-A-N and Amendment #S-020700-WD-N-A, Prepared by Sevee and Maher Engineers, Inc., April 2015.

Based on review of 2019 and historical data, SME has identified 19 of the 30 site-wide groundwater monitoring locations with water quality that: (1) does not indicate influence from landfill leachate; and (2) shows limited influence from landfill construction operations (see Table 7-3). The specific conductance values at these wells range from 85 µmhos/cm to 448 µmhos/cm. With one exception, the chloride concentrations at these monitoring locations were very low and ranged from 1.4 mg/L to 10 mg/L. The one exception was an anomalous chloride detection of 18 mg/L in October 2019 at MW-402B. The average of chloride concentrations at MW-402B prior to October 2019 for the past ten years was 1.8 mg/L and the chloride concentrations were low in April 2019 (1.5 mg/L) and July 2019 (1.3 mg/L). These wells also exhibit limited to no statistically significant increasing trends (95% confidence level).

More pronounced water quality changes have been observed at 11 of the site groundwater monitoring locations (see Table 7-3), which include wells both upgradient and downgradient from the landfill. These changes are evidenced by the statistically significant trends (95% confidence level) for multiple parameters and monitoring locations. These trends are largely attributable to changes in redox conditions, which occur as expected around the landfill due to the construction and operations of the landfill (e.g., from removal of vegetation, disturbance of native soils, and the cutoff of precipitation in the landfill area), and do not indicate landfill related impacts to water quality from malfunction of the landfill liners. These monitoring locations are discussed in detail in Section 7.3 and include: (1) upgradient monitoring locations MW12-303R and P-206A; (2) side-gradient monitoring locations MW-302R, the Office Well, and the Scale House Well; (3) downgradient monitoring locations MW-223A, MW223B, MW09-901 and MW-301; and (4) OW-601A and OW-602B, which are downgradient from Cell 11 of the landfill expansion. Current and recent water quality at these locations are summarized below:

- Upgradient Monitoring Locations MW12-303R and P-206A: Despite recent increasing parameter values at upgradient monitoring location P-206A, its groundwater quality is still characterized by low parameter concentrations and the increasing water quality trends appear to be subsiding. Monitoring location P-206A is located proximate to the looped road that accesses the JRL leachate storage tank. SME recommends that on-site snow removal and winter roadway maintenance practices minimize stockpiling of snow around this well.

  Upgradient monitoring location MW12-303R is located in an area that historically has been influenced by roadway maintenance and runoff, and from site construction activities. Water quality at MW12-303R was generally consistent with that at upgradient well MW-206 from when it was first sampled in 2012 until between 2015 and 2016. Since that time, multiple water quality parameters at MW12-303R have increased. Previous investigations at the site identified that the water quality at MW12-303R is not associated with three nearby ancillary landfill structures related to landfill leachate and gas condensate. After review of the April 2018 water quality sampling results at MW12-303R, when there were eight water quality parameters detected at new historical maximum values, SME further investigated the water quality changes at MW12-303R. The water quality at MW12-303R and visual observations of the area surrounding the well indicated the well was likely being influence by stockpiled snow from plowing and stormwater runoff from the access road to Cell 10, which began receiving waste in October 2017. In early summer of 2018, the access roadway and the area surrounding MW12-303R were regraded to divert stormwater runoff away from the well and the well was purged. The recent water quality parameter value increases observed at MW12-303R appear to be stabilizing. Specific conductance, chloride, and arsenic values have declined substantially since they were recently reported at historical maximum values (see Table 7-4).

The recent water quality trends at MW12-303R and P-206A are not interpreted to be related to the performance of landfill cells or leachate collection and transport systems. This is supported by the current values and trends of key indicator parameters at the landfill underdrain monitoring locations.

- MW-223A, MW-223B, MW-302R, Office Well, and Scale House Well: In previous years' site water quality evaluations, SME has specifically addressed monitoring wells MW-302R, MW-223A, and MW-223B, located along the northwest perimeter of the landfill, and potential site activities responsible for the water quality in these wells.[27,28] Additional insight into the water quality changes at these wells was discussed in the 2016 through 2018 site water quality evaluations, with the sampling of the Scale House Well and Office Well during those years.[29,30,31] The evaluation determined that similarities exist among the Scale House Well, the Office Well, MW-302R, MW-223A, and MW-223B, and showed that they are distinct from the chemical signature of the leachate from LT-C4LR. The similarities in water quality in these wells are consistent with the known hydrogeology in this area of the site. Bedrock pumping tests completed between March 17, 2009 and March 19, 2009 at pumping well PW-08-02,[32] located proximate to the Scale House Well, showed preferential drawdown patterns in the surrounding wells that demonstrated a preferential groundwater flow direction exists from northeast to southwest from the vicinity of the Scale House (i.e., in the direction from the Scale House Well toward MW-302R, MW-223A, and MW-223B). This suggests that water quality in MW-302R, MW-223A, and MW-223B may in part be associated with upgradient water quality in the vicinity of the Office Well and Scale House Well in addition to the sources previously identified. A former topsoil and stump stockpile area

[27] SME, April 2015. 2014 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

[28] SME, April 2016, 2015 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

[29] SME, March 2017. 2016 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

[30] SME, April 2018. 2017 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations, LLC.

[31] SME, April 2019, 2018 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

[32] SME, May 13, 2016, Letter to MEDEP regarding Juniper Ridge Landfill Expansion Application, MEDEP #S-020700WD-BI-N, follow-up to Department Staff's responses to the March 4, 2016 submittal on Staff's review comments as presented in the Department's April 5, 2016 letter (Attachment SME-D3, Figures U-14B- Bedrock Amended and Figure U-14B- Till Amended).

and a subsurface wastewater disposal field are also located along this preferential groundwater flow direction. The Office Well and Scale House Well were sampled again in April 2019 and July 2019 and the water quality data continues to support this association.

The water quality at MW-302R is characterized by a relatively large seasonal variation in parameter values associated with seasonal stormwater levels in adjacent Detention Pond #5. Aside from the seasonal fluctuation in water quality data at MW-302R, the water quality is generally stable.

Visual review of water quality trends at MW-223A and MW-223B show distinct increases in multiple parameter concentrations since about 2005 or later. Previously increasing concentrations of chloride have generally been decreasing over the past two years at MW-223A and have generally been stable at MW-223B.

The recent water quality and noted trends at the Office Well, the Scale House Well, MW-223A, MW-223B, and MW-302R are not interpreted to be related to the performance of landfill cells or leachate collection and transport systems. This is supported by the current values and trends of key indicator parameters at the landfill underdrain monitoring locations.

The Office Well and the Scale House Well will not be sampled in 2020 since their associated structures have been/will be removed in 2020 in preparation for the construction of Cell 12. The Office Well will be abandoned in accordance with Maine regulations, and the Scale House Well will be equipped with a transducer during the construction of Cell 13 and then sealed to the ground surface. These tasks are being planned collaboratively with MEDEP.

- <u>MW09-901</u>: Although there are recent parameter increases at MW09-901, most parameter values remain similar to or marginally greater than upgradient overburden values at MW-206. Chloride values remain low at MW09-901 (e.g., ranging from 4.8 mg/L to 8.6 mg/L during 2019) and do not indicate the presence of landfill leachate at this monitoring location. It is likely that recent changes to water quality in this well are attributable to site development and changes in redox conditions related to precipitation cutoff over the area of the landfill liner.
- <u>MW-301</u>: The groundwater quality at MW-301 is consistent with its setting as a monitoring location downgradient from the landfill. There are no current concerns with water quality results at this location related to the performance of landfill cells or leachate collection and transport systems. Although parameter concentrations at MW-301 remained relatively low during 2019, the Mann-Kendall analyses indicate that there are multiple parameters (i.e., four or more) with statistically significant increasing trends (95% confidence level) for the past three years and five years. The specific conductance values at MW-301 (e.g., ranging from 242 µmhos/cm to 248 µmhos/cm during 2019) remain generally consistent with those at upgradient monitoring location MW-206, which has a historical maximum value of 269 µmhos/cm (April 2018). Chloride concentrations have been increasing relatively sharply since about 2013, and a new historical maximum concentration of 26 mg/L was detected in October 2019.

Review of water quality data at MW-301 suggests that there may be a correlation between the noted parameter value increases and a repair of the well in 2013. MW-301 was reported damaged in April 2013 and was not sampled. Following repairs to MW-301 (prior to the July 2013 monitoring event), there was a distinct increase in reported groundwater elevations at MW-301 in the order of approximately 4 feet. Since the repairs, multiple parameters began to increase at MW-301. The parameters with the most evident changes starting in 2013 include specific conductance, calcium, magnesium, sodium, and chloride. SME recommends that MW-301 be investigated in the spring of 2020. This investigation should include a survey check of the monitoring point elevation (top of PVC), inspection of the well condition, and inspection of topographic drainage conditions surrounding the well.

- <u>OW-601A and OW-601B</u>: Monitoring locations OW-601A and OW-601B are two of the eight new monitoring locations downgradient from Cell 11 of the landfill expansion. The chloride concentration was 26 mg/L in July 2019 at both of these monitoring locations. The chloride concentrations at the remaining six monitoring locations downgradient from the Cell 11 landfill expansion did not exceed 10 mg/L in 2019. Monitoring locations OW-601A and OW-601B are located in close proximity to the landfill access road and may be influenced by winter road salting.

Arsenic is the only parameter analyzed in groundwater monitoring wells detected above its MCL in 2019. There were only four monitoring wells in the detection monitoring analytical program with arsenic concentrations detected above its MCL (0.01 mg/L) during 2019. The maximum arsenic concentration detected at site-wide monitoring locations was 0.021 mg/L at MW-401B in April 2019. There were no arsenic concentrations detected above its MCL at pore-water or surface water sampling locations in 2019, or at the Office Well or the Scale House Well (bedrock groundwater supply wells).

The 2019 surface water, stormwater, and pore-water monitoring location data are characterized by low values of key indicator parameters by comparison to the JRL leachate (i.e., LT-C4LR) and do not indicate influence from landfill leachate. This is generally consistent with historical data at these locations. There are currently no statistically significant increasing trends (95% confidence level) for the key indicator parameters over the past three years and five years. There are also not statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) at any of the JRL surface water, stormwater, and pore-water monitoring locations for the past three years and five years.

2019 was the seventh year of supplemental monitoring for dissolved methane at monitoring well MW-223B and the fifth year of supplemental monitoring for dissolved methane at the three pore-water sampling locations. Dissolved methane was not detected above its laboratory reporting limit of 20 µg/L at MW-223B in April, July, and October 2019. Dissolved methane concentrations at pore-water sampling locations PWS10-1, PWS10-2, and PWS10-3 in 2019 were low or non-detect during 2019 monitoring (i.e., ranging from less than the laboratory reporting limit of 20 µg/L at each of the pore-water monitoring locations to 280 µg/L in July 2019 at PWS10-3). Historical dissolved methane detections at the pore-water monitoring locations are consistent with their hydrologic setting in a freshwater wetland and are attributed to anaerobic biological processes in the saturated wetland soils. Historical dissolved methane sampling data from monitoring well MW-223B and the pore-water sampling locations do not indicate influence by subsurface migration of landfill gas.

9.2 Closure and Recommendations

SME recommends that MW-301 be investigated in the spring of 2020 to address water quality data that suggests that there may be a correlation between the parameter value increases and a repair of the well in 2013. This investigation should include a check of the monitoring point elevation (top of PVC), an inspection of the well condition, and topographic drainage conditions surrounding the well.

Monitoring location P-206A is located proximate to the looped road that accesses the JRL leachate storage tank. SME recommends that on-site snow removal and winter roadway maintenance practices minimize stockpiling of snow around this well.

SME recommends continuing with the current site monitoring program in 2020, which will include baseline water quality monitoring for Cell 12 monitoring wells MW-04-09A, MW-04-09B, and MW-502.

APPENDIX A

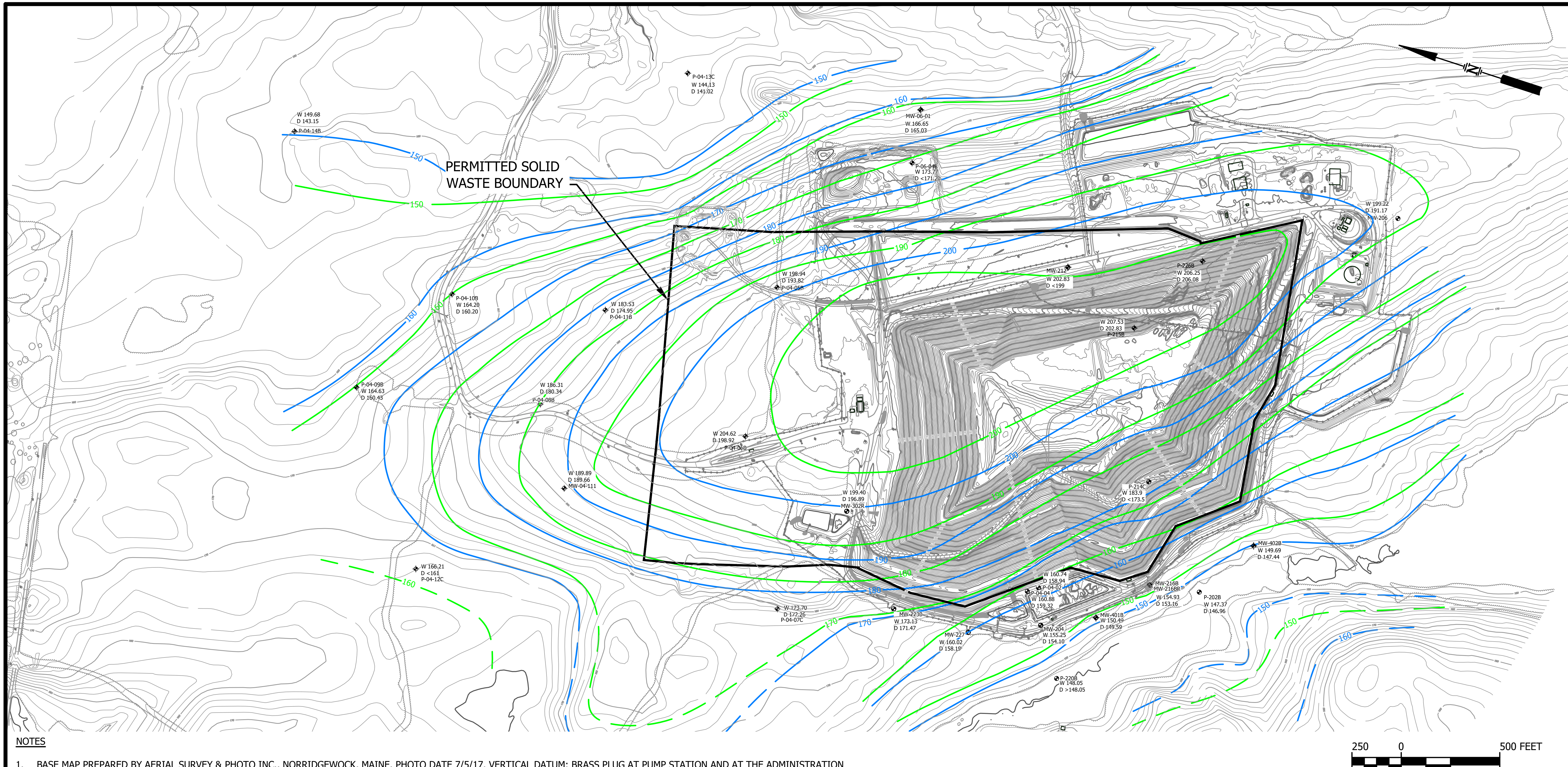
RESPONSES TO MEDEP COMMENTS REGARDING THE PREVIOUS ANNUAL WATER QUALITY REVIEW (NONE RECEIVED)

SME
SEVEE & MAHER
ENGINEERS

APPENDIX B

INTERPRETED SHALLOW GROUNDWATER PHREATIC SURFACE AND UPPER BEDROCK POTENTIOMETRIC SURFACE CONTOUR MAPS AND 2019 QUANTITATIVE ANALYSIS OF MEASURED CHANGES IN GROUNDWATER ELEVATIONS AT MONITORING LOCATIONS

SME
SEVEE & MAHER
ENGINEERS



NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO INC., NORRIDGEWOCK, MAINE. PHOTO DATE 7/5/17. VERTICAL DATUM: BRASS PLUG AT PUMP STATION AND AT THE ADMINISTRATION BUILDING. HORIZONTAL DATUM: MAINE STATE COORDINATES EAST ZONE NAD 83. GROUND CONTROL BY SEVEE & MAHER ENGINEERS, INC, CUMBERLAND, MAINE.
CONTOURS WITHIN EXISTING CELL LINER LIMIT FROM LOW ALTITUDE AERIAL PHOTOGRAMMETRIC MAPPING PERFORMED BY SEVEE & MAHER ENGINEERS, INC. (SME) OF CUMBERLAND, MAINE, DATED DECEMBER 1, 2018. GROUND CONTROL BY SEVEE & MAHER ENGINEERS, INC (SME) OF CUMBERLAND, MAINE USING PROPELLER AEROPOINTS, DATED DECEMBER 1, 2018: HORIZONTAL DATUM - NAD83 MAINE, EAST, US FT.
VERTICAL DATUM - NAVD 88, US FT.

2. PROPERTY LINE LOCATIONS ARE A RESULT OF FIELD SURVEY PERFORMED BY HERRICK AND SALSBURY, INC. LAND SURVEYORS, ELLSWORTH, MAINE FOR TRYTON TREE FARM PROJECT, PATTEN CORPORATION-DOWNEAST, OLD TOWN, MAINE, FEBRUARY 23, 1988, REVISED APRIL 7, 1988.

3. LOCATIONS OF EXPLORATIONS ARE APPROXIMATE.

4. GROUNDWATER CONTOURS BASED ON WATER LEVEL MEASUREMENTS RECORDED DURING SPRING AND FALL OF 2007 (WET AND DRY SEASONS RESPECTIVELY). SUMMER DATA FROM 2008 (WET AND DRY SEASONS RESPECTIVELY).

LEGEND

150 (blue line)	INTERPRETED WET-SEASON POTENTIOMETRIC SURFACE, (2007) IN BEDROCK (ELEVATION IN FEET NGVD).
150 (green line)	INTERPRETED DRY-SEASON POTENTIOMETRIC SURFACE, (2007), IN BEDROCK (ELEVATION IN FEET NGVD).
MW-227 W 160.02 D 158.19	WELL/PIEZOMETER LOCATION WITH ELEVATION OF GROUNDWATER FOR WET (W) AND DRY (D) SEASON.

FIGURE 5-1
INTERPRETED PHREATIC SURFACE
SEASONAL HIGH CONDITIONS
JUNIPER RIDGE LANDFILL EXPANSION
OLD TOWN, MAINE

SME
SEVEE & MAHER
ENGINEERS

DWG: GW LMN: PHREATIC-2007 CTB: OVERBURDEN REV: 3/19/2019

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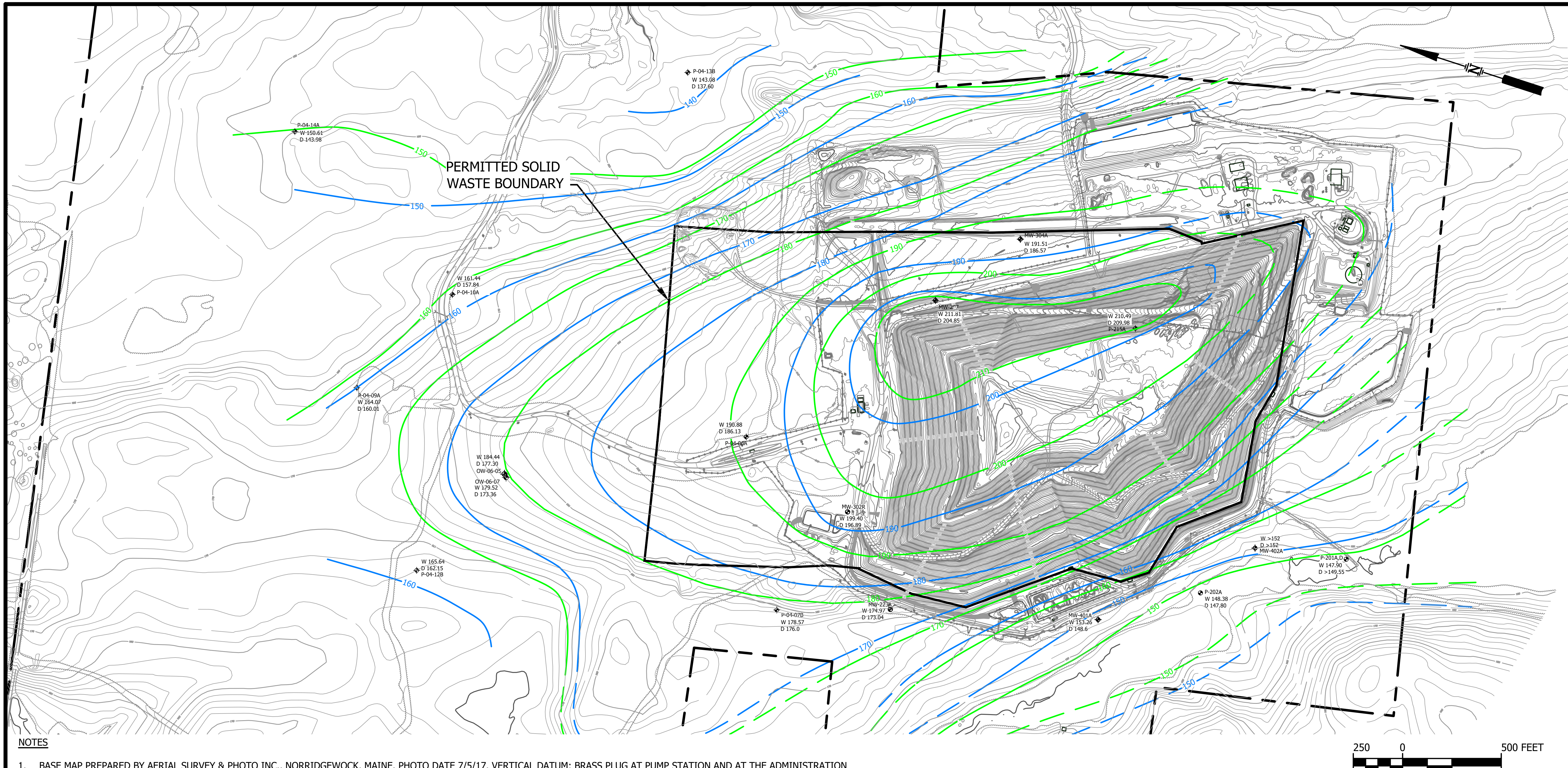

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO INC., NORRIDGEWOCK, MAINE. PHOTO DATE 7/5/17. VERTICAL DATUM: BRASS PLUG AT PUMP STATION AND AT THE ADMINISTRATION BUILDING. HORIZONTAL DATUM: MAINE STATE COORDINATES EAST ZONE NAD 83. GROUND CONTROL BY SEVEE & MAHER ENGINEERS, INC, CUMBERLAND, MAINE.
CONTOURS WITHIN EXISTING CELL LINER LIMIT FROM LOW ALTITUDE AERIAL PHOTOGRAMMETRIC MAPPING PERFORMED BY SEVEE & MAHER ENGINEERS, INC. (SME) OF CUMBERLAND, MAINE, DATED DECEMBER 1, 2018. GROUND CONTROL BY SEVEE & MAHER ENGINEERS, INC (SME) OF CUMBERLAND, MAINE USING PROPELLER AEROPOINTS, DATED DECEMBER 1, 2018:
HORIZONTAL DATUM - NAD83 MAINE, EAST, US FT.
VERTICAL DATUM - NAVD 88, US FT.

2. PROPERTY LINE LOCATIONS ARE A RESULT OF FIELD SURVEY PERFORMED BY HERRICK AND SALSBURY, INC. LAND SURVEYORS, ELLSWORTH, MAINE FOR TRYTON TREE FARM PROJECT, PATTEN CORPORATION-DOWNEAST, OLD TOWN, MAINE, FEBRUARY 23, 1988, REVISED APRIL 7, 1988.

3. LOCATIONS OF EXPLORATIONS ARE APPROXIMATE.

4. GROUNDWATER CONTOURS BASED ON WATER LEVEL MEASUREMENTS RECORDED DURING SPRING AND FALL OF 2007 (WET AND DRY SEASONS RESPECTIVELY). SUMMER DATA FROM 2008 (WET AND DRY SEASONS RESPECTIVELY).

LEGEND

150	INTERPRETED WET-SEASON UPPER BEDROCK POTENTIOMETRIC SURFACE CONTOUR (ELEVATION IN FEET NGVD).
150	INTERPRETED DRY-SEASON UPPER BEDROCK POTENTIOMETRIC SURFACE CONTOUR (ELEVATION IN FEET NGVD).
MW-223A W 174.97 D 173.04	WELL/PIEZOMETER LOCATION WITH ELEVATION OF GROUNDWATER FOR WET (W) AND DRY (D) SEASON.

FIGURE 5-8
INTERPRETED GROUNDWATER
POTENTIOMETRIC SURFACE
IN UPPER BEDROCK
JUNIPER RIDGE LANDFILL EXPANSION
OLD TOWN, MAINE

SME
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ENGINEERS

DWG: GW LMN: POTENTIO-BEDROCK CTB: OVERBURDEN REV: 3/19/2019

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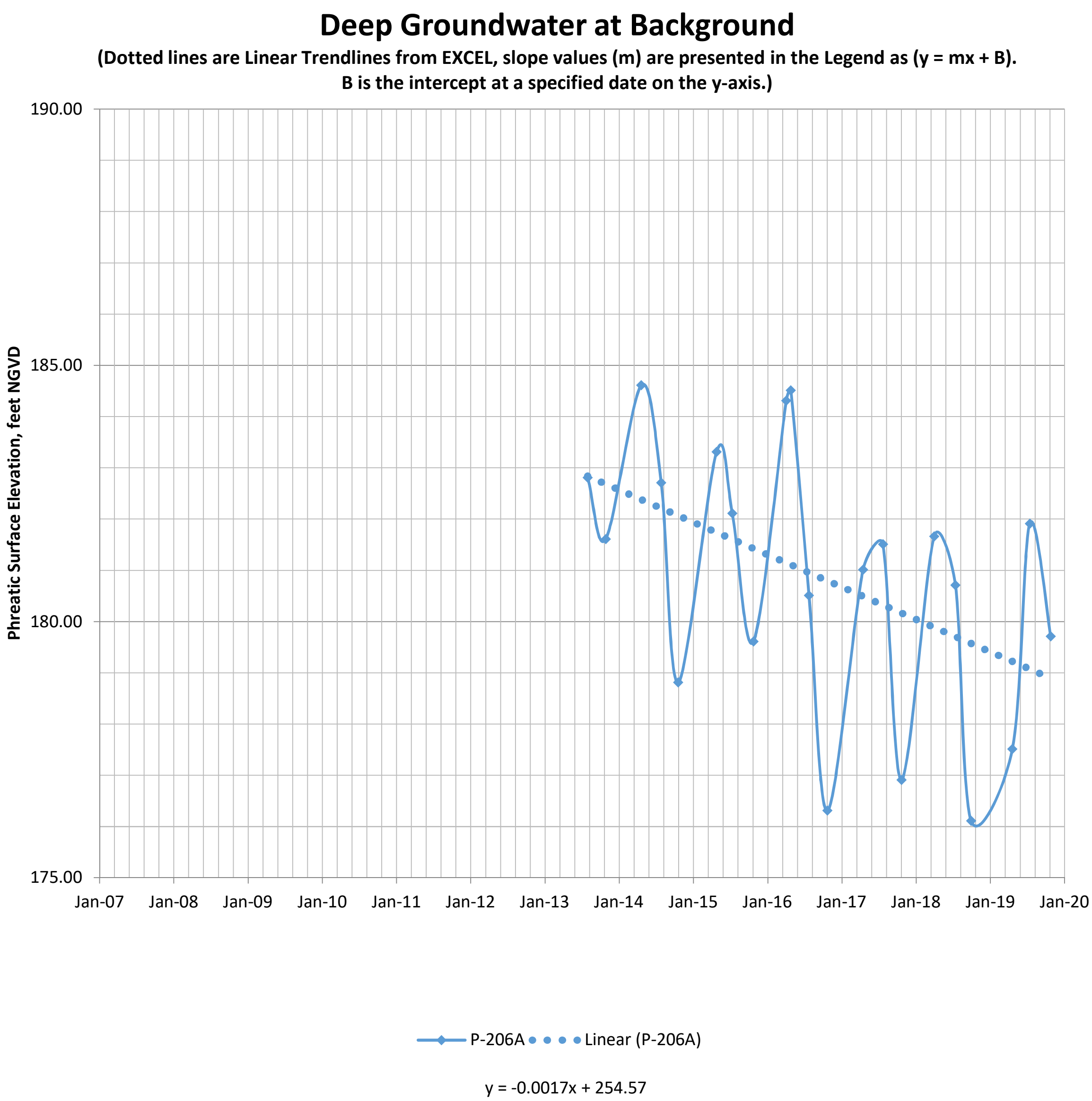
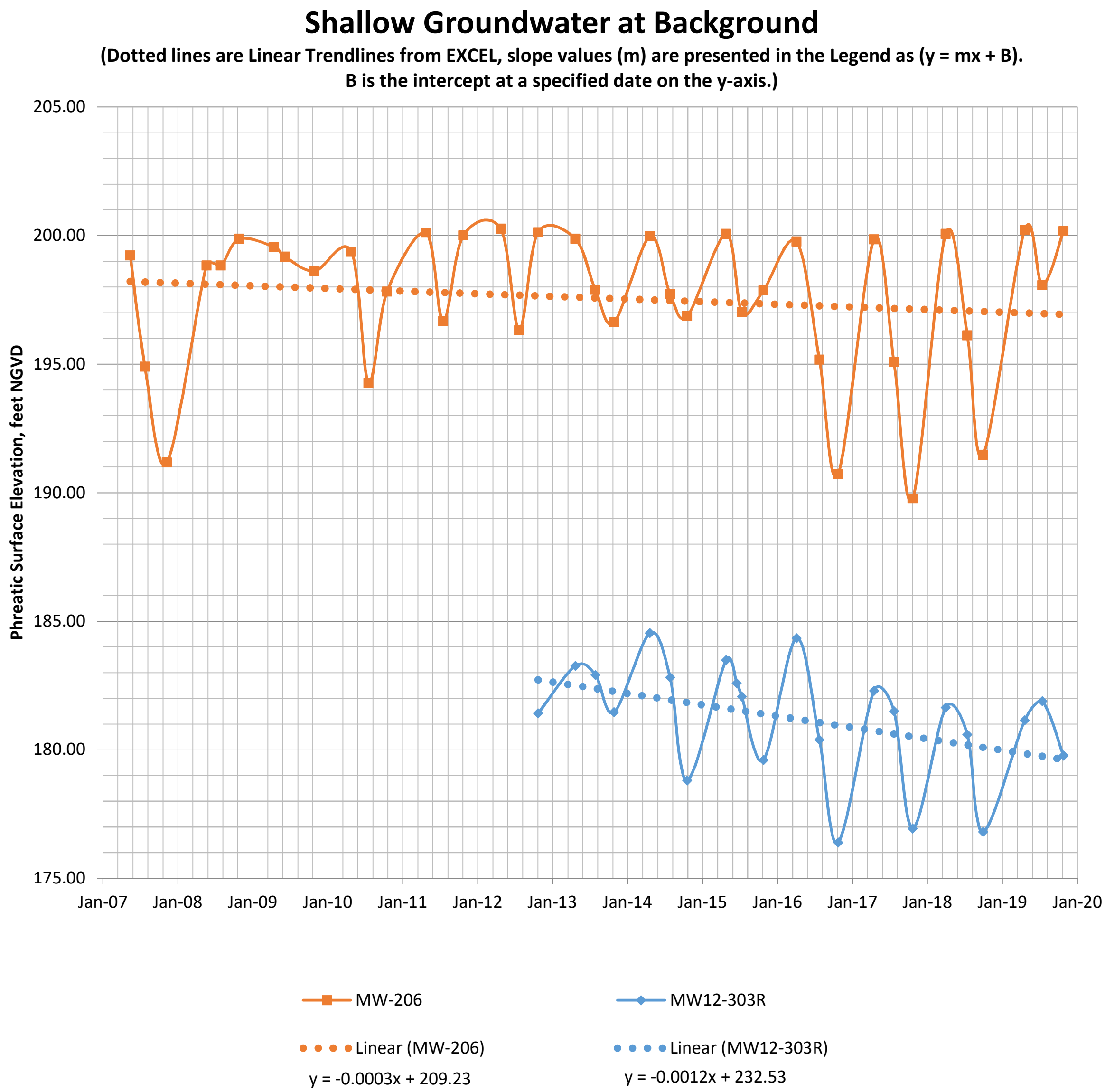
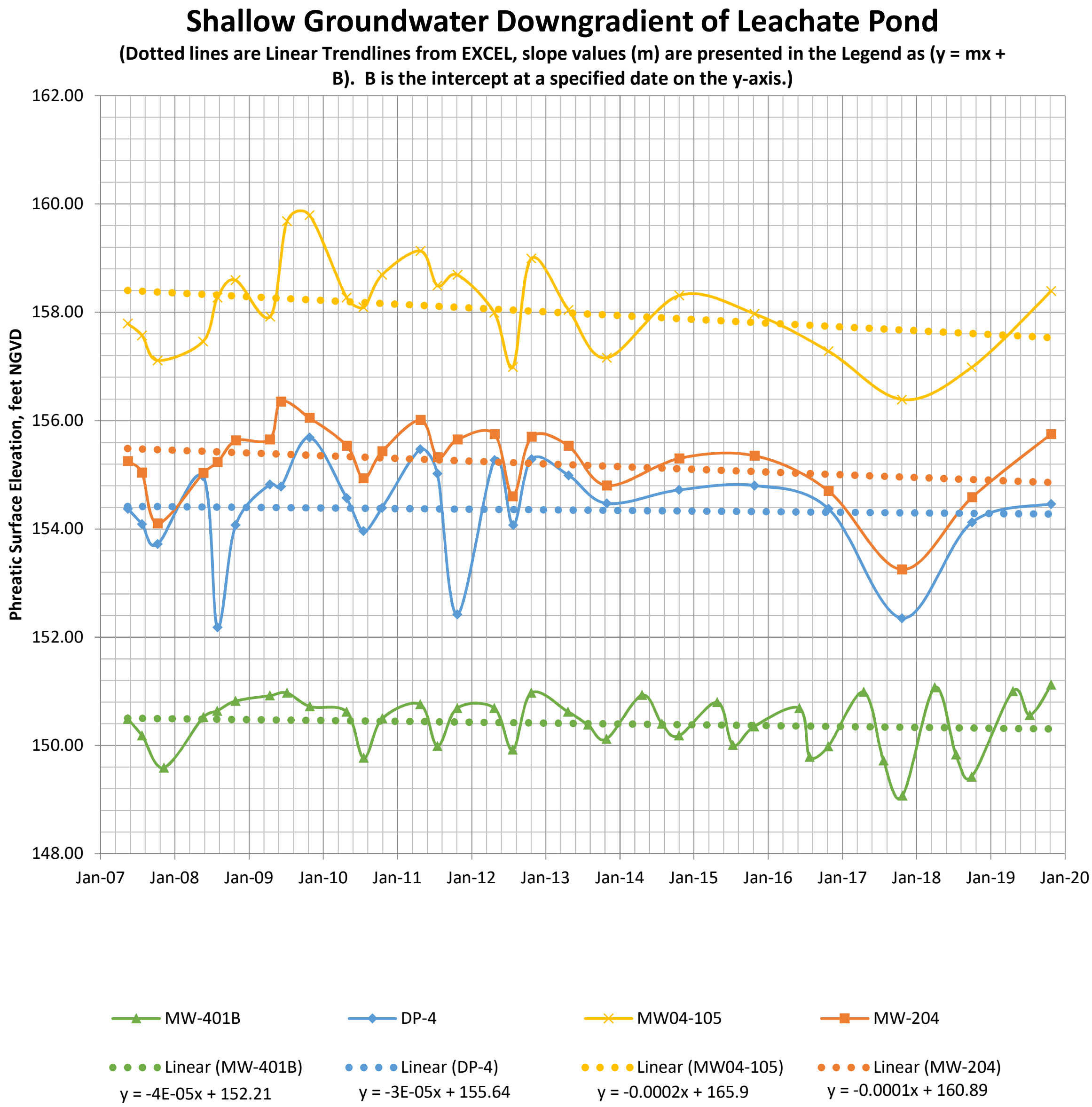
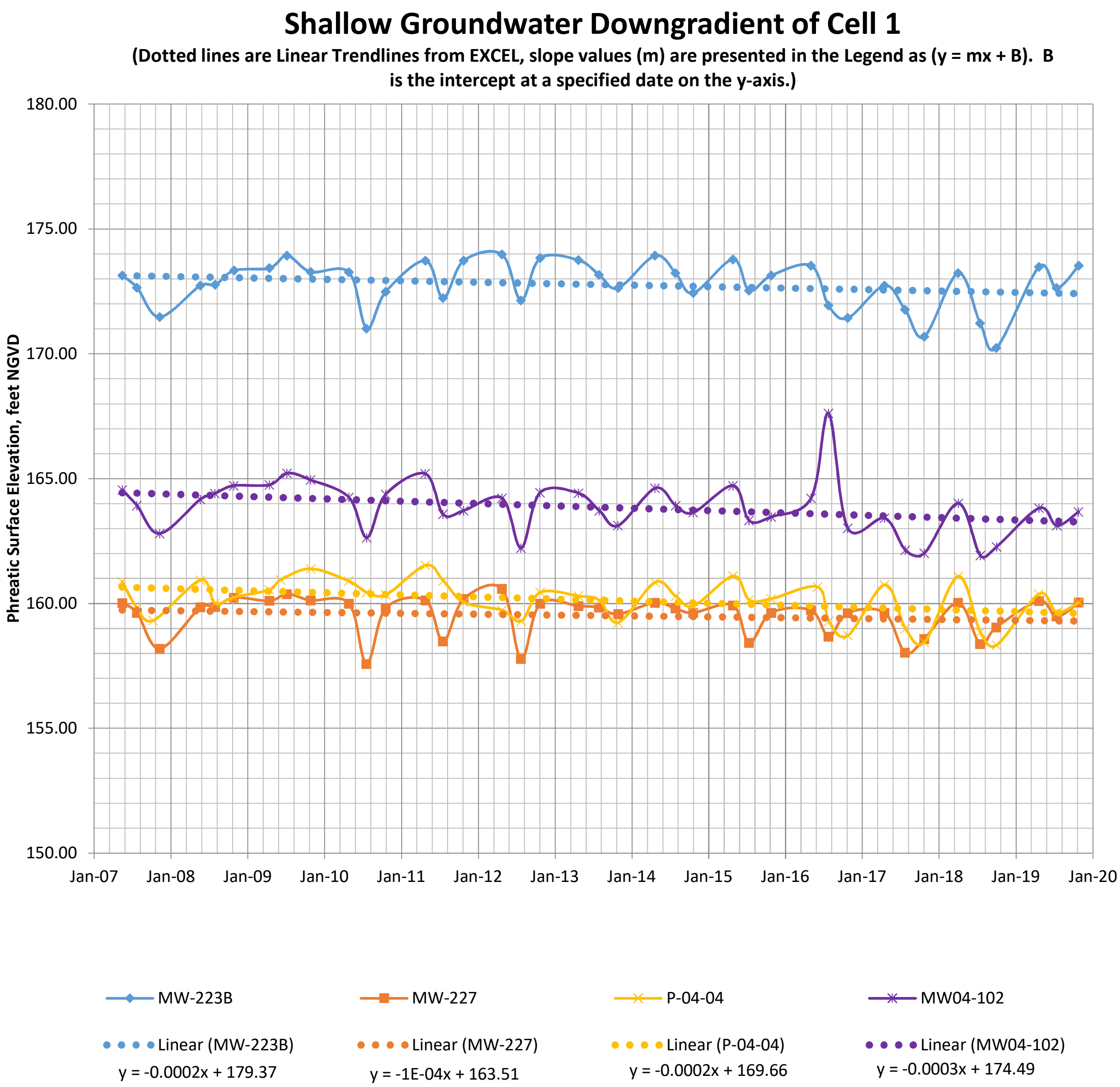

Deep Groundwater at Background
(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B).
B is the intercept at a specified date on the y-axis.)
190.00
185.00
180.00
175.00
Phreatic Surface Elevation, feet NGVD
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
P-206A
Linear (P-206A)
y = -0.0017x + 254.57



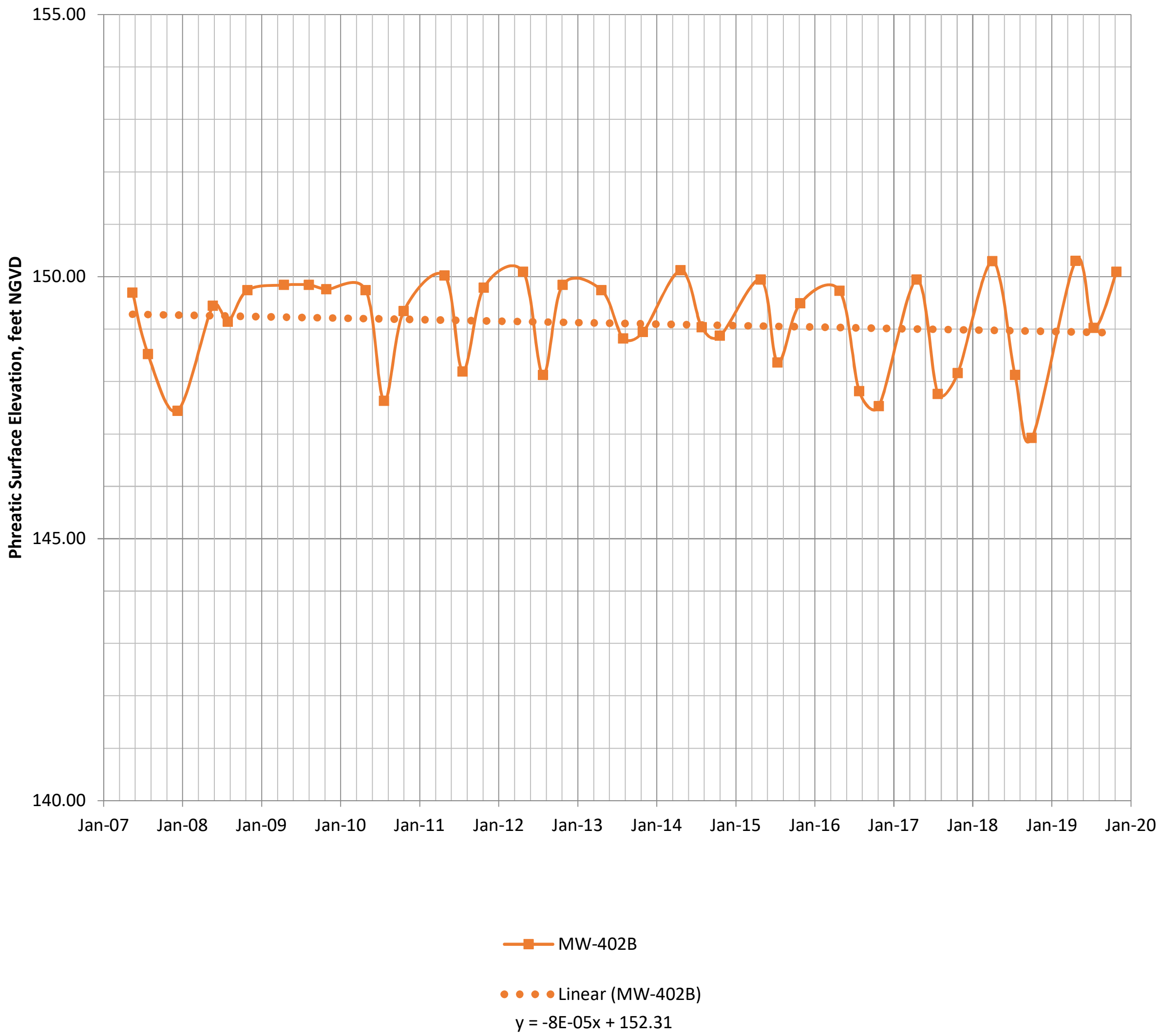
Shallow Groundwater at Background
(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B).
B is the intercept at a specified date on the y-axis.)
Phreatic Surface Elevation, feet NGVD
205.00
200.00
195.00
190.00
185.00
180.00
175.00
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
MW-206
MW12-303R
Linear (MW-206)
y = -0.0003x + 209.23
Linear (MW12-303R)
y = -0.0012x + 232.53


Shallow Groundwater Downgradient of Leachate Pond
(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B). B is the intercept at a specified date on the y-axis.)
Phreatic Surface Elevation, feet NGVD
162.00
160.00
158.00
156.00
154.00
152.00
150.00
148.00
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
MW-401B
DP-4
MW04-105
MW-204
Linear (MW-401B)
y = -4E-05x + 152.21
Linear (DP-4)
y = -3E-05x + 155.64
Linear (MW04-105)
y = -0.0002x + 165.9
Linear (MW-204)
y = -0.0001x + 160.89


Shallow Groundwater Downgradient of Cell 1
(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B). B is the intercept at a specified date on the y-axis.)
Phreatic Surface Elevation, feet NGVD
180.00
175.00
170.00
165.00
160.00
155.00
150.00
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
MW-223B
MW-227
P-04-04
MW04-102
Linear (MW-223B)
y = -0.0002x + 179.37
Linear (MW-227)
y = -1E-04x + 163.51
Linear (P-04-04)
y = -0.0002x + 169.66
Linear (MW04-102)
y = -0.0003x + 174.49

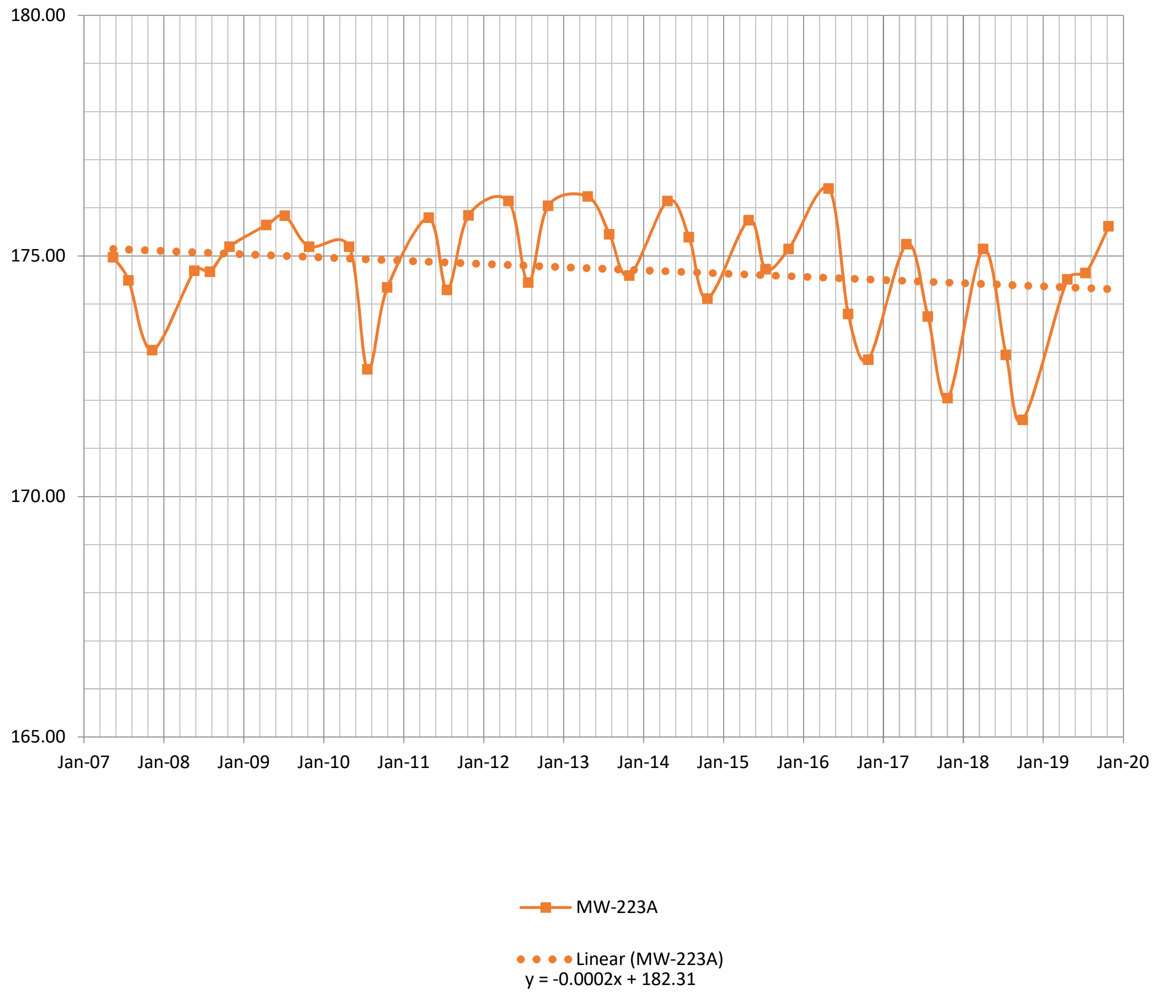
Shallow Groundwater Downgradient of Cell 5/6

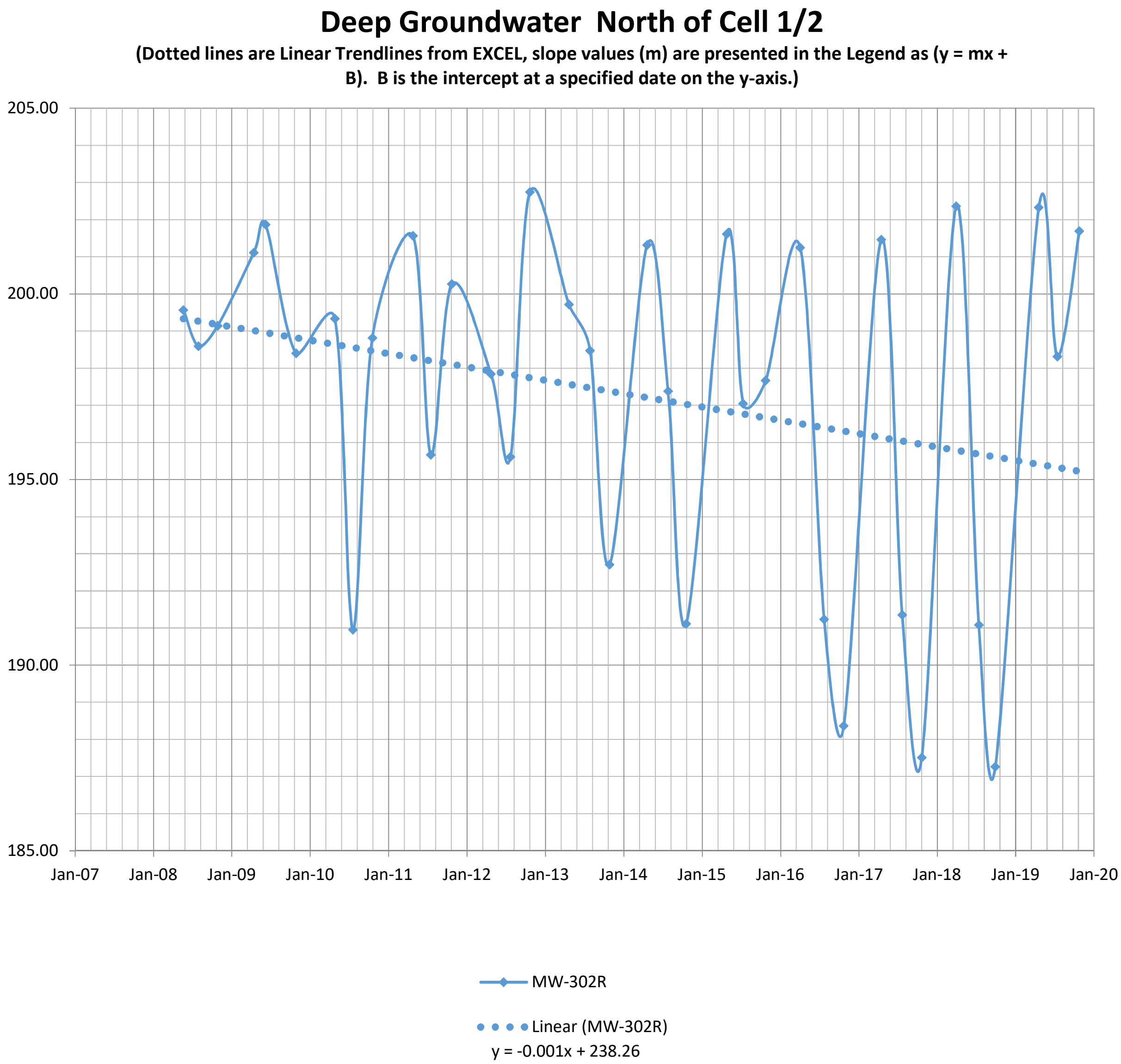
**(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B).
B is the intercept at a specified date on the y-axis.)**



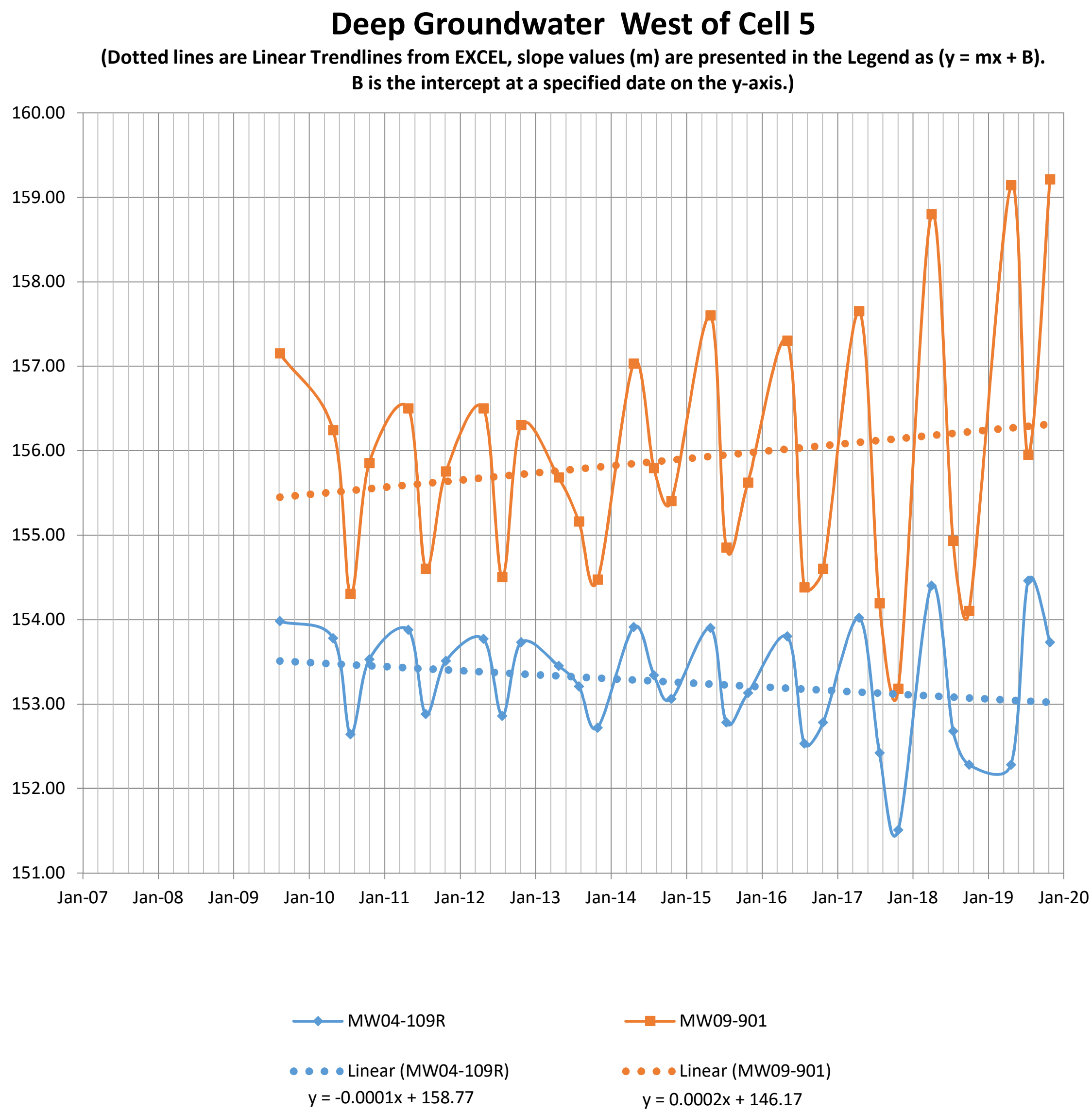
Deep Groundwater West of Cell 1

(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B). B is the intercept at a specified date on the y-axis.)





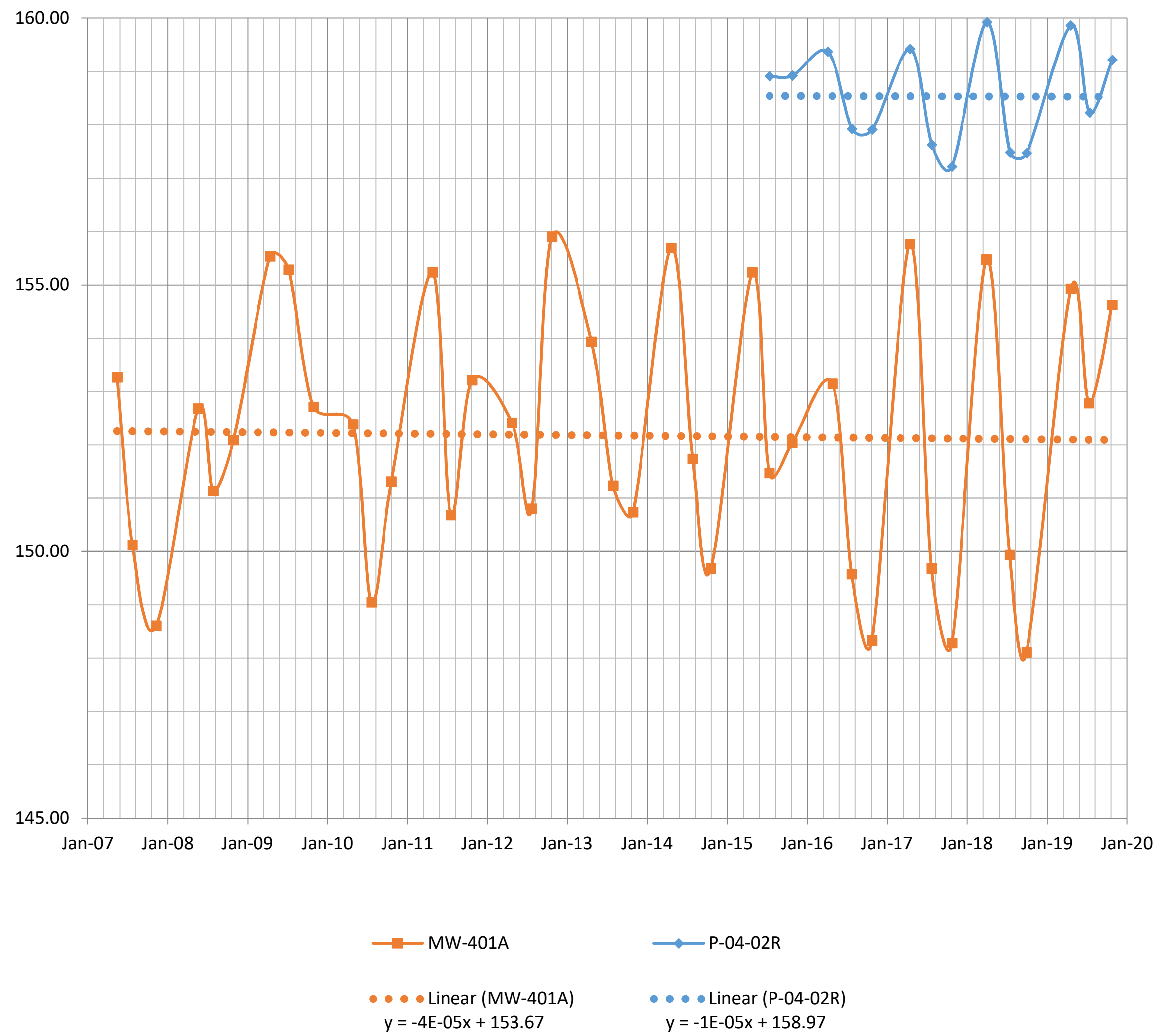
Deep Groundwater North of Cell 1/2
(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B). B is the intercept at a specified date on the y-axis.)
205.00
200.00
195.00
190.00
185.00
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
MW-302R
Linear (MW-302R)
y = -0.001x + 238.26



Deep Groundwater West of Cell 5
(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B).
B is the intercept at a specified date on the y-axis.)
160.00
159.00
158.00
157.00
156.00
155.00
154.00
153.00
152.00
151.00
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
MW04-109R
MW09-901
Linear (MW04-109R)
y = -0.0001x + 158.77
Linear (MW09-901)
y = 0.0002x + 146.17

Deep Groundwater Downgradient of Leachate Pond

(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B). B is the intercept at a specified date on the y-axis.)



APPENDIX C

2019 AND HISTORICAL FALL SPECIFIC CONDUCTANCE DATA (EXPANDED LOCATIONS)

SME
SEVEE & MAHER ENGINEERS

SUMMARY REPORT

Conductivity and Water Levels

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(DP-4) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
DP-4				
10/26/2009	409	13.68	155.69	27.05
10/18/2010	401	14.98	154.39	27.1
10/24/2011	256	16.95	152.42	27.06
10/24/2012	302	14.08	155.29	27.06
10/30/2013	273	14.9	154.47	27.06
10/21/2014	239	14.67	154.7	27.05
10/28/2015	278	14.57	154.8	27.05
10/26/2016	267	15	154.37	27.1
10/23/2017	201	17.02	152.35	27.17
10/3/2018	214	15.25	154.12	27.16
10/28/2019	272	14.91	154.46	27.1
MW04-101				
10/28/2008	176			
10/27/2009	191	4.1	163.82	23.75
10/18/2010	198	5.1	162.82	23.75
10/25/2011	177	5.7	162.22	23.75
10/22/2012	196	5.45	162.47	23.75
10/28/2013	186	6.42	161.5	23.82
10/21/2014	193	5.86	162.06	23.82
10/26/2015	189	5.8	162.12	23.82
10/24/2016	211	6.2	161.72	23.82
10/23/2017	213	7.2	160.72	23.82
10/3/2018	204	6.3	161.62	23.83
10/28/2019	!	!		!
MW04-102				
10/27/2009	236	5.27	164.95	17.84
10/19/2010	232	5.85	164.37	17.97
10/25/2011	209	6.5	163.72	17.85
10/22/2012	221	5.78	164.44	17.98
10/28/2013	207	7.1	163.12	18.05
10/21/2014	196	6.58	163.64	18.05
10/28/2015	214	6.75	163.47	18.05
10/25/2016	237	7.2	163.02	18.05
10/25/2017	240	8.2	162.02	18.05
10/3/2018	224	7.95	162.27	18.05
10/28/2019	216	6.55	163.67	18.05
MW04-104				
10/28/2008	192			
10/27/2009	213	7.3	160.76	28
10/18/2010	229	8	160.06	28
10/25/2011	206	8	160.06	28
10/22/2012	231	7.5	160.56	28
10/29/2013	209	9	159.06	28.05
10/22/2014	203	8.2	159.86	28.07
10/26/2015	222	8.46	159.6	28.08
10/25/2016	242	8.8	159.26	28.05

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(MW04-104)

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/24/2017	239	9.6	158.46	28.07
10/2/2018	236	9.2	158.86	28.07
10/28/2019	229	8.1	159.96	28.06

MW04-105

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/26/2009	528	5.8	159.79	22.75
10/18/2010	306	6.9	158.69	22.75
10/25/2011	217	6.9	158.69	22.75
10/22/2012	252	6.6	158.99	22.75
10/29/2013	286	8.43	157.16	22.83
10/22/2014	322	7.28	158.31	22.83
10/28/2015	296	7.62	157.97	22.83
10/26/2016	305	8.31	157.28	22.83
10/23/2017	332	9.2	156.39	22.85
10/1/2018	341	8.61	156.98	22.84
10/28/2019	218	7.2	158.39	22.83

MW04-109R

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/19/2010	488	6.6	153.53	22.92
10/25/2011	416	6.62	153.51	22.95
10/23/2012	404	6.4	153.73	22.92
10/29/2013	397	7.41	152.72	22.97
10/21/2014	389	7.07	153.06	22.98
10/27/2015	429	7	153.13	22.97
10/25/2016	425	7.35	152.78	22.97
10/24/2017	453	8.62	151.51	22.97
10/2/2018	437	7.85	152.28	22.97
10/28/2019	418	5.96	154.17	22.97

MW-204

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/26/2009	309	8.7	156.05	24.42
10/19/2010	200	9.32	155.43	24.45
10/26/2011	180	9.1	155.65	24.45
10/24/2012	193	9.05	155.7	24.45
10/30/2013	185	9.95	154.8	24.43
10/22/2014	192	9.45	155.3	24.48
10/26/2015	167	9.4	155.35	24.43
10/26/2016	218	10.05	154.7	24.43
10/23/2017	272	11.5	153.25	24.43
10/3/2018	277	10.17	154.58	24.48
10/28/2019	253	9	155.75	24.49

MW-206

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/28/2009	141	6.05	198.62	23.08
10/18/2010	187	6.85	197.82	23.08
10/24/2011	148	4.67	200	23.1
10/22/2012	157	4.55	200.12	23.09
10/28/2013	135	8.05	196.62	23.15
10/20/2014	142	7.8	196.87	23.15
10/26/2015	139	6.8	197.87	23.15
10/24/2016	167	13.95	190.72	23.15

(MW-206) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/23/2017	146	14.9	189.77	23.15
10/1/2018	147	13.2	191.47	23.15
10/28/2019	149	4.5	200.17	23.15
MW-216BR				
10/19/2010	289	5.51	153.89	22.46
10/25/2011	400	5.48	153.92	22.48
10/23/2012	334	5.2	154.2	22.45
10/29/2013	278	6.35	153.05	22.53
10/21/2014	263	6	153.4	22.53
10/26/2015	257	5.85	153.55	22.54
10/25/2016	273	6.3	153.1	22.52
10/23/2017	258	7.7	151.7	22.52
10/2/2018	266	6.8	152.6	22.53
10/29/2019	164	4.7	154.7	22.25
MW-223A				
5/19/2008		4.22	172.32	
7/30/2008		1.87	174.67	
10/27/2009	271	1.35	175.19	35.44
10/19/2010	326	2.2	174.34	35.42
10/25/2011	367	0.7	175.84	35.56
10/23/2012	390	0.5	176.04	35.48
10/29/2013	420	1.95	174.59	35.56
10/20/2014	435	2.43	174.11	35.57
11/6/2014		0.68	175.86	
10/27/2015	490	1.4	175.14	35.57
10/25/2016	547	3.7	172.84	35.57
10/24/2017	552	4.5	172.04	35.57
10/2/2018	556	4.95	171.59	35.6
10/29/2019	548	0.93	175.61	35.57
MW-223B				
5/19/2008		3.7	172.23	
7/30/2008		3.17	172.76	
10/27/2009	331	2.65	173.28	19.95
10/19/2010	316	3.45	172.48	20
10/25/2011	327	2.2	173.73	19.93
10/23/2012	333	2.1	173.83	20.05
10/29/2013	336	3.3	172.63	20.07
10/20/2014	350	3.5	172.43	20.07
11/6/2014		2.19	173.74	
10/27/2015	394	2.8	173.13	20.05
10/25/2016	436	4.5	171.43	20.07
10/24/2017	446	5.25	170.68	20.06
10/2/2018	485	5.7	170.23	20.07
10/29/2019	480	2.4	173.53	20.07
MW-227				
10/27/2009	182	4.1	160.13	22.2
10/19/2010	189	4.42	159.81	22.3

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(MW-227)

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/25/2011	188	4.05	160.18	22.28
10/23/2012	201	4.23	160	22.3
10/29/2013	177	4.65	159.58	22.28
10/20/2014	181	4.6	159.63	22.3
10/27/2015	182	4.6	159.63	22.3
10/25/2016	199	4.61	159.62	22.3
10/24/2017	191	5.65	158.58	22.3
10/2/2018	191	5.18	159.05	22.3
10/29/2019	181	4.19	160.04	22.3

MW-301

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/26/2009	276	4.25	162.11	185.15
10/19/2010	340	4.96	161.4	182.45
10/26/2011	204	4.11	162.25	185.1
10/24/2012	171	4.56	161.8	179.61
10/30/2013	198	0.1	165.81	184.1
10/22/2014	299	0.3	165.61	184.1
10/27/2015	205	0.23	165.68	185.11
10/26/2016	218	0.38	165.53	185.11
10/25/2017	225	0.2	165.71	185.11
10/1/2018	242	0.95	164.96	185.13
10/28/2019	248	F1		185.1

MW-302R

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/19/2008		7.08	199.78	
7/29/2008		8.27	198.59	
10/27/2009	470	8.46	198.4	32.25
10/18/2010	649	8.05	198.81	32.22
10/24/2011	400	6.6	200.26	32.2
10/22/2012	463	4.12	202.74	32.2
10/28/2013	341	14.15	192.71	32.22
10/20/2014	500	15.75	191.11	32.22
11/6/2014		6.53	200.33	
10/26/2015	766	9.2	197.66	32.22
10/24/2016	630	18.5	188.36	32.22
10/23/2017	698	19.35	187.51	32.25
10/1/2018	851	19.6	187.26	32.23
10/28/2019	317	5.17	201.69	32.2

MW12-303R

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/23/2012	189	27.47	181.42	43.32
10/28/2013	223	27.43	181.46	43.38
10/20/2014	440	30.08	178.81	43.38
10/26/2015	370	29.29	179.6	43.4
10/24/2016	681	32.5	176.39	43.4
10/23/2017	414	19.35	189.54	43.4
10/1/2018	408	32.08	176.81	43.4
10/28/2019	380	29.12	179.77	43.4

MW-401A

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/28/2009	165	4.12	152.71	111.98

(MW-401A)

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/20/2010	191	5.52	151.31	112.1
10/24/2011	128	3.62	153.21	112.02
10/22/2012	119	0.93	155.9	112.02
10/28/2013	140	6.1	150.73	112.04
10/20/2014	118	7.15	149.68	112.04
10/26/2015	118	4.8	152.03	112.03
10/24/2016	127	8.5	148.33	112.2
10/25/2017	303	8.55	148.28	112.18
10/1/2018	146	8.72	148.11	112.2
10/28/2019	140	2.21	154.62	112.21

MW-401B

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/28/2009	520	6.6	150.72	23.2
10/20/2010	514	6.82	150.5	23.1
10/24/2011	319	6.63	150.69	23.12
10/22/2012	310	6.35	150.97	23.13
10/28/2013	376	7.2	150.12	23.11
10/20/2014	336	7.14	150.18	23.12
10/26/2015	335	6.97	150.35	23.1
10/24/2016	355	7.34	149.98	23.1
10/25/2017	375	8.25	149.07	23.14
10/1/2018	363	7.9	149.42	23.14
10/28/2019	327	6.2	151.12	23.14

MW-402A

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/28/2009	183	F1		108.45
10/20/2010	197	F1		108.35
10/26/2011	130	0	152.2	108.35
10/24/2012	116	F1		108.35
10/30/2013	141	0	152.2	108.35
10/22/2014	58	0.25	151.95	108.3
10/28/2015	117	0.04	152.16	108.28
10/26/2016	126	0.46	151.74	108.28
10/26/2017	122	0.05	152.15	108.28
10/3/2018	136	0.45	151.75	108.3
10/30/2019	128	0.05	152.69	108.35

MW-402B

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/28/2009	215	2.98	149.76	25.26
10/20/2010	246	3.4	149.34	25.18
10/26/2011	160	2.95	149.79	25.18
10/24/2012	141	2.9	149.84	25.2
10/30/2013	174	3.8	148.94	25.18
10/22/2014	147	3.87	148.87	25.13
10/28/2015	142	3.25	149.49	25.16
10/26/2016	150	5.21	147.53	25.15
10/26/2017	147	4.58	148.16	25.16
10/3/2018	162	5.82	146.92	25.16
10/30/2019	151	2.65	149.55	25.14

MW09-901

(MW09-901)

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/19/2010	300	9.25	155.85	22.75
10/23/2012	197	8.8	156.3	22.73
10/29/2013	195	10.63	154.47	22.8
10/21/2014	266	9.7	155.4	22.8
10/27/2015	318	9.48	155.62	22.82
10/25/2016	353	10.5	154.6	22.82
10/24/2017	392	11.92	153.18	22.8
10/2/2018	390	11	154.1	22.82
10/29/2019	333	5.89	159.21	22.82

P-04-02R

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/28/2015	700	11.8	158.92	37.98
10/26/2016	629	12.81	157.91	37.96
10/25/2017	481	13.5	155.24	38
10/3/2018	456	13.25	155.49	38
10/30/2019	331	11.5	159.22	38

P-04-04

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/27/2009	175	7.96	161.39	32.21
10/20/2010	177	9	160.35	32.25
10/26/2011	181	9.3	160.05	32.3
10/24/2012	158	8.9	160.45	32.33
10/30/2013	194	10.01	159.24	32.26
10/22/2014	165	9.35	159.9	32.28
10/28/2015	161	9.06	160.19	32.31
10/26/2016	184	10.53	158.72	32.3
10/25/2017	189	10.8	158.45	32.34
10/3/2018	196	10.92	158.33	32.34
10/30/2019	187	9.2	160.05	32.34

P-201A

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/19/2008		1.65	147.9	
7/30/2008		0	149.55	
10/29/2008	123	F1		
10/27/2009	328	F1		70.25
10/19/2010	287	2.46	147.09	Q
10/25/2011	131	1.92	147.63	21.84
10/23/2012	118	1.8	147.75	7.5 Q
10/30/2013	232	2.65	146.9	22.95
10/21/2014	78	2.99	146.56	Q
11/6/2014		2.28	147.27	
10/28/2015	119	2.45	147.1	21.62
10/25/2016	85	3.18	146.37	21.62
10/26/2017	73	2.72	146.83	21.62
10/2/2018	187	3.4	146.15	21.62
10/29/2019	176	1.99	147.56	21.62

P-201B

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/19/2008		0	152.18	
7/30/2008		2.8	149.38	
10/29/2008	146			

(P-201B) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/27/2009	195	F1		68.1
10/19/2010	248	F1		67.92
10/25/2011	150	0.05	152.13	68.1
10/23/2012	120	F1		71.1
10/30/2013	147	0	152.18	69.3
10/21/2014	124	F1		70.7
11/6/2014		0.62	151.56	
10/28/2015	77	F1		70.7
10/25/2016	158	F1		70.12
10/26/2017	104	F1		70.12
10/2/2018	138	F1		70.12
10/29/2019	148	0.19	151.99	70.12

P-201C

Date	Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth
5/19/2008		0	152.19	
7/30/2008		1.68	150.51	
10/29/2008	136			
10/27/2009	209	2.45	149.74	49.45
10/19/2010	235	2.29	149.9	49.4
10/25/2011	147	2.25	149.94	49.53
10/23/2012	121	F1		42.85
10/30/2013	264	2.2	149.99	68.15
10/21/2014	150	3.76	148.43	67.82
11/6/2014		F1		
10/28/2015	150	0.77	151.42	67.82
10/25/2016	160	2.4	149.79	67.82
10/26/2017	123	2.18	150.01	67.82
10/2/2018	156	5.65	146.54	67.82
10/29/2019	150	2.62	149.57	67.82

P-201D

Date	Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth
5/19/2008		0.35	150.98	
7/30/2008		0.2	151.13	
10/29/2008	127			
10/27/2009	325	0.05	151.28	43.15
10/19/2010	220	0.7	150.63	42.4
10/25/2011	143	F1		43.02
10/23/2012	128	3.1	148.23	49.46
10/30/2013	279	2.57	148.76	49.8
10/21/2014	153	3.02	148.31	49.42
11/6/2014		2.14	149.19	
10/28/2015	142	2.15	149.18	49.42
10/25/2016	164	3.57	147.76	49.42
10/26/2017	122	3.05	148.28	49.42
10/2/2018	157	3.75	147.58	49.92
10/29/2019	149	2.11	149.22	49.92

P-201E

Date	Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth
5/19/2008		0	152.26	
7/30/2008		A		
10/29/2008	249			

SEVEE & MAHER ENGINEERS, INC.
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(P-201E)

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/27/2009	532	2.2	150.06	Q
10/19/2010	286	F1		71.1
10/25/2011	225	F1		69.8
10/23/2012	135	F1		67.93
10/30/2013	281	1.11	151.15	44.15
10/21/2014	130	2.04	150.22	42.5
11/6/2014		F1		
10/28/2015	151	0.7	151.56	42.5
10/25/2016	164	2.39	149.87	42.5
10/26/2017	117	1.94	150.32	42.5
10/2/2018	150	2.6	149.66	42.5
10/29/2019	135	2.11	150.15	42.5

P-202A

Date	Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth
5/19/2008		1	148.38	
7/30/2008		1.58	147.8	
10/27/2008	162			
10/27/2009	125	2.55	146.83	21.35
10/19/2010	250	3.1	146.28	21.3
10/26/2011	175	1.98	147.4	21.3
10/22/2012	171	2.1	147.28	21.3
10/28/2013	236	2.2	147.18	32.15
10/20/2014	164	3.16	146.22	21.31
11/6/2014		2.2	147.18	
10/27/2015	179	2.25	147.13	21.31
10/26/2016	191	3.59	145.79	21.31
10/26/2017	132	2.9	146.48	21.31
10/2/2018	110	4.5	144.88	6.31
10/30/2019	89	1.94	147.44	6.31

P-202B

Date	Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth
5/19/2008		2	147.37	
7/30/2008		2.41	146.96	
10/27/2008	155			
10/27/2009	250	2.2	147.17	Q
10/19/2010	312	2.35	147.02	16.05
10/26/2011	212	2.9	146.47	6.05
10/22/2012	171	2.25	147.12	6.1 Q
10/28/2013	191	2.25	147.12	21.4
10/20/2014	168	2.29	147.08	6.31 Q
11/6/2014		2.75	146.62	
10/27/2015	173	2.85	146.52	6.31 Q
10/26/2016	194	2.97	146.4	6.31 Q
10/26/2017	138	3.63	145.74	6.31
10/2/2018	144	3.15	146.22	21.31
10/30/2019	116	2.29	147.08	21.31

P-206A

Date	Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth
10/28/2013	126	22.9	181.61	93.5
10/20/2014	128	25.7	178.81	93.48
10/26/2015	146	24.9	179.61	93.45

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Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/24/2016	192	28.2	176.31	93.43
10/23/2017	221	27.6	176.91	93.45
10/1/2018	234	28.4	176.11	93.43
10/28/2019	218	24.8	179.71	93.43

P-209A

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/21/2008		L		
7/30/2008		L		
10/29/2008	69			
10/27/2009	93	3.85	174.94	55.95
10/19/2010	282	6.58	172.21	55.9
10/25/2011	124	F1		55.9
10/23/2012	45	F1		55.91
10/29/2013	84	9.3	169.49	56.1
10/21/2014	82	22.21	156.58	55.82
11/6/2014		3.25	175.54	
10/28/2015	70	41.2	137.59	55.82
10/25/2016	199	25.92	152.87	55.82
10/26/2017	56	22.11	156.68	55.82
10/3/2018	59	25.65	153.14	55.82
10/29/2019	89	F1		55.82

P-209B

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/21/2008		L		
7/30/2008		L		
10/29/2008	100			
10/27/2009	70	4.25	174.57	30.75
10/19/2010	240	6.85	171.97	30.71
10/25/2011	69	0.15	178.67	30.66
10/23/2012	76	F1		30.75
10/29/2013	124	9.4	169.42	30.83
10/21/2014	184	22.35	156.47	30.65
11/6/2014		4.28	174.54	
10/28/2015	125	3.62	175.2	30.65
10/25/2016	124	26.17	152.65	30.65
10/26/2017	77	22.85	155.97	30.65
10/3/2018	103	25.84	152.98	30.65
10/29/2019	85	0.12	178.7	30.65

P-209C

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/21/2008		L		
7/30/2008		L		
10/29/2008	71			
10/27/2009	D	D		12.75
10/19/2010	D	D		12.76
10/25/2011	95	3.15	175.73	12.82
10/23/2012	55	3.2	175.68	12.75
10/29/2013	D	12.61	166.27	12.63
10/21/2014	D	D		9.82
11/6/2014		D		
10/28/2015	D	D		9.82

(P-209C)

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/25/2016	D	D		9.82
10/26/2017	D	D		9.82
10/3/2018	D	D		9.82
10/29/2019	61	2.85	176.03	9.82

P-211A

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/21/2008		D		
7/30/2008		5.87	177.7	
10/27/2008	73			
10/27/2009	83	5.5	178.07	25.6
10/18/2010	87	6	177.57	25.6
10/25/2011	140	5.4	178.17	25.6
10/22/2012	176	3.8	179.77	25.62
10/29/2013	215	7.4	176.17	25.63
10/21/2014	180	5.5	178.07	25.62
11/6/2014		4.21	179.36	
10/26/2015	196	4.7	178.87	25.6
10/24/2016	281	8.3	175.27	25.58
10/23/2017	364	8.35	175.22	25.68
10/2/2018	392	9.2	174.37	13.25
10/29/2019	437	5.3	178.27	25.43

P-211B

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/21/2008		20.81	163.16	
7/30/2008		6.28	177.69	
10/27/2008	115			
10/27/2009	96	6.1	177.87	13.43
10/18/2010	101	6.4	177.57	13.42
10/25/2011	123	6.1	177.87	13.45
10/22/2012	165	4.3	179.67	13.43
10/29/2013	194	7.8	176.17	13.5
10/21/2014	249	5.7	178.27	13.44
11/6/2014		4.36	179.61	
10/26/2015	282	5.4	178.57	13.5
10/24/2016	284	7.8	176.17	13.5
10/23/2017	477	8.2	175.77	13.5
10/2/2018	506	9.15	174.82	25.65
10/29/2019	482	5.4	178.57	13.23

P-220A

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/19/2008		0	147.99	
7/30/2008		F1		
10/29/2008	170			
10/27/2009	223	F1		40.9
10/18/2010	264	F1		40.95
10/26/2011	172	F1		40.91
10/22/2012	157	F1		40.82
10/28/2013	186	F1	147.99	41.02
10/20/2014	152	F1		40.8
11/6/2014		F1		
10/27/2015	187	F1		40.8

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Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/25/2016	189	0.37	147.62	40.8
10/26/2017	137	0.35	147.64	
10/2/2018	177	0.35	147.64	40.8
10/30/2019	F12	F12		F12

P-220B

Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
5/19/2008		0	148.05	
7/30/2008		F1		
10/29/2008	157			
10/27/2009	239	F1		22.85
10/18/2010	309	F1		22.85
10/26/2011	202	F1		22.82
10/22/2012	233	F1		22.85
10/28/2013	205	F1	148.05	22.88
10/20/2014	154	F1		22.8
11/6/2014		F1		
10/27/2015	201	F1		22.78
10/25/2016	181	0.63	147.42	22.78
10/26/2017	134	0.57	147.48	
10/2/2018	110	0.47	147.58	22.78
10/30/2019	F12	F12		F12

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Concentration Qualifier Notes:

- !- The sampling location was damaged or destroyed.
- A- The sampling location was Inaccessible
- D- The sampling location was dry.
- F1- Well was flowing
- F12- Pipe under water, no sample taken.
- L- Could not locate sampling location.
- Q- An obstruction prevented the collection of data.

APPENDIX D

2019 AND HISTORICAL WATER QUALITY DATA

SME
SEVEE & MAHER
ENGINEERS

SUMMARY REPORT

Field Data

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(DP-4)

DP-4

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2010	XX	GWXXXX404	271	6.3	13.2	169.37	154.57	14.8	216	3			100	3.3
7/19/2010	XX	GWXXXX438	100	5.6	23.9	169.37	153.96	15.41	345	2			125	8.1
10/18/2010	XX	GWXXXX46C	396	6.3	11.3	169.37	154.39	14.98	352	2		27.1	50	2.6
4/25/2011	XX	GWXXXX4AD	277	6.4	12.2	169.37	155.47	13.9	282	1			70	2.5
7/18/2011	XX	GWXXXX4EB	282	6.4	18.2	169.37	155.02	14.35	233	1			95	0.6
10/24/2011	XX	GWXXXX4I6	256	6.7	13.8	169.37	152.42	16.95	312	0.8		27.06	70	1.6
4/25/2012	XX	GWXXXX52G	334	6.3	9.1	169.37	155.27	14.1	232	1			120	5.9
7/25/2012	XX	GWXXXX57F	313	6.2	13.8	169.37	154.07	15.3	25	0.6			120	3.7
10/24/2012	XX	GWXXXX5E6	302	7.3	9.4	169.37	155.29	14.08	221	1		27.06	100	7.9
4/24/2013	XX	GWXXXX5IH	293	6.5	7.2	169.37	154.99	14.38	240	1			70	10
10/30/2013	XX	GWDP4X689	273	5.8	10.7	169.37	154.47	14.9	217	0.8		27.06	70	3.9
10/21/2014	XX	GWDP4X72C	239	6.7	13.1	169.37	154.72	14.65	343	0.8		27.05	75	0.6
10/28/2015	XX	GWDP4X7J6	278	6.6	10.5	169.37	154.8	14.57	257	0.9		27.05		3
10/26/2016	XX	GWDP4X908	267	6.5	10.2	169.37	154.37	15	296	0.6		27.1		7
10/23/2017	XX	GWDP4X9I7	201	6.2	14.3	169.37	152.35	17.02	284	0.4		22.17		5.5
10/3/2018	XX	GWDP4XB25	214	6.3	12.3	169.37	154.12	15.25	285	1.4		27.16		4.7
10/28/2019	XX	GWDP4XBJ5	272	6.5	10.7	169.37	154.46	14.91	236	0.5		27.1		14.9

OFFICE WELL

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/6/2016	XX	DWOFFX87J	300	7.2	8.3				302	7.2				2.1
4/19/2017	XX	DWOFFX98D	302	6.9	9.3				381	8.6				1
4/4/2018	XX	DWOFFXA45	434	6.9	9.7				341	6.4				0.5
4/22/2019	XX	DWOFFXB71	353	7	9.6				420	6.2				2.1
7/15/2019	XX	DWOFFXBDB	372	7.2	12.8				267	7				2.8

SCALE HOUSE WELL

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/6/2016	XX	DWSCLX880	585	7.2	7.2				276	6.8				4
4/19/2017	XX	DWSCLX98E	545	7	8.1				380	8.2				0.7
4/4/2018	XX	DWSCLXA46	585	7.1	6.1				397	5.6				0.8
4/22/2019	XX	DWSCLXB72	480	7.1	7.6				420	6.1				4.3
7/15/2019	XX	DWSCLXBDC	540	7	18.5				269	7.1				1.5

LF-COMP

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
5/25/2011	XX	LFCMPX4FE	405	6.8	23.3				352	5			100	0.07
6/20/2011	XX	LFCMPX4G5	370	7	23.8				376	5			125	1
7/19/2011	XX	LFXXXX4F1	368	6.8	24.7				404	4			113	0
8/3/2011	XX	LFCMPX4JF	223	7.1	22.7				337	5			90	129.3
10/8/2011	XX	LFCMPX4J4	371	7.1	24.8				370	6			80	0.6
11/30/2011	XX	LFCMPX50I	351	7.1	20				382				90	24.9
12/29/2011	XX	LFCMPX506	362	7.4	17.2				341	6			125	1.1
1/26/2012	XX	LFCMPX58I	381	7.5	17				372	6			140	1.05
2/24/2012	XX	LFCMPX599	366	7.5	13.7				371	5			145	0.91
3/23/2012	XX	LFCMPX5A0	I	I	I				I	I			I	I
4/16/2012	XX	LFCMPX5AB	I	I	I				I	I			I	I
4/24/2012	XX	LFXXXX53B	314	7.2	17.8				403	6			85	4.4
5/3/2012	XX	LFCMPX5B2	400	7	18.7				446	6			140	11.82
6/29/2012	XX	LFCMPX5BD	394	6.9	22.5				444	5			125	0.07
7/31/2012	XX	LFCMPX5C4	389	7.3	29.7				383	8			150	0.33
8/31/2012	XX	LFCMPX5F5	421	6.9	22.1				384	6			150	0.27

SUMMARY REPORT

Field Data

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-COMP)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
9/27/2012	XX	LFCMPX5FG	373	7.3	21.2				348	8			150	0.14
11/13/2012	XX	LFCMPX5G7	307	7.6	17.7				355	6			135	3.91
12/31/2012	XX	LFCMPX5GI	306	7.7	11.4				406	8			130	5.27
1/30/2013	XX	LFCMPX60E	239	7.1	15.1				426	7			100	9.85
2/15/2013	XX	LFCMPX602	306	7.5	13.5				407	6			145	3.75
3/28/2013	XX	LFCMPX617	294	8	16.7				333	8			170	0.74
4/24/2013	XX	LFCMPX61J	262	7.1	15.9				347	6			160	0.39
5/30/2013	XX	LFCMPX62B	271	7.3	20.4				331	8			160	0.4
6/26/2013	XX	LFCMPX633	311	7.8	20.2				397	8			150	1.48
8/20/2013	XX	LFCMPX69D	397	7.1	25.3				383	6			150	0.44
9/26/2013	XX	LFCMPX691	384	8.1	18.3				399	8			125	0.72
11/25/2013	XX	LFCMPX6A6	370	8.4	7.2				371	8			160	0.32
12/17/2013	XX	LFCMPX6D6	359	7.5	8.9				433	8			185	5.86
1/24/2014	XX	LFCMPX6DI	360	7.4	7.2				342	8			170	2.17
2/24/2014	XX	LFCMPX6HF	387	7.5	11.4				397	9 E2			200	1.46
3/27/2014	XX	LFCMPX6H3	383	8.1	13.7				334	8			200	2.22
4/29/2014	XX	LFCMPX6I7	354	7.9	17.5				333	8			180	0.76
5/23/2014	XX	LFCMPX716	390	7.7	21.5				355	8			200	0.63
6/24/2014	XX	LFCMPX71I	442	7.2	21.6				370	6			190	0.74
8/26/2014	XX	LFCMPX74I	M7	M7	M7				M7	M7			M7	M7
9/23/2014	XX	LFCMPX759	449	7.6	23.1				345				165	0.09
11/28/2014	XX	LFCMPX761	366	7.3	15.6				366	6			150	M
12/24/2014	XX	LFCMPX76E	398	7	17.3				438	6			150	0.89
2/3/2015	XX	LFCMPX775	383	7.4	14.3				386	5			185	0.03
2/21/2015	XX	LFCMPX77G	321	7.5	17.7				369	4.5			185	0.63
3/28/2015	XX	LFCMPX7AE	372	7.3	15.8				409	6			150	0.65
9/26/2015	XX	LFCMPX809	314	6.7	21.4				380	8			160	0.5
8/29/2016	XX	LFCMPX90J	454	6.9	24.6				337	8			220	2.9
9/23/2016	XX	LFCMPX93I	458	7.52	19				304	9			230	2.1
10/31/2016	XX	LFCMPX94C	426	8.21	14.3				314	8			125	0.4
11/29/2016	XX	LFCMPX957	218	7.39	12.3				357	6			150	0.9
12/13/2016	XX	LFCMPX960	196	8.06	5.6				345	10			140	1
1/10/2017	XX	LFCMPX99J	223	7.77	15.1				373	8			145	0.4
2/8/2017	XX	LFCMPX9AC	311	7.71	14.2				358	9			125	0.4
3/3/2017	XX	LFCMPX9B5	194	7.74	16				352	7			130	0.5
4/5/2017	XX	LFCMPX996	206	7.95	18.7				349	8			105	3.6
7/31/2017	XX	LFCMPX9FC	468	7.3	23.9				391	6			250	0.8
9/28/2017	XX	LFCMPX9JE	492	7.4	18.9				360	8			240	7.1
10/26/2017	XX	LFCMPXA06	473	6.9	17.7				414	6			160	1.3
4/28/2018	XX	LFCMPXAAH	395	7.8	16.2				384	8			150	0.3
6/2/2018	XX	LFCMPXAE1	433	8	19.7				365	7			130	0.3
7/2/2018	XX	LFCMPXAJ1	483	8	22.4				367	7			180	0.2
8/17/2018	XX	LFCMPXAJ2	498	7	22.8				355	7			200	5.6
9/1/2018	XX	LFCMPXB28	485	7.8	19.9				376	7			200	4.8
10/13/2018	XX	LFCMPXB32	481	7	14.9				374	7			190	1.7
11/2/2018	XX	LFCMPXB3G	399	7.1	11.3				361	7			150	2.8
12/7/2018	XX	LFCMPXB7F	309	8	8.4				374	7			175	1.1
1/3/2019	XX	LFCMPXB89	446	6.7	4.9				373	8			150	2
2/2/2019	XX	LFCMPXB93	409	7.5	3.2				410	8			200	7
3/2/2019	XX	LFCMPXB9H	423	7	5				372	7			200	2.2

(LF-COMP)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/5/2019	XX	LFCMPXBAB	382	8.2	12.9				354	8			155	1.9
5/10/2019	XX	LFCMPXBE3	344	7	14.4				321	7			160	3.7
6/24/2019	XX	LFCMPXBEH	395	7.5	17.1				364	8			200	0.5
7/30/2019	XX	LFCMPXBFB	410	8	20.6				337	8			210	2.5
8/20/2019	XX	LFCMPXBG5	376	7.6	25.3				357	6			180	0.3
9/20/2019	XX	LFCMPXBJI	453	7.2	21.5				370	6			200	0.2
10/14/2019	XX	LFCMPXC0C	410	7.8	18.9				339	6			200	0.3
11/27/2019	XX	LFCMPXC16	353	7.7	20				384	8			190	1.1
12/23/2019	XX	LFCMPXC2G	394	7.9	12.7				353	8			135	0.3

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
1/21/2010	XX	LFUD1X3GJ	F6	F6	F6				F6	F6	F6		F6	F6
2/23/2010	XX	LFUD1X3HB	F6	F6	F6				F6	F6	F6		F6	F6
3/17/2010	XX	LFUD1X3I0	389	6.5	15.4				375	6	0.0006		150	2.6
4/27/2010	XX	LFUD1X3JD	356	7.5	13.4				245	6	0.0011		160	0.2
5/18/2010	XX	LFUD1X40G	F6	F6	F6				F6	F6	F6		F6	F6
6/22/2010	XX	LFUD1X415	F6	F6	F6				F6	F6	F6		F6	F6
7/20/2010	XX	LFUD1X42H	F6	F6	F6				F6	F6	F6		F6	F6
8/30/2010	XX	LFUD1X449	F6	F6	F6				F6	F6	F6		F6	F6
9/28/2010	XX	LFUD1X441	F6	F6	F6				F6	F6	F6		F6	F6
10/19/2010	XX	LFUD1X461	F6	F6	F6				F6	F6	F6		F6	F6
11/11/2010	XX	LFUD1X473	F6	F6	F6				F6	F6	F6		F6	F6
12/16/2010	XX	LFUD1X47J	H2	H2	H2				H2	H2	H2		H2	H2
1/24/2011	XX	LFUD1X47B	356	8	12.8				244	8	0.0006		485	0
2/24/2011	XX	LFUD1X4BG	483	7.1	13.6				310	5	0.0011		345	2.3
3/25/2011	XX	LFUD1X4C6	H2	H2	H2					H2	H2		H2	H2
4/26/2011	XX	LFUD1X4A2	331	7.4	15.4				360	5	0.0022		240	0.5
5/25/2011	XX	LFUD1X4F5	H2	H2	H2				H2	H2	H2		H2	H2
6/20/2011	XX	LFUD1X4FG	H2	H2	H2				H2	H2	H2		H2	H2
7/19/2011	XX	LFUD1X4E0	347	6.7	24.4				290	4	0.0022		125	0
8/3/2011	XX	LFUD1X4J6	H2	H2	H2				H2	H2	H2		H2	H2
10/8/2011	XX	LFUD1X4IE	353	7	23.7				375	6	0.0006		100	0.1
10/25/2011	XX	LFUD1X4HF	368	6.8	17.7				311	6	0.0006		200	4.5
11/30/2011	XX	LFUD1X509	349	7.6	17.6				361	5	0.0006		115	0.56
12/29/2011	XX	LFUD1X4JH	337	8	14.2				324	6	0.0011		115	0.1
1/26/2012	XX	LFUD1X589	173	7.5	13.7				371	8	0.0006		150	2.03
2/24/2012	XX	LFUD1X591	382	7.4	15.3				371	5	0.0006		150	2.23
3/23/2012	XX	LFUD1X59C	349	7.2	16.7				399	6	0.0003		150	0.22
4/16/2012	XX	LFUD1X5A3	359	7	17.3				387	6	0.0006		150	0.04
4/24/2012	XX	LFUD1X525	H2	H2	H2				H2	H2	H2		H2	H2
5/3/2012	XX	LFUD1X5AE	364	7	16.7				438	8	0.0006		150	0.79
6/29/2012	XX	LFUD1X5B5	338	6.6	21.4				427	6	0.0006		125	0.64
7/24/2012	XX	LFUD1X574	355	6.5	20.4				316	6	0.0022		200	1.8
7/31/2012	XX	LFUD1X5BG	375	7.1	24.1				341	8	0.0003		160	0.17
8/31/2012	XX	LFUD1X5EH	384	6.7	21.1				343	5	0.0003		135	0.32
9/27/2012	XX	LFUD1X5F8	317	8.1	18.6				375	6	0.0003		125	0.01
10/23/2012	XX	LFUD1X5DF	F6	F6	F6				F6	F6	F6		F6	F6
11/13/2012	XX	LFUD1X5FJ	288	8	14.8				362	6			135	0.87
12/31/2012	XX	LFUD1X5GA	290	7.7	10.6				409	8			120	0.72
1/30/2013	XX	LFUD1X606	295	7.1	13.3				380	6	0.0002		125	0.65

SEVEE & MAHER ENGINEERS, INC.
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(LF-UD-1)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
2/15/2013	XX	LFUD1X5JE	298	7.5	10				404	6	0.0002		145	0.7
3/28/2013	XX	LFUD1X60J	291	8.1	14.1				359	8	0.0002		150	0.41
4/23/2013	XX	LFUD1X5I6	358	7.5	16.1				270	5	0.0022		100	1.1
4/24/2013	XX	LFUD1X61B	230	7.1	14.6				331	8	0.0002		150	0.28
5/30/2013	XX	LFUD1X623	240	7.5	25.9				342	8	0.0003		125	0.16
6/26/2013	XX	LFUD1X62F	308	7.8	19.5				366	8	0.0003		175	0.81
7/30/2013	XX	LFUD1X64B	362	6.8	21.5				262	6	0.0022		100	0.9
8/20/2013	XX	LFUD1X695	348	7	23.6				388	6	0.0001		125	0.75
9/26/2013	XX	LFUD1X68D	334	7.9	18.1				420	8	0.0003		125	0.65
10/29/2013	XX	LFUD1X674	F6	F6	F6				F6	F6	F6		F6	F6
11/25/2013	XX	LFUD1X69I	H8	H8	H8				H8	H8	H8		H8	H8
12/17/2013	XX	LFUD1X6CI	317	7.5	8.8				334	10	0.0002		160	3.52
1/24/2014	XX	LFUD1X6DA	325	8	6.2				284	10	0.0003		150	1.3
2/24/2014	XX	LFUD1X6H7	355	7.3	9.1				400	10	0.0003		160	0.96
3/27/2014	XX	LFUD1X6GF	311	8.2	8.2				362	10	0.0004		175	3.15
4/22/2014	XX	LFUD1X6F7	388	6.9	13.2				524	5	0.0017		120	2.2
4/29/2014	XX	LFUD1X6HJ	310	8.1	15.7				324	10	0.0006		175	1.78
5/23/2014	XX	LFUD1X70I	350	7.4	20				357	10	0.0003		175	0.4
6/24/2014	XX	LFUD1X71A	369	7	20.6				371	8	0.0004		170	0.27
7/29/2014	XX	LFUD1X6JE	368	7	21				337	5	0.0022		40	8.1
8/26/2014	XX	LFUD1X74A	366	7.2	23.1				385	7	0.0006		175	0.29
9/23/2014	XX	LFUD1X751	360	7.6	22.6				353		0.0001		160	0.05
10/21/2014	XX	LFUD1X735	F6	F6	F6				F6	F6	F6		F6	F6
11/28/2014	XX	LFUD1X75D	341	7	15.8				383	7	0.0006		160	M
12/24/2014	XX	LFUD1X766	337	6.9	16.1				413	7	0.0007		150	0.28
2/3/2015	XX	LFUD1X76H	329	7.9	13.8				384	5.5	0.0006		140	0.46
2/21/2015	XX	LFUD1X778	267	7.6	17.9				377	5.5	0.0003		150	0.3
3/28/2015	XX	LFUD1X7A6	339	6.9	13.4				404	5.5	0.0003		160	0.4
4/16/2015	XX	LFUD1X7AJ	306	7.1	17.6				384	7	0.0006		150	0.83
4/28/2015	XX	LFUD1X792	401	7.4	16.6				300	6.1	0.0022			1.8
5/22/2015	XX	LFUD1X7F4	197	7.4	18.8				373	8	0.0002		150	0.5
6/22/2015	XX	LFUD1X7EC	333	7.8	23.2				326	9	0.0002		165	0.4
7/14/2015	XX	LFUD1X7CE	411	6.9	20.7				313	4.5	0.002			0.5
7/23/2015	XX	LFUD1X7FG	330	7.4	23.3				367	6	0.0002		135	0.7
8/24/2015	XX	LFUD1X7G8	354	7.1	21.1				364	8	0.0001		195	0.5
9/26/2015	XX	LFUD1X801	425	7.3	21.3				365	7	F14		200	0.1
10/27/2015	XX	LFUD1X7I3	F6	F6	F6				F6	F6	F6			F6
10/31/2015	XX	LFUD1X80D	378	8.1	16.1				339	8	0.0002		170	0.6
11/27/2015	XX	LFUD1X815	326	6.8	15.2				376	9	0.0002		185	0.2
12/30/2015	XX	LFUD1X81I	332	7.2	11.2				362	9	0.0002		180	0.7
1/14/2016	XX	LFUD1X82A	347	6.9	9.2				338	7	0.0002		180	1.2
2/18/2016	XX	LFUD1X882	338	8	10.6				357	8	0.0003		170	0.1
3/17/2016	XX	LFUD1X88E	341	6.8	13.3				342	9	0.0003		180	0.7
4/5/2016	XX	LFUD1X86D	404	8.1	15.1				342	6.7	0.0022			0.8
4/21/2016	XX	LFUD1X896	344	6.8	15.8				297	8	0.0004		145	0.5
5/26/2016	XX	LFUD1X8CC	341	7.6	17.7				309	8	0.0002		175	0.2
6/27/2016	XX	LFUD1X8DG	382	6.7	20.6				433	8	0.0007		175	0.9
7/20/2016	XX	LFUD1X8F0	330	7.1	22.1				328	7	0.00006		175	0.4
7/26/2016	XX	LFUD1X8B3	I	I	I				I	I	I			I
8/29/2016	XX	LFUD1X90B	F6	F6	F6				F6	F6	F6			F6

SEVEE & MAHER ENGINEERS, INC.
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(LF-UD-1)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
9/23/2016	XX	LFUD1X93A	F6	F6	F6				F6	F6	F6			F6
10/25/2016	XX	LFUD1X8J2	F6	F6	F6				F6	F6	F6			F6
10/31/2016	XX	LFUD1X944	H8	H8	H8				H8	H8	H8			H8
11/29/2016	XX	LFUD1X94J	H8	H8	H8				H8	H8	H8		H8	H8
12/13/2016	XX	LFUD1X95C	H8	H8	H8				H8	H8	H8		H8	H8
1/10/2017	XX	LFUD1X99B	H8	H8	H8				H8	H8	H8		H8	H8
2/8/2017	XX	LFUD1X9A4	H8	H8	H8				H8	H8	H8		H8	H8
3/3/2017	XX	LFUD1X9AH	H8	H8	H8				H8	H8	H8		H8	H8
4/5/2017	XX	LFUD1X98I	H8	H8	H8				H8	H8	H8		H8	H8
4/18/2017	XX	LFUD1X978	378	7.3	14				322	8.2	0.0006			0.8
5/25/2017	XX	LFUD1X9BA	342	7.12	16.7				425	8	0.0003		125	0.2
6/16/2017	XX	LFUD1X9EB	380	7.8	16.4				356	8	0.0003		195	0.4
7/25/2017	XX	LFUD1X9D6	423	8.1	20				312	5.9	0.0006			0.5
7/31/2017	XX	LFUD1X9F4	H8	H8	H8				H8	H8	H8		H8	H8
8/31/2017	XX	LFUD1X9IE	479	6.9	20.2				386	7	0.0002		180	0.3
9/28/2017	XX	LFUD1X9J6	H8	H8	H8				H8	H8	H8		H8	H8
10/25/2017	XX	LFUD1X9H1	F6	F6	F6				F6	F6	F6		F6	F6
10/26/2017	XX	LFUD1X9JI	H8	H8	H8				H8	H8	H8		H8	H8
11/30/2017	XX	LFUD1XA0A	444	7.3	11.8				401	6	0.00014		175	0.3
12/27/2017	XX	LFUD1XA13	424	7.2	10.9				422	8	0.0003		200	0.4
1/19/2018	XX	LFUD1XA49	437	7.8	6.8				408	10	0.00007		200	0.5
2/22/2018	XX	LFUD1XA52	384	7.2	6				389	10	0.00006		150	7.6
3/24/2018	XX	LFUD1XA8I	374	7.4	8.4				428	8	0.00007		145	1.3
4/3/2018	XX	LFUD1XA30	418	7.8	9				472	11	0.00167			1.1
4/28/2018	XX	LFUD1XA9B	352	8	15.6				370	10	0.00019		125	0.5
5/11/2018	XX	LFUD1XAA4	378	7.6	14.3				434	7	0.00019		125	0.1
6/2/2018	XX	LFUD1XAD8	370	8	18.2				363	8	0.00014		150	1.1
7/2/2018	XX	LFUD1XAI8	397	7.9	20.2				355	7	0.00002		160	0.9
7/17/2018	XX	LFUD1XAC1	F6	F6	F6				F6	F6	F6		F6	F6
8/17/2018	XX	LFUD1XAJ3	H8	H8	H8				H8	H8	H8		H8	H8
9/1/2018	XX	LFUD1XB29	H8	H8	H8				H8	H8	H8		H8	H8
10/2/2018	XX	LFUD1XB0J	F6	F6	F6				F6	F6	F6		F6	F6
10/13/2018	XX	LFUD1XB33	H8	H8	H8				H8	H8	H8		H8	H8
11/2/2018	XX	LFUD1XB3H	H8	H8	H8				H8	H8	H8		H8	H8
12/7/2018	XX	LFUD1XB7G	H8	H8	H8				H8	H8			H8	H8
1/3/2019	XX	LFUD1XB8A	H8	H8	H8				H8	H8			H8	H8
2/2/2019	XX	LFUD1XB94	H8	H8	H8				H8	H8			H8	H8
3/2/2019	XX	LFUD1XB9I	H8	H8	H8				H8	H8			H8	H8
4/5/2019	XX	LFUD1XBAC	H8	H8	H8				H8	H8	H8		H8	H8
4/23/2019	XX	LFUD1XB5G	354	7	6.9				341	7.6	0.0006			0.4
5/10/2019	XX	LFUD1XBE4	H8	H8	H8				H8	H8	H8			H8
6/24/2019	XX	LFUD1XBEI	H8	H8	H8				H8	H8	H8			H8
7/16/2019	XX	LFUD1XBC8	F6	F6	F6				F6	F6	F6			F6
7/30/2019	XX	LFUD1XBFC	H8	H8	H8				H8	H8	H8			H8
8/20/2019	XX	LFUD1XBG6	H8	H8	H8				H8	H8	H8			H8
9/20/2019	XX	LFUD1XBJJ	H8	H8	H8				H8	H8	H8			H8
10/14/2019	XX	LFUD1XC0D	H8	H8	H8				H8	H8	H8			H8
10/29/2019	XX	LFUD1XBI1	F6	F6	F6				F6	F6	F6			F6
11/27/2019	XX	LFUD1XC17	H8	H8	H8				H8	H8	H8			H8
12/23/2019	XX	LFUD1XC2H	355	8.4	12.4				352	8	0.0006		120	0.6

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(LF-UD-2)

LF-UD-2

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
1/21/2010	XX	LFUD2X3H0	335	7.1	11.2				264	6	0.0056		110	8.2
2/23/2010	XX	LFUD2X3HC	309	8.2	15.1				201	6	0.0056		155	0.2
3/17/2010	XX	LFUD2X3I1	296	6.7	17.6				358	5	0.0078		145	5.2
4/27/2010	XX	LFUD2X3JE	250	8	12.9				248	6	0.0045		140	0.5
5/18/2010	XX	LFUD2X40H	286	7.8	19.1				315	4	0.0056		100	1.1
6/22/2010	XX	LFUD2X416	309	7.8	21.1				305	6	0.0045		130	0.4
7/20/2010	XX	LFUD2X42I	352	8	22.1				343	5	0.0223		245	2.4
8/30/2010	XX	LFUD2X44A	455	7.6	24.2				303	5	0.0011		220	8.5
9/28/2010	XX	LFUD2X442	499	7.2	20.3				340	6	0.0022		175	0
10/19/2010	XX	LFUD2X462	709	6.8	11.7				438	5	0.0006		160	0
11/11/2010	XX	LFUD2X474	323	8.2	13.1				245	4	0.0033		135	0.5
12/16/2010	XX	LFUD2X480	H2	H2	H2				H2	H2	H2		H2	H2
1/24/2011	XX	LFUD2X47C	286	8	12				251	6	0.0011		350	0
2/24/2011	XX	LFUD2X4BH	328	7.6	16.1				321	6	0.0033		260	0
3/25/2011	XX	LFUD2X4C7	H2	H2	H2					H2	H2		H2	H2
4/26/2011	XX	LFUD2X4A3	273	7.7	17.2				325	5	0.0056		35	0.8
5/25/2011	XX	LFUD2X4F6	H2	H2	H2				H2	H2	H2		H2	H2
6/20/2011	XX	LFUD2X4FH	H2	H2	H2				H2	H2	H2		H2	H2
7/19/2011	XX	LFUD2X4E1	277	7.4	23.2				269	5	0.0045		100	0
8/3/2011	XX	LFUD2X4J7	H2	H2	H2				H2	H2	H2		H2	H2
10/8/2011	XX	LFUD2X4IF	291	7.4	24.5				364	6	0.0022		100	0.1
10/25/2011	XX	LFUD2X4HG	302	6.4	18.3				329	6	0.0045		120	2.7
11/30/2011	XX	LFUD2X50A	288	8	19.2				345		0.0022		100	0.27
12/29/2011	XX	LFUD2X4JI	288	8.2	16.3				318	9	0.0022		110	0.2
1/26/2012	XX	LFUD2X58A	297	8	16.8				357	8	0.0011		115	0.37
2/24/2012	XX	LFUD2X592	310	7.3	16.8				273	4	0.0011		130	0.82
3/23/2012	XX	LFUD2X59D	302	7.25	17.9				393	5	0.0011		125	0.26
4/16/2012	XX	LFUD2X5A4	311	7	20.9				391	6	0.0011		130	0.18
4/24/2012	XX	LFUD2X526	H2	H2	H2				H2	H2	H2		H2	H2
5/3/2012	XX	LFUD2X5AF	318	6.9	18.5				458	6	0.0011		115	0.1
6/29/2012	XX	LFUD2X5B6	305	6.8	22.8				444	6	0.0011		100	0.21
7/24/2012	XX	LFUD2X575	316	6.8	22.6				495	5	0.0056		225	1.5
7/31/2012	XX	LFUD2X5BH	345	7.1	28.4				364	8	0.0011		120	0.01
8/31/2012	XX	LFUD2X5EI	368	6.8	22.6				349	6	0.0011		125	0
9/27/2012	XX	LFUD2X5F9	321	8.1	21.3				360	6	0.0006		150	0.01
10/23/2012	XX	LFUD2X5DG	307	7.1	14.3				518	5	0.0045		100	1.2
11/13/2012	XX	LFUD2X5G0	276	8	17.5				346	6	0.0011		115	0.63
12/31/2012	XX	LFUD2X5GB	293	7.7	13.7				399	6	0.0003		115	0.72
1/30/2013	XX	LFUD2X607	186	7	16.4				404	6	0.0022		85	4.1
2/15/2013	XX	LFUD2X5JF	277	7.7	14.3				407	6	0.0022		135	0.04
3/28/2013	XX	LFUD2X610	284	8.2	18.2				352	8	0.0006		140	0.35
4/23/2013	XX	LFUD2X5I7	304	7.4	18.3				285	6	0.0045		90	1
4/24/2013	XX	LFUD2X61C	229	7.1	17.8				349	8	0.0006		150	0.04
5/30/2013	XX	LFUD2X624	234	7.4	24.1				329	8	0.0011		150	0.32
6/26/2013	XX	LFUD2X62G	298	8	21.2				366	8	0.0011		125	0.58
7/30/2013	XX	LFUD2X64C	320	7.1	22.9				196	6	0.0056		105	0.5
8/20/2013	XX	LFUD2X696	348	7	24.8				386	6	0.0011		135	0.27
9/26/2013	XX	LFUD2X68E	338	8.2	20				398	8	0.0022		120	0.63

SUMMARY REPORT

Field Data

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-UD-2)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/29/2013	XX	LFUD2X675	404	7.3	17.3				260	6	0.0022		120	0.5
11/25/2013	XX	LFUD2X69J	332	8.4	13.4				343	8	0.0011		125	1.48
12/17/2013	XX	LFUD2X6CJ	327	7.4	9.1				366	8	0.0003		150	0.46
1/24/2014	XX	LFUD2X6DB	328	7.3	8.7				307	8	0.0013		130	3.26
2/24/2014	XX	LFUD2X6H8	363	7.5	13.3				387	8	0.0011		155	0.52
3/27/2014	XX	LFUD2X6GG	342	8.4	13.5				346	8	0.0011		175	3.43
4/22/2014	XX	LFUD2X6F8	353	7.2	12.5				514	5	0.0033		110	2.6
4/29/2014	XX	LFUD2X6I0	326	8.3	18.3				320	8	0.0011		170	0.3
5/23/2014	XX	LFUD2X70J	368	7.4	22.1				357	8	0.0011		160	0.3
6/24/2014	XX	LFUD2X71B	391	7.1	22.5				365	7	0.0022		145	0.28
7/29/2014	XX	LFUD2X6JF	361	7.6	21.5				300	6	0.0045		40	2.6
8/26/2014	XX	LFUD2X74B	417	7.2	23.1				386	6	0.0017		185	0.37
9/23/2014	XX	LFUD2X752	411	8	23.1				345		0.0011		175	0
10/21/2014	XX	LFUD2X736	382	7.4	14.4				304	5	0.0022		70	0.4
11/28/2014	XX	LFUD2X75E	382	7.2	14.7				369	5.5	0.0004		155	M
12/24/2014	XX	LFUD2X767	384	6.9	17.7				431	5	0.0022		125	0.16
2/3/2015	XX	LFUD2X76I	368	8.1	16.1				370	7	0.0022		160	0
2/21/2015	XX	LFUD2X779	306	7.4	18				376	4	0.0022		150	0.46
3/28/2015	XX	LFUD2X7A7	397	6.8	15.1				409	5	0.0022		150	0.29
4/16/2015	XX	LFUD2X7B0	360	7.1	19.2				385	5.5	0.0028		170	0.84
4/28/2015	XX	LFUD2X793	398	7.1	16.4				340	6.8	0.0033			1.1
5/22/2015	XX	LFUD2X7F5	314	7.8	20.4				367	9	0.0017		170	0.5
6/22/2015	XX	LFUD2X7ED	386	8	26.4				284	8	0.0017		140	0.2
7/14/2015	XX	LFUD2X7CF	397	6.9	21.4				303	4.7	0.0033			0.3
7/23/2015	XX	LFUD2X7FH	405	7.2	24.8				375	8	0.0006		175	0.1
8/24/2015	XX	LFUD2X7G9	405	6.9	20.8				372	7	0.0017		160	0.3
9/26/2015	XX	LFUD2X802	411	7.1	21.8				367	7	0.0017		200	0.1
10/27/2015	XX	LFUD2X7I4	403	7.5	14.9				303	5.7	0.0011			0.5
10/31/2015	XX	LFUD2X80E	394	8.2	16.7				335	7	0.002		195	0.6
11/27/2015	XX	LFUD2X816	414	7	18.1				376	7	0.002		190	0.01
12/30/2015	XX	LFUD2X81J	386	7.1	14.7				363	8	0.0011		190	0.2
1/14/2016	XX	LFUD2X82B	406	6.9	11.2				347	6	0.0007		170	0.01 U
2/18/2016	XX	LFUD2X883	393	8.3	18.3				360	8	0.0011		178	0.01
3/17/2016	XX	LFUD2X88F	401	6.9	17.6				345	7	0.0015		173	0.01
4/5/2016	XX	LFUD2X86E	389	8.4	18.8				271	5.6	0.0045			0.9
4/21/2016	XX	LFUD2X897	392	6.9	21.2				239	7	0.0017		165	0.6
5/26/2016	XX	LFUD2X8CD	391	7.8	21.2				308	7	0.0011		180	0.1
6/27/2016	XX	LFUD2X8DH	420	6.8	21.9				554	7	0.0011		190	0.4
7/20/2016	XX	LFUD2X8F1	423	7	22.6				329	7	0.0011		200	0.02
7/26/2016	XX	LFUD2X8B4	447	7.4	22.2				291	4.9	0.0017			0.4
8/29/2016	XX	LFUD2X90C	449	7.02	23.8				332	7	0.0007			0.5
9/23/2016	XX	LFUD2X93B	446	8.03	19.7				298	9	0.0006			0.4
10/25/2016	XX	LFUD2X8J3	458	7.8	13.5				275	6.6	0.0011			0.8
10/31/2016	XX	LFUD2X945	395	8.3	15.1				315	8	0.0006		100	0.2
11/29/2016	XX	LFUD2X950	205	7.24	11.6				369	8	0.0001		130	0.6
12/13/2016	XX	LFUD2X95D	206	8.22	6				353	8	0.0002		125	1.5
1/10/2017	XX	LFUD2X99C	186	7.32	15.6				378	9	0.0003		135	0.4
2/8/2017	XX	LFUD2X9A5	210	8.03	15.5				354	9	0.0011		130	0.2
3/3/2017	XX	LFUD2X9AI	158	7.92	15.7				351	8	0.0002		155	0.7
4/5/2017	XX	LFUD2X98J	213	8.05	18.7				353	7	0.0017		130	0.4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-UD-2)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/18/2017	XX	LFUD2X979	366	8.1	14.5				314	8	0.0022			0.5
5/25/2017	XX	LFUD2X9BB	401	7.1	20.4				408	6	0.0017		150	0.3
6/16/2017	XX	LFUD2X9EC	437	8	18.6				357	7	0.0015		205	0.3
7/25/2017	XX	LFUD2X9D7	418	8.3	21.7				308	5.7	0.0022			0.3
7/31/2017	XX	LFUD2X9F5	334	7	23.6				394	6	0.0011		190	0.3
8/31/2017	XX	LFUD2X9IF	464	7	21.2				402	7	0.0017		245	0.2
9/28/2017	XX	LFUD2X9J7	463	8.1	20.1				355	6	0.0004		180	0.5
10/25/2017	XX	LFUD2X9H2	456	7.2	17.6				379	6.9	0.0006			2.1
10/26/2017	XX	LFUD2X9JJ	499	6.9	18.9				417	5	0.00028		240	0.8
11/30/2017	XX	LFUD2XA0B	427	7.5	13.4				409	7	0.00056		180	0.3
12/27/2017	XX	LFUD2XA14	429	6.9	12.4				426	8	0.0006		200	0.2
1/19/2018	XX	LFUD2XA4A	438	7.9	9				403	8	0.00074		175	0.9
2/22/2018	XX	LFUD2XA53	299	6.9	8				411	8	0.00056		115	0.2
3/24/2018	XX	LFUD2XA8J	453	8	10				427	7	0.00028		150	2.4
4/3/2018	XX	LFUD2XA31	413	7.7	11.6				465	10.2	0.00446			0.8
4/28/2018	XX	LFUD2XA9C	417	8.1	18.1				371	8	0.00074		150	0.2
5/11/2018	XX	LFUD2XAA5	446	8	17.6				420	7	0.00074		130	0.2
6/2/2018	XX	LFUD2XAD9	434	8.1	19.9				365	6	0.00074		150	0.3
7/2/2018	XX	LFUD2XAI9	480	7.9	22.3				356	6	0.0006		175	0.5
7/17/2018	XX	LFUD2XAC2	535	8.1	19				451	4.3	0.00223			0.8
8/17/2018	XX	LFUD2XAJ4	490	7	22.8				342	7	0.0002		170	0.3
9/1/2018	XX	LFUD2XB2A	451	7.8	20				365	8	0.0002		150	0.7
10/2/2018	XX	LFUD2XB10	522	7.8	14.7				443	6.1	0.00056			0.5
10/13/2018	XX	LFUD2XB34	446	6.7	14.9				361	7	0.0002		175	2.9
11/2/2018	XX	LFUD2XB3I	418	7.2	10.9				357	9	0.0002		180	1.4
12/7/2018	XX	LFUD2XB7H	315	8.2	8.6				363	6	0.0002		180	1.11
1/3/2019	XX	LFUD2XB8B	430	6.8	4.4				375	7	0.0003		135	1.6
2/2/2019	XX	LFUD2XB95	341	7.4	3				402	7	0.0002		150	5.3
3/2/2019	XX	LFUD2XB9J	362	7.1	5.1				366	6	0.0002		175	5.7
4/5/2019	XX	LFUD2XBAD	365	7.9	13.9				403	7	0.0001		150	5.9
4/23/2019	XX	LFUD2XB5H	F6	F6	F6				F6	F6	F6		F6	F6
5/10/2019	XX	LFUD2XBE5	307	7	15.1				311	7	0.0002		175	8.7
6/24/2019	XX	LFUD2XBEJ	380	7.4	18.4				357	8	0.0003		150	0.4
7/16/2019	XX	LFUD2XBC9	428	8.1	18.4				383	9.5	0.0011			0.4
7/30/2019	XX	LFUD2XBFD	400	8.2	20.8				334	8	0.0002		175	0.5
8/20/2019	XX	LFUD2XBG7	353	8.2	25.8				339	6	0.0001		160	0.3
9/20/2019	XX	LFUD2XC00	409	7.4	21.5				368	6	0.0017		150	0.6
10/14/2019	XX	LFUD2XC0E	342	8	19.1				339	6	0.0002		150	0.1
10/29/2019	XX	LFUD2XBI2	386	8.1	12.8				214	8.7	0.0011			2.2
11/27/2019	XX	LFUD2XC18	303	8.4	20.9				369	8	0.0002		125	0.8
12/23/2019	XX	LFUD2XC2I	H8	H8	H8				H8	H8	H8		H8	H8

LF-UD-3A,B

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
1/21/2010	XX	LFUD3A3H4	405	7.5	9.4				248	6	0.0033		185	1.2
2/23/2010	XX	LFUD3A3HG	402	8.2	13.6				215	5	0.0045		190	0.1
3/17/2010	XX	LFUD3A3I5	490	6.6	18.3				340	5	0.0067		205	1.9
4/27/2010	XX	LFXXXX40C	408	7.9	14.3				270	6	0.0045		160	0.4
5/18/2010	XX	LFUD3A411	400	7.9	19.1				315	5	0.0022		160	0.5
6/22/2010	XX	LFUD3A419	F6	F6	F6				F6	F6	F6		F6	F6
7/20/2010	XX	LFXXXX43G	F6	F6	F6				F6	F6	F6		F6	F6

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-UD-3A,B)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
8/30/2010	XX	LFUD3A44D	F6	F6	F6				F6	F6	F6		F6	F6
9/28/2010	XX	LFUD3A445	F6	F6	F6				F6	F6	F6		F6	F6
10/19/2010	XX	LFXXXX46J	F6	F6	F6				F6	F6	F6		F6	F6
11/11/2010	XX	LFUD3A477	565	8.2	14.7				201	5	0.0022		200	0.6
12/16/2010	XX	LFUD3A483	H2	H2	H2				H2	H2	H2		H2	H2
1/24/2011	XX	LFUD3A47F	385	8.1	14.2				255	8	0.0011		475	0
2/24/2011	XX	LFUD3A4C0	453	7.3	17.8				326	6	0.0022		360	0
3/25/2011	XX	LFUD3A4CA	H2	H2	H2					H2	H2		H2	H2
4/26/2011	XX	LFXXXX4B1	370	7.9	17.4				309	5	0.0045		265	0.5
5/25/2011	XX	LFUD3A4F9	H2	H2	H2				H2	H2	H2		H2	H2
6/20/2011	XX	LFUD3A4G0	H2	H2	H2				H2	H2	H2		H2	H2
7/19/2011	XX	LFXXXX4EJ	H2	H2	H2				H2	H2	H2		H2	H2
8/3/2011	XX	LFUD3A4JA	H2	H2	H2				H2	H2	H2		H2	H2
10/8/2011	XX	LFUD3A4II	H8	H8	H8				H8	H8	H8		H8	H8
10/25/2011	XX	LFXXXX4IC	F6	F6	F6				F6	F6	F6		F6	F6
11/30/2011	XX	LFUD3A50D	H8	H8	H8				H8	H8	H8		H8	H8
12/29/2011	XX	LFUD3A501	H8	H8	H8				H8	H8	H8		H8	H8
1/26/2012	XX	LFXXXX58D	H8	H8	H8				H8	H8			H8	H8
2/24/2012	XX	LFXXXX595	H8	H8	H8				H8	H8			H8	H8
3/23/2012	XX	LFXXXX59G	F6	F6	F6				F6	F6			F6	F6
4/16/2012	XX	LFXXXX5A7	F6	F6	F6				F6	F6			F6	F6
4/24/2012	XX	LFXXXX534	H2	H2	H2				H2	H2			H2	H2
5/3/2012	XX	LFXXXX5AI	H8	H8	H8				H8	H8			H8	H8
6/29/2012	XX	LFXXXX5B9	H8	H8	H8				H8	H8			H8	H8
7/24/2012	XX	LFXXXX581	F6	F6	F6				F6	F6			F6	F6
7/31/2012	XX	LFXXXX5C0	H8	H8	H8				H8	H8			H8	H8
8/31/2012	XX	LFXXXX5F1	H8	H8	H8				H8	H8			H8	H8
9/27/2012	XX	LFXXXX5FC	H8	H8	H8				H8	H8			H8	H8
10/23/2012	XX	LFXXXX5EC	F6	F6	F6				F6	F6			F6	F6
11/13/2012	XX	LFXXXX5G3	H8	H8	H8				H8	H8			H8	H8
12/31/2012	XX	LFXXXX5GE	H8	H8	H8				H8	H8			H8	H8
1/30/2013	XX	LFXXXX60A	H8	H8	H8				H8	H8			H8	H8
2/15/2013	XX	LFXXXX5JI	H8	H8	H8				H8	H8			H8	H8
3/28/2013	XX	LFXXXX613	H8	H8	H8				H8	H8			H8	H8
4/23/2013	XX	LFXXXX5J5	F6	F6	F6				F6	F6			F6	F6
4/24/2013	XX	LFXXXX61F	H8	H8	H8				H8	H8			H8	H8
5/30/2013	XX	LFXXXX627	H8	H8	H8				H8	H8			H8	H8
6/26/2013	XX	LFXXXX62J	H8	H8	H8				H8	H8			H8	H8
7/30/2013	XX	LFXXXX65A	F6	F6	F6				F6	F6			F6	F6
8/20/2013	XX	LFXXXX699	H8	H8	H8				H8	H8			H8	H8
9/26/2013	XX	LFXXXX68H	H8	H8	H8				H8	H8			H8	H8
10/29/2013	XX	LFXXXX67J	F6	F6	F6				F6	F6			F6	F6
11/25/2013	XX	LFXXXX6A2	H8	H8	H8				H8	H8			H8	H8
12/17/2013	XX	LFXXXX6D2	H8	H8	H8				H8	H8			H8	H8
1/24/2014	XX	LFXXXX6DE	H8	H8	H8				H8	H8			H8	H8
2/24/2014	XX	LFXXXX6HB	H8	H8	H8				H8	H8			H8	H8
3/27/2014	XX	LFXXXX6GJ	H8	H8	H8				H8	H8			H8	H8
4/22/2014	XX	LFXXXX6G6	F6	F6	F6				F6	F6			F6	F6
4/29/2014	XX	LFXXXX6I3	H8	H8	H8				H8	H8			H8	H8
5/23/2014	XX	LFXXXX712	H8	H8	H8				H8	H8			H8	H8

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU			
6/24/2014	XX	LFXXXX71E	H8	H8	H8				H8	H8			H8	H8			
7/29/2014	XX	LFXXXX708	F6	F6	F6				F6	F6			F6	F6			
8/26/2014	XX	LFXXXX74E	F6	F6	F6				F6	F6			F6	F6			
9/23/2014	XX	LFXXXX755	H8	H8	H8				H8	H8			H8	H8			
10/21/2014	XX	LFXXXX73H	F6	F6	F6				F6	F6			F6	F6			
11/28/2014	XX	LFXXXX75H	H8	H8	H8				H8	H8			H8	H8			
12/24/2014	XX	LFXXXX76A	H8	H8	H8				H8	H8			H8	H8			
2/3/2015	XX	LFXXXX771	H8	H8	H8				H8	H8			H8	H8			
2/21/2015	XX	LFXXXX77C	H8	H8	H8				H8	H8			H8	H8			
3/28/2015	XX	LFXXXX7AA	H8	H8	H8				H8	H8			H8	H8			
4/16/2015	XX	LFXXXX7B3	F6	F6	F6				F6	F6			F6	F6			
4/28/2015	XX	LFXXXX79G	F6	F6	F6				F6	F6			F6	F6			
5/22/2015	XX	LFXXXX7F8	F6	F6	F6				F6	F6			F6	F6			
6/22/2015	XX	LFXXXX7EG	F6	F6	F6				F6	F6			F6	F6			
7/14/2015	XX	LFXXXX7D8	F6	F6	F6				F6	F6			F6	F6			
7/23/2015	XX	LFXXXX7G0	F12	F12	F12				F12	F12			F12	F12			
8/24/2015	XX	LFXXXX7GC	F12	F12	F12				F12	F12			F12	F12			
9/26/2015	XX	LFXXXX805	H8	H8	H8				H8	H8			H8	H8			
10/27/2015	XX	LFXXXX7IF	F6	F6	F6				F6	F6			F6	F6			
10/31/2015	XX	LFXXXX80H	F6	F6	F6				F6	F6			F6	F6			
11/27/2015	XX	LFXXXX819	F6	F6	F6				F6	F6			F6	F6			
12/30/2015	XX	LFXXXX822	F6	F6	F6				F6	F6			F6	F6			
1/14/2016	XX	LFXXXX82E	F6	F6	F6				F6	F6			F6	F6			
2/18/2016	XX	LFXXXX886	F6	F6	F6				F6	F6			F6	F6			
3/17/2016	XX	LFXXXX88I	F6	F6	F6				F6	F6			F6	F6			
4/5/2016	XX	LFXXXX877	F6	F6	F6				F6	F6	F6		F6	F6			
4/21/2016	XX	LFXXXX89A	F6	F6	F6				F6	F6			F6	F6			
5/26/2016	XX	LFXXXX8CG	F6	F6	F6				F6	F6			F6	F6			
6/27/2016	XX	LFXXXX8E0	F6	F6	F6				F6	F6			F6	F6			
7/20/2016	XX	LFXXXX8F4	F6	F6	F6				F6	F6			F6	F6			
7/26/2016	XX	LFXXXX8BH	F6	F6	F6				F6	F6	F6			F6			
8/29/2016	XX	LFXXXX90F	F6	F6	F6				F6	F6	F6			F6			
9/23/2016	XX	LFXXXX93E	F6	F6	F6				F6	F6	F6			F6			
10/25/2016	XX	LFXXXX8JF	F6	F6	F6				F6	F6	F6			F6			
10/31/2016	XX	LFXXXX948	H8	H8	H8				H8	H8	H8			H8			
11/29/2016	XX	LFXXXX953	H8	H8	H8				H8	H8	H8		H8	H8			
12/13/2016	XX	LFXXXX95G	H8	H8	H8				H8	H8	H8		H8	H8			
1/10/2017	XX	LFXXXX99F	H8	H8	H8				H8	H8	H8		H8	H8			
2/8/2017	XX	LFXXXX9A8	H8	H8	H8				H8	H8	H8		H8	H8			
3/3/2017	XX	LFXXXX9B1	H8	H8	H8				H8	H8	H8		H8	H8			
4/5/2017	XX	LFXXXX992	H8	H8	H8				H8	H8	H8		H8	H8			
4/18/2017	XX	LFXXXX982	F6	F6	F6				F6	F6	F6			F6			
5/25/2017	XX	LFXXXX9BE	F6	F6	F6				F6	F6	F6		F6	F6			
6/16/2017	XX	LFXXXX9EF	F6	F6	F6				F6	F6	F6		F6	F6			
7/25/2017	XX	LFXXXX9DJ	F6	F6	F6				F6	F6	F6		F6	F6			
7/31/2017	XX	LFXXXX9F8	H8	H8	H8				H8	H8	H8		H8	H8			
8/31/2017	XX	LFXXXX9II	F6	F6	F6				F6	F6	F6		F6	F6			
9/28/2017	XX	LFXXXX9JA	H8	H8	H8				H8	H8	H8		H8	H8			
10/25/2017	XX	LFXXXX9HE	F6	F6	F6				F6	F6	F6		F6	F6			
10/26/2017	XX	LFXXXXA02	H8	H8	H8				H8	H8	H8		H8	H8			

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
11/30/2017	XX	LFXXXXA0E	F6	F6	F6				F6	F6	F6		F6	F6
12/27/2017	XX	LFXXXXA17	F6	F6	F6				F6	F6	F6		F6	F6
1/19/2018	XX	LFXXXXA4D	F6	F6	F6				F6	F6	F6		F6	F6
2/22/2018	XX	LFXXXXA56	F6	F6	F6				F6	F6	F6		F6	F6
3/24/2018	XX	LFXXXXA92	F6	F6	F6				F6	F6	F6		F6	F6
4/3/2018	XX	LFXXXXA3E	F6	F6	F6				F6	F6	F6		F6	F6
4/28/2018	XX	LFXXXXA9F	H8	H8	H8				H8	H8	H8		H8	H8
5/11/2018	XX	LFXXXXAA8	F6	F6	F6				F6	F6	F6		F6	F6
6/2/2018	XX	LFXXXXADC	H8	H8	H8				H8	H8	H8		H8	H8
7/2/2018	XX	LFXXXXAIC	H8	H8	H8				H8	H8	H8		H8	H8
7/17/2018	XX	LFXXXXACE	F6	F6	F6				F6	F6	F6		F6	F6
8/17/2018	XX	LFXXXXAJ7	H8	H8	H8				H8	H8	H8		H8	H8
9/1/2018	XX	LFXXXXB2D	H8	H8	H8				H8	H8	H8		H8	H8
10/2/2018	XX	LFXXXXB1C	F6	F6	F6				F6	F6	F6		F6	F6
10/13/2018	XX	LFXXXXB37	H8	H8	H8				H8	H8	H8		H8	H8
11/2/2018	XX	LFXXXXB41	H8	H8	H8				H8	H8	H8		H8	H8
12/7/2018	XX	LFXXXXB80	H8	H8	H8				H8	H8			H8	H8
1/3/2019	XX	LFXXXXB8E	H8	H8	H8				H8	H8			H8	H8
2/2/2019	XX	LFXXXXB98	H8	H8	H8				H8	H8			H8	H8
3/2/2019	XX	LFXXXXBA2	H8	H8	H8				H8	H8			H8	H8
4/5/2019	XX	LFXXXXBAG	H8	H8	H8				H8	H8			H8	H8
4/23/2019	XX	LFXXXXB6A	F6	F6	F6				F6	F6	F6		F6	F6
5/10/2019	XX	LFXXXXBE8	H8	H8	H8				H8	H8	H8		H8	H8
6/24/2019	XX	LFXXXXBF2	H8	H8	H8				H8	H8	H8		H8	H8
7/16/2019	XX	LFXXXXBD1	F6	F6	F6				F6	F6	F6		F6	F6
7/30/2019	XX	LFXXXXBFG	H8	H8	H8				H8	H8	H8		H8	H8
8/20/2019	XX	LFXXXXBGA	H8	H8	H8				H8	H8	H8		H8	H8
9/20/2019	XX	LFXXXXC03	H8	H8	H8				H8	H8	H8		H8	H8
10/14/2019	XX	LFXXXXC0H	H8	H8	H8				H8	H8	H8		H8	H8
10/29/2019	XX	LFXXXXBID	F6	F6	F6				F6	F6	F6		F6	F6
11/27/2019	XX	LFXXXXC1B	H8	H8	H8				H8	H8	H8		H8	H8
12/23/2019	XX	LFXXXXC31	H8	H8	H8				H8	H8	H8		H8	H8

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
1/21/2010	XX	LFUD4X3H6	473	7.4	11.1				263	6	0.0056		125	0
2/23/2010	XX	LFUD4X3HI	406	7.8	14.1				212	5	0.0078		170	0
3/17/2010	XX	LFUD4X3I7	427	6.9	17.1				322	5	0.0067		145	2.6
4/27/2010	XX	LFXXXX40E	F6	F6	F6				F6	F6	F6		F6	F6
5/18/2010	XX	LFUD4X413	371	7.1	18.8				325	4	H6		125	1.1
6/22/2010	XX	LFUD4X41B	373	7	21.3				321	5	H6		165	0
7/20/2010	XX	LFXXXX43I	F6	F6	F6				F6	F6	F6		F6	F6
8/30/2010	XX	LFUD4X44F	464	7.4	23.8				303	6	0.0011		215	9.1
9/28/2010	XX	LFUD4X447	F6	F6	F6				F6	F6	F6		F6	F6
10/19/2010	XX	LFXXXX471	F6	F6	F6				F6	F6	F6		F6	F6
11/11/2010	XX	LFUD4X479	459	7.3	14.7				233	4	H6		125	0.2
12/16/2010	XX	LFUD4X485	H2	H2	H2				H2	H2	H2		H2	H2
1/24/2011	XX	LFUD4X47H	H6	H6	H6				H6	H6	H6		H6	H6
2/24/2011	XX	LFUD4X4C2	H8	H8	H8				H8	H8	H8		H8	H8
3/25/2011	XX	LFUD4X4CC	H2	H2	H2				H2	H2	H2		H2	H2
4/26/2011	XX	LFXXXX4B3	F12	F12	F12				F12	F12	F12		F12	F12

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
5/25/2011	XX	LFUD4X4FB	H2	H2	H2				H2	H2	H2		H2	H2
6/20/2011	XX	LFUD4X4G2	H2	H2	H2				H2	H2	H2		H2	H2
7/19/2011	XX	LFXXXXHG2	H2	H2	H2				H2	H2	H2			H2
8/3/2011	XX	LFUD4X4JC	H2	H2	H2				H2	H2	H2		H2	H2
10/8/2011	XX	LFUD4X4J0	H2	H2	H2				H2	H2	H2		H2	H2
10/25/2011	XX	LFXXXX4GA	F6	F6	F6				F6	F6	F6		F6	F6
11/30/2011	XX	LFUD4X50F	H2	H2	H2				H2	H2	H2		H2	H2
12/29/2011	XX	LFUD4X503	H2	H2	H2				H2	H2	H2		H2	H2
1/26/2012	XX	LFUD4X58F	H2	H2	H2				H2	H2	H2		H2	H2
2/24/2012	XX	LFUD4X596	H8	H8	H8				H8	H8	H8		H8	H8
3/23/2012	XX	LFUD4X59H	444	7.3	17.3				395	5	0.0006		200	0.29
4/16/2012	XX	LFUD4X5A8	437	7.2	20.7				390	8	0.0011		200	0.32
4/24/2012	XX	LFXXXX536	H2	H2	H2				H2	H2	H2		H2	H2
5/3/2012	XX	LFUD4X5AJ	H2	H2	H2				H2	H2	H2		H2	H2
6/29/2012	XX	LFUD4X5BA	H8	H8	H8				H8	H8	H8		H8	H8
7/24/2012	XX	LFXXXX582	434	6.9	23.2				488	6	0.0045		300	1.2
7/31/2012	XX	LFUD4X5C1	457	7.3	30.7				403	8	0.0006		140	0.19
8/31/2012	XX	LFUD4X5F2	485	6.9	22.6				375	5	0.0006		200	0.11
9/27/2012	XX	LFUD4X5FD	447	7.9	21				375	6	0.0006		170	0.03
10/23/2012	XX	LFXXXX5CA	362	7	16.2				571	5	0.0022		150	1.6
11/13/2012	XX	LFUD4X5G4	387	7.8	17.3				355	6	0.0003		200	0.85
12/31/2012	XX	LFUD4X5GF	416	7.8	12.1				358	6	0.0003		165	0.49
1/30/2013	XX	LFUD4X60B	402	7.3	13.8				437	6	0.0003		175	0.43
2/15/2013	XX	LFUD4X5JJ	H2	H2	H2				H2	H2	H2		H2	H2
3/28/2013	XX	LFUD4X614	H2	H2	H2				H2	H2	H2		H2	H2
4/23/2013	XX	LFXXXX5J6	352	7.3	15.8				272	5	0.0022		92	1.1
4/24/2013	XX	LFUD4X61G	327	7.3	15.5				346	8	0.0006		205	0.44
5/30/2013	XX	LFUD4X628	H2	H2	H2				H2	H2	H2		H2	H2
6/26/2013	XX	LFUD4X630	H2	H2	H2				H2	H2	H2		H2	H2
7/30/2013	XX	LFXXXX65B	F6	F6	F6				F6	F6	F6		F6	F6
8/20/2013	XX	LFUD4X69A	H2	H2	H2				H2	H2	H2		H2	H2
9/26/2013	XX	LFUD4X68I	480	8	17.8				406	8	0.0011		215	0.41
10/29/2013	XX	LFXXXX680	424	7	17.8				322	5	0.0022		110	0.3
11/25/2013	XX	LFUD4X6A3	440	8.2	8.1				380	8	0.0006		185	0.64
12/17/2013	XX	LFUD4X6D3	424	7.5	8.4				413	8	0.0002		210	1.67
1/24/2014	XX	LFUD4X6DF	425	7.5	4.5				345	8	0.0007		160	0.61
2/24/2014	XX	LFUD4X6HC	H8	H8	H8				H8	H8	H8		H8	H8
3/27/2014	XX	LFUD4X6H0	431	8.2	13.7				337	10	0.0004		250	0.86
4/22/2014	XX	LFXXXX6G7	430	6.9	15.4				513	6	0.0022		200	2.6
4/29/2014	XX	LFUD4X6I4	411	8.12	17.2				331	10	0.0003		250	0.62
5/23/2014	XX	LFUD4X713	H2	H2	H2				H2	H2	H2		H2	H2
6/24/2014	XX	LFUD4X71F	H8	H8	H8				H8	H8	H8		H8	H8
7/29/2014	XX	LFXXXX709	F6	F6	F6				F6	F6	F6		F6	F6
8/26/2014	XX	LFUD4X74F	F6	F6	F6				F6	F6	F6		F6	F6
9/23/2014	XX	LFUD4X756	H8	H8	H8				H8	H8	H8		H8	H8
10/21/2014	XX	LFXXXX73I	F6	F6	F6				F6	F6	F6		F6	F6
11/28/2014	XX	LFUD4X75I	H2	H2	H2				H2	H2	H2		H2	H2
12/24/2014	XX	LFUD4X76B	H8	H8	H8				H8	H8	H8		H8	H8
2/3/2015	XX	LFUD4X772	H8	H8	H8				H8	H8	H8		H8	H8
2/21/2015	XX	LFUD4X77D	H8	H8	H8				H8	H8	H8		H8	H8

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3/28/2015	XX	LFUD4X7AB	H8	H8	H8				H8	H8	H8		H8	H8
4/16/2015	XX	LFUD4X7B4	F6	F6	F6				F6	F6	F6		F6	F6
4/28/2015	XX	LFXXXX79H	F6	F6	F6				F6	F6	F6		F6	F6
5/22/2015	XX	LFUD4X7F9	F6	F6	F6				F6	F6	F6		F6	F6
6/22/2015	XX	LFUD4X7EH	F6	F6	F6				F6	F6	F6		F6	F6
7/14/2015	XX	LFXXXX7D9	F6	F6	F6				F6	F6	F6		F6	F6
7/23/2015	XX	LFUD4X7G1	F12	F12	F12				F12	F12	F12		F12	F12
8/24/2015	XX	LFUD4X7GD	F12	F12	F12				F12	F12	F12		F12	F12
9/26/2015	XX	LFUD4X806	H8	H8	H8				H8	H8	H8		H8	H8
10/27/2015	XX	LFXXXX7IG	F6	F6	F6				F6	F6	F6		F6	F6
10/31/2015	XX	LFUD4X80I	F6	F6	F6				F6	F6	F6		F6	F6
11/27/2015	XX	LFUD4X81A	F6	F6	F6				F6	F6	F6		F6	F6
12/30/2015	XX	LFUD4X823	F6	F6	F6				F6	F6	F6		F6	F6
1/14/2016	XX	LFUD4X82F	F6	F6	F6				F6	F6	F6		F6	F6
2/18/2016	XX	LFUD4X887	F6	F6	F6				F6	F6	F6		F6	F6
3/17/2016	XX	LFUD4X88J	F6	F6	F6				F6	F6	F6		F6	F6
4/5/2016	XX	LFXXXX878	F6	F6	F6				F6	F6	F6		F6	F6
4/21/2016	XX	LFUD4X89B	F6	F6	F6				F6	F6	F6		F6	F6
5/26/2016	XX	LFUD4X8CH	F6	F6	F6				F6	F6	F6		F6	F6
6/27/2016	XX	LFUD4X8E1	F6	F6	F6				F6	F6	F6		F6	F6
7/20/2016	XX	LFUD4X8F5	F6	F6	F6				F6	F6	F6		F6	F6
7/26/2016	XX	LFXXXX8BI	435	7.4	21.2				296	4.9	0.0011			0.8
8/29/2016	XX	LFUD4X90G	F6	F6	F6				F6	F6	F6			F6
9/23/2016	XX	LFUD4X93F	F6	F6	F6				F6	F6	F6			F6
10/25/2016	XX	LFXXXX8JG	464	7.7	14.2				253	7	0.0006			1
10/31/2016	XX	LFUD4X949	H8	H8	H8				H8	H8	H8			H8
11/29/2016	XX	LFUD4X954	H8	H8	H8				H8	H8	H8		H8	H8
12/13/2016	XX	LFUD4X95H	H8	H8	H8				H8	H8	H8		H8	H8
1/10/2017	XX	LFUD4X99G	H8	H8	H8				H8	H8	H8		H8	H8
2/8/2017	XX	LFUD4X9A9	H8	H8	H8				H8	H8	H8		H8	H8
3/3/2017	XX	LFUD4X9B2	H8	H8	H8				H8	H8	H8		H8	H8
4/5/2017	XX	LFUD4X993	H8	H8	H8				H8	H8	H8		H8	H8
4/18/2017	XX	LFXXXX983	371	8.1	13.3				292	8.3	0.0011			0.8
5/25/2017	XX	LFUD4X9BF	387	7.38	18.5				392	8	0.0009		175	0.6
6/16/2017	XX	LFUD4X9EG	F6	F6	F6				F6	F6	F6		F6	F6
7/25/2017	XX	LFXXXX9E0	415	8.2	20.7				283	5.7	0.0017			0.4
7/31/2017	XX	LFUD4X9F9	H8	H8	H8				H8	H8	H8		H8	H8
8/31/2017	XX	LFUD4X9IJ	F6	F6	F6				F6	F6	F6		F6	F6
9/28/2017	XX	LFUD4X9JB	H8	H8	H8				H8	H8	H8		H8	H8
10/25/2017	XX	LFXXXX9HF	F6	F6	F6				F6	F6	F6		F6	F6
10/26/2017	XX	LFUD4XA03	H8	H8	H8				H8	H8	H8		H8	H8
11/30/2017	XX	LFUD4XA0F	F6	F6	F6				F6	F6	F6		F6	F6
12/27/2017	XX	LFUD4XA18	F6	F6	F6				F6	F6	F6		F6	F6
1/19/2018	XX	LFUD4XA4E	F6	F6	F6				F6	F6	F6		F6	F6
2/22/2018	XX	LFUD4XA57	F6	F6	F6				F6	F6	F6		F6	F6
3/24/2018	XX	LFUD4XA93	F6	F6	F6				F6	F6	F6		F6	F6
4/3/2018	XX	LFXXXXA3F	F6	F6	F6				F6	F6	F6		F6	F6
4/28/2018	XX	LFUD4XA9G	H8	H8	H8				H8	H8	H8		H8	H8
5/11/2018	XX	LFUD4XAA9	F6	F6	F6				F6	F6	F6		F6	F6
6/2/2018	XX	LFUD4XADD	H8	H8	H8				H8	H8	H8		H8	H8

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(LF-UD-4)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
7/2/2018	XX	LFUD4XAID	H8	H8	H8				H8	H8	H8		H8	H8
7/17/2018	XX	LFXXXXACF	520	8	19				474	4.2	0.0011			1.1
8/17/2018	XX	LFUD4XAJ8	H8	H8	H8				H8	H8	H8		H8	H8
9/1/2018	XX	LFUD4XB2E	H8	H8	H8				H8	H8	H8		H8	H8
10/2/2018	XX	LFXXXXB1D	F6	F6	F6				F6	F6	F6		F6	F6
10/13/2018	XX	LFUD4XB38	H8	H8	H8				H8	H8	H8		H8	H8
11/2/2018	XX	LFUD4XB42	H8	H8	H8				H8	H8	H8		H8	H8
12/7/2018	XX	LFUD4XB81	H8	H8	H8				H8	H8			H8	H8
1/3/2019	XX	LFUD4XB8F	H8	H8	H8				H8	H8			H8	H8
2/2/2019	XX	LFUD4XB99	H8	H8	H8				H8	H8			H8	H8
3/2/2019	XX	LFUD4XBA3	H8	H8	H8				H8	H8			H8	H8
4/5/2019	XX	LFUD4XBAH	H8	H8	H8				H8	H8			H8	H8
4/23/2019	XX	LFXXXXB6B	F6	F6	F6				F6	F6	F6		F6	F6
5/10/2019	XX	LFUD4XBE9	H8	H8	H8				H8	H8	H8		H8	H8
6/24/2019	XX	LFUD4XBF3	H8	H8	H8				H8	H8	H8		H8	H8
7/16/2019	XX	LFXXXXBD2	F6	F6	F6				F6	F6	F6		F6	F6
7/30/2019	XX	LFUD4XBFH	H8	H8	H8				H8	H8	H8		H8	H8
8/20/2019	XX	LFUD4XBGB	H8	H8	H8				H8	H8	H8		H8	H8
9/20/2019	XX	LFUD4XC04	H8	H8	H8				H8	H8	H8			H8
10/14/2019	XX	LFUD4XC0I	H8	H8	H8				H8	H8	H8			H8
10/29/2019	XX	LFXXXXBIE	383	8.1	13.3				259	10.3	0.0006			2.6
11/27/2019	XX	LFUD4XC1C	365	8	20.3				377	6	0.0002		250	0.5
12/23/2019	XX	LFUD4XC32	390	8.1	13.2				353	8	0.0001		200	0.4

LF-UD-5

Date	Type	Sample ID	Specific Conductance	pH	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)
1/21/2010	XX	LFUD5X3HA	350	7.6	6.1				309	5	0.0033		120	0
2/23/2010	XX	LFUD5X3HJ	337	7.9	7				220	6	0.0078		135	0.4
3/17/2010	XX	LFUD5X3I8	337	7.3	9.5				324	6	0.0056		130	0.9
4/27/2010	XX	LFXXXX40F	345	7.4	10.1				285	5	0.0045		130	0.4
5/18/2010	XX	LFUD5X414	349	7.6	12.3				285	5	0.0067		105	0.2

LF-UD-5and6

Date	Type	Sample ID	Specific Conductance	pH	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)
6/22/2010	XX	LFUD5X41C	355	7.7	18.9				328	6	0.0022		140	6.5
7/20/2010	XX	LFXXXX43J	407	7	19.1				213	6	0.0002		200	1.5
8/30/2010	XX	LFUD5X44G	470	7.8	23.3				324	6	0.0006		245	8.1
9/28/2010	XX	LFUD5X448	428	7	18.2				332	6	0.0033		160	0
10/19/2010	XX	LFXXXX472	652	6.9	10.9				434	5	0.0006		150	4.2
11/11/2010	XX	LFUD5X47A	440	8.1	10.7				238	4	0.0022		150	9
12/16/2010	XX	LFUD5X486	472	6.7	8.9				307	6	0.0022		165	0
1/24/2011	XX	LFUD5X47I	414	8	13.4				275	6	0.0045		435	0
2/24/2011	XX	LFUD5X4C3	515	7.3	16.1				354	5	0.0022		375	1.2
3/25/2011	XX	LFUD5X4CD	440	7.6	13.7					8	0.0022		150	1.5
4/26/2011	XX	LFXXXX4B4	450	6.9	16.8				281	5	0.0033		415	1.5
5/25/2011	XX	LFUD5X4FC	510 G7	7.4 G7	20.7 G7				367 G7	8 G7			113 G7	18 G7
6/20/2011	XX	LFUD5X4G3	469	7.2	22.6				382	8			125	15.3
7/19/2011	XX	LFXXXX4F2	440	7.3	21.9				403	5	0.0022		175	0
8/3/2011	XX	LFUD5X4JD	458	7.8	21.2				348	8			150	4.3
10/8/2011	XX	LFUD5X4J1	447	7.7	20.3				358	8			150	11.6
10/25/2011	XX	LFXXXX4G7	476	7.3	17.8				250	5	0.0028		240	5.5
11/30/2011	XX	LFUD5X50G	443	7.6	15.7				347				150	6.14

(LF-UD-5and6)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
12/29/2011	XX	LFUD5X504	477	7.9	15.7				333	8			118	2.9
1/26/2012	XX	LFXXXX58G	473	8.3	11.9				359	8			150	14.95
2/24/2012	XX	LFXXXX597	460	8.1	15.2				348	5			175	3.16
3/23/2012	XX	LFXXXX59I	486	7.8	16.6				382	6			190	1.58
4/16/2012	XX	LFXXXX5A9	467	8	22.8				357	6			200	6.06
4/24/2012	XX	LFXXXX537	389	7.4	18.8				427	6			95	4.6
5/3/2012	XX	LFXXXX5B0	491	8	17.4				370	8			160	1.16
6/29/2012	XX	LFXXXX5BB	473	7.2	23.1				416	6			175	0.55
7/24/2012	XX	LFXXXX584	482	7.3	22.4				417	6			260	3
7/31/2012	XX	LFXXXX5C2	500	7.5	23.6				355	6			200	0.13
8/31/2012	XX	LFXXXX5F3	514	7.3	21.5				317	6			200	0.12
9/27/2012	XX	LFXXXX5FE	407	7.9	18				354	6			170	30.88
10/23/2012	XX	LFXXXX5C7	498	7.3	14.5				423	4			160	6.7
11/13/2012	XX	LFXXXX5G5	378	7.3	16.8				390	7			175	0.2
12/31/2012	XX	LFXXXX5GG	368	8.3	10.7				303	8	0.0003		125	1.48
1/30/2013	XX	LFXXXX60C	177	7.5	7.1				447	10			75	9.79
2/15/2013	XX	LFXXXX600	F	F	F				F	F	F		F	F
3/28/2013	XX	LFXXXX615	356	8.2	10.3				311	8	0.0002		170	0.66
4/23/2013	XX	LFXXXX5J7	353	7.8	10.9				237	6	0.0011		145	2.6
4/24/2013	XX	LFXXXX61H	296	7.6	11.6				344	8	0.0002		190	0
5/30/2013	XX	LFXXXX629	291	7.4	18.2				368	8	0.0022		200	0.09
6/26/2013	XX	LFXXXX631	401	8	18.1				338	8	0.0006		175	0.67
7/30/2013	XX	LFXXXX65C	319	7.5	20.9				240	6	0.0006		115	1.7
8/20/2013	XX	LFXXXX69B	H8	H8	H8				H8	H8	H8		H8	H8
9/26/2013	XX	LFXXXX68J	458	8.1	16				366	6	0.0004		150	0.63
10/29/2013	XX	LFXXXX681	453	7.2	6.4				412	6	0.0011		120	0.8
11/25/2013	XX	LFXXXX6A4	369	8.2	12.3				382	6	0.0022		150	0.34
12/17/2013	XX	LFXXXX6D4	F12	F12	F12				F12	F12	F12		F12	F12
1/24/2014	XX	LFXXXX6DG	337	7.9	5.7				219	12	0.0003		175	0.53
2/24/2014	XX	LFXXXX6HD	379	7.6	11.4				365	10	0.0006		200	0.71
3/27/2014	XX	LFXXXX6H1	348	7.8	10.7				380	10	0.0008		200	0.33
4/22/2014	XX	LFXXXX6G8	386	7.1	14.5				70	4	0.0006		145	1.2
4/29/2014	XX	LFXXXX6I5	374	7.7	12.6				343	10	0.0003		225	0.44
5/23/2014	XX	LFXXXX714	435	7.9	15.9				342	10	0.0003		250	0.29
6/24/2014	XX	LFXXXX71G	474	7.5	20.1				360	8	0.0004		240	0.09
7/29/2014	XX	LFXXXX70A	413	7.9	20.7				393	6	0.0022		35	0.5
8/26/2014	XX	LFXXXX74G	458	7.7	23.3				392	7			225	0.08
9/23/2014	XX	LFXXXX757	435	8.1	23.4				340		0.0003		180	0.35
10/21/2014	XX	LFXXXX73J	F6	F6	F6				F6	F6			F6	F6
11/28/2014	XX	LFXXXX75J	357	7.9	14.1				358	7	0.0002		180	M
12/24/2014	XX	LFXXXX76C	372	7.2	16.4				436	5.5	0.0003		180	0.12
2/3/2015	XX	LFXXXX773	F	F	F				F	F	F		F	F
2/21/2015	XX	LFXXXX77E	318	7.7	17.6				387	4	0.0003		155	1.17
3/28/2015	XX	LFXXXX7AC	F6	F6	F6				F6	F6	F6		F6	F6
4/16/2015	XX	LFXXXX7B5	367	7.5	17.3				382	7	0.0003		180	0.5
4/28/2015	XX	LFXXXX79I	422	8	11.6				347	9.3	0.0017			2.3
5/22/2015	XX	LFXXXX7FA	430	7.9	19.1				371	8	0.0003		220	0.5
6/22/2015	XX	LFXXXX7EI	474	8	26.5				319	9	0.0003		240	0.2
7/14/2015	XX	LFXXXX7DA	I	I	I				I	I	I		I	I
7/23/2015	XX	LFXXXX7G2	456	7.4	24.2				375	8	0.0002		250	0.2

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(LF-UD-5and6)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
8/24/2015	XX	LFXXXX7GE	447	7.3	19.1				371	8	0.0001		200	0.6
9/26/2015	XX	LFXXXX807	397	8	19.7				351	8	0.0002		180	0.3
10/27/2015	XX	LFXXXX7IH	350	8.3	14				265	7.5	0.0006			1
10/31/2015	XX	LFXXXX80J	380	8.1	13.7				336	9	0.0002		200	0.5
11/27/2015	XX	LFXXXX81B	384	7.3	15.1				373	7	0.0003		210	0.4
12/30/2015	XX	LFXXXX824	256	7.6	10.7				357	9	0.0003		200	0.2
1/14/2016	XX	LFXXXX82G	386	7.6	10.4				343	8	0.0002		220	0.01 U
2/18/2016	XX	LFXXXX888	392	8.3	15.3				363	7	0.0003		208	0.01
3/17/2016	XX	LFXXXX890	409	7.3	13.5				337	9	0.0003		200	0.2
4/5/2016	XX	LFXXXX879	399	8.3	11.1				339	8.1	0.0017			0.4
4/21/2016	XX	LFXXXX89C	435	7.3	17.3				303	8	0.0002		190	0.01 U
5/26/2016	XX	LFXXXX8D0	415	8	17.6				306	7	0.0002		200	0.01
6/27/2016	XX	LFXXXX8E2	440	7.4	17.4				515	9	0.0002		250	0.1
7/20/2016	XX	LFXXXX8F6	416	7.5	19.3				325	8	0.0002		220	0.2
7/26/2016	XX	LFXXXX8BJ	421	7.3	19.9				319	5.6	0.0006			2.1
8/29/2016	XX	LFXXXX90H	406	7.49	22.1				319	9	0.0002			0.3
9/23/2016	XX	LFXXXX93G	373	8.11	17.4				303	9	0.00004			2
10/25/2016	XX	LFXXXX8JH	286	7.3	9.5				285	6.9	0.0006			0.6
10/31/2016	XX	LFXXXX94A	324	8.32	11.3				313	8				0.2
11/29/2016	XX	LFXXXX955	310	7.47	7.3				349	8	0.0001		120	0.5
12/13/2016	XX	LFXXXX95I	155	7.72	4.2				341	8	0.0001		125	1.2
1/10/2017	XX	LFXXXX99H	164	8.12	12.8				358	9	0.0001		120	0.5
2/8/2017	XX	LFXXXX9AA	162	8.06	10.2				351	10	0.0002		105	0.3
3/3/2017	XX	LFXXXX9B3	162	8.05	14.8				348	8	0.0004		125	0.3
4/5/2017	XX	LFXXXX994	117	8.01	17.8				348	8	0.0006		120	0.4
4/18/2017	XX	LFXXXX984	312	8	9.2				349	10.8	0.0011			0.8
5/25/2017	XX	LFXXXX9BG	340	7.66	16.1				328	8	0.0004		150	0.5
6/16/2017	XX	LFXXXX9EH	400	8.1	17.3				354	8	0.0003		205	0.7
7/25/2017	XX	LFXXXX9E1	332	7.9	17.2				297	6.7	0.0006			0.6
7/31/2017	XX	LFXXXX9FA	426	7.7	19.3				386	7	0.0004		245	0.2
8/31/2017	XX	LFXXXX9J0	378	8	19.1				383	6	0.00037		205	0.1
9/28/2017	XX	LFXXXX9JC	375	8	17.9				363	6	0.0002		205	0.9
10/25/2017	XX	LFXXXX9HG	F6	F6	F6				F6	F6	F6		F6	F6
10/26/2017	XX	LFXXXXA04	373	8.2	17.3				392	6	0.00003		185	0.5
11/30/2017	XX	LFXXXXA0G	337	7.7	10.9				426	6	0.00028		150	0.3
12/27/2017	XX	LFXXXXA19	F	F	F				F	F	F		F	F
1/19/2018	XX	LFXXXXA4F	310	8	6.1				409	7	0.00014		130	0.5
2/22/2018	XX	LFXXXXA58	314	7.3	8.4				409	9	0.00037		125	0.1
3/24/2018	XX	LFXXXXA94	338	8	10.4				428	9	0.00056		130	0.3
4/3/2018	XX	LFXXXXA3G	307	8.2	9.8				484	12.8	0.00056			0.8
4/28/2018	XX	LFXXXXA9H	317	8.1	15.4				411	8	0.00022		150	0.3
5/11/2018	XX	LFXXXXAAA	344	7.8	13.2				441	9	0.00037		150	0.4
6/2/2018	XX	LFXXXXADE	360	7.9	16.2				374	8	0.00045		140	0.5
7/2/2018	XX	LFXXXXAIE	376	7.8	19.5				364	8	0.0002		150	0.2
7/17/2018	XX	LFXXXXACG	387	8.2	16.7				486	8.2	0.00056			0.8
8/17/2018	XX	LFXXXXAJ9	377	7.2	20.6				360	8	0.00017		150	0.2
9/1/2018	XX	LFXXXXB2F	362	8	19.5				380	7	0.0002		175	2.4
10/2/2018	XX	LFXXXXB1E	371	8.1	12.2				485	8.1	0.00056			0.3
10/13/2018	XX	LFXXXXB39	339	7.5	13.2				371	7	0.0001		150	1.1
11/2/2018	XX	LFXXXXB43	330	7.6	11.6				362	7	0.0002		150	0.7

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(LF-UD-5and6)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
12/7/2018	XX	LFXXXXB82	232	8.1	8.6				387	7	0.0002		70	1.7
1/3/2019	XX	LFXXXXB8G	F	F	F				F	F	F		F	F
2/2/2019	XX	LFXXXXB9A	F6	F6	F6				F6	F6	F6		F6	F6
3/2/2019	XX	LFXXXXBA4	F6	F6	F6				F6	F6	F6		F6	F6
4/5/2019	XX	LFXXXXBAI	F	F	F				F	F	F		F	F
4/23/2019	XX	LFXXXXB6C	289	8.2	7.6				357	9.7	0.0011			0.4
5/10/2019	XX	LFXXXXBEA	280	6.9	15.2				317	6	0.0002		175	0.8
6/24/2019	XX	LFXXXXBF4	328	7.8	17.3				356	8	0.0003		175	0.1 U
7/16/2019	XX	LFXXXXBD3	333	7.9	17.3				346	12.8	0.0006			1.2
7/30/2019	XX	LFXXXXBFI	330	8.2	20.5				336	8	0.0002		180	0.6
8/20/2019	XX	LFXXXXBGC	327	8.2	25.3				341	6	0.0001		175	0.4
9/20/2019	XX	LFXXXXC05	338	7.6	21.8				357	6	0.0001		150	2.5
10/14/2019	XX	LFXXXXC0J	304	8.3	19.6				331	6	0.0001		175	4.8
10/29/2019	XX	LFXXXXBIF	225	8	13.8				332	9.5	0.0006			1.8
11/27/2019	XX	LFXXXXC1D	295	8.3	20.5				376	8	0.0001		155	8.1
12/23/2019	XX	LFXXXXC33	279	8.3	12.8				343	8	0.0001		140	20.2

LF-UD-6

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
2/3/2011	XX	LFXX6X48H	502	7.4	10.4				446	5	0.0006		163	1
2/24/2011	XX	LFUD6X4C5	640	7.2	12				353	6	0.0045		88	4.2
3/25/2011	XX	LFUD6X4CE	567	7.2	11.2					6			250	1.8
4/26/2011	XX	LFUD6X4B6	611	6.9	11.6				191	6			490	1.2
5/25/2011	XX	LFUD6X4FD	613	7.4	18				348	5			150	3.7
6/20/2011	XX	LFUD6X4G4	559	7.3	19.4				383	6			125	3.8
7/19/2011	XX	LFUD6X4F4	529	7	23.1				414	4	0.0022		200	25.1
8/3/2011	XX	LFUD6X4JE	550	7.2	18.2				389	6			125	23.2
10/8/2011	XX	LFUD6X4J2	555		18.9				385	6			125	3.2
10/25/2011	XX	LFUD6X4G9	603	7.1	16.4				296	5	0.0022		280	1.2
11/30/2011	XX	LFUD6X50H	567	7.2	16.3				367				145	1
12/29/2011	XX	LFUD6X505	588	7.3	15.1				340	5			225	0.8
1/26/2012	XX	LFUD6X58H	580	7.4	14.7				379	4			175	5.54
2/24/2012	XX	LFUD6X598	559	7.3	15.3				375	5			250	27.87
3/23/2012	XX	LFUD6X59J	556	7.5	16.4				387	5			205	13.84
4/16/2012	XX	LFUD6X5AA	557	7.2	21.6				381	7			250	2.47
4/24/2012	XX	LFUD6X539	431	7.4	16.8				490	4			105	4.2
5/3/2012	XX	LFUD6X5B1	580	7.2	17.2				390	8			260	5.72
6/29/2012	XX	LFUD6X5BC	611	7.1	19.7				415	6			250	11.23
7/24/2012	XX	LFUD6X586	675	7	20.3				409	5	0.0022		360	4
7/31/2012	XX	LFUD6X5C3	733	7.1	20.05				352	6			275	0.3
8/31/2012	XX	LFUD6X5F4	773	7.1	19.3				329	4			175	0.98
9/27/2012	XX	LFUD6X5FF	748	7.2	17.2				372	5			165	0.57
10/23/2012	XX	LFUD6X5C9	762	7.1	13.7				443	5	0.0022		240	0.8
11/13/2012	XX	LFUD6X5G6	748	7.2	16.8				377	5			250	1.5
12/31/2012	XX	LFUD6X5GH	720	7.2	14.7				362	6			250	0.82
1/30/2013	XX	LFUD6X60D	704	7.6	12.5				472	6			250	1.14
2/15/2013	XX	LFUD6X601	281	7.6	10.6				374	6			110	5.3
3/28/2013	XX	LFUD6X616	499	7.6	11				330	8			155	1.27
4/23/2013	XX	LFUD6X5J9	572	7.3	12.2				234	6	0.0022		140	5
4/24/2013	XX	LFUD6X61I	467	7.7	12.2				351	8			225	0.87
5/30/2013	XX	LFUD6X62A	525	7.4	18.5				376	6			225	0.26

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
6/26/2013	XX	LFUD6X632	809	7.3	16.6				361	6			275	0.26
7/30/2013	XX	LFUD6X65E	823	7.3	19.5				140	5	0.0022		235	10.3
8/20/2013	XX	LFUD6X69C	919	7.4	21.4				374	6			250	0.65
9/26/2013	XX	LFUD6X690	899	7.4	16.6				379	6	F14		250	1.14
10/29/2013	XX	LFUD6X683	913	7.7	16.1				422	4	0.0022		265	2.2
11/25/2013	XX	LFUD6X6A5	788	7.6	15.3				396	6			300	0.8
12/17/2013	XX	LFUD6X6D5	785	7.7	7.6				403	6			225	1.55
1/24/2014	XX	LFUD6X6DH	F6	F6	F6				F6	F6			F6	F6
2/24/2014	XX	LFUD6X6HE	685	7.8	11.1				383	8			275	6.68
3/27/2014	XX	LFUD6X6H2	672	7.7	14.9				339	8			250	13.75
4/22/2014	XX	LFUD6X6GA	712	7	14.3				479	6	0.0022		160	1.6
4/23/2014	XX	LFXUDX6IA	749	7.43	16.4				369	8			350	8.27
4/29/2014	XX	LFUD6X6I6	392	8.1	14.6				321	10			155	32.95
5/23/2014	XX	LFUD6X715	774	7.6	19.6				361	8			350	0.94
6/24/2014	XX	LFUD6X71H	841	7.7	19.5				353	8			350	0.87
7/29/2014	XX	LFUD6X70C	803	7.5	19.7				386	5			90	0.7
8/26/2014	XX	LFUD6X74H	842	7.6	23.1				414	7			385	0.37
9/23/2014	XX	LFUD6X758	847	7.6	23.3				352				300	1
10/21/2014	XX	LFUD6X740	767	7.5	16.6				357	6	0.0022		240	0.4
11/28/2014	XX	LFUD6X760	810	7.5	15.7				360	5			260	M
12/24/2014	XX	LFUD6X76D	847	7.5	16				436	7			325	0.65
2/3/2015	XX	LFUD6X774	F	F	F				F	F			F	F
2/21/2015	XX	LFUD6X77F	F6	F6	F6				F6	F6			F6	F6
3/28/2015	XX	LFUD6X7AD	798	7.5	16.2				412	5			200	5.6
4/16/2015	XX	LFUD6X7B6	754	7.6	17.1				380	6			200	8.75
4/28/2015	XX	LFUD6X7A0	839	7.4	12.6				309	6.2	0.0022			2.2
5/22/2015	XX	LFUD6X7FB	815	7.8	19.1				375	10			335	0.5
6/22/2015	XX	LFUD6X7EJ	840	7.6	23.4				334	8			375	0.16
7/14/2015	XX	LFUD6X7DC	823	7.4	18				349	7.2	0.0022			0.8
7/23/2015	XX	LFUD6X7G3	834	7.5	23.5				377	8			275	0.1
8/24/2015	XX	LFUD6X7GF	845	7.5	17.1				370	7			400	0.8
9/26/2015	XX	LFUD6X808	816	7.5	20.6				362	6			350	0.3
10/27/2015	XX	LFUD6X7IJ	764	7.7	14.9				348	4.3	0.0022			1.2
10/31/2015	XX	LFUD6X810	851	7.6	15.7				347	7			475	1.2
11/27/2015	XX	LFUD6X81C	864	7.6	16.9				373	8			380	0.8
12/30/2015	XX	LFUD6X825	F6	F6	F6				F6	F6			F6	F6
1/14/2016	XX	LFUD6X82H	F6	F6	F6				F6	F6			F6	F6
2/18/2016	XX	LFUD6X889	F6	F6	F6				F6	F6	F6		F6	F6
3/17/2016	XX	LFUD6X891	859	7.3	16.1				329	7			375	2.3
4/5/2016	XX	LFUD6X87B	850	7.7	10.6				312	6.8	0.0022			1.1
4/21/2016	XX	LFUD6X89D	870	7.4	20.6				311	9			260	0.3
5/26/2016	XX	LFUD6X8CJ	F6	F6	F6				F6	F6			F6	F6
6/27/2016	XX	LFUD6X8E3	F6	F6	F6				F6	F6			F6	F6
7/20/2016	XX	LFUD6X8F7	F6	F6	F6				F6	F6			F6	F6
7/26/2016	XX	LFUD6X8C1	D	D	D				D	D	D			D
8/29/2016	XX	LFUD6X90I	871	7.37	23.8				322	9			300	4.3
9/23/2016	XX	LFUD6X93H	592	7.7	18.7				312	9			225	6.7
10/25/2016	XX	LFUD6X8JJ	I	I	I				I	I	I		I	I
10/31/2016	XX	LFUD6X94B	H8	H8	H8				H8	H8			H8	H8
11/29/2016	XX	LFUD6X956	F6	F6	F6				F6	F6	F6		F6	F6

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
12/13/2016	XX	LFUD6X95J	F6	F6	F6				F6	F6	F6		F6	F6
1/10/2017	XX	LFUD6X99I	F6	F6	F6				F6	F6	F6		F6	F6
2/8/2017	XX	LFUD6X9AB	F6	F6	F6				F6	F6	F6		F6	F6
3/3/2017	XX	LFUD6X9B4	F6	F6	F6				F6	F6	F6		F6	F6
4/5/2017	XX	LFUD6X995	F6	F6	F6				F6	F6	F6		F6	F6
4/18/2017	XX	LFUD6X986	439	7.6	14.2				366	7.5	0.0022			1.2
5/25/2017	XX	LFUD6X9BH	355	7.33	17.2				426	6			175	0.7
6/16/2017	XX	LFUD6X9EI	486	8.5	22.1				338	7			250	126.9
7/25/2017	XX	LFUD6X9E3	I	I	I				I	I	I		I	I
7/31/2017	XX	LFUD6X9FB	398	7.7	20.8				391	6			165	22.2
8/31/2017	XX	LFUD6X9J1	327	7.2	22.4				413	8			145	0.7
9/28/2017	XX	LFUD6X9JD	F6	F6	F6				F6	F6	F6		F6	F6
10/25/2017	XX	LFUD6X9HI	413	7.2	18.9				407	5.7	0.0022			2.1
10/26/2017	XX	LFUD6XA05	442	7.5	19.3				405	6			215	32.3
11/30/2017	XX	LFUD6XA0H	293	7	14.9				436	6			125	1.4
12/27/2017	XX	LFUD6XA1A	270	7.3	15.8				426	7			103	2.7
1/19/2018	XX	LFUD6XA4G	277	7.4	9.1				425	7			100	1.7
2/22/2018	XX	LFUD6XA59	292	7	11				420	8			90	0.2
3/24/2018	XX	LFUD6XA95	301	7.1	11.8				439	7			110	0.7
4/3/2018	XX	LFUD6XA3I	302	7.6	15				461	4.5	0.00223			1.3
4/28/2018	XX	LFUD6XA9I	212	7.3	17.7				418	8			100	0.4
5/11/2018	XX	LFUD6XAAB	263	7.2	17.9				454	7			105	1
6/2/2018	XX	LFUD6XADF	262	7	20.1				394	6			115	1.2
7/2/2018	XX	LFUD6XAIF	F6	F6	F6				F6	F6				F6
7/17/2018	XX	LFUD6XACI	328	8.4	20.4				466	3.6	0.00223			1.4
8/17/2018	XX	LFUD6XAJA	268	6.7	23.9				374	6			115	0.9
9/1/2018	XX	LFUD6XB2G	281	7	21.7				406	6			100	2.6
10/2/2018	XX	LFUD6XB1G	294	7.3	16.7				487	4.8	0.00056			0.5
10/13/2018	XX	LFUD6XB3A	246	6.9	15.4				383	5			75	7.4
11/2/2018	XX	LFUD6XB44	241	6.8	13.2				381	7			70	1.6
12/7/2018	XX	LFUD6XB83	243	7.4	8.1				380	7			140	0.6
1/3/2019	XX	LFUD6XB8H	297	6.8	11.3				386	7			70	2.1
2/2/2019	XX	LFUD6XB9B	F	F	F				F	F			F	F
3/2/2019	XX	LFUD6XBA5	337	7.7	15.3				340	5			75	0.8
4/5/2019	XX	LFUD6XBAJ	320	8.3	14.1				354	6			100	1.4
4/23/2019	XX	LFUD6XB6E	380	7.1	14.7				375	6.8	0.0022			0.8
5/10/2019	XX	LFUD6XBEB	201	7.1	15.4				314	6			35	1.4
6/24/2019	XX	LFUD6XBF5	239	7.4	21				359	8			60	0.2
7/16/2019	XX	LFUD6XBD5	184	7.8	20.7				379	9	0.0006			0.8
7/30/2019	XX	LFUD6XBFJ	70	7.3	21.2				343	8			35	0.9
8/20/2019	XX	LFUD6XBGD	82	7.4	24.8				349	6			40	0.4
9/20/2019	XX	LFUD6XC06	112	7.1	21.9				353	6			45	13.8
10/14/2019	XX	LFUD6XC10	204	6.4	20.3				373	5			180	43.6
10/29/2019	XX	LFUD6XBIH	267	6.3	17.5				282	6.6	0.0011			1.5
11/27/2019	XX	LFUD6XC1E	310	5.2	20.4				449	6			FK	2.2
12/23/2019	XX	LFUD6XC34	L	L	L				L	L			L	L

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
11/30/2011	XX	LFUD7X510	H2	H2	H2				H2	H2			H2	H2
12/29/2011	XX	LFUD7X508	H2	H2	H2				H2	H2			H2	H2

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
1/26/2012	XX	LFUD7X590	H8	H8	H8				H8	H8			H8	H8
2/24/2012	XX	LFUD7X59B	H8	H8	H8				H8	H8			H8	H8
3/23/2012	XX	LFUD7X5A2	F6	F6	F6				F6	F6			F6	F6
4/16/2012	XX	LFUD7X5AD	F6	F6	F6				F6	F6			F6	F6
4/24/2012	XX	LFUD7X53A	H2	H2	H2				H2	H2			H2	H2
5/3/2012	XX	LFUD7X5B4	H2	H2	H2				H2	H2			H2	H2
6/29/2012	XX	LFUD7X5BF	H8	H8	H8				H8	H8			H8	H8
7/24/2012	XX	LFXXXX587	F6	F6	F6				F6	F6			F6	F6
7/31/2012	XX	LFUD7X5C6	H8	H8	H8				H8	H8			H8	H8
8/31/2012	XX	LFUD7X5F7	H8	H8	H8				H8	H8			H8	H8
9/27/2012	XX	LFUD7X5FI	H8	H8	H8				H8	H8			H8	H8
10/23/2012	XX	LFXXXX5EF	F6	F6	F6				F6	F6			F6	F6
11/13/2012	XX	LFUD7X5G9	H8	H8	H8				H8	H8			H8	H8
12/31/2012	XX	LFUD7X5GJ	H8	H8	H8				H8	H8			H8	H8
1/30/2013	XX	LFUD7X60F	H8	H8	H8				H8	H8			H8	H8
2/15/2013	XX	LFUD7X603	H8	H8	H8				H8	H8			H8	H8
3/28/2013	XX	LFUD7X618	H8	H8	H8				H8	H8			H8	H8
4/23/2013	XX	LFUD7X5JA	F6	F6	F6				F6	F6			F6	F6
4/24/2013	XX	LFUD7X620	H8	H8	H8				H8	H8			H8	H8
5/30/2013	XX	LFUD7X62C	H8	H8	H8				H8	H8			H8	H8
6/26/2013	XX	LFUD7X634	H8	H8	H8				H8	H8			H8	H8
7/30/2013	XX	LFUD7X65F	F6	F6	F6				F6	F6			F6	F6
8/20/2013	XX	LFUD7X69E	H8	H8	H8				H8	H8			H8	H8
9/26/2013	XX	LFUD7X692	H8	H8	H8				H8	H8			H8	H8
10/29/2013	XX	LFUD7X684	F6	F6	F6				F6	F6			F6	F6
11/25/2013	XX	LFUD7X6A7	H8	H8	H8				H8	H8			H8	H8
12/17/2013	XX	LFUD7X6D7	H8	H8	H8				H8	H8			H8	H8
1/24/2014	XX	LFUD7X6DJ	H8	H8	H8				H8	H8			H8	H8
2/24/2014	XX	LFUD7X6HG	H8	H8	H8				H8	H8			H8	H8
3/27/2014	XX	LFUD7X6H4	H8	H8	H8				H8	H8			H8	H8
4/22/2014	XX	LFUD7X6GB	F6	F6	F6				F6	F6			F6	F6
4/29/2014	XX	LFUD7X6I8	H8	H8	H8				H8	H8			H8	H8
5/23/2014	XX	LFUD7X717	H8	H8	H8				H8	H8			H8	H8
6/24/2014	XX	LFUD7X71J	H8	H8	H8				H8	H8			H8	H8
7/29/2014	XX	LFUD7X70D	F6	F6	F6				F6	F6			F6	F6
8/26/2014	XX	LFUD7X74J	F6	F6	F6				F6	F6			F6	F6
9/23/2014	XX	LFUD7X75A	H8	H8	H8				H8	H8			H8	H8
10/21/2014	XX	LFUD7X741	F6	F6	F6				F6	F6			F6	F6
11/28/2014	XX	LFUD7X762	H8	H8	H8				H8	H8			H8	H8
12/24/2014	XX	LFUD7X76F	H8	H8	H8				H8	H8			H8	H8
2/3/2015	XX	LFUD7X776	H8	H8	H8				H8	H8			H8	H8
2/21/2015	XX	LFUD7X77H	H8	H8	H8				H8	H8			H8	H8
3/28/2015	XX	LFUD7X7AF	H8	H8	H8				H8	H8			H8	H8
4/16/2015	XX	LFUD7X7B8	F6	F6	F6				F6	F6			F6	F6
4/28/2015	XX	LFUD7X7A1	F6	F6	F6				F6	F6			F6	F6
5/22/2015	XX	LFUD7X7FD	F6	F6	F6				F6	F6			F6	F6
6/22/2015	XX	LFUD7X7F1	F6	F6	F6				F6	F6			F6	F6
7/14/2015	XX	LFUD7X7DD	F6	F6	F6				F6	F6			F6	F6
7/23/2015	XX	LFUD7X7G5	F12	F12	F12				F12	F12			F12	F12
8/24/2015	XX	LFUD7X7GH	F12	F12	F12				F12	F12			F12	F12

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
9/26/2015	XX	LFUD7X80A	F6	F6	F6				F6	F6			F6	F6
10/27/2015	XX	LFUD7X7J0	F6	F6	F6				F6	F6			F6	F6
10/31/2015	XX	LFUD7X812	F6	F6	F6				F6	F6			F6	F6
11/27/2015	XX	LFUD7X81E	F6	F6	F6				F6	F6			F6	F6
12/30/2015	XX	LFUD7X827	F6	F6	F6				F6	F6	F6		F6	F6
1/14/2016	XX	LFUD7X82J	F6	F6	F6				F6	F6	F6		F6	F6
2/18/2016	XX	LFUD7X88B	F6	F6	F6				F6	F6	F6		F6	F6
3/17/2016	XX	LFUD7X893	F6	F6	F6				F6	F6	F6		F6	F6
4/5/2016	XX	LFUD7X87C	F6	F6	F6				F6	F6	F6		F6	F6
4/21/2016	XX	LFUD7X89F	F6	F6	F6				F6	F6	F6		F6	F6
5/26/2016	XX	LFUD7X8D1	F6	F6	F6				F6	F6	F6		F6	F6
6/27/2016	XX	LFUD7X8E5	F6	F6	F6				F6	F6	F6		F6	F6
7/20/2016	XX	LFUD7X8F9	F6	F6	F6				F6	F6	F6		F6	F6
7/26/2016	XX	LFUD7X8C2	F6	F6	F6				F6	F6	F6			F6
8/29/2016	XX	LFUD7X91B	F6	F6	F6				F6	F6	F6			F6
9/23/2016	XX	LFUD7X93J	F6	F6	F6				F6	F6	F6			F6
10/25/2016	XX	LFUD7X900	F6	F6	F6				F6	F6	F6			F6
10/31/2016	XX	LFUD7X94D	H8	H8	H8				H8	H8	H8			H8
11/29/2016	XX	LFUD7X958	H8	H8	H8				H8	H8	H8		H8	H8
12/13/2016	XX	LFUD7X961	H8	H8	H8				H8	H8	H8		H8	H8
1/10/2017	XX	LFUD7X9A0	H8	H8	H8				H8	H8	H8		H8	H8
2/8/2017	XX	LFUD7X9AD	H8	H8	H8				H8	H8	H8		H8	H8
3/3/2017	XX	LFUD7X9B6	H8	H8	H8				H8	H8	H8		H8	H8
4/5/2017	XX	LFUD7X997	H8	H8	H8				H8	H8	H8		H8	H8
4/18/2017	XX	LFUD7X987	F6	F6	F6				F6	F6	F6			F6
5/25/2017	XX	LFUD7X9BJ	F6	F6	F6				F6	F6	F6		F6	F6
6/16/2017	XX	LFUD7X9F0	F6	F6	F6				F6	F6	F6		F6	F6
7/25/2017	XX	LFUD7X9E4	F6	F6	F6				F6	F6	F6		F6	F6
7/31/2017	XX	LFUD7X9FD	H8	H8	H8				H8	H8	H8		H8	H8
8/31/2017	XX	LFUD7X9J3	F6	F6	F6				F6	F6	F6		F6	F6
9/28/2017	XX	LFUD7X9JF	H8	H8	H8				H8	H8	H8		H8	H8
10/25/2017	XX	LFUD7X9HJ	F6	F6	F6				F6	F6	F6		F6	F6
10/26/2017	XX	LFUD7XA07	H8	H8	H8				H8	H8	H8		H8	H8
11/30/2017	XX	LFUD7XA0J	F6	F6	F6				F6	F6	F6		F6	F6
12/27/2017	XX	LFUD7XA1C	F6	F6	F6				F6	F6	F6		F6	F6
1/19/2018	XX	LFUD7XA4I	F6	F6	F6				F6	F6	F6		F6	F6
2/22/2018	XX	LFUD7XA5B	F6	F6	F6				F6	F6	F6		F6	F6
3/24/2018	XX	LFUD7XA97	F6	F6	F6				F6	F6	F6		F6	F6
4/3/2018	XX	LFUD7XA3J	F6	F6	F6				F6	F6	F6		F6	F6
4/28/2018	XX	LFUD7XAA0	H8	H8	H8				H8	H8	H8		H8	H8
5/11/2018	XX	LFUD7XAAD	F6	F6	F6				F6	F6	F6		F6	F6
6/2/2018	XX	LFUD7XADH	H8	H8	H8				H8	H8	H8		H8	H8
7/2/2018	XX	LFUD7XAIH	H8	H8	H8				H8	H8	H8		H8	H8
7/17/2018	XX	LFUD7XACJ	F6	F6	F6				F6	F6	F6		F6	F6
8/17/2018	XX	LFUD7XAJC	H8	H8	H8				H8	H8	H8		H8	H8
9/1/2018	XX	LFUD7XB2I	H8	H8	H8				H8	H8	H8		H8	H8
10/2/2018	XX	LFUD7XB1H	F6	F6	F6				F6	F6	F6		F6	F6
10/13/2018	XX	LFUD7XB3C	H8	H8	H8				H8	H8	H8		H8	H8
11/2/2018	XX	LFUD7XB46	H8	H8	H8				H8	H8	H8		H8	H8
12/7/2018	XX	LFUD7XB85	H8	H8	H8				H8	H8			H8	H8

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
(LF-UD-7)														
1/3/2019	XX	LFUD7XB8J	H8	H8	H8				H8	H8			H8	H8
2/2/2019	XX	LFUD7XB9D	H8	H8	H8				H8	H8			H8	H8
3/2/2019	XX	LFUD7XBA7	H8	H8	H8				H8	H8			H8	H8
4/5/2019	XX	LFUD7XBB1	H8	H8	H8				H8	H8			H8	H8
4/23/2019	XX	LFUD7XB6F	F6	F6	F6				F6	F6	F6		F6	F6
5/10/2019	XX	LFUD7XBED	H8	H8	H8				H8	H8	H8		H8	H8
6/24/2019	XX	LFUD7XBF7	H8	H8	H8				H8	H8	H8		H8	H8
7/16/2019	XX	LFUD7XBD6	F6	F6	F6				F6	F6	F6		F6	F6
7/30/2019	XX	LFUD7XBG1	H8	H8	H8				H8	H8	H8		H8	H8
8/20/2019	XX	LFUD7XBGF	H8	H8	H8				H8	H8	H8		H8	H8
9/20/2019	XX	LFUD7XC08	H8	H8	H8				H8	H8	H8		H8	H8
10/14/2019	XX	LFUD7XC12	H8	H8	H8				H8	H8	H8		H8	H8
10/29/2019	XX	LFUD7XBII	F6	F6	F6				F6	F6	F6		F6	F6
11/27/2019	XX	LFUD7XC1G	H8	H8	H8				H8	H8	H8		H8	H8
12/23/2019	XX	LFUD7XC36	H8	H8	H8				H8	H8	H8		H8	H8
LF-UD-8														
1/30/2013	XX	LFUD8X60H	64	7.5	7.1				431	10			50 <	24.35
2/15/2013	XX	LFUD8X605	F	F	F				F	F	F		F	F
3/28/2013	XX	LFUD8X61A	290	8.1	8.8				350	8			150	0.27
4/23/2013	XX	LFUD8X5JD	319	7.1	9.9				235	5	0.0011		145	1.2
4/24/2013	XX	LFUD8X622	243	7.1	11.2				359	8	0.0002		140	0.04
5/30/2013	XX	LFUD8X62E	F12	F12	F12				F12	F12	F12		F12	F12
6/26/2013	XX	LFUD8X636	F12	F12	F12				F12	F12	F12		F12	F12
7/30/2013	XX	LFUD8X65G	355	6.8	17.9				269	5	0.0022		140	0.8
8/20/2013	XX	LFUD8X69G	H2	H2	H2				H2	H2	H2		H2	H2
9/26/2013	XX	LFUD8X694	363	7.1	16				568	8	0.0003		135	0.8
10/29/2013	XX	LFUD8X685	407	7	9.6				435	5	0.0011		140	0.6
11/25/2013	XX	LFUD8X6A9	374	7.2	9.9				401	10	0.00003		165	0.42
12/17/2013	XX	LFUD8X6D9	344	7.2	5.9				405	6	0.0002		185	0.64
1/24/2014	XX	LFUD8X6E1	F	F	F				F	F	F		F	F
2/24/2014	XX	LFUD8X6HH	F12	F12	F12				F12	F12	F12		F12	F12
3/27/2014	XX	LFUD8X6H5	F12	F12	F12				F12	F12	F12		F12	F12
4/22/2014	XX	LFUD8X6GC	F12	F12	F12				F12	F12	F12		F12	F12
4/29/2014	XX	LFUD8X6I9	F12	F12	F12				F12	F12	F12		F12	F12
5/23/2014	XX	LFUD8X718	F12	F12	F12				F12	F12	F12		F12	F12
6/24/2014	XX	LFUD8X720	F12	F12	F12				F12	F12	F12		F12	F12
7/29/2014	XX	LFUD8X70E	108	7.8	24				397	5	0.0022		15	0.8
8/26/2014	XX	LFUD8X750	F12	F12	F12				F12	F12	F12		F12	F12
9/23/2014	XX	LFUD8X75B	F6	F6	F6				F6	F6	F6		F6	F6
10/21/2014	XX	LFUD8X742	96	7.9	12.3				332	6	0.0022		25	2.6
11/28/2014	XX	LFUD8X763	F12	F12	F12				F12	F12	F12		F12	F12
12/24/2014	XX	LFUD8X76G	F12	F12	F12				F12	F12	F12		F12	F12
2/3/2015	XX	LFUD8X777	F	F	F				F	F	F		F	F
2/21/2015	XX	LFUD8X77I	F6	F6	F6				F6	F6	F6		F6	F6
3/28/2015	XX	LFUD8X7AG	F6	F6	F6				F6	F6	F6		F6	F6
4/16/2015	XX	LFUD8X7B9	F12	F12	F12				F12	F12	F12		F12	F12
4/28/2015	XX	LFUD8X7A2	100	7.9	9.7				375	10.8	0.0045			1.8
5/22/2015	XX	LFUD8X7FE	F12	F12	F12				F12	F12	F12		F12	F12
6/22/2015	XX	LFUD8X7F2	F12	F12	F12				F12	F12	F12		F12	F12

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
7/14/2015	XX	LFUD8X7DE	I	I	I				I	I	I		I	I
7/23/2015	XX	LFUD8X7G6	F12	F12	F12				F12	F12	F12		F12	F12
8/24/2015	XX	LFUD8X7GI	F12	F12	F12				F12	F12	F12		F12	F12
9/26/2015	XX	LFUD8X80B	H8	H8	H8				H8	H8	H8		H8	H8
10/27/2015	XX	LFUD8X7J1	F6	F6	F6				F6	F6	F6			F6
10/31/2015	XX	LFUD8X813	F12	F12	F12				F12	F12	F12		F12	F12
11/27/2015	XX	LFUD8X81F	F6	F6	F6				F6	F6	F6		F6	F6
12/30/2015	XX	LFUD8X828	F12	F12	F12				F12	F12	F12		F12	F12
1/14/2016	XX	LFUD8X830	F12	F12	F12				F12	F12	F12		F12	F12
2/18/2016	XX	LFUD8X88C	F12	F12	F12				F12	F12	F12		F12	F12
3/17/2016	XX	LFUD8X894	F6	F6	F6				F6	F6	F6		F6	F6
4/5/2016	XX	LFUD8X87D	F6	F6	F6				F6	F6	F6		F6	F6
4/21/2016	XX	LFUD8X89G	F12	F12	F12				F12	F12	F12		F12	F12
5/26/2016	XX	LFUD8X8D2	F12	F12	F12				F12	F12	F12		F12	F12
6/27/2016	XX	LFUD8X8E6	F6	F6	F6				F6	F6	F6		F6	F6
7/20/2016	XX	LFUD8X8FA	F6	F6	F6				F6	F6	F6		F6	F6
7/26/2016	XX	LFUD8X8C3	F6	F6	F6				F6	F6	F6			F6
8/29/2016	XX	LFUD8X91C	F6	F6	F6				F6	F6	F6			F6
9/23/2016	XX	LFUD8X940	F6	F6	F6				F6	F6	F6			F6
10/25/2016	XX	LFUD8X901	D	D	D				D	D	D			D
10/31/2016	XX	LFUD8X94E	H8	H8	H8				H8	H8	H8			H8
11/29/2016	XX	LFUD8X959	F6	F6	F6				F6	F6	F6			F6
12/13/2016	XX	LFUD8X962	F6	F6	F6				F6	F6	F6			F6
1/10/2017	XX	LFUD8X9A1	A	A	A				A	A	A		A	A
2/8/2017	XX	LFUD8X9AE	A	A	A				A	A	A		A	A
3/3/2017	XX	LFUD8X9B9	A	A	A				A	A	A		A	A
4/5/2017	XX	LFUD8X998	A	A	A				A	A	A		A	A
4/18/2017	XX	LFUD8X988	65	7.4	9.5				315	9.3	0.0006			1.2
5/25/2017	XX	LFUD8X9C0	F12	F12	F12				F12	F12	F12		F12	F12
6/16/2017	XX	LFUD8X9F1	F6	F6	F6				F6	F6	F6		F6	F6
7/25/2017	XX	LFUD8X9E5	D	D	D				D	D	D		D	D
7/31/2017	XX	LFUD8X9FE	F6	F6	F6				F6	F6	F6		F6	F6
8/31/2017	XX	LFUD8X9J4	F6	F6	F6				F6	F6	F6		F6	F6
9/28/2017	XX	LFUD8X9JG	F6	F6	F6				F6	F6	F6		F6	F6
10/25/2017	XX	LFUD8X9I0	F6	F6	F6				F6	F6	F6		F6	F6
10/26/2017	XX	LFUD8XA08	F6	F6	F6				F6	F6	F6		F6	F6
11/30/2017	XX	LFUD8XA10	F6	F6	F6				F6	F6	F6		F6	F6
12/27/2017	XX	LFUD8XA1D	F	F	F				F	F	F		F	F
1/19/2018	XX	LFUD8XA4J	F6	F6	F6				F6	F6	F6		F6	F6
2/22/2018	XX	LFUD8XA5C	F6	F6	F6				F6	F6	F6		F6	F6
3/24/2018	XX	LFUD8XA98	F12	F12	F12				F12	F12	F12		F12	F12
4/3/2018	XX	LFUD8XA40	90	8.5	2.8				482	6.8	0.00223			2.6
4/28/2018	XX	LFUD8XAA1	F12	F12	F12				F12	F12	F12		F12	F12
5/11/2018	XX	LFUD8XAAE	F12	F12	F12				F12	F12	F12		F12	F12
6/2/2018	XX	LFUD8XADI	F12	F12	F12				F12	F12	F12		F12	F12
7/2/2018	XX	LFUD8XAII	F12	F12	F12				F12	F12	F12		F12	F12
7/17/2018	XX	LFUD8XAD0	D	D	D				D	D	D		D	D
8/17/2018	XX	LFUD8XAJD	F6	F6	F6				F6	F6	F6		F6	F6
9/1/2018	XX	LFUD8XB2J	F6	F6	F6				F6	F6	F6		F6	F6
10/2/2018	XX	LFUD8XB1I	F6	F6	F6				F6	F6	F6		F6	F6

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/13/2018	XX	LFUD8XB3D	F6	F6	F6				F6	F6	F6		F6	F6
11/2/2018	XX	LFUD8XB47	F6	F6	F6				F6	F6	F6		F6	F6
12/7/2018	XX	LFUD8XB86	F6	F6	F6				F6	F6			F6	F6
1/3/2019	XX	LFUD8XB90	F6	F6	F6				F6	F6			F6	F6
2/2/2019	XX	LFUD8XB9E	F6	F6	F6				F6	F6			F6	F6
3/2/2019	XX	LFUD8XBA8	F6	F6	F6				F6	F6			F6	F6
4/5/2019	XX	LFUD8XBB2	F6	F6	F6				F6	F6	F6		F6	F6
4/23/2019	XX	LFUD8XB6G	88	6.8	7.9				347	9.3	0.0022			1.2
5/10/2019	XX	LFUD8XBEE	F6	F6	F6				F6	F6	F6			F6
6/24/2019	XX	LFUD8XBF8	F12	F12	F12				F12	F12	F12			F12
7/16/2019	XX	LFUD8XBD7	71	8.3	26.9				305	6				2.1
7/30/2019	XX	LFUD8XBG2	F6	F6	F6				F6	F6				F6
8/20/2019	XX	LFUD8XBGG	H6	H6	H6				H6	H6				H6
9/20/2019	XX	LFUD8XC09	F6	F6	F6				F6	F6	F6			F6
10/14/2019	XX	LFUD8XC13	F6	F6	F6				F6	F6	F6			F6
10/29/2019	XX	LFUD8XBIJ	105	8	10				250	10.9	0.0011			2.1
11/27/2019	XX	LFUD8XC1H	F	F	F				F	F	F			F
12/23/2019	XX	LFUD8XC37	F	F	F				F	F	F			F

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/5/2016	XX	LFUD9X881	F6	F6	F6				F6	F6	F6		F6	F6
7/26/2016	XX	LFUD9X8CA	F12	F12	F12				F12	F12	F12			F12
10/25/2016	XX	LFUD9X905	F6	F6	F6				F6	F6	F6			F6
10/31/2016	XX	LFUD9X94G	H8	H8	H8				H8	H8	H8			H8
11/29/2016	XX	LFUD9X95B	F6	F6	F6				F6	F6	F6			F6
12/13/2016	XX	LFUD9X964	F6	F6	F6				F6	F6	F6			F6
1/10/2017	XX	LFUD9X9A3	F6	F6	F6				F6	F6	F6		F6	F6
2/8/2017	XX	LFUD9X9AG	F6	F6	F6				F6	F6	F6		F6	F6
3/3/2017	XX	LFUD9X9B9	F6	F6	F6				F6	F6	F6		F6	F6
4/5/2017	XX	LFUD9X99A	F6	F6	F6				F6	F6	F6		F6	F6
4/18/2017	XX	LFUD9X98F	292	7.6	7.1				375	10.8	0.0011			1.2
5/25/2017	XX	LFUD9X9C2	F6	F6	F6				F6	F6	F6		F6	F6
6/16/2017	XX	LFUD9X9F3	DE	DE	DE				DE	DE	DE		DE	DE
10/25/2017	XX	LFUD9X9I4	F6	F6	F6				F6	F6	F6		F6	F6
1/19/2018	XX	LFUD9XA4H	F6	F6	F6				F6	F6	F6		F6	F6
2/22/2018	XX	LFUD9XA5A	F6	F6	F6				F6	F6	F6		F6	F6
3/24/2018	XX	LFUD9XA96	176	7.3	8				458	9	0.00334		50 U	44.8
4/3/2018	XX	LFUD9XA47	F6	F6	F6				F6	F6	F6		F6	F6
4/28/2018	XX	LFUD9XA9J	F6	F6	F6				F6	F6	F6		F6	F6
5/11/2018	XX	LFUD9XAAC	F6	F6	F6				F6	F6	F6		F6	F6
6/2/2018	XX	LFUD9XADG	F6	F6	F6				F6	F6	F6		F6	F6
7/2/2018	XX	LFUD9XAIG	F6	F6	F6				F6	F6	F6		F6	F6
7/17/2018	XX	LFUD9XAD4	D	D	D				D	D	D		D	D
8/17/2018	XX	LFUD9XAJB	F6	F6	F6				F6	F6	F6		F6	F6
9/1/2018	XX	LFUD9XB2H	F6	F6	F6				F6	F6	F6		F6	F6
10/2/2018	XX	LFUD9XB22	F6	F6	F6				F6	F6	F6		F6	F6
10/13/2018	XX	LFUD9XB3B	F6	F6	F6				F6	F6	F6		F6	F6
11/2/2018	XX	LFUD9XB45	135	7.3	10.7				379	7	0.0045		25	49.6
12/7/2018	XX	LFUD9XB84	F6	F6	F6				F6	F6			F6	F6
1/3/2019	XX	LFUD9XB8I	F6	F6	F6				F6	F6			F6	F6

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CUMBERLAND CENTER, ME 04021

(LF-UD-9)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
2/2/2019	XX	LFUD9XB9C	F6	F6	F6				F6	F6			F6	F6
3/2/2019	XX	LFUD9XBA6	F6	F6	F6				F6	F6			F6	F6
4/5/2019	XX	LFUD9XBB0	F6	F6	F6				F6	F6			F6	F6
4/23/2019	XX	LFUD9XB73	F6	F6	F6				F6	F6	F6		F6	F6
5/10/2019	XX	LFUD9XBEC	201	6.6	15.1				278	7	0.0004		30	9.6
6/24/2019	XX	LFUD9XBF6	F6	F6	F6				F6	F6	F6		F6	F6
7/16/2019	XX	LFUD9XBDD	F6	F6	F6				F6	F6	F6		F6	F6
7/30/2019	XX	LFUD9XBG0	F6	F6	F6				F6	F6	F6		F6	F6
8/20/2019	XX	LFUD9XBGE	F6	F6	F6				F6	F6	F6		F6	F6
9/20/2019	XX	LFUD9XC07	F6	F6	F6				F6	F6	F6		F6	F6
10/14/2019	XX	LFUD9XC11	F6	F6	F6				F6	F6	F6		F6	F6
10/29/2019	XX	LFUD9XBJ3	F6	F6	F6				F6	F6	F6		F6	F6
11/27/2019	XX	LFUD9XC1F	F6	F6	F6				F6	F6	F6		F6	F6
12/23/2019	XX	LFUD9XC35	F6	F6	F6				F6	F6	F6		F6	F6

LF-UD-10

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/25/2017	XX	LFXXXX9ID	F6	F6	F6				F6	F6	F6			F6
12/27/2017	XX	LFXXXXA1F	F6	F6	F6				F6	F6	F6			F6
1/19/2018	XX	LFXXXXA51	F6	F6	F6				F6	F6	F6			F6
2/22/2018	XX	LFXXXXA5E	119	6.8	5.1				420	9	0.00056			12.9
3/24/2018	XX	LFXXXXA9A	175	7	8.8				455	8	0.00334		50 U	43.4
4/3/2018	XX	LFXXXXA48	F6	F6	F6				F6	F6	F6			F6
4/28/2018	XX	LFXXXXAA3	F6	F6	F6				F6	F6	F6		F6	F6
5/11/2018	XX	LFXXXXAAG	F6	F6	F6				F6	F6	F6		F6	F6
6/2/2018	XX	LFXXXXAE0	F6	F6	F6				F6	F6	F6			F6
7/2/2018	XX	LFXXXXAJ0	F6	F6	F6				F6	F6	F6			F6
7/17/2018	XX	LFU10XAD6	D	D	D				D	D	D			D
8/17/2018	XX	LFXXXXAJF	F6	F6	F6				F6	F6	F6			F6
9/1/2018	XX	LFXXXXB31	F6	F6	F6				F6	F6	F6			F6
10/3/2018	XX	LFXXXXB27	F6	F6	F6				F6	F6	F6		F6	F6
10/13/2018	XX	LFXXXXB3F	F6	F6	F6				F6	F6	F6			F6
11/2/2018	XX	LFXXXXB49	134	7.3	10.6				387	7	0.0045		25	49.6
12/7/2018	XX	LFXXXXB88	F6	F6	F6				F6	F6			F6	F6
1/3/2019	XX	LFXXXXB92	F6	F6	F6				F6	F6			F6	F6
2/2/2019	XX	LFXXXXB9G	F6	F6	F6				F6	F6			F6	F6
3/2/2019	XX	LFXXXXBAA	F6	F6	F6				F6	F6			F6	F6
4/5/2019	XX	LFXXXXBB4	F6	F6	F6				F6	F6			F6	F6
4/23/2019	XX	LFXXXXB74	F6	F6	F6				F6	F6	F6		F6	F6
5/10/2019	XX	LFXXXXBEG	111	7.3	14.9				295	7	0.0178		0 D3	49.5
6/24/2019	XX	LFXXXXBFA	F6	F6	F6				F6	F6	F6		F6	F6
7/16/2019	XX	LFXXXXBDE	F6	F6	F6				F6	F6	F6		F6	F6
7/30/2019	XX	LFXXXXBG4	F6	F6	F6				F6	F6	F6		F6	F6
8/20/2019	XX	LFXXXXBGI	F6	F6	F6				F6	F6	F6		F6	F6
9/20/2019	XX	LFXXXXC0B	F6	F6	F6				F6	F6	F6		F6	F6
10/14/2019	XX	LFXXXXC15	F6	F6	F6				F6	F6	F6		F6	F6
10/29/2019	XX	LFXXXXBJ7	F6	F6	F6				F6	F6	F6		F6	F6
11/27/2019	XX	LFXXXXC1J	F6	F6	F6				F6	F6	F6		F6	F6
12/23/2019	XX	LFXXXXC39	F6	F6	F6				F6	F6	F6		F6	F6

LP-COMP

SUMMARY REPORT

Field Data

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LP-COMP)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
8/1/2011	XX	LPCMPX4JG	315	7.1	21.4				346	6			83	0.1
10/8/2011	XX	LPCMPX4J5	296	7.2	18.2				377	5			95	1.2
11/30/2011	XX	LPCMPX50J	296	7.2	10.3				372				90	0.4
12/29/2011	XX	LPCMPX507	315	7.6	8.3				374	10			110	3.1
1/26/2012	XX	LPCMPX58J	315	7.6	9.1				371	6			110	1.47
2/24/2012	XX	LPCMPX59A	323	7.8	13				354	8			125	1.74
3/23/2012	XX	LPCMPX5A1	320	7.6	15.3				360	6			125	0.39
4/16/2012	XX	LPCMPX5AC	331	7.3	13.2				377	6			150	0.48
5/3/2012	XX	LPCMPX5B3	324	7.4	14.3				395	10			120	0.42
7/31/2012	XX	LPCMPX5C5	355	7	22				363	8			125	0.79
3/28/2015	XX	LPCMPX7AH	320	7.1	11.4				387	4.5			135	1.78
4/16/2015	XX	LPCMPX7BA	261	7.5	17.6				370	8			125	1.74
7/23/2015	XX	LPCMPX7G7	326	7.2	20.2				350	9			155	0.4
8/24/2015	XX	LPCMPX7GJ	317	7	20.2				361	6			160	0.2
10/31/2015	XX	LPCMPX814	284	7.4	13.8				353	8			130	0.5
11/27/2015	XX	LPCMPX81G	312	7	15				377	8			170	0.8
12/30/2015	XX	LPCMPX829	306	7.2	8.8				361	10			160	0.9
1/14/2016	XX	LPCMPX831	307	6.4	6.2				327	8			150	0.5
2/18/2016	XX	LPCMPX88D	285	7.2	11.2				346	8			145	1
3/17/2016	XX	LPCMPX895	305	7	11.3				331	10			155	0.4
4/21/2016	XX	LPCMPX89H	302	7.1	11.9				335	9			120	1.3
5/26/2016	XX	LPCMPX8D3	313	7	16.6				285	7			160	0.3
6/27/2016	XX	LPCMPX8E7	333	6.6	17.9				520	7			165	0.8
7/20/2016	XX	LPCMPX8FB	328	6.7	20.3				362	7			155	0.3
8/29/2016	XX	LPCMPX91D	261	6.44	21.2				346	7			125	0.5
9/23/2016	XX	LPCMPX941	265	6.63	18				313	7			130	0.3
10/31/2016	XX	LPCMPX94F	250	6.84	15.1				347	4			75	0.3
11/29/2016	XX	LPCMPX95A	269	7.25	7.5				378	6			110	0.6
12/13/2016	XX	LPCMPX963	143	7.5	5.8				362	9			115	0.2
1/10/2017	XX	LPCMPX9A2	122	7.05	13.6				364	7			110	0.4
2/8/2017	XX	LPCMPX9AF	123	6.95	10.5				377	5			95	0.7
3/3/2017	XX	LPCMPX9B8	92	6.91	15.1				370	6			75	2
4/5/2017	XX	LPCMPX999	115	6.88	18.4				362	6			95	0.4
5/25/2017	XX	LPCMPX9C1	205	6.6	13.8				359	3			90	0.6
6/16/2017	XX	LPCMPX9F2	235	6.9	14				346	7			115	0.6
7/31/2017	XX	LPCMPX9FF	333	7.1	21.2				330	7			180	0.6
8/31/2017	XX	LPCMPX9J5	325	6.8	19.1				346	7			180	0.2
9/28/2017	XX	LPCMPX9JH	324	7.3	18.3				330	7			125	0.3
10/26/2017	XX	LPCMPXA09	317	6.8	17.1				415	7			165	1.7
11/30/2017	XX	LPCMPXA11	311	7.3	12				367	6			165	0.7
12/27/2017	XX	LPCMPXA1E	304	6.2	11.4				376	7			140	1
1/19/2018	XX	LPCMPXA50	306	7	6.9				389	8			150	0.2
2/22/2018	XX	LPCMPXA5D	297	7.5	7				386	9			110	1.3
3/24/2018	XX	LPCMPXA99	310	6.5	9.1				396	9			120	2.1
4/28/2018	XX	LPCMPXAA2	257	7.2	14.6				415	10			125	0.5
5/11/2018	XX	LPCMPXAAF	294	6.9	10.8				415	9			110	2
6/2/2018	XX	LPCMPXADJ	472	6.7	13.8				373	7			120	0.4
7/2/2018	XX	LPCMPXAIJ	332	7.2	19.1				359	8			130	0.6
8/17/2018	XX	LPCMPXAJE	335	6.7	21.3				324	8			130	3.2
9/1/2018	XX	LPCMPXB30	320	6.7	18.7				369	7			130	0.9

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(LP-COMP)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/13/2018	XX	LPCMPXB3E	313	6	15.3				363	6			130	1.2
11/2/2018	XX	LPCMPXB48	269	6.6	12.1				354	8			110	2.2
12/7/2018	XX	LPCMPXB87	235	6.1	8.2				359	8			125	2.5
1/3/2019	XX	LPCMPXB91	310	6.8	5.2				375	7			125	4.7
2/2/2019	XX	LPCMPXB9F	429	7.7	3.4				378	7			130	7.4
3/2/2019	XX	LPCMPXBA9	289	6.4	6				356	6			130	2.1
4/5/2019	XX	LPCMPXBB3	260	8.1	13.1				363	7			130	0.9
5/10/2019	XX	LPCMPXBEF	248	6.8	13.8				327	6			130	0.9
6/24/2019	XX	LPCMPXBF9	270	7.2	15.1				366	8			125	0.5
7/30/2019	XX	LPCMPXBG3	280	7.1	20				354	8			150	0.4
8/20/2019	XX	LPCMPXBGH	273	7.4	25.1				352	8			140	0.2
9/20/2019	XX	LPCMPXC0A	294	7.2	21.7				361	6			125	0.2
10/14/2019	XX	LPCMPXC14	267	7.3	18.5				347	10			140	0.3
11/27/2019	XX	LPCMPXC1I	245	7.5	21				389	8			145	1.6
12/23/2019	XX	LPCMPXC38	285	7.3	9.3				378				125	0.6

LP-UD-1

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
1/21/2010	XX	LPUD1X3H2	F6	F6	F6				F6	F6			F6	F6
2/23/2010	XX	LPUD1X3HE	F6	F6	F6				F6	F6			F6	F6
3/17/2010	XX	LPUD1X3I3	F6	F6	F6				F6	F6			F6	F6
4/27/2010	XX	LPUD1X3JF	F6	F6	F6				F6	F6			F6	F6
5/18/2010	XX	LPUD1X40J	F6	F6	F6				F6	F6			F6	F6
6/22/2010	XX	LPUD1X417	F6	F6	F6				F6	F6			F6	F6
7/20/2010	XX	LPUD1X42J	F6	F6	F6				F6	F6			F6	F6
8/30/2010	XX	LPUD1X44B	F6	F6	F6				F6	F6			F6	F6
9/28/2010	XX	LPUD1X443	F6	F6	F6				F6	F6			F6	F6
10/19/2010	XX	LPUD1X463	F6	F6	F6				F6	F6			F6	F6
11/11/2010	XX	LPUD1X475	F6	F6	F6				F6	F6			F6	F6
12/16/2010	XX	LPUD1X481	F6	F6	F6				F6	F6			F6	F6
1/24/2011	XX	LPUD1X47D	F6	F6	F6				F6	F6			F6	F6
2/24/2011	XX	LPUD1X4BI	F6	F6	F6				F6	F6			F6	F6
3/25/2011	XX	LPUD1X4C8	F6	F6	F6				F6	F6			F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6				F6	F6			F6	F6
5/25/2011	XX	LPUD1X4F7	F6	F6	F6				F6	F6			F6	F6
6/20/2011	XX	LPUD1X4FI	F6	F6	F6				F6	F6			F6	F6
7/19/2011	XX	LPUD1X4E2	F6	F6	F6				F6	F6			F6	F6
8/1/2011	XX	LPUD1X4J8	H9	H9	H9				H9	H9			H9	H9
10/8/2011	XX	LPUD1X4IG	H9	H9	H9				H9	H9			H9	H9
10/25/2011	XX	LPUD1X4HH	F6	F6	F6				F6	F6			F6	F6
11/30/2011	XX	LPUD1X50B	H9	H9	H9				H9	H9			H9	H9
12/29/2011	XX	LPUD1X4JJ	H9	H9	H9				H9	H9			H9	H9
1/26/2012	XX	LPUD1X58B	H9	H9	H9				H9	H9			H9	H9
2/24/2012	XX	LPUD1X593	H9	H9	H9				H9	H9			H9	H9
3/23/2012	XX	LPUD1X59E	H9	H9	H9				H9	H9			H9	H9
4/16/2012	XX	LPUD1X5A5	H5	H5	H5				H5	H5			H5	H5
4/24/2012	XX	LPUD1X527	F6	F6	F6				F6	F6			F6	F6
5/3/2012	XX	LPUD1X5AG	H9	H9	H9				H9	H9			H9	H9
6/29/2012	XX	LPUD1X5B7	F6	F6	F6				F6	F6			F6	F6
7/24/2012	XX	LPUD1X576	F6	F6	F6				F6	F6			F6	F6
7/31/2012	XX	LPUD1X5BI	H9	H9	H9				H9	H9			H9	H9

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LP-UD-1)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
8/31/2012	XX	LPUD1X5EJ	F6	F6	F6				F6	F6			F6	F6
9/27/2012	XX	LPUD1X5FA	F6	F6	F6				F6	F6			F6	F6
10/23/2012	XX	LPUD1X5DH	F6	F6	F6				F6	F6			F6	F6
11/13/2012	XX	LPUD1X5G1	F6	F6	F6				F6	F6			F6	F6
12/31/2012	XX	LPUD1X5GC	F6	F6	F6				F6	F6			F6	F6
1/30/2013	XX	LPUD1X608	F6	F6	F6				F6	F6			F6	F6
2/15/2013	XX	LPUD1X5JG	F6	F6	F6				F6	F6			F6	F6
3/28/2013	XX	LPUD1X611	F6	F6	F6				F6	F6			F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6				F6	F6			F6	F6
4/24/2013	XX	LPUD1X61D	F6	F6	F6				F6	F6			F6	F6
5/30/2013	XX	LPUD1X625	F6	F6	F6				F6	F6			F6	F6
6/26/2013	XX	LPUD1X62H	F6	F6	F6				F6	F6			F6	F6
7/30/2013	XX	LPUD1X64D	F6	F6	F6				F6	F6			F6	F6
8/20/2013	XX	LPUD1X697	F6	F6	F6				F6	F6			F6	F6
9/26/2013	XX	LPUD1X68F	F6	F6	F6				F6	F6			F6	F6
10/29/2013	XX	LPUD1X676	F6	F6	F6				F6	F6			F6	F6
11/25/2013	XX	LPUD1X6A0	F6	F6	F6				F6	F6			F6	F6
12/17/2013	XX	LPUD1X6D0	F6	F6	F6				F6	F6			F6	F6
1/24/2014	XX	LPUD1X6DC	F6	F6	F6				F6	F6			F6	F6
2/24/2014	XX	LPUD1X6H9	F6	F6	F6				F6	F6			F6	F6
3/27/2014	XX	LPUD1X6GH	F6	F6	F6				F6	F6			F6	F6
4/22/2014	XX	LPUD1X6F9	F6	F6	F6				F6	F6			F6	F6
4/29/2014	XX	LPUD1X6I1	F6	F6	F6				F6	F6			F6	F6
5/23/2014	XX	LPUD1X710	F6	F6	F6				F6	F6			F6	F6
6/24/2014	XX	LPUD1X71C	F6	F6	F6				F6	F6			F6	F6
7/29/2014	XX	LPUD1X6JG	F6	F6	F6				F6	F6			F6	F6
8/26/2014	XX	LPUD1X74C	F6	F6	F6				F6	F6			F6	F6
9/23/2014	XX	LPUD1X753	F6	F6	F6				F6	F6			F6	F6
10/21/2014	XX	LPUD1X737	F6	F6	F6				F6	F6			F6	F6
11/28/2014	XX	LPUD1X75F	F6	F6	F6				F6	F6			F6	F6
12/24/2014	XX	LPUD1X768	F12	F12	F12				F12	F12			F12	F12
2/3/2015	XX	LPUD1X76J	F12	F12	F12				F12	F12			F12	F12
2/21/2015	XX	LPUD1X77A	F6	F6	F6				F6	F6			F6	F6
3/28/2015	XX	LPUD1X7A8	H9	H9	H9				H9	H9			H9	H9
4/16/2015	XX	LPUD1X7B1	H9	H9	H9				H9	H9			H9	H9
4/28/2015	XX	LPUD1X794	F6	F6	F6				F6	F6			F6	F6
5/22/2015	XX	LPUD1X7F6	F6	F6	F6				F6	F6			F6	F6
6/22/2015	XX	LPUD1X7EE	F6	F6	F6				F6	F6			F6	F6
7/14/2015	XX	LPUD1X7CG	F6	F6	F6				F6	F6			F6	F6
7/23/2015	XX	LPUD1X7FI	H9	H9	H9				H9	H9			H9	H9
8/24/2015	XX	LPUD1X7GA	H9	H9	H9				H9	H9			H9	H9
9/26/2015	XX	LPUD1X803	F6	F6	F6				F6	F6			F6	F6
10/26/2015	XX	LPUD1X7I5	F6	F6	F6				F6	F6				F6
10/31/2015	XX	LPUD1X80F	H9	H9	H9				H9	H9	H9		H9	H9
11/27/2015	XX	LPUD1X817	H9	H9	H9				H9	H9	H9		H9	H9
12/30/2015	XX	LPUD1X820	H9	H9	H9				H9	H9	H9		H9	H9
1/14/2016	XX	LPUD1X82C	H9	H9	H9				H9	H9	H9		H9	H9
2/18/2016	XX	LPUD1X884	H9	H9	H9				H9	H9	H9		H9	H9
3/17/2016	XX	LPUD1X88G	H9	H9	H9				H9	H9	H9		H9	H9
4/5/2016	XX	LPUD1X86F	F6	F6	F6				F6	F6	F6		F6	F6

(LP-UD-1)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/21/2016	XX	LPUD1X898	H9	H9	H9				H9	H9	H9		H9	H9
5/26/2016	XX	LPUD1X8CE	H9	H9	H9				H9	H9	H9		H9	H9
6/27/2016	XX	LPUD1X8DI	H9	H9	H9				H9	H9	H9		H9	H9
7/20/2016	XX	LPUD1X8F2	F6	F6	F6				F6	F6	F6		F6	F6
7/26/2016	XX	LPUD1X8B5	F6	F6	F6				F6	F6	F6		F6	F6
8/29/2016	XX	LPUD1X90D	F6	F6	F6				F6	F6	F6		F6	F6
9/23/2016	XX	LPUD1X93C	F12	F12	F12				F12	F12	F12		F12	F12
10/25/2016	XX	LPUD1X8J4	F6	F6	F6				F6	F6	F6		F6	F6
10/31/2016	XX	LPUD1X946	H9	H9	H9				H9	H9	H9		H9	H9
11/29/2016	XX	LPUD1X951	H9	H9	H9				H9	H9	H9		H9	H9
12/13/2016	XX	LPUD1X95E	H9	H9	H9				H9	H9	H9		H9	H9
1/10/2017	XX	LPUD1X99D	H9	H9	H9				H9	H9	H9		H9	H9
2/8/2017	XX	LPUD1X9A6	H9	H9	H9				H9	H9	H9		H9	H9
3/3/2017	XX	LPUD1X9AJ	H9	H9	H9				H9	H9	H9		H9	H9
4/5/2017	XX	LPUD1X990	H9	H9	H9				H9	H9	H9		H9	H9
4/18/2017	XX	LPUD1X97A	F6	F6	F6				F6	F6	F6		F6	F6
5/25/2017	XX	LPUD1X9BC	H9	H9	H9				H9	H9	H9		H9	H9
6/16/2017	XX	LPUD1X9ED	H9	H9	H9				H9	H9	H9		H9	H9
7/25/2017	XX	LPUD1X9D8	F6	F6	F6				F6	F6	F6		F6	F6
7/31/2017	XX	LPUD1X9F6	H9	H9	H9				H9	H9	H9		H9	H9
8/31/2017	XX	LPUD1X9IG	H9	H9	H9				H9	H9	H9		H9	H9
9/28/2017	XX	LPUD1X9J8	H9	H9	H9				H9	H9	H9		H9	H9
10/25/2017	XX	LPUD1X9H3	F6	F6	F6				F6	F6	F6		F6	F6
10/26/2017	XX	LPUD1XA00	H9	H9	H9				H9	H9	H9		H9	H9
11/30/2017	XX	LPUD1XA0C	H9	H9	H9				H9	H9	H9		H9	H9
12/27/2017	XX	LPUD1XA15	H9	H9	H9				H9	H9	H9		H9	H9
1/19/2018	XX	LPUD1XA4B	H9	H9	H9				H9	H9	H9		H9	H9
2/22/2018	XX	LPUD1XA54	H9	H9	H9				H9	H9	H9		H9	H9
3/24/2018	XX	LPUD1XA90	H9	H9	H9				H9	H9	H9		H9	H9
4/3/2018	XX	LPUD1XA32	F6	F6	F6				F6	F6	F6		F6	F6
4/28/2018	XX	LPUD1XA9D	H9	H9	H9				H9	H9	H9		H9	H9
5/11/2018	XX	LPUD1XAA6	H9	H9	H9				H9	H9	H9		H9	H9
6/2/2018	XX	LPUD1XADA	H9	H9	H9				H9	H9	H9		H9	H9
7/2/2018	XX	LPUD1XAIA	H9	H9	H9				H9	H9	H9		H9	H9
7/17/2018	XX	LPUD1XAC3	F6	F6	F6				F6	F6	F6		F6	F6
8/17/2018	XX	LPUD1XAJ5	H9	H9	H9				H9	H9	H9		H9	H9
9/1/2018	XX	LPUD1XB2B	H9	H9	H9				H9	H9	H9		H9	H9
10/2/2018	XX	LPUD1XB11	F6	F6	F6				F6	F6	F6		F6	F6
10/13/2018	XX	LPUD1XB35	H9	H9	H9				H9	H9	H9		H9	H9
11/2/2018	XX	LPUD1XB3J	H9	H9	H9				H9	H9	H9		H9	H9
12/7/2018	XX	LPUD1XB7I	H9	H9	H9				H9	H9			H9	H9
1/3/2019	XX	LPUD1XB8C	H9	H9	H9				H9	H9			H9	H9
2/2/2019	XX	LPUD1XB96	H9	H9	H9				H9	H9			H9	H9
3/2/2019	XX	LPUD1XBA0	H9	H9	H9				H9	H9			H9	H9
4/5/2019	XX	LPUD1XBAE	H9	H9	H9				H9	H9	H9		H9	H9
4/23/2019	XX	LPUD1XB5I	241	7.1	6.2				370	2.5	0.0011			0.4
5/10/2019	XX	LPUD1XBE6	H9	H9	H9				H9	H9	H9			H9
6/24/2019	XX	LPUD1XBF0	H9	H9	H9				H9	H9	H9			H9
7/16/2019	XX	LPUD1XBCA	F6	F6	F6				F6	F6	F6			F6
7/30/2019	XX	LPUD1XBFE	H9	H9	H9				H9	H9	H9			H9

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
(LP-UD-1)														
8/20/2019	XX	LPUD1XBG8	H9	H9	H9				H9	H9	H9			H9
9/20/2019	XX	LPUD1XC01	H9	H9	H9				H9	H9	H9			H9
10/14/2019	XX	LPUD1XC0F	H9	H9	H9				H9	H9	H9			H9
10/29/2019	XX	LPUD1XBI3	F6	F6	F6				F6	F6	F6			F6
11/27/2019	XX	LPUD1XC19	H9	H9	H9				H9	H9	H9			H9
12/23/2019	XX	LPUD1XC2J	H9	H9	H9				H9	H9	H9			H9
LP-UD-2														
1/21/2010	XX	LPUD2X3H3	370	7.5	6.6				301	5	0.0045		120	0
2/23/2010	XX	LPUD2X3HF	353	7.5	7.4				210	5	0.0033		150	0.2
3/17/2010	XX	LPUD2X3I4	324	7.3	9.5				291	6	0.0056		110	0.9
4/27/2010	XX	LPUD2X3JG	324	6.7	8.8				274	6	0.0045		110	0
5/18/2010	XX	LPUD2X410	318	7.3	12				336	5	0.0022		80	0.2
6/22/2010	XX	LPUD2X418	379	7.1	14.9				358	5	0.0045		110	0
7/20/2010	XX	LPUD2X430	315	7.2	19.5				385	6	0.0022		160	5.9
8/30/2010	XX	LPUD2X44C	355	7.2	18.5				271	5	0.0006		165	0.2
9/28/2010	XX	LPUD2X444	312	6.9	17.7				295	6	0.0022		155	0
10/19/2010	XX	LPUD2X464	480	7	10.1				407	6	0.0067		110	0.1
11/11/2010	XX	LPUD2X476	317	7.7	8.9				231	4	0.0045		125	0
12/16/2010	XX	LPUD2X482	331	6.9	7.7				307	5	0.0045		115	0
1/24/2011	XX	LPUD2X47E	302	8	10				273	10	0.0056		350	0
2/24/2011	XX	LPUD2X4BJ	341	7.3	8.4				358	6	0.0056		260	0
3/25/2011	XX	LPUD2X4C9	300	7.3	7.5					8	0.0056		115	0.2
4/26/2011	XX	LPUD2X4A5	325	6.9	9.6				337	6			250	1.2
5/25/2011	XX	LPUD2X4F8	333	7	13				361	8			72.5	0.03
6/20/2011	XX	LPUD2X4FJ	304	7	18.1				382	8			100	0.6
7/19/2011	XX	LPUD2X4E3	250	6.7	18.3				294	5	0.0033		100	0
8/1/2011	XX	LPUD2X4J9	F12	F12	F12				F12	F12	F12		F12	F12
10/8/2011	XX	LPUD2X4IH	H5	H5	H5				H5	H5	H5		H5	H5
10/25/2011	XX	LPUD2X4HI	319	7.3	14.9				284	6	0.0045		140	0
11/30/2011	XX	LPUD2X50C	H5	H5	H5				H5	H5	H5		H5	H5
12/29/2011	XX	LPUD2X500	H5	H5	H5				H5	H5	H5		H5	H5
1/26/2012	XX	LPUD2X58C	H5	H5	H5				H5	H5	H5		H5	H5
2/24/2012	XX	LPUD2X594	H5	H5	H5				H5	H5	H5		H5	H5
3/23/2012	XX	LPUD2X59F	H5	H5	H5				H5	H5	H5		H5	H5
4/16/2012	XX	LPUD2X5A6	F6	F6	F6				F6	F6	F6		F6	F6
4/24/2012	XX	LPUD2X528	200	6.9	10.3				409	6			100	2.5
5/3/2012	XX	LPUD2X5AH	322	7.6	16.6				373	8			130	0.27
6/29/2012	XX	LPUD2X5B8	287	7	17.21				422	6	0.0006		100	1.23
7/24/2012	XX	LPUD2X577	110	6.7	18.9				468	6	0.0033		185	3
7/31/2012	XX	LPUD2X5BJ	338	7	20.3				360	6	0.0011		130	0.14
8/31/2012	XX	LPUD2X5F0	342	6.6	19				298	7	0.0003		125	0.23
9/27/2012	XX	LPUD2X5FB	196	6.8	17.6				368	6	0.0003		115	0.39
10/23/2012	XX	LPUD2X5DI	272	6.8	14.1				453	4	0.0033		105	1.3
11/13/2012	XX	LPUD2X5G2	272	7.2	12.5				364	6	0.0003		125	0.36
12/31/2012	XX	LPUD2X5GD	286	7.4	7.6				350	8	0.0006		110	0.64
1/30/2013	XX	LPUD2X609	289	7.7	8.7				463	10	0.0003		125	0.35
2/15/2013	XX	LPUD2X5JH	272	7.6	9.6				393	6	0.0003		130	0.04
3/28/2013	XX	LPUD2X612	270	7.9	8.5				300	10	0.0003		110	0.47
4/23/2013	XX	LPUD2X5I9	299	7.1	7.9				238	6	0.0033		85	1

SEVEE & MAHER ENGINEERS, INC.
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(LP-UD-2)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/24/2013	XX	LPUD2X61E	231	7.6	11.1				343	10	0.0006		137	0.02
5/30/2013	XX	LPUD2X626	216	7.2	18.6				324	10	0.005		115	0.19
6/26/2013	XX	LPUD2X62I	302	7.1	13.5				409	8	0.0045		150	0.32
7/30/2013	XX	LPUD2X64E	304	6.8	18.1				261	6	0.0033		105	1.1
8/20/2013	XX	LPUD2X698	335	6.9	21.3				372	6	0.0045		125	0.41
9/26/2013	XX	LPUD2X68G	337	7.2	15.9				377	8	0.0011		110	1.08
10/29/2013	XX	LPUD2X677	361	7	10.8				366	6	0.0022		125	0.6
11/25/2013	XX	LPUD2X6A1	315	7.4	10.9				381	8	0.0022		125	0.62
12/17/2013	XX	LPUD2X6D1	288	7.6	9.2				357	10				0.44
1/24/2014	XX	LPUD2X6DD	290	7.5	6.7				343	10	0.0003		130	0.51
2/24/2014	XX	LPUD2X6HA	297	7.6	8				207	10	0.0011		140	1.91
3/27/2014	XX	LPUD2X6GI	296	7.7	10.9				363	12	0.0003		170	0.48
4/22/2014	XX	LPUD2X6FA	305	7.2	9.8				518	5	0.0033		90	1.2
4/29/2014	XX	LPUD2X6I2	298	7.4	11.4				326	11	0.0003		165	1.84
5/23/2014	XX	LPUD2X711	318	7.3	13.9				353	10	0.0006		140	0.58
6/24/2014	XX	LPUD2X71D	369	7.3	20.8				368	8	0.0003		160	0.39
7/29/2014	XX	LPUD2X6JH	300	7	18.3				437	5	0.0056		30	0.8
8/26/2014	XX	LPUD2X74D	329	7	24.9				379	7	0.0003		200	0.27
9/23/2014	XX	LPUD2X754	336	7.3	22.2				367	8	0.0011		155	0.1
10/21/2014	XX	LPUD2X738	280	7.2	13.3				360	5	0.0033		75	0.4
11/28/2014	XX	LPUD2X75G	308	7.3	13				373	7	0.0007		135	M
12/24/2014	XX	LPUD2X769	316	7.3	12.1				374	8	0.0015		135	0.14
2/3/2015	XX	LPUD2X770	310	7.6	12.6				375	5.5	0.0011		150	0.27
2/21/2015	XX	LPUD2X77B	241	7.8	17.5				352	7.5	0.0007		150	0.87
3/28/2015	XX	LPUD2X7A9	281	7.1	11.7				393	5.5	0.0017		125	1.06
4/16/2015	XX	LPUD2X7B2	294	7.6	18.8				370	9	0.0015		125	0.95
4/28/2015	XX	LPUD2X795	302	7.4	7.2				333	8.8	0.0033			1.3
5/22/2015	XX	LPUD2X7F7	174	7.2	18.8				370	8	0.0006		150	0.7
6/22/2015	XX	LPUD2X7EF	321	7.1	21.8				287	7	0.0006		160	0.34
7/14/2015	XX	LPUD2X7CH	309	7	15.5				335	7.6	0.0045			0.4
7/23/2015	XX	LPUD2X7FJ	324	7.1	19.6				363	7			130	0.1
8/24/2015	XX	LPUD2X7GB	329	7	19				350	7	0.0007		165	0.4
9/26/2015	XX	LPUD2X804	309	7	19.9				364	7	0.0004		155	0.1
10/27/2015	XX	LPUD2X7I6	283	7.7	12.5				336	8	0.0033			0.3
10/31/2015	XX	LPUD2X80G	H5	H5	H5				H5	H5	H5		H5	H5
11/27/2015	XX	LPUD2X818	315	7.2	13.3				374	9	0.0007		160	0.3
12/30/2015	XX	LPUD2X821	305	7.2	7.8				361	9	0.0004		140	0.03
1/14/2016	XX	LPUD2X82D	310	6.8	4.4				332	8	0.0006		155	0.01 U
2/18/2016	XX	LPUD2X885	283	7.3	9.6				354	8	0.0006		155	0.7
3/17/2016	XX	LPUD2X88H	311	7.1	9.4				333	9	0.0006		160	0.4
4/5/2016	XX	LPUD2X86G	302	7.5	5.1				205	9.2	0.0033			0.6
4/21/2016	XX	LPUD2X899	305	7.2	10.9				290	9	0.0006		150	0.3
5/26/2016	XX	LPUD2X8CF	312	7.1	13.8				309	9	0.0004		145	0.2
6/27/2016	XX	LPUD2X8DJ	H9	H9	H9				H9	H9	H9		H9	H9
7/20/2016	XX	LPUD2X8F3	F6	F6	F6				F6	F6	F6		F6	F6
7/26/2016	XX	LPUD2X8B6	339	6.8	15.4				332	4.6	0.0022			0.4
8/29/2016	XX	LPUD2X90E	F12	F12	F12				F12	F12	F12			F12
9/23/2016	XX	LPUD2X93D	F12	F12	F12				F12	F12	F12			F12
10/25/2016	XX	LPUD2X8J5	466	7.4	12.9				157	2.6	0.0017			0.8
10/31/2016	XX	LPUD2X947	H9	H9	H9				H9	H9	H9			H9

SEVEE & MAHER ENGINEERS, INC.
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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
11/29/2016	XX	LPUD2X952	F12	F12	F12				F12	F12	F12			F12
12/13/2016	XX	LPUD2X95F	H9	H9	H9				H9	H9	H9			H9
1/10/2017	XX	LPUD2X99E	H5	H5	H5				H5	H5	H5		H5	H5
2/8/2017	XX	LPUD2X9A7	H5	H5	H5				H5	H5	H5		H5	H5
3/3/2017	XX	LPUD2X9B0	H5	H5	H5				H5	H5	H5		H5	H5
4/5/2017	XX	LPUD2X991	H5	H5	H5				H5	H5	H5		H5	H5
4/18/2017	XX	LPUD2X97B	390	6.8	6.2				405	4.5	0.0011			0.5
5/25/2017	XX	LPUD2X9BD	H5	H5	H5				H5	H5	H5		H5	H5
6/16/2017	XX	LPUD2X9EE	327	7.4	19.8				365	7	0.0007		175	0.4
7/25/2017	XX	LPUD2X9D9	305	7.7	15.4				413	8.3	0.0022			0.3
7/31/2017	XX	LPUD2X9F7	341	7	18.2				372	6	0.0006		170	0.3
8/31/2017	XX	LPUD2X9IH	332	6.7	17.8				378	7	0.0006		155	0.2
9/28/2017	XX	LPUD2X9J9	330	7	16.9				347	6	0.0006		140	0.2
10/25/2017	XX	LPUD2X9H4	293	7.3	15.2				340	8	0.0006			1.2
10/26/2017	XX	LPUD2XA01	332	6.8	16.1				401	6	0.00056		155	0.3
11/30/2017	XX	LPUD2XA0D	313	7.2	1.3				390	7	0.00111		150	0.2
12/27/2017	XX	LPUD2XA16	306	6.5	9.7				415	9	0.0007		130	0.1
1/19/2018	XX	LPUD2XA4C	303	7	9.2				399	9	0.00111		125	0.3
2/22/2018	XX	LPUD2XA55	456	7.6	8.9				373	9	0.00167		160	0.2
3/24/2018	XX	LPUD2XA91	308	6.8	8.5				423	9	0.00037		125	0.5
4/3/2018	XX	LPUD2XA33	267	7.2	8.3				463	8	0.00334			1.2
4/28/2018	XX	LPUD2XA9E	263	7.1	13.6				420	10	0.00056		120	0.5
5/11/2018	XX	LPUD2XAA7	309	6.9	13.3				415	8	0.00111		120	0.2
6/2/2018	XX	LPUD2XADB	359	6.6	15.3				356	7	0.00111		125	0.7
7/2/2018	XX	LPUD2XAIB	364	7.3	20.1				372	7	0.0011		120	0.5
7/17/2018	XX	LPUD2XAC4	327	8.5	15.2				393	7.2	0.00056			1.1
8/17/2018	XX	LPUD2XAJ6	390	6.7	23.8				344	7	0.00037		140	1.1
9/1/2018	XX	LPUD2XB2C	353	6.7	18.3				375	6	0.0004		125	0.7
10/2/2018	XX	LPUD2XB12	314	7.7	14.4				476	6.7	0.00056			0.8
10/13/2018	XX	LPUD2XB36	391	5.7	15.4				370	7	0.0004		150	1.9
11/2/2018	XX	LPUD2XB40	273	6.2	12.1				370	8	0.0003		120	1.5
12/7/2018	XX	LPUD2XB7J	285	5.8	7.6				360	7	0.0007		130	1.1
1/3/2019	XX	LPUD2XB8D	324	6.9	5.1				376	8	0.0004		140	1.6
2/2/2019	XX	LPUD2XB97	444	7.7	3.1				374	7	0.0002		125	3.8
3/2/2019	XX	LPUD2XBA1	317	5.9	6.1				352	7	0.0003		150	0.8
4/5/2019	XX	LPUD2XBAF	272	8	13.1				380	8	0.0002		125	0.8
4/23/2019	XX	LPUD2XB5J	243	7.1	6.3				359	9	0.0022			0.6
5/10/2019	XX	LPUD2XBE7	299	6.4	13.7				348	7	0.0004		125	1.7
6/24/2019	XX	LPUD2XBF1	272	7.2	16				367	8	0.0033		125	0.9
7/16/2019	XX	LPUD2XBCB	284	7.5	16.2				402	12	0.0011			0.4
7/30/2019	XX	LPUD2XBFF	300	7.3	20.3				355	8	0.0002		135	0.4
8/20/2019	XX	LPUD2XBG9	281	7.4	25.2				355	5	0.0022		130	0.2
9/20/2019	XX	LPUD2XC02	300	7.3	21.6				362	6	0.0002		125	0.2
10/14/2019	XX	LPUD2XC0G	271	7.3	18.2				348	8	0.0017		125	0.8
10/29/2019	XX	LPUD2XBI4	273	7.3	12.7				333	7.8	0.0006			1.1
11/27/2019	XX	LPUD2XC1A	257	7.4	20.9				395	8	0.0022		125	0.7
12/23/2019	XX	LPUD2XC30	267	7.2	10.4				378	8	0.0045		120	0.3

MW04-102

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW102X407	234	7.8	7.3	170.22	164.25	5.97	380	3			60	0.8

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(MW04-102)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
7/21/2010	XX	GW102X43B	245	7.6	18.1	170.22	162.64	7.58	180	2			135	2
10/19/2010	XX	GW102X46F	232	7.9	12.8	170.22	164.37	5.85	231	3		17.97	75	0
4/25/2011	XX	GW102X4AG	249	7.9	11.2	170.22	165.2	5.02	335	4			80	0.2
7/19/2011	XX	GW102X4EE	239	8.1	17.4	170.22	163.57	6.65	294	2			85	0.8
10/25/2011	XX	GW102X4I9	209	8.2	13.1	170.22	163.72	6.5	305	5		17.85	95	3.8
4/24/2012	XX	GW102X52J	227	8.1	9.8	170.22	164.22	6	-8	3			120	3.2
7/24/2012	XX	GW102X57I	230	7.9	15.8	170.22	162.22	8	38	3			100	1.4
10/22/2012	XX	GW102X5E9	221	7.7	14.1	170.22	164.44	5.78	178	3		17.98	45	1.5
4/23/2013	XX	GW102X5J0	220	8.4	7	170.22	164.42	5.8	396	3			85	0.9
7/31/2013	XX	GW102X655	227	7.8	16.1	170.22	163.72	6.5	334	3			100	0.8
10/28/2013	XX	GW102X67F	207	8.3	12.7	170.22	163.12	7.1	306	1		18.05	100	1.2
4/23/2014	XX	GW102X6G1	226	6.2	8.5	170.22	164.62	5.6	476	5			75	1.1
7/30/2014	XX	GW102X704	226	7.6	15.8	170.22	163.92	6.3	429	3			105	0.9
10/21/2014	XX	GW102X73F	196	8.1	12.9	170.22	163.64	6.58	431	2		18.05	90	1.6
4/29/2015	XX	GW102X79C	210	8.2	6.8	170.22	164.72	5.5	380	5.1				0.8
7/14/2015	XX	GW102X7D4	237	8	17.3	170.22	163.32	6.9	349	3				0.9
10/28/2015	XX	GW102X7ID	214	8.4	10.8	170.22	163.47	6.75	285	5.29		18.05		2.1
4/5/2016	XX	GW102X873	244	8	5.3	170.22	164.22	6	350	6.9				4.6
7/26/2016	XX	GW102X8BD	275	8	17.1	170.22	167.62	7.6	327	3.3				3.3
10/25/2016	XX	GW102X8JC	237	7.5	13	170.22	163.02	7.2	382	2.6		18.05		8.1
4/19/2017	XX	GW102X97I	219	8.2	6.3	170.22	163.42	6.8	324	7.5				0.6
7/26/2017	XX	GW102X9DG	222	8	15.9	170.22	162.14	8.08	297	3.6				2.1
10/25/2017	XX	GW102X9HB	240	7.9	15.6	170.22	162.02	8.2	315	3		18.05		2.4
4/4/2018	XX	GW102XA3A	320	8.2	4.5	170.22	164.02	6.2	342	7.3				2.7
7/18/2018	XX	GW102XACB	228	7.7	15.7	170.22	161.92	8.3	293	5				1.9
10/3/2018	XX	GW102XB19	224	8.1	14.5	170.22	162.27	7.95	280	3.3		18.05		1.7
4/24/2019	XX	GW102XB66	216	8.3	5.1	170.22	163.82	6.4	355	6				1.9
7/17/2019	XX	GW102XBCH	216	7.6	14.2	170.22	163.12	7.1	265	3.7				2.7
10/28/2019	XX	GW102XBIA	216	8.1	8.1	170.22	163.67	6.55	307	3.3		18.05		2.7

MW04-105

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW105X408	304	6.7	7.7	165.59	158.27	7.32	322	0.8			70	0.7
7/19/2010	XX	GW105X43C	348	6.5	15.6	165.59	158.09	7.5	302	0.8			150	0.3
10/18/2010	XX	GW105X46G	306	7.2	11.5	165.59	158.69	6.9	270	0.6		22.75	105	0
4/26/2011	XX	GW105X4AH	312	7.1	9.6	165.59	159.13	6.46	322	1			75	0
7/18/2011	XX	GW105X4EF	325	6.7	16.7	165.59	158.49	7.1	275	0.8			100	0.3
10/25/2011	XX	GW105X4IA	217	7.7	11.9	165.59	158.69	6.9	339	0.8		22.75	85	1.8
4/23/2012	XX	GW105X530	240	7.4	8.7	165.59	157.99	7.6	325	3			160	1.7
7/24/2012	XX	GW105X57J	299	7.1	13.6	165.59	156.99	8.6	-7	0.4			160	1.1
10/22/2012	XX	GW105X5EA	252	7.2	11.9	165.59	158.99	6.6	281	0.4		22.75	70	1.3
4/24/2013	XX	GW105X5J1	249	6.8	7.1	165.59	158.04	7.55	381	1			90	3
10/29/2013	XX	GW105X68B	286	6.7	11.2	165.59	157.16	8.43	324	0.6		22.83	125	1.2
10/22/2014	XX	GW105X747	322	6.6	10.5	165.59	158.31	7.28	447	0.4		22.83	110	0.2
10/28/2015	XX	GW105X7J7	296	6.7	10.1	165.59	157.97	7.62	295	0.4		22.83		0.9
10/26/2016	XX	GW105X909	305	6.9	10.6	165.59	157.28	8.31	346	0.4		22.83		3.7
10/23/2017	XX	GW105X9I8	332	6.9	14.3	165.59	156.39	9.2	299	0.4		22.85		0.7
10/1/2018	XX	GW105XB26	341	6.9	11.7	165.59	156.98	8.61	307	0.4		22.84		1.9
10/28/2019	XX	GW105XBJ6	218	6.8	10.3	165.59	158.39	7.2	265	0.4		22.83		1.8

MW04-109R

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(MW04-109R)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW109X409	402	6.7	9.2	160.13	153.78	6.35	286	0.6			125	0
7/20/2010	XX	GW109X43D	450	6.5	17.2	160.13	152.64	7.49	220	0.4			155	0.5
10/19/2010	XX	GW109X46H	489	7	12.1	160.13	153.53	6.6	209	0.6		22.92	155	0
4/26/2011	XX	GW109X4AI	446	6.6	10.9	160.13	153.88	6.25	281	0.6			105	0
7/19/2011	XX	GW109X4EG	423	6.5	21.1	160.13	152.88	7.25	259	0.3			130	0.2
10/25/2011	XX	GW109X4IB	416	7	12.2	160.13	153.51	6.62	360	0.3		22.95	145	1.4
4/24/2012	XX	GW109X531	382	6.6	10.4	160.13	153.77	6.36	-478	0.4			240	2.9
7/24/2012	XX	GW109X580	408	6.5	19.1	160.13	152.86	7.27	-155	0.3			140	1
10/23/2012	XX	GW109X5EB	404	6.6	9.3	160.13	153.73	6.4	241	0.8		22.92	160	1.1
4/23/2013	XX	GW109X5J2	390	6.8	10.2	160.13	153.45	6.68	341	1			165	0.3
7/30/2013	XX	GW109X657	414	6.6	19	160.13	153.21	6.92	278	0.6			180	0.2
10/29/2013	XX	GW109X67G	397	6.3	5.9	160.13	152.72	7.41	327	0.6		22.97	220	0.2
4/22/2014	XX	GW109X6G3	377	6.5	11	160.13	153.91	6.22	418	0.8			200	0
7/29/2014	XX	GW109X705	407	6.6	17.7	160.13	153.34	6.79	361	0.3			220	0.9
10/21/2014	XX	GW109X73G	389	6.7	12.5	160.13	153.06	7.07	412	0.4		22.98	220	0
4/28/2015	XX	GW109X79D	399	6.7	9.9	160.13	153.9	6.23	386	1.3				0.1
7/14/2015	XX	GW109X7D5	398	6.6	21.9	160.13	152.78	7.35	355	1				0.1
10/27/2015	XX	GW109X7IE	429	6.6	11.6	160.13	153.13	7	323	0.7		22.97		0.2
4/5/2016	XX	GW109X874	445	6.6	8.4	160.13	153.8	6.33	339	1.3				0.4
7/26/2016	XX	GW109X8BE	426	6.5	21.4	160.13	152.53	7.6	356	0.8				1
10/25/2016	XX	GW109X8JD	425	6.6	9.1	160.13	152.78	7.35	385	0.7		22.97		2
4/18/2017	XX	GW109X97J	237	6.8	9	160.13	154.02	6.11	419	2.6				0.4
7/25/2017	XX	GW109X9DH	443	6.5	19.9	160.13	152.42	7.71	302	0.5				2.4
10/24/2017	XX	GW109X9HC	453	6.7	16.5	160.13	151.51	8.62	335	2		22.97		0.8
4/3/2018	XX	GW109XA3B	556	6.7	7.2	160.13	154.4	5.73	389	1.7				0.7
7/17/2018	XX	GW109XACC	461	6.6	19	160.13	152.68	7.45	300	1.5				2.4
10/2/2018	XX	GW109XB1A	437	6.7	11.1	160.13	152.28	7.85	330	0.4		22.97		1.8
4/23/2019	XX	GW109XB67	427	6.9	8.7	160.13	154.46	5.67	409	1.7				0.8
7/16/2019	XX	GW109XBCI	446	6.5	18.2	160.13	153.73	6.4	268	1.3				2.3
10/29/2019	XX	GW109XBIB	418	6.8	13.2	160.13	154.17	5.96	371	0.1 U		22.97		2.8

MW06-01

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/10/2018	XX	GWXXXXA70	85	6.5	7.3			F1	325	7.9		22.13		0.1
6/4/2018	XX	GWXXXXA7H	94	6.6	7.7	166.131	165.881	0.25	367	10.3				0.7
7/18/2018	XX	GWXXXXAEF	102	8	10.2	166.131	165.281	0.85	508	8.7				3.2
8/20/2018	XX	GWXXXXAFG	91	6.1	11.2	166.131	164.431	1.7	376	9.2				3.5
4/24/2019	XX	GWXXXXB7D	84	7	6.4			F1	377	10.1				2.1
7/18/2019	XX	GWXXXXBE1	67	8.1	12.2	166.131	165.951	0.18	290	13				0.5
10/30/2019	XX	GWXXXXBJ8	85	7.7	9.7	166.131		F1	219	11		22.13		0.1

MW09-901

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW901X3J7	241	7.6	10.6	165.1	156.24	8.86	328	3			60	2.1
7/20/2010	XX	GW901X42B	275	7.4	17.5	165.1	154.3	10.8	321	0.8			105	2.7
10/19/2010	XX	GW901X45F	300	7.5	12.8	165.1	155.85	9.25	235	0.6		22.75	80	0.3
4/26/2011	XX	GW901X49G	254	8	9.7	165.1	156.5	8.6	355	2			50	1.6
7/19/2011	XX	GW901X4DE	219	7.9	19.2	165.1	154.6	10.5	329	2			75	0.3
10/25/2011	XX	GW901X4H9	192	8.2	11.7	165.1	155.75	9.35	206	1		22.75	70	3.1
4/24/2012	XX	GW901X51J	189	8.4	11.9	165.1	156.5	8.6	183	3			100	3.3
7/24/2012	XX	GW901X56I	194	7.9	17.2	165.1	154.5	10.6	20	2			120	1
10/23/2012	XX	GW901X5D9	197	7.6	12.2	165.1	156.3	8.8	215	2		22.73	100	1.4

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(MW09-901)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/23/2013	XX	GW901X5I0	178	8.4	9.8	165.1	155.68	9.42	382	4			65	0.1
7/30/2013	XX	GW901X645	197	7.7	14.3	165.1	155.16	9.94	352	4			80	0.4
10/29/2013	XX	GW901X66I	195	7.3	8.9	165.1	154.47	10.63	312	2		22.8	85	1.4
4/22/2014	XX	GW901X6F1	231	7.4	13.1	165.1	157.03	8.07	464	5			85	1.5
7/29/2014	XX	GW901X6J8	208	7.7	15.8	165.1	155.79	9.31	408	4			95	0.8
10/21/2014	XX	GW901X72J	266	7.6	12.3	165.1	155.4	9.7	401	1		22.8	120	0
4/28/2015	XX	GW901X78G	286	7.5	11	165.1	157.6	7.5	371	5.1				1.4
7/14/2015	XX	GW901X7C8	306	7.5	18.6	165.1	154.85	10.25	368	4.6				1
10/27/2015	XX	GW901X7HH	318	7.7	11.8	165.1	155.62	9.48	301	3.4		22.82		0.2
4/5/2016	XX	GW901X867	356	7.4	4.6	165.1	157.3	7.8	362	5.3				1.1
7/26/2016	XX	GW901X8AH	366	7.6	20.4	165.1	154.38	10.72	337	4.3				3.9
10/25/2016	XX	GW901X8IG	353	7.1	10.7	165.1	154.6	10.5	397	0.9		22.82		4.1
4/18/2017	XX	GW901X972	341	7	8.5	165.1	157.65	7.45	422	5.4				0.7
7/25/2017	XX	GW901X9D0	379	6.5	19.5	165.1	154.19	10.91	346	2.2				2.5
10/24/2017	XX	GW901X9GF	392	6.9	16.3	165.1	153.18	11.92	388	0.8		22.8		2.6
4/3/2018	XX	GW901XA2E	482	6.8	10.1	165.1	158.8	6.3	413	3.2				0.2
7/17/2018	XX	GW901XABF	423	6.7	15	165.1	154.93	10.17	311	1.4				2.4
10/2/2018	XX	GW901XB0D	390	6.7	10.7	165.1	154.1	11	303	1		22.82		1.3
4/23/2019	XX	GW901XB5A	364	6.7	6.9	165.1	159.14	5.96	423	1.3				1.6
7/16/2019	XX	GW901XBC2	398	6.6	18.7	165.1	155.95	9.15	280	0.4				2.8
10/29/2019	XX	GW901XBHF	333	6.8	12.4	165.1	159.21	5.89	381	0.1 U		22.82		1.6

MW-204

Date	Type	Sample ID	Specific Conductance	pH	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity	Turbidity
4/28/2010	XX	GW204X400	216	6.6	7	164.75	155.53	9.22	357	0.6			60	1.6
7/19/2010	XX	GW204X434	175	6.6	18	164.75	154.93	9.82	379	2			110	2
10/19/2010	XX	GW204X468	200	7.5	12.1	164.75	155.43	9.32	306	0.6		24.45	70	0
4/26/2011	XX	GW204X4A9	193	7.3	9.4	164.75	156.01	8.74	328	0.8			50	0.4
7/19/2011	XX	GW204X4E7	176	6.9	15.1	164.75	155.32	9.43	355	1			100	0
10/26/2011	XX	GW204X4I2	180	7	10.6	164.75	155.65	9.1	328	0.8		24.45	55	2.6
4/24/2012	XX	GW204X52C	192	6.5	9.4	164.75	155.75	9	255	1			100	2.7
7/23/2012	XX	GW204X57B	189	7.2	16	164.75	154.6	10.15	258	0.6			80	1.3
10/24/2012	XX	GW204X5E2	193	7	10.9	164.75	155.7	9.05	228	0.4		24.45	100	4.6
4/24/2013	XX	GW204X5ID	185	6.7	7.2	164.75	155.53	9.22	339	1			60	5.5
10/30/2013	XX	GW204X68A	185	6	10.8	164.75	154.8	9.95	210	0.6		24.43	80	1.7
10/22/2014	XX	GW204X746	192	6.3	11.1	164.75	155.3	9.45	428	0.4		24.48	75	0.4
10/28/2015	XX	GW204X7J5	167	6.5	11.5	164.75	155.35	9.4	301	1.9		24.43		1.3
10/26/2016	XX	GW204X907	218	6.7	10	164.75	154.7	10.05	294	0.5		24.43		3.5
10/23/2017	XX	GW204X9I6	272	6.6	13.1	164.75	153.25	11.5	312	0.3		24.43		1.6
10/3/2018	XX	GW204XB24	277	6.6	12.3	164.75	154.58	10.17	300	1.6		24.48		2.4
10/28/2019	XX	GW204XBJ4	253	6.9	11	164.75	155.75	9	191	0.3		24.49		4.1

MW-206

Date	Type	Sample ID	Specific Conductance	pH	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity	Turbidity
4/26/2010	XX	GW206X3I9	135	7.4	11.2	204.67	199.37	5.3	302	5			60	0.3
7/19/2010	XX	GW206X41D	160	7.4	14	204.67	194.27	10.4	227	4			70	1
10/18/2010	XX	GW206X44H	187	7.7	9.9	204.67	197.82	6.85	20	3		23.08	70	1.9
4/25/2011	XX	GW206X48I	179	7.8	10.7	204.67	200.11	4.56	350	3			60	1.4
7/18/2011	XX	GW206X4CG	169	7.8	16.1	204.67	196.67	8	105	2			125	2.9
10/24/2011	XX	GW206X4GB	148	7.4	12.7	204.67	200	4.67	208	4		23.1	105	2.7
4/23/2012	XX	GW206X511	153	7	8.6	204.67	200.26	4.41	-334	4			100	2.7
7/23/2012	XX	GW206X560	155	7.9	15.7	204.67	196.32	8.35	329	6			80	1.3

(MW-206)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/22/2012	XX	GW206X5CB	157	8.4	11.2	204.67	200.12	4.55	312	6		23.09	60	1.8
4/22/2013	XX	GW206X5H2	141	8.1	8.6	204.67	199.87	4.8	317	6			65	0.9
7/29/2013	XX	GW206X637	146	7.7	12.3	204.67	197.89	6.78	464	8			65	0.9
10/28/2013	XX	GW206X660	135	7.9	10.3	204.67	196.62	8.05	164	6		23.15	60	1.5
4/21/2014	XX	GW206X6E3	135	8.4	11	204.67	199.97	4.7	441	5			60	0.4
7/28/2014	XX	GW206X6IB	170	7.3	14.4	204.67	197.72	6.95	366	5			70	0.9
10/20/2014	XX	GW206X721	142	8.3	9.5	204.67	196.87	7.8	295	6		23.15	65	0.9
4/27/2015	XX	GW206X77J	131	8.3	6.9	204.67	200.07	4.6	328	8.6				1.2
7/13/2015	XX	GW206X7BB	149	8.2	14.4	204.67	197.02	7.65	287	7.7				0.4
10/26/2015	XX	GW206X7H0	139	7.8	9.3	204.67	197.87	6.8	200	7.7		23.15		4.4
4/4/2016	XX	GW206X85A	159	7.3	4.1	204.67	199.77	4.9	364	8.5				1.5
7/25/2016	XX	GW206X8A0	148	8.1	13.8	204.67	195.17	9.5	306	7.6				2.4
10/24/2016	XX	GW206X8HJ	167	7.5	9.4	204.67	190.72	13.95	348	8.2				9.4
4/17/2017	XX	GW206X965	142	8.2	8.6	204.67	199.85	4.82	266	9.9				1.4
7/24/2017	XX	GW206X9C3	150	7.7	11.8	204.67	195.07	9.6	367	9.4				2.4
10/23/2017	XX	GW206X9FI	146	8.1	11.6	204.67	189.77	14.9	338	7.3		23.15		2
4/2/2018	XX	GW206XA1G	269	7.8	5.7	204.67	200.07	4.6	362	8.5				7.5
7/16/2018	XX	GW206XAAI	148	8	11.3	204.67	196.12	8.55	313	8.4				2.4
10/1/2018	XX	GW206XAJG	147	8.1	10.7	204.67	191.47	13.2	258	7.8		23.15		4.2
4/22/2019	XX	GW206XB4C	139	8.6	6.1	204.67	200.22	4.45	399	8.8				2.6
7/17/2019	XX	GW206XBB5	144	8.1	12.3	204.67	198.07	6.6	253	7.5				7.8
10/28/2019	XX	GW206XBGJ	149	8.3	9.1	204.67	200.17	4.5	242	7.2		23.15		4

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
7/31/2013	XX	GW206A64I	120	7.6	14.9	204.51	182.81	21.7	352	4			50	8.1
10/28/2013	XX	GW206A67B	126	7.3	9.4	204.51	181.61	22.9	63	3		93.5	50	9.3
4/21/2014	XX	GW206A6FJ	129	7.9	10.9	204.51	184.61	19.9	276	3			60	8.6
7/28/2014	XX	GW206A702	131	7.3	16.3	204.51	182.71	21.8	268	2			60	5.4
10/20/2014	XX	GW206A73B	128	8.1	9.2	204.51	178.81	25.7	325	3		93.48	55	1.2
4/27/2015	XX	GW206A79A	122	7.3	6.7	204.51	183.31	21.2	104	2.3				1.4
7/13/2015	XX	GW206A7D2	133	7.8	14.8	204.51	182.11	22.4	111	2.1				2.1
10/26/2015	XX	GW206A7IB	146	7.8	9	204.51	179.61	24.9	309	0.6		93.45		4.2
4/4/2016	XX	GW206A871	155	7.8	5.3	204.51	184.31	20.2	134	2.6				7
4/26/2016	XX	GW206AHBC	187	8.1	6.4	204.51	184.51	20	123	1.9				1.1
7/25/2016	XX	GW206A8BB	194	8	17	204.51	180.51	24	217	4.3				7.3
10/24/2016	XX	GW206A8JA	192	7.6	9.7	204.51	176.31	28.2	237	6.8		93.43		2.9
4/17/2017	XX	GW206A97G	193	7.6	11.1	204.51	181.01	23.5	123	4.5				1.3
7/24/2017	XX	GW206A9DE	204	7.8	13.3	204.51	181.51	23	134	4.2				2.9
10/23/2017	XX	GW206A9H9	221	7.5	11.3	204.51	176.91	27.6	302	4.5		93.45		1.8
4/2/2018	XX	GW206AA38	317	7.6	9	204.51	181.66	22.85	311	1.6				0.8
7/16/2018	XX	GW206AAC9	230	7.6	14.4	204.51	180.71	23.8	102	0.9				1.4
10/1/2018	XX	GW206AB17	234	11.8	11.9	204.51	176.11	28.4	275	3		93.43		6.7
4/22/2019	XX	GW206AB64	212	7.9	9	204.51	177.51	27	164	3.7				1.8
7/17/2019	XX	GW206ABCF	225	7.9	15.4	204.51	181.91	22.6	97	3.8				2.6
10/28/2019	XX	GW206ABI8	218	7.6	8.1	204.51	179.71	24.8	117	3.7		93.43		4.7

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW223A3IC	297	7.4	7	176.54	175.19	1.35	332	1			70	0.9
7/20/2010	XX	GW223A41G	309	7.1	14.8	176.54	172.64	3.9	350	1			125	0.2
10/19/2010	XX	GW223A450	324	7.5	9	176.54	174.34	2.2	253	2		35.42	100	0

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(MW-223A)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2011	XX	GW223A491	361	7.4	8.8	176.54	175.79	0.75	309	2			115	0.4
7/19/2011	XX	GW223A4CJ	375	7.5	14.2	176.54	174.29	2.25	422	2			110	0.2
10/25/2011	XX	GW223A4GE	367	7.5	10.8	176.54	175.84	0.7	271	1		35.56	95	1.7
4/24/2012	XX	GW223A514	378	7.8	8	176.54	176.14	0.4	-345	1			200	2.2
7/24/2012	XX	GW223A563	400	7.3	13.4	176.54	174.44	2.1	323	1			160	0.6
10/23/2012	XX	GW223A5CE	390	7.5	8.5	176.54	176.04	0.5	207	1		35.48	125	0.8
4/23/2013	XX	GW223A5H5	439	7.6	4.8	176.54	176.23	0.31	255	1			180	0.5
7/30/2013	XX	GW223A63A	454	7.6	13.4	176.54	175.45	1.09	322	1			180	0.1
10/29/2013	XX	GW223A663	420	7.6	9.3	176.54	174.59	1.95	237	0.8		35.56	180	0.3
4/22/2014	XX	GW223A6E6	453	7.8	6	176.54	176.14	0.4	436	0.6			200	0.3
7/29/2014	XX	GW223A6ID	460	7.5	10.4	176.54	175.39	1.15	404	0.4			200	0.5
10/21/2014	XX	GW223A723	435	7.6	9	176.54	174.11	2.43	367	0.8		35.57	200	0.8
4/28/2015	XX	GW223A781	458	7.6	6.5	176.54	175.74	0.8	367	0.7				0.3
7/14/2015	XX	GW223A7BD	467	7.5	14.2	176.54	174.72	1.82	356	0.9				0.3
10/27/2015	XX	GW223A7H2	490	7.6	8.5	176.54	175.14	1.4	290	1.1		35.57		0.2
4/5/2016	XX	GW223A85CX	F	F	F			F	F	F				F
4/27/2016	XX	GW223A85C	509	7.7	9.1	176.54	176.4	0.14	275	1.3				0.2
7/26/2016	XX	GW223A8A2	539	7.5	14.2	176.54	173.79	2.75	349	1.8				2.1
10/25/2016	XX	GW223A8I1	547	7.6	9.4	176.54	172.84	3.7	338	1.8		35.57		2.7
4/18/2017	XX	GW223A967	519	7.6	5.2	176.54	175.24	1.3	318	2.7				0.7
7/25/2017	XX	GW223A9C5	543	7.4	14	176.54	173.74	2.8	305	2				0.8
10/24/2017	XX	GW223A9G0	552	7.6	12.1	176.54	172.04	4.5	340	1.8		35.57		1.2
4/3/2018	XX	GW223AA1I	651	7.6	4.5	176.54	175.14	1.4	307	1.8				0.6
7/17/2018	XX	GW223AAB0	568	7.4	12.6	176.54	172.94	3.6	297	1.6				2
10/2/2018	XX	GW223AAJI	556	6.3	10.8	176.54	171.59	4.95	305	1.3		35.6		2.9
4/23/2019	XX	GW223AB4E	542	7.6	6.1	176.54	174.51	2.03	370	2				2
7/16/2019	XX	GW223ABB7	559	7.3	11.5	176.54	174.64	1.9	250	0.8				2.8
10/29/2019	XX	GW223ABH0	548	7.6	9.5	176.54	175.61	0.93	351	0.1 U		35.57		1.3

MW-223B

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW223B401	306	7.1	6.8	175.93	173.26	2.67	393	1			80	1.8
7/20/2010	XX	GW223B435	343	7	13.1	175.93	171.01	4.92	-113	1			120	0.8
10/19/2010	XX	GW223B469	316	7.4	10	175.93	172.48	3.45	108	0.8		20	70	0
4/26/2011	XX	GW223B4AA	320	7.2	8.5	175.93	173.73	2.2	328	1			70	0.2
7/19/2011	XX	GW223B4E8	336	7.4	13.7	175.93	172.23	3.7	357	0.8			75	0.6
10/25/2011	XX	GW223B4I3	327	7.5	11.3	175.93	173.73	2.2	144	0.4		19.93	80	2.5
4/24/2012	XX	GW223B52D	316	7.1	6.7	175.93	173.98	1.95	-402	0.8			180	3.6
7/24/2012	XX	GW223B57C	338	6.9	12.9	175.93	172.13	3.8	173	1			140	1.2
10/23/2012	XX	GW223B5E3	333	7.5	10.3	175.93	173.83	2.1	238	1		20.05	90	0.9
4/23/2013	XX	GW223B5IE	344	7.3	5.5	175.93	173.75	2.18	244	1			95	0.2
7/30/2013	XX	GW223B64J	363	7.8	13.8	175.93	173.16	2.77	318	2			125	0.4
10/29/2013	XX	GW223B67C	336	7.5	10.8	175.93	172.63	3.3	267	0.8		20.07	140	0.1
4/22/2014	XX	GW223B6FF	370	7.5	6.4	175.93	173.93	2	446	1			160	0.6
7/29/2014	XX	GW223B700	377	7.6	13.3	175.93	173.23	2.7	355	0.6			160	0.7
10/21/2014	XX	GW223B73C	350	7.5	10.4	175.93	172.43	3.5	388	1		20.07	160	1.1
4/28/2015	XX	GW223B798	371	7.1	6.2	175.93	173.78	2.15	344	0.4				0.5
7/14/2015	XX	GW223B7D0	397	7.2	13.9	175.93	172.53	3.4	349	0.5				0.4
10/27/2015	XX	GW223B7I9	394	7.5	9.8	175.93	173.13	2.8	286	1.4		20.05		1.3
4/5/2016	XX	GW223B86J	445	7.1	3.8	175.93	173.53	2.4	309	2.2				7.7
7/26/2016	XX	GW223B8B9	433	7.4	12.8	175.93	171.93	4	360	0.5				3.5

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(MW-223B)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/25/2016	XX	GW223B8J8	436	7.5	10.6	175.93	171.43	4.5	352	0.3		20.07		3.7
4/18/2017	XX	GW223B97E	416	7.2	6	175.93	172.73	3.2	371	3.6				0.8
7/25/2017	XX	GW223B9DC	441	6.7	12.1	175.93	171.76	4.17	316	0.9				0.9
10/24/2017	XX	GW223B9H7	446	7.3	13	175.93	170.68	5.25	367	0.3		20.06		1.5
4/3/2018	XX	GW223BA36	596	7.1	3.9	175.93	173.23	2.7	338	2.3				0.2
7/17/2018	XX	GW223BAC7	480	6.8	12.2	175.93	171.22	4.71	227	1				2.2
10/2/2018	XX	GW223BB15	485	7.2	10.4	175.93	170.23	5.7	267	0.9		20.07		2.6
4/23/2019	XX	GW223BB62	465	7.1	5.1	175.93	173.48	2.45	391	0.8				1.1
7/16/2019	XX	GW223BBCD	491	7.3	13.7	175.93	172.63	3.3	259	2				1.6
10/29/2019	XX	GW223BBI6	480	7.2	10.4	175.93	173.53	2.4	349	0.1 U		20.07		1.3

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW227X3ID	183	7.8	6.3	164.23	160	4.23	364	1			50	3.5
7/20/2010	XX	GW227X41H	185	7.7	13.8	164.23	157.58	6.65	180	0.6			70	2.6
10/19/2010	XX	GW227X451	189	7.9	10.4	164.23	159.81	4.42	191	0.8		22.3	50	0.7
4/26/2011	XX	GW227X492	194	8.1	9.8	164.23	160.13	4.1	339	2			70	1.6
7/19/2011	XX	GW227X4D0	199	8.5	15.6	164.23	158.48	5.75	356	1			60	0.2
10/25/2011	XX	GW227X4GF	188	8.3	11.3	164.23	160.18	4.05	346	0.6		22.28	65	3.3
4/24/2012	XX	GW227X515	186	8.5	6.8	164.23	160.59	3.64	-455	2			120	3
7/24/2012	XX	GW227X564	191	7.8	13.9	164.23	157.78	6.45	43	1			80	1.3
10/23/2012	XX	GW227X5CF	201	7.8	11	164.23	160	4.23	213	0.3		22.3	100	1.3
4/23/2013	XX	GW227X5H6	189	8.5	5.8	164.23	159.9	4.33	281	1			85	0.2
7/30/2013	XX	GW227X63B	192	8.9	15	164.23	159.84	4.39	227	0.8			85	0.3
10/29/2013	XX	GW227X664	177	8.4	10.5	164.23	159.58	4.65	305	1		22.28	80	0.7
4/22/2014	XX	GW227X6E7	187	8.2	8.3	164.23	160.03	4.2	388	2			70	0.2
7/29/2014	XX	GW227X6IE	180	8.3	14.2	164.23	159.8	4.43	306	0.8			75	1.3
10/21/2014	XX	GW227X724	181	8.3	10.7	164.23	159.63	4.6	376	0.8		22.3	85	1.2
4/28/2015	XX	GW227X782	184	8.3	6.7	164.23	159.93	4.3	350	3.1				0.8
7/14/2015	XX	GW227X7BE	193	8.3	15.3	164.23	158.43	5.8	353	1.1				1.1
10/27/2015	XX	GW227X7H3	182	8.1	11.4	164.23	159.63	4.6	297	3.9		22.3		0.7
4/5/2016	XX	GW227X85D	205	8.1	3.1	164.23	159.73	4.5	320	3.4				2.2
7/26/2016	XX	GW227X8A3	201	8	13.9	164.23	158.68	5.55	365	1.8				5.2
10/25/2016	XX	GW227X8I2	199	7.9	10.2	164.23	159.62	4.61	353	3.5		22.3		5.3
4/18/2017	XX	GW227X968	188	8.2	5.8	164.23	159.63	4.6	356	5.4				1.4
7/25/2017	XX	GW227X9C6	185	8.2	12.6	164.23	158.03	6.2	314	1.5				2.4
10/24/2017	XX	GW227X9G1	191	8.1	13.1	164.23	158.58	5.65	354	1.2		22.3		2
4/3/2018	XX	GW227XA1J	284	8.2	4.8	164.23	160.03	4.2	326	4.9				1.3
7/17/2018	XX	GW227XAB1	189	8.2	13.5	164.23	158.38	5.85	278	2.1				2.4
10/2/2018	XX	GW227XAJJ	191	8.1	11.1	164.23	159.05	5.18	274	2		22.3		1.6
4/23/2019	XX	GW227XB4F	194	8.3	4.9	164.23	160.1	4.13	389	3.2				2.5
7/16/2019	XX	GW227XBB8	189	8.1	15	164.23	159.48	4.75	244	3.1				3.7
10/29/2019	XX	GW227XBH1	181	8.3	10.5	164.23	160.04	4.19	333	0.1 U		22.3		2.6

MW-301

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2010	XX	GW301X3IE	183	7.9	14.5	166.36	161.16	5.2	284	4			100	4.2
7/19/2010	XX	GW301X41I	137	7	17.8	166.36	161.2	5.16	266	1			105	2.6
10/19/2010	XX	GW301X452	340	7.3	11.7	166.36	161.4	4.96	427	1		182.45	60	0
4/27/2011	XX	GW301X493	210	8.2	9.3	166.36	162.05	4.31	354	1			60	3
7/20/2011	XX	GW301X4D1	193	8.1	15.7	166.36	161.26	5.1	267	1			60	1.1
10/26/2011	XX	GW301X4GG	204	7.3	9.4	166.36	162.25	4.11	265	0.6		185.1	55	5.5

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(MW-301)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/25/2012	XX	GW301X516	194	8.1	9.5	166.36	162.43	3.93	290	0.6			100	7.6
7/25/2012	XX	GW301X565	202	7.4	13.3	166.36	161.36	5	307	0.8			120	1.5
10/24/2012	XX	GW301X5CG	171	7.2	15.5	166.36	161.8	4.56	448	1		179.61	55	8.5
4/22/2013	XX	GW301X5H7	!	!	!	166.36		!	!	!			!	!
7/31/2013	XX	GW301X63C	209	6.3	16.9	165.91	165.87	0.04	367	0.4			60	6.2
10/30/2013	XX	GW301X665	198	7	7.9	165.91	165.81	0.1	339	0.6		184.1	70	3.2
4/23/2014	XX	GW301X6E8	197	6.2	9.3	165.91	165.91	F1	438	1			60	3.1
7/30/2014	XX	GW301X6IF	201	7.7	14.3	165.91	165.91	F1	377	0.4			80	4.3
10/22/2014	XX	GW301X725	299	6.2	10	165.91	165.61	0.3	397	0.6		184.1	75	0.9
4/29/2015	XX	GW301X783	192	8.2	8.2	165.91	165.66	0.25	359	0.7				1.2
7/15/2015	XX	GW301X7BF	217	8.1	16.6	165.91	165.71	0.2	338	0.5				0.9
10/27/2015	XX	GW301X7H4	205	7.8	10.7	165.91	165.68	0.23	287	0.3		185.11		0.8
4/6/2016	XX	GW301X85EX	F	F	F			F	F	F				F
4/27/2016	XX	GW301X85E	210	8.4	8.8	165.91	165.61	0.3	234	0.3				0.4
7/27/2016	XX	GW301X8A4	210	8.1	15.6	165.91	165.49	0.42	203	0.1				0.2
10/26/2016	XX	GW301X8I3	218	8.3	8.1	165.91	165.53	0.38	334	0.6		185.11		4.5
4/19/2017	XX	GW301X969	215	8.2	8.3	165.91	165.56	0.35	308	2.8				1.8
7/26/2017	XX	GW301X9C7	224	7.9	15.2	165.91	165.61	0.3	287	0.3				2.1
10/25/2017	XX	GW301X9G2	225	8.1	13.7	165.91	165.71	0.2	368	0.2		185.11		1.6
4/4/2018	XX	GW301XA20	322	8.2	3.7	165.91	165.61	0.3	148	1.5				1.7
7/18/2018	XX	GW301XAB2	244	7.8	14.3			F1	267	0.2				3.5
10/1/2018	XX	GW301XB00	242	8	11.8	165.91	164.96	0.95	283	0.3		185.13		2.4
4/24/2019	XX	GW301XB4G	242	8.2	6.3	165.91	165.56	0.35	388	0.3				1.7
7/17/2019	XX	GW301XBB9	245	7.8	13.7	165.91	164.41	1.5	202	0.2				1.6
10/28/2019	XX	GW301XBH2	248	8.1	10.2	165.91		F1	322	0.3		185.1		1.9

MW-302R

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2010	XX	GW302X3JJ	167	6.4	8.8	206.86	199.33	7.53	349	4			135	1.2
7/19/2010	XX	GW302X433	475	6	13.6	206.86	190.95	15.91	291	2			165	0.4
10/18/2010	XX	GW302X467	502	6.5	11.1	206.86	198.81	8.05	347	1		32.22	130	0
4/25/2011	XX	GW302X4A8	301	6.4	7.8	206.86	201.56	5.3	291	1			130	0
7/18/2011	XX	GW302X4E6	382	6.7	13.3	206.86	195.66	11.2	304	2			345	0.2
10/24/2011	XX	GW302X4I1	400	6.9	11.4	206.86	200.26	6.6	362	2		32.2	270	1.5
4/23/2012	XX	GW302X52B	249	6.7	7.2	206.86	197.84	9.02	315	3			220	1.9
7/23/2012	XX	GW302X57A	355	6.6	12.2	206.86	195.61	11.25	241	3			60	1.7
10/22/2012	XX	GW302X5E1	463	6.8	12.3	206.86	202.74	4.12	319	3		32.2	70	1.9
4/22/2013	XX	GW302X5IC	205	6.7	7.7	206.86	199.71	7.15	299	4			180	2.5
7/29/2013	XX	GW302X64H	350	6.5	11.8	206.86	198.47	8.39	546	5			80	0.4
10/28/2013	XX	GW302X67A	341	6.5	10.9	206.86	192.71	14.15	374	2		32.22	180	1.3
4/21/2014	XX	GW302X6FD	336	6.7	7.1	206.86	201.31	5.55	505	3			180	1
7/28/2014	XX	GW302X6JJ	445	6.6	13.3	206.86	197.38	9.48	475	4			180	0.7
10/20/2014	XX	GW302X73A	500	6.6	11.8	206.86	191.11	15.75	476	1		32.22	180	1.4
4/27/2015	XX	GW302X797	270	6.7	7.1	206.86	201.61	5.25	381	6.7				0.6
7/13/2015	XX	GW302X7CJ	367	6.7	12.1	206.86	197.04	9.82	322	6				1.3
10/26/2015	XX	GW302X7I8	766	6.7	11.4	206.86	197.66	9.2	282	4.6		32.22		0.4
4/4/2016	XX	GW302X86I	293	6.8	6	206.86	201.24	5.62	351	6.2				2.7
7/25/2016	XX	GW302X8B8	300	6.9	12.4	206.86	191.23	15.63	367	6.1				0.9
10/24/2016	XX	GW302X8J7	630	6.4	11.9	206.86	188.36	18.5	350	1.3		32.22		2.6
4/17/2017	XX	GW302X97D	310	6.7	7.2	206.86	201.46	5.4	366	8.2				1.7
7/24/2017	XX	GW302X9DB	347	6.5	11.7	206.86	191.35	15.51	357	5.6				5.5

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(MW-302R)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/23/2017	XX	GW302X9H6	698	6.8	11.5	206.86	187.51	19.35	421	1.6		32.25		2.1
4/2/2018	XX	GW302XA35	490	6.7	6.5	206.86	202.36	4.5	375	6.3				2
7/16/2018	XX	GW302XAC6	354	6.4	11.6	206.86	191.08	15.78	345	6				3
10/1/2018	XX	GW302XB14	851	6.7	11.1	206.86	187.26	19.6	311	1.7		32.23		2.4
4/22/2019	XX	GW302XB61	181	6.7	6.7	206.86	202.33	4.53	400	9				2.7
7/17/2019	XX	GW302XBCC	335	6.4	12	206.86	198.31	8.55	295	6.4				1.5
10/28/2019	XX	GW302XBI5	317	6.5	11.1	206.86	201.69	5.17	375	2.1		32.2		1.9

MW-303

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2010	XX	GW303X403	196	6.3	13.3	207.87	186.27	21.6	340	2			55	0.8
7/19/2010	XX	GW303X437	201	5.8	14.8	207.87	181.07	26.8	245	0.8			75	0.5
10/18/2010	XX	GW303X46B	175	6.7	10.7	207.87	176.97	30.9	334	2		46.76	50	1.5
4/25/2011	XX	GW303X4AC	223	6	10.9	207.87	186.77	21.1	218	1			70	1
7/18/2011	XX	GW303X4EA	223	6.2	13.3	207.87	183.52	24.35	133	0.4			200	1
10/24/2011	XX	GW303X4I5	222	6.6	10.9	207.87	181.47	26.4	1	0.6		46.82	190	3.4
4/23/2012	XX	GW303X52F	243	6.1	7.1	207.87	182.92	24.95	294	0.8			180	5.6
7/24/2012	XX	GW303X57E	!	!	!	207.87	!	!	!	!		!	!	!

MW12-303R

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/23/2012	XX	GW303X5EG	189	7	10.6	208.89	181.42	27.47	236	2		43.32	80	9.3
4/22/2013	XX	GW303X5IG	254	6.7	9.4	208.89	183.26	25.63	311	2			110	2
7/29/2013	XX	GW303X651	253	6.6	12.4	208.89	182.91	25.98	418	1			105	0.9
10/28/2013	XX	GW303X67D	223	6.5	10.2	208.89	181.46	27.43	353	1		43.38	140	2.4
4/21/2014	XX	GW303X6FH	274	6.6	9.5	208.89	184.54	24.35	401	1			120	0.6
7/28/2014	XX	GW303X701	263	6.6	11.7	208.89	182.81	26.08	411	0.8			160	0.6
10/20/2014	XX	GW303X73D	440	6.8	10.5	208.89	178.81	30.08	447	0.8		43.38	180	1
4/27/2015	XX	GW303X799	874	6.1	8.7	208.89	183.49	25.4	407	5				0.5
6/18/2015	XX	42173-1	564	6.4	12.6	208.89	182.59	26.3	158	1				4.2
7/13/2015	XX	GW303X7D1	347	6.5	13.9	208.89	182.07	26.82	330	0.9				1.4
10/26/2015	XX	GW303X7IA	370	6.5	10.4	208.89	179.6	29.29	313	1.4		43.4		1.2
4/4/2016	XX	GW303X870	411	6.4	6.7	208.89	184.34	24.55	378	7.5				1.7
7/25/2016	XX	GW303X8BA	549	6.3	14.3	208.89	180.39	28.5	369	0.9				1.3
10/24/2016	XX	GW303X8J9	681	6.3	12.2	208.89	176.39	32.5	389	5.5		43.4		17.2
4/17/2017	XX	GW303X97F	466	6.4	10.2	208.89	182.29	26.6	382	7.7				1.8
7/24/2017	XX	GW303X9DD	419	6.2	12.3	208.89	181.5	27.39	343	0.8				2.8
10/23/2017	XX	GW303X9H8	414	6.8	12.9	208.89	176.94	31.95	375	2.3		43.4		37.5
4/2/2018	XX	GW303XA37	1711	6	8.8	208.89	181.64	27.25	408	5.1				1.9
7/16/2018	XX	GW303XAC8	501	6.2	14.4	208.89	180.59	28.3	333	0.9				1.8
10/1/2018	XX	GW303XB16	408	6.6	11.3	208.89	176.81	32.08	272	1.4		43.4		12.5
4/22/2019	XX	GW303XB63	485	6.2	9.1	208.89	181.14	27.75	418	5.8				7.6
7/17/2019	XX	GW303XBCE	494	5.9	11.3	208.89	181.89	27	303	2.2				1.8
10/28/2019	XX	GW303XBI7	380	6.1	10.4	208.89	179.77	29.12	400	0.2		43.4		2.8

MW-401A

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW401A3J8	122	8.3	8.1	156.83	152.38	4.45	456	6			45	0
7/20/2010	XX	GW401A42C	125	7.9	10.3	156.83	149.05	7.78	375	4			70	2
10/20/2010	XX	GW401A45G	191	7.8	8.1	156.83	151.31	5.52	462	5		112.1	50	0
4/25/2011	XX	GW401A49H	132	7.6	8.6	156.83	155.23	1.6	320	3			115	0
7/18/2011	XX	GW401A4DF	142	7.5	11.5	156.83	150.68	6.15	403	5			140	0
10/24/2011	XX	GW401A4HA	128	8.2	10.2	156.83	153.21	3.62	309	6		112.02	50	0
4/23/2012	XX	GW401A520	123	8.3	8.6	156.83	152.41	4.42	422	5			50	2.4

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(MW-401A)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
7/23/2012	XX	GW401A56J	126	7.8	12.7	156.83	150.8	6.03	394	6			100	4.9
10/22/2012	XX	GW401A5DA	119	7.1	9.9	156.83	155.9	0.93	452	5		112.02	75	0.7
4/22/2013	XX	GW401A5I1	123	7.9	7.8	156.83	153.93	2.9	233	5			45	1.4
7/29/2013	XX	GW401A646	124	7.2	12.3	156.83	151.23	5.6	330	6			45	1.6
10/28/2013	XX	GW401A66J	140	6.8	9.3	156.83	150.73	6.1	209	5		112.04	45	0.2
4/21/2014	XX	GW401A6F2	131	7.9	8.4	156.83	155.69	1.14	396	6			55	1.1
7/28/2014	XX	GW401A6J9	129	8.2	11.2	156.83	151.73	5.1	384	4			25	2.1
10/20/2014	XX	GW401A730	118	6.6	9.5	156.83	149.68	7.15	370	5		112.04	25	0.4
4/27/2015	XX	GW401A78H	131	8.3	7.2	156.83	155.23	1.6	217	7.3				0.4
7/13/2015	XX	GW401A7C9	124	8	10.3	156.83	151.47	5.36	194	6.9				0.5
10/26/2015	XX	GW401A7HI	118	7.8	9	156.83	152.03	4.8	208	7.1		112.03		0.2
4/6/2016	XX	GW401A868X	F	F	F			F	F	F				F
4/27/2016	XX	GW401A868	130	8.6	7.4	156.83	153.14	3.69	270	5.9				0.1
7/25/2016	XX	GW401A8AI	127	7.4	11.7	156.83	149.57	7.26	310	6.1				0.4
10/24/2016	XX	GW401A8IH	127	7.6	9.2	156.83	148.33	8.5	182	5.8		112.2		0.2
4/17/2017	XX	GW401A973	120	8.3	8.5	156.83	155.76	1.07	337	7.4				0.2
7/24/2017	XX	GW401A9D1	126	7.9	9.2	156.83	149.68	7.15	317	7				0.5
10/25/2017	XX	GW401A9GG	303	7	17.8	156.83	148.28	8.55	152	1.2		112.18		2
4/2/2018	XX	GW401AA2F	134	8.3	6.6	156.83	155.47	1.36	459	3.1				0.6
7/16/2018	XX	GW401AABG	140	8.3	11.6	156.83	149.93	6.9	365	5.5				0.5
10/1/2018	XX	GW401AB0E	146	8.2	9.5	156.83	148.11	8.72	466	5.2		112.2		0.3
4/22/2019	XX	GW401AB5B	130	8.4	7.6	156.83	154.92	1.91	289	6.8				0.2
7/15/2019	XX	GW401ABC3	130	7.3	10.3	156.83	152.78	4.05	482	11.1				0.4
10/28/2019	XX	GW401ABHG	140	7.6	9.3	156.83	154.62	2.21	243	4.9		112.21		0.5

MW-401B

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/27/2010	XX	GW401B3J9	237	7.3	7.4	157.32	150.62	6.7	266	0.8			100	0
7/20/2010	XX	GW401B42D	339	6.6	11	157.32	149.77	7.55	141	0.6			180	2.2
10/20/2010	XX	GW401B45H	514	6	9.4	157.32	150.5	6.82	241	0.3		23.1	100	0
4/25/2011	XX	GW401B49I	248	6.5	7.8	157.32	150.76	6.56	239	1			225	3.4
7/18/2011	XX	GW401B4DG	313	6.3	11.1	157.32	149.99	7.33	183	1			275	0
10/24/2011	XX	GW401B4HB	319	6.6	11.1	157.32	150.69	6.63	152	1		23.12	115	0
4/23/2012	XX	GW401B521	235	7.5	7.5	157.32	150.69	6.63	338	5			60	2.2
7/23/2012	XX	GW401B570	276	6.9	11.9	157.32	149.92	7.4	181	0.3			140	2.8
10/22/2012	XX	GW401B5DB	310	6.7	11.1	157.32	150.97	6.35	227	0.4		23.13	110	1.2
4/22/2013	XX	GW401B5I2	262	6.8	6.9	157.32	150.62	6.7	234	0.8			90	1.1
7/29/2013	XX	GW401B647	238	7.1	12.2	157.32	150.38	6.94	158	0.4			95	1.4
10/28/2013	XX	GW401B670	376	6.5	10	157.32	150.12	7.2	172	0.6		23.11	100	0.3
4/21/2014	XX	GW401B6F3	265	7	7.1	157.32	150.93	6.39	264	1			55	1.1
7/28/2014	XX	GW401B6JA	324	6.9	11.3	157.32	150.4	6.92	173	0.3			30	2.4
10/20/2014	XX	GW401B731	336	6.5	10.1	157.32	150.18	7.14	217	1		23.12	25	0.3
4/27/2015	XX	GW401B78I	243	7.4	6.7	157.32	150.8	6.52	174	0.2				0.4
7/13/2015	XX	GW401B7CA	318	7	8.7	157.32	150.01	7.31	166	0.1				0.9
10/26/2015	XX	GW401B7HJ	335	6.8	10.1	157.32	150.35	6.97	190	0.1		23.1		0.1
4/6/2016	XX	GW401B869	274	7.2	5.9	157.32	150.69	6.63	219	1.7				0.3
7/25/2016	XX	GW401B8AJ	360	6.4	9.8	157.32	149.79	7.53	171	0.1				0.2
10/24/2016	XX	GW401B8II	355	6.6	10.2	157.32	149.98	7.34	199	0.1		23.1		0.2
4/17/2017	XX	GW401B974	265	6.8	7	157.32	150.99	6.33	222	0.5				0.2
7/24/2017	XX	GW401B9D2	305	6.8	9.5	157.32	149.72	7.66	200	0.1				0.2
10/25/2017	XX	GW401B9GH	375	6.8	12.3	157.32	149.07	8.25	119	1		23.14		6.7

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
(MW-401B)														
4/2/2018	XX	GW401BA2G	272	7.3	6.3	157.32	151.07	6.25	401	0.2				0.5
7/16/2018	XX	GW401BABH	350	7.5	9.7	157.32	149.83	7.49	220	0.1				0.2
10/1/2018	XX	GW401BB0F	363	7.2	10.4	157.32	149.42	7.9	417	0.1		23.14		0.2
4/22/2019	XX	GW401BB5C	216	7.7	7.5	157.32	151	6.32	186	0.3				0.3
7/15/2019	XX	GW401BBC4	267	7.2	9.2	157.32	150.56	6.76	216	3.7				0.6
10/28/2019	XX	GW401BBHH	327	6.8	10	157.32	151.12	6.2	213	1.9		23.14		2.2
MW-402A														
4/27/2010	XX	GW402A3JA	120	8.5	9.9	152.2		F1	336	6			45	0
7/21/2010	XX	GW402A42E	123	7.8	14.7	152.2		F1	256	4			70	2.2
10/20/2010	XX	GW402A45I	197	7.3	8.8	152.2		F1	390	5		108.35	35	0
4/27/2011	XX	GW402A49J	130	7.8	8	152.2		F1	287	3			135	0
7/20/2011	XX	GW402A4DH	114	7.8	14.7	152.2		F1	361	3			50	0.9
10/26/2011	XX	GW402A4HC	130	7.8	7.6	152.2		F1	215	5		108.35	50	0
4/24/2012	XX	GW402A522	121	7.5	9.3	152.2		F1	353	4			60	0.7
7/25/2012	XX	GW402A571	125	8.4	13.4	152.2		F1	392	4			70	1.9
10/24/2012	XX	GW402A5DC	116	7.4	7.9	152.2		F1	405	4		108.35	60	0.8
4/22/2013	XX	GW402A5I3	138	9.2	10.4	152.2	152.07	0.13	339	3			50	0.5
7/31/2013	XX	GW402A648	125	8.3	14.4	152.2	152.15	0.05	139	5			25	0.6
10/30/2013	XX	GW402A671	141	8.1	7.7	152.2		F1	348	5		108.35	30	0.3
4/23/2014	XX	GW402A6F4	130	8.4	8.6	152.2	152.2	F1	390	2			45	0.2
7/30/2014	XX	GW402A6JB	126	8.5	11.7	152.2	152	0.2	427	4			15	0.3
10/22/2014	XX	GW402A732	58	8.6	8.3	152.2	151.95	0.25	370	4		108.3	30	0.4
4/29/2015	XX	GW402A78J	137	8.5	6.9	152.2	152.05	0.15	272	4				0.8
7/15/2015	XX	GW402A7CB	124	8.6	11.2	152.2		F1	306	3				0.4
10/28/2015	XX	GW402A7I0	117	8.6	7.3	152.2	152.16	0.04	323	3.2		108.28		0.2
4/6/2016	XX	GW402A86AX	F	F	F			F	F	F				F
4/27/2016	XX	GW402A86A	129	8.8	7.2	152.2		F1	240	2.9				0.2
7/27/2016	XX	GW402A8B0	128	8.6	12.4	152.2	152.12	0.08	248	2.9				0.3
10/26/2016	XX	GW402A8IJ	126	8.3	8.2	152.2	151.74	0.46	245	4.5		108.28		0.4
4/19/2017	XX	GW402A975	120	8.7	6.9	152.2	152.14	0.06	283	3.5				0.5
7/26/2017	XX	GW402A9D3	122	8.4	10.2	152.2	152.15	0.05	321	2.7				0.4
10/26/2017	XX	GW402A9GI	122	8.1	11	152.2	152.15	0.05	365	2.8		108.28		0.6
4/4/2018	XX	GW402AA2H	130	8.6	6.1	152.2	152.18	0.02	460	5.2				0.3
7/18/2018	XX	GW402AABI	136	8.5	11.9	152.2	151.97	0.23	407	2.6				0.3
10/3/2018	XX	GW402AB0G	136	8.6	9.7	152.2	151.75	0.45	427	2.7		108.3		0.2
4/24/2019	XX	GW402AB5D	122	8.5	6	152.2	152.14	0.06	344	3.5				0.2
7/17/2019	XX	GW402ABC5	124	7.9	12.7	152.2		F1	339	6.1				2.1
10/30/2019	XX	GW402ABHI	128	8.1	9.5	152.2	152.15	0.05	220	3.3		108.35		0.4
MW-402B														
4/27/2010	XX	GW402B3JB	150	8.7	7.7	152.74	149.74	3	154	0.6			75	0
7/21/2010	XX	GW402B42F	154	8	12.5	152.74	147.63	5.11	153	0.3			70	2.8
10/20/2010	XX	GW402B45J	246	7.2	9.5	152.74	149.34	3.4	323	0.4		25.18	60	0
4/27/2011	XX	GW402B4A0	164	8.1	7.1	152.74	150.02	2.72	226	1			135	0
7/20/2011	XX	GW402B4DI	141	8.1	11.7	152.74	148.19	4.55	223	1			63	3.5
10/26/2011	XX	GW402B4HD	160	7.9	8	152.74	149.79	2.95	107	1		25.18	100	0
4/24/2012	XX	GW402B523	149	8.4	7.1	152.74	150.09	2.65	264	0.2			75	0.8
7/25/2012	XX	GW402B572	157	8.5	10.8	152.74	148.12	4.62	279	0.3			90	2.2
10/24/2012	XX	GW402B5DD	141	7.6	8.9	152.74	149.84	2.9	323	0.4		25.2	50	3.2

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(MW-402B)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/22/2013	XX	GW402B5I4	152	9.2	7.3	152.74	149.74	3	242	0.3			60	0.9
7/31/2013	XX	GW402B649	147	8.2	11.6	152.74	148.82	3.92	76	0.3			40	0.4
10/30/2013	XX	GW402B672	174	8.7	9	152.74	148.94	3.8	195	0.3		25.18	35	0.3
4/23/2014	XX	GW402B6F5	160	8.3	6.9	152.74	150.12	2.62	297	0.6			45	0.3
7/30/2014	XX	GW402B6JC	152	8.6	11	152.74	149.03	3.71	307	1			15	0.2
10/22/2014	XX	GW402B733	147	8.7	9.6	152.74	148.87	3.87	321	1		25.13	35	0.3
4/29/2015	XX	GW402B790	155	8.7	6.1	152.74	149.94	2.8	253	0.6				0.4
7/15/2015	XX	GW402B7CC	147	8.5	8.9	152.74	148.36	4.38	323	0.1				0.1
10/28/2015	XX	GW402B7I1	142	8.6	8.8	152.74	149.49	3.25	351	0.1		25.16		0.2
4/6/2016	XX	GW402B86BX	F	F	F			F	F	F				F
4/27/2016	XX	GW402B86B	152	8.9	6.9	152.74	149.73	3.01	226	0.1				0.2
7/27/2016	XX	GW402B8B1	150	8.4	10.8	152.74	147.81	4.93	214	0.2				0.3
10/26/2016	XX	GW402B8J0	150	8.3	9.3	152.74	147.53	5.21	245	0.3		25.15		0.1
4/19/2017	XX	GW402B976	141	8.8	6.4	152.74	149.94	2.8	241	0.1				0.2
7/26/2017	XX	GW402B9D4	145	8.2	9.6	152.74	147.76	4.98	334	0.1				0.2
10/26/2017	XX	GW402B9GJ	147	7.9	10.8	152.74	148.16	4.58	380	0.1		25.16		0.3
4/4/2018	XX	GW402BA2I	152	8.4	5.9	152.74	150.29	2.45	467	6.8				0.3
7/18/2018	XX	GW402BABJ	160	8.5	10	152.74	148.12	4.62	377	0.1				0.3
10/3/2018	XX	GW402BB0H	162	8.7	10.1	152.74	146.92	5.82	415	0.1		25.16		0.1
4/24/2019	XX	GW402BB5E	143	8.9	5.2	152.74	150.3	2.44	265	0.1				0.3
7/17/2019	XX	GW402BBC6	143	8.3	10.6	152.74	149.02	3.72	319	3.2				1.2
10/30/2019	XX	GW402BBHJ	151	8.1	9.9	152.74	150.09	2.65	208	1.2		25.14		0.2

MW-501

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/5/2018	XX	GW501XA6I	204	8.1	6.5	166.19		F1	472	4.1		47.6		0.4
6/4/2018	XX	GW501XA7F	202	7.2	8.2	166.19		F1	346	8				1
7/19/2018	XX	GW501XAED	235	8.8	9	166.19		F1	553	6.7				3.2
8/20/2018	XX	GW501XAFE	255	6.7	9.2	166.19		F1	327	7				3.9
4/24/2019	XX	GW501XB7C	297	6.7	8	166.19		F1	383	6.3				0.2
7/17/2019	XX	GW501XBE0	176	7.8	13.3	166.19		F1	200	13.3				0.4
10/30/2019	XX	GW501XBJ9	367	6.9	9	166.19		F1	208	4.7		47.6		0.1

OW-06-03

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/10/2018	XX	GWXXXXA73	193	5.6	8.7	206.04	181.72	24.32	401	6		25.81		2.7
6/5/2018	XX	GWXXXXA80	I	I	I			I	I	I				I
7/19/2018	XX	GWXXXXAEI	I	I	I			I	I	I				I
8/21/2018	XX	GWXXXXAFH	I	I	I	I	I	I	I	I				I
4/23/2019	XX	GWXXXXB7B	409	6	6.2	206.04	185.54	20.5	358	3				8.2
7/18/2019	XX	GWXXXXBDJ	I	I	I	206.04	I	I	I	I				I
10/29/2019	XX	GWXXXXBJA	448	6.4	10.3	206.04	182.91	23.13	176	0.9		25.81		10.2

OW-601A

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/11/2018	XX	GW601AA69	336	7.2	8.2	217.94	182.32	35.62	223	7.9		79.02		1355
6/6/2018	XX	GW601AA76	324	7.4	9.2	217.94	182.34	35.6	276	2.7				38.1
7/19/2018	XX	GW601AAE4	364	7.1	14.1	217.94	180.54	37.4	187	4.6				3.3
8/22/2018	XX	GW601AAF5	379	7.2	14.2	217.94	178.84	39.1	273	1.5				3.3
4/24/2019	XX	GW601AB76	410	7.2	6.4	217.94	181.34	36.6	402	0.9				1.7
7/18/2019	XX	GW601ABB6	409	7.1	13.3	217.94	181.74	36.2	291	2				1.7
10/30/2019	XX	GW601ABJB	378	7	11.3	217.94	179.69	38.25	314	6.4		79.02		2

OW-601B

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(OW-601B) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/11/2018	XX	GW601BA6A	371	6.4	8.6	217.5	181.95	35.55	361	4.4		59.2		2.5
6/6/2018	XX	GW601BA77	323	6.5	9.1	217.5	181.9	35.6	287	1.4				3
7/19/2018	XX	GW601BAE5	339	6.2	12.6	217.5	179.95	37.55	370	3.1				2.5
8/22/2018	XX	GW601BAF6	386	6.2	14.7	217.5	178.42	39.08	340	4.3				5
4/23/2019	XX	GW601BB77	358	6.5	7.7	217.5	180.92	36.58	406	2.5				1
7/18/2019	XX	GW601BBDF	351	6.2	11	217.5	181.34	36.16	259	2.1				5.7
10/30/2019	XX	GW601BBJC	369	6.7	10.4	217.5	179.2	38.3	328	3		59.19		6.3
OW-602A														
4/11/2018	XX	GW602AA6B	144	7.3	8.1	213.17	183.25	29.92	345	9.8		240		0.5
6/6/2018	XX	GW602AA78	143	7.2	7.9	213.17	181.67	31.5	335	12.9				2
7/19/2018	XX	GW602AAE6	143	8.2	8.6	213.17	179.32	33.85	467	10.3				2.2
8/21/2018	XX	GW602AAF7	143	6.7	17.5	213.17	177.92	35.25	301	7.5				3.7
4/24/2019	XX	GW602AB78	93	7.1	7.2	213.17	178.72	34.45	391	10				0.9
7/18/2019	XX	GW602ABDG	110	6.8	8.7	213.17	178.42	34.75	308	11.2				1.6
10/29/2019	XX	GW602ABJD	120	7.1	9.2	213.17	177.37	35.8	324	8.2		239.4		0.7
OW-603B														
4/12/2018	XX	GW603BA6C	302	5.7	7.7	208.07	187.63	20.44	415	0.3		28.84		7.2
6/5/2018	XX	GW603BA79	211	5.9	8.3	208.07	185.27	22.8	393	3.7				2.2
7/19/2018	XX	GW603BAE7	223	7.1	19.7	208.07	183.42	24.65	402	1.2				430
8/21/2018	XX	GW603BAF8	136	6.1	16	208.07	182.47	25.6	315	5				11.3
4/23/2019	XX	GW603BB79	122	6.4	6.3	208.07	181.17	26.9	409	5.8				22.1
7/18/2019	XX	GW603BBDH	136	6.2	12.3	208.07	182.67	25.4	304	7.5				9.3
10/29/2019	XX	GW603BBJE	185	6.5	10.2	208.07	181.51	26.56	400	0.1		28.84		32.6
OW-604A														
4/12/2018	XX	GW604AA6D	89	6	7.1	198.8	184.5	14.3	416	1.6		33.8		3.1
6/4/2018	XX	GW604AA7A	78	6.3	8.1	198.8	180.3	18.5	397	7.5				1.2
7/19/2018	XX	GW604AAE8	89	7.8	14.5	198.8	178.25	20.55	548	6				3.2
8/21/2018	XX	GW604AAF9	125	6.3	16.9	198.8	175.73	23.07	334	5.4				3.7
4/23/2019	XX	GW604AB7A	119	6.4	6.2	198.8	177.81	20.99	429	5.2				2
7/18/2019	XX	GW604ABDI	124	6.1	14.1	198.8	178.95	19.85	293	3.2				5.8
10/29/2019	XX	GW604ABJF	120	6.3	11	198.8	179.06	19.74	417	0.1 U		33.8		3.7
P-04-02														
4/26/2010	XX	GWXXXX405	222	7.1	12.9	168.74	160.93	7.81	303	4			50	0.6
7/21/2010	XX	GWXXXX439	213	7.4	16.2	168.74	160.49	8.25	322	3			115	2.5
10/20/2010	XX	GWXXXX46D	214	7.9	10.3	168.74	160.24	8.5	282	1		37.15	55	0
4/27/2011	XX	GWXXXX4AE	227	7.8	10.8	168.74	161.46	7.28	483	5			175	0.4
7/20/2011	XX	GWXXXX4EC	201	7.4	18.8	168.74	160.93	7.81	381	3			75	0
10/26/2011	XX	GWXXXX4I7	!	!	!	168.74		!	!	!		!	!	!
4/25/2012	XX	GWXXXX52H	193	6.3	10.7	168.74	158.19	10.55	263	1			100	64.4
7/25/2012	XX	GWXXXX57G	283	7.3	4.9	168.74	157.18	11.56	346	1			85	19.1
10/24/2012	XX	GWXXXX5E7	245	6.8	13.3	168.74	162.09	6.65	340	1		39.98	60	16.2
4/22/2013	XX	GWXXXX5II	!	!	!	168.74		!	!	!			!	!
P-04-02R														
7/15/2015	XX	GWXXXX7DJ	284	7.9	13.6	170.72	158.71	12.01	316	5.8				18.2
10/28/2015	XX	GWXXXX7J4	700	7.9	12.6	170.72	158.92	11.8	118	0.2		37.98		1.5
4/6/2016	XX	GWXXXX87I	531	8.1	8.4	170.72	159.37	11.35	272	1.9				2.2

(P-04-02R)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
7/27/2016	XX	GWXXXX8C7	772	7.8	15.4	170.72	157.92	12.8	282	1.1				0.8
10/26/2016	XX	GWXXXX904	629	7.8	11.1	170.72	157.91	12.81	195	1.2		37.96		0.8
4/19/2017	XX	GWXXXX98C	636	8.1	9.2	170.72	159.42	11.3	349	6.2				1.1
7/26/2017	XX	GWXXXX9E8	604	8	12.4	170.72	157.62	13.1	350	2.2				2.4
10/25/2017	XX	GWXXXX9I3	481	7.7	15.4	170.72	157.22	13.5	341	3.5		38		1.7
4/4/2018	XX	GWXXXXA44	492	8.2	9.3	170.72	159.92	10.8	470	5.6				1.8
7/18/2018	XX	GWXXXXAD3	509	8.2	13.2	170.72	157.48	13.24	446	1.7				7.3
10/3/2018	XX	GWXXXXB21	456	8.1	12.7	170.72	157.47	13.25	435	1.3		38		1.8
4/22/2019	XX	GWXXXXB70	327	8.3	11	170.72	159.86	10.86	401	2.9				0.9
7/17/2019	XX	GWXXXXBDA	401	8	15.1	170.72	158.23	12.49	305	7.1				1.3
10/30/2019	XX	GWXXXXBJ2	331	8.2	12	170.72	159.22	11.5	254	0.7		38		2.9

P-04-04

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2010	XX	GWXXXX406	177	7.5	12.3	169.35	160.9	8.45	325	4			60	0.6
7/21/2010	XX	GWXXXX43A	173	7.5	16.3	169.35	160.45	8.9	288	4			95	2
10/20/2010	XX	GWXXXX46E	177	7.9	10.5	169.35	160.35	9	238	2		32.25	50	0
4/27/2011	XX	GWXXXX4AF	188	7.8	9.8	169.35	161.53	7.82	520	6			150	0
7/20/2011	XX	GWXXXX4ED	166	7.6	18.7	169.35	160.91	8.44	362	3			75	0
10/26/2011	XX	GWXXXX4I8	181	8.4	11.2	169.35	160.05	9.3	185	1		32.3	60	1.6
4/25/2012	XX	GWXXXX52I	185	7.1	11.9	169.35	159.73	9.62	290	3			100	2.9
7/25/2012	XX	GWXXXX57H	177	7.7	18.7	169.35	159.3	10.05	396	4			100	2.7
10/24/2012	XX	GWXXXX5E8	158	7.4	16.1	169.35	160.45	8.9	388	3		32.33	50	3
4/24/2013	XX	GWXXXX5IJ	178	8.3	8.1	169.35	160.3	9.05	307	5			90	0.4
7/31/2013	XX	GWXXXX654	175	8.1	17.3	169.25	160.13	9.12	274	4			50	1.2
10/30/2013	XX	GWXXXX67E	194	7.9	11	169.25	159.24	10.01	346	3		32.26	35	0.8
4/23/2014	XX	GWXXXX6G0	176	6.6	11.1	169.25	160.85	8.4	461	5			50	1.8
7/30/2014	XX	GWXXXX703	175	7.9	14.3	169.25	160.29	8.96	335	3			45	0.6
10/22/2014	XX	GWXXXX73E	165	8.1	10.9	169.25	159.9	9.35	390	3		32.28	50	1.1
4/29/2015	XX	GWXXXX79B	174	8	8.3	169.25	161.1	8.15	397	5.9				0.9
7/15/2015	XX	GWXXXX7D3	171	8.1	13.7	169.25	160.14	9.11	330	3.9				1.2
10/28/2015	XX	GWXXXX7IC	161	8.3	11.6	169.25	160.19	9.06	324	2.3		32.31		0.5
4/6/2016	XX	GWXXXX872	176	8.2	8.5	169.25	160.66	8.59	272	6.2				1.2
7/27/2016	XX	GWXXXX8BC	173	7.7	14.1	169.25	159.29	9.96	249	3.7				0.7
10/26/2016	XX	GWXXXX8JB	184	8	11.8	169.25	158.72	10.53	228	1.8		32.3		0.8
4/19/2017	XX	GWXXXX97H	173	8.1	9.3	169.25	160.75	8.5	350	7.6				0.8
7/26/2017	XX	GWXXXX9DF	175	8.1	13.4	169.25	159	10.25	312	3.3				1.5
10/25/2017	XX	GWXXXX9HA	189	7.7	15.3	169.25	158.45	10.8	340	4.5		32.34		0.7
4/4/2018	XX	GWXXXXA39	184	8.3	8.9	169.25	161.09	8.16	467	5.4				1.2
7/18/2018	XX	GWXXXXACA	193	7.9	14	169.25	158.85	10.4	482	3.2				4.2
10/3/2018	XX	GWXXXXB18	196	8.1	13.1	169.25	158.33	10.92	423	1.6		32.34		1.1
4/22/2019	XX	GWXXXXB65	182	8.2	9.6	169.25	160.38	8.87	402	6.3				0.8
7/17/2019	XX	GWXXXXBCG	190	8.1	16	169.25	159.65	9.6	304	7.7				1.4
10/30/2019	XX	GWXXXXBI9	187	7.9	12	169.25	160.05	9.2	247	2.4		32.34		2.2

PWS10-1

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2010	XX	GWPWS13IJ	223	6.1	11.7				23	1			70	8.8
7/19/2010	XX	GWPWS1423	314	6.1	19.9				192	3			25	7.6
10/18/2010	XX	GWPWS1457	438	6.5	8.8				232	5			10	2.7
4/25/2011	XX	GWPWS1498	154	6.4	8.3				134	1			170	3
7/18/2011	XX	GWPWS14D6	265	5.9	19.7				142	1			200	20

SUMMARY REPORT

Field Data

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(PWS10-1)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/24/2011	XX	GWPWS14H1	150	5.8	11.4				106	1			70	2.5
4/23/2012	XX	GWPWS151B	162	6	9.9				127	1			55	2.1
7/23/2012	XX	GWPWS156A	104	6	23.5				213	2			50	14
10/22/2012	XX	GWPWS15D1	138	5.8	11.6				228	0.3			35	3.7
4/22/2013	XX	GWPWS15HC	278	5.7	7.2				228	1			50	3.2
7/29/2013	XX	GWPWS163H	207	5.5	17.8				-38	1			75	12.6
10/28/2013	XX	GWPWS166A	119	6.3	7.1				101	4			25	5.7
4/21/2014	XX	GWPWS16ED	342	6.5	7.3				100	2			100	2.6
7/28/2014	XX	GWPWS16J0	277	6.2	18.4				86	1			35	4.2
10/20/2014	XX	GWPWS172A	76	5.4	11.1				407	4			20	1.8
4/27/2015	XX	GWPWS1788	290	6.5	7.6				170	0.3				4.1
7/13/2015	XX	GWPWS17C0	218	6.3	21.8				172	0.1				2.2
10/26/2015	XX	GWPWS17H9	85	6.6	7.3				274	6.6				2.1
4/4/2016	XX	GWPWS185J	247	6.5	2.7				196	0.3				2.2
7/25/2016	XX	GWPWS18A9	121	6.6	25				190	1.5				2.1
10/24/2016	XX	GWPWS18I8	304	6.5	9.6				155	0.1				1.1
4/17/2017	XX	GWPWS196E	105	6.7	9.8				261	2.1				2.2
7/24/2017	XX	GWPWS19CC	266	6.8	17.9				197	3.1				2.5
10/25/2017	XX	GWPWS19G7	196	6.4	11.9				104	0				3.5
4/2/2018	XX	GWPWS1A25	196	7.2	4.1				459	9.5				1.1
7/16/2018	XX	GWPWS1AB7	186	7.2	23.1				245	2.5				2.1
10/1/2018	XX	GWPWS1B05	148	6.2	11.7				818	5.6				2.1
4/22/2019	XX	GWPWS1B51	187	6.4	10				195	3.1				1
7/15/2019	XX	GWPWS1BBE	131	5.3	24.5				504	5.3				6.2
10/28/2019	XX	GWPWS1BH7	172	6.3	9.3				260	6.7				1.1

PWS10-2

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2010	XX	GWPWS23J0	82	6	9.3				102	4			20	2.3
7/19/2010	XX	GWPWS2424	110	5.6	21.1				-5	1			45	3.4
10/18/2010	XX	GWPWS2458	150	6.6	8.7				302	1			20	5.5
4/25/2011	XX	GWPWS2499	66	5.6	9.4				67	5			40	2.1
7/18/2011	XX	GWPWS24D7	157	5.8	24.6				248	1			135	4.4
10/24/2011	XX	GWPWS24H2	105	5.6	10.6				145	4			30	2.5
4/23/2012	XX	GWPWS251C	73	5.7	6.4				104	1			35	3.2
7/23/2012	XX	GWPWS256B	86	6.3	26.7				293	8			50	6.5
10/22/2012	XX	GWPWS25D2	74	6	12.3				278	5			15	1.6
4/22/2013	XX	GWPWS25HD	100	5.5	7.8				221	3			15	2.5
7/29/2013	XX	GWPWS263I	127	5.4	16.2				-1	1			30	3.1
10/28/2013	XX	GWPWS266B	107	6.7	9.6				133	5			15	6.2
4/21/2014	XX	GWPWS26EE	63	7.3	9.9				52	1			40	2.2
7/28/2014	XX	GWPWS26J1	140	5.7	15.4				108	0.4			25	1.5
10/20/2014	XX	GWPWS272B	131	5.7	10.6				233	1			15	2.2
4/27/2015	XX	GWPWS2789	103	6.4	5.5				217	3.8				5.2
7/13/2015	XX	GWPWS27C1	133	6	20.5				197	0.2				2.2
10/26/2015	XX	GWPWS27HA	72	7.6	7.5				392	10.1				1.2
4/4/2016	XX	GWPWS2860	117	7	1.6				227	8.3				4.1
7/25/2016	XX	GWPWS28AA	109	7.1	26.5				280	8.3				3.5
10/24/2016	XX	GWPWS28I9	91	6.7	9.5				228	3.7				1.1
4/17/2017	XX	GWPWS296F	102	6.3	9				189	3.9				2.1
7/24/2017	XX	GWPWS29CD	140	7.5	18.6				250	5.4				2.1

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CUMBERLAND CENTER, ME 04021

(PWS10-2)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
10/24/2017	XX	GWPWS29G8	D	D	D				D	D				D
4/2/2018	XX	GWPWS2A26	110	7.4	1.3				474	1.2				1.1
7/16/2018	XX	GWPWS2AB8	204	6.9	22.1				492	3.6				1.2
10/1/2018	XX	GWPWS2B06	170	7	12.8				460	7				1
4/22/2019	XX	GWPWS2B52	135	6.9	8.9				364	7.8				0.5
7/15/2019	XX	GWPWS2BBF	276	7.2	26.3				413	7.2				4.1
10/28/2019	XX	GWPWS2BH8	101	6.8	9.1				263	11.3				1.5

PWS10-3

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/26/2010	XX	GWPWS33J1	175	7	11.8				39	2			80	6.3
7/19/2010	XX	GWPWS3425	211	5.5	17.9				79	2			105	7.1
10/18/2010	XX	GWPWS3459	131	6.2	7.8				400	4			20	4.1
4/25/2011	XX	GWPWS349A	222	5.9	9				118	1			145	3.5
7/18/2011	XX	GWPWS34D8	148	5.8	23.1				203	3			125	18.3
10/24/2011	XX	GWPWS34H3	111	5.3	11.1				164	1			35	4.5
4/23/2012	XX	GWPWS351D	63	6.5	20.7				307	3			50	4.2
7/23/2012	XX	GWPWS356C	73	5.8	26.8				155	4			25	6.6
10/22/2012	XX	GWPWS35D3	59	5.4	11.9				284	0.8			15	4.3
4/22/2013	XX	GWPWS35HE	62	5	7.3				223	5			15	5.6
7/29/2013	XX	GWPWS363J	180	5.5	18.9				-7	1			90	5.9
10/28/2013	XX	GWPWS366C	80	6.6	7.6				152	4			20	8.1
4/21/2014	XX	GWPWS36EF	76	6.3	6.7				263	3			35	3.1
7/28/2014	XX	GWPWS36J2	116	5.6	20.4				136	2			20	4.2
10/20/2014	XX	GWPWS372D	42	5	10.1				423	4			20	2.1
4/27/2015	XX	GWPWS378A	57	6	7.6				264	4.1				7.1
7/13/2015	XX	GWPWS37C2	79	6.7	25				167	5.4				2.6
10/26/2015	XX	GWPWS37HB	80	6.7	15.4				331	10.2				2.2
4/4/2016	XX	GWPWS3861	163	7.4	3.1				229	7				2.2
7/25/2016	XX	GWPWS38AB	D	D	D				D	D				D
10/24/2016	XX	GWPWS38IA	159	6.3	10.3				369	10.3				1.2
4/17/2017	XX	GWPWS396G	61	6	10.7				269	0.8				1.8
7/24/2017	XX	GWPWS39CE	133	6.9	22				289	7.1				2.1
10/24/2017	XX	GWPWS39G9	D	D	D				D	D				D
4/2/2018	XX	GWPWS3A27	51	6.3	2.7				456	3.5				0.8
7/16/2018	XX	GWPWS3AB9	D	D	D				D	D				D
10/1/2018	XX	GWPWS3B07	119	7.1	12.2				463	7.5				2.1
4/22/2019	XX	GWPWS3B53	82	6.5	7.6				374	7.3				0.8
7/15/2019	XX	GWPWS3BBG	83	7.2	23.6				449	9.9				5.5
10/28/2019	XX	GWPWS3BH9	98	6	8.6				279	9.3				1.1

SW-1

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/28/2010	XX	SWXX1X3IG	186	6.2	7.9				404	5			15	1.7
7/20/2010	XX	SWXX1X420	293	6.3	21.3				100	2			135	15.5
10/19/2010	XX	SWXX1X454	142	7.3	6.2				450	4			20	3.2
4/26/2011	XX	SWXX1X495	76	5.9	10.9				404	5			30	1.4
7/19/2011	XX	SWXX1X4D3	235	6.4	21.9				273	4			100	0.4
10/25/2011	XX	SWXX1X4GI	78	7.5	11.6				234	6			30	0.6
4/24/2012	XX	SWXX1X518	78	6.7	11.6				549	6			35	2
7/24/2012	XX	SWXX1X567	108	6.9	22.1				299	5			60	9.6
10/23/2012	XX	SWXX1X5CI	98	7.2	10.1				475	5			50	1.6

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(SW-1)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/23/2013	XX	SWXX1X5H9	80	6.6	9.6				237	6			15	3.6
7/30/2013	XX	SWXX1X63E	83	6.5	23.2				310	6			25	2.3
10/29/2013	XX	SWXX1X667	99	7.2	5.6				325	6			20	1.5
4/22/2014	XX	SWXX1X6EA	154	7	9.9				455	6			35	3.4
7/29/2014	XX	SWXX1X6IH	75	7.1	22.8				424	4			20	2.7
10/21/2014	XX	SWXX1X727	83	7.5	9.7				350	6			20	3.1
4/28/2015	XX	SWXX1X785	117	7	7.9				407	9.7				2.2
7/14/2015	XX	SWXX1X7BH	95	7	25.1				331	3.8				4.2
10/27/2015	XX	SWXX1X7H6	81	8.2	5.3				320	10.3				2.2
4/5/2016	XX	SWXX1X85G	88	7	2.9				424	9.6				1.8
7/26/2016	XX	SWXX1X8A6	211	7.1	25.2				187	2.8				10.2
10/25/2016	XX	SWXX1X8I5	98	7.6	6.5				311	7.2				2.2
4/18/2017	XX	SWXX1X96B	56	6.5	6.9				369	9.1				1.3
7/25/2017	XX	SWXX1X9C9	235	6.8	18.9				221	4.2				3.3
10/25/2017	XX	SWXX1X9G4	127	6.9	15.2				398	5.4				2.5
4/3/2018	XX	SWXX1XA22	160	7	5.4				468	15.1				1.1
7/17/2018	XX	SWXX1XAB4	242	7.8	19.3				316	3.2				6.7
10/2/2018	XX	SWXX1XB02	144	6.6	9.6				514	6.1				1.4
4/23/2019	XX	SWXX1XB4I	125	6.9	5.4				372	8.5				1.1
7/16/2019	XX	SWXX1XBBB	109	6.7	27.5				356	4.2				3.3
10/29/2019	XX	SWXX1XBH4	228	6.6	10.6				240	8.3				2.5

SW-2

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/28/2010	XX	SWXX2X3IH	78	6.2	7.6				422	2	1.8		20	1.1
7/20/2010	XX	SWXX2X421	83	7.1	28.2				288	8	0.5		25	3.7
10/19/2010	XX	SWXX2X455	130	7.2	9.5				444	6	2		20	3.2
4/26/2011	XX	SWXX2X496	71	5.9	12.3				367	5	2.5		30	1.2
7/19/2011	XX	SWXX2X4D4	46	7.1	29.6				332	6	0.1		38	0
10/25/2011	XX	SWXX2X4GJ	72	7.6	11.7				337	5	1.5		25	1.2
4/24/2012	XX	SWXX2X519	87	6.9	10.6				454	5	14		30	2.4
7/24/2012	XX	SWXX2X568	65	6.9	25.9				449	6	1.75		25	3.1
10/23/2012	XX	SWXX2X5CJ	54	7.2	12.2				472	5	2.75		15	1.7
4/23/2013	XX	SWXX2X5HA	77	6.4	10.6				236	5	1.5		15	4.1
7/30/2013	XX	SWXX2X63F	65	7	26.2				274	6	1		20	2.2
10/29/2013	XX	SWXX2X668	82	8	10.1				469	5	0.1		20	1.2
4/22/2014	XX	SWXX2X6EB	76	7	10.4				407	6	5.25		25	2.6
7/29/2014	XX	SWXX2X6II	66	7.8	25.6				423	6	0.6		15	2.8
10/21/2014	XX	SWXX2X728	74	7	10.2				384	5	0.3		15	2.5
4/28/2015	XX	SWXX2X786		6.7	9.2				355	9				1.1
7/14/2015	XX	SWXX2X7BI	84	7	26.5				329	6.1	0.8			3.7
10/27/2015	XX	SWXX2X7H7	65	8.5	5.8				317	9.4	0.0017			1.2
4/5/2016	XX	SWXX2X85H	87	6.7	3.6				355	7.2				0.8
7/26/2016	XX	SWXX2X8A7	81	7.3	26.9				341	3.7	0.0033			7.3
10/25/2016	XX	SWXX2X8I6	90	7.1	8.1				353	7.1	6			1.6
4/18/2017	XX	SWXX2X96C	67	6.9	10.6				349	8	0.4			0.8
7/25/2017	XX	SWXX2X9CA	110	7.1	18				235	2.1	0.4			3.4
10/25/2017	XX	SWXX2X9G5	102	7.1	16.7				415	5.4	3			2.1
4/3/2018	XX	SWXX2XA23	50	6.8	3.1				467	7.9	11.25			1.1
7/17/2018	XX	SWXX2XAB5	104	7.9	21.3				318	1.1	0.4			8.2
10/2/2018	XX	SWXX2XB03		6.7	10.2				494	4	0.25			2.1

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(SW-2)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/23/2019	XX	SWXX2XB4J	83	6.6	4.9				360	6				0.9
7/16/2019	XX	SWXX2XBBC	85	6.3	28.8				397	4.2				3.2
10/29/2019	XX	SWXX2XBH5	66	5.9	8				281	13.7				0.8

SW-3

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/28/2010	XX	SWXX3X3II	81	6.8	8.9				368	2	9		20	1.7
7/20/2010	XX	SWXX3X422	110	7	22.3				287	4	3.5		60	9.6
10/19/2010	XX	SWXX3X456	137	7.5	6.2				437	6	8		15	0.6
4/26/2011	XX	SWXX3X497	73	6.3	11.2				438	6	8		35	1.6
7/19/2011	XX	SWXX3X4D5	93	6.8	23.3				338	5	2.5		38	0
10/25/2011	XX	SWXX3X4H0	78	6.6	10.5				257	5	7.5		25	1.2
4/24/2012	XX	SWXX3X51A	54	7.4	9.8				449	6	19		25	2.4
7/24/2012	XX	SWXX3X569	103	7.5	22.9				326	4	3.75		100	2.5
10/23/2012	XX	SWXX3X5D0	46	7.4	11.5				422	6	5		50	2.1
4/23/2013	XX	SWXX3X5HB	71	6.5	9.7				234	6	8		20	1.5
7/30/2013	XX	SWXX3X63G	81	7.9	23				170	6	6		25	1.2
10/29/2013	XX	SWXX3X669	108	7.7	6.7				365	4	6.5		15	1.2
4/22/2014	XX	SWXX3X6EC	71	7.3	9.9				444	6	10		30	0.8
7/29/2014	XX	SWXX3X6IJ	81	7.9	20.9				328	5	8		15	0.5
10/21/2014	XX	SWXX3X729	78	7.7	8.4				386	5	7		15	1.2
4/28/2015	XX	SWXX3X787	79	7.3	6.8				328	11.3	9.3			1
4/29/2015	XX	SWXX3X7AI	88	7.7	10.3				344	8.6	9.3			0.8
7/14/2015	XX	SWXX3X7BJ	93	8.1	21.5				305	5.4	5.8			1.2
10/27/2015	XX	SWXX3X7H8	81	8.8	4.6				293	11.4	0.016			0.6
4/5/2016	XX	SWXX3X85I	76	8.3	2.3				301	12.6				1.4
7/26/2016	XX	SWXX3X8A8	102	7.6	21.6				344	2.3				2.1
10/25/2016	XX	SWXX3X8I7	119	8.6	6.4				253	8.6	7			1.3
4/18/2017	XX	SWXX3X96D	59	8.3	8.3				347	10.8				1.1
7/25/2017	XX	SWXX3X9CB	120	7.4	16.8				344	2.6	5			1.3
10/25/2017	XX	SWXX3X9G6	149	6.9	15.7				407	3.6	8			1.3
4/3/2018	XX	SWXX3XA24	84	7.7	1.8				459	4.6	2			1.1
7/17/2018	XX	SWXX3XAB6	134	7.6	21.4				437	1.9	4			1.9
10/2/2018	XX	SWXX3XB04	100	7.2	10.1				507	8.1	12			0.5
4/23/2019	XX	SWXX3XB50	70	7.4	7.1				330	9				0.8
7/16/2019	XX	SWXX3XBBD	92	7.6	24.3				300	5.7				1.3
10/29/2019	XX	SWXX3XBH6	99	7.5	8.6				232	10.3				0.5

SW-DP1

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/28/2010	XX	SWDP1X3J4	201	6.6	10.9				335	5			55	3.1
7/20/2010	XX	SWDP1X428	106	8.2	26.5				200	5			25	3.9
10/19/2010	XX	SWDP1X45C	197	7.3	8.6				419	6			35	0.5
4/26/2011	XX	SWDP1X49D	139	6.6	12.6				374	6			80	3.6
7/19/2011	XX	SWDP1X4DB	154	7.6	27.1				328	5			63	0
10/25/2011	XX	SWDP1X4H6	117	7.7	14.2				324	6			35	0
4/24/2012	XX	SWDP1X51G	107	6.9	12.8				466	6			75	6.8
7/24/2012	XX	SWDP1X56F	167	7.4	25.6				395	6			80	7.5
10/23/2012	XX	SWDP1X5D6	66	7.2	11.7				477	6			25	2.1
4/23/2013	XX	SWDP1X5HH	195	7.3	12.1				236	6			20	3.1
7/30/2013	XX	SWDP1X642	82	6.7	26.8				285	6			30	0.7
10/29/2013	XX	SWDP1X66F	204	7.4	7.4				311	6			20	1.6

SEVEE & MAHER ENGINEERS, INC.
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(SW-DP1)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/22/2014	XX	SWDP1X6EI	83	7.7	14.5				452	6			30	3.6
7/29/2014	XX	SWDP1X6J5	47	7.1	25.1				448	6			10	0.8
10/21/2014	XX	SWDP1X72G	54	7.4	11.4				368	6			15	0.8
4/28/2015	XX	SWDP1X78D	109	7.3	10.2				368	11.8				2.1
7/14/2015	XX	SWDP1X7C5	112	8.3	27				255	8.8				3.6
10/27/2015	XX	SWDP1X7HE	69	8	8.6				313	10.8				0.8
4/5/2016	XX	SWDP1X864	100	7.1	6.4				348	12.5				0.5
7/26/2016	XX	SWDP1X8AE	123	7.9	29.3				263	5.9				2.3
10/25/2016	XX	SWDP1X8ID	75	7.8	9.2				260	7.7				1.6
4/18/2017	XX	SWDP1X96J	74	6.9	12.5				389	10.2				1.7
7/25/2017	XX	SWDP1X9CH	142	7.4	24.9				274	7				0.8
10/23/2017	XX	SWDP1X9GC	109	7.7	16.6				263	9.1				0.8
4/3/2018	XX	SWDP1XA2B	34	7.3	1.9				457	9.1				2.6
7/17/2018	XX	SWDP1XABC	91	8.2	23.1				418	6.7				2.7
10/2/2018	XX	SWDP1XB0A	78	7.2	12				486	5.4				0.9
4/23/2019	XX	SWDP1XB57	101	7.1	9				367	9.9				1.4
7/16/2019	XX	SWDP1XBBJ	79	8.9	28.7				327	8.4				0.8
10/29/2019	XX	SWDP1XBHC	106	6.9	10.6				241	9.5				1.2

SW-DP5

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/23/2013	XX	SWDP5X60I	162	7.6	12.8				236	6			20	2.6
7/30/2013	XX	SWDP5X65H	150	8	30.7				241	6			50	1.5
10/29/2013	XX	SWDP5X686	D	D	D				D	D			D	D
4/22/2014	XX	SWDP5X6GD	194	6.9	16.9				408	6			30	9.8
7/29/2014	XX	SWDP5X70F	99	7.9	27.5				392	6			15	2.6
10/21/2014	XX	SWDP5X743	113	7.6	10.7				422	5			15	1.2
4/28/2015	XX	SWDP5X7A3	208	7.9	10.8				353	11.5				1.1
7/14/2015	XX	SWDP5X7DF	153	7.7	27.6				218	6.4				4.3
10/27/2015	XX	SWDP5X7J2	D	D	D				D	D				D
4/5/2016	XX	SWDP5X87E	D	D	D				D	D				D
7/26/2016	XX	SWDP5X8C4	D	D	D				D	D				D
10/25/2016	XX	SWDP5X902	I	I	I				I	I				I
4/18/2017	XX	SWDP5X989	D	D	D				D	D				D
7/25/2017	XX	SWDP5X9E6	173	8.1	25.4				273	7.7				0.4
10/24/2017	XX	SWDP5X9I1	D	D	D				D	D				D
4/3/2018	XX	SWDP5XA41	51	6.9	8.7				459	15.2				2.1
7/17/2018	XX	SWDP5XAD1	D	D	D				D	D				D
10/2/2018	XX	SWDP5XB1J	D	D	D				D	D				D
4/23/2019	XX	SWDP5XB6H	133	7.3	9.7				369	7.8				0.8
7/16/2019	XX	SWDP5XBD8	102	8.3	28.3				307	6.8				0.8
10/29/2019	XX	SWDP5XBJ0	107	7	9.3				239	10				1.8

SW-DP6

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/28/2010	XX	SWDP6X3J5	271	6.5	7.3				369	6			50	4.2
7/20/2010	XX	SWDP6X429	260	7	27				280	5			90	7.9
10/19/2010	XX	SWDP6X45D	297	7.4	8.8				396	6			35	2.6
4/26/2011	XX	SWDP6X49E	192	6.3	12.8				365	6				6.8
7/19/2011	XX	SWDP6X4DC	427	7.5	28.4				346	6			75	0
10/25/2011	XX	SWDP6X4H7	307	7.5	12.7				212	6	0.0022		80	0.5
4/24/2012	XX	SWDP6X51H	172	6.7	15.1				547	6			100	2.5

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(SW-DP6)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
7/24/2012	XX	SWDP6X56G	97	7.2	25.1				396	5	0.0045		40	12
10/23/2012	XX	SWDP6X5D7	65	7.5	11.7				439	5			15	5.1
4/23/2013	XX	SWDP6X5HI	62	6.6	15.2				235	6			15	3.2
7/30/2013	XX	SWDP6X643	87	7	27.8				313	6			25	0.8
10/29/2013	XX	SWDP6X66G	113	7.3	8.3				333	5			25	0.6
4/22/2014	XX	SWDP6X6EJ	107	7.6	16.8				413	6			40	3.7
7/29/2014	XX	SWDP6X6J6	72	7.3	24.7				442	5			10	1.2
10/21/2014	XX	SWDP6X72H	75	7.7	11.5				394	6			15	2.6
4/28/2015	XX	SWDP6X78E	96	6.9	10				392	10.4				1.3
7/14/2015	XX	SWDP6X7C6	114	7.2	29.6				376	5.4				5.6
10/27/2015	XX	SWDP6X7HF	68	8.4	9.8				327	10.4				1.1
4/5/2016	XX	SWDP6X865	79	7.1	4.6				445	10				0.8
7/26/2016	XX	SWDP6X8AF	135	7.5	28.7				254	5.4				2.7
10/25/2016	XX	SWDP6X8IE	100	7.8	8.5				265	5.8				2.6
4/18/2017	XX	SWDP6X970	59	6.6	11.2				364	6.7				1.1
7/25/2017	XX	SWDP6X9CI	86	7.5	21.6				314	6.5				1.1
10/23/2017	XX	SWDP6X9GD	101	7.2	17.2				219	7.5				1.6
4/3/2018	XX	SWDP6XA2C	76	7.6	2.4				460	10.3				2.3
7/17/2018	XX	SWDP6XABD	140	8	23.9				443	4.5				2.1
10/2/2018	XX	SWDP6XB0B	136	7.8	11.6				478	6.2				0.8
4/23/2019	XX	SWDP6XB58	78	6.7	8.1				368	11.7				1.1
7/16/2019	XX	SWDP6XBC0	65	7.3	29.2				375	6.8				1.8
10/29/2019	XX	SWDP6XBHD	50	6.2	10.3				246	10.3				2.2

(SW-DP6) Date Type Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Water Level Reference Point Feet	Water Level Elevation Feet	Water Level Depth Feet	Eh mV	Dissolved Oxygen mg/L	Flow Rate cfs	Well Depth Feet	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

- ! - The sampling location was damaged or destroyed.
- < - Less than specified amount
- A - The sampling location was Inaccessible
- D - The sampling location was dry.
- D3 - Sample too dark to take reading.
- DE - Decommissioned Location
- E2 - Estimated Field Value
- F - The sampling location was frozen.
- F1 - Well was flowing
- F12 - Pipe under water, no sample taken.
- F14 - Unable to measure flow.
- F6 - No flow. Sample not taken.
- FK - Outside range of available field kits.
- G7 - Field measurements elevated due to recent cleaning of underdrain pipe.
- H2 - Waterlevel higher than pipes. See LF-COMP for readings
- H5 - Waterlevel higher than pipes. See LP-COMP for readings
- H6 - Pipe under water, could not measure flow.
- H8 - No flow from pipe. See LF-COMP for readings
- H9 - No flow from pipe. See LP-COMP for readings
- I - The sampling location yielded insufficient quantity to collect a sample.
- L - Could not locate sampling location.
- M - Results are missing or not reliable due to a meter malfunction.
- M7 - No reading taken at this location.
- U - Not Detected above the laboratory reporting limit.

SUMMARY REPORT

Inorganics

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(OFFICE WELL)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
OFFICE WELL													
4/6/2016	XX	DWOFFX87J	0.5 U	0.2		93	19.5		16.4	174	0.5 U	2 U	4 U
4/19/2017	XX	DWOFFX98D	0.5 U	0.43		110	23		14	197	0.5 U	2 U	2.5 U
4/4/2018	XX	DWOFFXA45	0.25 U	0.57		120	23		43	221	0.1 U	2 U	2.7
4/22/2019	XX	DWOFFXB71	0.25 U	0.42		110	29		19	230	0.1 U	2 U	2.5 U
7/15/2019	XX	DWOFFXBDB	0.25 U	0.65		120	30		18	218	0.1 U	2 U	2.5 U
OW-06-03													
4/10/2018	XX	GWXXXXA73	0.25 U	0.1	4		1.6	0.04 U	2.1	84	0.58	2	2.5 U
6/5/2018	XX	GWXXXXA80	I	I	I		I	I	I	I	I	I	I
7/19/2018	XX	GWXXXXAEI	I	I	I		I		I	I	I	I	I
8/21/2018	XX	GWXXXXAFH	I	I			I		I	I	I	I	I
7/18/2019	XX	GWXXXXBDJ	I	I		I	I		I	I	I	I	I
OW-601A													
4/11/2018	XX	GW601AA69	0.25 U	0.3	1 U		16	0.22	2.1	180	0.17	2 U	7100
6/6/2018	XX	GW601AA76	0.25 U	0.18	1 U		24	0.1	6.1	198	0.13	2 U	230
7/19/2018	XX	GW601AAE4	0.3	0.3	1 U		18		6.8	209	1.1	2 U	13
8/22/2018	XX	GW601AAF5	0.25 U	0.19			27		7	212	0.15	2 U	2.5 U
7/18/2019	XX	GW601ABB6	0.86	0.33		140	26		11	234	0.18	2 U	2.5 U
OW-601B													
4/11/2018	XX	GW601BA6A	0.25 U	0.42	1 U		22	0.04 U	2 U	184	0.21	2 U	5.7
6/6/2018	XX	GW601BA77	0.25 U	0.25	1 U		31	0.04 U	2.6	196	0.16	2 U	6.5
7/19/2018	XX	GW601BAE5	0.25 U	0.58	1 U		41		3	224	0.21	2 U	2.5 U
8/22/2018	XX	GW601BAF6	0.25 U	0.49			61		10 U	277	0.5 U	2 U	16
7/18/2019	XX	GW601BBDF	0.25 U	0.51		120	26		3.1	213	0.2	2 U	3.3
OW-602A													
4/11/2018	XX	GW602AA6B	0.25 U	0.05 U	1 U		2.3	0.04 U	3.9	59	0.1 U	2 U	2.5 U
6/6/2018	XD	GWDP1XA75	0.25 U	0.56	1 U		11	0.04 U	4.4	102	0.1 U	2 U	2.5 U
6/6/2018	XX	GW602AA78	0.25 U	0.13	1 U		12	0.04 U	4.6	93	0.1 U	2 U	2.5 U
7/19/2018	XD	GWDP1XAE3	0.25 U	0.19	1 U		13		4.6	92	0.1 U	2 U	2.5 U
7/19/2018	XX	GW602AAE6	0.3	0.15	1 U		13		4.5	97	0.1 U	2 U	2.5 U
8/21/2018	XX	GW602AAF7	0.25 U	0.094			12		4.5	100	0.1 U	2 U	2.5 U
7/18/2019	XX	GW602ABDG	0.72	0.26		43	5.6		2.8	77	0.1 U	2 U	2.5 U
OW-603B													
4/12/2018	XX	GW603BA6C	0.34	0.081	3		2.1	0.04 U	2.2	161	1.1	4	7
6/5/2018	XX	GW603BA79	0.25 U	0.054	1 U		1.2	0.04 U	2.1	136	0.27	2 U	2.5 U
7/19/2018	XX	GW603BAE7	1.2	0.11	2		1.7		2.4	103	0.1 U	2 U	1500
8/21/2018	XX	GW603BAF8	0.25 U	0.099			2.5		2.4	99	0.1 U	2 U	28
7/18/2019	XX	GW603BBDH	11	0.28		60	2		2.9	99	0.1 U	2 U	2.5 U
OW-604A													
4/12/2018	XX	GW604AA6D	0.25 U	0.46	1 U		1.1	0.04 U	3.5	62	0.1 U	2 U	2.5 U
6/4/2018	XX	GW604AA7A	0.25 U	0.18	1 U		1.7	0.04 U	2.5	63	0.1 U	2 U	2.5 U
7/19/2018	XX	GW604AAE8	0.28	0.16	1 U		1.9		2.7	74	0.1 U	2 U	2.5 U
8/21/2018	XX	GW604AAF9	0.25 U	0.24			1.8		2.6	101	0.1 U	2 U	2.5 U
7/18/2019	XX	GW604ABDI	0.62	0.57		53	1.5		2.8	87	0.1 U	2 U	2.5 U

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(SCALE HOUSE WELL)

Date	Type	Sample ID	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SCALE HOUSE WELL													
4/6/2016	XX	DWSCLX880	0.7	0.2		133	75.6		15.2	345	0.5 U	2 U	4
4/19/2017	XX	DWSCLX98E	0.5 U	0.65		140	74		15	360	0.5 U	2 U	2.5 U
4/4/2018	XX	DWSCLXA46	0.25 U	0.59		130	58		7.6	309	0.3 U	2 U	2.5 U
4/22/2019	XX	DWSCLXB72	0.25 U	0.47		130	60		24	310	0.2 U	2 U	2.5 U
7/15/2019	XX	DWSCLXBDC	0.25 U	0.62		130	75		21	329	0.2 U	2 U	2.5 U
LF-COMP													
7/19/2011	XX	LFXXXX4F1				175	5.4	0.02 J	7.2	233		0.7 U	4 U
4/24/2012	XX	LFXXXX53B				143	7	0.04 U	6	195		2 U	4 U
LF-UD-1													
4/27/2010	XX	LFUD1X3JD				174	3.5	0.02 J	6.6	191		2.3	4 U
7/20/2010	XX	LFUD1X42H				F6	F6	F6	F6	F6		F6	F6
10/19/2010	XX	LFUD1X461				F6	F6	F6	F6	F6		F6	F6
4/26/2011	XX	LFUD1X4A2				149	7.7	0.02 J	6.9	211		1.6 J	4 U
7/19/2011	XX	LFUD1X4E0				171	5.1	0.02 J	10	232		0.7 J	8
10/25/2011	XX	LFUD1X4HF				173	3.3	0.03 J	8.2	205		1 J	40
4/24/2012	XX	LFUD1X525				H2	H2	H2	H2	H2		H2	H2
7/24/2012	XX	LFUD1X574				168	3	0.05	4.1	208		2 U	10
10/23/2012	XX	LFUD1X5DF				F6	F6	F6	F6	F6		F6	F6
4/23/2013	XX	LFUD1X5I6				164	11.5	0.04 U	7.8	230	0.16	2 U	4
7/30/2013	XX	LFUD1X64B				156	22.5	0.04 U	9.9	232	0.14	2 U	4 U
10/29/2013	XX	LFUD1X674				F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFUD1X6F7				177	19.1	0.04	10.4	235	0.1 U	2 U	35
7/29/2014	XX	LFUD1X6JE				155	17.3	0.33	5	231	0.14	2 U	394
10/21/2014	XX	LFUD1X735				F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFUD1X792		0.5 U		145	24.8	0.08	22.4	260	0.2	2 U	49
7/14/2015	XX	LFUD1X7CE		2 U		179	16.7	0.04 U	6.6	257	0.1 U	2 U	4 U
10/27/2015	XX	LFUD1X7I3		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD1X86D		0.07		152	26	0.04	12.7	242	0.1 U	2 U	4
7/26/2016	XX	LFUD1X8B3		I		I	I	I	I	I	I	I	I
10/25/2016	XX	LFUD1X8J2		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD1X978		0.19		170	21	0.1	7.3	243	0.2 U	2 U	56
7/25/2017	XX	LFUD1X9D6		0.22		170	24	0.04 U	24	290	0.2 U	2 U	15
10/25/2017	XX	LFUD1X9H1		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD1XA30		0.23		170	18	0.04 U	35	246	0.21	2 U	5
7/17/2018	XX	LFUD1XAC1		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/2/2018	XX	LFUD1XB0J		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD1XB5G		0.4		170	2.2	0.04 U	13	214	0.1 U	2 U	2.5 U
7/16/2019	XX	LFUD1XBC8		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFUD1XBI1		F6		F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-2													
4/27/2010	XX	LFUD2X3JE				134	3.8	0.02 J	3.8	152		1.9 J	4 U
7/20/2010	XX	LFUD2X42I				185	2.4	0.66	3.2	229		0.7 U	4 U
10/19/2010	XX	LFUD2X462				213	3.2	0.05	17.5	290		0.7 U	39
4/26/2011	XX	LFUD2X4A3				117	6.6	0.02 J	3.1	172		0.7 U	4 U
7/19/2011	XX	LFUD2X4E1				135	5.7	0.02 J	4.4	191		0.7 U	4 U
10/25/2011	XX	LFUD2X4HG				133	7.1	0.02 J	3.3	173		0.7 J	36

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-UD-2) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/24/2012	XX	LFUD2X526				H2	H2	H2	H2	H2		H2	H2
7/24/2012	XX	LFUD2X575				135	9.5	0.04 U	2 U	188		2 U	4 U
10/23/2012	XX	LFUD2X5DG				133	12.6	0.04 U	5.4	211		2 U	4 U
4/23/2013	XX	LFUD2X5I7				134	18.5	0.04 U	4.6	207	0.19	2 U	4 U
7/30/2013	XX	LFUD2X64C				127	35.2	0.04 U	4.8	208	0.12	2 U	4 U
10/29/2013	XX	LFUD2X675				162	15.3	0.04 U	9.9	228	0.18	2 U	12
4/22/2014	XX	LFUD2X6F8				147	33.6	0.04 U	4.8	218	0.11	2 U	4 U
7/29/2014	XX	LFUD2X6JF				152	21.6	0.04 U	2	220	0.17	2 U	45
10/21/2014	XX	LFUD2X736				220	7.7	0.04 U	7.2	279	0.1 U	2 U	25
4/28/2015	XX	LFUD2X793		0.5 U		139	24.4	0.04 U	26	257	0.2	2 U	4
7/14/2015	XX	LFUD2X7CF		2 U		177	19.7	0.04 U	6.1	254	0.17	2 U	4 U
10/27/2015	XX	LFUD2X7I4		0.5 U		193	20.3	0.04 U	7.5	264	0.1 U	2 U	4 U
4/5/2016	XX	LFUD2X86E		0.06		134	41.2	0.04 U	11.4	246	0.1 U	2 U	4 U
7/26/2016	XX	LFUD2X8B4		0.05 U		170	22.7	0.04	22.1	283	0.2	2 U	24
10/25/2016	XX	LFUD2X8J3		0.27		203	12.8	0.04 U	21.6	294	0.2 U	2 U	4 U
4/18/2017	XX	LFUD2X979		0.22		160	29	0.05	18	262	0.2 U	2 U	15
7/25/2017	XX	LFUD2X9D7		0.13		170	32	0.04 U	4.6	273	0.2 U	2 U	8
10/25/2017	XX	LFUD2X9H2		0.22		200	13	0.07	9	291	0.14	2 U	29
4/3/2018	XX	LFUD2XA31		0.28		160	17	0.04 U	56	267	0.18	2 U	2.5 U
7/17/2018	XX	LFUD2XAC2		0.24		210	24	0.04	12	290	0.19	6.3	17
10/2/2018	XX	LFUD2XB10		0.28		220	7.8	0.04 U	16	285	0.1 U	2 U	5
4/23/2019	XX	LFUD2XB5H		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFUD2XBC9		0.26		200	15	0.07	12	262	0.11	2 U	2.7
10/29/2019	XX	LFUD2XBI2		0.22		180	11	0.04	11	222	0.12	2 U	83
LF-UD-3A,B													
4/27/2010	XX	LFXXXX40C				181	12.6	0.01 J	13.6	236		4	4 U
7/20/2010	XX	LFXXXX43G				F6	F6	F6	F6	F6		F6	F6
10/19/2010	XX	LFXXXX46J				F6	F6	F6	F6	F6		F6	F6
4/26/2011	XX	LFXXXX4B1				148	7.4	0.01 J	13.4	229		1.2 J	4 U
7/19/2011	XX	LFXXXX4EJ				H2	H2	H2	H2	H2		H2	H2
10/25/2011	XX	LFXXXX4IC				F6	F6	F6	F6	F6		F6	F6
4/24/2012	XX	LFXXXX534				H2	H2	H2	H2	H2		H2	H2
7/24/2012	XX	LFXXXX581				F6	F6	F6	F6	F6		F6	F6
10/23/2012	XX	LFXXXX5EC				F6	F6	F6	F6	F6		F6	F6
4/23/2013	XX	LFXXXX5J5				F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LFXXXX65A				F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFXXXX67J				F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFXXXX6G6				F6	F6	F6	F6	F6	F6	F6	F6
7/29/2014	XX	LFXXXX708				F6	F6	F6	F6	F6	F6	F6	F6
10/21/2014	XX	LFXXXX73H				F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79G		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/14/2015	XX	LFXXXX7D8		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/27/2015	XX	LFXXXX7IF		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX877		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFXXXX8BH		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LFXXXX8JF		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFXXXX982		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/25/2017	XX	LFXXXX9DJ		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/25/2017	XX	LFXXXX9HE		F6		F6	F6	F6	F6	F6	F6	F6	F6

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-UD-3A,B)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/3/2018	XX	LFXXXXA3E		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFXXXXACE		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/2/2018	XX	LFXXXXB1C		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6A		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFXXXXBD1		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFXXXXBID		F6		F6	F6	F6	F6	F6	F6	F6	F6

LF-UD-4

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	LFXXXX40E				F6	F6	F6	F6	F6		F6	F6
7/20/2010	XX	LFXXXX43I				F6	F6	F6	F6	F6		F6	F6
10/19/2010	XX	LFXXXX471				F6	F6	F6	F6	F6		F6	F6
4/26/2011	XX	LFXXXX4B3				F12	F12	F12	F12	F12		F12	F12
7/19/2011	XX	LFXXXXHG2				H2	H2	H2	H2	H2		H2	H2
10/25/2011	XX	LFXXXX4GA				F6	F6	F6	F6	F6		F6	F6
4/24/2012	XX	LFXXXX536				H2	H2	H2	H2	H2		H2	H2
7/24/2012	XX	LFXXXX582				207	3.1	0.04 U	2 U	263		2 U	4 U
10/23/2012	XX	LFXXXX5CA				180	8.1	0.04 U	7.9	252		2 U	4 U
4/23/2013	XX	LFXXXX5J6				166	11.8	0.04 U	8.8	235	0.14	2 U	4 U
7/30/2013	XX	LFXXXX65B				F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFXXXX680				168	13.2	0.04 U	11.1	234	0.1 U	2 U	4 U
4/22/2014	XX	LFXXXX6G7				206	8.9	0.04 U	14.2	252	0.1	2 U	4 U
7/29/2014	XX	LFXXXX709				F6	F6	F6	F6	F6	F6	F6	F6
10/21/2014	XX	LFXXXX73I				F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79H		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/14/2015	XX	LFXXXX7D9		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/27/2015	XX	LFXXXX7IG		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX878		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFXXXX8BI		0.13		177	20.9	0.04	20.9	281	0.2	2 U	36
10/25/2016	XX	LFXXXX8JG		0.25		202	12.5	0.04 U	24.9	298	0.2 U	2 U	4 U
4/18/2017	XX	LFXXXX983		0.14		170	2.4	0.04 U	8.9	247	0.2 U	2.6	110
7/25/2017	XX	LFXXXX9E0		0.18		170	24	0.04 U	24	279	0.2 U	2 U	10
10/25/2017	XX	LFXXXX9HF		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3F		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFXXXXACF		0.23		210	23	0.04 U	8.6	291	0.18	2 U	5.3
10/2/2018	XX	LFXXXXB1D		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6B		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFXXXXBD2		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFXXXXBIE		0.22		180	12	0.18	11	235	0.13	2 U	210

LF-UD-5

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	LFXXXX40F				153	3.3	0.01 J	16.1	197		1.4 J	4 U

LF-UD-5and6

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
7/20/2010	XX	LFXXXX43J				180	6.2	0.03 J	22	272		2.5	7
10/19/2010	XX	LFXXXX472				184	3.6	0.06	19.6	277		1.6 J	42
4/26/2011	XX	LFXXXX4B4				224	2.7	0.01 J	15.9	287		1.5 J	4 U
7/19/2011	XX	LFXXXX4F2				238	2.5	0.02 J	15.3	293		1.9 J	14
10/25/2011	XX	LFXXXX4G7				224	3.2	0.16	16.6	332		2.5	154
4/24/2012	XX	LFXXXX537				232	3.2	0.05	14.9	272		2 U	26
7/24/2012	XX	LFXXXX584				232	2.5	0.04 U	11.9	279		2 U	4 U
10/23/2012	XX	LFXXXX5C7				201	3.3	0.07	14.6	268		2 U	128

REPORT PREPARED: 3/16/2020 13:56
FOR: Juniper Ridge Landfill

SUMMARY REPORT
Inorganics

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-UD-5and6)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/23/2013	XX	LFXXXX5J7				157	3.6	0.04 U	11.5	200	0.11	2 U	8
7/30/2013	XX	LFXXXX65C				163	3.4	0.04 U	10.8	202	0.1 U	2 U	4 U
10/29/2013	XX	LFXXXX681				200	3.3	0.04 U	11.8	244	0.1 U	2 U	7
4/22/2014	XX	LFXXXX6G8				181	4.7	0.04 U	14.7	222	0.1 U	2 U	18
7/29/2014	XX	LFXXXX70A				207	2.2	0.04 U	8.7	269	0.1	2 U	4 U
10/21/2014	XX	LFXXXX73J				F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79I		0.5 U		197	3.3	0.04 U	12.4	250	0.1 U	2 U	4 U
7/14/2015	XX	LFXXXX7DA		I		I	I	I	I	I	I	I	I
10/27/2015	XX	LFXXXX7IH		0.5 U		184	3.8	0.04 U	11.1	235	0.1 U	2	6
4/5/2016	XX	LFXXXX879		0.05		191	2.9	0.04 U	12.5	247	0.1 U	2 U	4 U
7/26/2016	XX	LFXXXX8BJ		0.05 U		186	2.7	0.04 U	26.9	230	0.2 U	2 U	4 U
10/25/2016	XX	LFXXXX8JH		0.2		167	2.1	0.04 U	9.8	215	0.2 U	2 U	4 U
4/18/2017	XX	LFXXXX984		0.07		160	2.2	0.04 U	18	201	0.2 U	2 U	2.5 U
7/25/2017	XX	LFXXXX9E1		0.21		200	2.8	0.04	11	243	0.2 U	2 U	4.7
10/25/2017	XX	LFXXXX9HG		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3G		0.14		150	1.7	0.04 U	39	192	0.13	2 U	2.5 U
7/17/2018	XX	LFXXXXACG		0.14		180	2.7	0.04 U	10	220	0.12	2 U	2.5 U
10/2/2018	XX	LFXXXXB1E		0.21		180	2.4	0.04 U	14	228	0.1 U	2 U	5
4/23/2019	XX	LFXXXXB6C		0.14		150	1.5	0.04 U	9.7	192	0.1	2 U	2.5 U
7/16/2019	XX	LFXXXXBD3		0.12		170	2	0.04 U	9.2	211	0.1 U	2 U	2.5 U
10/29/2019	XX	LFXXXXBIF		0.14		160	2.1	0.08	9.9	199	0.15	2 U	69

LF-UD-6

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2011	XX	LFUD6X4B6				263	2.6	0.02 J	30.8	366		3.6	4 U
7/19/2011	XX	LFUD6X4F4				272	2.4	0.17	24.6	368		3.6	102
10/25/2011	XX	LFUD6X4G9				307	2.1	0.01 J	14.8	344		3.5	4 U
4/24/2012	XX	LFUD6X539				278	2.7	0.04 U	10.6	309		2 U	4 U
7/24/2012	XX	LFUD6X586				326	3.1	0.04 U	2 U	414		2.8	4 U
10/23/2012	XX	LFUD6X5C9				359	11.6	0.04 U	107	563		3.1	4 U
4/23/2013	XX	LFUD6X5J9				222	8.9	0.05	84.9	357	0.1	2 U	4 U
7/30/2013	XX	LFUD6X65E				338	18.2	0.04 U	143	554	0.1 U	3.3	4 U
10/29/2013	XX	LFUD6X683				343	14.1	0.04 U	116	552	0.12	3.1	4 U
4/22/2014	XX	LFUD6X6GA				275	15	0.11	128	464	0.1 U	2.9	4 U
7/29/2014	XX	LFUD6X70C				332	11.5	0.04	52.6	522	0.11	2.9	4 U
10/21/2014	XX	LFUD6X740				343	9.4	0.06	88.7	536	0.11	3	4 U
4/28/2015	XX	LFUD6X7A0		5.6		315	11.2	0.14	96.5	530	0.1 U	2.8	4 U
7/14/2015	XX	LFUD6X7DC		2 U		344	11.1	0.06	99.9	523	0.1 U	2.8	4 U
10/27/2015	XX	LFUD6X7IJ		1.5		337	12.8	0.09	96.3	544	0.1 U	2.7	4 U
4/5/2016	XX	LFUD6X87B		12		293	12.7	0.27	92.8	562	0.1 U	2.5	4 U
7/26/2016	XX	LFUD6X8C1		D		D	D	D	D	D	D	D	D
10/25/2016	XX	LFUD6X8JJ		I		I	I	I	I	I	I	I	I
4/18/2017	XX	LFUD6X986		2.5		230	7.5	0.12	7.5	289	0.2 U	2.4	41
7/25/2017	XX	LFUD6X9E3		I		I	I	I	I	I	I	I	I
10/25/2017	XX	LFUD6X9HI		5.8		180	1 U	0.16	7.3	280	0.1 U	2	2.5 U
4/3/2018	XX	LFUD6XA3I		5.6		130	1 U	0.12	42	193	0.1 U	2.7	2.5 U
7/17/2018	XX	LFUD6XACI		1.4		160	5 U	0.09	10 U	190	0.5 U	2 U	2.5 U
10/2/2018	XX	LFUD6XB1G		3.5		120	1 U	0.12	2 U	172	0.1 U	2 U	2.5 U
4/23/2019	XX	LFUD6XB6E		27		84	1.2	0.09	6.5	309	0.1 U	2 U	2.5 U
7/16/2019	XX	LFUD6XBD5		9.1		49	1 U	0.13	3.3	149	0.1 U	2 U	8.7
10/29/2019	XX	LFUD6XBIH		20		4.9	1.9	0.65	4.6	186	0.1 U	2.8	150

(LF-UD-7)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
LF-UD-7													
4/24/2012	XX	LFUD7X53A				H2	H2	H2	H2	H2		H2	H2
7/24/2012	XX	LFXXXX587				F6	F6	F6	F6	F6		F6	F6
10/23/2012	XX	LFXXXX5EF				F6	F6	F6	F6	F6		F6	F6
4/23/2013	XX	LFUD7X5JA				F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LFUD7X65F				F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFUD7X684				F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFUD7X6GB				F6	F6	F6	F6	F6	F6	F6	F6
7/29/2014	XX	LFUD7X70D				F6	F6	F6	F6	F6	F6	F6	F6
10/21/2014	XX	LFUD7X741				F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFUD7X7A1		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/14/2015	XX	LFUD7X7DD		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/27/2015	XX	LFUD7X7J0		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD7X87C		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFUD7X8C2		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LFUD7X900		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD7X987		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/25/2017	XX	LFUD7X9E4		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/25/2017	XX	LFUD7X9HJ		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD7XA3J		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFUD7XACJ		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/2/2018	XX	LFUD7XB1H		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD7XB6F		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFUD7XBD6		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFUD7XBII		F6		F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8													
4/23/2013	XX	LFUD8X5JD				152	3.5	0.04 U	7.3	195	0.1 U	2 U	4 U
7/30/2013	XX	LFUD8X65G				172	4	0.04 U	9.6	216	0.1 U	2 U	4 U
10/29/2013	XX	LFUD8X685				180	3.5	0.04 U	8.2	222	0.1 U	2 U	4 U
4/22/2014	XX	LFUD8X6GC				F12	F12	F12	F12	F12	F12	F12	F12
7/29/2014	XX	LFUD8X70E				38	3.3	0.05	4.6	74	0.1 U	5.7	4 U
10/21/2014	XX	LFUD8X742				12.4	3.7	0.04 U	12.9	69	0.1 U	5.4	4
4/28/2015	XX	LFUD8X7A2		0.5 U		21	7.3	0.08	17	74	0.1 U	3.6	9
7/14/2015	XX	LFUD8X7DE		I		I	I	I	I	I	I	I	I
10/27/2015	XX	LFUD8X7J1		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD8X87D		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFUD8X8C3		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LFUD8X901		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD8X988		0.05 U		9.4	14	0.04	49	55	0.2 U	3.7	6
7/25/2017	XX	LFUD8X9E5		D		D	D	D	D	D	D	D	D
10/25/2017	XX	LFUD8X9I0		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD8XA40		0.11		15	3.8	0.04	11	71	0.1 U	2.5	43
7/17/2018	XX	LFUD8XAD0		D		D	D	D	D	D	D	D	D
10/2/2018	XX	LFUD8XB1I		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD8XB6G		0.058		14	7.1	0.1	14	70	0.1 U	4.7	11
7/16/2019	XX	LFUD8XBD7		0.05 U		14	4.7	0.04 U	8.7	53	0.1 U	6.3	5.5
10/29/2019	XX	LFUD8XBIJ		0.062		6	2	0.04	13	42	0.1 U	4.8	6.7
LF-UD-9													

SEVEE & MAHER ENGINEERS, INC.
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(LF-UD-9)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/5/2016	XX	LFUD9X881		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFUD9X8CA		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LFUD9X905		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD9X98F		0.88		90	5.1	0.08	11	224	0.2 U	2.7	57
10/25/2017	XX	LFUD9X9I4		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD9XA47		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFUD9XAD4		D		D	D	D	D	D	D	D	D
10/2/2018	XX	LFUD9XB22		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD9XB73		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFUD9XBDD		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFUD9XBJ3		F6		F6	F6	F6	F6	F6	F6	F6	F6

LF-UD-10

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
10/25/2017	XX	LFXXXX9ID		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA48		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFU10XAD6		D		D	D	D	D	D	D	D	D
10/3/2018	XX	LFXXXXB27		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB74		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFXXXXBDE		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFXXXXBJ7		F6		F6	F6	F6	F6	F6	F6	F6	F6

LP-UD-1

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	LPUD1X3JF				F6	F6	F6	F6	F6		F6	F6
7/20/2010	XX	LPUD1X42J				F6	F6	F6	F6	F6		F6	F6
10/19/2010	XX	LPUD1X463				F6	F6	F6	F6	F6		F6	F6
4/26/2011	XX	LPUD1X4A4				F6	F6	F6	F6	F6		F6	F6
7/19/2011	XX	LPUD1X4E2				F6	F6	F6	F6	F6		F6	F6
10/25/2011	XX	LPUD1X4HH				F6	F6	F6	F6	F6		F6	F6
4/24/2012	XX	LPUD1X527				F6	F6	F6	F6	F6		F6	F6
7/24/2012	XX	LPUD1X576				F6	F6	F6	F6	F6		F6	F6
10/23/2012	XX	LPUD1X5DH				F6	F6	F6	F6	F6		F6	F6
4/23/2013	XX	LPUD1X5I8				F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LPUD1X64D				F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LPUD1X676				F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LPUD1X6F9				F6	F6	F6	F6	F6	F6	F6	F6
7/29/2014	XX	LPUD1X6JG				F6	F6	F6	F6	F6	F6	F6	F6
10/21/2014	XX	LPUD1X737				F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LPUD1X794		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/14/2015	XX	LPUD1X7CG		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/26/2015	XX	LPUD1X7I5		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LPUD1X86F		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LPUD1X8B5		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LPUD1X8J4		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LPUD1X97A		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/25/2017	XX	LPUD1X9D8		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/25/2017	XX	LPUD1X9H3		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LPUD1XA32		F6		F6	F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LPUD1XAC3		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/2/2018	XX	LPUD1XB11		F6		F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LPUD1XB5I		0.31		120	3.1	0.04 U	23	163	0.1 U	2 U	2.5 U

SEVEE & MAHER ENGINEERS, INC.
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(LP-UD-1)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
7/16/2019	XX	LPUD1XBCA		F6		F6	F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LPUD1XBI3		F6		F6	F6	F6	F6	F6	F6	F6	F6

LP-UD-2

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	LPUD2X3JG				129	12.5	0.01 J	9.7	187		1.3 J	4
7/20/2010	XX	LPUD2X430				137	8.6	0.01 J	9.2	206		0.7 U	4 U
10/19/2010	XX	LPUD2X464				125	7.2	0.01 J	8	197		0.7 U	4 U
4/26/2011	XX	LPUD2X4A5				133	6.7	0.01 U	8.5	187		0.7 U	4 U
7/19/2011	XX	LPUD2X4E3				135	6.3	0.06	8.6	193		0.8 J	73
10/25/2011	XX	LPUD2X4HI				135	5.3	0.11	9.7	181		0.9 J	11
4/24/2012	XX	LPUD2X528				123	5.2	0.04 U	9.9	165		2 U	4 U
7/24/2012	XX	LPUD2X577				143	5.1	0.04 U	8.5	192		2 U	4 U
10/23/2012	XX	LPUD2X5DI				128	5.6	0.04 U	8.6	287		2 U	4 U
4/23/2013	XX	LPUD2X5I9				137	6.7	0.04 U	12.2	185	0.11	2 U	4 U
7/30/2013	XX	LPUD2X64E				136	7.2	0.04 U	12.1	182	0.1 U	2 U	4 U
10/29/2013	XX	LPUD2X677				153	6.2	0.04 U	10.4	194	0.11	2 U	4 U
4/22/2014	XX	LPUD2X6FA				140	8.3	0.04 U	13.9	183	0.1 U	2 U	4 U
7/29/2014	XX	LPUD2X6JH				139	3.9	0.04 U	4.7	193	0.1 U	2 U	4 U
10/21/2014	XX	LPUD2X738				137	3.9	0.04 U	8.1	189	0.1 U	2 U	4 U
4/28/2015	XX	LPUD2X795		0.5 U		137	5.9	0.04 U	9.2	182	0.1 U	2 U	4 U
7/14/2015	XX	LPUD2X7CH		2 U		145	4.9	0.04 U	10.4	202	0.1 U	2 U	4 U
10/27/2015	XX	LPUD2X7I6		0.5 U		142	6.8	0.04 U	8.9	184	0.1 U	2 U	4 U
4/5/2016	XX	LPUD2X86G		0.1		137	5.7	0.04 U	9.9	177	0.1 U	2 U	4 U
7/26/2016	XX	LPUD2X8B6		0.13		163	5	0.04 U	8.6	218	0.2 U	2 U	4 U
10/25/2016	XX	LPUD2X8J5		0.14		229	5.4	0.04 U	10.7	294	0.2 U	2 U	4
4/18/2017	XX	LPUD2X97B		0.14		220	9.1	0.04 U	2 U	248	0.2 U	2 U	2.5 U
7/25/2017	XX	LPUD2X9D9		0.2		150	4.7	0.04 U	9.3	199	0.2 U	2 U	2.5 U
10/25/2017	XX	LPUD2X9H4		0.23		130	4	0.04 U	8.8	196	0.1 U	2 U	2.5 U
4/3/2018	XX	LPUD2XA33		0.3		120	3.6	0.04 U	2.1	156	0.1 U	2 U	2.5 U
7/17/2018	XX	LPUD2XAC4		0.27		140	4.3	0.04 U	8.8	184	0.1 U	2 U	2.5 U
10/2/2018	XX	LPUD2XB12		0.21		140	3.7	0.04 U	8.3	191	0.1 U	2 U	2.5 U
4/23/2019	XX	LPUD2XB5J		0.3		120	3.1	0.04 U	8.9	154	0.1 U	2 U	2.5 U
7/16/2019	XX	LPUD2XBCB		0.22		130	4	0.04 U	9.5	159	0.1 U	2 U	2.5 U
10/29/2019	XX	LPUD2XBI4		0.23		130	3	0.04 U	9.3	165	0.1 U	2 U	2.5 U

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Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	GW102X407	0.3 U			104	2.7		10.2	141		1.2 J	4 U
7/21/2010	XX	GW102X43B	0.3 U			100	1.3		8.5	134		0.7 U	4 U
10/19/2010	XX	GW102X46F	0.3 U			102	1		8.1	139		0.7 U	4 U
4/25/2011	XX	GW102X4AG	0.3 U			102	1.1		8.5	136		0.7 U	4 U
7/19/2011	XX	GW102X4EE	0.3 U			101	1		9.1	137		0.7 U	4 U
10/25/2011	XX	GW102X4I9	0.3 U			105	2		8.8	126		0.7 U	4 U
4/24/2012	XX	GW102X52J	0.35			102	2		11.4	119		2 U	4 U
7/24/2012	XX	GW102X57I	3.8			101	1 U		11.4	122		2 U	4 U
10/22/2012	XX	GW102X5E9	0.98			107	1.1		6.7	141		2 U	4 U
4/23/2013	XX	GW102X5J0	0.3 U			100	2.4		13.2	143	0.1 U	2 U	4 U
7/31/2013	XX	GW102X655	0.646			102	1.2		9.1	134	0.1 U	2 U	4 U
10/28/2013	XX	GW102X67F	0.5 U			101	2.5		9.1	137	0.1 U	2 U	4 U
4/23/2014	XX	GW102X6G1	0.5 U			103	1.8		11.2	127	0.1 U	2 U	4 U
7/30/2014	XX	GW102X704	0.5 U			99	1.4		8.7	132	0.1 U	2 U	4 U

(MW04-102)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
10/21/2014	XX	GW102X73F	0.5 U			103	1.5		10.2	143	0.1 U	2 U	4 U
4/29/2015	XX	GW102X79C	0.5 U	0.5 U		100	2.1		12.7	127	0.1 U	2 U	4 U
7/14/2015	XX	GW102X7D4	0.5 U	2 U		98	2.5		13.8	135	0.1 U	2 U	4 U
10/28/2015	XX	GW102X7ID	0.5 U	0.5 U		99	2.2		10.8	138	0.1 U	2 U	4 U
4/5/2016	XX	GW102X873	0.5 U	0.05 U		100	1.6		14.1	133	0.1 U	2 U	4 U
7/26/2016	XX	GW102X8BD	0.5 U	0.05 U		99	2.2		14.5	136	0.2 U	2 U	4 U
10/25/2016	XX	GW102X8JC	0.5 U	0.05		99	1.7		12.2	151	0.2 U	2 U	5
4/19/2017	XX	GW102X97I	0.5 U	0.07		100	1.5		10	130	0.2 U	2 U	2.5 U
7/26/2017	XX	GW102X9DG	0.5 U	0.06		99	1.7		12	123	0.2 U	2 U	2.5 U
10/25/2017	XX	GW102X9HB	0.25 U	0.05		94	1.4		12	150	0.1 U	2 U	2.5 U
4/4/2018	XX	GW102XA3A	0.5 U	0.12		100	1.1		5.7	140	0.1 U	2 U	3
7/18/2018	XX	GW102XACB	0.25 U	0.054		100	1.7		12	133	0.1 U	2 U	2.5 U
10/3/2018	XX	GW102XB19	0.25 U	0.074		100	1.5		13	143	0.1 U	2 U	2.5 U
4/24/2019	XX	GW102XB66	0.25 U	0.11		98	1.2		13	131	0.1 U	2 U	2.5 U
7/17/2019	XX	GW102XBCH	0.25 U	0.065		99	1.1		13	132	0.1 U	2 U	2.5 U
10/28/2019	XX	GW102XBIA	0.25 U	0.091		100	1.9		13	131	0.1 U	2 U	2.5 U

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Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	GW109X409	0.3 U			185	12.3		12	258		2.2	4 U
7/20/2010	XX	GW109X43D	0.3 U			224	6.6		7.9	262		1.3 J	4 U
10/19/2010	XX	GW109X46H	0.3 U			233	6.3		7.1	303		1.3 J	4 U
4/26/2011	XX	GW109X4AI	0.3 U			220	4.6		5.3	267		1.2 J	4 U
7/19/2011	XX	GW109X4EG	0.3 U			195	8.5		5.8	258		1.4 J	4 U
10/25/2011	XX	GW109X4IB	0.3 U			202	7.7		6.2	253		1.8 J	4 U
4/24/2012	XX	GW109X531	0.3 U			186	5.7		6.9	230		2 U	4 U
7/24/2012	XX	GW109X580	0.59			184	2.3		6.4	227		2 U	4 U
10/23/2012	XX	GW109X5EB	0.32			203	5.8		2.6	271		2 U	4 U
4/23/2013	XX	GW109X5J2	0.3 U			190	6.5		8.7	245	0.17	2 U	4 U
7/30/2013	XX	GW109X657	0.444			195	7.7		8.6	242	0.14	2 U	4 U
10/29/2013	XX	GW109X67G	0.5 U			206	6.3		7.7	259	0.16	2 U	4 U
4/22/2014	XX	GW109X6G3	0.5 U			196	8.1		8.7	236	0.25	2 U	4 U
7/29/2014	XX	GW109X705	0.5 U			198	6.6		4	248	0.13	2 U	4 U
10/21/2014	XX	GW109X73G	0.5 U			209	4.9		5.8	260	0.14	2 U	4 U
4/28/2015	XX	GW109X79D	0.5 U	0.5 U		201	7.2		9.6	256	0.2	2 U	4 U
7/14/2015	XX	GW109X7D5	0.5 U	2 U		193	6		9.1	247	0.17	2 U	4 U
10/27/2015	XX	GW109X7IE	0.5 U	0.5 U		207	6.7		9.2	265	0.2	2 U	4 U
4/5/2016	XX	GW109X874	0.5 U	0.05 U		199	6.6		10.9	256	0.1 U	2 U	4 U
7/26/2016	XX	GW109X8BE	0.5 U	0.05 U		193	8.4		10.6	245	0.2	2 U	4 U
10/25/2016	XX	GW109X8JD	0.5 U	0.08		200	4.7		8.3	270	0.2	2 U	4 U
4/18/2017	XX	GW109X97J	0.5 U	0.05 U		230	5.5		8.6	261	0.2 U	2 U	2.5 U
7/25/2017	XX	GW109X9DH	0.5 U	0.06		210	6		12	259	0.2 U	2 U	2.5 U
10/24/2017	XX	GW109X9HC	0.25 U	0.05 U		190	9.9		9.1	267	0.1 U	2 U	2.5 U
4/3/2018	XX	GW109XA3B	0.25 U	0.15		220	5.5		55	271	0.17	2 U	2.5 U
7/17/2018	XX	GW109XACC	0.29	0.21		200	11		9.9	258	0.15	2.1	2.5 U
10/2/2018	XX	GW109XB1A	0.25 U	0.1		200	5		9	252	0.11	2 U	2.5 U
4/23/2019	XX	GW109XB67	0.25 U	0.058		210	3.8		10	256	0.16	2 U	2.5 U
7/16/2019	XX	GW109XBCI	0.25 U	0.05 U		220	6.8		8.9	265	0.15	2 U	2.5 U
10/29/2019	XX	GW109XBIB	0.92	0.05 U		210	1 U		8.5	260	0.2	2	2.5 U

MW06-01

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(MW06-01)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/10/2018	XD	GWDP1XA68	0.25 U	0.14	1 U		4.8	0.04 U	2.3	53	0.1 U	2 U	2.5 U
4/10/2018	XX	GWXXXXA70	0.25 U	0.13	1 U		4.8	0.04 U	2.3	50	0.1 U	2 U	2.5 U
6/4/2018	XX	GWXXXXA7H	0.25 U	0.11	1 U		8.9	0.04 U	2.8	75	0.1 U	2 U	2.5 U
7/18/2018	XX	GWXXXXAEF	0.25 U	0.13	1 U		8.1		3	72	0.1 U	2 U	2.5 U
8/20/2018	XD	GWDP1XAF4	0.25 U	0.097			7.3		2.7	68	0.1 U	2 U	2.5 U
8/20/2018	XX	GWXXXXAFG	0.25 U	0.078			7.3		2.6	78	0.1 U	2 U	2.5 U
4/24/2019	XX	GWXXXXB7D	0.25 U	0.091		30	4.4		2.9	60	0.1 U	2 U	2.5 U
7/18/2019	XX	GWXXXXBE1	0.25 U	0.13		34	7.5		2.6	77	0.1 U	2 U	2.5 U
10/30/2019	XX	GWXXXXBJ8	0.25 U	0.11		23	1.3		9.2	50	0.1 U	2 U	2.5 U
MW09-901													
4/27/2010	XX	GW901X3J7	0.3 U			101	4.2		13.2	124		1.9 J	4 U
7/20/2010	XX	GW901X42B	0.3 U			104	2.6		13.7	154		0.9 J	4
10/19/2010	XX	GW901X45F	0.3 U			110	2.7		27.4	193		0.7 U	4 U
4/26/2011	XX	GW901X49G	0.3 U			90	1.3		8.4	126		0.7 U	4 U
7/19/2011	XX	GW901X4DE	0.3 U			86	1.3		8.3	125		0.7 U	4 U
10/25/2011	XX	GW901X4H9	0.3 U			87	1.2		7	109		1.2 J	4 U
4/24/2012	XX	GW901X51J	0.3 U			75	2.2		8.3	103		2 U	4 U
7/24/2012	XX	GW901X56I	0.3 U			77	1 U		9.5	108		2 U	4 U
10/23/2012	XX	GW901X5D9	0.3 U			82	2.5		9	118		2 U	4 U
4/23/2013	XX	GW901X5I0	0.3 U			81	2.5		10.8	116	0.1 U	2 U	4 U
7/30/2013	XX	GW901X645	0.52			80	2		10.7	110	0.1 U	2 U	4 U
10/29/2013	XX	GW901X66I	0.5 U			85	2.7		9.2	116	0.1 U	2 U	4 U
4/22/2014	XX	GW901X6F1	0.5 U			83	2.7		12.1	110	0.1 U	2 U	4 U
7/29/2014	XX	GW901X6J8	0.5 U			96	1.8		4.6	128	0.1 U	2 U	4 U
10/21/2014	XX	GW901X72J	0.5 U			132	3		8.1	170	0.1 U	2 U	4 U
4/28/2015	XX	GW901X78G	0.5 U	0.5 U		142	4.6		11	175	0.1 U	2 U	4 U
7/14/2015	XX	GW901X7C8	0.5	2 U		141	4.4		11.2	178	0.1 U	2 U	4 U
10/27/2015	XX	GW901X7HH	0.6	0.5 U		154	5.8		10.9	198	0.1 U	2 U	4 U
4/5/2016	XD	GWDP1X85F	0.5 U	0.13		154	5.2		12.4	194	0.1 U	2 U	4 U
4/5/2016	XX	GW901X867	0.5 U	0.06		155	5.4		12.3	188	0.1 U	2 U	4 U
7/26/2016	XD	GWDP1X8A5	0.5 U	0.05 U		158	6.2		12.1	205	1.2	2 U	4 U
7/26/2016	XX	GW901X8AH	1.5	0.05 U		157	6.1		12.4	203	0.2 U	2 U	4 U
10/25/2016	XX	GW901X8IG	0.5 U	0.11		159	5.9		9.9	224	0.2	2 U	4 U
4/18/2017	XD	GWDP1X96A	0.5 U	0.29		170	6		10	197	0.2 U	2 U	2.5 U
4/18/2017	XX	GW901X972	0.5 U	0.29		170	6.1		11	206	0.2 U	2 U	2.5 U
7/25/2017	XD	GWDP1X9C8	0.5 U	0.35		170	6.8		14	224	0.2 U	2 U	2.5 U
7/25/2017	XX	GW901X9D0	0.5 U	0.4		160	6.8		14	230	0.2 U	2 U	2.5 U
10/24/2017	XX	GW901X9GF	0.25 U	0.23		170	9.5		13	234	0.1 U	2 U	2.5 U
4/3/2018	XD	GWDP1XA21	0.25 U	0.61		170	7.4		45	220	0.16	2 U	2.5 U
4/3/2018	XX	GW901XA2E	0.34	0.6		170	7.4		47	235	0.15	2 U	2.5 U
7/17/2018	XD	GWDP1XAB3	0.25 U	0.76		170	13		13	234	0.12	2 U	2.5 U
7/17/2018	XX	GW901XABF	0.36	0.75		180	14		14	231	0.13	2 U	2.5 U*
10/2/2018	XX	GW901XB0D	0.25 U	0.37		170	10		13	234	0.17	2 U	2.5 U
4/23/2019	XD	GWDP1XB4H	0.3	0.18		170	4.7		11	217	0.32	2 U	2.5 U
4/23/2019	XX	GW901XB5A	0.25 U	0.2		170	4.8		11	217	0.26	2 U	2.5 U
7/16/2019	XD	GWDP1XBBA	0.25 U	0.24		180	8.7		12	236	0.22	2 U	2.5 U
7/16/2019	XX	GW901XBC2	0.25 U	0.22		180	8.6		12	227	0.23	2 U	2.5 U
10/29/2019	XX	GW901XBHF	0.25 U	0.05 U		160	5.1		13	209	0.27	2 U	2.5 U

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(MW-206)

MW-206

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2010	XX	GW206X3I9	0.3 U			67	2.7		1.6 J	69		0.7 J	4 U
7/19/2010	XX	GW206X41D	2.4			70	1.8		1.7 J	81		1.4 J	4 U
10/18/2010	XX	GW206X44H	2.4			80	1.2		0.6 U	98		1.5 J	10
4/25/2011	XX	GW206X48I	0.3 U			65	1.1		1 J	97		0.7 U	8
7/18/2011	XX	GW206X4CG	1.2			73	1.8		0.8 J	92		2.2	12
10/24/2011	XX	GW206X4GB	0.3 U			69	1.8		1.1 J	91		1.1 J	5
4/23/2012	XX	GW206X511	0.3 U			70	1.8		2.7	91		2 U	4 U
7/23/2012	XX	GW206X560	0.35			69	1.2		2 U	99		2 U	4 U
7/23/2012	XD	GWDP4X573	0.3 U			68	1.4		2.1	86		2 U	6
10/22/2012	XX	GW206X5CB	0.94			70	1.2		2 U	95		2 U	4
4/22/2013	XX	GW206X5H2	0.311			66	2.4		2.8	88	0.1 U	2 U	4 U
7/29/2013	XX	GW206X637	0.684			66	2		2.2	88	0.1 U	2 U	4 U
7/29/2013	XD	GWDP4X64A	0.492			63	1.8		2.2	90	0.1 U	2 U	4 U
10/28/2013	XX	GW206X660	0.5 U			70	2.4		2.3	95	0.1 U	2 U	4 U
4/21/2014	XX	GW206X6E3	0.5 U			71	2.6		2 U	83	0.1 U	2 U	4 U
7/28/2014	XX	GW206X6IB	0.5 U			68	1.3		2 U	83	0.1 U	2 U	4 U
7/28/2014	XD	GWDP1X6IG	0.8			67	1.1		2 U	87	0.1 U	2 U	4 U
10/20/2014	XX	GW206X721	0.5 U			74	1.6		2 U	91	0.1 U	2 U	4 U
4/27/2015	XX	GW206X77J	0.5 U	0.5 U		69	3.6		2 U	88	0.1 U	2 U	4 U
7/13/2015	XX	GW206X7BB	0.5 U	2 U		70	1.3		2.1	95	0.1 U	2 U	4 U
7/13/2015	XD	GWDP3X7C7	0.5 U	2 U		65	1.6		2 U	95	0.1 U	2 U	4 U
10/26/2015	XX	GW206X7H0	0.5 U	0.5 U		68	3.2		2 U	95	0.1 U	2 U	4 U
4/4/2016	XX	GW206X85A	1.2	0.05		70	1.9		2.3	95	0.1 U	2 U	4 U
7/25/2016	XD	GWDP4X8B2	0.7	0.14		68	1.4		2 U	95	0.2 U	2 U	4 U
7/25/2016	XX	GW206X8A0	0.7	0.05 U		69	1.5		2 U	95	0.2 U	2 U	4 U
10/24/2016	XX	GW206X8HJ	0.5 U	0.18		69	1.6		2 U	97	0.2 U	2 U	4 U
4/17/2017	XX	GW206X965	0.5 U	0.16		73	1.3		2 U	102	0.2 U	2 U	37
7/24/2017	XD	GWDP4X9D5	0.5 U	0.18		70	1.9		2.3	110	0.2 U	2 U	5 U
7/24/2017	XX	GW206X9C3	0.5 U	0.13		69	2.1		2.3	68	0.2 U	2 U	5 U
10/23/2017	XX	GW206X9FI	0.25 U	0.22		64	1		2 U	92	1.2	2 U	2.5 U
4/2/2018	XX	GW206XA1G	0.25 U	0.23		71	1.4		2 U	97	0.1 U	2 U	8
7/16/2018	XD	GWDP4XAC0	0.49	0.28		66	1.9		2 U	80	0.1 U	2 U	2.5 U
7/16/2018	XX	GW206XAAI	0.26	0.26		70	2.3		2.4	88	0.1 U	2 U	2.5 U
10/1/2018	XX	GW206XAJG	0.25 U	0.05 U		72	1.9		2.1	92	0.1 U	2 U	2.5 U
4/22/2019	XX	GW206XB4C	0.25 U	0.2		68	1.7		2 U	97	0.1 U	2 U	5
7/17/2019	XX	GW206XBB5	0.25 U	0.18		71	2		2.3	93	0.1 U	2 U	2.5 U
10/28/2019	XX	GW206XBGJ	0.25 U	0.18		71	2.2		2 U	99	0.1 U	2 U	2.5 U

MW-223A

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	GW223A3IC	0.3 U			124	14.2		4.5	189		2.1	4 U
4/27/2010	XD	GWDP1X3IF	0.3 U			121	14.2		4.5	169		1.4 J	4 U
7/20/2010	XX	GW223A41G	0.56			127	12.7		4.2	176		0.7 U	4 U
10/19/2010	XX	GW223A450	0.3 U			120	16.5		3.9	229		0.7 U	4 U
10/19/2010	XD	GWDP1X453	0.35			125	14.9		3.7	214		0.7 U	4 U
4/26/2011	XX	GW223A491	0.3 U			137	20.3		3.8	224		0.7 U	4 U
4/26/2011	XD	GWDP1X494	0.3 U			135	19.5		3.7	230		0.7 U	4 U
7/19/2011	XX	GW223A4CJ	0.3 U			138	21.3		4.7	241		0.7 U	4 U
10/25/2011	XX	GW223A4GE	0.3 U			143	21.8		6.3	231		0.7 U	4 U

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(MW-223A)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
10/25/2011	XD	GWDP3X4H8	0.3 U			139	22.8		6.6	235		0.7 U	4 U
4/24/2012	XX	GW223A514	0.3 U			149	24.1		7.4	244		2 U	4 U
4/24/2012	XD	GWDP1X517	0.3 U			147	24.1		7.5	231		2 U	4 U
7/24/2012	XX	GW223A563	0.31			144	23.9		7.8	229		2 U	4 U
10/23/2012	XX	GW223A5CE	0.31			153	25.4		4	262		2 U	4 U
10/23/2012	XD	GWDP3X5D8	0.3 U			149	24.4		7	266		2 U	4 U
4/23/2013	XX	GW223A5H5	0.323			168	34.9		9	275	0.2	2 U	4 U
4/23/2013	XD	GWDP1X5H8	0.3 U			168	35.2		9.8	275	0.18	2 U	4 U
7/30/2013	XX	GW223A63A	0.556			168	45.2		9.3	266	0.15	2 U	4 U
10/29/2013	XX	GW223A663	0.5 U			176	36.8		8.6	278	0.22	2 U	4 U
10/29/2013	XD	GWDP3X66H	0.5 U			170	36.6		8.6	278	0.22	2 U	4 U
4/22/2014	XX	GW223A6E6	0.5 U			186	57.6		12.1	288	0.1 U	2 U	4 U
4/22/2014	XD	GWDP1X6E9	0.5 U			185	56.3		12.3	282	0.1 U	2 U	4 U
7/29/2014	XX	GW223A6ID	0.5			176	36		4.4	288	0.15	2 U	4 U
10/21/2014	XX	GW223A723	0.5 U			178	32		8	296	0.16	2 U	4 U
10/21/2014	XD	GWDP3X72I	0.5 U			177	31.9		7.8	313	0.17	2 U	4 U
4/28/2015	XX	GW223A781	0.5 U	0.5 U		184	34.9		10.8	308	0.1	2 U	4 U
4/28/2015	XD	GWDP1X784	0.5 U	0.5 U		184	35.2		11.1	302	0.1	2 U	4 U
7/14/2015	XX	GW223A7BD	0.5 U	2 U		182	37.8		11.9	319	0.1 U	2 U	4 U
10/27/2015	XX	GW223A7H2	0.5 U	0.5 U		186	41.2		12.1	326	0.1 U	2 U	4 U
4/27/2016	XX	GW223A85C	0.5 U	0.48		191	43.2		13.9	318	0.1 U	2 U	4 U
7/26/2016	XX	GW223A8A2	0.5 U	0.36		184	41.9		14.6	345	0.2 U	2 U	4 U
10/25/2016	XX	GW223A8I1	0.5 U	0.57		185	43.5		13.4	353	0.2 U	2 U	4 U
4/18/2017	XX	GW223A967	0.5 U	0.58		200	40		8	334	0.2 U	2 U	2.5 U
7/25/2017	XX	GW223A9C5	0.5 U	0.48		190	46		16	356	0.2 U	2 U	2.5 U
10/24/2017	XX	GW223A9G0	0.25 U	0.58		180	49		16	346	0.1 U	2 U	2.5 U
4/3/2018	XX	GW223AA1I	0.25 U	0.67		200	32		59	333	0.12	2 U	2.5 U
7/17/2018	XX	GW223AAB0	0.43	0.7		190	43		16	337	0.11	2 U	2.5 U
10/2/2018	XX	GW223AAJI	0.35	0.63		200	41		16	346	0.1 U	2 U	2.5 U
4/23/2019	XX	GW223AB4E	0.26	0.72		210	26		18	337	0.11	2 U	2.5 U
7/16/2019	XX	GW223ABB7	0.4	0.71		220	34		18	345	0.11	2 U	2.5 U
10/29/2019	XX	GW223ABH0	0.29	0.64		230	32		19	337	0.12	2 U	2.5 U

MW-223B

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	GW223B401	0.3 U			133	12.6		3.8	185		0.8 J	4 U
7/20/2010	XX	GW223B435	1.5			140	11.8		2.2	173		2.6	4 U
7/20/2010	XD	GWDP1X41J	1.7			136	12		2.3	173		2.7	4 U
10/19/2010	XX	GW223B469	0.33			128	12		3.1	195		0.8 J	4 U
4/26/2011	XX	GW223B4AA	0.3 U			124	15.6		2.5	185		0.7 U	4 U
7/19/2011	XX	GW223B4E8	1.1			122	18.1		3.6	198		1.9 J	4 U
7/19/2011	XD	GWDP3X4DD	1.2			127	18		2.6	189		1.9 J	4 U
10/25/2011	XX	GW223B4I3	1			128	17.9		3.3	199		1.8 J	4
4/24/2012	XX	GW223B52D	0.57			118	22.3		5.1	190		2 U	4 U
7/24/2012	XX	GW223B57C	0.79			115	24.4		4.6	205		2 U	4 U
7/24/2012	XD	GWDP3X56H	0.45			117	23.7		4.6	191		2 U	4 U
10/23/2012	XX	GW223B5E3	0.3 U			121	24.1		5	216		2 U	4 U
4/23/2013	XX	GW223B5IE	0.597			124	32.6		5.6	201	0.16	2 U	4 U
7/30/2013	XX	GW223B64J	0.493			119	42.9		5.7	185	0.16	2 U	4 U
10/29/2013	XX	GW223B67C	0.5 U			125	34.3		5.5	202	0.2	2 U	4 U
4/22/2014	XX	GW223B6FF	0.5 U			135	55.7		7.6	225	4.13	2 U	4 U

(MW-223B)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
7/29/2014	XX	GW223B700	1.2			133	34.8		3	225	0.18	2 U	4 U
10/21/2014	XX	GW223B73C	0.5 U			135	31.6		5.2	239	0.15	2 U	4 U
4/28/2015	XX	GW223B798	0.5 U	0.5 U		138	34.4		7	234	0.2	2 U	4 U
7/14/2015	XX	GW223B7D0	0.5 U	2 U		139	36.7		6.8	240	0.1 U	2 U	4 U
10/27/2015	XX	GW223B7I9	0.5 U	0.5 U		143	39.7		7.6	261	0.1 U	2 U	4 U
4/5/2016	XX	GW223B86J	0.5 U	0.15		146	40.1		8.8	228	0.1 U	2 U	12
7/26/2016	XX	GW223B8B9	0.5 U	0.17		146	36.6		8.7	248	0.2 U	2 U	4 U
10/25/2016	XX	GW223B8J8	1	0.43		147	34.4		7.1	262	0.2 U	2 U	4 U
4/18/2017	XX	GW223B97E	0.5 U	0.43		160	1.3		12	246	0.2 U	2 U	2.5 U
7/25/2017	XX	GW223B9DC	0.5 U	0.41		150	40		9.3	261	0.2 U	2 U	2.5 U
10/24/2017	XX	GW223B9H7	0.34	0.45		150	44		9.4	252	0.1 U	2 U	2.5 U
4/3/2018	XX	GW223BA36	0.27	0.58		160	31		53	254	0.1 U	2 U	2.5 U
7/17/2018	XX	GW223BAC7	0.25 U	0.67		160	42		11	252	0.11	2 U	2.5 U
10/2/2018	XX	GW223BB15	0.25 U	0.58		170	42		11	280	0.1 U	2 U	2.5 U
4/23/2019	XX	GW223BB62	0.25 U	0.65		170	32		12	281	0.11	2 U	2.5 U
7/16/2019	XX	GW223BBCD	0.25 U	0.7		180	42		13	282	0.13	2 U	2.5 U
10/29/2019	XX	GW223BBI6	0.25 U	0.63		180	39		15	285	0.15	2 U	2.5 U

MW-227

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	GW227X3ID	0.3 U			81	22.9		1.6 J	99		6.9	4 U
7/20/2010	XX	GW227X41H	0.3 U			79	1.1		8.6	100		0.7 U	4 U
10/19/2010	XX	GW227X451	0.3 U			77	1.7		8.1	115		0.7 U	4 U
4/26/2011	XX	GW227X492	0.3 U			76	1.1		7.5	114		0.7 U	4 U
7/19/2011	XX	GW227X4D0	0.3 U			80	1		9.7	115		0.7 U	4 U
10/25/2011	XX	GW227X4GF	0.3 U			78	2.2		11.2	107		0.7 U	4 U
4/24/2012	XX	GW227X515	0.3 U			79	1.6		12	108		2 U	4 U
7/24/2012	XX	GW227X564	0.3 U			75	1 U		13.4	109		2 U	4 U
10/23/2012	XX	GW227X5CF	0.31			78	2.6		11.2	222		2 U	4 U
4/23/2013	XX	GW227X5H6	0.3 U			81	2.4		14.4	118	0.1 U	2 U	4 U
7/30/2013	XX	GW227X63B	0.635			77	2		11.5	103	0.1 U	2 U	4 U
7/30/2013	XD	GWDP3X644	0.59			77	2.1		12.9	104	0.1 U	2 U	4 U
10/29/2013	XX	GW227X664	0.5 U			79	2.5		11	114	0.1 U	2 U	4 U
4/22/2014	XX	GW227X6E7	0.5 U			84	2		17.3	111	0.1 U	2 U	4 U
4/22/2014	XD	GWDP3X6F0	0.5 U			84	2.1		17.3	110	0.1 U	2 U	4 U
7/29/2014	XX	GW227X6IE	0.5 U			84	1.3		5.7	107	0.1 U	2 U	4 U
7/29/2014	XD	GWDP3X6J7	0.5 U			78	1.2		5.7	109	0.1 U	2 U	4 U
10/21/2014	XX	GW227X724	0.5 U			81	1.4		10.2	116	0.16	2 U	4 U
4/28/2015	XX	GW227X782	0.5 U	0.5 U		81	2.2		13.3	110	0.1 U	2 U	4 U
4/28/2015	XD	GWDP3X78F	0.5	0.5 U		82	2.1		13.4	115	0.1 U	2 U	4 U
7/14/2015	XX	GW227X7BE	0.5 U	2 U		80	1.4		12.4	109	0.1 U	2 U	4 U
7/14/2015	XD	GWDP1X7BG	0.5 U	2 U		78	1.8		13.1	104	0.1 U	2 U	7
10/27/2015	XX	GW227X7H3	0.5 U	0.5 U		79	2.1		12	115	0.1 U	2 U	4 U
10/27/2015	XD	GWDP1X7H5	0.5 U	0.5 U		77	2.2		12.1	108	0.1 U	2 U	4 U
4/5/2016	XD	GWDP3X866	0.5 U	0.05 U		78	1.5		13.5	112	0.1 U	2 U	4 U
4/5/2016	XX	GW227X85D	0.5 U	0.05 U		79	1.6		13.4	105	0.1 U	2 U	4 U
7/26/2016	XD	GWDP3X8AG	0.5 U	0.05 U		79	2.1		12.4	108	0.2 U	2 U	4 U
7/26/2016	XX	GW227X8A3	0.5 U	0.05 U		80	2		12.5	114	0.2 U	2 U	4 U
10/25/2016	XD	GWDP3X8IF	0.7	0.05 U		79	1.77		11.5	123	0.2 U	2 U	4 U
10/25/2016	XX	GW227X8I2	0.5 U	0.05 U		79	1.8		11.6	129	0.2 U	2 U	4 U
4/18/2017	XD	GWDP3X971	0.5 U	0.05 U		84	1.4		12	108	0.2 U	2 U	6

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(MW-227)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/18/2017	XX	GW227X968	0.5 U	0.05 U		84	1.3		12	110	0.2 U	2 U	4
7/25/2017	XD	GWDP3X9CJ	0.5 U	0.05 U		80	1.9		13	119	0.2 U	2 U	2.5 U
7/25/2017	XX	GW227X9C6	0.5 U	0.05 U		80	1.9		13	113	0.2 U	2 U	2.5 U
10/24/2017	XD	GWDP3X9GE	0.25 U	0.05 U		75	1.8		12	110	0.1 U	2 U	2.5 U
10/24/2017	XX	GW227X9G1	0.25 U	0.05 U		76	2		12	122	0.1 U	2 U	2.5 U
4/3/2018	XD	GWDP3XA2D	0.25 U	0.091		80	1.2		7.8	109	0.1 U	2 U	2.5 U
4/3/2018	XX	GW227XA1J	0.25 U	0.11		81	1.4		7.7	109	0.1 U	2 U	3.7
7/17/2018	XD	GWDP3XABE	0.25 U	0.057		76	1.1		12	102	0.1 U	2 U	2.5 U
7/17/2018	XX	GW227XAB1	0.25 U	0.083		80	1.2		12	101	0.1 U	2 U	2.5 U
10/2/2018	XD	GWDP3XB0C	0.88	0.07		80	1.4		12	113	0.1 U	2 U	2.5 U
10/2/2018	XX	GW227XAJJ	0.26	0.05 U		79	1.6		12	115	0.1 U	2 U	2.5 U
4/23/2019	XD	GWDP3XB59	0.25 U	0.092		81	1.1		14	106	0.1 U	2 U	6.3
4/23/2019	XX	GW227XB4F	0.25 U	0.12		81	1.3		14	108	0.1 U	2 U	10
7/16/2019	XD	GWDP3XBC1	0.25 U	0.05 U		79	1.3		12	103	0.1 U	2 U	2.5 U
7/16/2019	XX	GW227XBB8	0.25 U	0.05 U		80	1.4		13	114	0.1 U	2 U	4.3
10/29/2019	XD	GWDP3XBHE	1.8	0.091		78	1.6		13	110	0.1 U	2 U	2.5 U
10/29/2019	XX	GW227XBH1	0.25 U	0.05 U		82	1.3		12	106	0.1 U	2 U	2.5 U

MW-301

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2010	XX	GW301X3IE	0.3 U			72	2.6		12.4	117		1.9 J	21
7/19/2010	XX	GW301X41I	0.3 U			73	1.4		11.7	109		0.7 U	8
10/19/2010	XX	GW301X452	0.3 U			76	1.5		12.3	133		0.7 U	4 U
4/27/2011	XX	GW301X493	0.34			76	1.3		10.3	126		0.7 U	4 U
7/20/2011	XX	GW301X4D1	0.41			73	1.4		11.7	118		0.7 U	4 U
10/26/2011	XX	GW301X4GG	0.3 U			72	1.9		11.3	127		0.7 U	6
4/25/2012	XX	GW301X516	0.3 U			76	2.3		15	123		2 U	13
7/25/2012	XX	GW301X565	0.3 U			74	2.3		14.3	118		2 U	4 U
10/24/2012	XX	GW301X5CG	0.3 U			77	2.3		15.1	130		2 U	20
10/24/2012	XD	GWDP4X5DE	0.31			75	2.3		15.2	118		2 U	15
4/22/2013	XX	GW301X5H7	!			!	!		!	!	!	!	!
7/31/2013	XX	GW301X63C	0.543			76	2.3		14.6	136	0.1 U	2 U	11
10/30/2013	XX	GW301X665	0.5 U			76	3.1		11.9	130	0.1 U	2 U	4
10/30/2013	XD	GWDP1X666	0.5 U			75	3.1		14.5	129	0.1 U	2 U	4 U
4/23/2014	XX	GW301X6E8	0.5 U			76	3.9		15.4	119	0.1 U	2 U	9
7/30/2014	XX	GW301X6IF	0.5 U			78	3.7		13.4	129	0.1 U	2 U	4
10/22/2014	XX	GW301X725	0.5 U			79	3.6		14.2	118	0.1 U	2 U	4 U
10/22/2014	XD	GWDP1X726	0.5 U			79	3.5		14.2	120	0.1 U	2 U	4 U
4/29/2015	XX	GW301X783	0.5 U	0.5 U		78	5.7		17.2	117	0.1 U	2 U	4 U
7/15/2015	XX	GW301X7BF	0.5 U	2 U		80	6.4		17	128	0.1 U	2 U	4 U
10/27/2015	XX	GW301X7H4	0.5 U	0.5 U		73	8		16.9	129	0.1 U	2 U	4 U
10/27/2015	XD	GWDP4X7I2	0.5 U	0.5 U		76	8.3		16.6	131	0.1 U	2 U	4 U
4/27/2016	XX	GW301X85E	0.5 U	0.06		77	8.8		17.5	133	0.1 U	2 U	20
7/27/2016	XX	GW301X8A4	0.5 U	0.06		75	8.2		14.9	139	0.2 U	2 U	14
10/26/2016	XD	GWDP4X8J1	0.5 U	0.05 U		75	8.9		17.1	143	0.2 U	2 U	4 U
10/26/2016	XX	GW301X8I3	0.5 U	0.05 U		76	9.1		17.2	146	0.2 U	2 U	4 U
4/19/2017	XX	GW301X969	0.5 U	0.05 U		79	12		17	138	0.2 U	2 U	2.5 U
7/26/2017	XX	GW301X9C7	0.5 U	0.05 U		74	15		19	136	0.2 U	2 U	2.5 U
10/25/2017	XD	GWDP4X9H0	0.25 U	0.09		71	12		18	162	0.1 U	2 U	2.5 U
10/25/2017	XX	GW301X9G2	0.25 U	0.07		70	15		18	150	0.1 U	2 U	2.5 U
4/4/2018	XX	GW301XA20	0.25 U	0.1		78	12		10	138	0.1 U	2 U	2.5 U

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(MW-301)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
7/18/2018	XX	GW301XAB2	0.25 U	0.092		76	20		15	145	0.1 U	2 U	6
10/1/2018	XD	GWDP4XB0I	0.25 U	0.051		77	14		16	144	0.1	2 U	2.5 U
10/1/2018	XX	GW301XB00	0.25 U	0.06		75	16		16	147	0.1	2 U	2.5 U
4/24/2019	XX	GW301XB4G	0.25 U	0.066		74	21		17	148	0.1	2 U	2.5 U
7/17/2019	XX	GW301XBB9	0.25 U	0.051		78	25		17	159	0.1 U	2 U	2.5 U
10/28/2019	XD	GWDP4XBI0	0.25 U	0.07		77	27		18	163	0.15	2 U	2.5 U
10/28/2019	XX	GW301XBH2	0.25 U	0.056		74	26		17	161	0.15	2 U	2.5 U

MW-302R

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2010	XX	GW302X3JJ	0.3 U			46	12.8		6.9	78		1 J	4 U
7/19/2010	XX	GW302X433	0.3 U			106	56.1		18	318		0.8 J	4 U
10/18/2010	XX	GW302X467	0.3 U			96	60.8		21.7	327		0.9 J	4 U
4/25/2011	XX	GW302X4A8	0.3 U			44	51.2		8.9	196		0.7 U	4 U
7/18/2011	XX	GW302X4E6	0.3 U			58	61.5		13.3	239		0.7 J	4 U
10/24/2011	XX	GW302X4I1	0.3 U			80	49.3		15.8	236		0.7 J	4 U
4/23/2012	XX	GW302X52B	0.3 U			51	28.2		10.8	150		2 U	4 U
7/23/2012	XX	GW302X57A	0.3			57	52.4		21.1	223		2 U	4 U
10/22/2012	XX	GW302X5E1	0.64			78	66.1		28.8	287		2 U	4 U
4/22/2013	XX	GW302X5IC	0.3 U			46	24.5		11.7	120	0.1 U	2 U	4 U
7/29/2013	XX	GW302X64H	0.68			53	77.1		17.9	234	0.1 U	2 U	4 U
10/28/2013	XX	GW302X67A	0.5 U			57	55.8		16	199	0.1 U	2 U	4 U
4/21/2014	XX	GW302X6FD	0.5 U			61	91.3		17.6	202	0.1 U	2 U	4 U
7/28/2014	XX	GW302X6JJ	0.6			70	89.7		6	315	0.2 U	2 U	4 U
10/20/2014	XX	GW302X73A	0.5 U			105	63.1		32.2	300	0.11	2 U	4 U
4/27/2015	XX	GW302X797	0.5 U	0.5 U		52	46.4		14.7	175	0.1 U	2 U	4 U
7/13/2015	XX	GW302X7CJ	0.5 U	2 U		58	79.4		15.3	275	0.1 U	2 U	4 U
10/26/2015	XX	GW302X7I8	0.5 U	0.5 U		87	89.4		17.5	326	0.2 U	2 U	4 U
4/4/2016	XX	GW302X86I	0.6	0.06		59	42.1		13.4	186	0.1 U	2 U	4 U
7/25/2016	XX	GW302X8B8	1.2	0.05 U		59	35.8		12.7	187	0.2 U	2 U	4 U
10/24/2016	XX	GW302X8J7	0.5 U	0.12		238	32		23.4	357	0.2 U	2 U	4 U
4/17/2017	XX	GW302X97D	0.5 U	0.29		65	39		17	182	0.2 U	2 U	2.5 U
7/24/2017	XX	GW302X9DB	0.5 U	0.31		61	48		22	200	0.2 U	2 U	5 U
10/23/2017	XX	GW302X9H6	0.25 U	0.31		160	42		31	322	0.16	2 U	2.5 U
4/2/2018	XX	GW302XA35	0.25 U	0.28		47	31		12	159	0.1 U	2 U	2.5 U
7/16/2018	XX	GW302XAC6	0.25 U	0.43		68	39		24	180	0.1 U	2 U	2.5 U
10/1/2018	XX	GW302XB14	0.32	0.73		330	43		38	506	0.14	2 U	2.5 U
4/22/2019	XX	GW302XB61	0.25 U	0.15		46	18		14	118	0.1 U	2 U	2.5 U
7/17/2019	XX	GW302XBCC	0.3	0.39		50	51		26	212	0.1 U	2 U	2.5 U
10/28/2019	XX	GW302XBI5	0.25 U	0.5		61	44		31	199	0.16	2 U	2.5 U

MW-303

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2010	XX	GW303X403	0.3 U			89	8.3		1.5 J	108		1.7 J	4 U
7/19/2010	XX	GW303X437	0.3 U			91	4.5		1.2 J	115		0.7 U	4 U
7/19/2010	XD	GWDP4X42G	0.51			92	4.6		1.2 J	117		0.7 U	4 U
10/18/2010	XX	GW303X46B	0.3 U			82	3.5		0.8 J	111		0.7 U	6
4/25/2011	XX	GW303X4AC	0.3 U			96	6.8		1.9 J	139		0.7 U	4 U
7/18/2011	XX	GW303X4EA	0.34			101	5.8		0.9 J	135		0.8 J	4 U
7/18/2011	XD	GWDP4X4DJ	0.36			101	5.3		0.8 J	138		0.7 J	4 U
10/24/2011	XX	GW303X4I5	0.3 U			105	5.9		1.1 J	132		0.8 J	4 U
10/24/2011	XD	GWDP4X4HE	0.3 U			106	5.9		1.1 J	135		0.9 J	4 U

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Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
(MW-303)													
4/23/2012	XX	GW303X52F	0.3 U			113	7.5		2.1	162		2 U	5
7/24/2012	XX	GW303X57E	!			!	!		!	!		!	!
MW12-303R													
10/23/2012	XX	GW303X5EG	0.3 U			92	4.9		4.2	143		2 U	4 U
4/22/2013	XX	GW303X5IG	0.3 U			114	6.6		7.6	159	0.22	2 U	4 U
7/29/2013	XX	GW303X651	0.673			113	8		4.2	195	0.3	2 U	4 U
10/28/2013	XX	GW303X67D	0.5 U			111	8.4		2.8	158	0.42	2 U	4 U
4/21/2014	XX	GW303X6FH	0.5 U			126	15.1		6.3	162	0.38	2 U	4 U
7/28/2014	XX	GW303X701	0.9			115	9.6		2 U	157	0.15	2 U	4 U
10/20/2014	XX	GW303X73D	0.5 U			162	48.3		5.5	266	0.21	2 U	4 U
4/27/2015	XX	GW303X799	0.5 U	0.5 U		87	57.2		9.5	533	0.1 U	4.3	4 U
6/18/2015	XX	42173-1	0.5 U	0.5 U	1 U	135	76.4		4.1	314		2 U	6
7/13/2015	XX	GW303X7D1	0.6	2 U		130	39.4		3	221	0.19	2 U	4 U
10/26/2015	XX	GW303X7IA	0.5 U	0.5 U		136	39.4		4	214	0.1 U	2 U	4
4/4/2016	XX	GW303X870	0.5 U	0.05 U		103	48.8		18.2	236	0.1 U	6.4	4 U
7/25/2016	XX	GW303X8BA	0.5 U	5.9		130	51.8		10.6	326	0.2 U	4.1	4 U
10/24/2016	XX	GW303X8J9	1	2.4		152	71.3		32.8	391	0.2 U	11.6	38
4/17/2017	XX	GW303X97F	0.5 U	2.2		120	57		23	284	0.2 U	5.5	2.5 U
7/24/2017	XX	GW303X9DD	0.5 U	0.28		120	52		8.7	250	0.2 U	3.7	5 U
10/23/2017	XX	GW303X9H8	0.73	0.13		120	44		5.3	244	0.17	3.5	130
4/2/2018	XX	GW303XA37	0.63	1.5		42	220		430	1016	0.5 U	5.2	2.5
7/16/2018	XX	GW303XAC8	0.25 U	0.074		140	57		14	289	0.1 U	2 U	2.5 U
10/1/2018	XX	GW303XB16	0.34	0.072		120	45		5.7	265	0.1 U	2 U	37
4/22/2019	XX	GW303XB63	2	1		120	27		56	353	2.4	16	12
7/17/2019	XX	GW303XBCE	0.71	0.72		130	40		33	297	0.62	7.8	2.5 U
10/28/2019	XX	GW303XBI7	0.9	1.7		120	15		45	268	0.27	11	2.5 U
MW-401A													
4/27/2010	XX	GW401A3J8	0.3 U			57	2.4		3	79		2.1	4 U
7/20/2010	XX	GW401A42C	0.4			60	1		2.6	88		0.7 U	4 U
10/20/2010	XX	GW401A45G	0.3 U			56	1.5		2.2	89		0.7 U	4 U
4/25/2011	XX	GW401A49H	0.3 U			58	1.1		2.1	83		0.7 U	4 U
7/18/2011	XX	GW401A4DF	0.3 U			56	1.3		2.4	89		0.7 U	4 U
10/24/2011	XX	GW401A4HA	0.3 U			58	2		2.7	76		0.7 U	4 U
4/23/2012	XX	GW401A520	0.3 U			56	1.9		4.4	89		2 U	4 U
7/23/2012	XX	GW401A56J	0.36			57	1.2		4.2	97		2 U	4 U
10/22/2012	XX	GW401A5DA	1.1			55	1.2		2 U	94		2 U	4 U
4/22/2013	XX	GW401A5I1	0.3 U			58	2.4		4.9	85	0.1 U	2 U	4 U
7/29/2013	XX	GW401A646	0.572			57	2.2		4.3	86	0.1 U	2 U	4 U
10/28/2013	XX	GW401A66J	0.5 U			57	2.8		4.3	87	0.1 U	2 U	4 U
4/21/2014	XX	GW401A6F2	0.5 U			62	2.9		4.8	81	0.1 U	2 U	4 U
7/28/2014	XX	GW401A6J9	0.5 U			61	1.5		2	89	0.1 U	2 U	4 U
10/20/2014	XX	GW401A730	0.5 U			62	1.8		3.3	83	0.1 U	2 U	4 U
4/27/2015	XX	GW401A78H	0.6	0.5 U		60	3.8		4.1	89	0.1 U	2 U	4 U
7/13/2015	XX	GW401A7C9	0.5 U	1 U		59	4.1		3.7	99	0.1 U	2 U	4 U
10/26/2015	XX	GW401A7HI	0.5 U	0.5 U		59	2.7		4.1	87	0.1 U	2 U	4 U
4/27/2016	XX	GW401A868	0.5 U	0.1		59	2.4		4.2	91	0.1 U	2 U	4 U
7/25/2016	XX	GW401A8AI	0.5 U	0.05 U		63	2.2		3.8	90	0.2 U	2 U	4 U
10/24/2016	XX	GW401A8IH	0.5 U	0.1		58	2.2		4	98	0.2 U	2 U	4 U

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(MW-401A)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/17/2017	XX	GW401A973	0.5 U	0.05		62	2.3		3.7	95	0.2 U	2 U	2.5 U
7/24/2017	XX	GW401A9D1	0.5 U	0.1		63	2.7		4.7	89	0.2 U	2 U	7
10/25/2017	XX	GW401A9GG	0.25 U	0.11		57	2.2		4.4	112	0.1 U	2 U	2.5 U
4/2/2018	XX	GW401AA2F	0.25 U	0.14		58	2.1		2.8	85	0.1 U	2 U	2.5 U
7/16/2018	XX	GW401AABG	0.25 U	0.14		60	3.1		4.7	89	0.1 U	2 U	2.5 U
10/1/2018	XX	GW401AB0E	0.25 U	0.083		61	2.8		4	91	0.1 U	2 U	2.5 U
4/22/2019	XX	GW401AB5B	0.25 U	0.1		61	3.4		4.5	91	0.1 U	2 U	2.5 U
7/15/2019	XX	GW401ABC3	0.25 U	0.1		62	3.8		4.3	92	0.1 U	2 U	2.5 U
10/28/2019	XX	GW401ABHG	0.25 U	0.12		61	4.9		5	98	0.1 U	2 U	2.5 U

MW-401B

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	GW401B3J9	0.3 U			116	8		10.6	142		1.3 J	4 U
4/27/2010	XD	GWDP4X3JC	0.3 U			121	8.4		11	150		2.4	4 U
7/20/2010	XX	GW401B42D	0.57			137	10.8		12.5	208		0.8 J	4 U
7/20/2010	XD	GWDP3X42A	0.3 U			136	11.5		12.8	212		0.8 J	4 U
10/20/2010	XX	GW401B45H	0.3 U			132	7.2		13.5	204		0.7 J	4 U
10/20/2010	XD	GWDP4X460	0.3 U			133	7.2		13.6	209		0.7 J	4 U
4/25/2011	XX	GW401B49I	0.3 U			116	7.1		8	165		0.7 U	4 U
4/25/2011	XD	GWDP4X4A1	0.3 U			119	6.8		7.8	164		0.7 U	4 U
7/18/2011	XX	GW401B4DG	0.45			126	11.9		10.6	184		0.7 J	4 U
7/18/2011	XD	GWDP1X4D2	0.3 U			122	11.3		10.3	188		0.7 J	4 U
10/24/2011	XX	GW401B4HB	0.3 U			131	10.5		9.1	183		1.1 J	4 U
4/23/2012	XX	GW401B521	0.3 U			117	9.4		11	173		2 U	4 U
4/23/2012	XD	GWDP4X524	0.3 U			116	9.8		11	177		2 U	4 U
7/23/2012	XX	GW401B570	0.3 U			117	12		13.4	181		2 U	4 U
7/23/2012	XD	GWDP1X566	0.3 U			116	10.7		12.5	172		2 U	4 U
10/22/2012	XX	GW401B5DB	0.94			133	8.3		9.8	201		2 U	4 U
4/22/2013	XX	GW401B5I2	0.3 U			122	12.5		13.2	172	0.1	2 U	4 U
4/22/2013	XD	GWDP4X5I5	0.3 U			121	12.5		13	186	0.13	2 U	4 U
7/29/2013	XX	GW401B647	0.528			108	13		11.4	156	0.1 U	2 U	4 U
7/29/2013	XD	GWDP1X63D	0.512			116	16.6		12.8	175	0.1 U	2 U	4 U
10/28/2013	XX	GW401B670	0.5 U			139	16.3		13	212	0.22	2 U	4 U
10/28/2013	XD	GWDP4X673	0.5 U			138	15.8		13	206	0.21	2 U	4 U
4/21/2014	XX	GW401B6F3	0.5 U			135	16.2		13.7	170	0.21	2 U	4 U
4/21/2014	XD	GWDP4X6F6	0.5 U			128	15.1		13.7	160	0.23	2 U	4 U
7/28/2014	XX	GW401B6JA	0.7			139	12.5		5.3	198	0.15	2 U	4 U
7/28/2014	XD	GWDP4X6JD	0.5 U			141	12		5.3	195	0.16	2 U	4 U
10/20/2014	XX	GW401B731	0.5 U			156	11.5		9.6	212	0.2	8.9	4 U
10/20/2014	XD	GWDP4X734	0.5 U			163	11.5		9.6	217	0.2	2 U	4 U
4/27/2015	XX	GW401B78I	0.5 U	0.5 U		126	11.3		10.9	177	0.18	2 U	4 U
4/27/2015	XD	GWDP4X791	0.5 U	0.5 U		123	11		11.3	170	0.18	2 U	4 U
7/13/2015	XX	GW401B7CA	0.5 U	1 U		146	13		10.7	205	0.16	2 U	4 U
7/13/2015	XD	GWDP4X7CD	0.5 U	2 U		144	11.7		10.3	208	0.25	2 U	4 U
10/26/2015	XX	GW401B7HJ	0.5 U	0.5 U		158	13.6		11.9	211	0.1 U	2 U	4 U
10/26/2015	XD	GWDP3X7HG	0.5 U	0.5 U		155	13.7		11.8	219	0.1 U	2 U	4 U
4/6/2016	XD	GWDP4X86C	0.5 U	0.05 U		124	11.5		11.7	177	0.1 U	2 U	4 U
4/6/2016	XX	GW401B869	0.5 U	0.05 U		127	11.8		11.8	185	0.1 U	2 U	4 U
7/25/2016	XX	GW401B8AJ	0.5 U	0.05 U		157	13.1		10.4	225	0.2	2 U	4 U
10/24/2016	XD	GWDP1X8I4	0.5 U	0.05 U		163	8.5		12.2	214	0.2	2 U	4 U
10/24/2016	XX	GW401B8II	1	0.05 U		158	8.9		12.5	213	0.2	2 U	4 U

(MW-401B)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/17/2017	XD	GWDP4X977	0.5 U	0.05 U		130	9.5		11	183	0.2 U	2 U	7
4/17/2017	XX	GW401B974	0.5 U	0.05 U		140	9.4		11	196	0.2 U	2 U	5
7/24/2017	XX	GW401B9D2	0.5 U	0.05 U		150	12		12	180	0.2 U	2 U	5 U
10/25/2017	XD	GWDP1X9G3	0.25 U	0.07		150	6.9		13	235	0.19	2 U	2.5 U
10/25/2017	XX	GW401B9GH	0.25 U	0.05 U		150	6.5		13	226	0.21	2 U	2.5 U
4/2/2018	XD	GWDP4XA2J	0.25 U	0.092		150	5.5		6	192	0.16	2 U	2.5 U
4/2/2018	XX	GW401BA2G	0.25 U	0.069		130	6.4		5.9	176	0.14	2 U	2.5 U
7/16/2018	XX	GW401BABH	0.25 U	0.057		150	11		12	198	0.14	2 U	2.5 U
10/1/2018	XD	GWDP1XB01	0.25 U	0.058		160	6.2		11	214	0.19	2 U	2.5 U
10/1/2018	XX	GW401BB0F	0.25 U	0.05 U		160	6.3		11	213	0.2	2 U	2.7
4/22/2019	XD	GWDP4XB5F	0.25 U	0.05 U		120	6.9		12	156	0.16	2 U	2.5 U
4/22/2019	XX	GW401BB5C	0.25 U	0.05 U		120	6.4		12	166	0.14	2 U	2.5 U
7/15/2019	XD	GWDP4XBC7	0.25 U	0.05 U		140	8.7		11	175	0.17	2 U	2.7
7/15/2019	XX	GW401BBC4	0.25 U	0.21		130	9.1		11	167	0.15	2 U	2.5 U
10/28/2019	XD	GWDP1XBH3	0.25 U	0.06		150	10		13	208	0.2	2 U	2.5
10/28/2019	XX	GW401BBHH	0.25 U	0.067		150	10		14	208	0.23	2 U	2.5 U

MW-402A

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/27/2010	XX	GW402A3JA	0.3 U			53	2.3		5.6	58		1.6 J	4 U
7/21/2010	XX	GW402A42E	0.34			54	1.2		4.7	87		0.7 U	4 U
10/20/2010	XX	GW402A45I	0.3 U			53	1.5		4.2	89		0.7 U	4 U
4/27/2011	XX	GW402A49J	0.3 U			52	1.2		4.1	78		0.7 U	4 U
7/20/2011	XX	GW402A4DH	0.54			51	1.6		4.2	80		0.7 U	4 U
10/26/2011	XX	GW402A4HC	0.3 U			54	0.8 J		4.4	86		0.7 U	4 U
4/24/2012	XX	GW402A522	0.3 U			52	2		7	70		2 U	4 U
7/25/2012	XX	GW402A571	0.3 U			52	1.6		6.4	80		2 U	4 U
10/24/2012	XX	GW402A5DC	0.31			51	2.3		7.3	83		2 U	4 U
4/22/2013	XX	GW402A5I3	0.3 U			51	2.5		9.3	99	0.1 U	2 U	4 U
7/31/2013	XX	GW402A648	0.3 U			53	1.3		7	81	0.1 U	2 U	4 U
10/30/2013	XX	GW402A671	0.5 U			51	1.8		7.2	89	0.1 U	2 U	4 U
4/23/2014	XX	GW402A6F4	0.5 U			56	1.7		8.1	76	0.1 U	2 U	4 U
7/30/2014	XX	GW402A6JB	0.5 U			52	1.5		6.9	87	0.1 U	2 U	4 U
10/22/2014	XX	GW402A732	0.5 U			58	1.4		7	76	0.1 U	2 U	4 U
4/29/2015	XX	GW402A78J	0.5 U	0.5 U		57	2.1		9.1	79	0.1 U	2 U	4 U
7/15/2015	XX	GW402A7CB	0.5 U	2 U		56	1.5		8.4	91	0.1 U	2 U	4 U
10/28/2015	XX	GW402A7I0	0.5 U	0.5 U		54	2.2		8.8	91	0.1 U	2 U	4 U
4/27/2016	XX	GW402A86A	0.5 U	0.06		57	2.1		8.8	86	0.1 U	2 U	4 U
7/27/2016	XX	GW402A8B0	0.5 U	0.05		55	1.6		7.8	86	0.2 U	2 U	4 U
10/26/2016	XX	GW402A8IJ	0.5 U	0.05		53	1.8		8.8	95	0.2 U	2 U	4 U
4/19/2017	XX	GW402A975	0.5 U	0.05 U		56	1.4		6.3	94	0.2 U	2 U	2.5 U
7/26/2017	XX	GW402A9D3	0.5 U	0.05 U		54	1.9		9.6	78	0.2 U	2 U	2.5 U
10/26/2017	XX	GW402A9GI	0.25 U	0.1		51	1.6		9.5	100	0.1 U	2 U	2.5 U
4/4/2018	XX	GW402AA2H	0.5 U	0.11		59	1.6		6.1	90	0.1 U	2 U	2.5 U
7/18/2018	XX	GW402AABI	0.27	0.065		54	1.4		8.4	81	0.1 U	2 U	2.5 U
10/3/2018	XX	GW402AB0G	0.25 U	0.059		54	1.7		8.8	95	0.1 U	2 U	2.5 U
4/24/2019	XX	GW402AB5D	0.25 U	0.06		55	1.5		9.2	87	0.1 U	2 U	2.5 U
7/17/2019	XX	GW402ABC5	0.25 U	0.064		55	1.4		8.8	90	0.1 U	2 U	2.5 U
10/30/2019	XX	GW402ABHI	0.25 U	0.062		57	1.7		11	83	0.1 U	2 U	2.5 U

MW-402B

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
(MW-402B)													
4/27/2010	XX	GW402B3JB	0.3 U			68	2.5		8	64		3.5	4 U
7/21/2010	XX	GW402B42F	0.38			69	1		6.9	93		0.7 U	4 U
10/20/2010	XX	GW402B45J	0.3 U			65	1.5		6.3	102		0.7 U	4 U
4/27/2011	XX	GW402B4A0	0.3 U			68	1.1		6.6	92		0.7 U	4 U
7/20/2011	XX	GW402B4DI	0.61			65	1.2		6.6	92		0.7 U	4 U
10/26/2011	XX	GW402B4HD	0.3 U			69	1.1		6.3	100		0.7 U	4 U
4/24/2012	XX	GW402B523	0.3 U			64	2.2		9	88		2 U	4 U
7/25/2012	XX	GW402B572	0.3 U			68	1.9		9.9	91		2 U	4 U
10/24/2012	XX	GW402B5DD	0.3 U			65	2.5		9.5	97		2 U	4 U
4/22/2013	XX	GW402B5I4	0.3 U			60	2.5		9	100	0.1 U	2 U	4 U
7/31/2013	XX	GW402B649	0.3 U			68	1.4		8.6	92	0.1 U	2 U	4 U
10/30/2013	XX	GW402B672	0.5 U			67	1.9		8.4	102	0.1 U	2 U	4 U
4/23/2014	XX	GW402B6F5	0.5 U			68	1.9		9	81	0.1 U	2 U	4 U
7/30/2014	XX	GW402B6JC	0.5 U			66	1.6		8.1	100	0.1 U	2 U	4 U
10/22/2014	XX	GW402B733	0.5 U			71	1.6		8.2	89	0.1 U	2 U	4 U
4/29/2015	XX	GW402B790	0.5 U	0.5 U		68	2		10.1	92	0.1 U	2 U	4 U
7/15/2015	XX	GW402B7CC	0.5 U	2 U		67	1.9		9.6	98	0.1 U	2 U	4 U
10/28/2015	XX	GW402B7I1	0.5 U	0.5 U		67	2.4		9.9	95	0.1 U	2 U	4 U
4/27/2016	XX	GW402B86B	0.5 U	0.05 U		68	2.1		9.8	94	0.1 U	2 U	4 U
7/27/2016	XX	GW402B8B1	0.5 U	0.05 U		66	1.7		8.8	94	0.2 U	2 U	4 U
10/26/2016	XX	GW402B8J0	0.5 U	0.05 U		66	2		9.8	105	0.2 U	2 U	8
4/19/2017	XX	GW402B976	0.5 U	0.06		68	1.6		6.5	96	0.2 U	2 U	2.5 U
7/26/2017	XX	GW402B9D4	0.5 U	0.05 U		67	2		11	88	0.2 U	2 U	2.5 U
10/26/2017	XX	GW402B9GJ	0.25 U	0.05		64	1.7		10	113	0.1 U	2 U	2.5 U
4/4/2018	XX	GW402BA2I	0.25 U	0.091		69	1.5		6.2	104	0.1 U	2 U	8
7/18/2018	XX	GW402BABJ	0.36	0.05 U		69	1.8		9.3	91	0.1 U	2 U	9.3
10/3/2018	XX	GW402BB0H	0.25 U	0.05 U		66	1.8		9.9	106	0.1 U	2 U	2.5 U
4/24/2019	XX	GW402BB5E	0.25 U	0.05 U		65	1.5		9.8	88	0.1 U	2 U	2.5 U
7/17/2019	XX	GW402BBC6	0.25 U	0.05 U		67	1.3		9.7	93	0.1 U	2 U	2.5 U
10/30/2019	XX	GW402BBHJ	0.25 U	0.05 U		69	18		2.6	88	0.11	2 U	2.5 U
MW-501													
4/5/2018	XX	GW501XA6I	0.25 U	0.25	2 U		8.3	0.04 U	9.8	130	0.1 U	2 U	2.5 U
6/4/2018	XX	GW501XA7F	0.25 U	0.18	1 U		10	0.04 U	2.9	131	0.1 U	2 U	2.5 U
7/19/2018	XX	GW501XAED	0.33	0.24	1 U		10		2.5	151	0.1 U	2 U	2.5 U
8/20/2018	XX	GW501XAFE	0.25 U	0.21			11		2.8	157	0.1 U	2 U	2.5 U
4/24/2019	XX	GW501XB7C	0.25 U	0.43		140	10		2.9	190	0.12	2 U	2.5 U
7/17/2019	XX	GW501XBE0	0.25 U	0.25		75	9		2.5	117	0.1 U	6.4	2.5 U
10/30/2019	XX	GW501XBJ9	0.25 U	0.57		170	2.4		47	247	0.1 U	2 U	2.5 U
P-04-02													
4/26/2010	XX	GWXXXX405	0.3 U			95	3.1		11.2	113		0.8 J	4 U
7/21/2010	XX	GWXXXX439	0.3 U			93	1		10.5	121		0.7 U	4 U
10/20/2010	XX	GWXXXX46D	0.3 U			90	1.3		10.7	130		0.7 U	4 U
4/27/2011	XX	GWXXXX4AE	0.3 U			90	1.1		8.9	129		0.7 U	4 U
7/20/2011	XX	GWXXXX4EC	0.38			93	1.1		12.2	138		0.7 U	4 U
10/26/2011	XX	GWXXXX4I7	!			!	!		!	!		!	!
4/25/2012	XX	GWXXXX52H	0.6			63	8.8		11.3	211		11.9	11
7/25/2012	XX	GWXXXX57G	0.35			94	7.8		25.2	205		5.2	9
10/24/2012	XX	GWXXXX5E7	0.62			85	4.9		25.1	198		5.7	13

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(P-04-02)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/22/2013	XX	GWXXXX5II	!			!	!		!	!	!	!	!

P-04-02R

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
7/15/2015	XX	GWXXXX7DJ	0.5 U	2 U		82	15.4		32.4	188	0.1 U	2 U	26
10/28/2015	XX	GWXXXX7J4	0.5 U	0.5 U		106	42.5		147	442	0.1 U	2 U	5
4/6/2016	XX	GWXXXX87I	0.5	0.05 U		112	15.4		114	325	0.1 U	2 U	4 U
7/27/2016	XX	GWXXXX8C7	0.5 U	0.05		129	15.8		158	456	0.4 U	2 U	4 U
10/26/2016	XX	GWXXXX904	0.5	0.05 U		121	13		146	394	0.4 U	32.5	4 U
4/19/2017	XX	GWXXXX98C	0.5 U	0.05		150	9.6		120	412	0.2 U	2 U	10
7/26/2017	XX	GWXXXX9E8	0.5 U	0.06		140	7.4		120	357	0.2 U	2 U	2.5 U
10/25/2017	XX	GWXXXX9I3	0.25 U	0.08		120	5		110	331	0.1 U	2 U	2.5 U
4/4/2018	XX	GWXXXXA44	0.25 U	0.14		140	3		45	281	0.1 U	2 U	3.3
7/18/2018	XX	GWXXXXAD3	0.25 U	0.15		140	4		70	267	0.1 U	2 U	2.5 U
10/3/2018	XX	GWXXXXB21	0.25 U	0.094		130	3		69	254	0.1 U	2 U	2.5 U
4/22/2019	XX	GWXXXXB70	0.25 U	0.088		130	1.9		57	233	0.1 U	2 U	2.5 U
7/17/2019	XX	GWXXXXBDA	0.25 U	0.097		150	2.4		57	260	0.1 U	2 U	2.5 U
10/30/2019	XX	GWXXXXBJ2	0.25 U	0.1		140	6.2		9	215	0.1 U	2 U	2.5 U

P-04-04

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2010	XX	GWXXXX406	0.3 U			79	2.7		7.9	95		1.2 J	4 U
7/21/2010	XX	GWXXXX43A	0.3 U			78	0.9 J		6.5	104		0.7 U	4 U
10/20/2010	XX	GWXXXX46E	0.3 U			72	1.4		5.9	119		0.7 U	4 U
4/27/2011	XX	GWXXXX4AF	0.3 U			80	1		5.5	104		0.7 U	4 U
7/20/2011	XX	GWXXXX4ED	0.36			76	1.1		9	112		0.7 U	4 U
10/26/2011	XX	GWXXXX4I8	0.7			78	1.8		6.8	122		0.8 J	4 U
4/25/2012	XX	GWXXXX52I	0.3 U			75	1.8		8.5	114		2 U	4 U
7/25/2012	XX	GWXXXX57H	0.3 U			76	1.8		28.8	95		2 U	4 U
10/24/2012	XX	GWXXXX5E8	0.3 U			78	2		8.1	111		2 U	4 U
4/24/2013	XX	GWXXXX5IJ	0.479			80	1.3		9.2	115	0.1 U	2 U	4 U
7/31/2013	XX	GWXXXX654	0.613			76	1.4		7.8	100	0.1 U	2 U	4 U
10/30/2013	XX	GWXXXX67E	0.5 U			76	1.8		7.7	115	0.1 U	2 U	4 U
4/23/2014	XX	GWXXXX6G0	0.5 U			79	1.8		8.2	112	0.1 U	2 U	4 U
7/30/2014	XX	GWXXXX703	0.5 U			78	1.5		7.2	113	0.1 U	2 U	4 U
10/22/2014	XX	GWXXXX73E	0.5 U			80	1.5		7.4	102	0.1 U	2 U	4 U
4/29/2015	XX	GWXXXX79B	0.5 U	0.5 U		79	2		9.2	105	0.1 U	2 U	4 U
7/15/2015	XX	GWXXXX7D3	0.5 U	2 U		78	2.1		8.9	108	0.1 U	2 U	4 U
10/28/2015	XX	GWXXXX7IC	0.5 U	0.5 U		76	2.6		8.9	111	0.1 U	2 U	4 U
4/6/2016	XX	GWXXXX872	0.5 U	0.05 U		80	2.2		9.4	115	0.1 U	2 U	4 U
7/27/2016	XX	GWXXXX8BC	0.9	0.05 U		77	2.2		8.1	113	0.2 U	2 U	4 U
10/26/2016	XX	GWXXXX8JB	0.5 U	0.1		78	2.7		8.8	119	0.2 U	2 U	4 U
4/19/2017	XX	GWXXXX97H	0.5 U	0.05		81	2.8		5.3	112	0.2 U	2 U	2.5 U
7/26/2017	XX	GWXXXX9DF	0.5 U	0.09		77	3.4		9.4	109	0.2 U	2 U	2.5 U
10/25/2017	XX	GWXXXX9HA	0.25 U	0.11		73	3.1		8.7	125	0.1 U	2 U	2.5 U
4/4/2018	XX	GWXXXXA39	0.25 U	0.16		80	3.3		4.1	111	0.1 U	2 U	2.5 U
7/18/2018	XX	GWXXXXACA	0.28	0.13		77	4		7.8	112	0.1 U	2 U	2.5 U
10/3/2018	XX	GWXXXXB18	0.25 U	0.11		78	4.5		8.5	118	0.1 U	2 U	2.5 U
4/22/2019	XX	GWXXXXB65	0.27	0.13		76	4.3		9.7	118	0.1 U	2 U	2.5 U
7/17/2019	XX	GWXXXXBCG	0.25 U	0.13		81	5.6		9.1	115	0.1 U	2 U	2.5 U
10/30/2019	XX	GWXXXXBI9	0.25 U	0.14		78	5.9		8.8	114	0.1 U	2 U	2.5 U

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SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(P-206A)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
7/31/2013	XX	GW206A64I	I			I	I		I	I	I	I	I
10/28/2013	XX	GW206A67B					4.3		2 U				
4/21/2014	XX	GW206A6FJ					6.2		2 U				
7/28/2014	XX	GW206A702					3.3		2 U				
10/20/2014	XX	GW206A73B					3.6		2 U				
4/27/2015	XX	GW206A79A		0.5 U			5.5		4.8				
7/13/2015	XX	GW206A7D2		0.5 U			7.9		2 U				
10/26/2015	XX	GW206A7IB		0.7			8.5		2 U				
4/4/2016	XX	GW206A871		0.05 U			10.2		2 U				
4/26/2016	XX	GW206AHBC	0.5 U			63				95	0.1 U	2 U	57
7/25/2016	XX	GW206A8BB	0.6	0.05 U		63	12.5		2 U	103	0.2 U	2 U	20
10/24/2016	XX	GW206A8JA	0.5	0.05 U		61	15.7		2.2	108	0.2 U	2 U	11
4/17/2017	XX	GW206A97G	0.5 U	0.05 U		69	20		2 U	118	0.2 U	2 U	35
7/24/2017	XX	GW206A9DE	0.5 U	0.05 U		70	21		2.2	120	0.2 U	2 U	5 U
10/23/2017	XX	GW206A9H9	0.25 U	0.05 U		65	20		2.7	120	0.1 U	2 U	6
4/2/2018	XX	GW206AA38	0.25 U	0.063		71	19		2 U	123	0.1 U	2 U	2.5 U
7/16/2018	XX	GW206AAC9	0.31	0.064		74	24		2.8	130	0.1 U	2 U	2.5 U
10/1/2018	XX	GW206AB17	0.29	0.05 U		75	21		2.2	131	0.1 U	2 U	4.7
4/22/2019	XX	GW206AB64	0.25 U	0.05 U		74	19		2 U	124	0.1 U	2 U	4.3
7/17/2019	XX	GW206ABCF	0.3	0.05 U		79	22		2.4	136	0.1 U	2 U	7.7
10/28/2019	XX	GW206ABI8	0.25 U	0.067		78	21		3.1	135	0.1	2 U	18

PWS10-1

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2010	XX	GWPWS13IJ				74	14.6	0.14	1 J	148		9.9	4 U
7/19/2010	XX	GWPWS1423				125	10.1	0.26	2.1	154		8.3	786
10/18/2010	XX	GWPWS1457				100	10.6	0.05	10	176		7.5	12
4/25/2011	XX	GWPWS1498				73	14.2	0.03 J	1.3 J	154		7.5	4 U
7/18/2011	XX	GWPWS14D6				110	7.3	0.14	2.9	171		8.4	42
10/24/2011	XX	GWPWS14H1				70	10.8	0.08	1.6 J	134		19.7	16
4/23/2012	XX	GWPWS151B				63	8.4	0.04 U	6.3	132		10.5	8
7/23/2012	XX	GWPWS156A				41	3.5	0.16	2 U	104		13.7	32
10/22/2012	XX	GWPWS15D1				48	8.2	0.09	2.7	130		13.3	25
4/22/2013	XX	GWPWS15HC				113	16.4	0.06	3.1	177	0.1	4.5	4 U
7/29/2013	XX	GWPWS163H				82	8.9	0.32	2 U	148	0.1 U	12.6	95
10/28/2013	XX	GWPWS166A				45	7	0.06	2.5	90	0.1 U	9.8	25
4/21/2014	XX	GWPWS16ED				130	22.9	0.16	2.2	197	0.1 U	8.4	34
7/28/2014	XX	GWPWS16J0				106	7.5	0.37	2 U	171	0.12	13.8	4 U
10/20/2014	XX	GWPWS172A				21	8.8	0.04 U	3.3	87	0.1 U	17.4	4 U
4/27/2015	XX	GWPWS1788		0.5 U		109	19.4	0.04 U	4.3	182	0.1 U	5.5	4 U
7/13/2015	XX	GWPWS17C0		2 U		76	8.4	0.52	2 U	156	0.1 U	12.5	156
10/26/2015	XX	GWPWS17H9		0.5 U		31	8.7	0.06	2.4	89	0.1 U	10.3	8
4/4/2016	XX	GWPWS185J		0.05 U		102	14.7	0.04	2.5	166	0.1 U	5.6	166
7/25/2016	XX	GWPWS18A9		0.05 U		50	3.1	0.19	2 U	122	0.2 U	13.8	21
10/24/2016	XX	GWPWS18I8		0.05 U		125	7.9	0.07	3.3	195	0.2 U	7.5	19
4/17/2017	XX	GWPWS196E		0.05 U		35	11	0.04 U	4	97	0.2 U	7.6	2.5 U
7/24/2017	XX	GWPWS19CC		0.05 U		130	7.3	0.04	3.4	150	0.2 U	5	110
10/25/2017	XX	GWPWS19G7		0.05 U		72	5.4	0.14	8.5	156	0.1 U	5.4	17
4/2/2018	XX	GWPWS1A25		0.27		56	8.2	0.04 U	4.5	106	0.1 U	3.8	2.5 U
7/16/2018	XX	GWPWS1AB7		0.076		77	5.1	0.13	2 U	132	0.1 U	12	16
10/1/2018	XX	GWPWS1B05		0.062		40	6	0.06	15	100	0.1 U	10	9.7

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(PWS10-1)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/22/2019	XX	GWPWS1B51		0.14		67	8.7	0.04 U	6.4	141	0.1 U	10	16
7/15/2019	XX	GWPWS1BBE		0.16		38	8.4	0.08	2 U	105	0.1 U	21	24
10/28/2019	XX	GWPWS1BH7		0.057		69	8.7	0.04 U	9.9	134	0.1 U	9.4	11

PWS10-2

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2010	XX	GWPWS23J0				16.3	9.5	0.02 J	3.1	59		8.2	7
7/19/2010	XX	GWPWS2424				35	12.6	0.08	4.2	81		9.2	182
10/18/2010	XX	GWPWS2458				16.4	5.7	0.03 J	6.9	88		14.7	4 U
4/25/2011	XX	GWPWS2499				12.1	5.8	0.02 J	1.7 J	60		7.3	4 U
7/18/2011	XX	GWPWS24D7				62	4.1	0.03 J	1.6 J	107		9.9	4 U
10/24/2011	XX	GWPWS24H2				36	3.8	0.03 J	2.9	76		10.2	78
4/23/2012	XX	GWPWS251C				10.6	8.3	0.04 U	7.7	79		11.5	4 U
7/23/2012	XX	GWPWS256B				35	3.2	0.05	2 U	90		13	4 U
10/22/2012	XX	GWPWS25D2				9.3	4.4	0.04 U	8.4	75		10.2	4
4/22/2013	XX	GWPWS25HD				30	8.4	0.04 U	3.8	82	0.1 U	6.4	5
7/29/2013	XX	GWPWS263I				28	19.8	0.05	2 U	111	0.1 U	11.8	62
10/28/2013	XX	GWPWS266B				28	5.1	0.1	4.3	78	0.1 U	5.5	43
4/21/2014	XX	GWPWS26EE				36	8.4	0.05	2.5	38	0.1 U	4.7	34
7/28/2014	XX	GWPWS26J1				55	8.3	0.04	2 U	119	0.1 U	10.4	7
10/20/2014	XX	GWPWS272B				38	9.8	0.05	8.8	113	0.1 U	13.6	4 U
4/27/2015	XX	GWPWS2789		0.5 U		39	5.8	0.05	2.5	91	0.1 U	9.9	6
7/13/2015	XX	GWPWS27C1		2 U		31	6.4	0.09	2.2	94	0.1 U	11.9	327
10/26/2015	XX	GWPWS27HA		0.5 U		27	5	0.04 U	5.2	62	0.1 U	2.6	4 U
4/4/2016	XX	GWPWS2860		0.08		38	8.5	0.08	6.3	81	0.1 U	4	12
7/25/2016	XX	GWPWS28AA		0.05 U		47	3	0.06	2 U	103	0.2 U	12.6	4 U
10/24/2016	XX	GWPWS28I9		0.05		35	5.4	0.22	7.4	89	0.2 U	9	82
4/17/2017	XX	GWPWS296F		0.08		37	4.9	0.04 U	3.1	81	0.2 U	7	7
7/24/2017	XX	GWPWS29CD		0.05 U		64	5.4	0.04 U	4	87	0.2 U	7.4	5
10/24/2017	XX	GWPWS29G8		D		D	D	D	D	D	D	D	D
4/2/2018	XX	GWPWS2A26		0.17		24	3.2	0.06	2.6	56	0.1 U	2.8	44
7/16/2018	XX	GWPWS2AB8		0.05		53	3.9	0.04	3	98	0.1 U	11	2.5 U
10/1/2018	XX	GWPWS2B06		0.087		38	4.2	0.04	9.7	86	0.1 U	8.3	3.7
4/22/2019	XX	GWPWS2B52		0.05 U		13	8.3	0.04 U	12	79	0.1 U	7.5	2.5 U
7/15/2019	XX	GWPWS2BBF		0.11		34	8.5	0.06	2 U	106	0.1 U	24	4
10/28/2019	XX	GWPWS2BH8		0.064		14	6.8	0.04	15	76	0.1 U	6.4	19

PWS10-3

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2010	XX	GWPWS33J1				87	2.5	0.05	3.3	113		2.1	5
7/19/2010	XX	GWPWS3425				70	1.7	0.48	1.8 J	124		10.4	36
10/18/2010	XX	GWPWS3459				12.5	7.7	0.22	4.6	103		19.3	34
4/25/2011	XX	GWPWS349A				64	2.3	0.03 J	0.6 U	105		4	4 U
7/18/2011	XX	GWPWS34D8				56	3.2	0.15	1.2 J	112		14.9	101
10/24/2011	XX	GWPWS34H3				37	3.4	0.07	0.6 U	95		13.4	10
4/23/2012	XX	GWPWS351D				16.4	4.5	0.06	6.3	66		7.5	60
7/23/2012	XX	GWPWS356C				26	3	0.07	2 U	89		13.8	18
10/22/2012	XX	GWPWS35D3				11.8	2.6	0.06	2 U	83		19	15
4/22/2013	XX	GWPWS35HE				21	4.1	0.08	2	72	0.1 U	11	8
7/29/2013	XX	GWPWS363J				56	5.4	0.5	2 U	141	0.1 U	21.6	39
10/28/2013	XX	GWPWS366C				22	6.2	0.08	2 U	73	0.1 U	11.9	29
4/21/2014	XX	GWPWS36EF				35	6.3	0.2	5	107	0.1 U	17	489

REPORT PREPARED: 3/16/2020 13:56

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Inorganics

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(PWS10-3)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
7/28/2014	XX	GWPWS36J2				32	5.2	0.27	2 U	92	0.1 U	14.8	57
10/20/2014	XX	GWPWS372D				24	8.9	0.06	2.5	89	0.1 U	18.4	19
4/27/2015	XX	GWPWS378A		0.5 U		10.4	5.3	0.09	7.4	68	0.1 U	8.7	58
7/13/2015	XX	GWPWS37C2		2 U		26	6.6	0.11	2 U	87	0.1 U	11.9	14
10/26/2015	XX	GWPWS37HB		0.5 U		25	2.4	0.05	10.2	91	0.1 U	12.3	9
4/4/2016	XX	GWPWS3861		0.05 U		68	3.2	0.04	4.6	98	0.1 U	2 U	14
7/25/2016	XX	GWPWS38AB		D		D	D	D	D	D	D	D	D
10/24/2016	XX	GWPWS38IA		1.5		7.9	4	0.04 U	47.3	135	0.2 U	13.3	4 U
4/17/2017	XX	GWPWS396G		0.05 U		21	3.3	0.06	4.6	91	0.2 U	16	17
7/24/2017	XX	GWPWS39CE		0.05 U		62	4.6	0.11	2 U	120	0.2 U	20	17
10/24/2017	XX	GWPWS39G9		D		D	D	D	D	D	D	D	D
4/2/2018	XX	GWPWS3A27		0.23		5.8	4.5	0.04 U	4.1	48	0.1 U	6.6	4
7/16/2018	XX	GWPWS3AB9		D		D	D	D	D	D	D	D	D
10/1/2018	XX	GWPWS3B07		0.062		11	8.6	0.04	20	98	0.1 U	12	11
4/22/2019	XX	GWPWS3B53		0.05 U		12	15	0.04 U	2.3	82	0.1 U	13	3.3
7/15/2019	XX	GWPWS3BBG		0.062		26	8.9	0.14	2 U	82	0.1 U	27	18
10/28/2019	XX	GWPWS3BH9		0.15		11	1 U	0.04 U	2 U	29	0.1 U	2 U	11

SW-1

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/28/2010	XX	SWXX1X3IG			2 U	23	8.9	0.02 J	1.4 J	61		9.1	4 U
7/20/2010	XX	SWXX1X420			3 U	126	8.5	0.81	3.5	230		7.3	1490
10/19/2010	XX	SWXX1X454			5 U	11.6	7.3	0.02 J	4.4	101		18.8	4 U
4/26/2011	XX	SWXX1X495			3 U	16.7	6.8	0.02 J	1.6 J	70		8	5
7/19/2011	XX	SWXX1X4D3			4	107	6.9	0.21	2.6	157		8.4	144
10/25/2011	XX	SWXX1X4GI			4 U	19	5.8	0.02 J	2.4	64		13.4	11
4/24/2012	XX	SWXX1X518			5 U	13.9	9.3	0.04 U	3.6	65		10.8	4 U
7/24/2012	XX	SWXX1X567			4 U	40	3.8	0.11	2 U	89		13.8	15
10/23/2012	XX	SWXX1X5CI			2 U	35	6	0.04 U	5.6	104		9.6	13
4/23/2013	XX	SWXX1X5H9			4 U	15.3	12.7	0.04 U	3.1	60	0.1 U	7.4	4 U
7/30/2013	XX	SWXX1X63E			3 U	34	5.1	0.05	2 U	81	0.1 U	16.8	41
10/29/2013	XX	SWXX1X667			1 U	30	6.2	0.04 U	2.2	73	0.1 U	10.1	4 U
4/22/2014	XX	SWXX1X6EA			2 U	41	27.6	0.04	6.2	98	0.1 U	5.7	4 U
7/29/2014	XX	SWXX1X6IH			3 U	27	5.1	0.04 U	2 U	80	0.1 U	14.6	4 U
10/21/2014	XX	SWXX1X727			2 U	20	8.4	0.04 U	2.8	97	0.1 U	16.5	15
4/28/2015	XX	SWXX1X785		0.5 U	3 U	21	18	0.04 U	3.1	79	0.1 U	7.3	4 U
7/14/2015	XX	SWXX1X7BH		2 U	3 U	37	5.7	0.06	1.6 J	80	0.1 U	11.1	9
10/27/2015	XX	SWXX1X7H6		0.5 U	3 U	28	9	0.04 U	2.6	76	0.1 U	10.4	4 U
4/5/2016	XX	SWXX1X85G		0.05 U	3 U	21	16.3	0.04 U	3.4	69	0.1 U	6.1	4 U
7/26/2016	XX	SWXX1X8A6		0.05 U	4	83	4.1	0.95	2.2	135	0.2 U	12.9	377
10/25/2016	XX	SWXX1X8I5		0.05	3 U	15.5	11	0.04	6.6	126	0.2 U	17.3	4
4/18/2017	XX	SWXX1X96B		0.05	3 U	13	9.8	0.04 U	2 U	60	0.2 U	8.9	2.5 U
7/25/2017	XX	SWXX1X9C9		0.06	4	110	6.4	0.17	6.8	169	0.2 U	6.7	35
10/25/2017	XX	SWXX1X9G4		0.12	5	27	13	0.09	13	139	0.1 U	16	14
4/3/2018	XX	SWXX1XA22		0.25	2	45	11	0.04 U	3.5	92	0.1 U	4.5	2.5 U
7/17/2018	XX	SWXX1XAB4		0.063	6	100	5	0.17	2.2	151	0.1 U	10	640
10/2/2018	XX	SWXX1XB02		0.05 U	1 U	44	6.3	0.04	15	105	0.1 U	9.7	49
4/23/2019	XX	SWXX1XB4I		0.15	1 U	48	7.3	0.16	5.3	97	0.1 U	8.2	2.5 U
7/16/2019	XX	SWXX1XBBB		0.05 U	5	33	9.4	0.08	8.8	118	0.1 U	21	30
10/29/2019	XX	SWXX1XBH4		0.12	4	100	9.7	0.04 U	10	142	0.1 U	5	16

SEVEE & MAHER ENGINEERS, INC.
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(SW-2)

SW-2

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/28/2010	XX	SWXX2X3IH			2 U	14.6	9.8	0.02 J	0.9 J	59		9.7	4 U
4/28/2010	XD	SWDP2X3J2			2 U	14.5	9.8	0.02 J	1.1 J	52		10.5	4 U
7/20/2010	XX	SWXX2X421			4	25	3.8	0.05	0.6 U	86		21.2	9
7/20/2010	XD	SWDP2X426			4	23	3.7	0.04	1.9 J	88		21.4	8
10/19/2010	XX	SWXX2X455			5 U	10.1	8	0.02 J	4.8	98		19.3	4 U
10/19/2010	XD	SWDP2X45A			5 U	10	8.2	0.02 J	4.2	102		19.5	4 U
4/26/2011	XX	SWXX2X496			3 U	11.5	6.7	0.01 J	0.9 J	57		8.3	4 U
4/26/2011	XD	SWDP2X49B			3 U	11.4	7.1	0.01 J	1 J	62		8.5	4 U
7/19/2011	XX	SWXX2X4D4			4 U	35	2.9	0.06	1.6 J	83		12.6	15
7/19/2011	XD	SWDP2X4D9			4 U	33	2.8	0.06	1.5 J	82		13.3	6
10/25/2011	XX	SWXX2X4GJ			4 U	12.6	7.4	0.01 J	2.6	76		14	4 U
10/25/2011	XD	SWDP2X4H4			4 U	13	6.3	0.01 J	2.3	75		14.4	4 U
4/24/2012	XX	SWXX2X519			5 U	15.1	21.6	0.04 U	2.6	89		12	4 U
4/24/2012	XD	SWDP2X51E			5 U	15.4	21.6	0.04 U	2.6	90		11.7	4 U
7/24/2012	XX	SWXX2X568			4 U	17.6	3.3	0.08	2 U	71		18	17
10/23/2012	XX	SWXX2X5CJ			2 U	13	4.2	0.04 U	3	72		10.7	4 U
10/23/2012	XD	SWDP2X5D4			2 U	13.8	4	0.04 U	3	72		10.9	4 U
4/23/2013	XX	SWXX2X5HA			4 U	13	13.6	0.04 U	2 U	66	0.1 U	7.6	4 U
4/23/2013	XD	SWDP2X5HF			4 U	12.8	14.2	0.04 U	2 U	62	0.1 U	7.8	4 U
7/30/2013	XX	SWXX2X63F			3 U	25	4.5	0.04 U	2 U	74	0.1 U	24.1	4
10/29/2013	XX	SWXX2X668			1 U	22	6.6	0.04 U	2 U	65	0.1 U	11.8	4 U
10/29/2013	XD	SWDP2X66D			1 U	21	6.6	0.04	2 U	68	0.1 U	11.9	6
4/22/2014	XX	SWXX2X6EB			2 U	13.6	16.1	0.04 U	2.6	56	0.1 U	6.6	4 U
4/22/2014	XD	SWDP2X6EG			2 U	13.4	16.4	0.04 U	2.7	58	0.1 U	6.5	4 U
7/29/2014	XX	SWXX2X6II			5	26	5.3	0.1	2 U	76	0.1 U	15.1	42
10/21/2014	XX	SWXX2X728			2 U	13.7	9	0.04 U	2.2	95	0.1 U	17.6	4 U
10/21/2014	XD	SWDP2X72E			2 U	14.1	9	0.04 U	2.4	95	0.1 U	17.9	4 U
4/28/2015	XX	SWXX2X786		0.5 U	3 U	12	17.6	0.04 U	2.3	77	0.1 U	7.9	4 U
4/28/2015	XD	SWDP2X78B		0.5 U	3 U	11.9	19.3	0.04 U	3.4	76	0.1 U	7.8	4 U
7/14/2015	XX	SWXX2X7BI		2 U	3	27	6	0.04	2 U	73	0.1 U	12.4	19
10/27/2015	XX	SWXX2X7H7		0.5 U	3 U	16.2	9.2	0.04 U	2 U	71	0.1 U	14.1	30
10/27/2015	XD	SWDP2X7HC		0.5 U	3 U	16.1	9.3	0.04 U	2	74	0.1 U	12.3	4 U
4/5/2016	XD	SWDP2X862		0.05 U	3 U	15.7	16.4	0.04 U	3.1	62	0.1 U	6.3	4 U
4/5/2016	XX	SWXX2X85H		0.05 U	3 U	16.7	17.5	0.04 U	2.8	71	0.1 U	6.3	4 U
7/26/2016	XX	SWXX2X8A7		0.05 U	3	34	2.1	0.05	2 U	92	0.2 U	17.7	15
10/25/2016	XD	SWDP2X8IB		0.05 U	3 U	14.6	11.8	0.04	4.1	121	0.2 U	18.5	4 U
10/25/2016	XX	SWXX2X8I6		0.05 U	3 U	14.5	11.7	0.04	3.8	131	0.2 U	20.6	4 U
4/18/2017	XD	SWDP2X96H		0.05 U	3 U	12	7.2	0.04 U	2.5	61	0.2 U	8.7	2.5 U
4/18/2017	XX	SWXX2X96C		0.05 U	3 U	12	6.8	0.04 U	2.2	63	0.2 U	9.4	2.5 U
7/25/2017	XX	SWXX2X9CA		0.06	2 U	46	3.4	0.09	3.2	93	0.2 U	8.9	9
10/25/2017	XD	SWDP2X9GA		0.11	5	22	13	0.11	3.8	107	0.1 U	14	10
10/25/2017	XX	SWXX2X9G5		0.16	4	21	13	0.1	3.5	114	0.1 U	14	4.7
4/3/2018	XD	SWDP2XA28		0.076	1 U	7.9	6.4	0.04 U	2 U	54	0.1 U	6.9	2.5 U
4/3/2018	XX	SWXX2XA23		0.084	1 U	8.6	6.8	0.04 U	2 U	67	0.1 U	7.2	2.5 U
7/17/2018	XX	SWXX2XAB5		0.05 U	42	40	4.6	0.43	2.3	103	0.1 U	18	76
10/2/2018	XD	SWDP2XB08		0.05 U	8	21	10	0.11	9.8	96	0.1 U	16	42
10/2/2018	XX	SWXX2XB03		0.065	7	25	9.8	0.09	9.2	94	0.1 U	16	16
4/23/2019	XD	SWDP2XB54		0.05 U	1 U	13	16	0.04 U	2.1	77	0.1 U	13	2.5 U

SEVEE & MAHER ENGINEERS, INC.
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(SW-2) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/23/2019	XX	SWXX2XB4J		0.05 U	1 U	13	16	0.04 U	2 U	73	0.1 U	13	2.5 U
7/16/2019	XD	SWDP2XBBH		0.05 U	3	23	12	0.06	2 U	107	0.1 U	24	19
7/16/2019	XX	SWXX2XBBC		0.05 U	3	23	12	0.05	2 U	93	0.1 U	30	22
10/29/2019	XD	SWDP2XBHA		0.05 U	1 U	14	9.5	0.04 U	2 U	117	0.1 U	30	2.5 U
10/29/2019	XX	SWXX2XBH5		0.05 U	1 U	13	9.3	0.04 U	2 U	66	0.1 U	13	2.5 U
SW-3													
4/28/2010	XX	SWXX3X3II			2 U	21	8.1	0.03 J	1.8 J	50		8.5	4
7/20/2010	XX	SWXX3X422			3 U	40	5	0.06	1.8 J	86		8.9	16
10/19/2010	XX	SWXX3X456			5 U	12.5	6.4	0.02 J	5.5	97		17.2	4 U
4/26/2011	XX	SWXX3X497			3 U	12.3	5.8	0.01 J	1.4 J	57		7.3	4 U
7/19/2011	XX	SWXX3X4D5			4 U	36	5	0.04	0.6 J	85		11.8	4 U
10/25/2011	XX	SWXX3X4H0				18.5	5.6	0.02 J	1.9 J	72		12.9	4 U
10/26/2011	XX	SWXX3XHBB			4 U								
4/24/2012	XX	SWXX3X51A			5 U	10.9	4.6	0.04 U	3.5	58		11.3	4 U
7/24/2012	XX	SWXX3X569			4 U	33	2	0.05	2 U	79		11.1	4
7/24/2012	XD	SWDP2X56D			4 U	33	1.9	0.05	2 U	76		11	4 U
10/23/2012	XX	SWXX3X5D0			2 U	13.6	3.8	0.04 U	2.3	74		12.1	4 U
4/23/2013	XX	SWXX3X5HB			4 U	14.8	9.8	0.04 U	3.1	56	0.1 U	7	4 U
7/30/2013	XX	SWXX3X63G			3 U	28	5.2	0.04 U	2.4	67	0.1 U	13.7	5
7/30/2013	XD	SWDP2X640			3 U	28	5.1	0.04 U	2.3	72	0.1 U	13.7	4 U
10/29/2013	XX	SWXX3X669			1 U	29	7.7	0.04 U	2.7	74	0.1 U	7.8	4 U
4/22/2014	XX	SWXX3X6EC			2 U	12	13.8	0.04 U	3.3	53	0.1 U	6.4	4 U
7/29/2014	XX	SWXX3X6IJ			3 U	27	5.3	0.04 U	2 U	75	0.1 U	10	4 U
7/29/2014	XD	SWDP2X6J3			3 U	25	5.1	0.04 U	2 U	76	0.1 U	10.1	4 U
10/21/2014	XX	SWXX3X729			2 U	15.1	7	0.04 U	5.7	90	0.1 U	15.4	4 U
4/28/2015	XX	SWXX3X787		0.5 U	3 U	12.6	13.5	0.04 U	3.1	68	0.1 U	7.1	4 U
7/14/2015	XX	SWXX3X7BJ		2 U	3 U	29	6.1	0.04 U	2.3	69	0.1 U	9.7	4 U
7/14/2015	XD	SWDP2X7C3		2 U	3 U	28	6.1	0.04 U	2.2	69	0.1 U	9.7	4 U
10/27/2015	XX	SWXX3X7H8		0.5 U	3 U	23	9.1	0.04 U	3	85	0.1 U	9.1	4 U
4/5/2016	XX	SWXX3X85I		0.06	3 U	16.8	12.3	0.04 U	3.6	60	0.1 U	6.4	4 U
7/26/2016	XD	SWDP2X8AC		0.05 U	3 U	37	4.9	0.05	2.1	85	0.2 U	12.8	4 U
7/26/2016	XX	SWXX3X8A8		0.05 U	3 U	36	4.9	0.05	2.1	85	0.2 U	12.9	4 U
10/25/2016	XX	SWXX3X8I7		0.05 U	3 U	15.6	8.7	0.04 U	10.8	104	0.2 U	12.5	4 U
4/18/2017	XX	SWXX3X96D		0.05 U	3 U	12	4.3	0.04 U	4.2	55	0.2 U	8.4	2.5 U
7/25/2017	XD	SWDP2X9CF		0.06	2 U	43	11	0.04	2.6	101	0.2 U	8.5	4.3
7/25/2017	XX	SWXX3X9CB		0.05	2 U	43	11	0.04	2.6	100	0.2 U	9.6	2.5 U
10/25/2017	XX	SWXX3X9G6		0.22	7	22	20	0.06	11	139	0.1 U	15	2.5 U
4/3/2018	XX	SWXX3XA24		0.26	1 U	11	14	0.04 U	2 U	79	0.1 U	6.8	2.5 U
7/17/2018	XD	SWDP2XABA		0.07	3	41	11	0.09	2.5	85	0.1 U	13	25
7/17/2018	XX	SWXX3XAB6		0.074	3	40	10	0.09	2.6	91	0.1 U	12	17
10/2/2018	XX	SWXX3XB04		0.05 U	1 U	23	5.2	0.04 U	14	69	0.1 U	9	2.5 U
4/23/2019	XX	SWXX3XB50		0.05 U	1 U	11	10	0.04 U	2.7	63	0.1 U	11	2.5 U
7/16/2019	XX	SWXX3XBBD		0.05 U	2 U	31	7.3	0.05	2 U	93	0.1 U	19	2.5 U
10/29/2019	XX	SWXX3XBH6		0.05 U	1 U	11	5.9	0.04 U	2.5	66	0.1 U	14	2.5 U
SW-DP1													
4/28/2010	XX	SWDP1X3J4				62	10.2	0.02 J	12.1	116		2.9	5
7/20/2010	XX	SWDP1X428				16	4.1	0.02 J	6.5	68		3.7	4 U
10/19/2010	XX	SWDP1X45C				37	5.2	0.02 J	9.7	102		2.2	4 U

SUMMARY REPORT

Inorganics

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(SW-DP1)

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/26/2011	XX	SWDP1X49D				46	4.1	0.03 J	4	85		2.3	6
7/19/2011	XX	SWDP1X4DB				69	2.4	0.02 J	4.5	92		4.1	4 U
10/25/2011	XX	SWDP1X4H6				43	3.4	0.03 J	6.1	51		3	5
4/24/2012	XX	SWDP1X51G				28	4.1	0.1	11.2	90		2.4	65
7/24/2012	XX	SWDP1X56F				63	4.1	0.14	8.1	97		3.3	6
10/23/2012	XX	SWDP1X5D6				23	3	0.08	5.5	90		2.2	46
4/23/2013	XX	SWDP1X5HH				57	15.2	0.06	27.4	118	0.13	2 U	12
7/30/2013	XX	SWDP1X642				27	4.4	0.04 U	7.2	55	0.1 U	2.6	4 U
10/29/2013	XX	SWDP1X66F				69	5.5	0.04	9.1	90	0.1 U	2.8	12
4/22/2014	XX	SWDP1X6EI				32	5.4	0.05	5.3	58	0.1 U	2 U	10
7/29/2014	XX	SWDP1X6J5				16.2	1.8	0.07	2.3	44	0.1 U	2.4	6
10/21/2014	XX	SWDP1X72G				17	1.9	0.04 U	4.9	47	0.1 U	2.2	4 U
4/28/2015	XX	SWDP1X78D		0.5 U		35	8.3	0.05	7.4	75	0.1 U	2 U	11
7/14/2015	XX	SWDP1X7C5		2 U		46	3.1	0.04 U	4.1	68	0.1 U	2.8	4 U
10/27/2015	XX	SWDP1X7HE		0.5 U		25	5.3	0.04 U	5	56	0.1 U	2 U	4
4/5/2016	XX	SWDP1X864		0.05 U		32	6.7	0.05	8.1	67	0.1 U	2 U	11
7/26/2016	XX	SWDP1X8AE		0.05 U		45	3.9	0.04 U	7.2	78	0.2 U	3.8	4 U
10/25/2016	XX	SWDP1X8ID		0.05 U		24	2.1	0.04 U	8.6	72	0.2 U	2.7	8
4/18/2017	XX	SWDP1X96J		0.05 U		32	7.4	0.04 U	7	55	0.2 U	2.1	2.5 U
7/25/2017	XX	SWDP1X9CH		0.09		57	6.6	0.04	5.4	94	0.2 U	3.7	11
10/23/2017	XX	SWDP1X9GC		0.05 U		39	3.9	0.04 U	6.8	93	0.1 U	2.9	2.5 U
4/3/2018	XX	SWDP1XA2B		0.21		7.2	1.9	0.04 U	2.6	52	0.1 U	2 U	6
7/17/2018	XX	SWDP1XABC		0.055		30	1.4	0.05	4.6	61	0.1 U	3.4	18
10/2/2018	XX	SWDP1XB0A		0.05 U		25	1.9	0.04 U	7	49	0.1 U	2.4	3.7
4/23/2019	XX	SWDP1XB57		0.15		21	3.2	0.04 U	21	69	0.1 U	2 U	3.7
7/16/2019	XX	SWDP1XBBJ		0.05 U		23	1.5	0.04 U	12	60	0.1 U	2.3	2.5 U
10/29/2019	XX	SWDP1XBHC		0.23		42	2.2	0.06	9.4	84	0.1 U	3.6	16

SW-DP5

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/23/2013	XX	SWDP5X60I				37	10.7	0.06	32.1	110	0.1 U	2 U	7
7/30/2013	XX	SWDP5X65H				9	2.3	0.05	12.3	71	0.1 U	4.8	5
10/29/2013	XX	SWDP5X686				D	D	D	D	D	D	D	D
4/22/2014	XX	SWDP5X6GD				29	20.9	0.07	38	110	0.1 U	3.1	15
7/29/2014	XX	SWDP5X70F				26	3.9	0.1	7.5	81	0.1 U	2.9	29
10/21/2014	XX	SWDP5X743				23	4.1	0.05	22.9	90	0.1 U	2 U	9
4/28/2015	XX	SWDP5X7A3		0.5 U		31	20.1	0.05	38.1	137	0.1 U	2 U	12
7/14/2015	XX	SWDP5X7DF		2 U		50	8	0.04	14.4	107	0.1 U	3.8	9
10/27/2015	XX	SWDP5X7J2		D		D	D	D	D	D	D	D	D
7/26/2016	XX	SWDP5X8C4		D		D	D	D	D	D	D	D	D
10/25/2016	XX	SWDP5X902		I		I	I	I	I	I	I	I	I
4/18/2017	XX	SWDP5X989		D		D	D	D	D	D	D	D	D
7/25/2017	XX	SWDP5X9E6		0.05		57	4.7	0.06	24	127	0.2 U	5.6	7
10/24/2017	XX	SWDP5X9I1		D		D	D	D	D	D	D	D	D
4/3/2018	XX	SWDP5XA41		0.27		15	1.6	0.04	2.5	47	0.1 U	2 U	7.3
7/17/2018	XX	SWDP5XAD1		D		D	D	D	D	D	D	D	D
10/2/2018	XX	SWDP5XB1J		D		D	D	D	D	D	D	D	D
4/23/2019	XX	SWDP5XB6H		0.3		26	4.5	0.07	30	103	0.1 U	2	50
7/16/2019	XX	SWDP5XBD8		0.063		32	2.4	0.04 U	14	74	0.1 U	3	2.5 U
10/29/2019	XX	SWDP5XBJ0		0.065		23	2.3	0.06	26	80	0.1 U	2 U	21

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(SW-DP6)

SW-DP6

Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Nitrite/Nitrate - (N) mg/L	Biochemical Oxygen Demand mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Total Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L
4/28/2010	XX	SWDP6X3J5				66	22.3	0.11	18.5	179		11.8	54
7/20/2010	XX	SWDP6X429				71	22.1	0.07	10.4	196		11.9	5
10/19/2010	XX	SWDP6X45D				39	10.7	0.03 J	20.8	149		5.6	4
4/26/2011	XX	SWDP6X49E				23	17.7	0.04	22.2	127		4.5	7
7/19/2011	XX	SWDP6X4DC				75	8.7	0.05	155	323		4.6	5
10/25/2011	XX	SWDP6X4H7				59	16.3	0.03 J	42.2	168		3.1	4 U
4/24/2012	XX	SWDP6X51H				16.8	10.3	0.04 U	21.3	91		4.4	5
7/24/2012	XX	SWDP6X56G				30	1.1	0.14	5.5	81		8.7	16
10/23/2012	XX	SWDP6X5D7				22	3.5	0.07	3.9	89		4.6	11
4/23/2013	XX	SWDP6X5HI				7.8	7	0.07	10.7	60	0.1 U	4.4	35
7/30/2013	XX	SWDP6X643				13.1	4.6	0.04 U	20.4	73	0.1 U	4.9	4
10/29/2013	XX	SWDP6X66G				12.6	4.9	0.04	23.2	71	0.1 U	3.8	4 U
4/22/2014	XX	SWDP6X6EJ				13.1	17.8	0.1	21.8	70	0.1 U	4.3	6
7/29/2014	XX	SWDP6X6J6				18.3	4.7	0.04 U	4.5	65	0.1 U	6.9	4 U
10/21/2014	XX	SWDP6X72H				13.7	3.6	0.04 U	12.9	62	0.1 U	4.7	4 U
4/28/2015	XX	SWDP6X78E		0.5 U		21	7.2	0.05	17.4	81	0.1 U	3.4	4
7/14/2015	XX	SWDP6X7C6		2 U		28	5.6	0.12	13.5	131	0.1 U	5.7	43
10/27/2015	XX	SWDP6X7HF		0.5 U		22	2.7	0.04 U	10.3	58	0.1 U	4	4 U
4/5/2016	XX	SWDP6X865		0.05 U		12.7	6.9	0.04 U	15	61	0.1 U	3.2	4 U
7/26/2016	XX	SWDP6X8AF		0.05 U		28	2.8	0.04 U	29.8	92	0.2 U	5.7	4 U
10/25/2016	XX	SWDP6X8IE		0.1		22	2	0.07	18.8	104	0.2 U	3.8	29
4/18/2017	XX	SWDP6X970		0.05 U		9.6	9.7	0.04 U	2 U	46	0.2 U	3.5	4
7/25/2017	XX	SWDP6X9CI		0.06		16	9.1	0.05	10	87	0.2 U	6.7	6
10/23/2017	XX	SWDP6X9GD		0.05 U		10	9.2	0.04 U	21	88	0.1 U	4.5	3.3
4/3/2018	XX	SWDP6XA2C		0.12		11	3.6	0.04	9.7	44	0.1 U	2.1	31
7/17/2018	XX	SWDP6XABD		0.05 U		18	7.9	0.05	32	94	0.1 U	6.6	9.7
10/2/2018	XX	SWDP6XB0B		0.05 U		6	4.6	0.04 U	40	58	0.1 U	4.7	2.5 U
4/23/2019	XX	SWDP6XB58		0.05 U		12	6.7	0.06	12	57	0.1 U	4.2	9.3
7/16/2019	XX	SWDP6XBC0		0.056		14	4.6	0.04 U	8.7	59	0.1 U	6.5	3.7
10/29/2019	XX	SWDP6XBHD		0.05 U		6.3	1.7	0.04 U	12	43	0.1 U	4.6	5

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(SW-DP6)

Date	Type	Sample ID	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

- ! - The sampling location was damaged or destroyed.
- D - The sampling location was dry.
- F12 - Pipe under water, no sample taken.
- F6 - No flow. Sample not taken.
- H2 - Waterlevel higher than pipes. See LF-COMP for readings
- I - The sampling location yielded insufficient quantity to collect a sample.
- J - Analyte was positively identified/Associated value is an estimate.
- U - Not Detected above the laboratory reporting limit.

REPORT PREPARED: 3/16/2020 13:57

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Metals

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(OFFICE WELL)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
OFFICE WELL										
4/6/2016	XX	DWOFFX87J		0.005 U	38	0.05 U	4.7	0.05 U	0.6	8.3
4/19/2017	XX	DWOFFX98D		0.005 U	37	0.05 U	5.4	0.05 U	0.9	10
4/4/2018	XX	DWOFFXA45	UF	0.005 U	51	0.05 U	6.2	0.05 U	0.9	13
4/22/2019	XX	DWOFFXB71	UF	0.005 U	50	0.05 U	5.6	0.05 U	0.9	14
7/15/2019	XX	DWOFFXBDB	UF	0.005 U	43	0.05 U	5.3	0.05 U	0.7	13
OW-06-03										
4/10/2018	XX	GWXXXXA73	UF	0.005 U	17	0.32	4.4	0.65	1.1	6.6
6/5/2018	XX	GWXXXXA80		I	I	I	I	I	I	I
7/19/2018	XX	GWXXXXAEI		I	I	I	I	I	I	I
8/21/2018	XX	GWXXXXAFH		I	I	I	I	I	I	I
7/18/2019	XX	GWXXXXBDJ		I	I	I	I	I	I	I
OW-601A										
4/11/2018	XX	GW601AA69	UF	0.005 U	39	0.97	10	0.2	1.9	7.2
4/11/2018	XX	GW601AHHA	FILT	0.005 U	36	0.18	8.8	0.19	1.8	6.6
6/6/2018	XX	GWXXXXHG4	FILT	0.005 U	41	0.06	11	0.23	1.8	7.9
7/19/2018	XX	GW601AAE4	UF	0.005 U	43	0.4	11	0.29	2.1	10
8/22/2018	XX	GW601AAF5	UF	0.005 U	43	0.05 U	10	0.19	2.3	13
7/18/2019	XX	GW601ABB6	UF	0.005 U	42	0.05 U	12	0.07	2.5	16
OW-601B										
4/11/2018	XX	GW601BA6A	UF	0.005 U	40	0.05 U	12	0.09	1.9	8
6/6/2018	XX	GW601BA77	UF	0.007	39	0.28	12	1	1.9	8.2
7/19/2018	XX	GW601BAE5	UF	0.005 U	36	0.19	11	0.11	1.5	7
8/22/2018	XX	GW601BAF6	UF	0.005 U	40	0.19	13	0.05 U	1.4	6.8
7/18/2019	XX	GW601BBDF	UF	0.005 U	34	0.74	13	0.64	1.8	8.7
OW-602A										
4/11/2018	XX	GW602AA6B	UF	0.005 U	14	0.05 U	2.8	0.05 U	0.6	2.5
6/6/2018	XD	GWDP1XA75	UF	0.005 U	19	0.05 U	4.1	0.05 U	0.4	3.4
6/6/2018	XX	GW602AA78	UF	0.008	18	0.05 U	4.1	0.05 U	0.5	3
7/19/2018	XD	GWDP1XAE3	UF	0.005 U	17	0.05 U	3.5	0.05 U	0.4	2.6
7/19/2018	XX	GW602AAE6	UF	0.005 U	17	0.05 U	3.6	0.05 U	0.4	2.7
8/21/2018	XX	GW602AAF7	UF	0.005 U	18	0.1	3.5	0.05 U	0.4	2.5
7/18/2019	XX	GW602ABDG	UF	0.005 U	13	0.05 U	3	0.05 U	0.4	2.8
OW-603B										
4/12/2018	XX	GW603BA6C	UF	0.005 U	34	0.11	11	0.16	1.4	8.5
6/5/2018	XX	GW603BA79	UF	0.005 U	27	0.05	8.1	0.11	1	5.9
7/19/2018	XX	GW603BAE7	UF	0.017	21	19	8.5	0.93	3.7	4.9
7/19/2018	XX	GWXXXXHG5	FILT	0.005 U	13	1.3	4.5	0.37	1.2	4.2
8/21/2018	XX	GW603BAF8	UF	0.005 U	13	0.54	4.6	0.77	1.5	3.9
7/18/2019	XX	GW603BBDH	UF	0.008	12	0.08	4.7	0.2	1.6	5.4
OW-604A										
4/12/2018	XX	GW604AA6D	UF	0.005 U	10	0.05 U	2.6	0.05 U	0.6	3.5
6/4/2018	XX	GW604AA7A	UF	0.007	8.9	0.05 U	2.3	0.05 U	0.5	3.1
7/19/2018	XX	GW604AAE8	UF	0.005 U	9.2	0.05 U	2.4	0.05 U	0.5	2.7
8/21/2018	XX	GW604AAF9	UF	0.005 U	15	0.05 U	3.4	0.05 U	0.6	3.1

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
(OW-604A)										
7/18/2019	XX	GW604ABDI	UF	0.005 U	13	0.05 U	4.2	0.05 U	0.6	4.4
SCALE HOUSE WELL										
4/6/2016	XX	DWSCLX880		0.005 U	69.8	0.22	8.7	0.05 U	1.3	18.8
4/19/2017	XX	DWSCLX98E		0.005 U	64	0.05 U	9.6	0.05 U	1.5	23
4/4/2018	XX	DWSCLXA46	UF	0.005	64	0.05	8.5	0.05 U	1.3	20
4/22/2019	XX	DWSCLXB72	UF	0.005 U	59	0.09	8.2	0.05 U	1.4	25
7/15/2019	XX	DWSCLXBDC	UF	0.005 U	64	0.05 U	8.8	0.05 U	1.5	26
LF-COMP										
7/19/2011	XX	LFXXXX4F1		0.014	44.3	0.02 U	10	0.02 U	4.3	9
4/24/2012	XX	LFXXXX53B		0.008	41.4	0.1	9.2	0.05 U	3.4	6.9
LF-UD-1										
4/27/2010	XX	LFUD1X3JD		0.007	47	0.02 J	10.6	0.02 U	3.1	7.6
7/20/2010	XX	LFUD1X42H		F6	F6	F6	F6	F6	F6	F6
10/19/2010	XX	LFUD1X461		F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFUD1X4A2		0.014	42.8	0.02 U	9.3	0.02 U	3.3	8
7/19/2011	XX	LFUD1X4E0		0.014	45.2	0.03 J	9.8	0.02 U	4.1	9.1
10/25/2011	XX	LFUD1X4HF		0.002 U	43.2	0.03 J	11.4	0.02 U	3.1	8.4
4/24/2012	XX	LFUD1X525		H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFUD1X574		0.007	44.3	0.13	12.2	0.05 U	3.5	8.7
10/23/2012	XX	LFUD1X5DF		F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LFUD1X5I6		0.012	44.4	0.05 U	10.5	0.05 U	3.7	7.9
7/30/2013	XX	LFUD1X64B		0.015	49.7	0.05 U	10.8	0.05 U	3.2	7.1
10/29/2013	XX	LFUD1X674		F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFUD1X6F7		0.015	54.1	0.05	11.4	0.05 U	3.8	8.2
7/29/2014	XX	LFUD1X6JE		0.006	47.3	4.57	12.1	0.1	4	7.5
10/21/2014	XX	LFUD1X735		F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFUD1X792		0.005 U	48.9	0.59	11.2	0.05 U	3.7	8.2
7/14/2015	XX	LFUD1X7CE		0.013	52.8	0.05 U	10.7	0.05 U	3.5	8.1
10/27/2015	XX	LFUD1X7I3		F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD1X86D		0.015	48.9	0.05 U	10.2	0.05 U	3.2	8.1
7/26/2016	XX	LFUD1X8B3		I	I	I	I	I	I	I
10/25/2016	XX	LFUD1X8J2		F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD1X978		0.005	45	0.22	12	0.05 U	3.5	9.2
7/25/2017	XX	LFUD1X9D6		0.005 U	58	0.12	14	0.05 U	3.9	10
10/25/2017	XX	LFUD1X9H1		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD1XA30	UF	0.005 U	57	0.05 U	13	0.05 U	3.6	9.5
7/17/2018	XX	LFUD1XAC1		F6	F6	F6	F6	F6	F6	F6
10/2/2018	XX	LFUD1XB0J		F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD1XB5G	UF	0.005 U	58	0.05	10	0.05 U	3.3	7.8
7/16/2019	XX	LFUD1XBC8		F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFUD1XBI1		F6	F6	F6	F6	F6	F6	F6
LF-UD-2										
4/27/2010	XX	LFUD2X3JE		0.005	44.8	0.03 J	9.8	0.02 U	3.3	6.6
7/20/2010	XX	LFUD2X42I		0.013	50.5	0.02 U	10.9	0.02 U	3.3	6.2
10/19/2010	XX	LFUD2X462		0.01	64.3	0.13	12.3	0.02 J	5	9.9
4/26/2011	XX	LFUD2X4A3		0.009	30.7	0.02 U	8	0.02 U	2.6	5.2
7/19/2011	XX	LFUD2X4E1		0.014	33.6	0.02 U	8.9	0.02 U	2.6	6.1

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(LF-UD-2)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/25/2011	XX	LFUD2X4HG		0.002 U	34.2	0.02 U	8.9	0.02 U	2.7	5.9
4/24/2012	XX	LFUD2X526		H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFUD2X575		0.005 U	39	0.05 U	10.4	0.05 U	3.1	6.7
10/23/2012	XX	LFUD2X5DG		0.01	35.6	0.05 U	9.9	0.05 U	2.7	6.3
4/23/2013	XX	LFUD2X5I7		0.011	36.3	0.05 U	9.6	0.05 U	3	6.8
7/30/2013	XX	LFUD2X64C		0.012	40.3	0.05 U	10.3	0.05 U	2.6	6.2
10/29/2013	XX	LFUD2X675		0.008	50.5	0.05 U	10.7	0.05 U	3.4	7.3
4/22/2014	XX	LFUD2X6F8		0.012	46	0.05 U	11.4	0.05 U	3.2	7.4
7/29/2014	XX	LFUD2X6JF		0.018	46.3	0.05 U	10.8	0.05 U	3	7
10/21/2014	XX	LFUD2X736		0.016	71.5	0.05 U	12.3	0.05 U	4.5	9.2
4/28/2015	XX	LFUD2X793		0.013	49.8	0.05 U	10.9	0.05 U	3.3	7.7
7/14/2015	XX	LFUD2X7CF		0.013	50.8	0.05 U	10.8	0.05 U	3.4	8
10/27/2015	XX	LFUD2X7I4		0.011	57.2	0.05 U	11.9	0.05 U	3.7	8.4
4/5/2016	XX	LFUD2X86E		0.015	47	0.05 U	11.2	0.05 U	3	7.5
7/26/2016	XX	LFUD2X8B4		0.024	58.9	0.12	13.5	0.05 U	4.2	9.6
10/25/2016	XX	LFUD2X8J3		0.005 U	68.8	0.05 U	12	0.05 U	3.9	9
4/18/2017	XX	LFUD2X979		0.005	46	0.38	12	0.05 U	3.7	10
7/25/2017	XX	LFUD2X9D7		0.005 U	57	0.14	15	0.05 U	3.3	8.7
10/25/2017	XX	LFUD2X9H2		0.008	68	0.71	14	0.05 U	4.6	9.6
4/3/2018	XX	LFUD2XA31	UF	0.005 U	49	0.05 U	13	0.05 U	3.5	9.5
7/17/2018	XX	LFUD2XAC2	UF	0.005 U	67	0.13	14	0.05 U	3.6	9.3
10/2/2018	XX	LFUD2XB10	UF	0.005 U	70	0.05 U	14	0.05 U	4.5	12
4/23/2019	XX	LFUD2XB5H		F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFUD2XBC9	UF	0.005 U	59	0.05 U	12	0.05 U	3.8	11
10/29/2019	XX	LFUD2XBI2	UF	0.005 U	52	0.7	10	0.05 U	3.5	9.2

LF-UD-3A,B

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/27/2010	XX	LFXXXX40C		0.005	57.4	0.02 U	10.7	0.02 U	1.8	9.5
7/20/2010	XX	LFXXXX43G		F6	F6	F6	F6	F6	F6	F6
10/19/2010	XX	LFXXXX46J		F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFXXXX4B1		0.01	47.2	0.02 U	8.8	0.06	1.8	7.2
7/19/2011	XX	LFXXXX4EJ		H2	H2	H2	H2	H2	H2	H2
10/25/2011	XX	LFXXXX4IC		F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LFXXXX534		H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFXXXX581		F6	F6	F6	F6	F6	F6	F6
10/23/2012	XX	LFXXXX5EC		F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LFXXXX5J5		F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LFXXXX65A		F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFXXXX67J		F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFXXXX6G6		F6	F6	F6	F6	F6	F6	F6
7/29/2014	XX	LFXXXX708		F6	F6	F6	F6	F6	F6	F6
10/21/2014	XX	LFXXXX73H		F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79G		F6	F6	F6	F6	F6	F6	F6
7/14/2015	XX	LFXXXX7D8		F6	F6	F6	F6	F6	F6	F6
10/27/2015	XX	LFXXXX7IF		F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX877		F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFXXXX8BH		F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LFXXXX8JF		F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFXXXX982		F6	F6	F6	F6	F6	F6	F6
7/25/2017	XX	LFXXXX9DJ		F6	F6	F6	F6	F6	F6	F6

(LF-UD-3A,B)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/25/2017	XX	LFXXXX9HE		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3E		F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFXXXXACE		F6	F6	F6	F6	F6	F6	F6
10/2/2018	XX	LFXXXXB1C		F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6A		F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFXXXXBD1		F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFXXXXBID		F6	F6	F6	F6	F6	F6	F6

LF-UD-4

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/27/2010	XX	LFXXXX40E		F6	F6	F6	F6	F6	F6	F6
7/20/2010	XX	LFXXXX43I		F6	F6	F6	F6	F6	F6	F6
10/19/2010	XX	LFXXXX471		F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFXXXX4B3		F12	F12	F12	F12	F12	F12	F12
7/19/2011	XX	LFXXXXHG2		H2	H2	H2	H2	H2	H2	H2
10/25/2011	XX	LFXXXX4GA		F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LFXXXX536		H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFXXXX582		0.007	63.5	0.05 U	12.1	0.05 U	5.8	10.6
10/23/2012	XX	LFXXXX5CA		0.011	48.6	0.05 U	11.1	0.05 U	3.8	8.4
4/23/2013	XX	LFXXXX5J6		0.012	44.8	0.05 U	10.6	0.05 U	3.7	8.2
7/30/2013	XX	LFXXXX65B		F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFXXXX680		0.009	49.4	0.05 U	10.9	0.05 U	3.4	7.4
4/22/2014	XX	LFXXXX6G7		0.014	62.6	0.05 U	11.3	0.05 U	4.7	9
7/29/2014	XX	LFXXXX709		F6	F6	F6	F6	F6	F6	F6
10/21/2014	XX	LFXXXX73I		F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79H		F6	F6	F6	F6	F6	F6	F6
7/14/2015	XX	LFXXXX7D9		F6	F6	F6	F6	F6	F6	F6
10/27/2015	XX	LFXXXX7IG		F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX878		F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFXXXX8BI		0.005	60.7	0.28	13.9	0.05 U	4.3	10.2
10/25/2016	XX	LFXXXX8JG		0.005 U	75.7	0.05 U	13.8	0.05 U	4.3	9.9
4/18/2017	XX	LFXXXX983		0.007	47	0.06	12	0.05 U	3.6	9.5
7/25/2017	XX	LFXXXX9E0		0.005 U	57	0.13	14	0.05 U	3.9	11
10/25/2017	XX	LFXXXX9HF		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3F		F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFXXXXACF	UF	0.005	68	0.06	14	0.05 U	3.6	9.5
10/2/2018	XX	LFXXXXB1D		F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6B		F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFXXXXBD2		F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFXXXXBIE	UF	0.005	51	1.4	9.9	0.16	3.4	8.5

LF-UD-5

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/27/2010	XX	LFXXXX40F		0.004 J	46	0.02 U	9.6	0.02 U	3.9	6

LF-UD-5and6

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
7/20/2010	XX	LFXXXX43J		0.007	58.1	0.05	11.7	0.02 U	4.9	7.1
10/19/2010	XX	LFXXXX472		0.007	58.1	0.42	11.6	0.05	4.8	8.1
4/26/2011	XX	LFXXXX4B4		0.017	64.6	0.02 U	13.3	0.02 U	5.7	8.8
7/19/2011	XX	LFXXXX4F2		0.012	59.1	0.15	13.6	0.02 U	5.5	10.2
10/25/2011	XX	LFXXXX4G7		0.008	71.3	11.3	15.4	0.25	7	10
4/24/2012	XX	LFXXXX537		0.008	65.9	0.05	12.9	0.05 U	5.3	9.8
7/24/2012	XX	LFXXXX584		0.01	68.3	0.05 U	14.1	0.05 U	5.5	9.8

SEVEE & MAHER ENGINEERS, INC.
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(LF-UD-5and6)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/23/2012	XX	LFXXXX5C7		0.014	52.5	0.26	11.9	0.05	4.8	8.7
4/23/2013	XX	LFXXXX5J7		0.009	42.8	0.05	8.4	0.05 U	4	6.7
7/30/2013	XX	LFXXXX65C		0.016	48.5	0.08	9.4	0.05 U	3.4	6.2
10/29/2013	XX	LFXXXX681		0.009	56.1	0.05 U	11.4	0.05 U	3.9	7.7
4/22/2014	XX	LFXXXX6G8		0.015	55.5	0.05 U	10.9	0.05 U	3.6	7.6
7/29/2014	XX	LFXXXX70A		0.014	64.7	0.05 U	12	0.05 U	4.2	8.3
10/21/2014	XX	LFXXXX73J		F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79I		0.015	55.8	0.05 U	11.2	0.05 U	3.4	8.3
7/14/2015	XX	LFXXXX7DA		I	I	I	I	I	I	I
10/27/2015	XX	LFXXXX7IH		0.01	47.4	0.05 U	10.1	0.05 U	4.2	8
4/5/2016	XX	LFXXXX879		0.016	54.5	0.05 U	10.4	0.05 U	3.3	8.3
7/26/2016	XX	LFXXXX8BJ		0.024	62.3	0.05 U	12.5	0.05 U	3.8	8.8
10/25/2016	XX	LFXXXX8JH		0.005 U	52.6	0.05 U	9.8	0.05 U	2.9	6.9
4/18/2017	XX	LFXXXX984		0.005 U	39	0.09	10	0.05 U	3	8.1
7/25/2017	XX	LFXXXX9E1		0.005 U	55	0.05 U	12	0.05 U	3.5	9.4
10/25/2017	XX	LFXXXX9HG		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3G	UF	0.007	38	0.05 U	10	0.05 U	2.6	8
7/17/2018	XX	LFXXXXACG	UF	0.005	52	0.05 U	9.7	0.05 U	2.7	7.2
10/2/2018	XX	LFXXXXB1E	UF	0.005 U	54	0.62	12	0.05 U	3.1	9.2
4/23/2019	XX	LFXXXXB6C	UF	0.005 U	42	0.05 U	9.5	0.05 U	2.4	7.5
7/16/2019	XX	LFXXXXBD3	UF	0.005 U	45	0.05 U	10	0.05 U	2.7	8.5
10/29/2019	XX	LFXXXXBIF	UF	0.005 U	40	0.88	9.1	0.05	2.5	7.4

LF-UD-6

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/26/2011	XX	LFUD6X4B6		0.02	81.2	0.02 U	16.7	0.02 U	5	11.3
7/19/2011	XX	LFUD6X4F4		0.003 J	83.1	6.28	17.6	0.17	5.9	9.6
10/25/2011	XX	LFUD6X4G9		0.006	94.1	0.02 U	18.6	0.02 U	5.1	8.7
4/24/2012	XX	LFUD6X539		0.007	75.7	0.05 U	15.9	0.05 U	4.7	7.9
7/24/2012	XX	LFUD6X586		0.011	96.4	0.05 U	22.2	0.05 U	5.3	26.5
10/23/2012	XX	LFUD6X5C9		0.025	83.7	0.05 U	23.7	0.05 U	5.1	64.1
4/23/2013	XX	LFUD6X5J9		0.015	62	0.05 U	14.7	0.05 U	3.3	39.7
7/30/2013	XX	LFUD6X65E		0.023	86.3	0.05 U	24.2	0.05 U	4.3	74.3
10/29/2013	XX	LFUD6X683		0.019	85.6	0.06	25.4	0.05 U	4.4	73.6
4/22/2014	XX	LFUD6X6GA		0.019	72.7	0.05 U	21	0.05 U	4.6	57.3
7/29/2014	XX	LFUD6X70C		0.026	80.5	0.05 U	22.5	0.05 U	4.1	69.1
10/21/2014	XX	LFUD6X740		0.019	87.9	0.05 U	23.3	0.05 U	4.1	70.9
4/28/2015	XX	LFUD6X7A0		0.026	76.5	0.05 U	21.5	0.05 U	4	66.4
7/14/2015	XX	LFUD6X7DC		0.021	87.3	0.05 U	22	0.05 U	4.1	67.6
10/27/2015	XX	LFUD6X7IJ		0.017	84.2	0.05 U	23.7	0.05 U	4.4	66.6
4/5/2016	XX	LFUD6X87B		0.023	79.1	0.05 U	21.8	0.05 U	4.3	64.1
7/26/2016	XX	LFUD6X8C1		D	D	D	D	D	D	D
10/25/2016	XX	LFUD6X8JJ		I	I	I	I	I	I	I
4/18/2017	XX	LFUD6X986		0.005	58	0.23	15	0.05 U	4.8	14
7/25/2017	XX	LFUD6X9E3		I	I	I	I	I	I	I
10/25/2017	XX	LFUD6X9HI		0.005	80	0.05	6.8	0.05 U	2.6	1
4/3/2018	XX	LFUD6XA3I	UF	0.005	48	0.05 U	6.7	0.05 U	2.2	4.6
7/17/2018	XX	LFUD6XACI	UF	0.005	53	0.05 U	7.1	0.05 U	1.9	1.1
10/2/2018	XX	LFUD6XB1G	UF	0.005 U	47	0.05 U	6.6	0.05 U	1.9	1.4
4/23/2019	XX	LFUD6XB6E	UF	0.005	59	0.05 U	7.4	0.05 U	2.4	2
7/16/2019	XX	LFUD6XBD5	UF	0.005 U	24	0.05 U	3.3	0.05 U	1.7	0.9

(LF-UD-6)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/29/2019	XX	LFUD6XBIH	UF	0.005 U	24	0.1	2.9	0.68	5.3	0.5

LF-UD-7

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/24/2012	XX	LFUD7X53A		H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFXXXX587		F6	F6	F6	F6	F6	F6	F6
10/23/2012	XX	LFXXXX5EF		F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LFUD7X5JA		F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LFUD7X65F		F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFUD7X684		F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFUD7X6GB		F6	F6	F6	F6	F6	F6	F6
7/29/2014	XX	LFUD7X70D		F6	F6	F6	F6	F6	F6	F6
10/21/2014	XX	LFUD7X741		F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFUD7X7A1		F6	F6	F6	F6	F6	F6	F6
7/14/2015	XX	LFUD7X7DD		F6	F6	F6	F6	F6	F6	F6
10/27/2015	XX	LFUD7X7J0		F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD7X87C		F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFUD7X8C2		F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LFUD7X900		F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD7X987		F6	F6	F6	F6	F6	F6	F6
7/25/2017	XX	LFUD7X9E4		F6	F6	F6	F6	F6	F6	F6
10/25/2017	XX	LFUD7X9HJ		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD7XA3J		F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFUD7XACJ		F6	F6	F6	F6	F6	F6	F6
10/2/2018	XX	LFUD7XB1H		F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD7XB6F		F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFUD7XBD6		F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFUD7XBII		F6	F6	F6	F6	F6	F6	F6

LF-UD-8

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/23/2013	XX	LFUD8X5JD		0.014	39.3	0.05 U	9	0.05 U	3.7	6.9
7/30/2013	XX	LFUD8X65G		0.013	50.1	0.05 U	10.7	0.05 U	3.7	7.1
10/29/2013	XX	LFUD8X685		0.009	49.1	0.05 U	11.1	0.05 U	3.7	7.3
4/22/2014	XX	LFUD8X6GC		F12	F12	F12	F12	F12	F12	F12
7/29/2014	XX	LFUD8X70E		0.005	14.5	0.85	1.6	0.05 U	1.2	2.4
10/21/2014	XX	LFUD8X742		0.005 U	9.6	0.44	1.2	0.05 U	1.1	2.1
4/28/2015	XX	LFUD8X7A2		0.005 U	11	0.75	1.1	0.05 U	1.5	2.9
7/14/2015	XX	LFUD8X7DE		I	I	I	I	I	I	I
10/27/2015	XX	LFUD8X7J1		F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD8X87D		F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFUD8X8C3		F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LFUD8X901		F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD8X988		0.005 U	5.3	0.61	0.8	0.11	1.1	3.7
7/25/2017	XX	LFUD8X9E5		D	D	D	D	D	D	D
10/25/2017	XX	LFUD8X9I0		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD8XA40	UF	0.005 U	8.3	0.48	1.1	0.15	0.8	2.2
7/17/2018	XX	LFUD8XAD0		D	D	D	D	D	D	D
10/2/2018	XX	LFUD8XB1I		F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD8XB6G	UF	0.005 U	8.7	1.1	1.3	0.1	1.6	3.5
7/16/2019	XX	LFUD8XBD7	UF	0.005 U	6.4	1.5	1	0.05 U	1.4	2.6
10/29/2019	XX	LFUD8XBIJ	UF	0.005 U	4.8	0.35	0.8	0.05 U	0.9	1.3

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(LF-UD-9)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
LF-UD-9										
4/5/2016	XX	LFUD9X881		F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LFUD9X8CA		F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LFUD9X905		F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD9X98F		0.007	55	1.4	6.8	0.06	4.3	6.5
10/25/2017	XX	LFUD9X9I4		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD9XA47		F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFUD9XAD4		D	D	D	D	D	D	D
10/2/2018	XX	LFUD9XB22		F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD9XB73		F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFUD9XBDD		F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFUD9XBJ3		F6	F6	F6	F6	F6	F6	F6
LF-UD-10										
10/25/2017	XX	LFXXXX9ID		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA48		F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LFU10XAD6		D	D	D	D	D	D	D
10/3/2018	XX	LFXXXXB27		F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB74		F6	F6	F6	F6	F6	F6	F6
7/16/2019	XX	LFXXXXBDE		F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LFXXXXBJ7		F6	F6	F6	F6	F6	F6	F6
LP-UD-1										
4/27/2010	XX	LPUD1X3JF		F6	F6	F6	F6	F6	F6	F6
7/20/2010	XX	LPUD1X42J		F6	F6	F6	F6	F6	F6	F6
10/19/2010	XX	LPUD1X463		F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LPUD1X4A4		F6	F6	F6	F6	F6	F6	F6
7/19/2011	XX	LPUD1X4E2		F6	F6	F6	F6	F6	F6	F6
10/25/2011	XX	LPUD1X4HH		F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LPUD1X527		F6	F6	F6	F6	F6	F6	F6
7/24/2012	XX	LPUD1X576		F6	F6	F6	F6	F6	F6	F6
10/23/2012	XX	LPUD1X5DH		F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LPUD1X5I8		F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LPUD1X64D		F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LPUD1X676		F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LPUD1X6F9		F6	F6	F6	F6	F6	F6	F6
7/29/2014	XX	LPUD1X6JG		F6	F6	F6	F6	F6	F6	F6
10/21/2014	XX	LPUD1X737		F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LPUD1X794		F6	F6	F6	F6	F6	F6	F6
7/14/2015	XX	LPUD1X7CG		F6	F6	F6	F6	F6	F6	F6
10/26/2015	XX	LPUD1X7I5		F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LPUD1X86F		F6	F6	F6	F6	F6	F6	F6
7/26/2016	XX	LPUD1X8B5		F6	F6	F6	F6	F6	F6	F6
10/25/2016	XX	LPUD1X8J4		F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LPUD1X97A		F6	F6	F6	F6	F6	F6	F6
7/25/2017	XX	LPUD1X9D8		F6	F6	F6	F6	F6	F6	F6
10/25/2017	XX	LPUD1X9H3		F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LPUD1XA32		F6	F6	F6	F6	F6	F6	F6
7/17/2018	XX	LPUD1XAC3		F6	F6	F6	F6	F6	F6	F6
10/2/2018	XX	LPUD1XB11		F6	F6	F6	F6	F6	F6	F6

(LP-UD-1)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/23/2019	XX	LPUD1XB5I	UF	0.005 U	32	0.05	8.7	0.05 U	1.7	5.5
7/16/2019	XX	LPUD1XBCA		F6	F6	F6	F6	F6	F6	F6
10/29/2019	XX	LPUD1XBI3		F6	F6	F6	F6	F6	F6	F6

LP-UD-2

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/27/2010	XX	LPUD2X3JG		0.004 J	37.8	0.05	10.9	0.02 U	2.3	8.5
7/20/2010	XX	LPUD2X430		0.011	37	0.06	10.3	0.02 U	2.5	8.9
10/19/2010	XX	LPUD2X464		0.005	34.5	0.02 U	9.5	0.02 U	2.3	8.7
4/26/2011	XX	LPUD2X4A5		0.008	32.6	0.02 U	10.6	0.02 U	2.4	8.5
7/19/2011	XX	LPUD2X4E3		0.002 J	31.5	2.86	10.2	0.36	2.7	9.3
10/25/2011	XX	LPUD2X4HI		0.002 U	33.1	0.88	10.7	0.08	2.8	9.6
4/24/2012	XX	LPUD2X528		0.006	29.9	0.11	9.7	0.05 U	2.9	8.5
7/24/2012	XX	LPUD2X577		0.008	40.5	0.05 U	11.7	0.05 U	3.2	9.7
10/23/2012	XX	LPUD2X5DI		0.012	29.9	0.05 U	10	0.05 U	2.4	9
4/23/2013	XX	LPUD2X5I9		0.011	33.9	0.05 U	10.4	0.05 U	2.3	8
7/30/2013	XX	LPUD2X64E		0.011	37.1	0.05 U	10.8	0.05 U	2.5	8.1
10/29/2013	XX	LPUD2X677		0.01	36.4	0.05 U	11.4	0.05 U	2.2	7.9
4/22/2014	XX	LPUD2X6FA		0.011	37.7	0.05 U	11.5	0.05 U	2.3	8
7/29/2014	XX	LPUD2X6JH		0.015	36.5	0.05 U	10	0.05 U	2.8	8.2
10/21/2014	XX	LPUD2X738		0.011	40.1	0.05 U	10.5	0.05 U	2.3	8
4/28/2015	XX	LPUD2X795		0.013	34.4	0.05 U	10	0.05 U	1.8	7
7/14/2015	XX	LPUD2X7CH		0.01	39.3	0.05 U	9.8	0.05 U	2.4	7.6
10/27/2015	XX	LPUD2X7I6		0.01	33.4	0.05 U	10.3	0.05 U	2.1	7
4/5/2016	XX	LPUD2X86G		0.013	33.8	0.05 U	9.3	0.05 U	1.7	6.4
7/26/2016	XX	LPUD2X8B6		0.024	45.8	0.11	11.3	0.19	3.4	8.2
10/25/2016	XX	LPUD2X8J5		0.005 U	68.2	2.36	15.9	0.8	3.3	10.4
4/18/2017	XX	LPUD2X97B		0.005	49	0.05 U	16	0.05 U	2.1	11
7/25/2017	XX	LPUD2X9D9		0.005 U	37	0.05 U	11	0.05 U	2.4	7.5
10/25/2017	XX	LPUD2X9H4		0.005 U	38	0.1	10	0.05 U	2.2	7
4/3/2018	XX	LPUD2XA33	UF	0.005 U	34	0.05 U	11	0.05 U	2	7
7/17/2018	XX	LPUD2XAC4	UF	0.007	38	0.05 U	9.5	0.05 U	2.1	6.5
10/2/2018	XX	LPUD2XB12	UF	0.005 U	41	0.05 U	11	0.05 U	2.1	7.3
4/23/2019	XX	LPUD2XB5J	UF	0.005 U	33	0.05 U	8.8	0.05 U	1.8	5.6
7/16/2019	XX	LPUD2XBCB	UF	0.005 U	32	0.05 U	9.9	0.05 U	2.3	7.3
10/29/2019	XX	LPUD2XBI4	UF	0.005 U	34	0.05 U	9.2	0.05 U	2.1	6.3

MW04-102

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/27/2010	XX	GW102X407		0.004 J	27.1	0.02 J	7	0.02 U	1.6	6.9
7/21/2010	XX	GW102X43B		0.006	26.1	0.02 U	6.8	0.02 U	1.7	6.6
10/19/2010	XX	GW102X46F		0.003 J	27.1	0.02 U	7	0.02 U	1.8	7.3
4/25/2011	XX	GW102X4AG		0.005	26.3	0.02 J	7.5	0.02 U	1.7	6.9
7/19/2011	XX	GW102X4EE		0.002 U	26.8	0.02 U	7.2	0.02 U	1.7	7.1
10/25/2011	XX	GW102X4I9		0.004 J	25.4	0.02 U	7.5	0.02 U	2	7.6
4/24/2012	XX	GW102X52J		0.005	23.5	0.05 U	7.8	0.05 U	1.7	6.9
7/24/2012	XX	GW102X57I		0.005 U	25	0.05 U	7.6	0.05 U	1.9	7.9
10/22/2012	XX	GW102X5E9		0.005 U	31.2	0.05 U	8.1	0.05 U	2	8.9
4/23/2013	XX	GW102X5J0		0.008	24.2	0.05 U	7	0.05 U	1.6	7.1
7/31/2013	XX	GW102X655		0.017	27.5	0.05 U	7.4	0.05 U	1.5	7
10/28/2013	XX	GW102X67F		0.013	25.6	0.05 U	7.1	0.05 U	2.1	8.2
4/23/2014	XX	GW102X6G1		0.01	27.4	0.05 U	6.9	0.05 U	1.5	7.2

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(MW04-102)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
7/30/2014	XX	GW102X704		0.01	27.1	0.05 U	6.9	0.05 U	1.8	7.9
10/21/2014	XX	GW102X73F		0.012	27	0.05 U	7	0.05 U	1.8	7.5
4/29/2015	XX	GW102X79C		0.015	26.6	0.05 U	7	0.05 U	1.5	7.2
7/14/2015	XX	GW102X7D4		0.009	26.5	0.05 U	6.3	0.05 U	1.5	7
10/28/2015	XX	GW102X7ID		0.006	24.3	0.05 U	6.6	0.05 U	1.7	7
4/5/2016	XX	GW102X873		0.008	26	0.05 U	6.5	0.05 U	1.4	6.8
7/26/2016	XX	GW102X8BD		0.013	28.2	0.06	7	0.05 U	1.7	7.3
10/25/2016	XX	GW102X8JC		0.005	30	0.19	7.2	0.05 U	2.4	8.7
4/19/2017	XX	GW102X97I		0.006	25	0.05 U	7.1	0.05 U	1.6	6.9
7/26/2017	XX	GW102X9DG		0.005 U	24	0.05 U	6.4	0.05 U	1.6	7.3
10/25/2017	XX	GW102X9HB		0.005 U	28	0.12	7.1	0.05 U	1.9	8.4
4/4/2018	XX	GW102XA3A	UF	0.005 U	25	0.11	7.1	0.05 U	1.4	7.5
7/18/2018	XX	GW102XACB	UF	0.005 U	28	0.09	7	0.05 U	1.7	7.9
10/3/2018	XX	GW102XB19	UF	0.005 U	27	0.05 U	6.9	0.05 U	1.7	7
4/24/2019	XX	GW102XB66	UF	0.005	26	0.14	7.1	0.05 U	1.5	7.1
7/17/2019	XX	GW102XBCH	UF	0.005 U	24	0.05 U	7.1	0.05 U	1.7	7.9
10/28/2019	XX	GW102XBIA	UF	0.005	24	0.05 U	6.6	0.05 U	1.6	6.9

MW04-109R

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/27/2010	XX	GW109X409		0.008	54.9	0.02 U	12.4	0.03 J	1.9	9.1
7/20/2010	XX	GW109X43D		0.023	64.2	0.02 U	12.7	0.04 J	2.1	9.5
10/19/2010	XX	GW109X46H		0.014	69.1	0.02 U	13.6	0.04 J	2.2	10.3
4/26/2011	XX	GW109X4AI		0.014	62.7	0.02 U	11.8	0.02 J	2.2	9.1
7/19/2011	XX	GW109X4EG		0.01	55.7	0.02 U	10.7	0.03 J	2.1	8.3
10/25/2011	XX	GW109X4IB		0.002 U	57.7	0.02 U	11	0.03 J	2.2	9.6
4/24/2012	XX	GW109X531		0.008	50.3	0.05 U	10.1	0.05 U	2.2	10.6
7/24/2012	XX	GW109X580		0.009	52.8	0.05 U	10.9	0.05 U	2.2	10
10/23/2012	XX	GW109X5EB		0.017	54	0.05 U	11	0.06	2	9.8
4/23/2013	XX	GW109X5J2		0.017	54.1	0.05 U	9.7	0.05 U	2	9
7/30/2013	XX	GW109X657		0.016	62.5	0.05 U	10.8	0.1	1.8	8.2
10/29/2013	XX	GW109X67G		0.015	58.5	0.05 U	10.9	0.15	1.9	8.4
4/22/2014	XX	GW109X6G3		0.019	60.1	0.05 U	9.9	0.13	2	7.5
7/29/2014	XX	GW109X705		0.018	62.1	0.05 U	10.5	0.31	1.9	7.7
10/21/2014	XX	GW109X73G		0.014	62.8	0.05 U	10.4	0.35	2	7.2
4/28/2015	XX	GW109X79D		0.019	63.4	0.05 U	10.4	0.33	1.8	6.9
7/14/2015	XX	GW109X7D5		0.015	57.3	0.05 U	9.4	0.5	1.7	6.5
10/27/2015	XX	GW109X7IE		0.017	54	0.05 U	10.8	0.64	2	7.3
4/5/2016	XX	GW109X874		0.024	61.2	0.05 U	9.5	0.58	1.7	6.1
7/26/2016	XX	GW109X8BE		0.031	62.9	0.05 U	11.1	0.85	1.9	7.3
10/25/2016	XX	GW109X8JD		0.005	65.9	0.05 U	11.1	0.98	2.3	7.8
4/18/2017	XX	GW109X97J		0.005 U	62	0.05 U	12	0.78	2	6.9
7/25/2017	XX	GW109X9DH		0.005 U	68	0.05 U	12	1.4	2.1	6.9
10/24/2017	XX	GW109X9HC		0.006	69	0.05 U	12	1.4	2	7.1
4/3/2018	XX	GW109XA3B	UF	0.005 U	67	0.05 U	13	0.48	2.2	7.8
7/17/2018	XX	GW109XACC	UF	0.005	67	0.05 U	12	1.1	1.8	6.4
10/2/2018	XX	GW109XB1A	UF	0.005 U	67	0.05 U	12	1.3	2.1	7.5
4/23/2019	XX	GW109XB67	UF	0.005 U	64	0.05 U	13	0.53	1.9	6.8
7/16/2019	XX	GW109XBCI	UF	0.005 U	65	0.05 U	13	1.2	1.9	7.4
10/29/2019	XX	GW109XBIB	UF	0.005 U	60	0.05 U	12	1.3	2.3	7.5

(MW06-01)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
MW06-01										
4/10/2018	XD	GWDP1XA68	UF	0.005 U	8.7	0.05 U	2.5	0.05 U	0.4	2.7
4/10/2018	XX	GWXXXXA70	UF	0.005 U	8.6	0.05 U	2.4	0.05 U	0.4	2.7
6/4/2018	XX	GWXXXXA7H	UF	0.005 U	11	0.05 U	3	0.05 U	0.4	2.9
7/18/2018	XX	GWXXXXAEF	UF	0.005 U	10	0.05 U	2.6	0.05 U	0.4	2.8
8/20/2018	XD	GWDP1XAF4	UF	0.005 U	9.2	0.05 U	2.4	0.05 U	0.4	2.6
8/20/2018	XX	GWXXXXAFG	UF	0.005 U	9	0.05 U	2.5	0.05 U	0.4	2.5
4/24/2019	XX	GWXXXXB7D	UF	0.005 U	8.4	0.66	2.6	0.05 U	0.6	2.7
7/18/2019	XX	GWXXXXBE1	UF	0.005 U	9	0.05 U	3.2	0.05 U	0.6	3.4
10/30/2019	XX	GWXXXXBJ8	UF	0.005 U	8.5	0.05 U	2.5	0.05 U	0.5	2.7
MW09-901										
4/27/2010	XX	GW901X3J7		0.005	27.4	0.03 J	6.9	0.1	2.5	8.2
7/20/2010	XX	GW901X42B		0.01	28.5	0.05	7.1	0.04 J	2.3	7.7
10/19/2010	XX	GW901X45F		0.008	29.4	0.02 U	8	0.09	2.5	17.4
4/26/2011	XX	GW901X49G		0.007	23.3	0.02 U	6.1	0.02 U	2.1	6
7/19/2011	XX	GW901X4DE		0.002 J	21.3	0.02 U	5.9	0.02 U	1.8	5.9
10/25/2011	XX	GW901X4H9		0.002 U	21	0.02 U	6.1	0.02 U	2	6.2
4/24/2012	XX	GW901X51J		0.005	18.8	0.05 U	5.4	0.05 U	1.6	5.2
7/24/2012	XX	GW901X56I		0.005	21.2	0.05 U	6	0.05 U	1.8	5.5
10/23/2012	XX	GW901X5D9		0.008	19.9	0.05 U	6	0.05 U	1.8	6.4
4/23/2013	XX	GW901X5I0		0.009	19.1	0.05 U	5.4	0.05 U	1.7	5.1
7/30/2013	XX	GW901X645		0.01	21.8	0.05 U	5.9	0.05 U	1.5	4.9
10/29/2013	XX	GW901X66I		0.009	22.5	0.05 U	6.1	0.05 U	1.7	5.9
4/22/2014	XX	GW901X6F1		0.008	21.8	0.05 U	6.2	0.05 U	1.8	5.6
7/29/2014	XX	GW901X6J8		0.012	28.5	0.05 U	7.7	0.05 U	2.1	7.7
10/21/2014	XX	GW901X72J		0.009	33.4	0.05 U	8.9	0.05 U	2.3	13.1
4/28/2015	XX	GW901X78G		0.012	33.5	0.05 U	9.3	0.05 U	2.1	12.1
7/14/2015	XX	GW901X7C8		0.011	33.2	0.05 U	9.1	0.05 U	2.2	10.6
10/27/2015	XX	GW901X7HH		0.011	32.1	0.05 U	10.7	0.05 U	2.5	12.7
4/5/2016	XD	GWDP1X85F		0.016	36.4	0.05 U	9.6	0.05 U	2.1	11
4/5/2016	XX	GW901X867		0.015	36.6	0.05 U	10	0.05 U	2.1	11.3
7/26/2016	XD	GWDP1X8A5		0.02	41	0.05 U	11.8	0.05 U	2.5	12.4
7/26/2016	XX	GW901X8AH		0.019	41.5	0.05 U	11.6	0.05 U	2.5	11.9
10/25/2016	XX	GW901X8IG		0.005	46.2	0.05 U	11.5	0.05 U	2.6	14.4
4/18/2017	XD	GWDP1X96A		0.005 U	38	0.05 U	12	0.05 U	2.2	10
4/18/2017	XX	GW901X972		0.006	39	0.05 U	13	0.05 U	2.6	12
7/25/2017	XD	GWDP1X9C8		0.005 U	50	0.05 U	14	0.05 U	2.6	11
7/25/2017	XX	GW901X9D0		0.005 U	50	0.05 U	14	0.05 U	2.6	11
10/24/2017	XX	GW901X9GF		0.005 U	53	0.05 U	14	0.05 U	2.3	11
4/3/2018	XD	GWDP1XA21	UF	0.005 U	51	0.05 U	16	0.05 U	2.5	12
4/3/2018	XX	GW901XA2E	UF	0.005 U	50	0.05	13	0.05 U	2.3	10
7/17/2018	XD	GWDP1XAB3	UF	0.005 U	51	0.05 U	12	0.05 U	2	8.2
7/17/2018	XX	GW901XABF	UF	0.005 U	56	0.05 U	13	0.05 U	2.2	8.7
10/2/2018	XX	GW901XB0D	UF	0.005 U	58	0.05 U	14	0.05 U	2.3	11
4/23/2019	XD	GWDP1XB4H	UF	0.005 U	49	0.05 U	12	0.05 U	1.8	9.8
4/23/2019	XX	GW901XB5A	UF	0.005 U	49	0.05 U	12	0.05 U	1.8	9.8
7/16/2019	XD	GWDP1XBBA	UF	0.005 U	49	0.05 U	13	0.05 U	1.9	11
7/16/2019	XX	GW901XBC2	UF	0.005 U	51	0.05 U	13	0.05 U	1.8	11

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
(MW09-901)										
10/29/2019	XX	GW901XBHF	UF	0.005 U	44	0.05 U	11	0.05 U	1.9	10
MW-206										
4/26/2010	XX	GW206X3I9		0.005	14.5	0.02 U	4	0.02 U	0.8	4.8
7/19/2010	XX	GW206X41D		0.01	14.8	0.02 U	4.3	0.02 U	2.5	4.9
10/18/2010	XX	GW206X44H		0.015	27.2	1.2	6.9	0.32	1.5	6.5
4/25/2011	XX	GW206X48I		0.009	16.4	0.32	5.1	0.02 J	0.9	5
7/18/2011	XX	GW206X4CG		0.005	16.3	0.91	4.9	0.04 J	0.9	5.2
10/24/2011	XX	GW206X4GB		0.005	15.9	0.18	5	0.02 U	0.8	5
4/23/2012	XX	GW206X511		0.006	15.2	0.29	5.2	0.05 U	0.9	5.5
7/23/2012	XX	GW206X560		0.006	14.8	0.13	4.6	0.05 U	0.8	4.6
7/23/2012	XD	GWDP4X573		0.005	14.7	0.24	4.6	0.05 U	0.8	4.7
10/22/2012	XX	GW206X5CB		0.01	17.6	0.33	5.3	0.05 U	0.8	5.3
4/22/2013	XX	GW206X5H2		0.008	14.5	0.05 U	4.8	0.05 U	0.8	5.1
7/29/2013	XX	GW206X637		0.008	15.7	0.05 U	4.7	0.05 U	0.6	4.1
7/29/2013	XD	GWDP4X64A		0.008	15.4	0.05 U	4.7	0.05 U	0.6	4.3
10/28/2013	XX	GW206X660		0.013	16	0.05 U	4.9	0.05 U	0.9	5.2
4/21/2014	XX	GW206X6E3		0.007	16.3	0.08	4.8	0.05 U	0.8	4.8
7/28/2014	XX	GW206X6IB		0.01	16.2	0.05 U	4.5	0.05 U	0.7	4.7
7/28/2014	XD	GWDP1X6IG		0.009	16.1	0.05 U	4.5	0.05 U	0.7	4.6
10/20/2014	XX	GW206X721		0.014	16.3	0.05 U	4.3	0.05 U	0.7	4.3
4/27/2015	XX	GW206X77J		0.01	16.2	0.19	4.6	0.05 U	0.7	4.4
7/13/2015	XX	GW206X7BB		0.012	17.5	0.05 U	4.8	0.05 U	0.7	4.7
7/13/2015	XD	GWDP3X7C7		0.016	15.7	0.05 U	4.3	0.05 U	0.6	4.2
10/26/2015	XX	GW206X7H0		0.016	14.9	0.05 U	4.7	0.05 U	0.7	4.7
4/4/2016	XX	GW206X85A		0.005	15.9	0.05 U	4.5	0.05 U	0.7	4.2
7/25/2016	XD	GWDP4X8B2		0.021	17.3	0.05 U	4.8	0.05 U	0.7	4.3
7/25/2016	XX	GW206X8A0		0.022	16.9	0.05 U	4.7	0.05 U	0.7	4.3
10/24/2016	XX	GW206X8HJ		0.008	17.5	0.05 U	5	0.05 U	0.9	4.8
4/17/2017	XX	GW206X965		0.01	17	0.05	5.2	0.05 U	0.8	5
7/24/2017	XD	GWDP4X9D5		0.008	16	0.05 U	4.8	0.05 U	0.5	4.3
7/24/2017	XX	GW206X9C3		0.005 U	16	0.05 U	4.8	0.05 U	0.6	4.4
10/23/2017	XX	GW206X9FI		0.007	17	0.05	5.1	0.05 U	0.8	4.8
4/2/2018	XX	GW206XA1G	UF	0.008	19	0.3	5.9	0.05 U	0.9	5.5
7/16/2018	XD	GWDP4XAC0	UF	0.008	17	0.05 U	4.9	0.05 U	0.8	4.5
7/16/2018	XX	GW206XAAI	UF	0.007	17	0.09	4.8	0.05 U	0.7	4.5
10/1/2018	XX	GW206XAJG	UF	0.007	18	0.05	5.3	0.05 U	0.7	4.8
4/22/2019	XX	GW206XB4C	UF	0.005	18	0.25	5.3	0.05 U	0.7	4.6
7/17/2019	XX	GW206XBB5	UF	0.006	16	0.05 U	5.4	0.05 U	0.8	5.2
10/28/2019	XX	GW206XBGJ	UF	0.006	16	0.05	4.8	0.05 U	0.8	4.5
MW-223A										
4/27/2010	XX	GW223A3IC		0.003 J	48.6	0.02 U	5.2	0.02 U	0.6	3.4
4/27/2010	XD	GWDP1X3IF		0.004 J	46.8	0.02 J	5.1	0.02 U	0.6	3.5
7/20/2010	XX	GW223A41G		0.006	48.9	0.02 U	5.2	0.02 U	0.6	3.5
10/19/2010	XX	GW223A450		0.006	48.7	0.02 U	5.4	0.02 U	0.7	3.4
10/19/2010	XD	GWDP1X453		0.006	48.2	0.02 U	5.3	0.02 U	0.6	3.5
4/26/2011	XX	GW223A491		0.011	53.3	0.02 U	6	0.02 U	0.7	3.7
4/26/2011	XD	GWDP1X494		0.012	53.4	0.02 U	6	0.02 U	0.7	3.9
7/19/2011	XX	GW223A4CJ		0.005	58.4	0.02 U	6.1	0.02 U	0.7	3.5

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Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/25/2011	XX	GW223A4GE		0.002 U	55.9	0.02 U	6.4	0.02 U	0.8	4.1
10/25/2011	XD	GWDP3X4H8		0.002 U	56.8	0.02 U	6.6	0.02 U	0.8	4.1
4/24/2012	XX	GW223A514		0.005	54.4	0.05 U	6.5	0.05 U	0.7	4
4/24/2012	XD	GWDP1X517		0.006	57.9	0.05 U	6.5	0.05 U	0.7	3.7
7/24/2012	XX	GW223A563		0.005 U	60.7	0.05 U	7.2	0.05 U	0.8	4.4
10/23/2012	XX	GW223A5CE		0.008	61.5	0.05 U	7.2	0.05 U	0.7	4.3
10/23/2012	XD	GWDP3X5D8		0.007	57.4	0.05 U	7.1	0.05 U	0.7	4.5
4/23/2013	XX	GW223A5H5		0.012	68.1	0.05 U	8	0.05 U	0.9	4.7
4/23/2013	XD	GWDP1X5H8		0.011	65.3	0.05 U	7.8	0.05 U	0.8	4.4
7/30/2013	XX	GW223A63A		0.01	73.8	0.05 U	7.7	0.05 U	0.7	4
10/29/2013	XX	GW223A663		0.013	74.1	0.05 U	9.1	0.05 U	0.8	4.7
10/29/2013	XD	GWDP3X66H		0.012	67.5	0.05 U	8.2	0.05 U	0.8	4.4
4/22/2014	XX	GW223A6E6		0.014	78.7	0.05 U	8.5	0.05 U	0.8	4.5
4/22/2014	XD	GWDP1X6E9		0.015	80.3	0.05 U	8.7	0.05 U	0.8	4.7
7/29/2014	XX	GW223A6ID		0.016	77.2	0.05 U	8	0.05 U	0.8	4.5
10/21/2014	XX	GW223A723		0.007	73.2	0.05 U	7.8	0.05 U	0.8	4.5
10/21/2014	XD	GWDP3X72I		0.009	73.6	0.05 U	7.5	0.05 U	0.8	4.3
4/28/2015	XX	GW223A781		0.012	75.4	0.05 U	8.2	0.05 U	0.8	4.6
4/28/2015	XD	GWDP1X784		0.013	75.4	0.05 U	8.1	0.05 U	0.8	4.6
7/14/2015	XX	GW223A7BD		0.015	76	0.05 U	7.5	0.05 U	0.8	4.3
10/27/2015	XX	GW223A7H2		0.01	71.3	0.05 U	8.3	0.05 U	0.8	4.7
4/27/2016	XX	GW223A85C		0.034	85.6	0.05 U	8.9	0.05 U	0.8	4.8
7/26/2016	XX	GW223A8A2		0.021	83.9	0.05 U	9.1	0.05 U	0.9	4.9
10/25/2016	XX	GW223A8I1		0.006	89.3	0.05 U	9	0.05 U	0.9	5.1
4/18/2017	XX	GW223A967		0.005	78	0.05 U	9.6	0.05 U	0.9	5.1
7/25/2017	XX	GW223A9C5		0.005 U	93	0.05 U	10	0.05 U	0.9	5.6
10/24/2017	XX	GW223A9G0		0.005	93	0.05 U	10	0.05 U	0.9	5.5
4/3/2018	XX	GW223AA1I	UF	0.005 U	86	0.05 U	11	0.05 U	1	5.9
7/17/2018	XX	GW223AAB0	UF	0.006	91	0.05 U	8.9	0.05 U	0.7	4.3
10/2/2018	XX	GW223AAJI	UF	0.005 U	98	0.05 U	11	0.05 U	0.9	6
4/23/2019	XX	GW223AB4E	UF	0.005 U	91	0.05 U	10	0.05 U	0.9	5.4
7/16/2019	XX	GW223ABB7	UF	0.005 U	89	0.05 U	10	0.05 U	1	6
10/29/2019	XX	GW223ABH0	UF	0.005 U	92	0.05 U	10	0.05 U	1	5.4

MW-223B

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/27/2010	XX	GW223B401		0.005	39.3	0.35	9.1	0.02 U	0.6	4.2
7/20/2010	XX	GW223B435		0.011	40.8	0.58	9.8	0.09	0.8	4.6
7/20/2010	XD	GWDP1X41J		0.011	41.9	0.57	10	0.09	0.8	4.6
10/19/2010	XX	GW223B469		0.007	40.1	0.11	9.5	0.04 J	0.8	4.4
4/26/2011	XX	GW223B4AA		0.013	40.2	0.02 J	10.3	0.02 U	0.7	4.3
7/19/2011	XX	GW223B4E8		0.005	37.8	0.04 J	9.5	0.04 J	1.7	4.1
7/19/2011	XD	GWDP3X4DD		0.006	36.1	0.04 J	9.7	0.05	1.9	4.3
10/25/2011	XX	GW223B4I3		0.002 U	38.5	0.49	10.6	0.07	2	4.8
4/24/2012	XX	GW223B52D		0.005 U	37	0.24	9.8	0.05 U	0.6	4.2
7/24/2012	XX	GW223B57C		0.005 U	40.5	0.1	11	0.05 U	0.8	4.6
7/24/2012	XD	GWDP3X56H		0.005	43.1	0.08	10.9	0.05 U	0.8	4.6
10/23/2012	XX	GW223B5E3		0.011	39	0.09	10.7	0.05 U	0.7	4.6
4/23/2013	XX	GW223B5IE		0.009	41.3	0.06	11.1	0.05 U	0.7	4.7
7/30/2013	XX	GW223B64J		0.008	46.2	0.12	11.3	0.05 U	0.7	4.3
10/29/2013	XX	GW223B67C		0.008	44.3	0.09	11.5	0.05 U	0.8	4.9

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Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/22/2014	XX	GW223B6FF		0.011	51.2	0.24	12.3	0.05 U	0.8	4.8
7/29/2014	XX	GW223B700		0.014	50.6	0.05 U	11.9	0.05 U	0.8	4.9
10/21/2014	XX	GW223B73C		0.005 U	49.2	0.06	11	0.05 U	0.8	4.9
4/28/2015	XX	GW223B798		0.012	49.9	0.05	12	0.05 U	0.7	5
7/14/2015	XX	GW223B7D0		0.012	50	0.05	11.7	0.05 U	0.8	4.9
10/27/2015	XX	GW223B7I9		0.009	46.1	0.05 U	12.2	0.05 U	0.8	4.9
4/5/2016	XX	GW223B86J		0.014	52.5	0.51	11.7	0.05 U	0.7	4.8
7/26/2016	XX	GW223B8B9		0.017	57.2	0.08	13.5	0.05 U	0.8	5.1
10/25/2016	XX	GW223B8J8		0.005 U	61.7	0.05 U	13.5	0.05 U	0.9	5.3
4/18/2017	XX	GW223B97E		0.005 U	52	0.05	14	0.05 U	0.8	5.3
7/25/2017	XX	GW223B9DC		0.005 U	60	0.05 U	15	0.05 U	0.8	5.6
10/24/2017	XX	GW223B9H7		0.005 U	66	0.05 U	15	0.05 U	0.8	5.6
4/3/2018	XX	GW223BA36	UF	0.007	56	0.05 U	15	0.05 U	0.8	5.4
7/17/2018	XX	GW223BAC7	UF	0.005	65	0.05 U	14	0.05 U	0.7	4.7
10/2/2018	XX	GW223BB15	UF	0.005 U	68	0.05 U	16	0.05 U	0.9	6
4/23/2019	XX	GW223BB62	UF	0.005 U	66	0.05	17	0.05 U	0.8	5.8
7/16/2019	XX	GW223BBCD	UF	0.005 U	68	0.05 U	17	0.05 U	1.1	6.4
10/29/2019	XX	GW223BBI6	UF	0.005 U	64	0.05 U	16	0.05 U	0.9	5.5

MW-227

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/27/2010	XX	GW227X3ID		0.015	21.7	0.05	5.1	0.02 U	1.6	5.3
7/20/2010	XX	GW227X41H		0.014	21.2	0.08	5.2	0.02 U	1	5.5
10/19/2010	XX	GW227X451		0.014	21.9	0.06	5.1	0.02 U	1	5.2
4/26/2011	XX	GW227X492		0.019	21.4	0.02 U	5.5	0.02 U	1	5.1
7/19/2011	XX	GW227X4D0		0.012	21.4	0.02 U	5.4	0.02 U	0.9	5.3
10/25/2011	XX	GW227X4GF		0.017	20.5	0.06	5.6	0.02 U	1.1	3.1
4/24/2012	XX	GW227X515		0.012	19.9	0.05 U	5.4	0.05 U	1	5
7/24/2012	XX	GW227X564		0.011	22	0.05 U	5.7	0.05 U	1.1	5.3
10/23/2012	XX	GW227X5CF		0.014	22.4	0.05 U	5.6	0.05 U	1	5.5
4/23/2013	XX	GW227X5H6		0.018	22.1	0.05 U	5.5	0.05 U	1.1	5.4
7/30/2013	XX	GW227X63B		0.017	22.8	0.05 U	5.5	0.05 U	0.8	4.7
7/30/2013	XD	GWDP3X644		0.016	23	0.05 U	5.3	0.05 U	0.8	4.8
10/29/2013	XX	GW227X664		0.017	21	0.05 U	5.5	0.05 U	1	5.5
4/22/2014	XX	GW227X6E7		0.017	24.1	0.05 U	5.8	0.05 U	1.2	5.6
4/22/2014	XD	GWDP3X6F0		0.018	23.4	0.05 U	5.8	0.05 U	1.1	5.5
7/29/2014	XX	GW227X6IE		0.019	23.4	0.05 U	5.4	0.05 U	1	5
7/29/2014	XD	GWDP3X6J7		0.019	22.3	0.05 U	5.3	0.05 U	1	5.2
10/21/2014	XX	GW227X724		0.021	22.7	0.05 U	5.2	0.05 U	1.1	5.4
4/28/2015	XX	GW227X782		0.021	23.2	0.05 U	5.4	0.05 U	1	5.4
4/28/2015	XD	GWDP3X78F		0.018	22.5	0.05 U	5.4	0.05 U	1	5.2
7/14/2015	XX	GW227X7BE		0.015	23.4	0.05 U	5.1	0.05 U	1	5.1
7/14/2015	XD	GWDP1X7BG		0.016	20.9	0.05 U	4.8	0.05 U	1	5
10/27/2015	XX	GW227X7H3		0.015	19.8	0.05 U	5.1	0.05 U	1	5.1
10/27/2015	XD	GWDP1X7H5		0.017	18	0.05 U	5.1	0.05 U	1	5
4/5/2016	XD	GWDP3X866		0.013	22.1	0.05 U	4.8	0.05 U	0.9	4.8
4/5/2016	XX	GW227X85D		0.016	21.8	0.05 U	4.9	0.05 U	0.9	4.9
7/26/2016	XD	GWDP3X8AG		0.023	22.9	0.08	5.6	0.05 U	1.1	5.4
7/26/2016	XX	GW227X8A3		0.024	23	0.09	5.5	0.05 U	1.1	5.2
10/25/2016	XD	GWDP3X8IF		0.012	26.4	0.1	5.5	0.05 U	1.2	5.3
10/25/2016	XX	GW227X8I2		0.012	26	0.1	5.4	0.05 U	1.2	5.4

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Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/18/2017	XD	GWDP3X971		0.016	22	0.11	6	0.05 U	1.2	5.8
4/18/2017	XX	GW227X968		0.017	20	0.11	5.8	0.05 U	1.1	5.3
7/25/2017	XD	GWDP3X9CJ		0.014	22	0.05 U	5.5	0.05 U	1	5.1
7/25/2017	XX	GW227X9C6		0.011	23	0.08	5.7	0.05 U	1	5.3
10/24/2017	XD	GWDP3X9GE		0.02	25	0.05 U	5.7	0.05 U	1	5.4
10/24/2017	XX	GW227X9G1		0.019	24	0.05 U	5.5	0.05 U	1	5.2
4/3/2018	XD	GWDP3XA2D	UF	0.013	21	0.05	5.6	0.05 U	1.1	5.5
4/3/2018	XX	GW227XA1J	UF	0.013	21	0.05 U	5.7	0.05 U	1.1	5.7
7/17/2018	XD	GWDP3XABE	UF	0.016	24	0.05 U	5.1	0.05 U	0.9	4.5
7/17/2018	XX	GW227XAB1	UF	0.014	24	0.05 U	5	0.05 U	0.9	4.7
10/2/2018	XD	GWDP3XB0C	UF	0.013	26	0.05 U	6.2	0.16	1.1	5.8
10/2/2018	XX	GW227XAJJ	UF	0.014	26	0.05 U	6	0.15	1.1	5.9
4/23/2019	XD	GWDP3XB59	UF	0.013	25	0.05	6.1	0.05 U	1.1	5.4
4/23/2019	XX	GW227XB4F	UF	0.015	26	0.08	6	0.05 U	1.1	5.4
7/16/2019	XD	GWDP3XBC1	UF	0.015	22	0.08	5.7	0.05 U	1.1	5.5
7/16/2019	XX	GW227XBB8	UF	0.015	21	0.05	5.3	0.05 U	1	5.4
10/29/2019	XD	GWDP3XBHE	UF	0.012	21	0.13	5.3	0.05 U	1.2	5.1
10/29/2019	XX	GW227XBH1	UF	0.013	22	0.05 U	5.4	0.05 U	1.2	5.4

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Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/26/2010	XX	GW301X3IE		0.005	16.9	0.46	3.9	0.03 J	0.7	10.9
7/19/2010	XX	GW301X41I		0.005	19.4	0.86	4.7	0.02 J	0.8	11.8
10/19/2010	XX	GW301X452		0.007	17.9	0.21	4.4	0.02 J	0.7	10.7
4/27/2011	XX	GW301X493		0.005	18.1	0.24	4.5	0.02 J	0.7	11.4
7/20/2011	XX	GW301X4D1		0.012	18.5	0.26	4.4	0.02 J	0.7	10.6
10/26/2011	XX	GW301X4GG		0.002 U	18.7	0.27	4.3	0.02 J	0.7	10.7
4/25/2012	XX	GW301X516		0.009	16.9	0.15	4.4	0.05 U	0.7	11.1
7/25/2012	XX	GW301X565		0.006	14.9	0.05 U	4.5	0.05 U	0.7	11.8
10/24/2012	XX	GW301X5CG		0.006	16.7	0.32	4.3	0.05 U	0.6	10.3
10/24/2012	XD	GWDP4X5DE		0.008	17.1	0.31	4.4	0.05 U	0.6	10
4/22/2013	XX	GW301X5H7		!	!	!	!	!	!	!
7/31/2013	XX	GW301X63C		0.01	19.2	0.54	4.8	0.05	0.7	10.4
10/30/2013	XX	GW301X665		0.006	19.3	0.13	4.7	0.05 U	0.6	10.1
10/30/2013	XD	GWDP1X666		0.008	18.7	0.15	4.7	0.05 U	0.6	10.2
4/23/2014	XX	GW301X6E8		0.007	20.7	0.22	4.7	0.05	0.7	11.5
7/30/2014	XX	GW301X6IF		0.006	19.6	0.1	4.8	0.05 U	0.8	12.2
10/22/2014	XX	GW301X725		0.011	19.9	0.05 U	4.6	0.05 U	0.7	11.4
10/22/2014	XD	GWDP1X726		0.01	20.3	0.05	4.8	0.05 U	0.7	11.7
4/29/2015	XX	GW301X783		0.012	19.9	0.05 U	4.9	0.05 U	0.7	12
7/15/2015	XX	GW301X7BF		0.006	19.3	0.06	4.6	0.05 U	0.7	11.7
10/27/2015	XX	GW301X7H4		0.005	17.5	0.05 U	5	0.05 U	0.7	10.7
10/27/2015	XD	GWDP4X7I2		0.007	16.6	0.05 U	5	0.05 U	0.7	10.9
4/27/2016	XX	GW301X85E		0.018	21.9	0.05 U	5.2	0.05 U	0.7	12.2
7/27/2016	XX	GW301X8A4		0.011	21.6	0.56	5.2	0.18	0.7	11.1
10/26/2016	XD	GWDP4X8J1		0.01	20.5	0.12	5.4	0.05 U	0.8	12.5
10/26/2016	XX	GW301X8I3		0.01	20.4	0.1	5.6	0.05 U	0.8	13
4/19/2017	XX	GW301X969		0.006	20	0.07	5.4	0.05 U	0.7	11
7/26/2017	XX	GW301X9C7		0.006	21	0.05 U	5.4	0.05 U	0.8	11
10/25/2017	XD	GWDP4X9H0		0.007	24	0.05	5.9	0.05 U	0.7	12
10/25/2017	XX	GW301X9G2		0.005	24	0.06	5.8	0.05 U	0.8	12

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(MW-301)

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
			-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
4/4/2018	XX	GW301XA20	UF	0.006	25	0.11	6.2	0.06	0.8	13
7/18/2018	XX	GW301XAB2	UF	0.005 U	25	0.18	6	0.06	0.8	12
10/1/2018	XD	GWDP4XB0I	UF	0.005	25	0.05	6.3	0.05 U	0.7	13
10/1/2018	XX	GW301XB00	UF	0.005 U	25	0.1	6.3	0.05	0.7	13
4/24/2019	XX	GW301XB4G	UF	0.005	24	0.07	6.2	0.05 U	0.8	12
7/17/2019	XX	GW301XBB9	UF	0.005 U	25	0.05 U	6.6	0.05 U	0.9	14
10/28/2019	XD	GWDP4XBI0	UF	0.006	25	0.05 U	6.5	0.05 U	1	12
10/28/2019	XX	GW301XBH2	UF	0.005 U	22	0.1	5.7	0.05 U	0.8	12

MW-302R

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/26/2010	XX	GW302X3JJ		0.002 J	17.6	0.02 U	1.4	0.02 J	0.5	6
7/19/2010	XX	GW302X433		0.014	58	0.02 U	4.5	0.02 U	1.2	20.3
10/18/2010	XX	GW302X467		0.008	66.2	0.02 U	5.3	0.03 J	1.6	22
4/25/2011	XX	GW302X4A8		0.009	29.4	0.02 U	2.6	0.02 U	0.8	14.9
7/18/2011	XX	GW302X4E6		0.009	33.8	0.02 U	3.1	0.02 U	1	20.6
10/24/2011	XX	GW302X4I1		0.002 U	42.2	0.02 U	3.7	0.02 U	1.2	24.7
4/23/2012	XX	GW302X52B		0.005 U	26	0.05 U	2.3	0.05 U	0.8	13.2
7/23/2012	XX	GW302X57A		0.005 U	32.6	0.05 U	2.8	0.05 U	0.9	18.4
10/22/2012	XX	GW302X5E1		0.009	54.6	0.05 U	4.3	0.05 U	1.2	28.6
4/22/2013	XX	GW302X5IC		0.005	21.1	0.05 U	1.8	0.05 U	0.7	11
7/29/2013	XX	GW302X64H		0.005 U	33	0.05 U	3	0.05 U	0.8	17.8
10/28/2013	XX	GW302X67A		0.008	32.6	0.05 U	2.9	0.05 U	1.1	20.3
4/21/2014	XX	GW302X6FD		0.006	38.5	0.05 U	2.9	0.05 U	0.9	16.7
7/28/2014	XX	GW302X6JJ		0.009	50.2	0.05 U	3.6	0.05 U	1	20.8
10/20/2014	XX	GW302X73A		0.015	54.4	0.05 U	4.7	0.05 U	1.2	26.7
4/27/2015	XX	GW302X797		0.006	29.2	0.05 U	2.1	0.05 U	0.7	16.2
7/13/2015	XX	GW302X7CJ		0.01	40.7	0.05 U	3.1	0.05 U	0.9	22.1
10/26/2015	XX	GW302X7I8		0.009	51.3	0.05 U	4	0.05 U	0.9	20.9
4/4/2016	XX	GW302X86I		0.009	30.4	0.05 U	2	0.05 U	0.7	13
7/25/2016	XX	GW302X8B8		0.015	32.9	0.05 U	2.5	0.05 U	0.7	14.9
10/24/2016	XX	GW302X8J7		0.005 U	99.2	0.05 U	8.1	0.05 U	1.5	22.5
4/17/2017	XX	GW302X97D		0.005 U	33	0.05 U	2.6	0.05 U	0.8	17
7/24/2017	XX	GW302X9DB		0.005 U	33	0.05 U	2.7	0.05 U	0.7	20
10/23/2017	XX	GW302X9H6		0.005 U	73	0.05 U	6.1	0.05 U	1.3	28
4/2/2018	XX	GW302XA35	UF	0.005	29	0.05 U	2.5	0.05 U	0.8	20
7/16/2018	XX	GW302XAC6	UF	0.005 U	36	0.05 U	2.9	0.05 U	0.8	20
10/1/2018	XX	GW302XB14	UF	0.005 U	140	0.05 U	8.6	0.1	2.4	35
4/22/2019	XX	GW302XB61	UF	0.005 U	21	0.05 U	1.8	0.05 U	0.6	11
7/17/2019	XX	GW302XBCC	UF	0.005 U	30	0.05 U	3	0.05 U	0.9	26
10/28/2019	XX	GW302XBI5	UF	0.005 U	29	0.05 U	2.5	0.05 U	0.9	22

MW-303

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/26/2010	XX	GW303X403		0.002 J	17.6	0.02 U	7.9	0.02 U	0.7	6
7/19/2010	XX	GW303X437		0.007	19.7	0.02 U	8.2	0.02 U	0.8	6.5
7/19/2010	XD	GWDP4X42G		0.01	19.1	0.02 U	8.3	0.02 U	0.8	6.3
10/18/2010	XX	GW303X46B		0.006	20	0.05	7.4	0.03 J	0.7	6.8
4/25/2011	XX	GW303X4AC		0.012	21.1	0.07	9.7	0.02 U	0.8	6.9
7/18/2011	XX	GW303X4EA		0.017	18.7	0.04 J	9.2	0.02 J	0.8	6.7
7/18/2011	XD	GWDP4X4DJ		0.02	18.8	0.03 J	9.2	0.02 J	0.8	6.8
10/24/2011	XX	GW303X4I5		0.002 U	23.3	0.02 U	10.9	0.02 U	0.9	7.6

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(MW-303)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/24/2011	XD	GWDP4X4HE		0.002 U	22.9	0.02 U	10.2	0.02 U	0.8	7.2
4/23/2012	XX	GW303X52F		0.005 U	25.2	0.07	12.1	0.05 U	1	8.5
7/24/2012	XX	GW303X57E		!	!	!	!	!	!	!

MW12-303R

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
10/23/2012	XX	GW303X5EG		0.005 U	16.6	0.1	7.8	0.32	1.5	10.4
4/22/2013	XX	GW303X5IG		0.01	21.3	0.05 U	9.5	0.06	2.1	15.9
7/29/2013	XX	GW303X651		0.008	24.3	0.05 U	10	0.05 U	1.5	8.8
10/28/2013	XX	GW303X67D		0.015	23.7	0.05 U	10.3	0.05 U	1.7	9.2
4/21/2014	XX	GW303X6FH		0.013	26.5	0.05 U	10.3	0.05 U	1.6	18.2
7/28/2014	XX	GW303X701		0.01	26.4	0.05 U	10.3	0.05 U	1.5	9.5
10/20/2014	XX	GW303X73D		0.013	28	0.05 U	10.9	0.05 U	1.4	46.8
4/27/2015	XX	GW303X799		0.013	64.2	0.05 U	7.2	1.07	3.1	82.8
6/18/2015	XX	42173-1		0.005 U	45.5	0.09	7.1	0.21	2.3	55.2
7/13/2015	XX	GW303X7D1		0.016	40.6	0.05 U	8.5	0.09	1.7	22.3
10/26/2015	XX	GW303X7IA		0.009	31.8	0.19	7.9	0.31	1.8	29
4/4/2016	XX	GW303X870		0.012	28.8	0.06	2.5	0.05 U	1.4	37.7
7/25/2016	XX	GW303X8BA		0.036	55	0.05 U	9.2	0.05 U	2.3	28.7
10/24/2016	XX	GW303X8J9		0.005 U	61	2.29	5.7	3.13	2.6	60.8
4/17/2017	XX	GW303X97F		0.005 U	46	0.05	4.7	0.05	4.3	39
7/24/2017	XX	GW303X9DD		0.005 U	47	0.05 U	7.4	0.05	4.2	22
10/23/2017	XX	GW303X9H8	FILT	0.006	45	0.05 U	8.2	0.21	3.1	21
4/2/2018	XX	GW303XA37	UF	0.005 U	160	0.08	22	0.16	5.6	110
7/16/2018	XX	GW303XAC8	UF	0.007	56	0.05 U	15	0.05 U	2.2	15
10/1/2018	XX	GW303XB16	UF	0.005 U	46	0.62	14	0.62	2	13
4/22/2019	XX	GW303XB63	UF	0.005 U	60	0.35	8.3	0.76	5.7	25
7/17/2019	XX	GW303XBCE	UF	0.005 U	50	0.05 U	9	0.14	4.3	29
10/28/2019	XX	GW303XBI7	UF	0.005 U	43	0.05 U	5.6	0.1	3.8	20

MW-401A

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/27/2010	XX	GW401A3J8		0.002 J	14.5	0.02 U	3.9	0.02 U	0.7	3.5
7/20/2010	XX	GW401A42C		0.006	14.6	0.02 U	4	0.02 U	0.7	3.6
10/20/2010	XX	GW401A45G		0.004 J	15.8	0.02 U	3.8	0.02 U	0.7	4
4/25/2011	XX	GW401A49H		0.005	14.9	0.02 U	4.5	0.02 U	0.8	4
7/18/2011	XX	GW401A4DF		0.009	14.3	0.02 U	4	0.02 U	0.7	3.7
10/24/2011	XX	GW401A4HA		0.005	14.3	0.02 U	4.2	0.02 U	0.7	3.8
4/23/2012	XX	GW401A520		0.007	12.9	0.05 U	4.3	0.05 U	0.8	4
7/23/2012	XX	GW401A56J		0.005 U	12.1	0.05 U	3.9	0.05 U	0.7	3.5
10/22/2012	XX	GW401A5DA		0.005 U	13	0.05 U	4.4	0.05 U	0.7	4
4/22/2013	XX	GW401A5I1		0.005	13.7	0.05 U	3.9	0.05 U	0.7	4
7/29/2013	XX	GW401A646		0.005 U	14.7	0.05 U	4.1	0.05 U	0.6	3.3
10/28/2013	XX	GW401A66J		0.009	14	0.05 U	4	0.05 U	0.7	3.7
4/21/2014	XX	GW401A6F2		0.006	15.4	0.05 U	4.2	0.05 U	0.7	3.9
7/28/2014	XX	GW401A6J9		0.005	14.7	0.05 U	3.9	0.05 U	0.7	3.7
10/20/2014	XX	GW401A730		0.01	14.5	0.05 U	4	0.05 U	0.6	3.6
4/27/2015	XX	GW401A78H		0.009	15.7	0.06	4.2	0.05 U	0.7	3.9
7/13/2015	XX	GW401A7C9		0.013	15.2	0.05 U	4	0.05 U	0.7	3.9
10/26/2015	XX	GW401A7HI		0.009	15.1	0.05 U	4.1	0.05 U	0.6	3.8
4/27/2016	XX	GW401A868		0.017	16.4	0.05 U	4.3	0.05 U	0.7	3.9
7/25/2016	XX	GW401A8AI		0.018	15.7	0.05 U	4.2	0.05 U	0.7	3.6

(MW-401A)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/24/2016	XX	GW401A8IH		0.006	16.5	0.06	4.5	0.05 U	0.8	3.9
4/17/2017	XX	GW401A973		0.007	15	0.05 U	4.4	0.05 U	0.8	3.7
7/24/2017	XX	GW401A9D1		0.005	15	0.05 U	4.2	0.05 U	0.6	3.8
10/25/2017	XX	GW401A9GG		0.008	16	0.05 U	4.3	0.05 U	0.7	3.8
4/2/2018	XX	GW401AA2F	UF	0.005	16	0.05 U	4.7	0.05 U	0.8	4.5
7/16/2018	XX	GW401AABG	UF	0.006	17	0.05 U	4.3	0.05 U	0.7	3.9
10/1/2018	XX	GW401AB0E	UF	0.006	17	0.05 U	4.6	0.05 U	0.6	4.1
4/22/2019	XX	GW401AB5B	UF	0.005 U	17	0.05 U	4.8	0.05 U	0.8	4.2
7/15/2019	XX	GW401ABC3	UF	0.007	15	0.05 U	4.3	0.05 U	0.6	3.8
10/28/2019	XX	GW401ABHG	UF	0.007	15	0.05 U	4.1	0.05 U	0.7	3.6

MW-401B

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/27/2010	XX	GW401B3J9		0.012	29	0.71	8	0.13	1	9.8
4/27/2010	XD	GWDP4X3JC		0.013	30.3	0.71	8.5	0.13	1	10.4
7/20/2010	XX	GW401B42D		0.023	37.2	1.91	10.2	0.18	1.3	12.9
7/20/2010	XD	GWDP3X42A		0.021	40.4	1.92	11.2	0.19	1.4	14.6
10/20/2010	XX	GW401B45H		0.011	38.5	2.09	10.8	0.17	1.5	15.6
10/20/2010	XD	GWDP4X460		0.012	37.6	2.11	10.1	0.16	1.5	15.3
4/25/2011	XX	GW401B49I		0.016	25.9	0.4	8.3	0.07	1.1	10.5
4/25/2011	XD	GWDP4X4A1		0.019	25.2	0.41	8.1	0.07	1.1	10.3
7/18/2011	XX	GW401B4DG		0.021	26.8	0.54	8.9	0.15	1.1	11.5
7/18/2011	XD	GWDP1X4D2		0.022	27.2	0.54	8.8	0.15	1.1	11.9
10/24/2011	XX	GW401B4HB		0.006	33.7	1.1	10.1	0.16	1.3	13.4
4/23/2012	XX	GW401B521		0.017	25.3	0.19	8.3	0.05	1.1	10.9
4/23/2012	XD	GWDP4X524		0.015	24.6	0.23	9	0.05	1.2	11.7
7/23/2012	XX	GW401B570		0.011	29.9	0.63	8.8	0.16	1.1	11.4
7/23/2012	XD	GWDP1X566		0.014	26.5	0.5	8.4	0.16	1.1	10.8
10/22/2012	XX	GW401B5DB		0.016	34.5	0.99	11	0.2	1.4	14.7
4/22/2013	XX	GW401B5I2		0.013	28.9	0.39	8.7	0.18	1.1	12.9
4/22/2013	XD	GWDP4X5I5		0.012	29.4	0.36	8.7	0.17	1.1	12.5
7/29/2013	XX	GW401B647		0.022	28.8	0.51	8.4	0.22	0.9	10
7/29/2013	XD	GWDP1X63D		0.02	31.4	0.59	9.4	0.21	1	10.9
10/28/2013	XX	GW401B670		0.027	35.1	1.72	10.8	0.28	1.5	14.9
10/28/2013	XD	GWDP4X673		0.03	37.4	1.61	10.3	0.28	1.5	15.2
4/21/2014	XX	GW401B6F3		0.031	30.2	1.45	8.8	0.2	1.1	11.4
4/21/2014	XD	GWDP4X6F6		0.032	29.3	1.65	9	0.22	1.1	11.6
7/28/2014	XX	GW401B6JA		0.023	36	1.63	9.6	0.18	1.2	13.6
7/28/2014	XD	GWDP4X6JD		0.027	35.9	1.68	9.8	0.18	1.2	12.7
10/20/2014	XX	GW401B731		0.026	38.8	1.95	10.9	0.16	1.4	16.2
10/20/2014	XD	GWDP4X734		0.026	37	1.89	10.4	0.15	1.3	15.1
4/27/2015	XX	GW401B78I		0.026	29.8	1.37	8.4	0.28	1	10.4
4/27/2015	XD	GWDP4X791		0.027	28.4	1.28	8.4	0.26	1	10.4
7/13/2015	XX	GW401B7CA		0.026	37	1.57	9.8	0.22	1.1	12.6
7/13/2015	XD	GWDP4X7CD		0.029	36.4	1.52	9.6	0.21	1.1	12.6
10/26/2015	XX	GW401B7HJ		0.027	35.4	2.13	10.6	0.22	1.3	13.6
10/26/2015	XD	GWDP3X7HG		0.028	37.2	2.17	10.7	0.22	1.3	13.5
4/6/2016	XD	GWDP4X86C		0.028	30.6	0.92	8.4	0.18	1	10.7
4/6/2016	XX	GW401B869		0.025	33.3	0.9	8.8	0.18	1	10.6
7/25/2016	XX	GW401B8AJ		0.058	43.3	2.79	12.1	0.19	1.4	13.9
10/24/2016	XD	GWDP1X8I4		0.015	43.1	2.02	12.3	0.13	1.5	15.7

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(MW-401B)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/24/2016	XX	GW401B8II		0.013	44.8	2.07	12.9	0.13	1.6	15.9
4/17/2017	XD	GWDP4X977		0.045	30	3	10	0.4	1.2	13
4/17/2017	XX	GW401B974		0.044	31	3	10	0.43	1.2	13
7/24/2017	XX	GW401B9D2		0.02	37	1.3	10	0.17	1	12
10/25/2017	XD	GWDP1X9G3		0.033	43	3.5	12	0.35	1.3	13
10/25/2017	XX	GW401B9GH		0.015	43	1.7	12	0.2	1.3	14
4/2/2018	XD	GWDP4XA2J	UF	0.013	40	0.55	11	0.08	1.3	14
4/2/2018	XX	GW401BA2G	UF	0.013	37	0.47	10	0.07	1.1	13
7/16/2018	XX	GW401BABH	UF	0.028	43	1.9	11	0.24	1.2	12
10/1/2018	XD	GWDP1XB01	UF	0.01	41	1.6	11	0.15	1.3	14
10/1/2018	XX	GW401BB0F	UF	0.01	42	1.9	12	0.17	1.4	13
4/22/2019	XD	GWDP4XB5F	UF	0.02	27	0.64	8	0.13	0.9	9.8
4/22/2019	XX	GW401BB5C	UF	0.021	26	0.63	8.1	0.13	0.9	9.7
7/15/2019	XD	GWDP4XBC7	UF	0.02	33	1.3	9.7	0.15	0.9	10
7/15/2019	XX	GW401BBC4	UF	0.02	34	1.4	10	0.16	1.1	11
10/28/2019	XD	GWDP1XBH3	UF	0.017	39	1.9	11	0.15	1.4	11
10/28/2019	XX	GW401BBHH	UF	0.013	38	1.6	10	0.13	1.2	10

MW-402A

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/27/2010	XX	GW402A3JA		0.016	11	0.02 U	2.8	0.02 U	0.6	8
7/21/2010	XX	GW402A42E		0.017	10.8	0.02 U	2.8	0.02 U	0.6	7.8
10/20/2010	XX	GW402A45I		0.017	13.8	0.02 U	3.2	0.02 U	0.7	10.3
4/27/2011	XX	GW402A49J		0.024	10.5	0.02 U	2.7	0.02 U	0.6	7.8
7/20/2011	XX	GW402A4DH		0.025	10.7	0.02 U	2.8	0.02 U	0.7	8.1
10/26/2011	XX	GW402A4HC		0.023	11	0.02 U	2.8	0.02 U	0.6	8.2
4/24/2012	XX	GW402A522		0.019	10.7	0.05 U	2.9	0.05 U	0.6	7.8
7/25/2012	XX	GW402A571		0.021	11.3	0.05 U	2.9	0.05 U	0.6	8.6
10/24/2012	XX	GW402A5DC		0.017	11.1	0.05 U	3.1	0.05 U	0.6	8.5
4/22/2013	XX	GW402A5I3		0.021	10.7	0.05 U	3	0.05 U	0.7	9.1
7/31/2013	XX	GW402A648		0.024	11.8	0.05 U	3.1	0.05 U	0.6	7.7
10/30/2013	XX	GW402A671		0.02	12.1	0.05 U	3	0.05 U	0.6	8.2
4/23/2014	XX	GW402A6F4		0.023	11.9	0.05 U	2.9	0.05 U	0.6	8.3
7/30/2014	XX	GW402A6JB		0.022	12	0.05 U	3	0.05 U	0.7	8.9
10/22/2014	XX	GW402A732		0.024	12.5	0.05 U	3	0.05 U	0.6	8.7
4/29/2015	XX	GW402A78J		0.023	11.6	0.05 U	3	0.05 U	0.6	8.8
7/15/2015	XX	GW402A7CB		0.025	11.4	0.05 U	2.8	0.05 U	0.6	8.4
10/28/2015	XX	GW402A7I0		0.021	10.5	0.05 U	2.8	0.05 U	0.5	7.4
4/27/2016	XX	GW402A86A		0.025	12.3	0.05 U	3.1	0.05 U	0.6	8.6
7/27/2016	XX	GW402A8B0		0.026	12.4	0.05 U	3.1	0.05 U	0.7	8.8
10/26/2016	XX	GW402A8IJ		0.017	11.7	0.05 U	3.2	0.05 U	0.6	8.9
4/19/2017	XX	GW402A975		0.019	11	0.05 U	3.3	0.05 U	0.6	8.8
7/26/2017	XX	GW402A9D3		0.016	11	0.05 U	2.9	0.05 U	0.6	7.9
10/26/2017	XX	GW402A9GI		0.019	13	0.05 U	3.2	0.05 U	0.5	7.7
4/4/2018	XX	GW402AA2H	UF	0.024	13	0.05 U	3.4	0.05 U	0.7	10
7/18/2018	XX	GW402AABI	UF	0.015	14	0.26	3	0.05 U	0.7	8.2
10/3/2018	XX	GW402AB0G	UF	0.024	12	0.05 U	3	0.05 U	0.6	8.5
4/24/2019	XX	GW402AB5D	UF	0.017	12	0.05 U	3.1	0.05 U	0.6	8.5
7/17/2019	XX	GW402ABC5	UF	0.02	12	0.05 U	3.4	0.05 U	0.7	10
10/30/2019	XX	GW402ABHI	UF	0.019	11	0.05 U	3.1	0.05 U	0.7	8.5

(MW-402B)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
MW-402B										
4/27/2010	XX	GW402B3JB		0.017	14.5	0.02 U	4.8	0.02 J	0.6	7.8
7/21/2010	XX	GW402B42F		0.018	14.5	0.02 U	4.8	0.02 J	0.7	7.6
10/20/2010	XX	GW402B45J		0.018	17.2	0.02 U	5.1	0.02 U	0.8	9.2
4/27/2011	XX	GW402B4A0		0.022	14.2	0.02 U	4.8	0.02 J	0.6	7.9
7/20/2011	XX	GW402B4DI		0.023	13.2	0.02 U	4.7	0.02 J	0.7	7.8
10/26/2011	XX	GW402B4HD		0.016	15	0.02 U	4.8	0.02 U	0.7	8.1
4/24/2012	XX	GW402B523		0.018	13.6	0.05 U	4.9	0.05 U	0.7	8.1
7/25/2012	XX	GW402B572		0.017	15	0.05 U	4.9	0.05 U	0.7	8.1
10/24/2012	XX	GW402B5DD		0.02	13.9	0.05 U	5.1	0.05 U	0.6	8.1
4/22/2013	XX	GW402B5I4		0.019	13.2	0.05 U	4.7	0.05 U	0.6	8.4
7/31/2013	XX	GW402B649		0.024	14.9	0.05 U	5	0.05 U	0.6	7.6
10/30/2013	XX	GW402B672		0.019	15.5	0.05 U	4.9	0.05 U	0.6	8.1
4/23/2014	XX	GW402B6F5		0.019	15.1	0.05 U	4.7	0.05 U	0.6	8
7/30/2014	XX	GW402B6JC		0.023	14.8	0.05 U	4.7	0.05 U	0.6	8.5
10/22/2014	XX	GW402B733		0.021	14.7	0.05 U	4.6	0.05 U	0.7	8.3
4/29/2015	XX	GW402B790		0.021	14.8	0.05 U	4.7	0.05 U	0.6	8
7/15/2015	XX	GW402B7CC		0.024	14.7	0.05 U	4.5	0.05 U	0.6	7.8
10/28/2015	XX	GW402B7I1		0.022	13.5	0.05 U	4.6	0.05 U	0.6	7.7
4/27/2016	XX	GW402B86B		0.031	15.6	0.05 U	5	0.05 U	0.6	8.2
7/27/2016	XX	GW402B8B1		0.023	15.3	0.05 U	4.8	0.05 U	0.6	8.3
10/26/2016	XX	GW402B8J0		0.022	14.8	0.18	5.2	0.05	0.7	9.4
4/19/2017	XX	GW402B976		0.021	13	0.05 U	4.9	0.05 U	0.7	8.3
7/26/2017	XX	GW402B9D4		0.021	14	0.05 U	4.6	0.05 U	0.6	8.1
10/26/2017	XX	GW402B9GJ		0.021	17	0.05 U	5.1	0.05 U	0.6	7.9
4/4/2018	XX	GW402BA2I	UF	0.019	16	0.06	5.3	0.05 U	0.7	9.1
7/18/2018	XX	GW402BABJ	UF	0.016	15	0.06	4.8	0.05 U	0.6	8.5
10/3/2018	XX	GW402BB0H	UF	0.019	16	0.05 U	4.8	0.05 U	0.6	8.8
4/24/2019	XX	GW402BB5E	UF	0.02	15	0.05 U	4.8	0.05 U	0.6	8.2
7/17/2019	XX	GW402BBC6	UF	0.017	13	0.05 U	5.2	0.05 U	0.7	9.8
10/30/2019	XX	GW402BBHJ	UF	0.02	14	0.05 U	4.8	0.05 U	0.7	8.1
MW-501										
4/5/2018	XX	GW501XA6I	UF	0.008	30	0.05 U	4.9	0.05 U	0.8	4.6
6/4/2018	XX	GW501XA7F	UF	0.009	30	0.05 U	5.5	0.05	0.7	4.1
7/19/2018	XX	GW501XAED	UF	0.005 U	30	0.05	5.4	0.06	0.7	3.9
8/20/2018	XX	GW501XAFE	UF	0.006	33	0.05 U	5.7	0.08	0.7	3.9
4/24/2019	XX	GW501XB7C	UF	0.005 U	47	0.17	6.8	0.21	0.8	5.1
7/17/2019	XX	GW501XBE0	UF	0.009	21	0.05 U	5.1	0.05 U	0.8	4.3
10/30/2019	XX	GW501XBJ9	UF	0.005 U	60	0.05 U	7.8	0.05 U	1	5.4
P-04-02										
4/26/2010	XX	GWXXXX405		0.009	22.6	0.02 U	6.5	0.02 U	1.1	6.5
7/21/2010	XX	GWXXXX439		0.009	23.6	0.02 U	7	0.02 U	1.3	6.6
10/20/2010	XX	GWXXXX46D		0.009	27	0.02 U	7.4	0.02 U	1.4	7.6
4/27/2011	XX	GWXXXX4AE		0.01	22.4	0.02 U	6.7	0.02 U	1.2	6.6
7/20/2011	XX	GWXXXX4EC		0.012	22.8	0.02 U	6.9	0.02 U	1.3	6.7
10/26/2011	XX	GWXXXX4I7		!	!	!	!	!	!	!
4/25/2012	XX	GWXXXX52H		0.007	16.3	1.43	5.1	0.07	1.7	11.2
4/25/2012	XX	GWXXXX588		0.005	16	0.27	4.6	0.05 U	1.6	11.4

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(P-04-02)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
7/25/2012	XX	GWXXXX57G		0.005 U	23.8	0.52	6.9	0.05	1.6	17.6
10/24/2012	XX	GWXXXX5E7		0.005	16.9	0.24	4.1	0.16	1.7	25.8
4/22/2013	XX	GWXXXX5II		!	!	!	!	!	!	!
P-04-02R										
7/15/2015	XX	GWXXXX7DJ		0.007	17.5	1.52	4.3	0.08	1.7	32.7
10/28/2015	XX	GWXXXX7J4		0.009	29.8	0.22	7.8	0.21	2	92
4/6/2016	XX	GWXXXX87I		0.015	29.3	0.05 U	7.9	0.05 U	1.6	61.8
7/27/2016	XX	GWXXXX8C7		0.016	37	0.05 U	9.4	0.05 U	2.4	112
10/26/2016	XX	GWXXXX904		0.008	35	0.05 U	10.2	0.05 U	2.5	98.9
4/19/2017	XX	GWXXXX98C		0.009	30	0.15	9.5	0.05 U	2.4	96
4/19/2017	XX	GWXXXX98H	FILT	0.007	29	0.05 U	9.3	0.05 U	2.3	87
7/26/2017	XX	GWXXXX9E8		0.008	30	0.05 U	8.4	0.05 U	2.3	78
7/26/2017	XX	GWXXXX9EA	FILT	0.005 U	29	0.05 U	7.8	0.05 U	1.8	65
10/25/2017	XX	GWXXXX9I3		0.007	32	0.07	8.6	0.05 U	2.1	73
4/4/2018	XX	GWXXXXA29	FILT	0.008	27	0.05 U	7.8	0.05 U	1.9	69
4/4/2018	XX	GWXXXXA44	UF	0.009	29	0.05 U	8.3	0.05 U	1.9	64
7/18/2018	XX	GWXXXXAD3	UF	0.006	28	0.05 U	7	0.05 U	1.8	56
7/18/2018	XX	GWXXXXAD5	FILT	0.005 U	27	0.05 U	7	0.05 U	1.6	45
10/3/2018	XX	GWXXXXB21	UF	0.005	28	0.05 U	7.9	0.05 U	1.8	51
4/22/2019	XX	GWXXXXB70	UF	0.007	27	0.05 U	7.5	0.05 U	1.9	50
7/17/2019	XX	GWXXXXBDA	UF	0.008	22	0.05 U	7.3	0.05 U	2	61
10/30/2019	XX	GWXXXXBJ2	UF	0.006	22	0.09	6.6	0.05 U	1.8	49
P-04-04										
4/26/2010	XX	GWXXXX406		0.007	20.5	0.02 U	4.8	0.02 U	1.3	3.9
7/21/2010	XX	GWXXXX43A		0.008	21.4	0.02 U	5.3	0.02 U	1.4	3.9
10/20/2010	XX	GWXXXX46E		0.008	24	0.02 U	5.5	0.02 U	1.6	4.5
4/27/2011	XX	GWXXXX4AF		0.011	20.9	0.02 U	5	0.02 U	1.3	4
7/20/2011	XX	GWXXXX4ED		0.01	20.8	0.02 U	5.1	0.02 U	1.3	3.7
10/26/2011	XX	GWXXXX4I8		0.002 U	22	0.02 U	5.2	0.02 U	1.4	3.7
4/25/2012	XX	GWXXXX52I		0.008	18.3	0.05 U	5.1	0.05 U	1.3	4.1
7/25/2012	XX	GWXXXX57H		0.005	21.2	0.05 U	5.2	0.05 U	1.3	4.2
10/24/2012	XX	GWXXXX5E8		0.01	19.9	0.05 U	5.8	0.05 U	1.3	4.2
4/24/2013	XX	GWXXXX5IJ		0.011	21.7	0.05 U	5.3	0.05 U	1.4	4.1
7/31/2013	XX	GWXXXX654		0.012	22	0.05 U	5.5	0.05 U	1.2	3.7
10/30/2013	XX	GWXXXX67E		0.008	21.7	0.05 U	5.2	0.05 U	1.2	3.6
4/23/2014	XX	GWXXXX6G0		0.012	21.7	0.05 U	5.2	0.05 U	1.4	4.1
7/30/2014	XX	GWXXXX703		0.008	22.3	0.05 U	5.2	0.05 U	1.4	4.3
10/22/2014	XX	GWXXXX73E		0.013	21.1	0.05 U	5	0.05 U	1.3	3.9
4/29/2015	XX	GWXXXX79B		0.012	21.9	0.05 U	5.2	0.05 U	1.3	4.3
7/15/2015	XX	GWXXXX7D3		0.014	20.4	0.05 U	4.9	0.05 U	1.3	3.9
10/28/2015	XX	GWXXXX7IC		0.011	21.6	0.05 U	4.9	0.05 U	1.2	3.7
4/6/2016	XX	GWXXXX872		0.009	21.5	0.05 U	4.9	0.05 U	1.3	3.8
7/27/2016	XX	GWXXXX8BC		0.012	23.3	0.05 U	5.4	0.05 U	1.4	4.1
10/26/2016	XX	GWXXXX8JB		0.009	21.7	0.05 U	5.7	0.05 U	1.4	4.4
4/19/2017	XX	GWXXXX97H		0.01	20	0.05 U	5.5	0.05 U	1.4	4.2
7/26/2017	XX	GWXXXX9DF		0.005	22	0.05 U	5.1	0.05 U	1.2	3.9
10/25/2017	XX	GWXXXX9HA		0.011	23	0.05 U	5.5	0.05 U	1.2	4.3
4/4/2018	XX	GWXXXXA39	UF	0.007	24	0.05 U	5.7	0.05 U	1.4	4.6

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(P-04-04)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
7/18/2018	XX	GWXXXXACA	UF	0.005	24	0.05 U	5.2	0.05 U	1.3	4
10/3/2018	XX	GWXXXXB18	UF	0.007	24	0.05 U	5.4	0.05 U	1.3	4.3
4/22/2019	XX	GWXXXXB65	UF	0.005 U	24	0.05 U	5.8	0.05 U	1.4	4.4
7/17/2019	XX	GWXXXXBCG	UF	0.007	21	0.05 U	5.9	0.05 U	1.5	4.9
10/30/2019	XX	GWXXXXBI9	UF	0.007	22	0.05 U	5.8	0.05 U	1.4	4.4

P-206A

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
7/31/2013	XX	GW206A64I		I	I	I	I	I	I	I
10/28/2013	XX	GW206A67B		0.01	11.1	4.26	3.5	0.2	1.3	8.4
4/21/2014	XX	GW206A6FJ		0.008	11.7	10.3	3.8	0.25	1.6	8.4
7/28/2014	XX	GW206A702		0.008	13.2	16.8	4	0.31	1.3	7.6
10/20/2014	XX	GW206A73B		0.009	11.9	4.6	3.2	0.15	0.9	7.3
4/27/2015	XX	GW206A79A		0.009	11.8	1.44	3.1	0.1	1	7.3
7/13/2015	XX	GW206A7D2		0.013	12.8	0.51	3.1	0.1	1	7.4
10/26/2015	XX	GW206A7IB		0.013	13	5.84	3.8	0.17	1	7.8
4/4/2016	XX	GW206A871		0.009	13.9	0.26	3.5	0.08	0.9	7.2
7/25/2016	XX	GW206A8BB		0.022	16.4	2.47	4.2	0.12	1	8.3
10/24/2016	XX	GW206A8JA		0.009	19.5	0.21	5	0.1	1.2	9.1
4/17/2017	XX	GW206A97G		0.01	19	1.6	5.2	0.11	1.2	9.1
7/24/2017	XX	GW206A9DE		0.006	20	0.31	5.1	0.08	0.9	9.3
10/23/2017	XX	GW206A9H9		0.007	22	0.46	5.6	0.08	1	9.1
4/2/2018	XX	GW206AA38	UF	0.007	22	0.44	6	0.09	1.2	11
7/16/2018	XX	GW206AAC9	UF	0.007	23	0.28	5.7	0.09	1.2	10
10/1/2018	XX	GW206AB17	UF	0.009	24	0.49	6.2	0.09	1.1	9.9
4/22/2019	XX	GW206AB64	UF	0.007	23	0.72	6.2	0.09	1.2	9.2
7/17/2019	XX	GW206ABCF	UF	0.006	19	0.22	6.1	0.07	1.3	9.7
10/28/2019	XX	GW206ABI8	UF	0.005	20	0.8	5.4	0.07	1.1	7.6

PWS10-1

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/26/2010	XX	GWPWS13IJ		0.008	17	2.25	4.5	0.18	1.9	7.6
7/19/2010	XX	GWPWS1423		0.015	35.2	30.3	12.2	0.72	2.8	9.6
10/18/2010	XX	GWPWS1457		0.009	34.6	0.63	9	0.05	1.5	9.1
4/25/2011	XX	GWPWS1498		0.013	18.4	2.97	7.5	0.1	1	7.6
7/18/2011	XX	GWPWS14D6		0.007	23.9	5.09	7.7	0.56	1.4	8.7
10/24/2011	XX	GWPWS14H1		0.002 U	20.7	4.27	6.9	0.35	1.1	6.7
4/23/2012	XX	GWPWS151B		0.007	16.3	0.48	5.1	0.07	0.6	7.9
7/23/2012	XX	GWPWS156A		0.005 U	9.8	3.47	3.2	0.4	0.5	5.1
10/22/2012	XX	GWPWS15D1		0.006	13.2	2.61	5.3	0.1	0.4	6.4
4/22/2013	XX	GWPWS15HC		0.011	30.9	1.35	9.3	0.09	1.8	10
7/29/2013	XX	GWPWS163H		0.005 U	18.9	4.66	6.3	0.31	1.3	7.2
10/28/2013	XX	GWPWS166A		0.005 U	9.5	1.56	3.4	0.09	0.7	5.6
4/21/2014	XX	GWPWS16ED		0.015	30.3	6.52	12.7	0.19	1.1	8.4
7/28/2014	XX	GWPWS16J0		0.005 U	27.2	4.06	7.4	0.26	2.1	8.1
10/20/2014	XX	GWPWS172A		0.005 U	6.8	0.55	2.3	0.05 U	0.7	5.1
4/27/2015	XX	GWPWS1788		0.019	30.8	1.33	8.4	0.06	1.2	8.5
7/13/2015	XX	GWPWS17C0		0.011	20.2	7.27	5.8	0.31	1.8	6.3
10/26/2015	XX	GWPWS17H9		0.01	8.7	1.18	2.7	0.07	0.5	4.7
4/4/2016	XX	GWPWS185J		0.005 U	26.6	2.36	7.4	0.1	0.4	8.1
7/25/2016	XX	GWPWS18A9		0.014	13.9	4.77	4.1	0.35	0.6	4.3
10/24/2016	XX	GWPWS18I8		0.005	38.1	8.08	10.4	0.92	0.9	8.5

(PWS10-1)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/17/2017	XX	GWPWS196E		0.007	10	0.34	3.1	0.06	0.7	6.6
7/24/2017	XX	GWPWS19CC		0.005 U	35	1.7	9.3	0.5	0.8	8.9
10/25/2017	XX	GWPWS19G7		0.011	20	5.8	6.3	0.31	0.8	7.2
4/2/2018	XX	GWPWS1A25	UF	0.005 U	19	0.07	4.9	0.28	1.2	7.1
7/16/2018	XX	GWPWS1AB7	UF	0.005	21	3.8	5.6	0.56	0.8	6.1
10/1/2018	XX	GWPWS1B05	UF	0.005	15	1.3	4.1	0.1	0.6	5.7
4/22/2019	XX	GWPWS1B51	UF	0.005 U	21	3.8	6.5	0.2	0.8	6.9
7/15/2019	XX	GWPWS1BBE	UF	0.01	9.9	4.1	2.9	0.8	0.5	6.3
10/28/2019	XX	GWPWS1BH7	UF	0.005 U	20	0.75	5.3	0.22	0.9	5.3

PWS10-2

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/26/2010	XX	GWPWS23J0		0.004 J	6.9	1.03	1.5	0.02 U	0.5	3.7
7/19/2010	XX	GWPWS2424		0.005	10.2	2.54	2.9	0.05	0.4	4.5
10/18/2010	XX	GWPWS2458		0.006	9.7	0.35	2.4	0.02 U	0.6	3.9
4/25/2011	XX	GWPWS2499		0.002 U	6.1	3.06	1.9	0.03 J	1.1	3.2
7/18/2011	XX	GWPWS24D7		0.003 J	15.2	0.9	3.9	0.43	0.7	5.1
10/24/2011	XX	GWPWS24H2		0.002 U	12.3	2.09	2.8	0.07	1.1	2.8
4/23/2012	XX	GWPWS251C		0.005 U	5.7	1.48	1.6	0.05 U	0.3 U	4.2
7/23/2012	XX	GWPWS256B		0.005 U	8.1	1.55	2.7	0.07	0.4	4.6
10/22/2012	XX	GWPWS25D2		0.005 U	6.6	0.32	1.4	0.05	0.8	2.9
4/22/2013	XX	GWPWS25HD		0.005 U	9.2	2.34	3.1	0.05 U	0.3 U	4.4
7/29/2013	XX	GWPWS263I		0.005 U	13.9	2.42	3.2	0.05 U	0.5	5.1
10/28/2013	XX	GWPWS266B		0.005 U	8.9	6.07	1.9	0.44	0.8	3.2
4/21/2014	XX	GWPWS26EE		0.005	10.1	4.83	3.4	0.17	1.1	3.5
7/28/2014	XX	GWPWS26J1		0.014	14.3	2.25	4	0.05 U	0.3 U	5.8
10/20/2014	XX	GWPWS272B		0.012	13.2	2.16	3	0.16	0.6	5.5
4/27/2015	XX	GWPWS2789		0.005 U	10.4	1.28	3.5	0.05	0.5	7.8
7/13/2015	XX	GWPWS27C1		0.01	12.3	13.8	4.7	0.4	1	4.4
10/26/2015	XX	GWPWS27HA		0.012	9.3	0.08	1.3	0.05 U	1.3	1.6
4/4/2016	XX	GWPWS2860		0.005	11.3	0.99	2.7	0.07	0.8	3.5
7/25/2016	XX	GWPWS28AA		0.015	13.1	1.23	3.5	0.06	0.3 U	3.6
10/24/2016	XX	GWPWS28I9		0.007	15.4	6.51	4.7	0.3	1.6	3.4
4/17/2017	XX	GWPWS296F		0.006	10	1.7	2.8	0.08	1	3.2
7/24/2017	XX	GWPWS29CD		0.005 U	16	0.93	4.1	0.14	0.3 U	5.1
10/24/2017	XX	GWPWS29G8		D	D	D	D	D	D	D
4/2/2018	XX	GWPWS2A26	UF	0.005 U	8.9	1.3	1.6	0.07	1.1	2.3
7/16/2018	XX	GWPWS2AB8	UF	0.005	15	1.6	3.7	0.26	0.4	4.6
10/1/2018	XX	GWPWS2B06	UF	0.005 U	14	0.61	3.1	0.06	0.4	4.2
4/22/2019	XX	GWPWS2B52	UF	0.005 U	8.7	0.05 U	1.2	0.05 U	1.3	4.8
7/15/2019	XX	GWPWS2BBF	UF	0.005	9.7	2.7	2.6	0.28	0.8	5.4
10/28/2019	XX	GWPWS2BH8	UF	0.005 U	9	0.45	1.2	0.94	1.1	2.9

PWS10-3

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
4/26/2010	XX	GWPWS33J1		0.003 J	25	0.34	3.6	0.02 J	0.7	3.8
7/19/2010	XX	GWPWS3425		0.004 J	17	20.8	4.3	0.72	0.9	4.2
10/18/2010	XX	GWPWS3459		0.005	7.4	2.26	2.4	0.11	0.3	5.8
4/25/2011	XX	GWPWS349A		0.011	17.8	1.69	3.4	0.05	0.2 J	3.9
7/18/2011	XX	GWPWS34D8		0.004 J	12.9	3.85	3.5	1.48	1.3	4.6
10/24/2011	XX	GWPWS34H3		0.002 U	10.6	4.95	2.4	0.09	0.1 J	2.5
4/23/2012	XX	GWPWS351D		0.005 U	5.1	0.64	2.3	0.05 U	0.3 U	3.5

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(PWS10-3)

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
			-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
7/23/2012	XX	GWPWS356C		0.005 U	6.2	1.54	2.3	0.12	0.3	4.2
10/22/2012	XX	GWPWS35D3		0.005 U	4.4	3.07	1.7	0.15	0.3 U	3.2
4/22/2013	XX	GWPWS35HE		0.005 U	4.9	1.42	1.8	0.05	0.4	3.9
7/29/2013	XX	GWPWS363J		0.005	13.3	11.4	3.9	0.51	1.1	5.6
10/28/2013	XX	GWPWS366C		0.006	6.2	1.53	2.3	0.09	0.5	4.5
4/21/2014	XX	GWPWS36EF		0.007	9.9	9.29	4.5	0.35	1.4	5.4
7/28/2014	XX	GWPWS36J2		0.005 U	7.5	5.45	2.2	0.22	0.7	5.3
10/20/2014	XX	GWPWS372D		0.006	6.2	1.2	2.2	0.07	0.6	5.2
4/27/2015	XX	GWPWS378A		0.005 U	4.8	1.78	1.7	0.08	0.6	2.6
7/13/2015	XX	GWPWS37C2		0.007	8	2.44	2.2	0.11	0.3 U	3.8
10/26/2015	XX	GWPWS37HB		0.01	8.1	1.57	2.6	0.15	0.3 U	4.2
4/4/2016	XX	GWPWS3861		0.005 U	20.6	0.48	3.6	0.05 U	0.6	4.2
7/25/2016	XX	GWPWS38AB		D	D	D	D	D	D	D
10/24/2016	XX	GWPWS38IA		0.005 U	17.1	0.22	5	0.1	0.3 U	6
4/17/2017	XX	GWPWS396G		0.005	6	1.5	2.1	0.34	0.9	3.5
7/24/2017	XX	GWPWS39CE		0.006	15	5.2	4.2	0.39	2.6	6.4
10/24/2017	XX	GWPWS39G9		D	D	D	D	D	D	D
4/2/2018	XX	GWPWS3A27	UF	0.005	3.5	0.17	1.3	0.05 U	0.6	3.8
7/16/2018	XX	GWPWS3AB9		D	D	D	D	D	D	D
10/1/2018	XX	GWPWS3B07	UF	0.005 U	9.6	0.37	3	0.05 U	0.6	6
4/22/2019	XX	GWPWS3B53	UF	0.005 U	4.3	0.34	1.6	0.05 U	1.1	8.6
7/15/2019	XX	GWPWS3BBG	UF	0.01	6.6	5.9	2.3	0.34	0.3	5.8
10/28/2019	XX	GWPWS3BH9	UF	0.005 U	3	0.7	0.7	0.21	0.6	0.5
SW-1										
4/28/2010	XX	SWXX1X3IG		0.002 U	6.9	0.56	2.1	0.05	0.5	5.3
7/20/2010	XX	SWXX1X420		0.008	33.7	19.4	10.7	0.49	2.9	8.4
10/19/2010	XX	SWXX1X454		0.002 U	6.4	0.4	2.1	0.02 U	0.2 J	5.4
4/26/2011	XX	SWXX1X495		0.005	5.4	0.32	1.7	0.02 U	0.5	5
7/19/2011	XX	SWXX1X4D3		0.009	26.2	10.9	7.4	1.1	1.5	8.4
10/25/2011	XX	SWXX1X4GI		0.002 U	7.5	0.53	2	0.02 J	0.3	4.5
4/24/2012	XX	SWXX1X518		0.005 U	5.4	0.23	1.8	0.05 U	1	5.1
7/24/2012	XX	SWXX1X567		0.01	10.6	2.32	3.6	0.25	0.8	5
10/23/2012	XX	SWXX1X5CI		0.005 U	11.6	0.3	2.6	0.05	1.1	4.1
4/23/2013	XX	SWXX1X5H9		0.005 U	5.2	0.24	1.9	0.05 U	1	6.3
7/30/2013	XX	SWXX1X63E		0.005 U	9.6	2.92	3.2	0.12	0.4	3.6
10/29/2013	XX	SWXX1X667		0.005 U	7.2	0.57	2.7	0.05 U	0.4	4.3
4/22/2014	XX	SWXX1X6EA		0.005 U	14.8	0.74	3.8	0.06	1	8
7/29/2014	XX	SWXX1X6IH		0.005 U	7.5	0.73	2.3	0.05 U	0.3	4.3
10/21/2014	XX	SWXX1X727		0.007	7.9	0.86	2.6	0.05 U	0.6	5.5
4/28/2015	XX	SWXX1X785		0.006	6.5	0.15	2.1	0.05 U	0.7	8.6
7/14/2015	XX	SWXX1X7BH		0.005 U	9.2	1.24	2.6	0.19	0.3	4.4
10/27/2015	XX	SWXX1X7H6		0.005 U	6.8	0.37	2.4	0.05 U	0.3	4.5
4/5/2016	XX	SWXX1X85G		0.005 U	5.7	0.08	1.9	0.05 U	0.4	6.6
7/26/2016	XX	SWXX1X8A6		0.012	22.6	8.95	6.9	0.41	1.1	6
10/25/2016	XX	SWXX1X8I5		0.005 U	9.5	0.71	2.9	0.05 U	0.7	4.9
4/18/2017	XX	SWXX1X96B		0.005 U	3.6	0.26	1.5	0.05 U	0.5	5.2
7/25/2017	XX	SWXX1X9C9		0.007	29	3.1	8.4	0.41	1.1	7.9
10/25/2017	XX	SWXX1X9G4		0.005 U	13	1.5	4	0.11	2.7	5.1
4/3/2018	XX	SWXX1XA22	UF	0.005 U	15	0.08	4.8	0.05 U	1	7.8

SUMMARY REPORT

Metals

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(SW-1)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
7/17/2018	XX	SWXX1XAB4	UF	0.01	28	9.8	7.1	0.73	0.9	6
10/2/2018	XX	SWXX1XB02	UF	0.005 U	16	0.89	4.2	0.09	0.6	6
4/23/2019	XX	SWXX1XB4I	UF	0.005 U	15	0.14	4.2	0.05 U	0.9	5
7/16/2019	XX	SWXX1XBBB	UF	0.006	10	4.8	3.3	1.1	0.5	6.5
10/29/2019	XX	SWXX1XBH4	UF	0.005 U	27	0.21	7.2	0.12	1.5	8

SW-2

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/28/2010	XX	SWXX2X3IH		0.003 J	4.5	0.31	1.7	0.04 J	0.5	5.3
4/28/2010	XD	SWDP2X3J2		0.005	4.6	0.32	1.7	0.04 J	0.5	5.4
7/20/2010	XX	SWXX2X421		0.002 J	5.9	0.68	2.1	0.06	0.6	4.1
7/20/2010	XD	SWDP2X426		0.002 J	5.7	0.67	2.1	0.06	0.5	4.1
10/19/2010	XX	SWXX2X455		0.002 U	5.8	0.44	2.1	0.02 J	0.1 J	5.6
10/19/2010	XD	SWDP2X45A		0.002 U	5.7	0.44	2	0.02 J	0.1 J	5.5
4/26/2011	XX	SWXX2X496		0.006	3.8	0.17	1.4	0.02 U	0.4	5.7
4/26/2011	XD	SWDP2X49B		0.006	3.6	0.17	1.3	0.02 U	0.3	5.4
7/19/2011	XX	SWXX2X4D4		0.002 U	8.2	1.17	2.7	0.03 J	0.6	4.4
7/19/2011	XD	SWDP2X4D9		0.002 J	7.5	1.23	2.6	0.03 J	0.6	4.2
10/25/2011	XX	SWXX2X4GJ		0.002 U	5.3	0.32	1.7	0.02 U	0.2 J	4.8
10/25/2011	XD	SWDP2X4H4		0.002 U	5.4	0.31	1.8	0.02 U	0.2 J	4.9
4/24/2012	XX	SWXX2X519		0.005 U	6.1	0.26	2.5	0.05 U	1.2	11.1
4/24/2012	XD	SWDP2X51E		0.005 U	6.3	0.27	2.6	0.05 U	1.2	11.3
7/24/2012	XX	SWXX2X568		0.005 U	6.1	1.41	2.5	0.09	0.3	4.1
10/23/2012	XX	SWXX2X5CJ		0.005 U	3.9	0.31	1.6	0.05 U	0.9	2.9
10/23/2012	XD	SWDP2X5D4		0.005 U	4	0.34	1.6	0.05 U	0.9	2.8
4/23/2013	XX	SWXX2X5HA		0.005 U	4.2	0.2	1.8	0.05 U	1.2	6.7
4/23/2013	XD	SWDP2X5HF		0.005	4.1	0.16	1.8	0.05 U	1.1	6.4
7/30/2013	XX	SWXX2X63F		0.005 U	6.6	1.1	2.3	0.05	0.3 U	3.2
10/29/2013	XX	SWXX2X668		0.005 U	5.3	0.32	2.2	0.05 U	0.3	4.2
10/29/2013	XD	SWDP2X66D		0.005 U	5	0.32	2.1	0.05 U	0.3	3.8
4/22/2014	XX	SWXX2X6EB		0.005 U	4.7	0.24	1.8	0.05 U	0.8	5.5
4/22/2014	XD	SWDP2X6EG		0.005 U	4.5	0.24	1.8	0.05 U	0.8	5.5
7/29/2014	XX	SWXX2X6II		0.005 U	5.9	1.52	2	0.12	0.3 U	4.2
10/21/2014	XX	SWXX2X728		0.005 U	6.3	0.5	2.2	0.05 U	0.6	5.3
10/21/2014	XD	SWDP2X72E		0.005 U	6.3	0.5	2.3	0.05 U	0.5	5.6
4/28/2015	XX	SWXX2X786		0.005 U	4.4	0.17	1.7	0.05 U	0.6	8.1
4/28/2015	XD	SWDP2X78B		0.005 U	4.4	0.17	1.7	0.05 U	0.6	8.1
7/14/2015	XX	SWXX2X7BI		0.005 U	7.1	0.89	2.2	0.19	0.4	4.1
10/27/2015	XX	SWXX2X7H7		0.005 U	4.8	0.21	1.8	0.05 U	0.3 U	4.1
10/27/2015	XD	SWDP2X7HC		0.005 U	4.8	0.21	1.9	0.05 U	0.3 U	4.6
4/5/2016	XD	SWDP2X862		0.005 U	4.5	0.07	1.8	0.05 U	0.4	6.7
4/5/2016	XX	SWXX2X85H		0.005 U	4.6	0.07	1.8	0.05 U	0.4	6.9
7/26/2016	XX	SWXX2X8A7		0.011	9.1	1.41	2.8	0.12	0.3 U	3
10/25/2016	XD	SWDP2X8IB		0.005 U	9	0.69	2.8	0.05 U	0.7	4.9
10/25/2016	XX	SWXX2X8I6		0.005 U	8.6	0.65	2.7	0.05 U	0.7	4.7
4/18/2017	XD	SWDP2X96H		0.007	3.4	0.25	1.4	0.05 U	0.5	5.5
4/18/2017	XX	SWXX2X96C		0.005	3.3	0.26	1.4	0.05 U	0.5	5.3
7/25/2017	XX	SWXX2X9CA		0.005 U	11	2.5	3.3	0.35	0.5	5.1
10/25/2017	XD	SWDP2X9GA		0.005	7.9	1.1	2.6	0.11	1.8	6
10/25/2017	XX	SWXX2X9G5		0.005 U	7.8	1.1	2.6	0.11	1.7	5.8
4/3/2018	XD	SWDP2XA28	UF	0.005 U	2.5	0.25	1	0.05 U	0.4	3.5

(SW-2)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/3/2018	XX	SWXX2XA23	UF	0.005 U	2.4	0.25	1	0.05 U	0.4	3.7
7/17/2018	XX	SWXX2XAB5	UF	0.006	10	3.1	2.9	0.34	0.4	4
10/2/2018	XD	SWDP2XB08	UF	0.005 U	9	0.65	3.3	0.05 U	0.6	6.3
10/2/2018	XX	SWXX2XB03	UF	0.005 U	9.2	1	3.3	0.05 U	0.6	6.3
4/23/2019	XD	SWDP2XB54	UF	0.005 U	4.5	0.5	1.8	0.05 U	1.4	8.7
4/23/2019	XX	SWXX2XB4J	UF	0.005 U	4.8	0.48	1.8	0.05 U	1.4	8.4
7/16/2019	XD	SWDP2XBBH	UF	0.005	6.1	1.7	2.4	0.29	0.3	7.9
7/16/2019	XX	SWXX2XBBC	UF	0.005 U	5.9	1.7	2.3	0.33	0.3 U	7.5
10/29/2019	XD	SWDP2XBHA	UF	0.005 U	4.8	0.28	1.9	0.05 U	0.3 U	4.5
10/29/2019	XX	SWXX2XBH5	UF	0.005 U	4.9	0.29	1.9	0.05 U	0.3 U	4.6

SW-3

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/28/2010	XX	SWXX3X3II		0.002 U	6.4	0.6	1.7	0.08	0.5	4.9
7/20/2010	XX	SWXX3X422		0.004 J	11.2	1.34	2.7	0.28	0.4	3.6
10/19/2010	XX	SWXX3X456		0.002 U	7.8	0.28	1.9	0.02 U	0.4	4.4
4/26/2011	XX	SWXX3X497		0.003 J	4.7	0.21	1.3	0.02 J	0.4	5.5
7/19/2011	XX	SWXX3X4D5		0.003 J	10.1	1.03	2.6	0.21	0.2 J	4.3
10/25/2011	XX	SWXX3X4H0		0.002 U	6.8	0.54	1.7	0.03 J	0.4	4.1
4/24/2012	XX	SWXX3X51A		0.005 U	4.3	0.26	1.2	0.05 U	0.7	2.9
7/24/2012	XX	SWXX3X569		0.005	10.1	1.34	3	0.46	0.5	5.4
7/24/2012	XD	SWDP2X56D		0.005 U	7.5	1.17	3	0.42	0.5	5.2
10/23/2012	XX	SWXX3X5D0		0.005 U	4.3	0.36	1.2	0.05 U	0.7	2.4
4/23/2013	XX	SWXX3X5HB		0.005 U	4.8	0.17	1.6	0.05 U	0.7	4.7
7/30/2013	XX	SWXX3X63G		0.005 U	8.4	0.8	2.2	0.07	0.3 U	3.1
7/30/2013	XD	SWDP2X640		0.005 U	8.6	0.79	2.2	0.07	0.3 U	3.1
10/29/2013	XX	SWXX3X669		0.005 U	7.5	0.46	2.6	0.05	0.5	4.5
4/22/2014	XX	SWXX3X6EC		0.005 U	4.4	0.19	1.3	0.05 U	0.6	4.9
7/29/2014	XX	SWXX3X6IJ		0.005 U	7.7	0.49	1.9	0.05 U	0.6	3.4
7/29/2014	XD	SWDP2X6J3		0.005 U	8.3	0.52	2	0.05 U	0.6	3.8
10/21/2014	XX	SWXX3X729		0.005 U	8	0.46	2.2	0.05 U	0.9	4.7
4/28/2015	XX	SWXX3X787		0.005	5	0.19	1.5	0.05 U	0.5	6.8
7/14/2015	XX	SWXX3X7BJ		0.005 U	8.1	0.84	2.2	0.43	0.5	4.3
7/14/2015	XD	SWDP2X7C3		0.005 U	8.2	0.91	2.2	0.45	0.4	4.3
10/27/2015	XX	SWXX3X7H8		0.005 U	6.2	0.21	1.9	0.05 U	0.4	4
4/5/2016	XX	SWXX3X85I		0.005 U	5.5	0.21	1.6	0.05 U	0.4	5.6
7/26/2016	XD	SWDP2X8AC		0.005	11.2	1.05	2.7	0.44	0.3 U	4
7/26/2016	XX	SWXX3X8A8		0.005 U	11.2	1.06	2.8	0.44	0.3 U	4.2
10/25/2016	XX	SWXX3X8I7		0.005 U	10.4	0.6	2.3	0.09	1	4.1
4/18/2017	XX	SWXX3X96D		0.006	3.4	0.2	1.1	0.05 U	0.4	4.2
7/25/2017	XD	SWDP2X9CF		0.005 U	12	1.5	3.3	0.81	0.3 U	6.9
7/25/2017	XX	SWXX3X9CB		0.005 U	12	1.2	3.1	0.63	0.3 U	6.7
10/25/2017	XX	SWXX3X9G6		0.008	9.7	0.6	2.4	0.28	2.4	11
4/3/2018	XX	SWXX3XA24	UF	0.005	3.8	0.19	1.4	0.05 U	0.4	7.2
7/17/2018	XD	SWDP2XABA	UF	0.007	13	3.3	2.7	1.2	0.5	7.3
7/17/2018	XX	SWXX3XAB6	UF	0.005	12	2.7	2.6	1	0.4	6.2
10/2/2018	XX	SWXX3XB04	UF	0.005 U	11	0.28	2.3	0.05 U	0.6	4
4/23/2019	XX	SWXX3XB50	UF	0.005 U	4.4	0.3	1.2	0.05 U	0.8	6.1
7/16/2019	XX	SWXX3XBBD	UF	0.005 U	8.3	2.1	2.2	0.51	1.1	4.8
10/29/2019	XX	SWXX3XBH6	UF	0.005 U	4.8	0.46	1.3	0.05 U	0.4	3.1

(SW-DP1)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
SW-DP1										
4/28/2010	XX	SWDP1X3J4		0.002 U	22.4	0.1	3.3	0.06	1.7	5.4
7/20/2010	XX	SWDP1X428		0.002 U	12.5	0.18	1.6	0.05	0.4	2.3
10/19/2010	XX	SWDP1X45C		0.002 U	15.9	0.15	1.4	0.02 J	1.4	2.8
4/26/2011	XX	SWDP1X49D		0.005	15.5	0.16	2.5	0.03 J	1.4	3.1
7/19/2011	XX	SWDP1X4DB		0.009	21.8	0.06	2.8	0.09	1.7	3
10/25/2011	XX	SWDP1X4H6		0.002 U	15.5	0.25	1.9	0.03 J	1.5	1.9
4/24/2012	XX	SWDP1X51G		0.005 U	13.9	2.94	2.3	0.13	1.9	2.1
7/24/2012	XX	SWDP1X56F		0.005	20.6	0.17	4.2	0.11	2.4	3.6
10/23/2012	XX	SWDP1X5D6		0.005 U	10.4	1.93	1.4	0.21	1.3	1.2
4/23/2013	XX	SWDP1X5HH		0.005	27.8	0.42	3.4	0.13	2.7	4.9
7/30/2013	XX	SWDP1X642		0.007	11	0.27	1.1	0.1	0.9	1.4
10/29/2013	XX	SWDP1X66F		0.005	24.2	0.24	3.6	0.21	1.8	3.5
4/22/2014	XX	SWDP1X6EI		0.006	10.8	0.31	1.5	0.05 U	1.2	1.8
7/29/2014	XX	SWDP1X6J5		0.005 U	6.7	0.29	0.7	0.05	0.6	0.8
10/21/2014	XX	SWDP1X72G		0.005	8	0.1	0.8	0.05 U	0.8	1
4/28/2015	XX	SWDP1X78D		0.008	13	0.23	1.4	0.08	1.1	3.2
7/14/2015	XX	SWDP1X7C5		0.005	14.4	0.23	1.7	0.08	0.3 U	1.7
10/27/2015	XX	SWDP1X7HE		0.005 U	8.4	0.12	1.1	0.05 U	1.3	1.6
4/5/2016	XX	SWDP1X864		0.005 U	12	0.53	1.7	0.05	1.2	2.4
7/26/2016	XX	SWDP1X8AE		0.013	17.1	0.29	2	0.08	1.4	2.1
10/25/2016	XX	SWDP1X8ID		0.005 U	11.6	0.7	1.1	0.06	1.3	1.3
4/18/2017	XX	SWDP1X96J		0.005	8.5	0.35	1.7	0.06	1	1.8
7/25/2017	XX	SWDP1X9CH		0.005 U	19	1	3.7	0.17	0.8	3.4
10/23/2017	XX	SWDP1X9GC		0.005	15	0.48	2.6	0.09	1.9	2.4
4/3/2018	XX	SWDP1XA2B	UF	0.005 U	3.8	0.17	0.4	0.05 U	0.6	0.8
7/17/2018	XX	SWDP1XABC	UF	0.007	13	0.9	1.6	0.08	0.3 U	0.8
10/2/2018	XX	SWDP1XB0A	UF	0.005 U	10	0.41	1.1	0.05	1.6	1.1
4/23/2019	XX	SWDP1XB57	UF	0.005 U	14	0.28	1.1	0.06	1.1	1.6
7/16/2019	XX	SWDP1XBBJ	UF	0.005	12	0.29	1.1	0.05	0.4	1.2
10/29/2019	XX	SWDP1XBHC	UF	0.005 U	15	1.4	1.7	0.14	2.1	1.6
SW-DP5										
4/23/2013	XX	SWDP5X60I		0.005 U	22.4	0.32	1.8	0.06	1.9	4.7
7/30/2013	XX	SWDP5X65H		0.006	14.4	0.33	0.8	0.05 U	1	1.9
10/29/2013	XX	SWDP5X686		D	D	D	D	D	D	D
4/22/2014	XX	SWDP5X6GD		0.005 U	19.7	1.34	1.6	0.17	2.2	5.4
7/29/2014	XX	SWDP5X70F		0.006	14.2	0.4	0.8	0.09	1.6	1.9
10/21/2014	XX	SWDP5X743		0.01	18.4	0.27	0.8	0.05 U	1.3	1.5
4/28/2015	XX	SWDP5X7A3		0.007	24.1	0.23	1.3	0.09	1.9	8.6
7/14/2015	XX	SWDP5X7DF		0.005 U	22.6	0.38	1.2	0.22	2.2	3.2
10/27/2015	XX	SWDP5X7J2		D	D	D	D	D	D	D
7/26/2016	XX	SWDP5X8C4		D	D	D	D	D	D	D
10/25/2016	XX	SWDP5X902		I	I	I	I	I	I	I
4/18/2017	XX	SWDP5X989		D	D	D	D	D	D	D
7/25/2017	XX	SWDP5X9E6		0.005 U	29	0.32	1.8	0.16	2.6	2.4
10/24/2017	XX	SWDP5X9I1		D	D	D	D	D	D	D
4/3/2018	XX	SWDP5XA41	UF	0.005 U	5.3	0.23	0.5	0.05 U	0.7	1.3
7/17/2018	XX	SWDP5XAD1		D	D	D	D	D	D	D

(SW-DP5)

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
10/2/2018	XX	SWDP5XB1J		D	D	D	D	D	D	D
4/23/2019	XX	SWDP5XB6H	UF	0.005 U	19	1.7	1.4	0.15	1.3	2.9
7/16/2019	XX	SWDP5XBD8	UF	0.005 U	14	0.23	0.9	0.13	1.4	1.5
10/29/2019	XX	SWDP5XBJ0	UF	0.005 U	16	1.1	1	0.25	1.3	1.2

SW-DP6

Date	Type	Sample ID	Filtration -	Arsenic mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Potassium mg/L	Sodium mg/L
4/28/2010	XX	SWDP6X3J5		0.011	29.8	1.52	3.8	0.96	1.5	6.3
7/20/2010	XX	SWDP6X429		0.006	31	1.02	3.5	0.36	2.9	6.7
10/19/2010	XX	SWDP6X45D		0.002 U	24.6	0.42	2.5	0.08	2.3	3.4
4/26/2011	XX	SWDP6X49E		0.003 J	19.1	0.28	1.9	0.06	1.9	6.4
7/19/2011	XX	SWDP6X4DC		0.009	63.3	0.12	7.3	0.09	3.2	7.5
10/25/2011	XX	SWDP6X4H7		0.002 U	39.4	0.17	4	0.06	2.4	6
4/24/2012	XX	SWDP6X51H		0.005 U	14.1	0.1	1.9	0.05 U	1.6	3.8
7/24/2012	XX	SWDP6X56G		0.006	11	1.32	2.5	0.79	3.4	2.2
10/23/2012	XX	SWDP6X5D7		0.005 U	6.6	2.63	1.9	0.16	1.9	1.4
4/23/2013	XX	SWDP6X5HI		0.005 U	5.6	1.39	1.3	0.05	1.6	3
7/30/2013	XX	SWDP6X643		0.005 U	10.2	0.31	1.4	0.05	1.1	1.8
10/29/2013	XX	SWDP6X66G		0.005 U	10.6	0.23	1.6	0.05 U	1.1	1.9
4/22/2014	XX	SWDP6X6EJ		0.005 U	10.4	0.99	1.1	0.24	1.3	5.4
7/29/2014	XX	SWDP6X6J6		0.005 U	7.7	1.29	1	0.05 U	1	2.6
10/21/2014	XX	SWDP6X72H		0.005 U	9.6	0.36	1.1	0.05 U	1	2
4/28/2015	XX	SWDP6X78E		0.006	11.1	0.7	1.1	0.05 U	1.5	2.8
7/14/2015	XX	SWDP6X7C6		0.005 U	12.4	2.46	2.4	0.46	2.3	2.7
10/27/2015	XX	SWDP6X7HF		0.005 U	8.4	0.19	1.4	0.05 U	1.3	1.5
4/5/2016	XX	SWDP6X865		0.005 U	8.2	0.57	1	0.05 U	1.1	2.8
7/26/2016	XX	SWDP6X8AF		0.009	18.5	0.6	1.7	0.08	1.6	2
10/25/2016	XX	SWDP6X8IE		0.005 U	14.6	1.85	1.5	0.09	1.9	1.6
4/18/2017	XX	SWDP6X970		0.005 U	5.3	0.64	0.8	0.11	1	3.5
7/25/2017	XX	SWDP6X9CI		0.005 U	8.5	1.4	1.5	0.05 U	0.7	5.1
10/23/2017	XX	SWDP6X9GD		0.005 U	10	0.26	1.4	0.05 U	1.3	4.3
4/3/2018	XX	SWDP6XA2C	UF	0.005 U	7.9	0.47	1.1	0.16	0.9	2.2
7/17/2018	XX	SWDP6XABD	UF	0.005	15	0.5	1.5	0.1	1.3	4.3
10/2/2018	XX	SWDP6XB0B	UF	0.005 U	16	0.23	1.7	0.05 U	1.5	3.5
4/23/2019	XX	SWDP6XB58	UF	0.005	8.1	1.3	1.2	0.1	1.6	3.5
7/16/2019	XX	SWDP6XBC0	UF	0.005	6.6	1.6	1.1	0.05 U	1.5	2.8
10/29/2019	XX	SWDP6XBHD	UF	0.005 U	4.6	0.38	0.7	0.05 U	0.9	1.3

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(SW-DP6)

Date	Type	Sample ID	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
			-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

! - The sampling location was damaged or destroyed.
D - The sampling location was dry.
F12 - Pipe under water, no sample taken.
F6 - No flow. Sample not taken.
H2 - Waterlevel higher than pipes. See LF-COMP for readings
I - The sampling location yielded insufficient quantity to collect a sample.
J - Analyte was positively identified/Associated value is an estimate.
U - Not Detected above the laboratory reporting limit.

Sample collection notes:

FILT - One or more analytical parameters were field filtered.
UF - No analytical parameters were field filtered

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-COMP)

Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
LF-COMP																	
4/24/2012	XX	LFXXXX53B	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
LF-UD-1																	
4/27/2010	XX	LFUD1X3JD	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD1X4A2	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD1X525	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD1X5I6	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2014	XX	LFUD1X6F7	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/28/2015	XX	LFUD1X792	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/5/2016	XX	LFUD1X86D	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/18/2017	XX	LFUD1X978	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	LFUD1XA30	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	LFUD1XB5G	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
LF-UD-10																	
4/3/2018	XX	LFXXXXA48	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB74	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-2																	
4/27/2010	XX	LFUD2X3JE	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD2X4A3	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD2X526	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD2X5I7	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2014	XX	LFUD2X6F8	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/28/2015	XX	LFUD2X793	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/5/2016	XX	LFUD2X86E	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/18/2017	XX	LFUD2X979	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	LFUD2XA31	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	LFUD2XB5H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-3A,B																	
4/27/2010	XX	LFXXXX40C	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/26/2011	XX	LFXXXX4B1	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX534	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J5	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFXXXX6G6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79G	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX877	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFXXXX982	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6A	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-4																	
4/27/2010	XX	LFXXXX40E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFXXXX4B3	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
4/24/2012	XX	LFXXXX536	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J6	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2014	XX	LFXXXX6G7	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/28/2015	XX	LFXXXX79H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX878	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6

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(LF-UD-4)

Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
4/18/2017	XX	LFXXXX983	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	LFXXXXA3F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6B	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-5and6																	
4/26/2011	XX	LFXXXX4B4	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX537	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2013	XX	LFXXXX5J7	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2014	XX	LFXXXX6G8	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/28/2015	XX	LFXXXX79I	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/5/2016	XX	LFXXXX879	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/18/2017	XX	LFXXXX984	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	LFXXXXA3G	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	LFXXXXB6C	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
LF-UD-6																	
4/26/2011	XX	LFUD6X4B6	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD6X539	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2013	XX	LFUD6X5J9	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2014	XX	LFUD6X6GA	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/28/2015	XX	LFUD6X7A0	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/5/2016	XX	LFUD6X87B	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/18/2017	XX	LFUD6X986	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	LFUD6XA3I	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	LFUD6XB6E	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
LF-UD-7																	
4/24/2012	XX	LFUD7X53A	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD7X5JA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFUD7X6GB	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFUD7X7A1	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD7X87C	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD7X987	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD7XA3J	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD7XB6F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8																	
4/23/2013	XX	LFUD8X5JD	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2014	XX	LFUD8X6GC	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
4/28/2015	XX	LFUD8X7A2	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/5/2016	XX	LFUD8X87D	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD8X988	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	LFUD8XA40	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	LFUD8XB6G	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
LF-UD-9																	
4/5/2016	XX	LFUD9X881	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD9X98F	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	LFUD9XA47	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD9XB73	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-1																	

(LP-UD-1) Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
4/27/2010	XX	LPUD1X3JF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LPUD1X527	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LPUD1X6F9	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LPUD1X794	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LPUD1X86F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LPUD1X97A	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LPUD1XA32	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LPUD1XB5I	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
LP-UD-2																	
4/27/2010	XX	LPUD2X3JG	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/26/2011	XX	LPUD2X4A5	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/24/2012	XX	LPUD2X528	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2013	XX	LPUD2X5I9	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2014	XX	LPUD2X6FA	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/28/2015	XX	LPUD2X795	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/5/2016	XX	LPUD2X86G	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/18/2017	XX	LPUD2X97B	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	LPUD2XA33	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	LPUD2XB5J	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
MW-401B																	
4/27/2010	XX	GW401B3J9	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/27/2010	XD	GWDP4X3JC	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/25/2011	XX	GW401B49I	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/25/2011	XD	GWDP4X4A1	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/23/2012	XX	GW401B521	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2012	XD	GWDP4X524	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2013	XX	GW401B5I2	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2013	XD	GWDP4X5I5	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/21/2014	XX	GW401B6F3	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/21/2014	XD	GWDP4X6F6	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/27/2015	XX	GW401B78I	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/27/2015	XD	GWDP4X791	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/6/2016	XD	GWDP4X86C	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/6/2016	XX	GW401B869	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/17/2017	XD	GWDP4X977	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/17/2017	XX	GW401B974	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/2/2018	XD	GWDP4XA2J	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/2/2018	XX	GW401BA2G	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2019	XD	GWDP4XB5F	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2019	XX	GW401BB5C	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
OW-06-03																	
4/10/2018	XX	GWXXXXA73	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/5/2018	XX	GWXXXXA80	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
7/19/2018	XX	GWXXXXAEI	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
OW-601A																	

SUMMARY REPORT

VOA Part 1 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
(OW-601A)																	
4/11/2018	XX	GW601AA69	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/6/2018	XX	GW601AA76	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/19/2018	XX	GW601AAE4	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
OW-601B																	
4/11/2018	XX	GW601BA6A	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/6/2018	XX	GW601BA77	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
OW-602A																	
4/11/2018	XX	GW602AA6B	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/6/2018	XD	GWDP1XA75	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/6/2018	XX	GW602AA78	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
OW-603B																	
4/12/2018	XX	GW603BA6C	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/5/2018	XX	GW603BA79	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
OW-604A																	
4/12/2018	XX	GW604AA6D	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/4/2018	XX	GW604AA7A	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
QCBT																	
4/26/2010	XX	BTXXXX40A	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	1 U	0.5 U	0.5 U	5 U	14	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/24/2012	XX	BTXXXX533	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/25/2012	XX	BTXXXX538	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	2.5 U	1 U	1 U	1 U	3 U	5 U	5 U	0.5 U	0.75 U	0.75 U	0.75 U	0.5 U	5 U	0.5 U	0.5 U
10/29/2013	XX	BTXXXX68C	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/21/2014	XX	BTXXXX6G4	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/22/2014	XX	BTXXXX6G5	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
7/30/2014	XX	BTXXXX70B	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
10/21/2014	XX	BTXXXX748	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/27/2015	XX	BTXXXX79E	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/27/2015	XX	BTXXXX79F	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/27/2015	XX	BTXXXX79J	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
7/15/2015	XX	BTXXXX7DB	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
10/27/2015	XX	BTXXXX7II	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U

REPORT PREPARED: 3/6/2020 07:22 FOR: Juniper Ridge Landfill	SUMMARY REPORT VOA Part 1 of 4	 SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021

(QCBT)

Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
4/5/2016	XX	BTXXXX87GX	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/5/2016	XX	BTXXXX876	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/6/2016	XX	BTXXXX875	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
7/26/2016	XX	BTXXXX8BF	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
10/25/2016	XX	BTXXXX8JE	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/17/2017	XX	BTXXXX985	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/18/2017	XX	BTXXXX980	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/18/2017	XX	BTXXXX981	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/25/2017	XX	BTXXXX9DI	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/24/2017	XX	BTXXXX9HD	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/2/2018	XX	BTXXXXA3C	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	BTXXXXA3H	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	BTXXXXHHD	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	BTXXXXHG3	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/4/2018	XX	BTXXXXA5F	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/5/2018	XX	BTXXXXA71	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/10/2018	XX	BTXXXXA72	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/11/2018	XX	BTXXXXHHB	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/12/2018	XX	BTXXXXHHC	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/4/2018	XX	BTXXXXA74	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/5/2018	XX	BTXXXXA7I	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/6/2018	XX	BTXXXXA7J	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/17/2018	XX	BTXXXXACD	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/19/2018	XX	BTXXXXAE2	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
8/20/2018	XX	BTXXXXAF3	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/2/2018	XX	BTXXXXB1B	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2019	XX	BTXXXXB6D	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	BTXXXXB69	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	BTXXXXB68	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/16/2019	XX	BTXXXXBCJ	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/29/2019	XX	BTXXXXBIC	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

F12 - Pipe under water, no sample taken.
F6 - No flow. Sample not taken.
H2 - Waterlevel higher than pipes. See LF-COMP for readings
I - The sampling location yielded insufficient quantity to collect a sample.
U - Not Detected above the laboratory reporting limit.

REPORT PREPARED: 3/6/2020 07:22

FOR: Juniper Ridge Landfill

SUMMARY REPORT

VOA Part 2 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-COMP)

Date	Type	Sample ID	Vinyl Acetate	Bromo dichloro methane	1,2-Dichloro propane	cis-1,3-Dichloro propene	Trichloroethene	Dibromo chloromethane	1,1,2-Trichloroethane	Benzene	trans-1,3-Dichloro propene	Bromoform	4-Methyl-2-Pentanone	2-Hexanone	Tetrachloro ethene	1,1,2,2-Tetrachloro ethane	Toluene
			ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LF-COMP																	
4/24/2012	XX	LFXXXX53B	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
LF-UD-1																	
4/27/2010	XX	LFUD1X3JD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD1X4A2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD1X525	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD1X5I6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2014	XX	LFUD1X6F7	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/28/2015	XX	LFUD1X792	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/5/2016	XX	LFUD1X86D	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/18/2017	XX	LFUD1X978	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	LFUD1XA30	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	LFUD1XB5G	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
LF-UD-10																	
4/3/2018	XX	LFXXXXA48	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB74	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-2																	
4/27/2010	XX	LFUD2X3JE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD2X4A3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD2X526	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD2X5I7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2014	XX	LFUD2X6F8	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/28/2015	XX	LFUD2X793	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/5/2016	XX	LFUD2X86E	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/18/2017	XX	LFUD2X979	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	LFUD2XA31	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	LFUD2XB5H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-3A,B																	
4/27/2010	XX	LFXXXX40C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFXXXX4B1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX534	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J5	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFXXXX6G6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79G	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX877	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFXXXX982	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6A	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-4																	
4/27/2010	XX	LFXXXX40E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFXXXX4B3	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
4/24/2012	XX	LFXXXX536	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2014	XX	LFXXXX6G7	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/28/2015	XX	LFXXXX79H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX878	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

Date	Type	Sample ID	Vinyl Acetate	Bromo dichloro methane	1,2-Dichloro propane	cis-1,3-Dichloro propene	Trichloroethene	Dibromo chloromethane	1,1,2-Trichloroethane	Benzene	trans-1,3-Dichloro propene	Bromoform	4-Methyl-2-Pentanone	2-Hexanone	Tetrachloro ethene	1,1,2,2-Tetrachloro ethane	Toluene
			ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(LF-UD-4)																	
4/18/2017	XX	LFXXXX983	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	LFXXXXA3F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6B	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-5and6																	
4/26/2011	XX	LFXXXX4B4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX537	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/23/2013	XX	LFXXXX5J7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2014	XX	LFXXXX6G8	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/28/2015	XX	LFXXXX79I	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/5/2016	XX	LFXXXX879	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/18/2017	XX	LFXXXX984	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	LFXXXXA3G	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	LFXXXXB6C	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
LF-UD-6																	
4/26/2011	XX	LFUD6X4B6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD6X539	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1.5	1 U	1 U
4/23/2013	XX	LFUD6X5J9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2014	XX	LFUD6X6GA	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/28/2015	XX	LFUD6X7A0	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/5/2016	XX	LFUD6X87B	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/18/2017	XX	LFUD6X986	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	LFUD6XA3I	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	LFUD6XB6E	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
LF-UD-7																	
4/24/2012	XX	LFUD7X53A	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD7X5JA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFUD7X6GB	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFUD7X7A1	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD7X87C	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD7X987	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD7XA3J	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD7XB6F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8																	
4/23/2013	XX	LFUD8X5JD	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2014	XX	LFUD8X6GC	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
4/28/2015	XX	LFUD8X7A2	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/5/2016	XX	LFUD8X87D	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD8X988	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	LFUD8XA40	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	LFUD8XB6G	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
LF-UD-9																	
4/5/2016	XX	LFUD9X881	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD9X98F	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	LFUD9XA47	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD9XB73	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-1																	

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

Date	Type	Sample ID	Vinyl Acetate	Bromo dichloro methane	1,2-Dichloro propane	cis-1,3-Dichloro propene	Trichloroethene	Dibromo chloromethane	1,1,2-Trichloroethane	Benzene	trans-1,3-Dichloro propene	Bromoform	4-Methyl-2-Pentanone	2-Hexanone	Tetrachloro ethene	1,1,2,2-Tetrachloro ethane	Toluene
			ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(LP-UD-1)																	
4/27/2010	XX	LPUD1X3JF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LPUD1X527	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LPUD1X6F9	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LPUD1X794	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LPUD1X86F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LPUD1X97A	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LPUD1XA32	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LPUD1XB5I	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
LP-UD-2																	
4/27/2010	XX	LPUD2X3JG	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LPUD2X4A5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LPUD2X528	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/23/2013	XX	LPUD2X5I9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2014	XX	LPUD2X6FA	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/28/2015	XX	LPUD2X795	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/5/2016	XX	LPUD2X86G	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/18/2017	XX	LPUD2X97B	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	LPUD2XA33	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	LPUD2XB5J	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
MW-401B																	
4/27/2010	XX	GW401B3J9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XD	GWDP4X3JC	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	GW401B49I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XD	GWDP4X4A1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	GW401B521	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/23/2012	XD	GWDP4X524	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2013	XX	GW401B5I2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2013	XD	GWDP4X5I5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/21/2014	XX	GW401B6F3	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/21/2014	XD	GWDP4X6F6	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/27/2015	XX	GW401B78I	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/27/2015	XD	GWDP4X791	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/6/2016	XD	GWDP4X86C	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/6/2016	XX	GW401B869	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/17/2017	XD	GWDP4X977	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/17/2017	XX	GW401B974	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/2/2018	XD	GWDP4XA2J	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/2/2018	XX	GW401BA2G	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/22/2019	XD	GWDP4XB5F	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/22/2019	XX	GW401BB5C	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
OW-06-03																	
4/10/2018	XX	GWXXXXA73	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/5/2018	XX	GWXXXXA80	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
7/19/2018	XX	GWXXXXAEI	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
OW-601A																	

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Date	Type	Sample ID	Vinyl Acetate ug/L	Bromo dichloro methane ug/L	1,2-Dichloro propane ug/L	cis-1,3-Dichloro propene ug/L	Trichloroethene ug/L	Dibromo chloromethane ug/L	1,1,2-Trichloroethane ug/L	Benzene ug/L	trans-1,3-Dichloro propene ug/L	Bromoform ug/L	4-Methyl-2-Pentanone ug/L	2-Hexanone ug/L	Tetrachloro ethene ug/L	1,1,2,2-Tetrachloro ethane ug/L	Toluene ug/L
(OW-601A)																	
4/11/2018	XX	GW601AA69	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1.1	1 U	1 U
6/6/2018	XX	GW601AA76	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
7/19/2018	XX	GW601AAE4	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
OW-601B																	
4/11/2018	XX	GW601BA6A	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/6/2018	XX	GW601BA77	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
OW-602A																	
4/11/2018	XX	GW602AA6B	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/6/2018	XD	GWDP1XA75	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/6/2018	XX	GW602AA78	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
OW-603B																	
4/12/2018	XX	GW603BA6C	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/5/2018	XX	GW603BA79	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
OW-604A																	
4/12/2018	XX	GW604AA6D	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/4/2018	XX	GW604AA7A	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
QCBT																	
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/24/2012	XX	BTXXXX533	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/25/2012	XX	BTXXXX538	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	5 U	0.5 U	1.8 U	0.5 U	0.5 U	0.5 U	0.75 U	0.5 U	0.5 U	2 U	5 U	5 U	0.5 U	0.5 U	0.75 U
10/29/2013	XX	BTXXXX68C	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/21/2014	XX	BTXXXX6G4	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/22/2014	XX	BTXXXX6G5	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
7/30/2014	XX	BTXXXX70B	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
10/21/2014	XX	BTXXXX748	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/27/2015	XX	BTXXXX79E	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/27/2015	XX	BTXXXX79F	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/27/2015	XX	BTXXXX79J	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
7/15/2015	XX	BTXXXX7DB	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
10/27/2015	XX	BTXXXX7II	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(QCBT)

Date	Type	Sample ID	Vinyl Acetate ug/L	Bromo dichloro methane ug/L	1,2-Dichloro propane ug/L	cis-1,3-Dichloro propene ug/L	Trichloroethene ug/L	Dibromo chloromethane ug/L	1,1,2-Trichloroethane ug/L	Benzene ug/L	trans-1,3-Dichloro propene ug/L	Bromoform ug/L	4-Methyl-2-Pentanone ug/L	2-Hexanone ug/L	Tetrachloro ethene ug/L	1,1,2,2-Tetrachloro ethane ug/L	Toluene ug/L
4/5/2016	XX	BTXXXX87GX	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/5/2016	XX	BTXXXX876	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/6/2016	XX	BTXXXX875	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
7/26/2016	XX	BTXXXX8BF	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
10/25/2016	XX	BTXXXX8JE	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/17/2017	XX	BTXXXX985	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/18/2017	XX	BTXXXX980	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/18/2017	XX	BTXXXX981	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
7/25/2017	XX	BTXXXX9DI	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
10/24/2017	XX	BTXXXX9HD	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/2/2018	XX	BTXXXXA3C	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	BTXXXXA3H	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	BTXXXXHHD	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	BTXXXXHG3	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/4/2018	XX	BTXXXXA5F	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/5/2018	XX	BTXXXXA71	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/10/2018	XX	BTXXXXA72	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/11/2018	XX	BTXXXXHHB	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/12/2018	XX	BTXXXXHHC	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/4/2018	XX	BTXXXXA74	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/5/2018	XX	BTXXXXA7I	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
6/6/2018	XX	BTXXXXA7J	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
7/17/2018	XX	BTXXXXACD	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
7/19/2018	XX	BTXXXXAE2	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
8/20/2018	XX	BTXXXXAF3	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
10/2/2018	XX	BTXXXXB1B	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/22/2019	XX	BTXXXXB6D	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	BTXXXXB69	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	BTXXXXB68	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
7/16/2019	XX	BTXXXXBCJ	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
10/29/2019	XX	BTXXXXBIC	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

F12 - Pipe under water, no sample taken.
F6 - No flow. Sample not taken.
H2 - Waterlevel higher than pipes. See LF-COMP for readings
I - The sampling location yielded insufficient quantity to collect a sample.
U - Not Detected above the laboratory reporting limit.

REPORT PREPARED: 3/6/2020 07:22

FOR: Juniper Ridge Landfill

SUMMARY REPORT

VOA Part 3 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-COMP)

Date	Type	Sample ID	Chlorobenzene ug/L	Ethylbenzene ug/L	Styrene ug/L	o-Xylene ug/L	m,p-Xylene ug/L	Tetra hydrofuran ug/L	Trichloro fluoromethane ug/L	cis-1,2-Dichloroethene ug/L	Bromochloro methane ug/L	Dibromo methane ug/L	1,2-Dibromoethane ug/L	1,1,1,2-Tetrachloro ethane ug/L	1,2,3-Trichloro propane ug/L	1,2-Dibromo-3-Chloropropane ug/L	1,4-Dichloro benzene ug/L
LF-COMP																	
4/24/2012	XX	LFXXXX53B	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LF-UD-1																	
4/27/2010	XX	LFUD1X3JD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD1X4A2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD1X525	H2	H2	H2	H2	H2		H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD1X5I6	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2014	XX	LFUD1X6F7	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/28/2015	XX	LFUD1X792	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/5/2016	XX	LFUD1X86D	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/18/2017	XX	LFUD1X978	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LFUD1XA30	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	LFUD1XB5G	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
LF-UD-10																	
4/3/2018	XX	LFXXXXA48	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB74	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-2																	
4/27/2010	XX	LFUD2X3JE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD2X4A3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD2X526	H2	H2	H2	H2	H2		H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD2X5I7	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2014	XX	LFUD2X6F8	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/28/2015	XX	LFUD2X793	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/5/2016	XX	LFUD2X86E	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/18/2017	XX	LFUD2X979	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LFUD2XA31	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	LFUD2XB5H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-3A,B																	
4/27/2010	XX	LFXXXX40C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFXXXX4B1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX534	H2	H2	H2	H2	H2		H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J5	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFXXXX6G6	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFXXXX79G	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX877	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFXXXX982	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6A	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-4																	
4/27/2010	XX	LFXXXX40E	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFXXXX4B3	F12	F12	F12	F12	F12		F12	F12	F12	F12	F12	F12	F12	F12	F12
4/24/2012	XX	LFXXXX536	H2	H2	H2	H2	H2		H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J6	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2014	XX	LFXXXX6G7	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/28/2015	XX	LFXXXX79H	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFXXXX878	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

Date	Type	Sample ID	Chlorobenzene ug/L	Ethylbenzene ug/L	Styrene ug/L	o-Xylene ug/L	m,p-Xylene ug/L	Tetra hydrofuran ug/L	Trichloro fluoromethane ug/L	cis-1,2-Dichloroethene ug/L	Bromochloro methane ug/L	Dibromo methane ug/L	1,2-Dibromoethane ug/L	1,1,1,2-Tetrachloro ethane ug/L	1,2,3-Trichloro propane ug/L	1,2-Dibromo-3-Chloropropane ug/L	1,4-Dichloro benzene ug/L
(LF-UD-4)																	
4/18/2017	XX	LFXXXX983	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LFXXXXA3F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6B	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-5and6																	
4/26/2011	XX	LFXXXX4B4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX537	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LFXXXX5J7	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2014	XX	LFXXXX6G8	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/28/2015	XX	LFXXXX79I	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/5/2016	XX	LFXXXX879	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/18/2017	XX	LFXXXX984	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LFXXXXA3G	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	LFXXXXB6C	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
LF-UD-6																	
4/26/2011	XX	LFUD6X4B6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD6X539	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LFUD6X5J9	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2014	XX	LFUD6X6GA	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/28/2015	XX	LFUD6X7A0	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/5/2016	XX	LFUD6X87B	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/18/2017	XX	LFUD6X986	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LFUD6XA3I	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	LFUD6XB6E	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
LF-UD-7																	
4/24/2012	XX	LFUD7X53A	H2	H2	H2	H2	H2		H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD7X5JA	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LFUD7X6GB	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LFUD7X7A1	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LFUD7X87C	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD7X987	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD7XA3J	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD7XB6F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8																	
4/23/2013	XX	LFUD8X5JD	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2014	XX	LFUD8X6GC	F12	F12	F12	F12	F12		F12	F12	F12	F12	F12	F12	F12	F12	F12
4/28/2015	XX	LFUD8X7A2	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/5/2016	XX	LFUD8X87D	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD8X988	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LFUD8XA40	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	LFUD8XB6G	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
LF-UD-9																	
4/5/2016	XX	LFUD9X881	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD9X98F	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LFUD9XA47	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD9XB73	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-1																	

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LP-UD-1)

Date	Type	Sample ID	Chlorobenzene ug/L	Ethylbenzene ug/L	Styrene ug/L	o-Xylene ug/L	m,p-Xylene ug/L	Tetra hydrofuran ug/L	Trichloro fluoromethane ug/L	cis-1,2-Dichloroethene ug/L	Bromochloro methane ug/L	Dibromo methane ug/L	1,2-Dibromoethane ug/L	1,1,1,2-Tetrachloro ethane ug/L	1,2,3-Trichloro propane ug/L	1,2-Dibromo-3-Chloropropane ug/L	1,4-Dichloro benzene ug/L
4/27/2010	XX	LPUD1X3JF	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LPUD1X527	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014	XX	LPUD1X6F9	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015	XX	LPUD1X794	F6	F6	F6	F6	F6		F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/2016	XX	LPUD1X86F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017	XX	LPUD1X97A	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018	XX	LPUD1XA32	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019	XX	LPUD1XB5I	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U

LP-UD-2

Date	Type	Sample ID	Chlorobenzene ug/L	Ethylbenzene ug/L	Styrene ug/L	o-Xylene ug/L	m,p-Xylene ug/L	Tetra hydrofuran ug/L	Trichloro fluoromethane ug/L	cis-1,2-Dichloroethene ug/L	Bromochloro methane ug/L	Dibromo methane ug/L	1,2-Dibromoethane ug/L	1,1,1,2-Tetrachloro ethane ug/L	1,2,3-Trichloro propane ug/L	1,2-Dibromo-3-Chloropropane ug/L	1,4-Dichloro benzene ug/L
4/27/2010	XX	LPUD2X3JG	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LPUD2X4A5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LPUD2X528	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LPUD2X5I9	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2014	XX	LPUD2X6FA	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/28/2015	XX	LPUD2X795	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/5/2016	XX	LPUD2X86G	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/18/2017	XX	LPUD2X97B	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LPUD2XA33	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	LPUD2XB5J	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U

MW-401B

Date	Type	Sample ID	Chlorobenzene ug/L	Ethylbenzene ug/L	Styrene ug/L	o-Xylene ug/L	m,p-Xylene ug/L	Tetra hydrofuran ug/L	Trichloro fluoromethane ug/L	cis-1,2-Dichloroethene ug/L	Bromochloro methane ug/L	Dibromo methane ug/L	1,2-Dibromoethane ug/L	1,1,1,2-Tetrachloro ethane ug/L	1,2,3-Trichloro propane ug/L	1,2-Dibromo-3-Chloropropane ug/L	1,4-Dichloro benzene ug/L
4/27/2010	XX	GW401B3J9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XD	GWDP4X3JC	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	GW401B49I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XD	GWDP4X4A1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	GW401B521	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2012	XD	GWDP4X524	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XX	GW401B5I2	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XD	GWDP4X5I5	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/21/2014	XX	GW401B6F3	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/21/2014	XD	GWDP4X6F6	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/27/2015	XX	GW401B78I	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/27/2015	XD	GWDP4X791	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/6/2016	XD	GWDP4X86C	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/6/2016	XX	GW401B869	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/17/2017	XD	GWDP4X977	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/17/2017	XX	GW401B974	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/2/2018	XD	GWDP4XA2J	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/2/2018	XX	GW401BA2G	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/22/2019	XD	GWDP4XB5F	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/22/2019	XX	GW401BB5C	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U

OW-06-03

Date	Type	Sample ID	Chlorobenzene ug/L	Ethylbenzene ug/L	Styrene ug/L	o-Xylene ug/L	m,p-Xylene ug/L	Tetra hydrofuran ug/L	Trichloro fluoromethane ug/L	cis-1,2-Dichloroethene ug/L	Bromochloro methane ug/L	Dibromo methane ug/L	1,2-Dibromoethane ug/L	1,1,1,2-Tetrachloro ethane ug/L	1,2,3-Trichloro propane ug/L	1,2-Dibromo-3-Chloropropane ug/L	1,4-Dichloro benzene ug/L
4/10/2018	XX	GWXXXXA73	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/5/2018	XX	GWXXXXA80	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
7/19/2018	XX	GWXXXXAEI	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

OW-601A

SUMMARY REPORT

VOA Part 3 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

Date	Type	Sample ID	Chlorobenzene	Ethylbenzene	Styrene	o-Xylene	m,p-Xylene	Tetra hydrofuran	Trichloro fluoromethane	cis-1,2-Dichloroethene	Bromochloro methane	Dibromo methane	1,2-Dibromoethane	1,1,1,2-Tetrachloro ethane	1,2,3-Trichloro propane	1,2-Dibromo-3-Chloropropane	1,4-Dichloro benzene
			ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(OW-601A)																	
4/11/2018	XX	GW601AA69	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/6/2018	XX	GW601AA76	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/19/2018	XX	GW601AAE4	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
OW-601B																	
4/11/2018	XX	GW601BA6A	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/6/2018	XX	GW601BA77	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
OW-602A																	
4/11/2018	XX	GW602AA6B	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/6/2018	XD	GWDP1XA75	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/6/2018	XX	GW602AA78	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
OW-603B																	
4/12/2018	XX	GW603BA6C	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/5/2018	XX	GW603BA79	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
OW-604A																	
4/12/2018	XX	GW604AA6D	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/4/2018	XX	GW604AA7A	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
QCBT																	
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/24/2012	XX	BTXXXX533	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/25/2012	XX	BTXXXX538	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	0.5 U	0.5 U	1 U	1 U	1 U		2.5 U	0.5 U	2.5 U	5 U	2 U	0.5 U	5 U	2.5 U	2.5 U
10/29/2013	XX	BTXXXX68C	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/21/2014	XX	BTXXXX6G4	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/22/2014	XX	BTXXXX6G5	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
7/30/2014	XX	BTXXXX70B	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
10/21/2014	XX	BTXXXX748	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/27/2015	XX	BTXXXX79E	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/27/2015	XX	BTXXXX79F	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/27/2015	XX	BTXXXX79J	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
7/15/2015	XX	BTXXXX7DB	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
10/27/2015	XX	BTXXXX7II	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(QCBT)

Date	Type	Sample ID	Chlorobenzene ug/L	Ethylbenzene ug/L	Styrene ug/L	o-Xylene ug/L	m,p-Xylene ug/L	Tetra hydrofuran ug/L	Trichloro fluoromethane ug/L	cis-1,2-Dichloroethene ug/L	Bromochloro methane ug/L	Dibromo methane ug/L	1,2-Dibromoethane ug/L	1,1,1,2-Tetrachloro ethane ug/L	1,2,3-Trichloro propane ug/L	1,2-Dibromo-3-Chloropropane ug/L	1,4-Dichloro benzene ug/L
4/5/2016	XX	BTXXXX87GX	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/5/2016	XX	BTXXXX876	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/6/2016	XX	BTXXXX875	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
7/26/2016	XX	BTXXXX8BF	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
10/25/2016	XX	BTXXXX8JE	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/17/2017	XX	BTXXXX985	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/18/2017	XX	BTXXXX980	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/18/2017	XX	BTXXXX981	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/25/2017	XX	BTXXXX9DI	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
10/24/2017	XX	BTXXXX9HD	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/2/2018	XX	BTXXXXA3C	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5	2 U	1 U
4/3/2018	XX	BTXXXXA3H	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	BTXXXXHHD	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	BTXXXXHG3	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/4/2018	XX	BTXXXXA5F	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/5/2018	XX	BTXXXXA71	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/10/2018	XX	BTXXXXA72	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/11/2018	XX	BTXXXXHHB	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/12/2018	XX	BTXXXXHHC	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/4/2018	XX	BTXXXXA74	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/5/2018	XX	BTXXXXA7I	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
6/6/2018	XX	BTXXXXA7J	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/17/2018	XX	BTXXXXACD	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/19/2018	XX	BTXXXXAE2	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
8/20/2018	XX	BTXXXXAF3	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
10/2/2018	XX	BTXXXXB1B	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/22/2019	XX	BTXXXXB6D	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	BTXXXXB69	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	BTXXXXB68	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/16/2019	XX	BTXXXXBCJ	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
10/29/2019	XX	BTXXXXBIC	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

F12 - Pipe under water, no sample taken.
F6 - No flow. Sample not taken.
H2 - Waterlevel higher than pipes. See LF-COMP for readings
I - The sampling location yielded insufficient quantity to collect a sample.
U - Not Detected above the laboratory reporting limit.

SUMMARY REPORT

VOA Part 4 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-COMP)

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
LF-COMP							
4/24/2012	XX	LFXXXX53B	1 U	1 U		1 U	1 U
LF-UD-1							
4/27/2010	XX	LFUD1X3JD	0.5 U	0.5 U		0.5 U	0.5 U
4/26/2011	XX	LFUD1X4A2	0.5 U	0.5 U		0.5 U	0.5 U
4/24/2012	XX	LFUD1X525	H2	H2		H2	H2
4/23/2013	XX	LFUD1X5I6	1 U	1 U		1 U	1 U
4/22/2014	XX	LFUD1X6F7	1 U	20 U		5 U	5 U
4/28/2015	XX	LFUD1X792	1 U	20 U		5 U	5 U
4/5/2016	XX	LFUD1X86D	1 U	20 U	5 U	5 U	5 U
4/18/2017	XX	LFUD1X978	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LFUD1XA30	1 U	20 U	5 U	5 U	5 U
4/23/2019	XX	LFUD1XB5G	1 U	20 U	5 U	5 U	5 U
LF-UD-10							
4/3/2018	XX	LFXXXXA48	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB74	F6	F6	F6	F6	F6
LF-UD-2							
4/27/2010	XX	LFUD2X3JE	0.5 U	0.5 U		0.5 U	0.5 U
4/26/2011	XX	LFUD2X4A3	0.5 U	0.5 U		0.5 U	0.5 U
4/24/2012	XX	LFUD2X526	H2	H2		H2	H2
4/23/2013	XX	LFUD2X5I7	1 U	1 U		1 U	1 U
4/22/2014	XX	LFUD2X6F8	1 U	20 U		5 U	5 U
4/28/2015	XX	LFUD2X793	1 U	20 U		5 U	5 U
4/5/2016	XX	LFUD2X86E	1 U	20 U	5 U	5 U	5 U
4/18/2017	XX	LFUD2X979	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LFUD2XA31	1 U	20 U	5 U	5 U	5 U
4/23/2019	XX	LFUD2XB5H	F6	F6	F6	F6	F6
LF-UD-3A,B							
4/27/2010	XX	LFXXXX40C	0.5 U	0.5 U		0.5 U	0.5 U
4/26/2011	XX	LFXXXX4B1	0.5 U	0.5 U		0.5 U	0.5 U
4/24/2012	XX	LFXXXX534	H2	H2		H2	H2
4/23/2013	XX	LFXXXX5J5	F6	F6		F6	F6
4/22/2014	XX	LFXXXX6G6	F6	F6		F6	F6
4/28/2015	XX	LFXXXX79G	F6	F6		F6	F6
4/5/2016	XX	LFXXXX877	F6	F6	F6	F6	F6
4/18/2017	XX	LFXXXX982	F6	F6	F6	F6	F6
4/3/2018	XX	LFXXXXA3E	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6A	F6	F6	F6	F6	F6
LF-UD-4							
4/27/2010	XX	LFXXXX40E	F6	F6		F6	F6
4/26/2011	XX	LFXXXX4B3	F12	F12		F12	F12
4/24/2012	XX	LFXXXX536	H2	H2		H2	H2
4/23/2013	XX	LFXXXX5J6	1 U	1 U		1 U	1 U
4/22/2014	XX	LFXXXX6G7	1 U	20 U		5 U	5 U
4/28/2015	XX	LFXXXX79H	F6	F6		F6	F6
4/5/2016	XX	LFXXXX878	F6	F6	F6	F6	F6

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-UD-4)

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/18/2017	XX	LFXXXX983	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LFXXXXA3F	F6	F6	F6	F6	F6
4/23/2019	XX	LFXXXXB6B	F6	F6	F6	F6	F6

LF-UD-5and6

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/26/2011	XX	LFXXXX4B4	0.5 U	0.5 U		0.5 U	0.5 U
4/24/2012	XX	LFXXXX537	1 U	1 U		1 U	1 U
4/23/2013	XX	LFXXXX5J7	1 U	1 U		1 U	1 U
4/22/2014	XX	LFXXXX6G8	1 U	20 U		5 U	5 U
4/28/2015	XX	LFXXXX79I	1 U	20 U		5 U	5 U
4/5/2016	XX	LFXXXX879	1 U	20 U	5 U	5 U	5 U
4/18/2017	XX	LFXXXX984	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LFXXXXA3G	1 U	20 U	5 U	5 U	5 U
4/23/2019	XX	LFXXXXB6C	1 U	20 U	5 U	5 U	5 U

LF-UD-6

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/26/2011	XX	LFUD6X4B6	0.5 U	0.5 U		0.5 U	0.5 U
4/24/2012	XX	LFUD6X539	1 U	1 U		1 U	1 U
4/23/2013	XX	LFUD6X5J9	1 U	1 U		1 U	1 U
4/22/2014	XX	LFUD6X6GA	1 U	20 U		5 U	5 U
4/28/2015	XX	LFUD6X7A0	1 U	20 U		5 U	5 U
4/5/2016	XX	LFUD6X87B	1 U	20 U	5 U	5 U	5 U
4/18/2017	XX	LFUD6X986	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LFUD6XA3I	1 U	20 U	5 U	5 U	5 U
4/23/2019	XX	LFUD6XB6E	1 U	20 U	5 U	5 U	5 U

LF-UD-7

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/24/2012	XX	LFUD7X53A	H2	H2		H2	H2
4/23/2013	XX	LFUD7X5JA	F6	F6		F6	F6
4/22/2014	XX	LFUD7X6GB	F6	F6		F6	F6
4/28/2015	XX	LFUD7X7A1	F6	F6		F6	F6
4/5/2016	XX	LFUD7X87C	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD7X987	F6	F6	F6	F6	F6
4/3/2018	XX	LFUD7XA3J	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD7XB6F	F6	F6	F6	F6	F6

LF-UD-8

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/23/2013	XX	LFUD8X5JD	1 U	1 U		1 U	1 U
4/22/2014	XX	LFUD8X6GC	F12	F12		F12	F12
4/28/2015	XX	LFUD8X7A2	1 U	20 U		5 U	5 U
4/5/2016	XX	LFUD8X87D	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD8X988	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LFUD8XA40	1 U	20 U	5 U	5 U	5 U
4/23/2019	XX	LFUD8XB6G	1 U	20 U	5 U	5 U	5 U

LF-UD-9

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/5/2016	XX	LFUD9X881	F6	F6	F6	F6	F6
4/18/2017	XX	LFUD9X98F	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LFUD9XA47	F6	F6	F6	F6	F6
4/23/2019	XX	LFUD9XB73	F6	F6	F6	F6	F6

LP-UD-1

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LP-UD-1)

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/27/2010	XX	LPUD1X3JF	F6	F6		F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6		F6	F6
4/24/2012	XX	LPUD1X527	F6	F6		F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6		F6	F6
4/22/2014	XX	LPUD1X6F9	F6	F6		F6	F6
4/28/2015	XX	LPUD1X794	F6	F6		F6	F6
4/5/2016	XX	LPUD1X86F	F6	F6	F6	F6	F6
4/18/2017	XX	LPUD1X97A	F6	F6	F6	F6	F6
4/3/2018	XX	LPUD1XA32	F6	F6	F6	F6	F6
4/23/2019	XX	LPUD1XB5I	1 U	20 U	5 U	5 U	5 U

LP-UD-2

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/27/2010	XX	LPUD2X3JG	0.5 U	0.5 U		0.5 U	0.5 U
4/26/2011	XX	LPUD2X4A5	0.5 U	0.5 U		0.5 U	0.5 U
4/24/2012	XX	LPUD2X528	1 U	1 U		1 U	1 U
4/23/2013	XX	LPUD2X5I9	1 U	1 U		1 U	1 U
4/22/2014	XX	LPUD2X6FA	1 U	20 U		5 U	5 U
4/28/2015	XX	LPUD2X795	1 U	20 U		5 U	5 U
4/5/2016	XX	LPUD2X86G	1 U	20 U	5 U	5 U	5 U
4/18/2017	XX	LPUD2X97B	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LPUD2XA33	1 U	20 U	5 U	5 U	5 U
4/23/2019	XX	LPUD2XB5J	1 U	20 U	5 U	5 U	5 U

MW-401B

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/27/2010	XX	GW401B3J9	0.5 U	0.5 U		0.5 U	0.5 U
4/27/2010	XD	GWDP4X3JC	0.5 U	0.5 U		0.5 U	0.5 U
4/25/2011	XX	GW401B49I	0.5 U	0.5 U		0.5 U	0.5 U
4/25/2011	XD	GWDP4X4A1	0.5 U	0.5 U		0.5 U	0.5 U
4/23/2012	XX	GW401B521	1 U	1 U		1 U	1 U
4/23/2012	XD	GWDP4X524	1 U	1 U		1 U	1 U
4/22/2013	XX	GW401B5I2	1 U	1 U		1 U	1 U
4/22/2013	XD	GWDP4X5I5	1 U	1 U		1 U	1 U
4/21/2014	XX	GW401B6F3	1 U	20 U		5 U	5 U
4/21/2014	XD	GWDP4X6F6	1 U	20 U		5 U	5 U
4/27/2015	XX	GW401B78I	1 U	20 U		5 U	5 U
4/27/2015	XD	GWDP4X791	1 U	20 U		5 U	5 U
4/6/2016	XD	GWDP4X86C	1 U	20 U	5 U	5 U	5 U
4/6/2016	XX	GW401B869	1 U	20 U	5 U	5 U	5 U
4/17/2017	XD	GWDP4X977	1 U	20 U	5 U	5 U	5 U
4/17/2017	XX	GW401B974	1 U	20 U	5 U	5 U	5 U
4/2/2018	XD	GWDP4XA2J	1 U	20 U	5 U	5 U	5 U
4/2/2018	XX	GW401BA2G	1 U	20 U	5 U	5 U	5 U
4/22/2019	XD	GWDP4XB5F	1 U	20 U	5 U	5 U	5 U
4/22/2019	XX	GW401BB5C	1 U	20 U	5 U	5 U	5 U

OW-06-03

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/10/2018	XX	GWXXXXA73	1 U	20 U	5 U	5 U	5 U
6/5/2018	XX	GWXXXXA80	I	I	I	I	I
7/19/2018	XX	GWXXXXAEI	I	I	I	I	I

OW-601A

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(OW-601A)

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/11/2018	XX	GW601AA69	1 U	20 U	5 U	5 U	5 U
6/6/2018	XX	GW601AA76	1 U	20 U	5 U	5 U	5 U
7/19/2018	XX	GW601AAE4	1 U	20 U	5 U	5 U	5 U
OW-601B							
4/11/2018	XX	GW601BA6A	1 U	20 U	5 U	5 U	5 U
6/6/2018	XX	GW601BA77	1 U	20 U	5 U	5 U	5 U
OW-602A							
4/11/2018	XX	GW602AA6B	1 U	20 U	5 U	5 U	5 U
6/6/2018	XD	GWDP1XA75	1 U	20 U	5 U	5 U	5 U
6/6/2018	XX	GW602AA78	1 U	20 U	5 U	5 U	5 U
OW-603B							
4/12/2018	XX	GW603BA6C	1 U	20 U	5 U	5 U	5 U
6/5/2018	XX	GW603BA79	1 U	20 U	5 U	5 U	5 U
OW-604A							
4/12/2018	XX	GW604AA6D	1 U	20 U	5 U	5 U	5 U
6/4/2018	XX	GW604AA7A	1 U	20 U	5 U	5 U	5 U
QCBT							
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U		0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U		0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U		0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U		0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U		0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U		0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U		0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U		0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U		0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U		0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	1 U	1 U		1 U	1 U
4/24/2012	XX	BTXXXX533	1 U	1 U		1 U	1 U
4/25/2012	XX	BTXXXX538	1 U	1 U		1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U		1 U	1.5
10/23/2012	XX	BTXXXX5C8	1 U	1 U		1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	1 U		1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U		1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	1 U		1 U	1 U
7/30/2013	XX	BTXXXX65D	2.5 U	5 U		2.5 U	5 U
10/29/2013	XX	BTXXXX68C	1 U	20 U		5 U	5 U
4/21/2014	XX	BTXXXX6G4	1 U	20 U		5 U	5 U
4/22/2014	XX	BTXXXX6G5	1 U	20 U		5 U	5 U
7/30/2014	XX	BTXXXX70B	1 U	20 U		5 U	5 U
10/21/2014	XX	BTXXXX748	1 U	20 U		5 U	5 U
4/27/2015	XX	BTXXXX79E	1 U	20 U		5 U	5 U
4/27/2015	XX	BTXXXX79F	1 U	20 U		5 U	5 U
4/27/2015	XX	BTXXXX79J	1 U	20 U		5 U	5 U
7/15/2015	XX	BTXXXX7DB	1 U	20 U		5 U	5 U
10/27/2015	XX	BTXXXX7II	1 U	20 U		5 U	5 U

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(QCBT)

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/5/2016	XX	BTXXXX87GX	1 U	20 U	5 U	5 U	5 U
4/5/2016	XX	BTXXXX876	1 U	20 U	5 U	5 U	5 U
4/6/2016	XX	BTXXXX875	1 U	20 U	5 U	5 U	5 U
7/26/2016	XX	BTXXXX8BF	1 U	20 U	5 U	5 U	5 U
10/25/2016	XX	BTXXXX8JE	1 U	20 U	5 U	5 U	5 U
4/17/2017	XX	BTXXXX985	1 U	20 U	5 U	5 U	5 U
4/18/2017	XX	BTXXXX980	1 U	20 U	5 U	5 U	5 U
4/18/2017	XX	BTXXXX981	1 U	20 U	5 U	5 U	5 U
7/25/2017	XX	BTXXXX9DI	1 U	20 U	5 U	5 U	5 U
10/24/2017	XX	BTXXXX9HD	1 U	20 U	5 U	5 U	5 U
4/2/2018	XX	BTXXXXA3C	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	BTXXXXA3H	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	BTXXXXHHD	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	BTXXXXHG3	1 U	20 U	5 U	5 U	5 U
4/4/2018	XX	BTXXXXA5F	1 U	20 U	5 U	5 U	5 U
4/5/2018	XX	BTXXXXA71	1 U	20 U	5 U	5 U	5 U
4/10/2018	XX	BTXXXXA72	1 U	20 U	5 U	5 U	5 U
4/11/2018	XX	BTXXXXHHB	1 U	20 U	5 U	5 U	5 U
4/12/2018	XX	BTXXXXHHC	1 U	20 U	5 U	5 U	5 U
6/4/2018	XX	BTXXXXA74	1 U	20 U	5 U	5 U	5 U
6/5/2018	XX	BTXXXXA7I	1 U	20 U	5 U	5 U	5 U
6/6/2018	XX	BTXXXXA7J	1 U	20 U	5 U	5 U	5 U
7/17/2018	XX	BTXXXXACD	1 U	20 U	5 U	5 U	5 U
7/19/2018	XX	BTXXXXAE2	1 U	20 U	5 U	5 U	5 U
8/20/2018	XX	BTXXXXAF3	1 U	20 U	5 U	5 U	5 U
10/2/2018	XX	BTXXXXB1B	1 U	20 U	5 U	5 U	5 U
4/22/2019	XX	BTXXXXB6D	1 U	20 U	5 U	5 U	5 U
4/23/2019	XX	BTXXXXB69	1 U	20 U	5 U	5 U	5 U
4/23/2019	XX	BTXXXXB68	1 U	20 U	5 U	5 U	5 U
7/16/2019	XX	BTXXXXBCJ	1 U	20 U	5 U	5 U	5 U
10/29/2019	XX	BTXXXXBIC	1 U	20 U	5 U	5 U	5 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

F12 - Pipe under water, no sample taken.
F6 - No flow. Sample not taken.
H2 - Waterlevel higher than pipes. See LF-COMP for readings
I - The sampling location yielded insufficient quantity to collect a sample.
U - Not Detected above the laboratory reporting limit.

SUMMARY REPORT

Methane

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(MW12-303R)

Date	Type	Sample ID	Methane ug/L
MW12-303R			
7/29/2013	XX	GW303X651	6.6 U
MW-223A			
7/30/2013	XX	GW223A63A	6.6 U
MW-223B			
7/30/2013	XX	GW223B64J	40.6
10/29/2013	XX	GW223B67C	9.2
4/22/2014	XX	GW223B6FF	20 U
7/29/2014	XX	GW223B700	20 U
10/21/2014	XX	GW223B73C	30
4/28/2015	XX	GW223B798	20 U
7/14/2015	XX	GW223B7D0	20 U
10/27/2015	XX	GW223B7I9	20 U
4/5/2016	XX	GW223B86J	20 U
4/18/2017	XX	GW223B97E	20 U
4/3/2018	XX	GW223BA36	20 U
4/23/2019	XX	GW223BB62	20 U
7/16/2019	XX	GW223BBCD	20 U
10/29/2019	XX	GW223BBI6	20 U
MW-302R			
7/29/2013	XX	GW302X64H	6.6 U
MW-304A			
7/29/2013	XX	GW304A64G	6.6 U
PWS10-1			
4/27/2015	XX	GWPWS1788	830
7/13/2015	XX	GWPWS17C0	4600
10/26/2015	XX	GWPWS17H9	440
4/4/2016	XX	GWPWS185J	770
4/17/2017	XX	GWPWS196E	40
4/2/2018	XX	GWPWS1A25	20 U
4/22/2019	XX	GWPWS1B51	79
7/15/2019	XX	GWPWS1BBE	130
10/28/2019	XX	GWPWS1BH7	20 U
PWS10-2			
4/27/2015	XX	GWPWS2789	50
7/13/2015	XX	GWPWS27C1	690
10/26/2015	XX	GWPWS27HA	20 U
4/4/2016	XX	GWPWS2860	140
4/17/2017	XX	GWPWS296F	220
4/2/2018	XX	GWPWS2A26	20 U
4/22/2019	XX	GWPWS2B52	20 U
7/15/2019	XX	GWPWS2BBF	110
10/28/2019	XX	GWPWS2BH8	20 U
PWS10-3			

REPORT PREPARED: 12/17/2019 08:43

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Methane

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(PWS10-3)

Date	Type	Sample ID	Methane ug/L
4/27/2015	XX	GWPWS378A	20 U
7/13/2015	XX	GWPWS37C2	260
10/26/2015	XX	GWPWS37HB	160
4/4/2016	XX	GWPWS3861	20 U
4/17/2017	XX	GWPWS396G	20 U
4/2/2018	XX	GWPWS3A27	20 U
4/22/2019	XX	GWPWS3B53	20 U
7/15/2019	XX	GWPWS3BBG	280
10/28/2019	XX	GWPWS3BH9	20 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the laboratory reporting limit.

Leachate Locations

REPORT PREPARED: 3/4/2020 08:44

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - Field Data

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR)

LT-C4L & LT-C4LR

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH STU	Temperature Deg C	Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
4/28/2010	XX	LTC4LX3J3	23200	7.3	17.7	145	2	1813	170
7/20/2010	XX	LTC4LX427	23400	6.9	21.8	33	D2	D3	D3
10/19/2010	XX	LTC4LX45B	28300	7.1	19.6	113	2	1313	20
4/27/2011	XX	LTC4LX49C	18420	6.9	17.4	109		1563	8.4
7/19/2011	XX	LTC4LX4DA	30700	7	28.3	115	2	1688	44
10/26/2011	XX	LTC4LX4H5	15850	7.1	18.3	100	1	750	6.1
4/24/2012	XX	LTC4LX51F	11470	6.7	15.7	-27	2	688	14.9
7/24/2012	XX	LTC4LX56E	25300	6.8	24.8	-93	3	D3	D3
10/23/2012	XX	LTC4LX5D5	19800	6.9	17.3	-33	D2	D3	D3
4/23/2013	XX	LTC4LX5HG	18590	7.1	17.1	92	1	1500	18.9
7/30/2013	XX	LTC4LX641	23400	6.7	23.6	44	D2	D3	D3
10/29/2013	XX	LTC4LX66E	24100	6.8	11.3	92	D2	D3	D3
4/22/2014	XX	LTC4LX6EH	15370	7.2	13.3	134	D2	D3	D3
7/30/2014	XX	LTC4LX6J4	23800	7.2	22.3	-30	D2	D3	D3
10/21/2014	XX	LTC4LX72F	21300	7.2	15.8	238	D2	D3	D3
4/28/2015	XX	LTC4LX78C	22600	7.5	12.1	-151	D2		D3
7/15/2015	XX	LTC4LX7C4	21500	6.9	22.7	-178	D2		D3
10/27/2015	XX	LTC4LX7HD	29100	7.6	9.4	-133	D2		D3
4/5/2016	XX	LTC4LX863	19950	5.5	10.9	100	D2		D3
7/26/2016	XX	LTC4LX8AD	29200	6.3	27.1	-6	D2		D3
10/25/2016	XX	LTC4LX8IC	25800	6.3	14.7	113	D2		1416
4/18/2017	XX	LTC4LX96I	26400	6.3	12.7	-102	D2		1009
7/25/2017	XX	LTC4LX9CG	25900	7.3	20.8	-141	D2		156
10/24/2017	XX	LTC4LX9GB	29800	7.6	22.2	-12	D2		126
4/3/2018	XX	LTC4LXA2A	11520	7	12.7	-41	D2		198
7/17/2018	XX	LTC4LXABB	26000	7.2	23.1	-127	D2		190
10/2/2018	XX	LTC4LXB09	23000	7.5	15.4	-76	D2		7.84
4/23/2019	XX	LTC4LXB56	13730	7	9.6	-6	7.5		1733
7/16/2019	XX	LTC4LXBBI	21908	7.1	26.1	7	D2		609
10/29/2019	XX	LTC4LXBHB	18730	7.1	15.2	-59	D2		1407

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

D2 - Sample too dark to read D.O. reading.

D3 - Sample too dark to take reading.

REPORT PREPARED: 3/6/2020 07:06

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - Inorganics

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Total Phosphorus mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L	Sulfate mg/L	Ca-mg Hardness (CaCO3) mg/L	Bicarbonate (CaCO3) mg/L	Alkalinity (CaCO3) mg/L	Organic Carbon mg/L	Biochemical Oxygen Demand mg/L	Nitrite/Nitrate - (N) mg/L	Chloride mg/L	Bromide mg/L	Cyanide ug/L
LT-C4L & LT-C4LR																
4/28/2010	XX	LTC4LX3J3	910		15180	59	120 U	2856	3210	3210	474	1000 U		18000	188	0.007
7/20/2010	XX	LTC4LX427	880	1.2	15250	38	120 U		3360		366	139		19900		
10/19/2010	XX	LTC4LX45B	790	0.76	16940	44	63		2700		307	152		18700		
4/27/2011	XX	LTC4LX49C	500		10570	5	72 J	1831	2280	2280	184	39		5910	23.3	0.006
7/19/2011	XX	LTC4LX4DA	810	0.92	14820	44	60 U		2800		270	45		10300		
10/26/2011	XX	LTC4LX4H5	510	0.59	8250	11	64.6 J		1400		182	47		4300		
4/24/2012	XX	LTC4LX51F	290		6080	108	133	1941	1370	1370	935	1120 G		2560	32.7	5 U
7/24/2012	XX	LTC4LX56E	710	0.77	15210	106	50.2		3630		2120	3090		6350		
10/23/2012	XX	LTC4LX5D5	490	0.46	14570	36	213		2740		1740	3190		9880		
4/23/2013	XX	LTC4LX5HG	697		10700	34	200 U	2424	2950	2950	935	1750		5610	73.3	5
7/30/2013	XX	LTC4LX641	742	1.39	15050	625	400 U		3700		2560	4850		24300	38.8	
10/29/2013	XX	LTC4LX66E	880	0.79	17400	140	10.4		3980		2450	855		5970	95	
4/22/2014	XX	LTC4LX6EH	520		8600	28	300 U	1889	2010	2010	364	434		7650	63.6	5 U
7/30/2014	XX	LTC4LX6J4	850		12040	64	2250		3200		761			13950	39	
10/21/2014	XX	LTC4LX72F	820	0.83	13280	44	200 U		2740		460	448		7070	100	
4/28/2015	XX	LTC4LX78C	800		10080	38	320 U	1738	3560	3560	580	1284		5420	57	5 U
7/15/2015	XX	LTC4LX7C4		2.93	17940	40	800		4710		373		10 U	11600	10 U	
10/27/2015	XX	LTC4LX7HD		2.99	15800	17	2670		3850		363		3 U	16100	30 U	
4/5/2016	XX	LTC4LX863	680		11850	119	205	2910	2800	2800	1426	2700		5910	84.1	5 U
7/26/2016	XX	LTC4LX8AD	550		16460	125	970		3850		1900		0.3 U	11100	72.7	
10/25/2016	XX	LTC4LX8IC	990		14380	60	1780		3490		1150		0.05 U	16100	120	
4/18/2017	XX	LTC4LX96I	1100		12732	30	640	2000	3700	3700	1200	890		12000	75	74
7/25/2017	XX	LTC4LX9CG	1300		15448	34	1500		4100		680		0.1 U	12000	72	
10/24/2017	XX	LTC4LX9GB	1000		15836	13	2700		3400		480		0.1 U	14000	20 U	
4/3/2018	XX	LTC4LXA2A	610		7956	25	1100	1400	2200	2200	360	320		9300	52	43
7/17/2018	XX	LTC4LXABB	1400		13	42	600 U		3600		450		0.5 U	8100	83	
10/2/2018	XX	LTC4LXB09	1000		12960	29	2900		2900		430		0.05 U	15000	63	
4/23/2019	XX	LTC4LXB56	470		8744	40	2200	2300	1900	1900	110	760		12000	83	17
7/16/2019	XX	LTC4LXBBI	780		12152	180	2000		3000		480		0.5 U	14000	40 U	
10/29/2019	XX	LTC4LXBHB	660		9832	48	1900		2600		570		0.073	11000	47	

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

G - Greater than specified amount.
J - Analyte was positively identified/Associated value is an estimate.
U - Not Detected above the laboratory reporting limit.

REPORT PREPARED: 3/4/2020 10:02

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - Metal (part 1 of 2)

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR)

LT-C4L & LT-C4LR

Date	Type	Sample ID	Aluminum mg/L	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Calcium mg/L	Chromium mg/L	Cobalt mg/L	Iron mg/L	Lead mg/L	Magnesium mg/L	Manganese mg/L
4/28/2010	XX	LTC4LX3J3	0.429	0.005	0.107	1.873	0.0002 U	565	0.065	0.014	20.9	0.068	351	2.18
7/20/2010	XX	LTC4LX427			0.099			520			11.9		378	2.08
10/19/2010	XX	LTC4LX45B			0.113			658			16.8		415	1.8
4/27/2011	XX	LTC4LX49C	0.201	0.018	0.085	1.469	0.0002 U	344	0.024	0.012	9.61	0.002 J	236	2.45
7/19/2011	XX	LTC4LX4DA			0.121			469			12.7		372	2.3
10/26/2011	XX	LTC4LX4H5			0.059			305			19.7		205	2.24
4/24/2012	XX	LTC4LX51F	0.25	0.025 U	0.07	0.915	0.003 U	482	0.025	0.05 U	63	0.015 U	179	23.6
7/24/2012	XX	LTC4LX56E			0.11			845			82		466	26
10/23/2012	XX	LTC4LX5D5			0.177			934			45.3		433	14
4/23/2013	XX	LTC4LX5HG	0.223	0.005 U	0.102	1.285	0.0006 U	474	0.038	0.014	30.3	0.003 U	301	8.03
7/30/2013	XX	LTC4LX641			0.137			958			179		433	23.4
10/29/2013	XX	LTC4LX66E			0.16			860			100		532	16.7
4/22/2014	XX	LTC4LX6EH	0.22	0.005 U	0.131	1.222	0.0006 U	329	0.049	0.016	13.2	0.022	259	2.73
7/30/2014	XX	LTC4LX6J4			0.143			311			28.6		289	3.8
10/21/2014	XX	LTC4LX72F			0.186			406			27.3		355	4.23
4/28/2015	XX	LTC4LX78C	0.556	0.026	0.209	1.316	0.0012	259	0.093	0.034	11	0.095	265	1.8
7/15/2015	XX	LTC4LX7C4			0.287			393			9.7		431	1.9
10/27/2015	XX	LTC4LX7HD			0.29			318			5.9		307	1.6
4/5/2016	XX	LTC4LX863	0.231	0.005 U	0.157	1.304	0.0006 U	656	0.105	0.015	60.3	0.004	309	15.9
7/26/2016	XX	LTC4LX8AD			0.331			686			44.3		411	7.5
10/25/2016	XX	LTC4LX8IC			0.403			541			21.7		307	5.95
4/18/2017	XX	LTC4LX96I	0.72	0.025 U	0.54	1.5	0.003 U	300	0.025 U	0.05 U	8.5	0.03 U	300	1.8
7/25/2017	XX	LTC4LX9CG			0.6			300			6.7		350	1.5
10/24/2017	XX	LTC4LX9GB			0.34			310			5.4		310	2.5 U
4/3/2018	XX	LTC4LXA2A	0.65	0.025 U	0.33	0.77	0.003 U	260	0.09	0.05 U	9	0.015 U	190	2.2
7/17/2018	XX	LTC4LXABB			0.39			300			9.4		280	2.4
10/2/2018	XX	LTC4LXB09			0.3			290			7.8		270	2.2
4/23/2019	XX	LTC4LXB56	0.52	0.005 U	0.14	0.86	0.0006 U	560	0.078	0.01 U	17	0.007	230	10
7/16/2019	XX	LTC4LXBBI			0.24			510			5.1		310	4.4
10/29/2019	XX	LTC4LXBHB			0.23			350			12		280	4.1

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

J - Analyte was positively identified/Associated value is an estimate.

U - Not Detected above the laboratory reporting limit.

SUMMARY REPORT

Leachate - Metal (part 2 of 2)

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

LT-C4L & LT-C4LR

(LT-C4L & LT-C4LR) Date	Type	Sample ID	Mercury mg/L	Potassium mg/L	Selenium mg/L	Silver mg/L	Sodium mg/L	Thallium mg/L	Vanadium mg/L	Zinc mg/L	Tin mg/L
4/28/2010	XX	LTC4LX3J3	0.0002 U	1982	0.021	0.0003 J	2448	0.012	0.025	0.053	0.014 J
7/20/2010	XX	LTC4LX427		1659			2130				
10/19/2010	XX	LTC4LX45B		1779			2265				
4/27/2011	XX	LTC4LX49C	0.0002 U	1135	0.016	0.0007 J	1520	0.001 U	0.017	0.011	0.005 U
7/19/2011	XX	LTC4LX4DA		1806			2590				
10/26/2011	XX	LTC4LX4H5		1066			1580				
4/24/2012	XX	LTC4LX51F	0.0005 U	714	0.025	0.005 U	1024	0.02 U	0.05 U	0.155	0.075 U
7/24/2012	XX	LTC4LX56E		1719			2337				
10/23/2012	XX	LTC4LX5D5		1100			1842				
4/23/2013	XX	LTC4LX5HG	0.0005 U	1237	0.01	0.001 U	1844	0.004 U	0.01	0.016	0.019
7/30/2013	XX	LTC4LX641		1234			1910				
10/29/2013	XX	LTC4LX66E		1622			2290				
4/22/2014	XX	LTC4LX6EH	0.0005 U	941	0.035	0.001 U	1633	0.004 U	0.027	0.101	0.015 U
7/30/2014	XX	LTC4LX6J4		1140			1948				
10/21/2014	XX	LTC4LX72F		1472			2316				
4/28/2015	XX	LTC4LX78C	0.0005 U	1118	0.052	0.0021	3401	0.008 U	0.063	0.258	0.157
7/15/2015	XX	LTC4LX7C4		1845			8135				
10/27/2015	XX	LTC4LX7HD		1247			5081				
4/5/2016	XX	LTC4LX863	0.0005 U	954	0.005 U	0.0011 U	1681	0.004 U	0.024	0.136	0.015 U
7/26/2016	XX	LTC4LX8AD		1498			2687				
10/25/2016	XX	LTC4LX8IC		1131			2288				
4/18/2017	XX	LTC4LX96I	0.0005 U	1261	0.098	0.0055 U	3000	0.02 U	0.1	0.031	0.075 U
7/25/2017	XX	LTC4LX9CG		1300			3100				
10/24/2017	XX	LTC4LX9GB		1300			2600				
4/3/2018	XX	LTC4LXA2A	0.0005 U	740	0.043	0.2	1500	0.02 U	0.05 U	0.051	0.075 U
7/17/2018	XX	LTC4LXABB		1200			2700				
10/2/2018	XX	LTC4LXB09		1100			2400				
4/23/2019	XX	LTC4LXB56	0.0005 U	580	0.017	0.001 U	1300	0.004 U	0.016	0.093	0.015 U
7/16/2019	XX	LTC4LXBBI		1000			2200				
10/29/2019	XX	LTC4LXBHB		870			1900				

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

J - Analyte was positively identified/Associated value is an estimate.

U - Not Detected above the laboratory reporting limit.

SUMMARY REPORT

Leachate - VOAs Part 1 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR)

LT-C4L & LT-C4LR

Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
4/28/2010	XX	LTC4LX3J3	2.5 U	5 U	2.5 U	2.5 U	25 U	444	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3.8 J	1360	2.5 U	2.5 U
7/20/2010	XX	LTC4LX427	2.5 U	5 U	2.5 U	2.5 U	25 U	365	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.8	25 U	2.5 U	2.5 U
10/19/2010	XX	LTC4LX45B	0.5 U	1 U	0.75 J	0.5 U	5 U	475	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	604	0.5 U	0.5 U
4/27/2011	XX	LTC4LX49C	5 U	10 U	5 U	5 U	50 U	100 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U
7/19/2011	XX	LTC4LX4DA	0.5 U	1 U	0.5 U	0.5 U	5 U	136	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	12	0.5 U	0.5 U
10/26/2011	XX	LTC4LX4H5	0.5 U	1 U	0.7 J	0.5 U	5 U	117	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	97	0.5 U	0.5 U
4/24/2012	XX	LTC4LX51F	5 U	10 U	5 U	5 U	25 U	974	5 U	5 U	5 U	5 U	5 U	10	3440	5 U	5 U
7/24/2012	XX	LTC4LX56E	5 U	10 U	5 U	5 U	25 U	2460	5 U	5 U	5 U	5 U	5 U	5 U	9540	5 U	5 U
10/23/2012	XX	LTC4LX5D5	25 U	50 U	25 U	25 U	125 U	2710	25 U	25 U	25 U	25 U	25 U	25 U	7490	25 U	25 U
4/23/2013	XX	LTC4LX5HG	25 U	50 U	25 U	25 U	125 U	1310	25 U	25 U	25 U	25 U	25 U	25 U	4110	25 U	25 U
7/30/2013	XX	LTC4LX641	250 U	100 U	100 U	100 U	300 U	4400	500 U	50 U	75 U	75 U	75 U	50 U	23000 E	50 U	50 U
10/29/2013	XX	LTC4LX66E	400 U	400 U	400 U	1000 U	1000 U	4000	400 U	200 U	200 U	200 U	200 U	200 U	20000	200 U	200 U
4/22/2014	XX	LTC4LX6EH	40 U	40 U	40 U	100 U	100 U	1000	40 U	20 U	20 U	20 U	20 U	20 U	1400	20 U	20 U
7/30/2014	XX	LTC4LX6J4	2 U	2 U	2 U	5 U	5 U	60	5 U	1 U	2 U	2 U	2 U	2 U	200	2 U	2 U
10/21/2014	XX	LTC4LX72F	20 U	20 U	20 U	50 U	50 U	400	20 U	10 U	10 U	10 U	10 U	10 U	1200	10 U	10 U
4/28/2015	XX	LTC4LX78C	20 U	20 U	20 U	50 U	50 U	2400	20 U	10 U	10 U	10 U	10 U	10 U	4400	10 U	10 U
7/15/2015	XX	LTC4LX7C4	20 U	20 U	20 U	50 U	50 U	1400	20 U	10 U	10 U	10 U	10 U	10 U	2000	10 U	10 U
10/27/2015	XX	LTC4LX7HD	20 U	20 U	20 U	50 U	50 U	1200	20 U	10 U	10 U	10 U	10 U	10 U	1300	10 U	10 U
4/5/2016	XX	LTC4LX863	20 U	20 U	20 U	50 U	50 U	2300	20 U	10 U	10 U	10 U	10 U	10 U	5900	10 U	10 U
7/26/2016	XX	LTC4LX8AD	20 U	20 U	20 U	50 U	50 U	2800	20 U	10 U	10 U	10 U	10 U	10 U	8000	10 U	10 U
10/25/2016	XX	LTC4LX8IC	2 U	2 U	2 U	5 U	5 U	2500	5 U	1 U	2 U	2 U	2 U	5	4800	2 U	2 U
4/18/2017	XX	LTC4LX96I	2 U	2 U	2 U	5 U	5 U	1900	2 U	1 U	1 U	1 U	1 U	1 U	2500	1 U	1 U
7/25/2017	XX	LTC4LX9CG	2 U	2 U	2 U	5 U	5 U	1100	2 U	1 U	1 U	1 U	1 U	4	1400	1 U	1 U
10/24/2017	XX	LTC4LX9GB	2 U	2 U	2 U	5 U	5 U	800	2 U	1 U	1 U	1 U	1 U	2	800	1 U	1 U
4/3/2018	XX	LTC4LXA2A	2 U	2 U	2 U	5 U	5.3	1700	2 U	1 U	1 U	1 U	1 U	6.1	1700	1 U	1 U
7/17/2018	XX	LTC4LXABB	2 U	2 U	2 U	5 U	5 U	230	2 U	1 U	1 U	1 U	1 U	1 U	210	1 U	1 U
10/2/2018	XX	LTC4LXB09	20 U	20 U	20 U	50 U	50 U	1000	20 U	10 U	10 U	10 U	10 U	10 U	970	10 U	10 U
4/23/2019	XX	LTC4LXB56	40 U	40 U	40 U	100 U	100 U	2000	40 U	20 U	20 U	20 U	20 U	20 U	2000	20 U	20 U
7/16/2019	XX	LTC4LXBBI	20 U	20 U	20 U	50 U	50 U	1200	20 U	10 U	10 U	10 U	10 U	10 U	1000	10 U	10 U
10/29/2019	XX	LTC4LXBHB	20 U	20 U	20 U	50 U	50 U	2100	20 U	10 U	10 U	10 U	10 U	10 U	2100	10 U	10 U

QCBT

Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
4/28/2010	XX	BTXXXXHG1	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	1 U	0.5 U	0.5 U	5 U	14	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/24/2012	XX	BTXXXX533	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	2.5 U	1 U	1 U	1 U	3 U	5 U	5 U	0.5 U	0.75 U	0.75 U	0.75 U	0.5 U	5 U	0.5 U	0.5 U
10/29/2013	XX	BTXXXX68C	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/21/2014	XX	BTXXXX6G4	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/22/2014	XX	BTXXXX6G5	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
7/30/2014	XX	BTXXXX70B	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
10/21/2014	XX	BTXXXX748	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U

REPORT PREPARED: 3/4/2020 10:06

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - VOAs Part 1 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(QCBT)

Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
4/27/2015	XX	BTXXXX79J	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
7/15/2015	XX	BTXXXX7DB	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
10/27/2015	XX	BTXXXX7II	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
7/26/2016	XX	BTXXXX8BF	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
10/25/2016	XX	BTXXXX8JE	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/18/2017	XX	BTXXXX980	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/25/2017	XX	BTXXXX9DI	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/24/2017	XX	BTXXXX9HD	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/3/2018	XX	BTXXXXHG3	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/17/2018	XX	BTXXXXACD	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/2/2018	XX	BTXXXXB1B	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2019	XX	BTXXXXB68	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/16/2019	XX	BTXXXXBCJ	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/29/2019	XX	BTXXXXBIC	2 U	2 U	2 U	5 U	5 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

E - Compound exceeded upper level of calibration range and required dilution.

J - Analyte was positively identified/Associated value is an estimate.

U - Not Detected above the laboratory reporting limit.

REPORT PREPARED: 3/4/2020 10:06

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - VOAs Part 2 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR)

Date	Type	Sample ID	Vinyl Acetate ug/L	Bromo dichloro methane ug/L	1,2-Dichloro propane ug/L	cis-1,3-Dichloro propene ug/L	Trichloroethene ug/L	Dibromo chloromethane ug/L	1,1,2-Trichloroethane ug/L	Benzene ug/L	trans-1,3-Dichloro propene ug/L	Bromoform ug/L	4-Methyl-2-Pentanone ug/L	2-Hexanone ug/L	Tetrachloro ethene ug/L	1,1,2,2-Tetrachloro ethane ug/L	Toluene ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4.4 J	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	15
7/20/2010	XX	LTC4LX427	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4.6 J	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	15
10/19/2010	XX	LTC4LX45B	0.5 U	0.5 U	0.81 J	0.5 U	0.5 U	0.5 U	0.5 U	5	0.5 U	0.72 J	38	5 U	0.5 U	0.5 U	18
4/27/2011	XX	LTC4LX49C	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	11
7/19/2011	XX	LTC4LX4DA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.2	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	7.4
10/26/2011	XX	LTC4LX4H5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.6	0.5 U	0.5 U	7.8 J	5 U	0.5 U	0.5 U	13
4/24/2012	XX	LTC4LX51F	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	13
7/24/2012	XX	LTC4LX56E	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	55	50 U	5 U	5 U	6.8
10/23/2012	XX	LTC4LX5D5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	250 U	250 U	25 U	25 U	25 U
4/23/2013	XX	LTC4LX5HG	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	250 U	250 U	25 U	25 U	25 U
7/30/2013	XX	LTC4LX641	500 U	50 U	180 U	50 U	50 U	50 U	75 U	50 U	50 U	200 U	500 U	500 U	50 U	50 U	75 U
10/29/2013	XX	LTC4LX66E	2000 U	100 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	400 U	2000 U	2000 U	200 U	200 U	200 U
4/22/2014	XX	LTC4LX6EH	200 U	10 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	40 U	200 U	200 U	20 U	20 U	20 U
7/30/2014	XX	LTC4LX6J4	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
10/21/2014	XX	LTC4LX72F	100 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	100 U	100 U	10 U	10 U	10 U
4/28/2015	XX	LTC4LX78C	100 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	100 U	100 U	10 U	10 U	10
7/15/2015	XX	LTC4LX7C4	100 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	100 U	100 U	10 U	10 U	10
10/27/2015	XX	LTC4LX7HD	100 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	100 U	100 U	10 U	10 U	10
4/5/2016	XX	LTC4LX863	100 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	100 U	100 U	10 U	10 U	20
7/26/2016	XX	LTC4LX8AD	100 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	100 U	100 U	10 U	10 U	20
10/25/2016	XX	LTC4LX8IC	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	2	2 U	2 U	50	20	2 U	2 U	17
4/18/2017	XX	LTC4LX96I	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	4	0.5 U	2 U	40	10 U	1 U	1 U	14
7/25/2017	XX	LTC4LX9CG	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	5	0.5 U	2 U	30	10 U	1 U	1 U	19
10/24/2017	XX	LTC4LX9GB	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	2	0.5 U	2 U	20	10 U	1 U	1 U	6
4/3/2018	XX	LTC4LXA2A	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	5.6	0.5	2 U	35	10 U	1 U	1 U	26
7/17/2018	XX	LTC4LXABB	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1	0.5 U	2 U	10 U	10 U	1 U	1 U	4.4
10/2/2018	XX	LTC4LXB09	100 U	5 U	10 U	5 U	10 U	10 U	10 U	10 U	5 U	20 U	100 U	100 U	10 U	10 U	26
4/23/2019	XX	LTC4LXB56	200 U	10 U	20 U	10 U	20 U	20 U	20 U	20 U	10 U	40 U	200 U	200 U	20 U	20 U	25
7/16/2019	XX	LTC4LXBBI	100 U	5 U	10 U	5 U	10 U	10 U	10 U	10 U	5 U	20 U	100 U	100 U	10 U	10 U	16
10/29/2019	XX	LTC4LXBHB	100 U	5 U	10 U	5 U	10 U	10 U	10 U	10 U	5 U	20 U	100 U	100 U	10 U	10 U	53
QCBT																	
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	BTXXXX533	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	5 U	0.5 U	1.8 U	0.5 U	0.5 U	0.5 U	0.75 U	0.5 U	0.5 U	2 U	5 U	5 U	0.5 U	0.5 U	0.75 U
10/29/2013	XX	BTXXXX68C	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/21/2014	XX	BTXXXX6G4	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/22/2014	XX	BTXXXX6G5	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
7/30/2014	XX	BTXXXX70B	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
10/21/2014	XX	BTXXXX748	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - VOAs Part 2 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(QCBT)

Date	Type	Sample ID	Vinyl Acetate ug/L	Bromo dichloro methane ug/L	1,2-Dichloro propane ug/L	cis-1,3-Dichloro propene ug/L	Trichloroethene ug/L	Dibromo chloromethane ug/L	1,1,2-Trichloroethane ug/L	Benzene ug/L	trans-1,3-Dichloro propene ug/L	Bromoform ug/L	4-Methyl-2-Pentanone ug/L	2-Hexanone ug/L	Tetrachloro ethene ug/L	1,1,2,2-Tetrachloro ethane ug/L	Toluene ug/L
4/27/2015	XX	BTXXXX79J	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
7/15/2015	XX	BTXXXX7DB	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
10/27/2015	XX	BTXXXX7II	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
7/26/2016	XX	BTXXXX8BF	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
10/25/2016	XX	BTXXXX8JE	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
4/18/2017	XX	BTXXXX980	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
7/25/2017	XX	BTXXXX9DI	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
10/24/2017	XX	BTXXXX9HD	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/3/2018	XX	BTXXXXHG3	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
7/17/2018	XX	BTXXXXACD	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
10/2/2018	XX	BTXXXXB1B	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
4/23/2019	XX	BTXXXXB68	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
7/16/2019	XX	BTXXXXBCJ	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U
10/29/2019	XX	BTXXXXBIC	10 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	2 U	10 U	10 U	1 U	1 U	1 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - VOAs Part 3 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR)

Date	Type	Sample ID	Chlorobenzene	Ethylbenzene	Styrene	o-Xylene	m,p-Xylene	Tetra hydrofuran	Trichloro fluoromethane	cis-1,2-Dichloroethene	Bromochloro methane	Dibromo methane	1,2-Dibromoethane	1,1,1,2-Tetrachloro ethane	1,2,3-Trichloro propane	1,2-Dibromo-3-Chloropropane	1,4-Dichloro benzene
			ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	2.5 U	5.9	2.5 U	3.1 J	7.2		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
7/20/2010	XX	LTC4LX427	2.5 U	5.5	2.5 U	3.7 J	8.5		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
10/19/2010	XX	LTC4LX45B	0.5 U	7.9	1.4 J	5.3	12		0.5 U	1.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.3
4/27/2011	XX	LTC4LX49C	5 U	5 U	5 U	5 U	7.3 J		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
7/19/2011	XX	LTC4LX4DA	0.5 U	3.8	0.5 U	2.5	5.4		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.69 J
10/26/2011	XX	LTC4LX4H5	0.5 U	6.7	1	4.2	9.5		0.5 U	0.7 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1
4/24/2012	XX	LTC4LX51F	5 U	5.8	5 U	5 U	6.9		6.4	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
7/24/2012	XX	LTC4LX56E	5 U	5 U	5 U	5 U	5		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10/23/2012	XX	LTC4LX5D5	25 U	25 U	25 U	25 U	25 U		25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4/23/2013	XX	LTC4LX5HG	25 U	25 U	25 U	25 U	25 U		25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
7/30/2013	XX	LTC4LX641	50 U	50 U	100 U	100 U	100 U		250 U	50 U	250 U	500 U	200 U	50 U	500 U	250 U	250 U
10/29/2013	XX	LTC4LX66E	200 U	200 U	200 U	200 U	200 U		1000 U	200 U	200 U	200 U	400 U	200 U	200 U	400 U	200 U
4/22/2014	XX	LTC4LX6EH	20 U	20 U	20 U	20 U	20 U		100 U	20 U	20 U	20 U	40 U	20 U	20 U	40 U	9.6 U
7/30/2014	XX	LTC4LX6J4	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
10/21/2014	XX	LTC4LX72F	10 U	10 U	10 U	10 U	10 U		50 U	10 U	10 U	10 U	20 U	10 U	10 U	20 U	10 U
4/28/2015	XX	LTC4LX78C	10 U	10 U	10 U	10 U	10 U		50 U	10 U	10 U	10 U	20 U	10 U	10 U	20 U	10 U
7/15/2015	XX	LTC4LX7C4	10 U	10 U	10 U	10 U	10 U		50 U	10 U	10 U	10 U	20 U	10 U	10 U	20 U	10 U
10/27/2015	XX	LTC4LX7HD	10 U	10 U	10 U	10 U	10 U		50 U	10 U	10 U	10 U	20 U	10 U	10 U	20 U	10 U
4/5/2016	XX	LTC4LX863	10 U	10	10 U	10 U	10 U	400	50 U	10 U	10 U	10 U	20 U	10 U	10 U	20 U	10 U
7/26/2016	XX	LTC4LX8AD	10 U	10 U	10 U	10 U	10 U	600	50 U	10 U	10 U	10 U	20 U	10 U	10 U	20 U	10 U
10/25/2016	XX	LTC4LX8IC	2 U	13	1 U	3	6	400	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/18/2017	XX	LTC4LX96I	1 U	7	1 U	3	6	500	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/25/2017	XX	LTC4LX9CG	1 U	7	1 U	5	9	500	5 U	1	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
10/24/2017	XX	LTC4LX9GB	1 U	3	1 U	2	3	400	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	LTC4LXA2A	1 U	7.5	1.1	5	9.6	400	5 U	1.4	1 U	1 U	2 U	1 U	0.5 U	2 U	1
7/17/2018	XX	LTC4LXABB	1 U	1.5	1 U	1 U	1.7	110	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
10/2/2018	XX	LTC4LXB09	10 U	10 U	10 U	10 U	11	430	50 U	10 U	10 U	10 U	20 U	10 U	5 U	20 U	10 U
4/23/2019	XX	LTC4LXB56	20 U	20 U	20 U	20 U	20 U	280	100 U	20 U	20 U	20 U	40 U	20 U	10 U	40 U	20 U
7/16/2019	XX	LTC4LXBBI	10 U	10 U	10 U	10 U	10	390	50 U	10 U	10 U	10 U	20 U	10 U	5 U	20 U	10 U
10/29/2019	XX	LTC4LXBHB	10 U	12	10 U	10 U	10 U	370	50 U	10 U	10 U	10 U	20 U	10 U	5 U	20 U	10 U
QCBT																	
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	BTXXXX533	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	0.5 U	0.5 U	1 U	1 U	1 U		2.5 U	0.5 U	2.5 U	5 U	2 U	0.5 U	5 U	2.5 U	2.5 U
10/29/2013	XX	BTXXXX68C	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/21/2014	XX	BTXXXX6G4	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/22/2014	XX	BTXXXX6G5	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
7/30/2014	XX	BTXXXX70B	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
10/21/2014	XX	BTXXXX748	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - VOAs Part 3 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(QCBT) Date	Type	Sample ID	Chlorobenzene ug/L	Ethylbenzene ug/L	Styrene ug/L	o-Xylene ug/L	m,p-Xylene ug/L	Tetra hydrofuran ug/L	Trichloro fluoromethane ug/L	cis-1,2-Dichloroethene ug/L	Bromochloro methane ug/L	Dibromo methane ug/L	1,2-Dibromoethane ug/L	1,1,1,2-Tetrachloro ethane ug/L	1,2,3-Trichloro propane ug/L	1,2-Dibromo-3-Chloropropane ug/L	1,4-Dichloro benzene ug/L
4/27/2015	XX	BTXXXX79J	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
7/15/2015	XX	BTXXXX7DB	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
10/27/2015	XX	BTXXXX7II	2 U	1 U	1 U	1 U	1 U		5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
7/26/2016	XX	BTXXXX8BF	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
10/25/2016	XX	BTXXXX8JE	2 U	1 U	1 U	1 U	1 U	10 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
4/18/2017	XX	BTXXXX980	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/25/2017	XX	BTXXXX9DI	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
10/24/2017	XX	BTXXXX9HD	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/3/2018	XX	BTXXXXHG3	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/17/2018	XX	BTXXXXACD	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
10/2/2018	XX	BTXXXXB1B	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
4/23/2019	XX	BTXXXXB68	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
7/16/2019	XX	BTXXXXBCJ	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U
10/29/2019	XX	BTXXXXBIC	1 U	1 U	1 U	1 U	1 U	10 U	5 U	1 U	1 U	1 U	2 U	1 U	0.5 U	2 U	1 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

SUMMARY REPORT

Leachate - VOAs Part 4 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR) Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
LT-C4L & LT-C4LR							
4/28/2010	XX	LTC4LX3J3	2.5 U	2.5 U		2.5 U	2.5 U
7/20/2010	XX	LTC4LX427	2.5 U	2.5 U		2.5 U	2.5 U
10/19/2010	XX	LTC4LX45B	0.5 U	0.5 U		0.5 U	0.5 U
4/27/2011	XX	LTC4LX49C		5 U		5 U	5 U
7/19/2011	XX	LTC4LX4DA	0.5 U	0.5 U		0.5 U	0.5 U
10/26/2011	XX	LTC4LX4H5	0.5 U	0.5 U		0.5 U	0.5 U
4/24/2012	XX	LTC4LX51F	5 U	5 U		5 U	5 U
7/24/2012	XX	LTC4LX56E	5 U	5 U		5 U	35
10/23/2012	XX	LTC4LX5D5	25 U	25 U		25 U	25 U
4/23/2013	XX	LTC4LX5HG	25 U	25 U		25 U	25 U
7/30/2013	XX	LTC4LX641	250 U	500 U		250 U	500 U
10/29/2013	XX	LTC4LX66E	200 U	4000 U		1000 U	1000 U
4/22/2014	XX	LTC4LX6EH	9.6 U	400 U		100 U	100 U
7/30/2014	XX	LTC4LX6J4	1 U	20 U		5 U	5 U
10/21/2014	XX	LTC4LX72F	10 U	200 U		50 U	50 U
4/28/2015	XX	LTC4LX78C	10 U	200 U		50 U	50 U
7/15/2015	XX	LTC4LX7C4	10 U	200 U		50 U	50 U
10/27/2015	XX	LTC4LX7HD	10 U	200 U		50 U	50 U
4/5/2016	XX	LTC4LX863	10 U	200 U	50 U	50 U	50 U
7/26/2016	XX	LTC4LX8AD	10 U	200 U	50 U	50 U	50 U
10/25/2016	XX	LTC4LX8IC	1 U	20 U	8	5 U	5 U
4/18/2017	XX	LTC4LX96I	1 U	20 U	5 U	5 U	5 U
7/25/2017	XX	LTC4LX9CG	1 U	20 U	5 U	5 U	5 U
10/24/2017	XX	LTC4LX9GB	1 U	20 U	5 U	5 U	5 U
4/3/2018	XX	LTC4LXA2A	1 U	20 U	5 U	5 U	5 U
7/17/2018	XX	LTC4LXABB	1 U	20 U	5 U	5 U	5 U
10/2/2018	XX	LTC4LXB09	10 U	200 U	50 U	50 U	50 U
4/23/2019	XX	LTC4LXB56	20 U	400 U	100 U	100 U	100 U
7/16/2019	XX	LTC4LXBBI	10 U	200 U	50 U	50 U	50 U
10/29/2019	XX	LTC4LXBHB	10 U	200 U	50 U	50 U	50 U
QCBT							
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U		0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U		0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U		0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U		0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U		0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U		0.5 U	0.5 U
4/24/2012	XX	BTXXXX533	1 U	1 U		1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U		1 U	1.5
10/23/2012	XX	BTXXXX5C8	1 U	1 U		1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U		1 U	1 U
7/30/2013	XX	BTXXXX65D	2.5 U	5 U		2.5 U	5 U
10/29/2013	XX	BTXXXX68C	1 U	20 U		5 U	5 U
4/21/2014	XX	BTXXXX6G4	1 U	20 U		5 U	5 U
4/22/2014	XX	BTXXXX6G5	1 U	20 U		5 U	5 U
7/30/2014	XX	BTXXXX70B	1 U	20 U		5 U	5 U
10/21/2014	XX	BTXXXX748	1 U	20 U		5 U	5 U

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - VOAs Part 4 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(QCBT)

Date	Type	Sample ID	1,2-Dichloro benzene ug/L	Acrylonitrile ug/L	Diethyl ether ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L										
4/27/2015	XX	BTXXXX79J	1 U	20 U		5 U	5 U										
7/15/2015	XX	BTXXXX7DB	1 U	20 U		5 U	5 U										
10/27/2015	XX	BTXXXX7II	1 U	20 U		5 U	5 U										
7/26/2016	XX	BTXXXX8BF	1 U	20 U	5 U	5 U	5 U										
10/25/2016	XX	BTXXXX8JE	1 U	20 U	5 U	5 U	5 U										
4/18/2017	XX	BTXXXX980	1 U	20 U	5 U	5 U	5 U										
7/25/2017	XX	BTXXXX9DI	1 U	20 U	5 U	5 U	5 U										
10/24/2017	XX	BTXXXX9HD	1 U	20 U	5 U	5 U	5 U										
4/3/2018	XX	BTXXXXHG3	1 U	20 U	5 U	5 U	5 U										
7/17/2018	XX	BTXXXXACD	1 U	20 U	5 U	5 U	5 U										
10/2/2018	XX	BTXXXXB1B	1 U	20 U	5 U	5 U	5 U										
4/23/2019	XX	BTXXXXB68	1 U	20 U	5 U	5 U	5 U										
7/16/2019	XX	BTXXXXBCJ	1 U	20 U	5 U	5 U	5 U										
10/29/2019	XX	BTXXXXBIC	1 U	20 U	5 U	5 U	5 U										

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the laboratory reporting limit.

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA Part 1 of 7

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

LT-C4L & LT-C4LR

(LT-C4L & LT-C4LR) Date	Type	Sample ID	Phenol ug/L	Bis (2-Chloroethyl) ether ug/L	2-Chlorophenol ug/L	1,3-Dichloro benzene (SVOC) ug/L	1,4-Dichloro benzene (SVOC) ug/L	Benzyl Alcohol ug/L	1,2-Dichloro benzene (SVOC) ug/L	2-Methylphenol ug/L	Bis(2-Chloroiso propyl) ether ug/L	N-Nitroso-di-n-propylamine ug/L	Hexachloro ethane ug/L	Nitrobenzene ug/L	Isophorone ug/L	2-Nitrophenol ug/L	2,4-Dimethyl phenol ug/L
4/28/2010	XX	LTC4LX3J3	70	9 U	9 U	9 U		19 U		9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U
4/27/2011	XX	LTC4LX49C	13	2 U	3 U	2 U	2 U		2 U	10	2 U	2 U	2 U	3 U	2 U	2 U	4 U
4/24/2012	XX	LTC4LX51F	9.5 U	9.5 U	9.5 U	9.5 U		19 U		9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
4/23/2013	XX	LTC4LX5HG	140	110 U	110 U	110 U		230 U		110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
4/22/2014	XX	LTC4LX6EH	160	9.6 U	9.6 U	9.6 U		19 U		12	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
4/28/2015	XX	LTC4LX78C	110	47 U	47 U	47 U	47 U	94 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
4/5/2016	XX	LTC4LX863	210	200 U	200 U	200 U	200 U	400 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
4/18/2017	XX	LTC4LX96I	75	14 U	14 U	14 U	14 U	28 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U
4/3/2018	XX	LTC4LXA2A	54	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4/23/2019	XX	LTC4LXB56	85	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the laboratory reporting limit.

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA Part 2 of 7

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR) Date	Type	Sample ID	Bis(2-Chloroethoxy)methane ug/L	2,4-Dichlorophenol ug/L	1,2,4-Trichloro benzene (SVOC) ug/L	Naphthalene (SVOC) ug/L	4-Chloroaniline ug/L	Hexachloro butadiene (SVOC) ug/L	4-Chloro-3-Methylphenol ug/L	2-Methyl naphthalene ug/L	Hexachloro cyclo pentadiene ug/L	2,4,6-Trichlorophenol ug/L	2,4,5-Trichlorophenol ug/L	2-Chloro naphthalene ug/L	2-Nitroaniline ug/L	Dimethyl pthalate ug/L	Acena phthylene ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	9 U	9 U	9 U	10	9 U	9 U	9 U	9 U	9 U	9 U	24 U	9 U	24 U	9 U	9 U
4/27/2011	XX	LTC4LX49C	2 U	3 U	2 U	6 J	2 U	2 U	4 J	3 U	1 U	3 U	3 U	3 U	2 U	2 U	1 U
4/24/2012	XX	LTC4LX51F	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	24 U	9.5 U	24 U	9.5 U	9.5 U
4/23/2013	XX	LTC4LX5HG	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	280 U	110 U	280 U	110 U	110 U
4/22/2014	XX	LTC4LX6EH	9.6 U	9.6 U	9.6 U	12	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	24 U	9.6 U	24 U	9.6 U	9.6 U
4/28/2015	XX	LTC4LX78C	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	120 U	47 U	120 U	47 U	47 U
4/5/2016	XX	LTC4LX863	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	500 U	200 U	500 U	200 U	200 U
4/18/2017	XX	LTC4LX96I	14 U	14 U	14 U	20	14 U	14 U	14 U	14 U	14 U	14 U	36 U	14 U	36 U	14 U	14 U
4/3/2018	XX	LTC4LXA2A	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	24 U	9.4 U	24 U	9.4 U	9.4 U
4/23/2019	XX	LTC4LXB56	10 U	10 U	10 U	6.7	10 U	10 U	10 U	1.4	50 U	10 U	10 U	10 U	50 U	10 U	1 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

J - Analyte was positively identified/Associated value is an estimate.

U - Not Detected above the laboratory reporting limit.

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA Part 3 of 7

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR) Date	Type	Sample ID	2,6-Dinitrotoluene ug/L	3-Nitroaniline ug/L	Acenaphthene ug/L	2,4-Dinitrophenol ug/L	4-Nitrophenol ug/L	Dibenzofuran ug/L	2,4-Dinitrotoluene ug/L	Diethyl phthalate ug/L	4-Chlorophenyl-phenylether ug/L	Fluorene ug/L	4-Nitroaniline ug/L	4,6-Dinitro-2-methylphenol ug/L	N-Nitroso diphenylamine ug/L	4-Bromophenyl-phenylether ug/L	Hexachloro benzene ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	9 U	24 U	9 U	24 U	24 U	9 U	9 U	9 U	9 U	9 U	24 U	24 U	9 U	9 U	9 U
4/27/2011	XX	LTC4LX49C	2 U	1 U	2 J	1 U	2 U	2 U	2 U	2 J	2 U	2 U	2 U	2 U	4 U	2 U	2 U
4/24/2012	XX	LTC4LX51F	9.5 U	24 U	9.5 U	24 U	24 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	24 U	24 U	9.5 U	9.5 U	9.5 U
4/23/2013	XX	LTC4LX5HG	110 U	280 U	110 U	280 U	280 U	110 U	110 U	110 U	110 U	110 U	280 U	280 U	110 U	110 U	110 U
4/22/2014	XX	LTC4LX6EH	9.6 U	24 U	9.6 U	24 U	24 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	24 U	24 U	9.6 U	9.6 U	9.6 U
4/28/2015	XX	LTC4LX78C	47 U	120 U	47 U	120 U	120 U	47 U	47 U	47 U	47 U	47 U	120 U	120 U	47 U	47 U	47 U
4/5/2016	XX	LTC4LX863	200 U	500 U	200 U	500 U	500 U	200 U	200 U	200 U	200 U	200 U	500 U	500 U	200 U	200 U	200 U
4/18/2017	XX	LTC4LX96I	14 U	36 U	14 U	36 U	36 U	14 U	14 U	14 U	14 U	14 U	36 U	36 U	14 U	14 U	14 U
4/3/2018	XX	LTC4LXA2A	9.4 U	24 U	9.4 U	24 U	24 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	24 U	24 U	9.4 U	9.4 U	9.4 U
4/23/2019	XX	LTC4LXB56	50 U	50 U	1.5	100 U	50 U	10 U	50 U	50 U	10 U	1 U	50 U	50 U	10 U	10 U	10 U

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Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

J - Analyte was positively identified/Associated value is an estimate.

U - Not Detected above the laboratory reporting limit.

REPORT PREPARED: 3/4/2020 10:16

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA Part 4 of 7

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4R) Date	Type	Sample ID	Pentachlorophenol ug/L	Phenanthrene ug/L	Anthracene ug/L	Di-n-butylphthalate ug/L	Fluoranthene ug/L	Pyrene ug/L	Butylbenzyl phthalate ug/L	3,3-Dichloro benzidine ug/L	Benzo(a) Anthracene ug/L	Chrysene ug/L	Bis(2-Ethylhexyl) phthalate ug/L	Di-n-octylphthalate ug/L	Benzo(b) Fluoranthene ug/L	Benzo(k) Fluoranthene ug/L	Benzo(a) Pyrene ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	24 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U
4/27/2011	XX	LTC4LX49C	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U	1 U	2 U	2 U	2 U	1 U	2 U	1 U
4/24/2012	XX	LTC4LX51F	24 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
4/23/2013	XX	LTC4LX5HG	280 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
4/22/2014	XX	LTC4LX6EH	24 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
4/28/2015	XX	LTC4LX78C	120 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
4/5/2016	XX	LTC4LX863	500 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
4/18/2017	XX	LTC4LX96I	36 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U
4/3/2018	XX	LTC4LXA2A	24 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4/23/2019	XX	LTC4LXB56	50 U	1 U	1 U	50 U	1 U	1 U	50 U	10 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the laboratory reporting limit.

REPORT PREPARED: 3/4/2020 10:16

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA Part 5 of 7

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR) Date	Type	Sample ID	Indeno(1,2,3-c,d) Pyrene ug/L	Dibenz(a,h) Anthracene ug/L	Benzo(g,h,i) perylene ug/L	N-Nitroso dimethylamine ug/L	Carbazole ug/L	2,3,4,6-Tetrachloro phenol ug/L	2,6-Dichlorophenol ug/L	3&4-Methylphenol ug/L	2-Acetyl aminofluorene ug/L	4-Aminobiphenyl ug/L	2-sec-Butyl-4-6-dinitrophenol (Dinoseb) ug/L	3,3`-Dimethyl benzidine ug/L	1,3-Dinitro benzene (m-Dinitrobenzene) ug/L	Ethyl methanesulfonate ug/L	Hexa chloropropene ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	9 U	9 U	9 U	9 U		9 U	9 U	450	9 U	9 U	4.7 U	24 U	9 U	9 U	9 U
4/27/2011	XX	LTC4LX49C	2 U	2 U	1 U		2 U			23			0.21 U				
4/24/2012	XX	LTC4LX51F	9.5 U	9.5 U	9.5 U	9.5 U		9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	4.8 U	24 U	9.5 U	9.5 U	9.5 U
4/23/2013	XX	LTC4LX5HG	110 U	110 U	110 U	110 U		110 U	110 U	1000	110 U	110 U	4.8 U	280 U	110 U	110 U	110 U
4/22/2014	XX	LTC4LX6EH	9.6 U	9.6 U	9.6 U	9.6 U		9.6 U	9.6 U	690	9.6 U	9.6 U	5.2 U	24 U	9.6 U	9.6 U	9.6 U
4/28/2015	XX	LTC4LX78C	47 U	47 U	47 U	47 U		47 U	47 U	890	47 U	47 U	4.7 U	120 U	47 U	47 U	47 U
4/5/2016	XX	LTC4LX863	200 U	200 U	200 U	200 U		200 U	200 U	1000	200 U	200 U	5.1 U	500 U	200 U	200 U	200 U
4/18/2017	XX	LTC4LX96IDL								480							
4/18/2017	XX	LTC4LX96I	14 U	14 U	14 U	14 U		14 U	14 U		14 U	14 U	4.7 U	36 U	14 U	14 U	14 U
4/3/2018	XX	LTC4LXA2ADL								350							
4/3/2018	XX	LTC4LXA2A	9.4 U	9.4 U	9.4 U	9.4 U		9.4 U	9.4 U		9.4 U	9.4 U	4.4 U	24 U	9.4 U	9.4 U	9.4 U
4/23/2019	XX	LTC4LXB56RA											4.8 U				
4/23/2019	XX	LTC4LXB56	1 U	1 U	1 U	10 U	10 U	10 UH	10 UH	540	10 UH	10 UH		26 UH	10 UH	10 UH	10 UH

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Concentration Qualifier Notes:

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UH - Not Detected above the laboratory reporting limit. Analyzed outside U.S.EPA’s recommended hold time

REPORT PREPARED: 3/4/2020 10:16

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA Part 6 of 7

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR) Date	Type	Sample ID	Isosafrole ug/L	Methapyrilene ug/L	3-Methyl cholanthrene ug/L	Methyl methane sulfonate ug/L	1-Naphthalene amine (1-Naphthyl amine) ug/L	2-Naphthalene amine (2-Naphthyl amine) ug/L	1,4-Naphtho quinone ug/L	5-Nitro-o-toluidine ug/L	N-Nitroso diethylamine ug/L	N-Nitrosodi-n-butylamine ug/L	N-Nitrosomethyl ethylamine ug/L	N-Nitroso piperidine ug/L	N-Nitroso pyrrolidine ug/L	Pentachloro benzene ug/L	Pentachloro nitrobenzene ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U
4/24/2012	XX	LTC4LX51F	9.5 U	24 U	9.5 U	9.5 U	9.5 U	9.5 U	24 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
4/23/2013	XX	LTC4LX5HG	110 U	280 U	110 U	110 U	110 U	110 U	280 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
4/22/2014	XX	LTC4LX6EH	9.6 U	24 U	9.6 U	9.6 U	9.6 U	9.6 U	24 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
4/28/2015	XX	LTC4LX78C	47 U	120 U	47 U	47 U	47 U	47 U	120 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
4/5/2016	XX	LTC4LX863	200 U	500 U	200 U	200 U	200 U	200 U	500 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
4/18/2017	XX	LTC4LX96I	14 U	36 U	14 U	14 U	14 U	14 U	36 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U
4/3/2018	XX	LTC4LXA2A	9.4 U	24 U	9.4 U	9.4 U	9.4 U	9.4 U	24 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4/23/2019	XX	LTC4LXB56		26 UH	10 UH	10 UH	10 UH	10 UH	26 UH	10 UH	10 UH	10 UH	10 UH	10 UH	10 UH	10 UH	10 UH

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

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Concentration Qualifier Notes:

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA Part 7 of 7

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR)

Date	Type	Sample ID	Phenacetin ug/L	p-Phenylene diamine ug/L	Pronamide ug/L	1,2,4,5-Tetrachloro benzene ug/L	1,3,5-Trinitro benzene (sym-Trinitrobenzene) ug/L	Safrole ug/L	O-Toluidine ug/L	p-(Dimethyl amino) azobenzene ug/L	7,12-Dimethylbenz (a)anthracene ug/L	Acetophenone ug/L
LT-C4L & LT-C4LR												
4/28/2010	XX	LTC4LX3J3	9 U	9 U	9 U	9 U	9 U	9 U	24 U	9 U	9 U	9 U
4/24/2012	XX	LTC4LX51F	9.5 U	24 U	9.5 U	9.5 U	9.5 U	9.5 U	24 U	9.5 U	9.5 U	9.5 U
4/23/2013	XX	LTC4LX5HG	110 U	280 U	110 U	110 U	110 U	110 U	280 U	110 U	110 U	110 U
4/22/2014	XX	LTC4LX6EH	9.6 U	24 U	9.6 U	9.6 U	9.6 U	9.6 U	24 U	9.6 U	9.6 U	11
4/28/2015	XX	LTC4LX78C	47 U	120 U	47 U	47 U	47 U	47 U	120 U	47 U	47 U	47 U
4/5/2016	XX	LTC4LX863	200 U	500 U	200 U	200 U	200 U	200 U	500 U	200 U	200 U	200 U
4/18/2017	XX	LTC4LX96I	14 U	36 U	14 U	14 U	14 U	14 U	36 U	14 U	14 U	14 U
4/3/2018	XX	LTC4LXA2A	9.4 U	24 U	9.4 U	9.4 U	9.4 U	9.4 U	24 U	9.4 U	9.4 U	11
4/23/2019	XX	LTC4LXB56	10 UH	26 UH	10 UH	10 UH	10 UH	10 UH	26 UH	10 UH	10 UH	100 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

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Concentration Qualifier Notes:

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REPORT PREPARED: 3/4/2020 10:19

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Pesticides, Herbicides and PCBs Part 1 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR) Date	Type	Sample ID	alpha-BHC ug/L	beta-BHC ug/L	delta-BHC ug/L	gamma-BHC (Lindane) ug/L	Heptachlor ug/L	Aldrin ug/L	Heptachlor Epoxide ug/L	Endosulfan I ug/L	Dieldrin ug/L	4,4'-DDE ug/L	Endrin ug/L	Endosulfan II ug/L	4,4'-DDD ug/L	Endosulfan Sulfate ug/L	4,4'-DDT ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U
4/27/2011	XX	LTC4LX49C	0.0065 U	0.0059 U	0.012 U	0.0068 U	0.0075 U	0.007 U	0.43	0.006 U	0.0061 U	0.0046 U	0.0079 U	0.0054 U	0.0085 U	0.0063 U	0.0084 U
4/24/2012	XX	LTC4LX51F	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U
4/23/2013	XX	LTC4LX5HG	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U
4/22/2014	XX	LTC4LX6EH	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
4/28/2015	XX	LTC4LX78C	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U
4/5/2016	XX	LTC4LX863	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U
4/18/2017	XX	LTC4LX96IRE	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4/3/2018	XX	LTC4LXA2A	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U
4/23/2019	XX	LTC4LXB56	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.036	0.02 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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REPORT PREPARED: 3/4/2020 10:19 FOR: Juniper Ridge Landfill	SUMMARY REPORT Pesticides, Herbicides and PCBs Part 2 of 4	Page 1 of 1 SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR)

LT-C4L & LT-C4LR

Date	Type	Sample ID	Methoxychlor ug/L	Endrin Ketone ug/L	alpha-Chlordane ug/L	gamma-Chlordane ug/L	Toxaphene ug/L	Aroclor-1016 ug/L	Aroclor-1221 ug/L	Aroclor-1232 ug/L	Aroclor-1242 ug/L	Aroclor-1248 ug/L	Aroclor-1254 ug/L	Aroclor-1260 ug/L	Endrin Aldehyde ug/L	Chlordane (technical) ug/L	2,4-Dichloro phenoxyacetic Acid ug/L
4/28/2010	XX	LTC4LX3J3	0.47 U				0.94 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.094 U	0.47 U	2.8 U
4/27/2011	XX	LTC4LX49C	0.0079 U	0.0074 U	0.0072 U	0.0057 U	0.16 U	0.14 U	0.19 U	0.085 U	0.17 U	0.19 U	0.075 U	0.16 U	0.0058 U		0.28 U
4/24/2012	XX	LTC4LX51F	0.47 U				0.94 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.094 U	0.47 U	2.8 U
4/23/2013	XX	LTC4LX5HG	0.48 U				0.97 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.097 U	0.48 U	2.9 U
4/22/2014	XX	LTC4LX6EH	0.48 U				0.95 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.095 U	0.48 U	3.1 U
4/28/2015	XX	LTC4LX78C	0.47 U				0.94 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.094 U	0.47 U	2.8 U
4/5/2016	XX	LTC4LX863	0.48 U				0.96 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.096 U	0.48 U	3.1 U
4/18/2017	XX	LTC4LX96IRE	0.52 U				1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.1 U	0.52 U	
4/18/2017	XX	LTC4LX96I															2.8 U
4/3/2018	XX	LTC4LXA2A	0.47 U				0.94 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.094 U	0.47 U	2.7 U
4/23/2019	XX	LTC4LXB56RA															2.8 U
4/23/2019	XX	LTC4LXB56	0.1 U				0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.02 U	0.1 U	

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

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Concentration Qualifier Notes:

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REPORT PREPARED: 3/4/2020 10:19

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Pesticides, Herbicides and PCBs Part 3 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR)

Date	Type	Sample ID	2,4,5-Trichloro phenoxypro pionic Acid ug/L	2,4,5-Trichloro phenoxyacetic acid ug/L	Diallate ug/L	Isodrin ug/L	Kepone ug/L	Dimethoate ug/L	Chlorobenzilate ug/L	Disulfoton ug/L	Famphur ug/L	Methyl Parathion ug/L	Parathion ug/L	Phorate ug/L	Thionazin ug/L	o,o,o-Triethyl phosphoro thioate ug/L	Dalapon ug/L
LT-C4L & LT-C4LR																	
4/28/2010	XX	LTC4LX3J3	2.8 U	2.8 U	9 U	9 U	24 U	9 U	9 U	9 U	28 U	9 U	24 U	9 U	19 U	9 U	
4/27/2011	XX	LTC4LX49C	0.19 U	0.5 U													0.31 U
4/24/2012	XX	LTC4LX51F	2.8 U	2.8 U	9.5 U	9.5 U	24 U	9.5 U	9.5 U	9.5 U	28 U	9.5 U	24 U	9.5 U		9.5 U	
4/23/2013	XX	LTC4LX5HG	2.9 U	2.9 U	110 U	110 U	280 U	110 U	110 U	110 U	340 U	110 U	280 U	110 U	230 U	110 U	
4/22/2014	XX	LTC4LX6EH	3.1 U	3.1 U	9.6 U	9.6 U	24 U	9.6 U	9.6 U	9.6 U	29 U	9.6 U	24 U	9.6 U	19 U	9.6 U	
4/28/2015	XX	LTC4LX78C	2.8 U	2.8 U	47 U	47 U	120 U	47 U	47 U	47 U	140 U	47 U	120 U	47 U	94 U	47 U	
4/5/2016	XX	LTC4LX863	3.1 U	3.1 U	200 U	200 U	500 U	200 U	200 U	200 U	590 U	200 U	500 U	200 U	400 U	200 U	
4/18/2017	XX	LTC4LX96I	2.8 U	2.8 U	14 U	14 U	36 U	14 U	14 U	14 U	43 U	14 U	36 U	14 U	28 U	14 U	
4/3/2018	XX	LTC4LXA2A	2.7 U	2.7 U	9.4 U	9.4 U	24 U	9.4 U	9.4 U	9.4 U	28 U	9.4 U	24 U	9.4 U	19 U	9.4 U	
4/23/2019	XX	LTC4LXB56RA	2.9 U	2.9 U													
4/23/2019	XX	LTC4LXB56			10 UH	10 UH	26 UH	10 UH	10 UH	10 UH	31 UH	10 UH	26 UH	10 UH	21 UH	10 UH	

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

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Concentration Qualifier Notes:

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REPORT PREPARED: 3/4/2020 10:19

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Pesticides, Herbicides and PCBs Part 4 of 4

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LT-C4L & LT-C4LR) Date	Type	Sample ID	Dicamba ug/L	Dichloroprop ug/L	MCPA ug/L	MCPP ug/L	2,4-DB ug/L	2-sec-Butyl-4-6-dinitrophenol (Dinoseb) ug/L
LT-C4L & LT-C4LR								
4/28/2010	XX	LTC4LX3J3						4.7 U
4/27/2011	XX	LTC4LX49C	0.14 U	0.26 U	32 U	48 U	0.51 U	0.21 U
4/24/2012	XX	LTC4LX51F						4.8 U
4/23/2013	XX	LTC4LX5HG						4.8 U
4/22/2014	XX	LTC4LX6EH						5.2 U
4/28/2015	XX	LTC4LX78C						4.7 U
4/5/2016	XX	LTC4LX863						5.1 U
4/18/2017	XX	LTC4LX96I						4.7 U
4/3/2018	XX	LTC4LXA2A						4.4 U
4/23/2019	XX	LTC4LXB56RA						4.8 U

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the laboratory reporting limit.

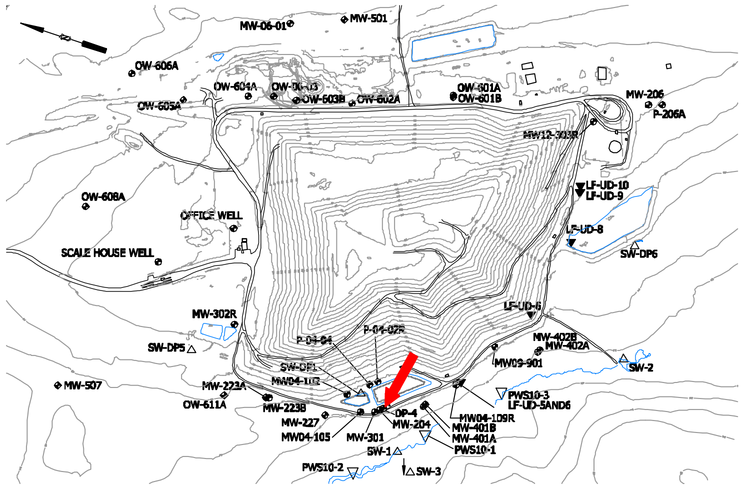
APPENDIX E

2019 WATER QUALITY SUMMARY REPORTS AND BOX & WHISKER PLOTS

SME
SEVEE & MAHER
ENGINEERS

Well Description

DP-4 is located downgradient of the landfill and former leachate pond and monitors groundwater quality within the overburden.



Screen Interval:	**18.5 ft. to 24.5 ft.**
Sampled:	**1 Time Annually(field parameters only)**
Sampled Since:	**01/30/04**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

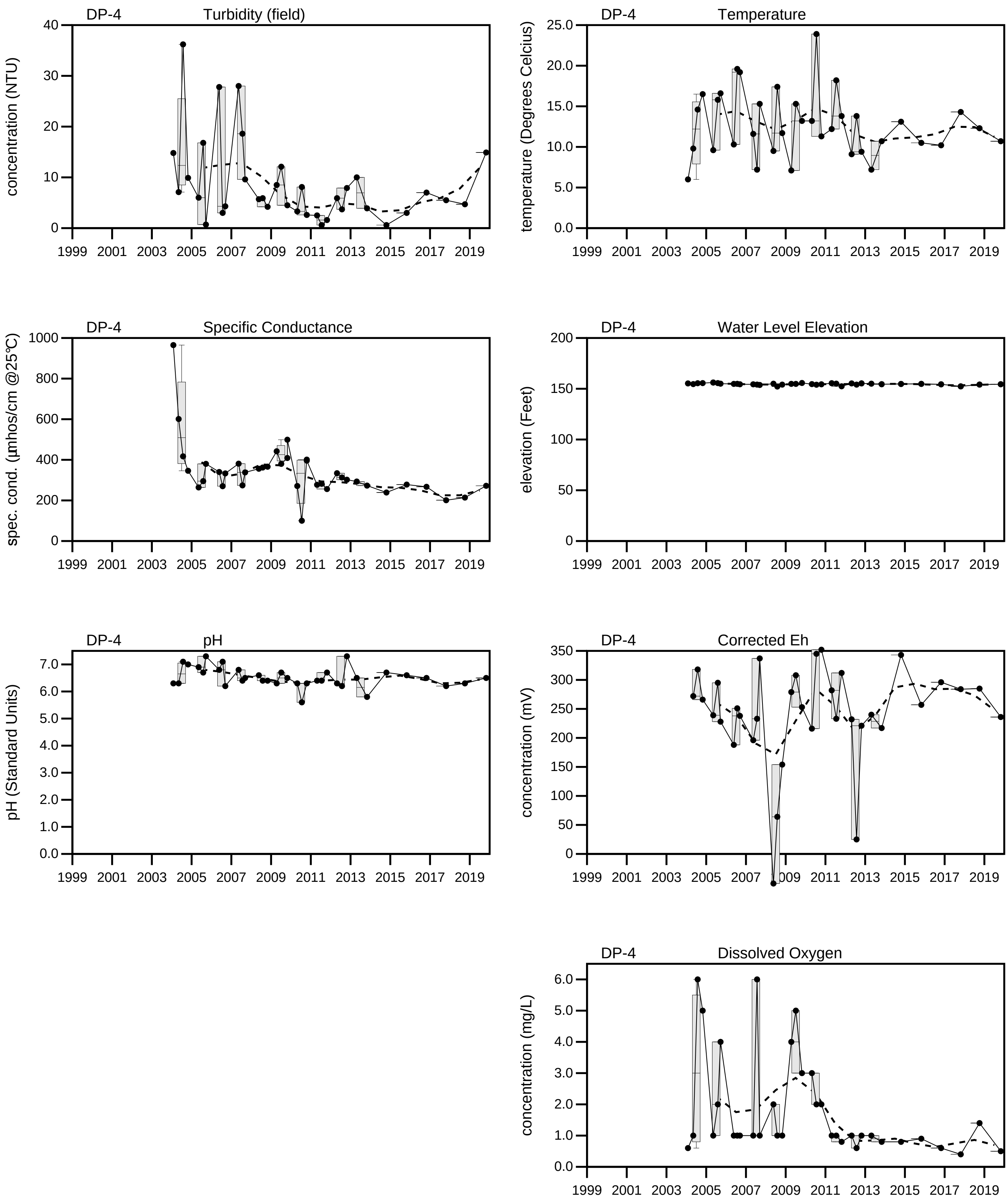
	2019				Historical (1/1/1980 - 12/31/2019)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)				272	100	to 965	340	± 24	35
pH (STU)				6.5	5.6	to 7.3	6.5	± 0.06	35
Temperature (Deg C)				10.7	6	to 23.9	13	± 0.68	35
Water Level Elevation (Feet)				154.46	152.18	to 156.12	150	± 0.15	35
Eh (mV)				236	-51	to 352	240	± 15	34
Dissolved Oxygen (mg/L)				0.5	0.4	to 6	1.9	± 0.27	35
Turbidity (field) (NTU)				14.9	0.6	to 36.2	8.4	± 1.4	35

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

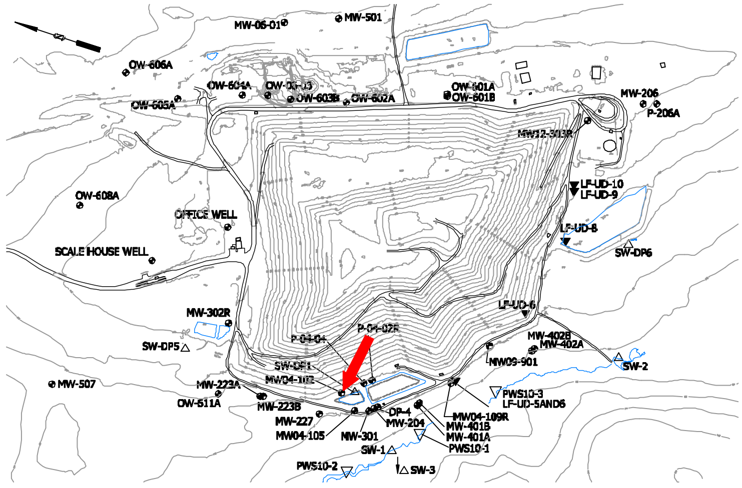
Juniper Ridge Landfill

DP-4

Sevee & Maher Engineers, Inc.

Well Description

MW04-102 monitors groundwater in the overburden downgradient of the landfill and upgradient of Stormwater Detention Pond-1.



Screen Interval:	**10 ft. to 15 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**01/18/2005**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		216	216	216	193	to	320	230	±	3.3	43
pH (STU)		8.3	7.6	8.1	6.2	to	8.4	7.9	±	0.06	43
Temperature (Deg C)		5.1	14.2	8.1	4	to	20.1	13	±	0.64	43
Water Level Elevation (Feet)		163.82	163.12	163.67	161.92	to	167.62	160	±	0.17	43
Eh (mV)		355	265	307	-8	to	476	310	±	14	43
Dissolved Oxygen (mg/L)		6	3.7	3.3	1	to	7.5	3.6	±	0.22	43
Arsenic (mg/L)		0.005	0.005 U	0.005	0.001 U	to	0.017	0.0054	±	0.000	43
Calcium (mg/L)		26	24	24	23.5	to	31.2	26	±	0.25	43
Iron (mg/L)		0.14	0.05 U	0.05 U	0.02 U	to	0.19	0.052	±	0.005	43
Magnesium (mg/L)		7.1	7.1	6.6	6.3	to	8.1	7	±	0.06	43
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.09	0.038	±	0.003	43
Potassium (mg/L)		1.5	1.7	1.6	1.2	to	3.2	1.8	±	0.06	43
Sodium (mg/L)		7.1	7.9	6.9	6.4	to	11	7.8	±	0.16	43
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U	to	3.8	0.53	±	0.09	43
Nitrite/Nitrate - (N) (mg/L)		0.11	0.065	0.091	0.05 U	to	2 U	0.3	±	0.16	12
Total Dissolved Solids (mg/L)		131	132	131	116	to	151	130	±	1.4	43
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	5	3.8	±	0.09	43
Sulfate (mg/L)		13	13	13	5.7	to	14.5	10	±	0.33	43
Bicarbonate (CaCO3) (mg/L)		98	99	100	73	to	109	100	±	0.8	43
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5	to	5.3	1.8	±	0.13	43
Chloride (mg/L)		1.2	1.1	1.9	1 U	to	3.5	1.8	±	0.09	43
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.03 U	to	0.2 U	0.11	±	0.01	22
Turbidity (field) (NTU)		1.9	2.7	2.7	0	to	8.1	1.4	±	0.23	43

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

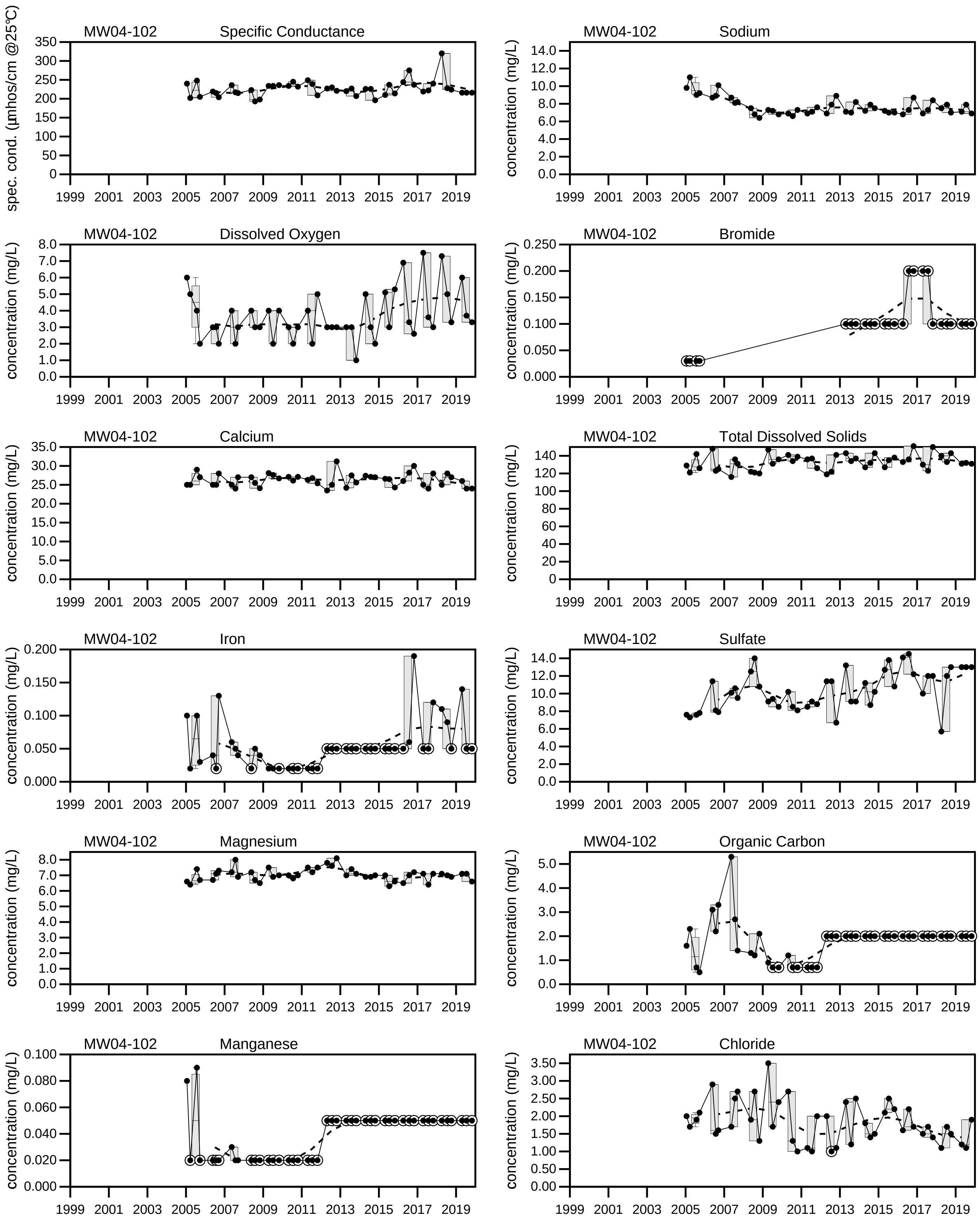
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 533

Printed: 3/17/2020 10:34

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

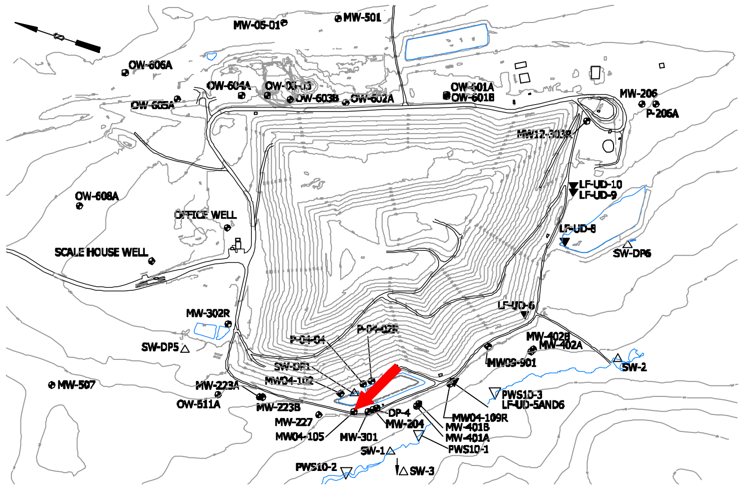
Juniper Ridge Landfill

MW04-102

Sevee & Maher Engineers, Inc.

Well Description

MW04-105 monitors groundwater in the overburden downgradient of the landfill and Stormwater Detention Pond-1.



Screen Interval:	**14.8 ft. to 19.8 ft.**
Sampled:	**1 Time Annually(field parameters only)**
Sampled Since:	**01/17/2005**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

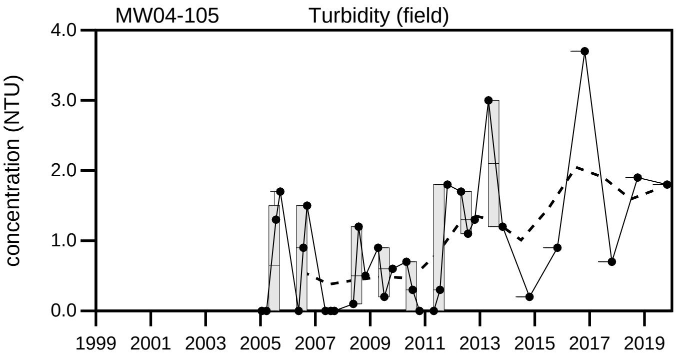
	2019				Historical (1/1/1980 - 12/31/2019)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)				218	217	to 703	370	± 19	32
pH (STU)				6.8	6.1	to 7.7	6.9	± 0.06	32
Temperature (Deg C)				10.3	6.7	to 23.8	12	± 0.63	32
Water Level Elevation (Feet)				158.39	156.39	to 159.79	160	± 0.14	32
Eh (mV)				265	-7	to 447	310	± 14	32
Dissolved Oxygen (mg/L)				0.4	0.4	to 4	1.3	± 0.19	32
Turbidity (field) (NTU)				1.8	0	to 3.7	0.87	± 0.16	32

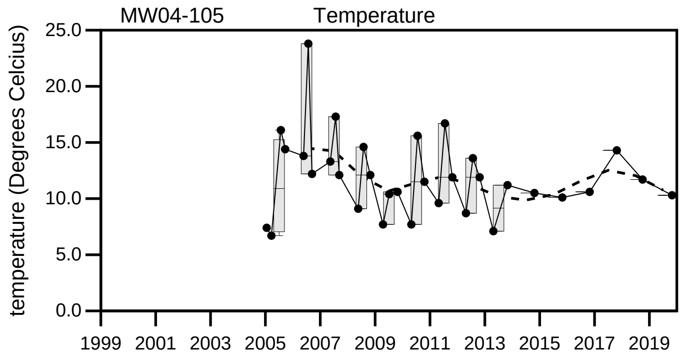
underlined/bold - values exceed a regulatory standard listed below.

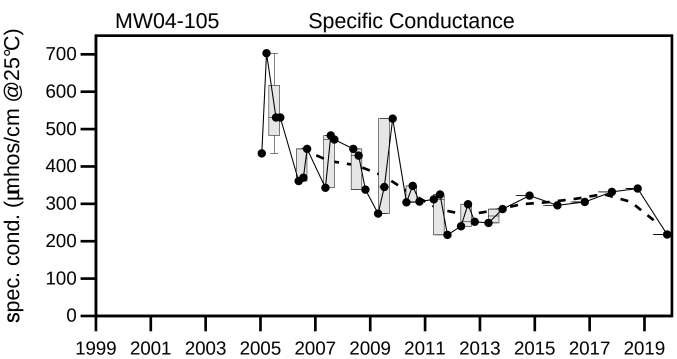
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

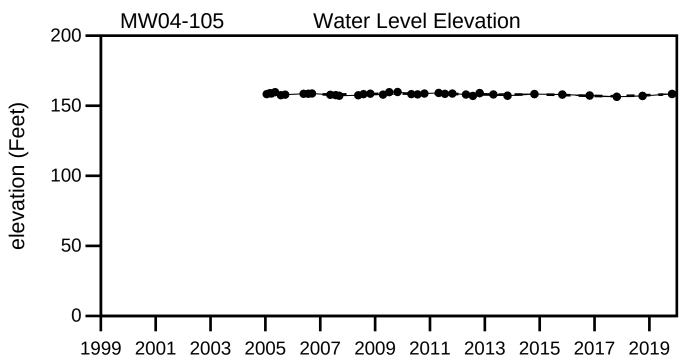
Comments

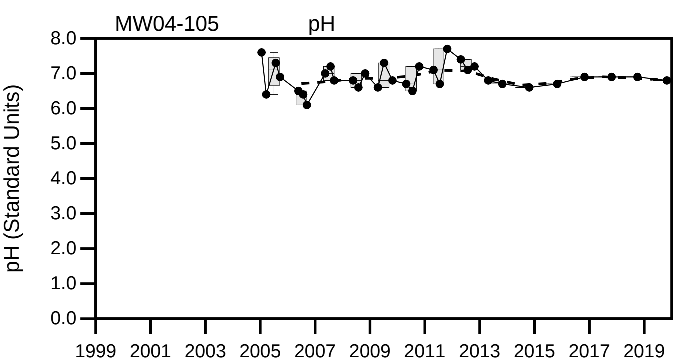
Q4= 10 - 2019

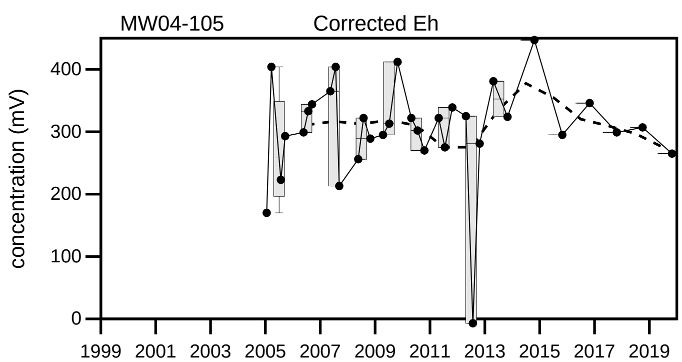


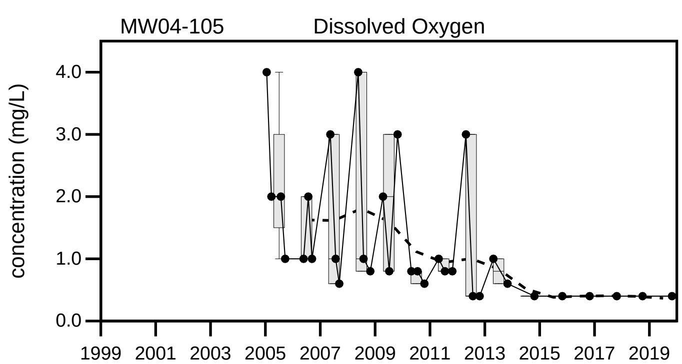












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

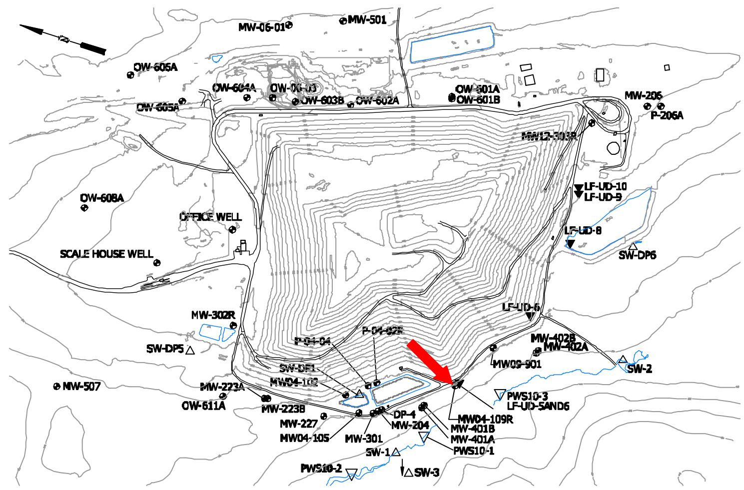
Juniper Ridge Landfill

MW04-105

Sevee & Maher Engineers, Inc.

Well Description

MW04-109R is located to the south of Cell #5 of the landfill and near Manhole #5. This well monitors water quality within the overburden downgradient of the landfill.



Screen Interval:	**15 ft. to 20 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**12/08/2009**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		427	446	418	237	to	556	420	±	11	28
pH (STU)		6.9	6.5	6.8	6.3	to	7.9	6.7	±	0.05	28
Temperature (Deg C)		8.7	18.2	13.2	5.9	to	21.9	13	±	0.93	28
Water Level Elevation (Feet)		↑ 154.46	153.73	154.17	151.51	to	154.4	150	±	0.13	28
Eh (mV)		409	268	371	-478	to	419	280	±	35	28
Dissolved Oxygen (mg/L)		1.7	1.3	↓ 0.1 U	0.3	to	2.6	0.84	±	0.11	28
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.033	0.014	±	0.002	28
Calcium (mg/L)		64	65	60	50.3	to	77.2	62	±	1.2	28
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.05 U	0.043	±	0.002	28
Magnesium (mg/L)		13	13	12	9.4	to	14.3	11	±	0.23	28
Manganese (mg/L)		**<u>0.53</u>**	**<u>1.2</u>**	**<u>1.3</u>**	0.02	to	1.4	0.43	±	0.09	28
Potassium (mg/L)		1.9	1.9	2.3	1.7	to	2.5	2	±	0.04	28
Sodium (mg/L)		6.8	7.4	7.5	6.1	to	10.6	8.1	±	0.24	28
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	↑ 0.92	0.25 U	to	0.59	0.4	±	0.02	28
Nitrite/Nitrate - (N) (mg/L)		0.058	0.05 U	0.05 U	0.05 U	to	2 U	0.32	±	0.16	12
Total Dissolved Solids (mg/L)		256	265	260	227	to	310	260	±	3.4	28
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	4 U	3.7	±	0.12	28
Sulfate (mg/L)		10	8.9	8.5	2.6	to	55	10	±	1.7	28
Bicarbonate (CaCO3) (mg/L)		210	220	210	184	to	233	200	±	2.5	28
Organic Carbon (mg/L)		2 U	2 U	2	1.2	to	2.9	1.9	±	0.06	28
Chloride (mg/L)		3.8	6.8	↓ 1 U	2.3	to	15.9	7.1	±	0.5	28
Bromide (mg/L)		0.16	0.15	0.2	0.1 U	to	0.25	0.17	±	0.01	18
Turbidity (field) (NTU)		0.8	2.3	2.8	0	to	2.9	0.75	±	0.16	28

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

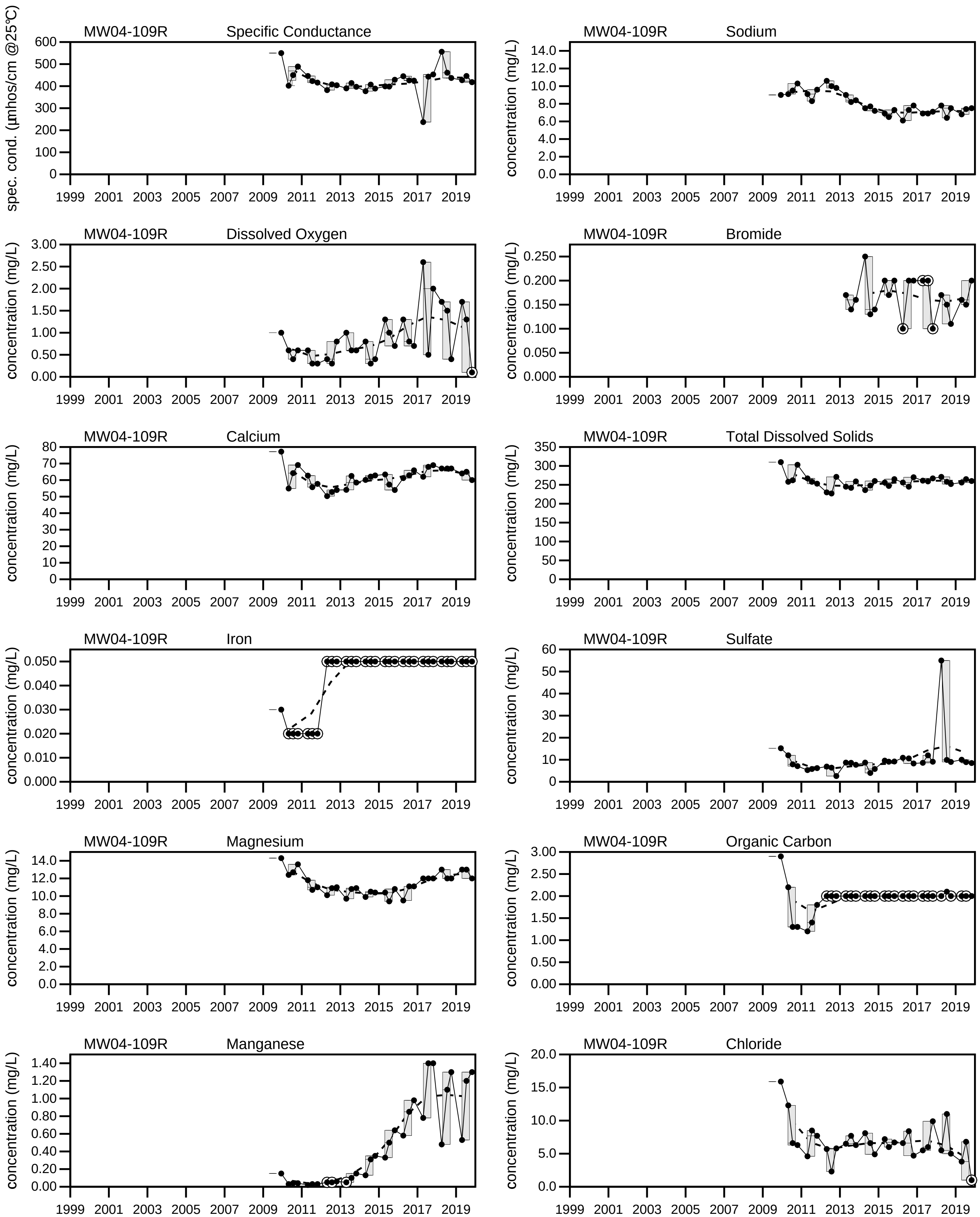
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 533

Printed: 3/17/2020 10:34

SME SEVEE & MAHER ENGINEERS



LEGEND

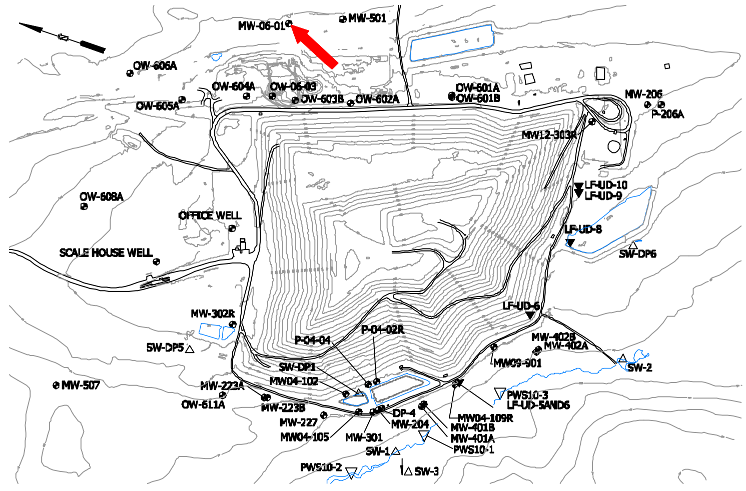
- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

MW04-109R

Sevee & Maher Engineers, Inc.

Well Description



MW06-01 monitors overburden groundwater downgradient of Cell 11 of the landfill expansion.

Screen Interval:	**10 ft. to 20 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**Apr-18**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)		↓84	↓67	85	85	to 102	93	± 3.5	4
pH (STU)		7	↑8.1	7.7	6.1	to 8	6.8	± 0.41	4
Temperature (Deg C)		↓6.4	↑12.2	9.7	7.3	to 11.2	9.1	± 0.95	4
Water Level Elevation (Feet)			↑165.951		164.431	to 165.881	170	± 0.42	3
Eh (mV)		377	↓290	↓219	325	to 508	390	± 40	4
Dissolved Oxygen (mg/L)		10.1	↑13	↑11	7.9	to 10.3	9	± 0.5	4
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U	to 0.005 U	0.005	± 0	4
Calcium (mg/L)		↓8.4	9	↓8.5	8.6	to 11	9.7	± 0.54	4
Iron (mg/L)		↑0.66	0.05 U	0.05 U	0.05 U	to 0.05 U	0.05	± 0	4
Magnesium (mg/L)		2.6	↑3.2	2.5	2.4	to 3	2.6	± 0.13	4
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.05 U	to 0.05 U	0.05	± 0	4
Potassium (mg/L)		↑0.6	↑0.6	↑0.5	0.4	to 0.4	0.4	± 0	4
Sodium (mg/L)		2.7	↑3.4	2.7	2.5	to 2.9	2.7	± 0.09	4
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U	to 0.25 U	0.25	± 0	4
Nitrite/Nitrate - (N) (mg/L)		0.091	0.13	0.11	0.078	to 0.13	0.11	± 0.01	4
Total Dissolved Solids (mg/L)		60	77	50	50	to 78	69	± 6.4	4
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to 2.5 U	2.5	± 0	4
Sulfate (mg/L)		2.9	2.6	↑9.2	2.3	to 3	2.7	± 0.15	4
Bicarbonate (CaCO3) (mg/L)		30	34	23	No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)		2 U	2 U	2 U	2 U	to 2 U	2	± 0	4
Chloride (mg/L)		↓4.4	7.5	↓1.3	4.8	to 8.9	7.3	± 0.89	4
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to 0.1 U	0.1	± 0	4
Turbidity (field) (NTU)		2.1	0.5	0.1	0.1	to 3.5	1.9	± 0.86	4

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

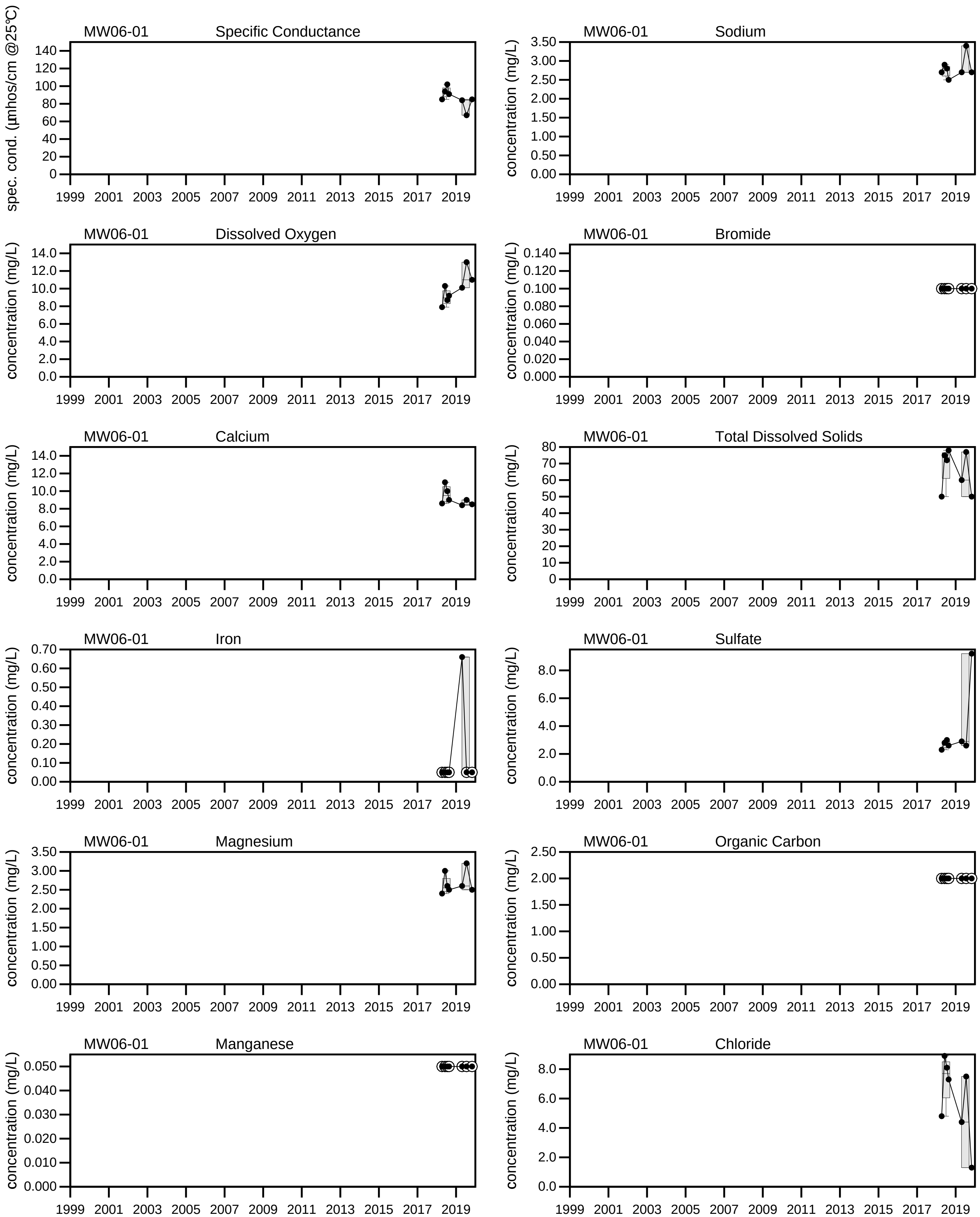
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 606

Printed: 3/17/2020 10:23

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL

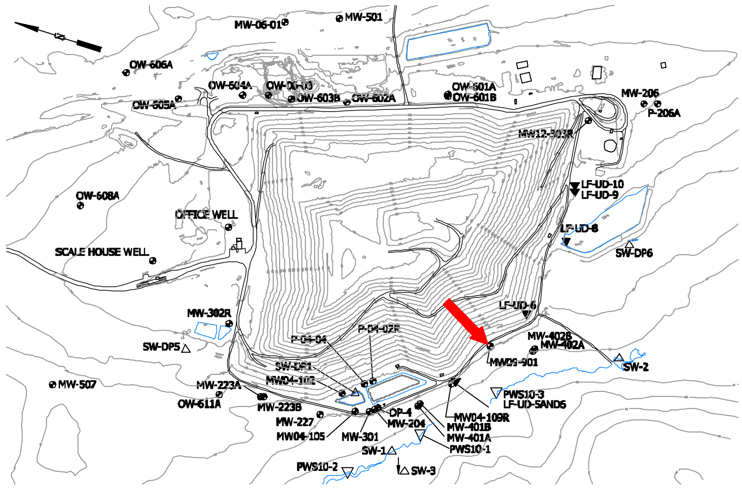
Juniper Ridge Landfill

MW06-01

Sevee & Maher Engineers, Inc.

Well Description

MW09-901 is located to the south of Cell #5 and detention pond #2 of the landfill. This well monitors water quality within the overburden downgradient of the landfill.



Screen Interval:	**15 ft. to 20 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**12/08/2009**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min		Max	Mean ± SE	n
Specific Conductance (µmhos/cm @25°C)		364	398	333	178	to	482	290 ± 16	28
pH (STU)		6.7	6.6	6.8	6.5	to	8.4	7.5 ± 0.1	28
Temperature (Deg C)		6.9	18.7	12.4	4.6	to	20.4	13 ± 0.77	28
Water Level Elevation (Feet)		↑ 159.14	155.95	↑ 159.21	153.18	to	158.8	160 ± 0.25	28
Eh (mV)		423	280	381	20	to	464	320 ± 17	28
Dissolved Oxygen (mg/L)		1.3	↓ 0.4	↓ 0.1 U	0.6	to	5.4	2.7 ± 0.29	28
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.019	0.0081 ± 0.000	28
Calcium (mg/L)		49	51	44	18.8	to	58	33 ± 2.3	28
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.18	0.05 ± 0.005	28
Magnesium (mg/L)		12	13	11	5.4	to	14	8.9 ± 0.58	28
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.39	0.062 ± 0.01	28
Potassium (mg/L)		1.8	1.8	1.9	1.5	to	2.6	2.2 ± 0.06	28
Sodium (mg/L)		9.8	11	10	4.9	to	17.4	9.3 ± 0.63	28
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U	to	1.5	0.43 ± 0.04	28
Nitrite/Nitrate - (N) (mg/L)		0.2	0.22	0.05 U	0.05 U	to	2 U	0.49 ± 0.15	12
Total Dissolved Solids (mg/L)		217	227	209	103	to	235	160 ± 9	28
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	4	3.7 ± 0.12	28
Sulfate (mg/L)		11	12	13	4.6	to	47	13 ± 1.5	28
Bicarbonate (CaCO3) (mg/L)		170	180	160	75	to	180	120 ± 7	28
Organic Carbon (mg/L)		2 U	2 U	2 U	0.7 U	to	2 U	1.8 ± 0.09	28
Chloride (mg/L)		4.8	8.6	5.1	1 U	to	14	4.5 ± 0.58	28
Bromide (mg/L)		↑ 0.26	↑ 0.23	↑ 0.27	0.1 U	to	0.2	0.13 ± 0.01	18
Turbidity (field) (NTU)		1.6	2.8	1.6	0	to	10.1	1.8 ± 0.38	28

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

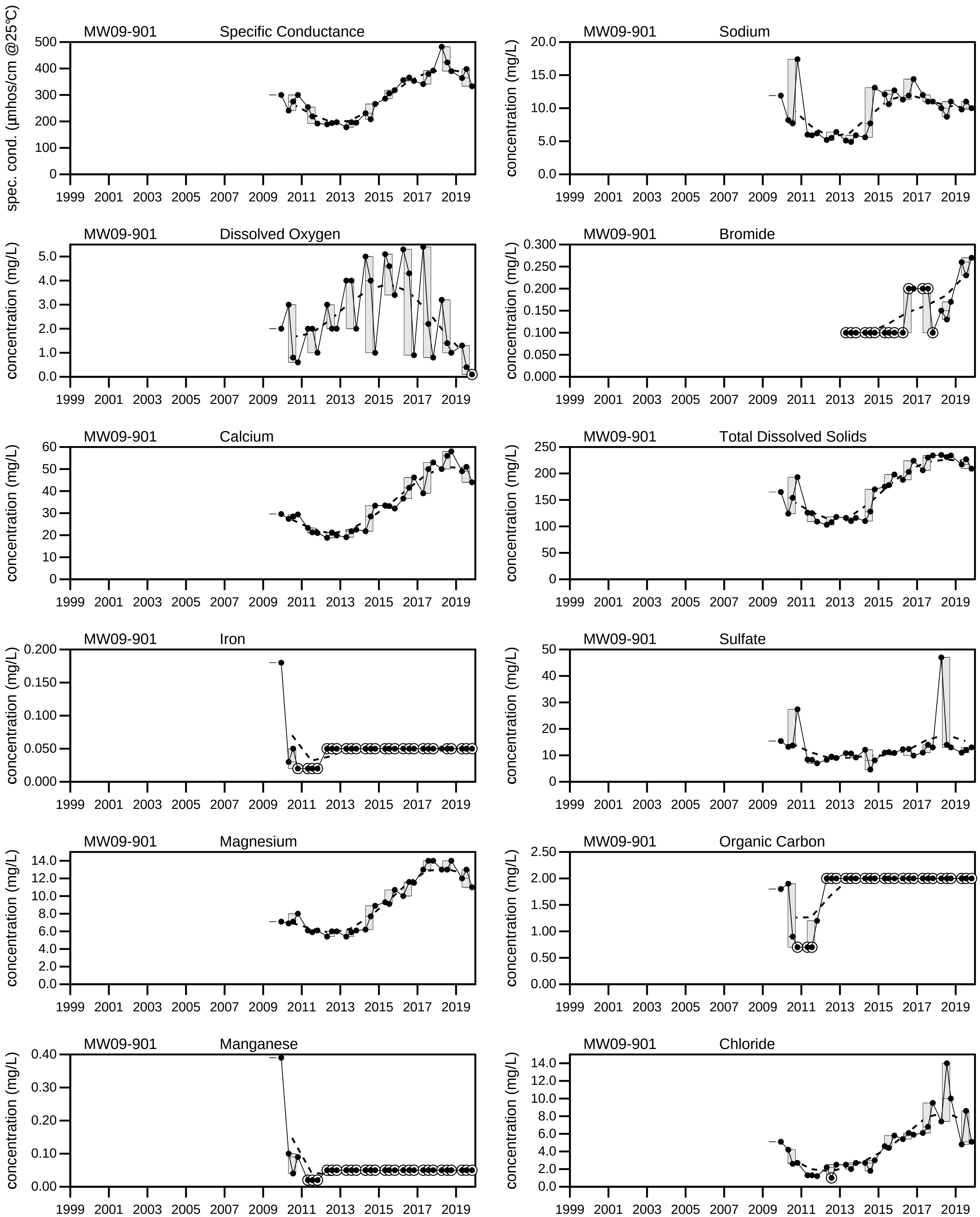
Q3= 7 - 2019

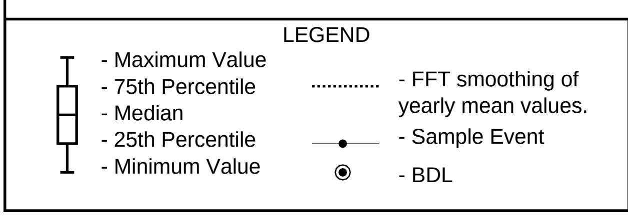
Q4= 10 - 2019

Data Group: 533

Printed: 3/17/2020 10:34

SME SEVEE & MAHER ENGINEERS





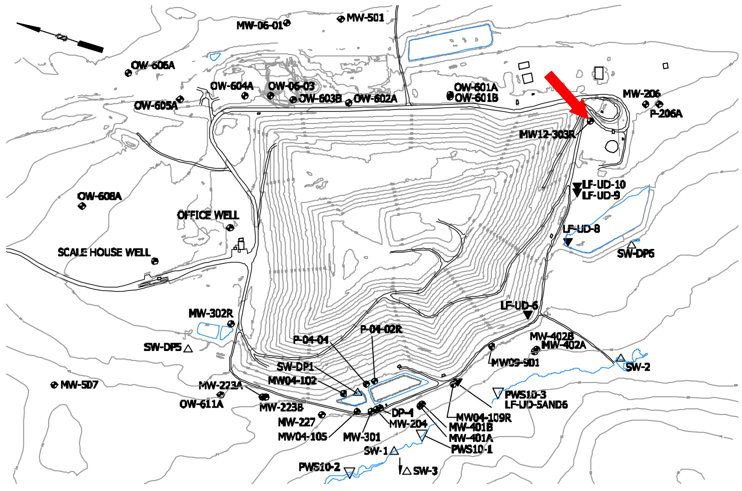
Juniper Ridge Landfill

MW09-901

Sevee & Maher Engineers, Inc.

Well Description

MW12-303R was installed in September 2012 to replace MW-303. MW12-303R monitors the background water quality at the site upgradient of the landfill.



Screen Interval:	**30.4 ft. to 40.4 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**10/23/12**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		485	494	380	189	to	1711	480	±	75	20
pH (STU)		6.2	↓5.9	6.1	6	to	7	6.5	±	0.06	20
Temperature (Deg C)		9.1	11.3	10.4	6.7	to	14.4	11	±	0.45	20
Water Level Elevation (Feet)		181.14	181.89	179.77	176.39	to	184.54	180	±	0.54	20
Eh (mV)		418	303	400	158	to	447	350	±	15	20
Dissolved Oxygen (mg/L)		5.8	2.2	↓0.2	0.8	to	7.7	2.5	±	0.52	20
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U	to	0.036	0.01	±	0.002	20
Calcium (mg/L)		60	50	43	16.6	to	160	45	±	6.8	20
Iron (mg/L)		0.35	0.05 U	0.05 U	0.05 U	to	2.29	0.2	±	0.11	20
Magnesium (mg/L)		8.3	9	5.6	2.5	to	22	9.4	±	0.92	20
Manganese (mg/L)		**<u>0.76</u>**	0.14	0.1	0.05 U	to	3.13	0.33	±	0.16	20
Potassium (mg/L)		↑5.7	4.3	3.8	1.4	to	5.6	2.4	±	0.26	20
Sodium (mg/L)		**<u>25</u>**	**<u>29</u>**	20	8.8	to	110	33	±	6	20
Total Kjeldahl Nitrogen (mg/L)		↑2	0.71	0.9	0.25 U	to	1	0.54	±	0.04	20
Nitrite/Nitrate - (N) (mg/L)		1	0.72	1.7	0.05 U	to	5.9	1.2	±	0.46	13
Total Dissolved Solids (mg/L)		353	297	268	143	to	1016	290	±	43	20
Total Suspended Solids (mg/L)		12	2.5 U	2.5 U	2.5 U	to	130	14	±	6.5	20
Sulfate (mg/L)		56	33	45	2 U	to	430	30	±	21	20
Bicarbonate (CaCO3) (mg/L)		120	130	120	42	to	162	120	±	5.7	20
Organic Carbon (mg/L)		↑16	7.8	11	2 U	to	11.6	3.4	±	0.54	20
Chloride (mg/L)		27	40	15	4.9	to	220	48	±	10	20
Bromide (mg/L)		↑2.4	↑0.62	0.27	0.1 U	to	0.5 U	0.21	±	0.03	18
Turbidity (field) (NTU)		7.6	1.8	2.8	0.5	to	37.5	5.1	±	2	20

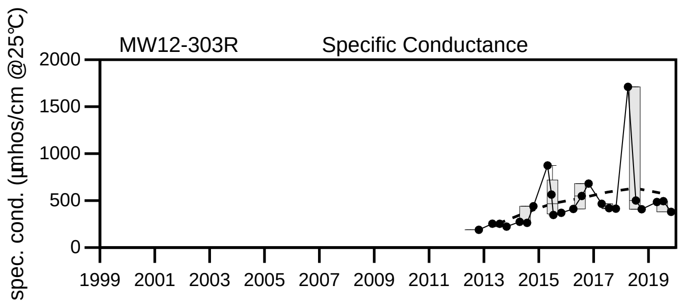
<u>underlined/bold</u> - values exceed a regulatory standard listed below.

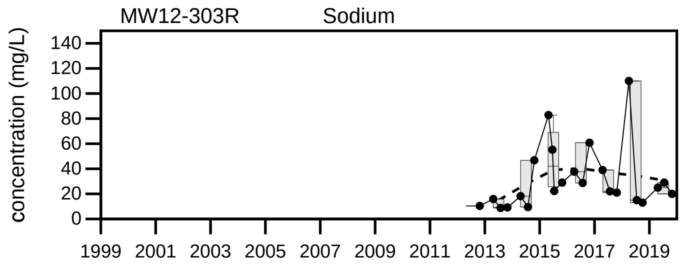
Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

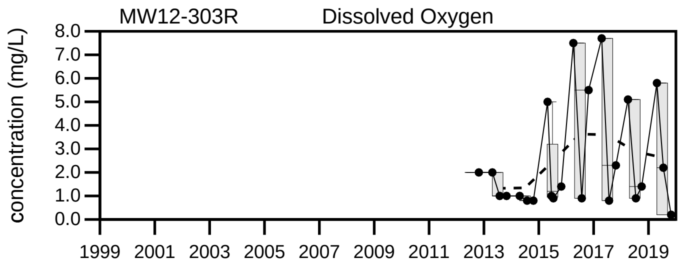
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

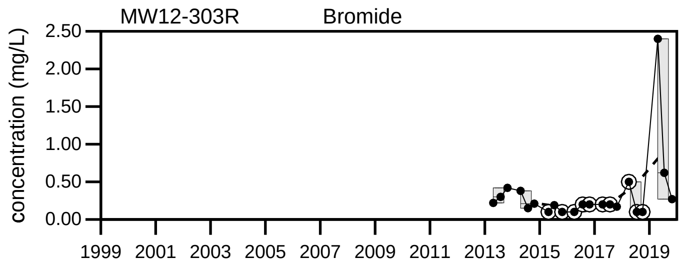
Comments

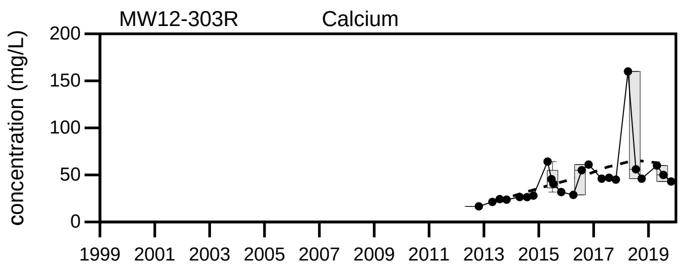
Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.
Q3= 7 - 2019
Q4= 10 - 2019

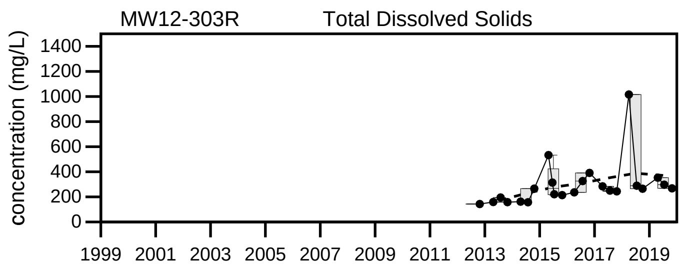


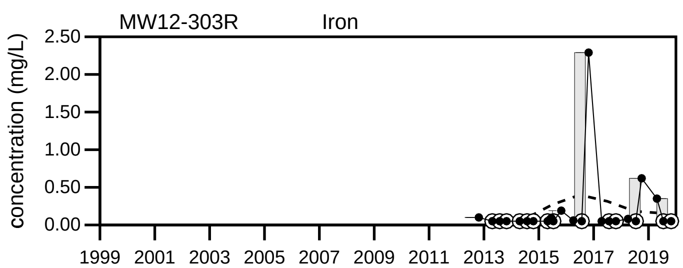


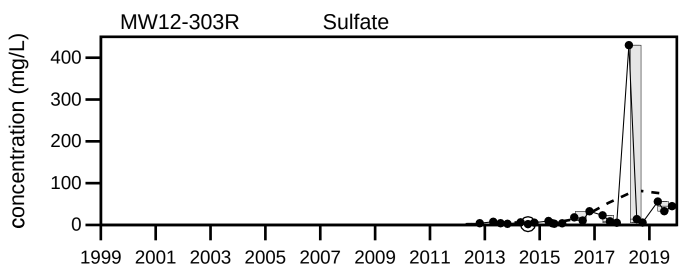


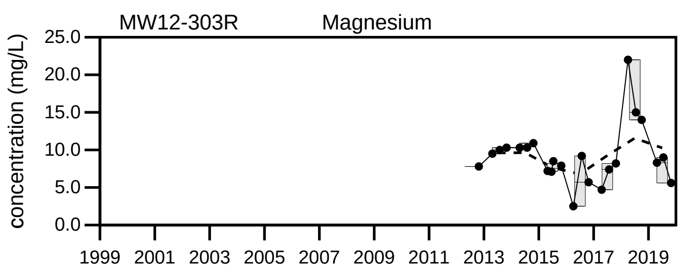


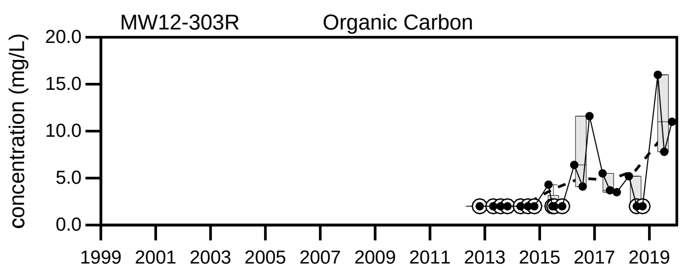


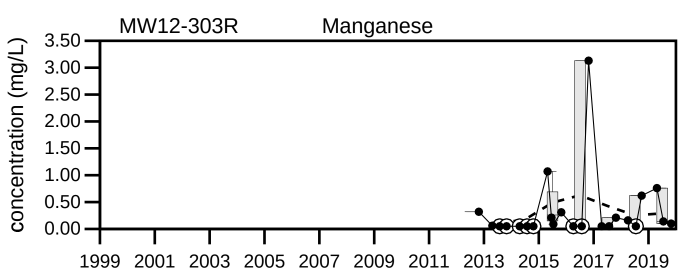


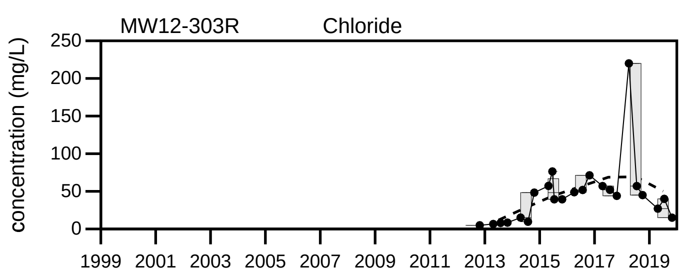












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

MW12-303R

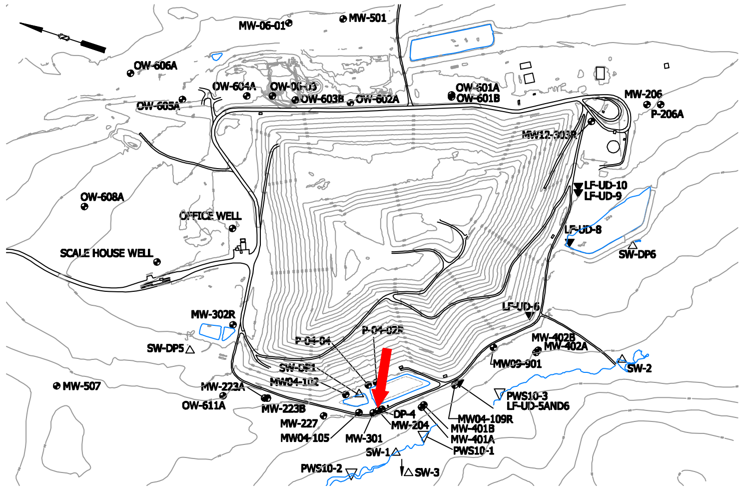
Sevee & Maher Engineers, Inc.

Juniper Ridge Landfill

annual stats 2019 G1

Well Description

MW-204 monitors the overburden water quality downgradient from the landfill.



Screen Interval:	**13.8 ft. to 18.8 ft.**
Sampled:	**1 Time Annually(field parameters only)**
Sampled Since:	**11/13/90**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)				253	100	to	340	190	±	5.9	83
pH (STU)				6.9	5.7	to	9.2	6.8	±	0.06	83
Temperature (Deg C)				11	-1	to	18	9.9	±	0.38	83
Water Level Elevation (Feet)				155.75	150.53	to	161.5	160	±	0.22	80
Eh (mV)				191	35.2	to	491	290	±	15	45
Dissolved Oxygen (mg/L)				0.3	0.3	to	5.2	1.5	±	0.14	61
Turbidity (field) (NTU)				4.1	0	to	31	2.7	±	0.73	60

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q4= 10 - 2019

Data Group: 530

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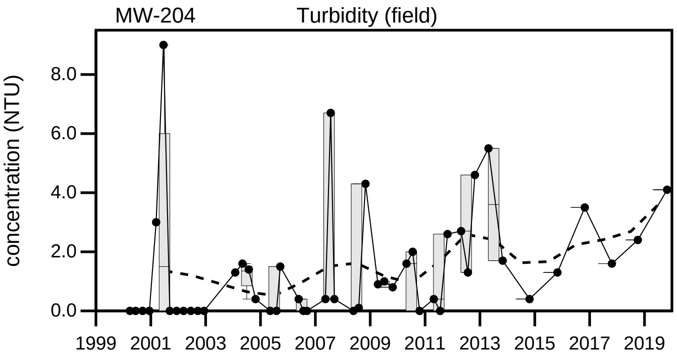
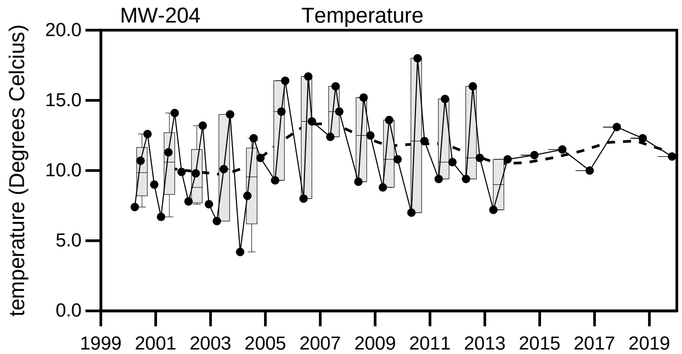
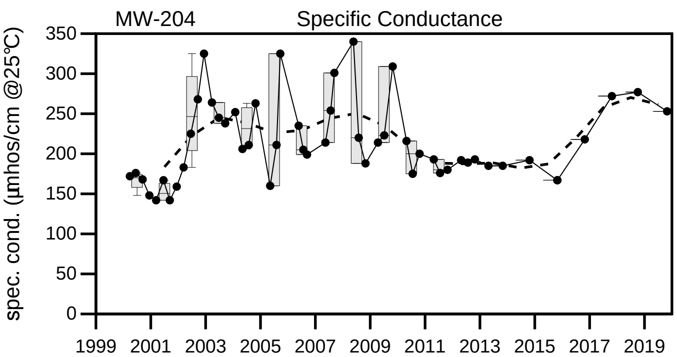
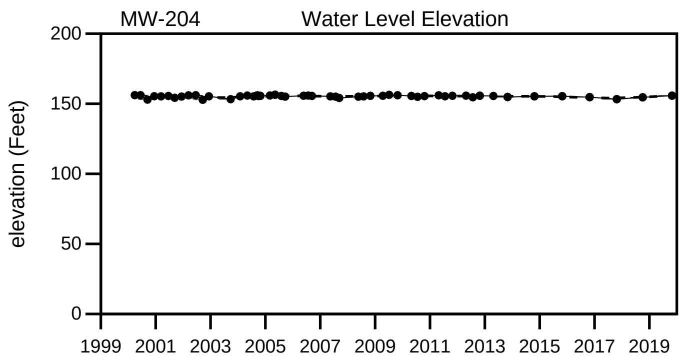
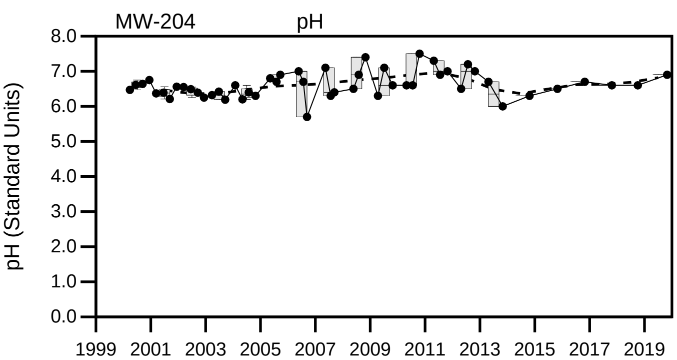
SME SEVEE & MAHER ENGINEERS

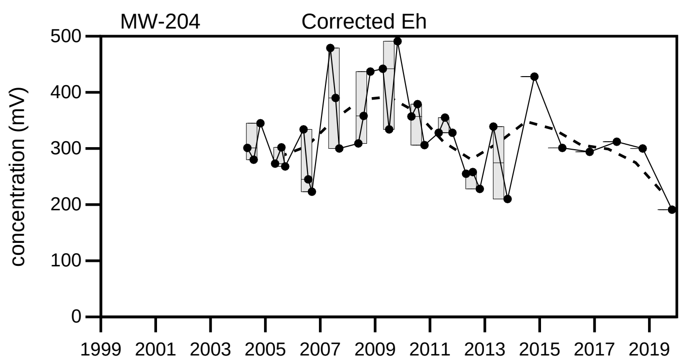


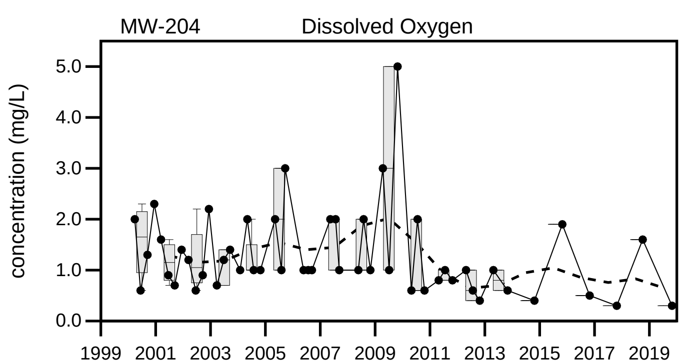












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value

- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

MW-204

Sevee & Maher Engineers, Inc.

MW-206

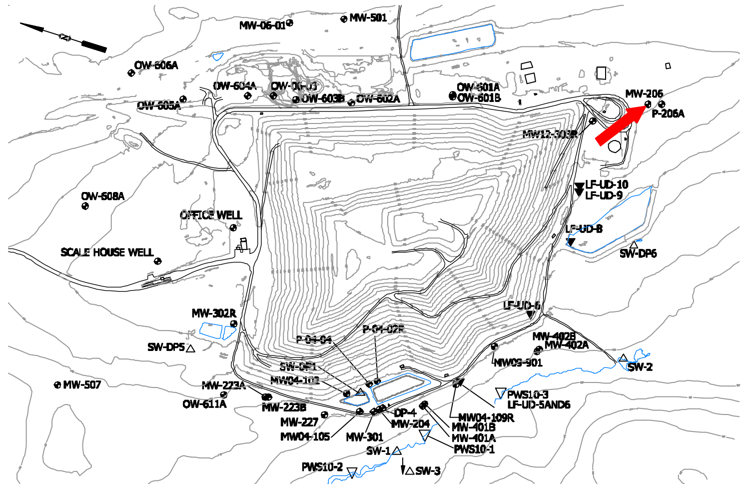
Juniper Ridge Landfill

MW-206

annual stats 2019 G2

Well Description

MW-206 monitors overburden water quality upgradient of the landfill.



Screen Interval:	**15 ft. to 20 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**04/27/93**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		139	144	149	89	to	269	140	±	2.5	85
pH (STU)		8.6	8.1	8.3	6.2	to	8.6	7.8	±	0.05	85
Temperature (Deg C)		6.1	12.3	9.1	2.9	to	17.5	9.7	±	0.36	85
Water Level Elevation (Feet)		200.22	198.07	200.17	186.1	to	201.59	200	±	0.39	82
Eh (mV)		399	253	242	-334	to	464	260	±	17	56
Dissolved Oxygen (mg/L)		8.8	7.5	7.2	2	to	10.9	6.8	±	0.24	71
Arsenic (mg/L)		0.005	0.006	0.006	0.001	to	0.022	0.0076	±	0.000	45
Calcium (mg/L)		18	16	16	13	to	27.2	16	±	0.22	72
Iron (mg/L)		0.25	0.05 U	0.05	0.012	to	1.2	0.14	±	0.02	78
Magnesium (mg/L)		5.3	5.4	4.8	2.7	to	6.9	4.6	±	0.06	72
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.003	to	0.32	0.035	±	0.004	78
Potassium (mg/L)		0.7	0.8	0.8	0.3	to	2.5	0.85	±	0.05	45
Sodium (mg/L)		4.6	5.2	4.5	3.7	to	25	5.6	±	0.27	78
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U	to	2.4	0.6	±	0.08	50
Nitrite/Nitrate - (N) (mg/L)		0.2	0.18	0.18	0.05 U	to	2 U	0.36	±	0.16	12
Total Dissolved Solids (mg/L)		97	93	99	30	to	190	90	±	2.6	78
Total Suspended Solids (mg/L)		5	2.5 U	2.5 U	2.5 U	to	37	5.3	±	0.77	45
Sulfate (mg/L)		2 U	2.3	2 U	0.2	to	5 U	2	±	0.14	78
Bicarbonate (CaCO3) (mg/L)		68	71	71	58	to	80	69	±	0.49	45
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	9	1.7	±	0.15	78
Chloride (mg/L)		1.7	2	2.2	0.8	to	10 U	2.7	±	0.33	78
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	1.2	0.18	±	0.06	18
Turbidity (field) (NTU)		2.6	7.8	4	0	to	40	2.2	±	0.65	70

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 533

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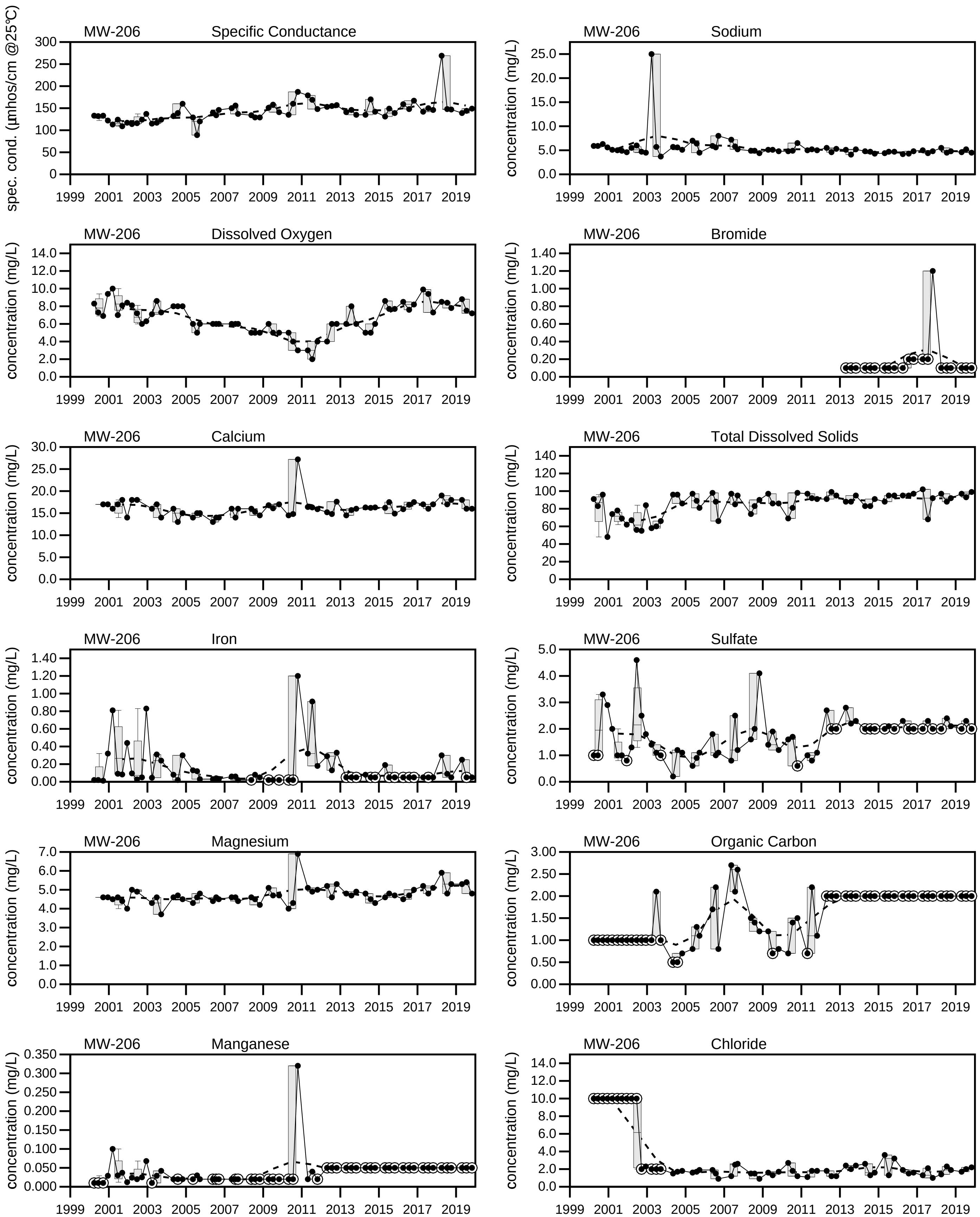
SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

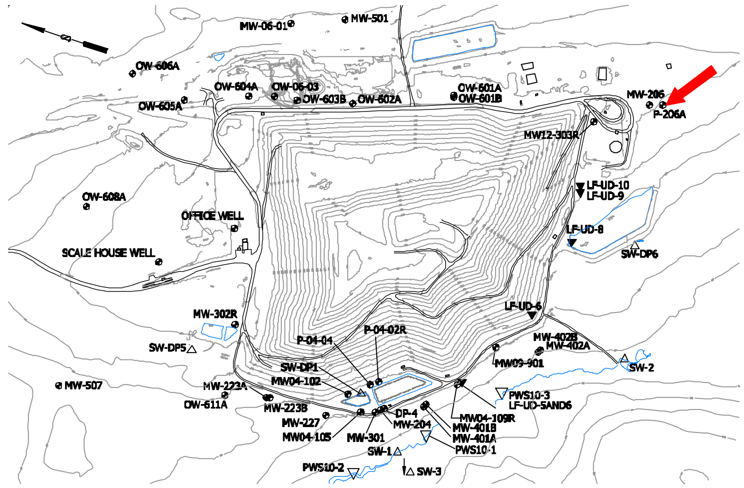
Juniper Ridge Landfill

MW-206

Sevee & Maher Engineers, Inc.

Well Description

P-206A monitors bedrock water quality upgradient of the landfill.



Screen Interval:	**85.5 ft. to 90.5 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**7/31/2013**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		212	225	218	120	to	317	180	±	13	18
pH (STU)		7.9	7.9	7.6	7.3	to	11.8	7.9	±	0.24	18
Temperature (Deg C)		9	15.4	8.1	5.3	to	17	11	±	0.81	18
Water Level Elevation (Feet)		177.51	181.91	179.71	176.11	to	184.61	180	±	0.63	18
Eh (mV)		164	97	117	63	to	352	210	±	23	18
Dissolved Oxygen (mg/L)		3.7	3.8	3.7	0.6	to	6.8	3	±	0.36	18
Arsenic (mg/L)		0.007	0.006	↓0.005	0.006	to	0.022	0.0098	±	0.001	16
Calcium (mg/L)		23	19	20	11.1	to	24	17	±	1.2	16
Iron (mg/L)		0.72	0.22	0.8	0.21	to	16.8	3.1	±	1.1	16
Magnesium (mg/L)		6.2	6.1	5.4	3.1	to	6.2	4.4	±	0.27	16
Manganese (mg/L)		0.09	↓0.07	↓0.07	0.08	to	0.31	0.13	±	0.02	16
Potassium (mg/L)		1.2	1.3	1.1	0.9	to	1.6	1.1	±	0.05	16
Sodium (mg/L)		9.2	9.7	7.6	7.2	to	11	8.6	±	0.28	16
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.3	0.25 U	0.25 U	to	0.6	0.41	±	0.05	9
Nitrite/Nitrate - (N) (mg/L)		0.05 U	0.05 U	0.067	0.05 U	to	0.7	0.18	±	0.07	12
Total Dissolved Solids (mg/L)		124	↑136	↑135	95	to	131	120	±	4	9
Total Suspended Solids (mg/L)		4.3	7.7	18	2.5 U	to	57	16	±	6.2	9
Sulfate (mg/L)		2 U	2.4	3.1	2 U	to	4.8	2.3	±	0.18	16
Bicarbonate (CaCO3) (mg/L)		74	↑79	↑78	61	to	75	68	±	1.7	9
Organic Carbon (mg/L)		2 U	2 U	2 U	2 U	to	2 U	2	±	0	9
Chloride (mg/L)		19	22	21	3.3	to	24	13	±	1.8	16
Bromide (mg/L)		0.1 U	0.1 U	0.1	0.1 U	to	0.2 U	0.14	±	0.02	9
Turbidity (field) (NTU)		1.8	2.6	4.7	0.8	to	9.3	4.1	±	0.71	18

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

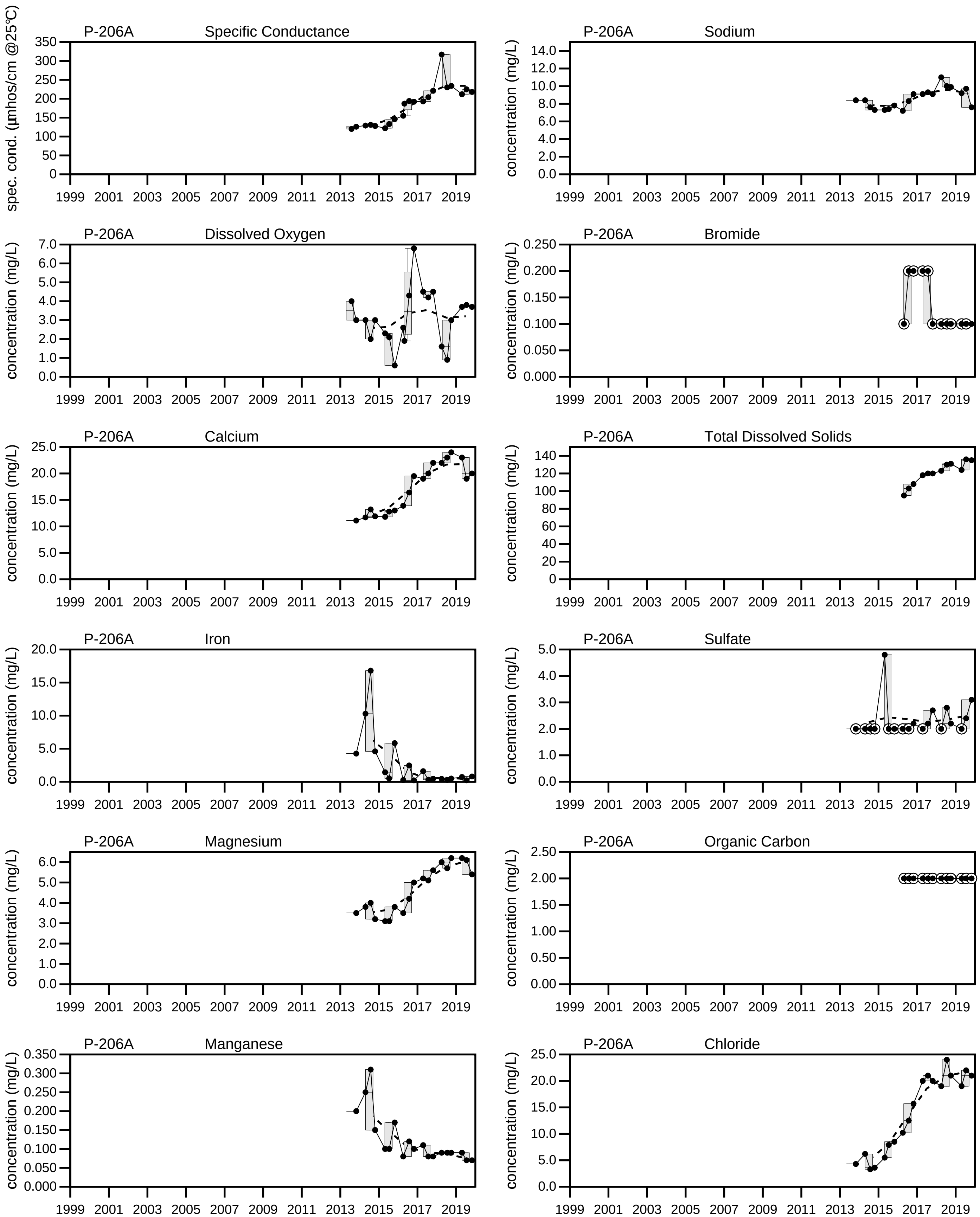
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

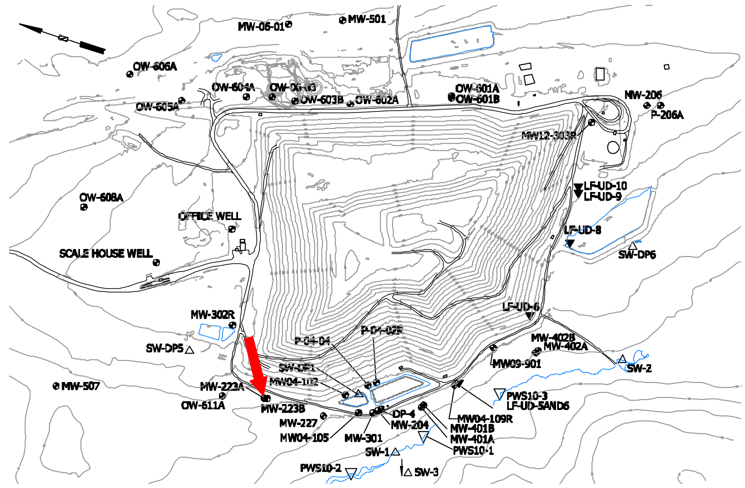
Juniper Ridge Landfill

P-206A

Sevee & Maher Engineers, Inc.

Well Description

MW-223A monitors the bedrock water quality downgradient of the landfill.



Screen Interval:	**28 ft. to 33 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**11/12/90**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min		Max	Mean ± SE	n
Specific Conductance (µmhos/cm @25°C)		542	559	548	79	to	651	260 ± 15	87
pH (STU)		7.6	7.3	7.6	6.1	to	8.4	7.4 ± 0.04	87
Temperature (Deg C)		6.1	11.5	9.5	4.5	to	16.2	9.4 ± 0.28	87
Water Level Elevation (Feet)		174.51	174.64	175.61	169.83	to	176.4	170 ± 0.13	84
Eh (mV)		370	250	351	-345	to	445	280 ± 17	56
Dissolved Oxygen (mg/L)		2	0.8	↓0.1 U	0.4	to	9.4	3.3 ± 0.28	70
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U	to	0.034	0.0066 ± 0.001	45
Calcium (mg/L)		91	89	92	23	to	98	45 ± 2.7	75
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.005	to	120	1.6 ± 1.5	79
Magnesium (mg/L)		10	10	10	2.3	to	11	5 ± 0.3	75
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.001	to	4	0.077 ± 0.05	79
Potassium (mg/L)		0.9	1	1	0.4	to	1.3	0.74 ± 0.03	45
Sodium (mg/L)		5.4	6	5.4	1.8	to	9.8	3.8 ± 0.12	79
Total Kjeldahl Nitrogen (mg/L)		0.26	0.4	0.29	0.15 U	to	0.8	0.38 ± 0.02	54
Nitrite/Nitrate - (N) (mg/L)		0.72	0.71	0.64	0.36	to	2 U	0.67 ± 0.12	12
Total Dissolved Solids (mg/L)		337	345	337	36	to	356	170 ± 10	79
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	4 U	3.8 ± 0.08	45
Sulfate (mg/L)		18	18	19	2.9	to	59	7.1 ± 0.77	79
Bicarbonate (CaCO3) (mg/L)		↑210	↑220	↑230	86	to	200	140 ± 6.2	45
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	3.4	1.4 ± 0.07	79
Chloride (mg/L)		26	34	32	1 U	to	57.6	14 ± 1.8	79
Bromide (mg/L)		0.11	0.11	0.12	0.1 U	to	0.22	0.15 ± 0.01	18
Turbidity (field) (NTU)		2	2.8	1.3	0	to	999	19 ± 15	68

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

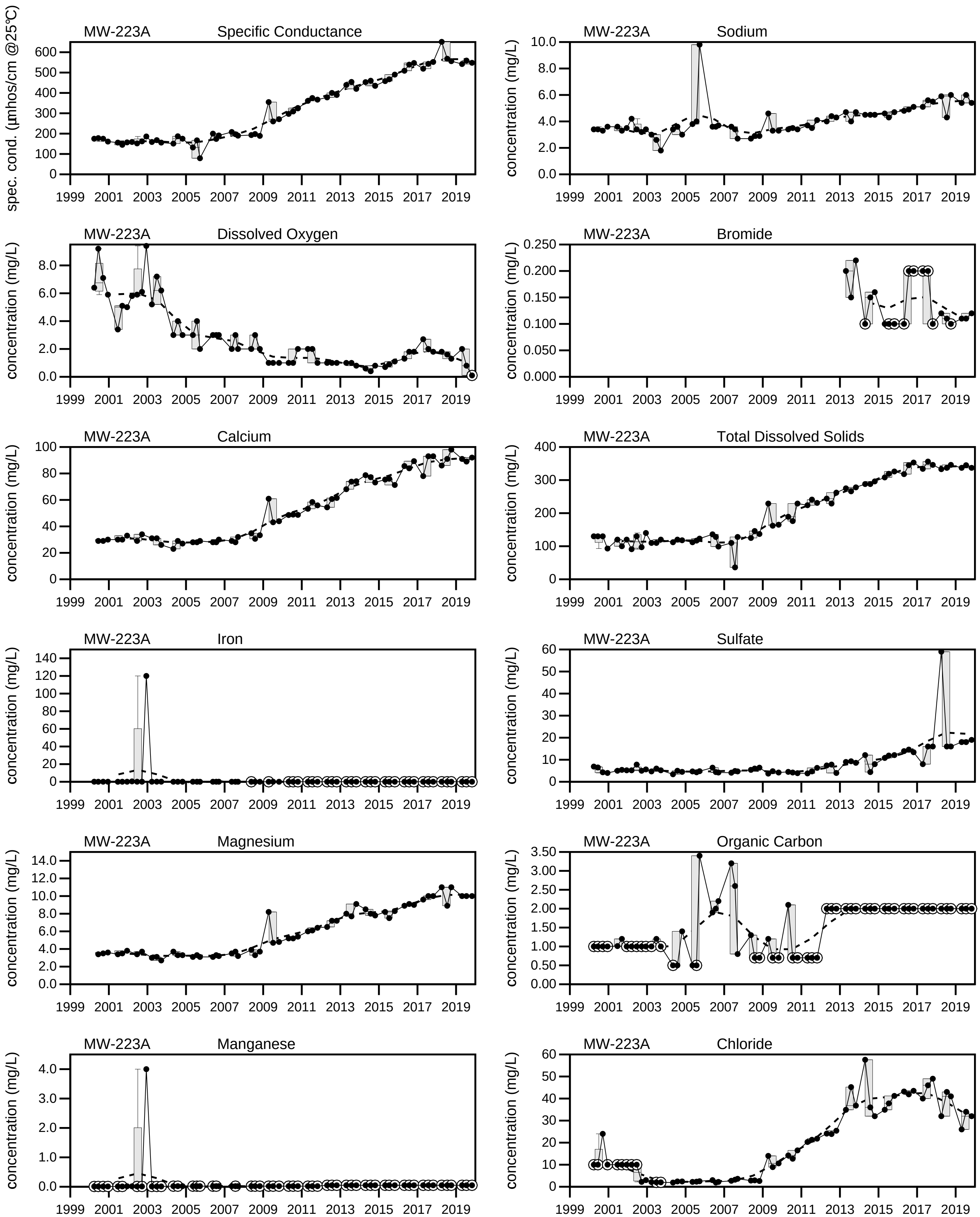
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

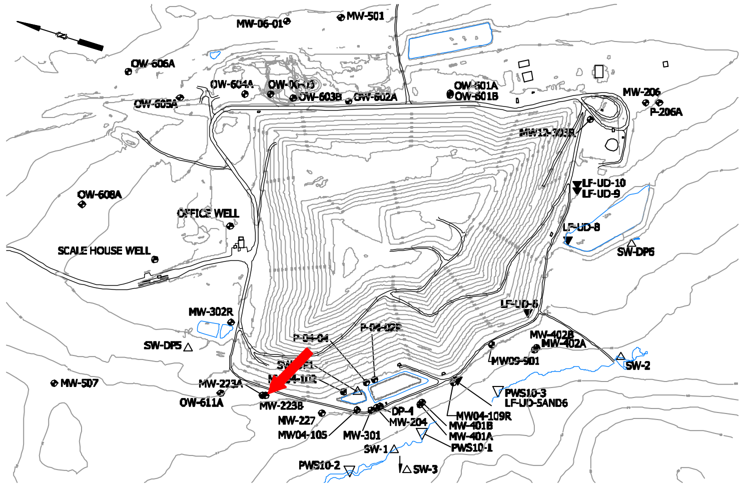
MW-223A

Sevee & Maher Engineers, Inc.

MW-223B

Well Description

MW-223B monitors the overburden water quality downgradient of the landfill.



Screen Interval:	**12.6 ft. to 17.6 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**11/12/90**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)						
Indicator Parameters	Q1	Q2	Q3	Q4	Min		Max	Mean		SE	n
Specific Conductance (μmhos/cm @25°C)		465	491	480	100	to	596	240	±	12	86
pH (STU)		7.1	7.3	7.2	6.3	to	8.2	7.2	±	0.03	86
Temperature (Deg C)		5.1	13.7	10.4	3.8	to	17.7	9.7	±	0.33	86
Water Level Elevation (Feet)		173.48	172.63	173.53	169.03	to	175.24	170	±	0.12	83
Eh (mV)		391	259	349	-402	to	446	270	±	20	55
Dissolved Oxygen (mg/L)		0.8	2	↓ 0.1 U	0.3	to	7.6	1.7	±	0.17	69
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U	to	0.017	0.0059	±	0.000	45
Calcium (mg/L)		66	68	64	16	to	68	33	±	1.6	75
Iron (mg/L)		0.05	0.05 U	0.05 U	0.009	to	0.58	0.11	±	0.02	79
Magnesium (mg/L)		↑ 17	↑ 17	16	3.7	to	16	8	±	0.4	75
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.001 U	to	0.16	0.034	±	0.003	79
Potassium (mg/L)		0.8	1.1	0.9	0.3	to	2	0.78	±	0.04	45
Sodium (mg/L)		5.8	↑ 6.4	5.5	2.1	to	6	4.2	±	0.08	79
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U	to	2.5 U	0.49	±	0.05	54
Nitrite/Nitrate - (N) (mg/L)		0.65	0.7	0.63	0.15	to	2 U	0.57	±	0.14	12
Total Dissolved Solids (mg/L)		281	282	285	67	to	330	160	±	7.2	79
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	12	4	±	0.2	45
Sulfate (mg/L)		12	13	15	2.2	to	53	5.6	±	0.65	79
Bicarbonate (CaCO3) (mg/L)		170	↑ 180	↑ 180	92	to	170	120	±	3.1	45
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	8	1.7	±	0.12	79
Chloride (mg/L)		32	42	39	1 U	to	55.7	14	±	1.7	79
Bromide (mg/L)		0.11	0.13	0.15	0.03	to	4.13	0.34	±	0.2	20
Turbidity (field) (NTU)		1.1	1.6	1.3	0	to	83	2.4	±	1.2	67
Methane (ug/L)		20 U	20 U	20 U	9.2	to	40.6	22	±	2.3	11

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

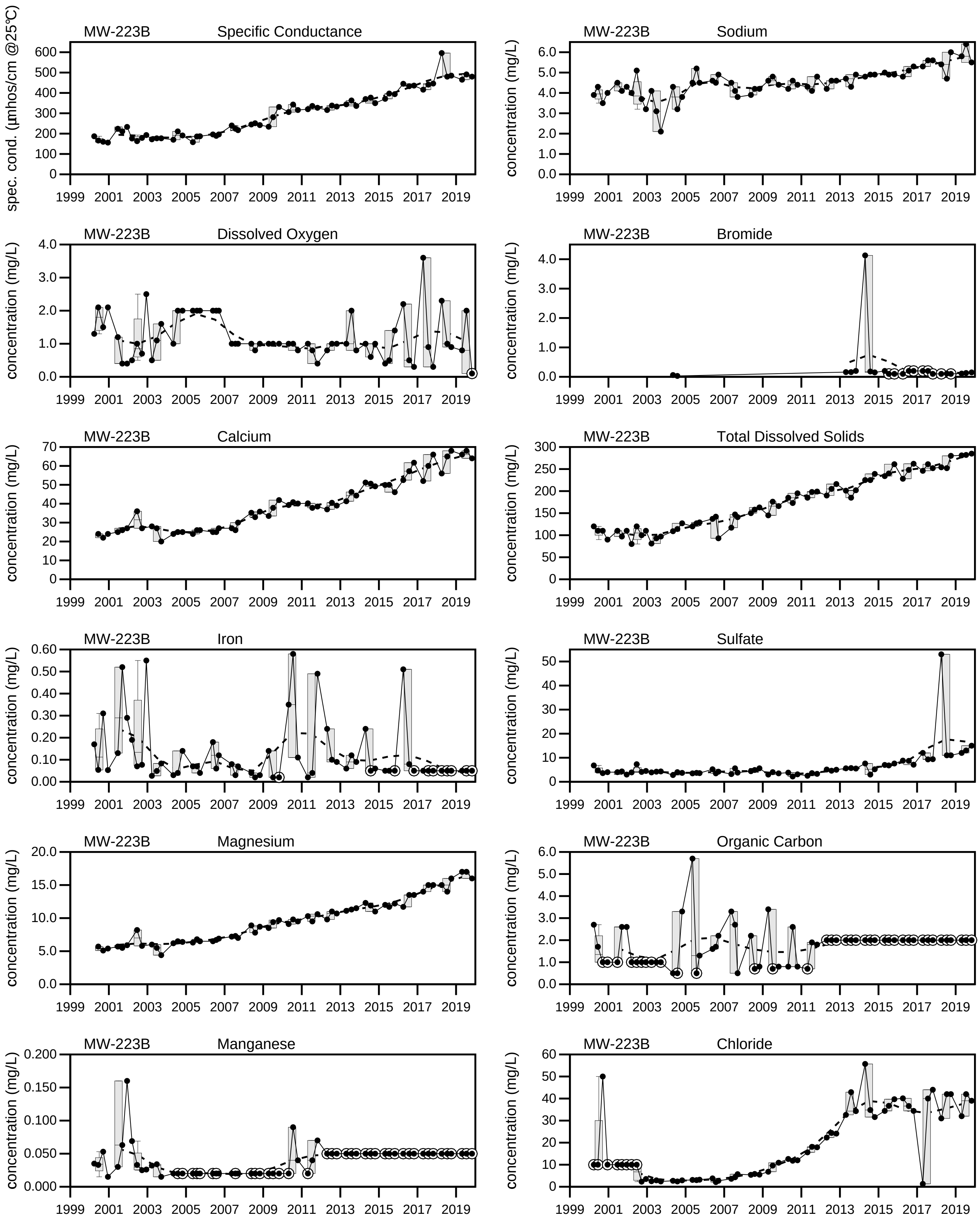
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

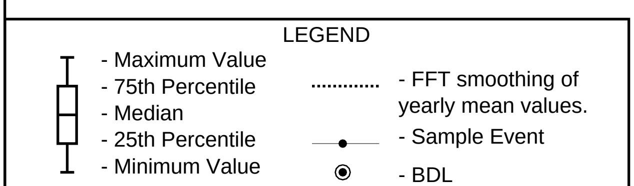
Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019





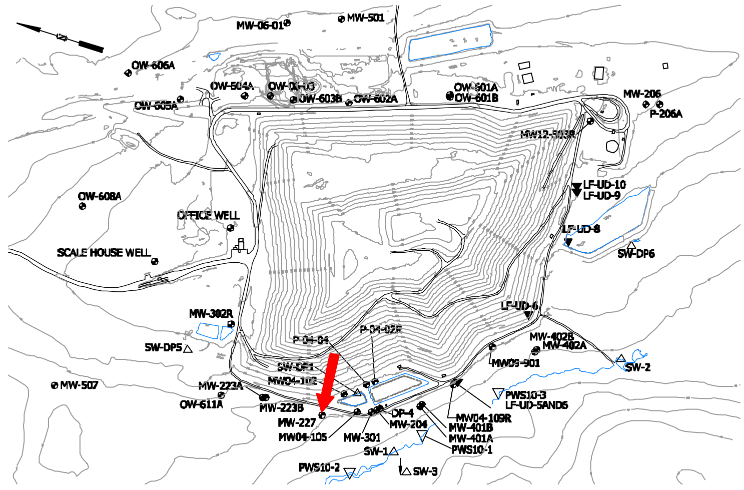
Juniper Ridge Landfill

MW-223B

Sevee & Maher Engineers, Inc.

Well Description

MW-227 monitors water quality in the overburden downgradient of the landfill.



Screen Interval: **15 ft. to 20 ft.**

Sampled: **3 Times Annually**

Sampled Since: **11/13/90**

Material Screened: **Overburden**

Well Condition: **Good**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		194	189	181	90	to	310	180	±	3	88
pH (STU)		8.3	8.1	8.3	6.2	to	8.9	8	±	0.047	88
Temperature (Deg C)		4.9	15	10.5	1	to	16.8	9.8	±	0.36	88
Water Level Elevation (Feet)		160.1	159.48	160.04	149.5	to	161.09	160	±	0.23	85
Eh (mV)		389	244	333	-455	to	411	260	±	18	56
Dissolved Oxygen (mg/L)		3.2	3.1	↓0.1 U	0.3	to	8.7	2.3	±	0.2	71
Arsenic (mg/L)		**<u>0.015</u>**	**<u>0.015</u>**	**<u>0.013</u>**	0.007	to	0.024	0.014	±	0.000	45
Calcium (mg/L)		26	21	22	16	to	26	22	±	0.2	76
Iron (mg/L)		0.08	0.05	0.05 U	0.008	to	0.65	0.073	±	0.011	82
Magnesium (mg/L)		6	5.3	5.4	3.6	to	6	5.2	±	0.05	76
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.004	to	0.17	0.033	±	0.003	82
Potassium (mg/L)		1.1	1	1.2	0.6	to	1.6	1	±	0.023	45
Sodium (mg/L)		5.4	5.4	5.4	3.1	to	11	6.4	±	0.14	82
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U	to	1	0.38	±	0.02	55
Nitrite/Nitrate - (N) (mg/L)		0.12	0.05 U	0.05 U	0.05 U	to	2 U	0.3	±	0.16	12
Total Dissolved Solids (mg/L)		108	114	106	59	to	222	110	±	2.7	82
Total Suspended Solids (mg/L)		↑10	↑4.3	2.5 U	2.5 U	to	4	3.9	±	0.064	45
Sulfate (mg/L)		14	13	12	1.3	to	17.3	11	±	0.29	82
Bicarbonate (CaCO3) (mg/L)		81	80	82	75	to	89	80	±	0.42	45
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	42	2.3	±	0.53	82
Chloride (mg/L)		1.3	1.4	1.3	1 U	to	22.9	2.9	±	0.39	82
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.13	±	0.01	18
Turbidity (field) (NTU)		2.5	3.7	2.6	0	to	962	16	±	14	69

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

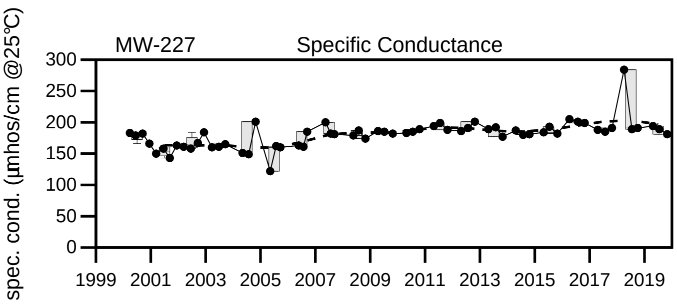
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

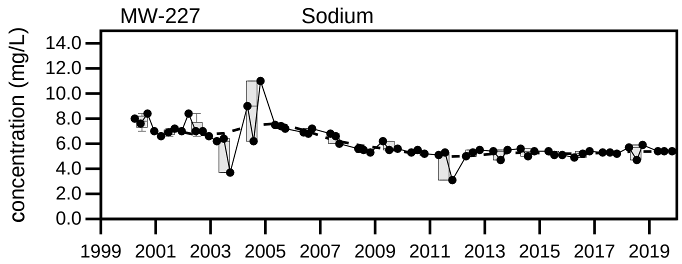
Comments

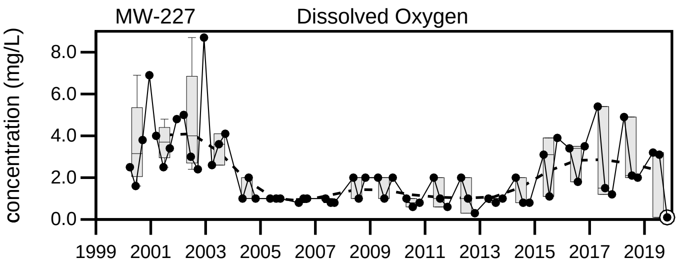
Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

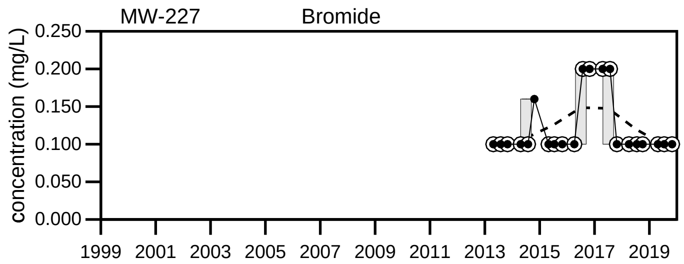
Q3= 7 - 2019

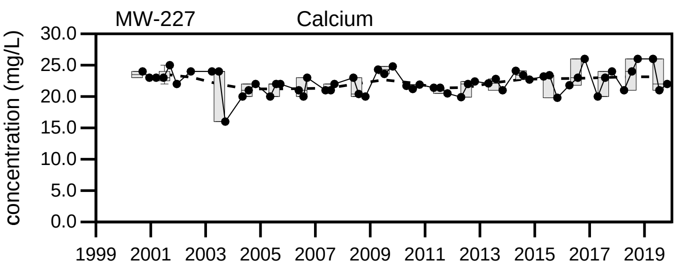
Q4= 10 - 2019

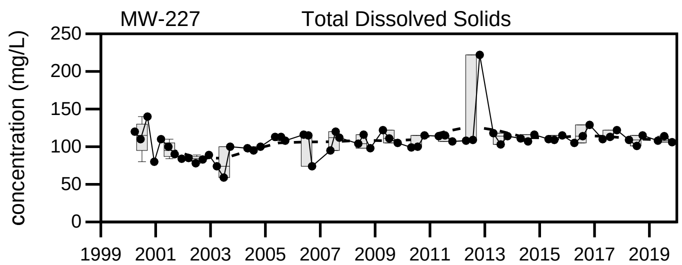


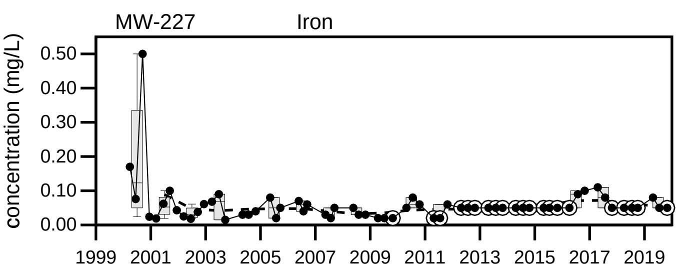


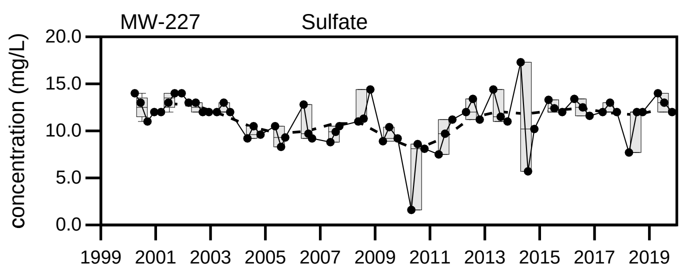


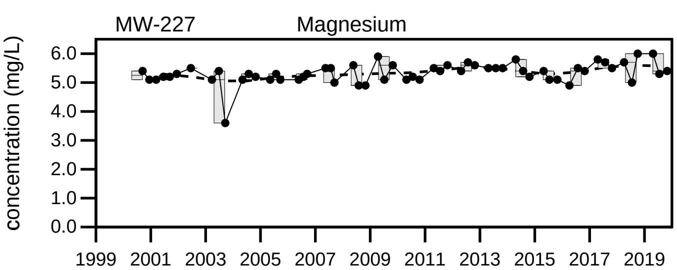


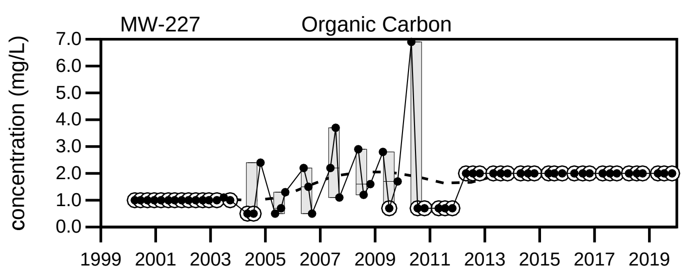


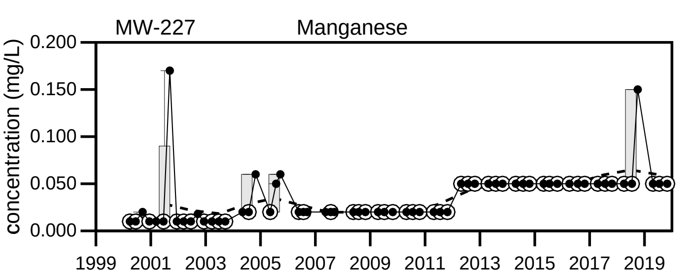


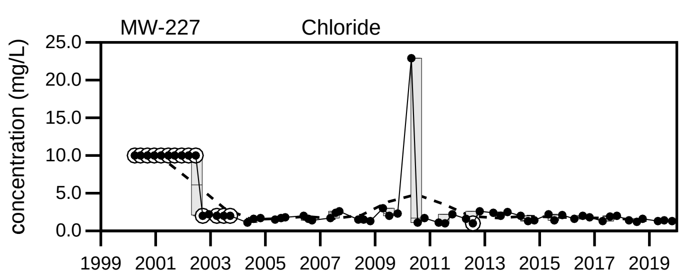












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

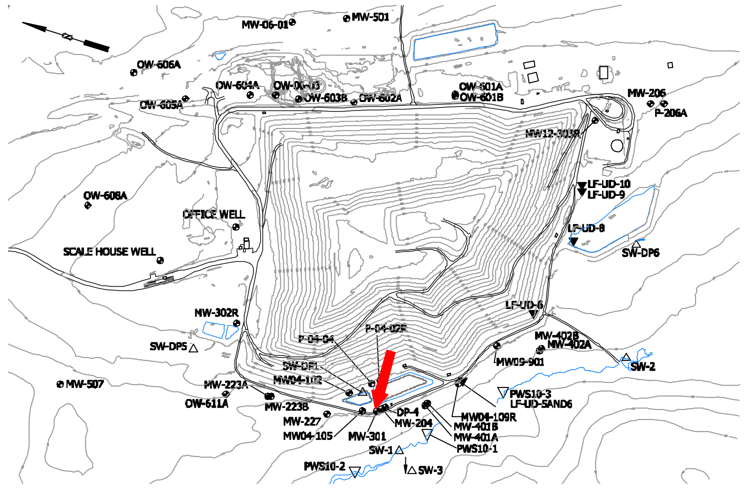
Juniper Ridge Landfill

MW-227

Sevee & Maher Engineers, Inc.

Well Description

MW-301 monitors the water quality within the bedrock downgradient of the landfill.



Screen Interval:	**162.7 ft. to 182.7 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**11/25/96**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		242	245	248	82	to	340	190	±	5.3	68
pH (STU)		8.2	7.8	8.1	6.2	to	8.4	7.8	±	0.06	68
Temperature (Deg C)		6.3	13.7	10.2	3.2	to	19.1	11	±	0.44	68
Water Level Elevation (Feet)		165.56	164.41		161.16	to	166.36	160	±	0.25	63
Eh (mV)		388	202	322	25	to	471	270	±	14	55
Dissolved Oxygen (mg/L)		0.3	0.2	0.3	0.1	to	5.5	2.2	±	0.21	66
Arsenic (mg/L)		0.005	0.005 U	0.005 U	0.001	to	0.018	0.0059	±	0.000	44
Calcium (mg/L)		24	25	22	14.9	to	31.4	19	±	0.35	64
Iron (mg/L)		0.07	0.05 U	0.1	0.011	to	1.59	0.16	±	0.03	68
Magnesium (mg/L)		6.2	↑ 6.6	5.7	2.5	to	6.3	4.6	±	0.08	64
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.001	to	0.18	0.033	±	0.003	68
Potassium (mg/L)		0.8	0.9	0.8	0.5	to	1.2	0.76	±	0.02	44
Sodium (mg/L)		12	14	12	6.8	to	14.2	11	±	0.24	68
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U	to	0.6	0.39	±	0.02	44
Nitrite/Nitrate - (N) (mg/L)		0.066	0.051	0.056	0.05 U	to	2 U	0.3	±	0.16	12
Total Dissolved Solids (mg/L)		148	159	↑ 161	66	to	160	110	±	2.5	68
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	21	6.4	±	0.75	44
Sulfate (mg/L)		17	17	17	4.9	to	19	12	±	0.41	68
Bicarbonate (CaCO3) (mg/L)		74	78	74	70	to	91	76	±	0.55	44
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	5.7	1.5	±	0.1	68
Chloride (mg/L)		↑ 21	↑ 25	↑ 26	1 U	to	20	4.6	±	0.55	68
Bromide (mg/L)		0.1	0.1 U	0.15	0.1 U	to	0.2 U	0.12	±	0.01	17
Turbidity (field) (NTU)		1.7	1.6	1.9	0	to	18	2.1	±	0.42	65

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

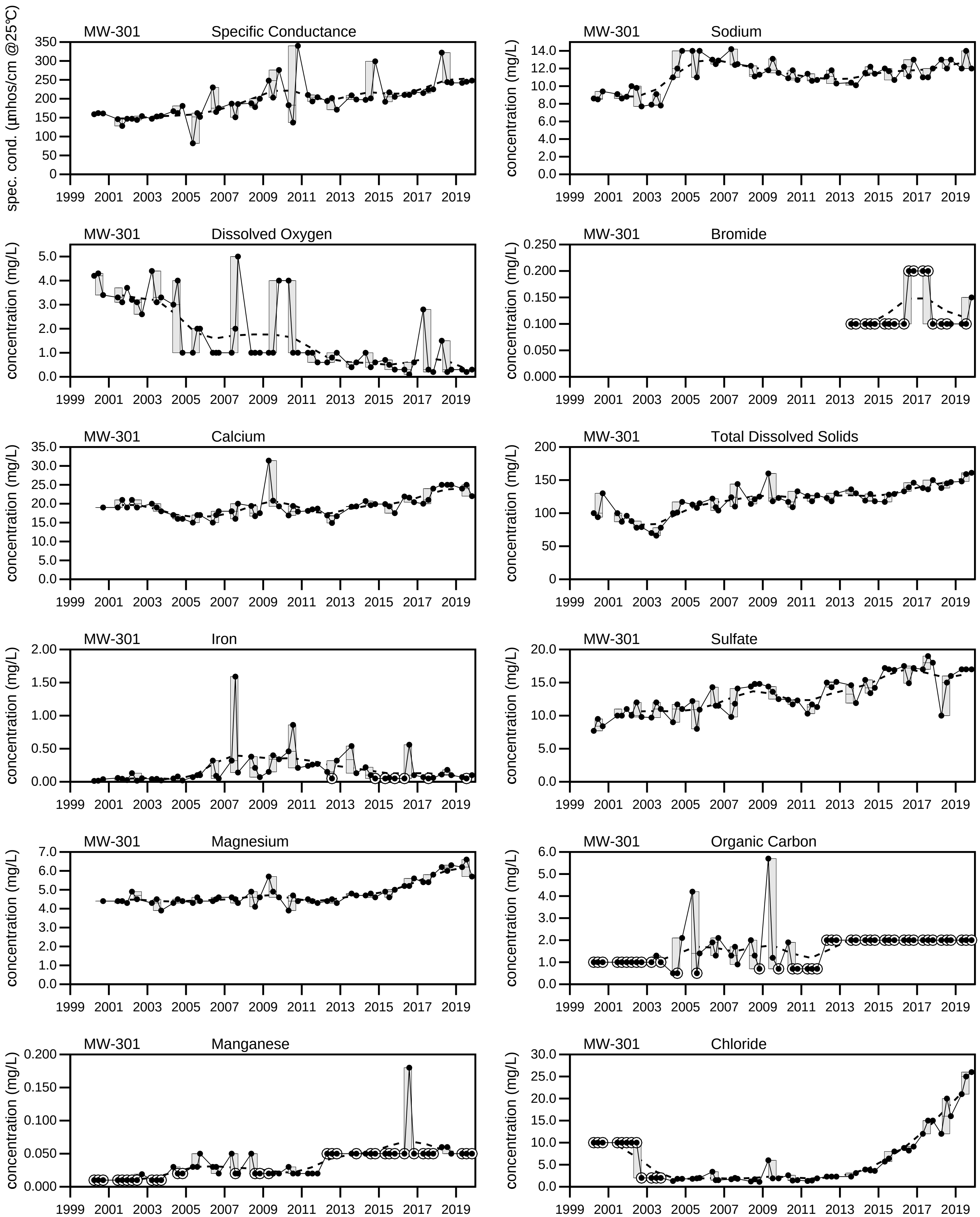
Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

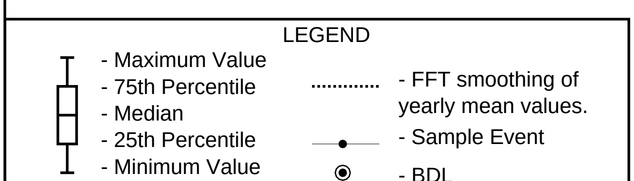
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 533
Printed: 3/17/2020 10:34

SEVEE & MAHER ENGINEERS





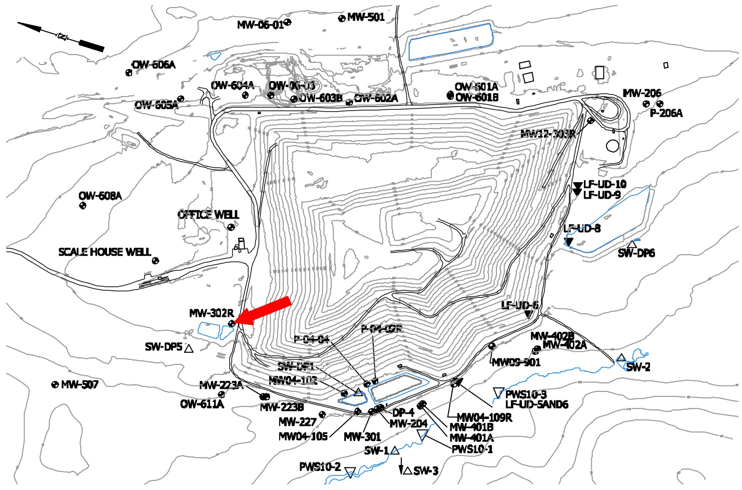
Juniper Ridge Landfill

MW-301

Sevee & Maher Engineers, Inc.

Well Description

MW-302R monitors the water quality in the shallow bedrock beside the landfill, but not directly downgradient of the landfill.



Screen Interval:	**19.5 ft. to 29.5 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**05/20/2008**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)						
Indicator Parameters	Q1	Q2	Q3	Q4	Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		181	335	317	167	to	851	390	±	28	33
pH (STU)		6.7	6.4	6.5	6	to	6.9	6.6	±	0.04	33
Temperature (Deg C)		6.7	12	11.1	6	to	13.6	10	±	0.4	33
Water Level Elevation (Feet)		202.33	198.31	201.69	187.26	to	202.74	200	±	0.81	33
Eh (mV)		400	295	375	223	to	546	350	±	13	33
Dissolved Oxygen (mg/L)		↑ 9	6.4	2.1	1	to	8.2	3.6	±	0.34	33
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.015	0.0066	±	0.000	33
Calcium (mg/L)		21	30	29	17.6	to	140	44	±	4.2	33
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.19	0.048	±	0.005	33
Magnesium (mg/L)		1.8	3	2.5	1.4	to	8.6	3.4	±	0.29	33
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.1	0.042	±	0.003	33
Potassium (mg/L)		0.6	0.9	0.9	0.5	to	2.4	1	±	0.07	33
Sodium (mg/L)		11	**26**	**22**	6	to	35	18	±	1.2	33
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.3	0.25 U	0.25 U	to	1.2	0.44	±	0.03	33
Nitrite/Nitrate - (N) (mg/L)		0.15	0.39	0.5	0.05 U	to	2 U	0.47	±	0.15	12
Total Dissolved Solids (mg/L)		118	212	199	78	to	506	230	±	15	33
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	5 U	3.8	±	0.1	33
Sulfate (mg/L)		14	26	31	5.6	to	38	17	±	1.4	33
Bicarbonate (CaCO3) (mg/L)		46	50	61	44	to	330	83	±	10	33
Organic Carbon (mg/L)		2 U	2 U	2 U	0.7 U	to	3.1	1.7	±	0.1	33
Chloride (mg/L)		18	51	44	12.8	to	91.3	48	±	3.7	33
Bromide (mg/L)		0.1 U	0.1 U	0.16	0.1 U	to	0.2 U	0.14	±	0.01	18
Turbidity (field) (NTU)		2.7	1.5	1.9	0	to	5.5	1.5	±	0.2	33

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

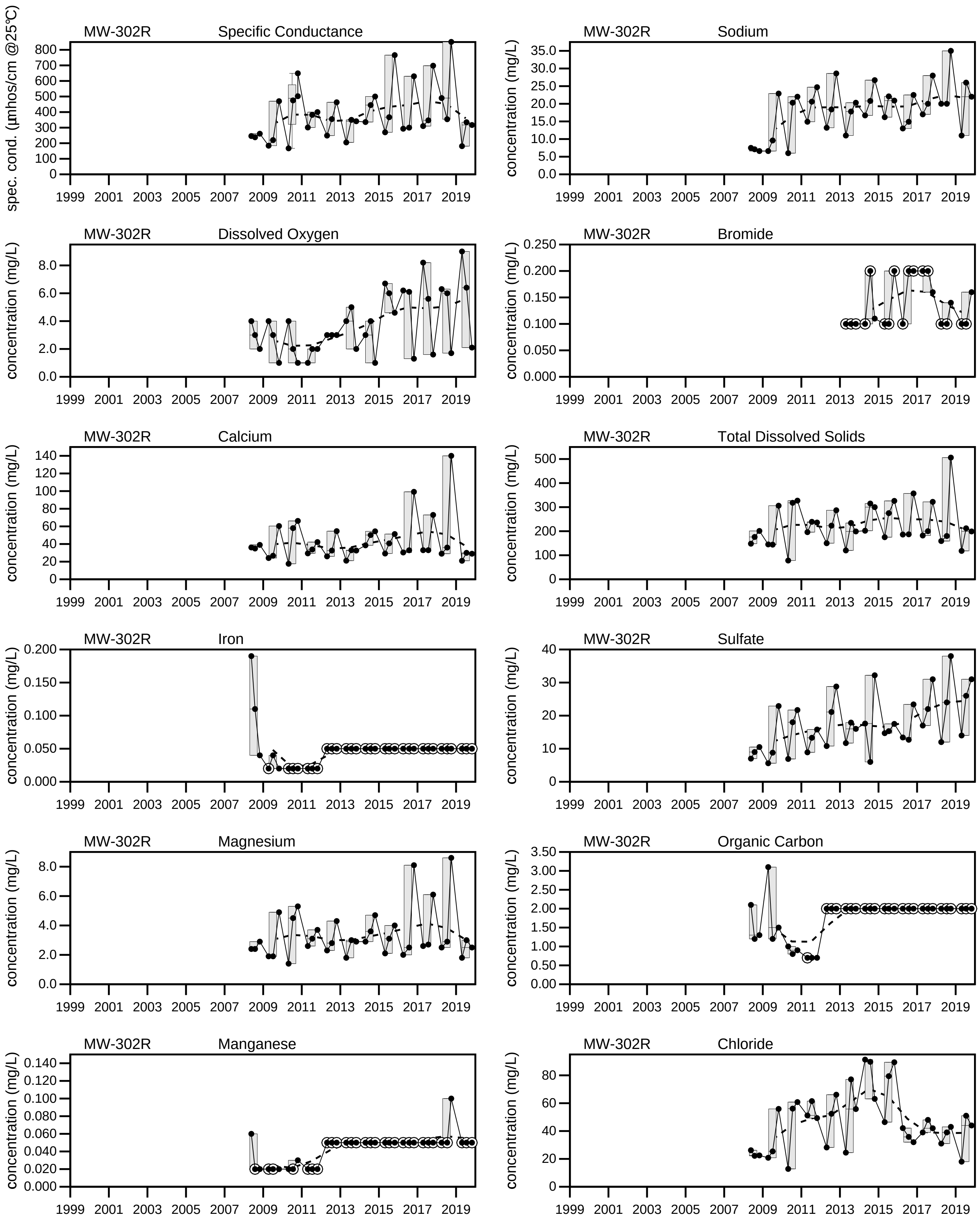
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

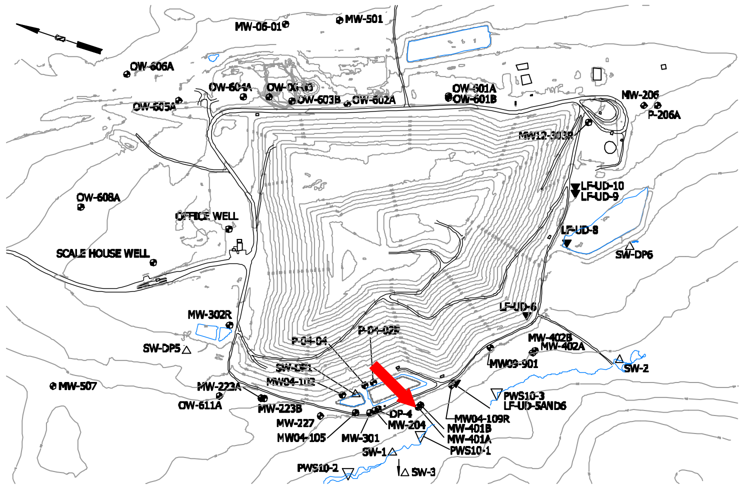
- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

MW-302R

Sevee & Maher Engineers, Inc.

Well Description



MW-401A monitors bedrock water quality downgradient of the landfill and former leachate pond.

Screen Interval:	**98.8 ft. to 108.8 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**07/29/04**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		130	130	140	73	to	303	130	±	4.8	44
pH (STU)		8.4	7.3	7.6	6.6	to	8.6	7.9	±	0.07	44
Temperature (Deg C)		7.6	10.3	9.3	6.6	to	17.8	9.7	±	0.31	44
Water Level Elevation (Feet)		154.92	152.78	154.62	148.11	to	155.96	150	±	0.35	44
Eh (mV)		289	482	243	152	to	516	330	±	14	44
Dissolved Oxygen (mg/L)		6.8	↑ 11.1	4.9	1.2	to	7.4	5.2	±	0.2	44
Arsenic (mg/L)		0.005 U	0.007	0.007	0.001 U	to	0.018	0.0059	±	0.000	44
Calcium (mg/L)		17	15	15	11	to	17	14	±	0.21	44
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.07	0.04	±	0.002	44
Magnesium (mg/L)		4.8	4.3	4.1	3.7	to	4.8	4.1	±	0.04	44
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.05 U	0.035	±	0.002	44
Potassium (mg/L)		0.8	0.6	0.7	0.3	to	1.4	0.72	±	0.03	44
Sodium (mg/L)		4.2	3.8	3.6	3.2	to	5.2	4	±	0.07	44
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U	to	1.1	0.43	±	0.03	44
Nitrite/Nitrate - (N) (mg/L)		0.1	0.1	0.12	0.05 U	to	1 U	0.24	±	0.08	12
Total Dissolved Solids (mg/L)		91	92	98	68	to	116	89	±	1.4	44
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	7	3.9	±	0.1	44
Sulfate (mg/L)		4.5	4.3	↑ 5	2 U	to	4.9	3.4	±	0.13	44
Bicarbonate (CaCO3) (mg/L)		61	62	61	51	to	64	58	±	0.46	44
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	6.3	1.9	±	0.18	44
Chloride (mg/L)		3.4	3.8	↑ 4.9	1	to	4.1	2.1	±	0.1	44
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.12	±	0.01	18
Turbidity (field) (NTU)		0.2	0.4	0.5	0	to	4.9	0.61	±	0.14	44

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

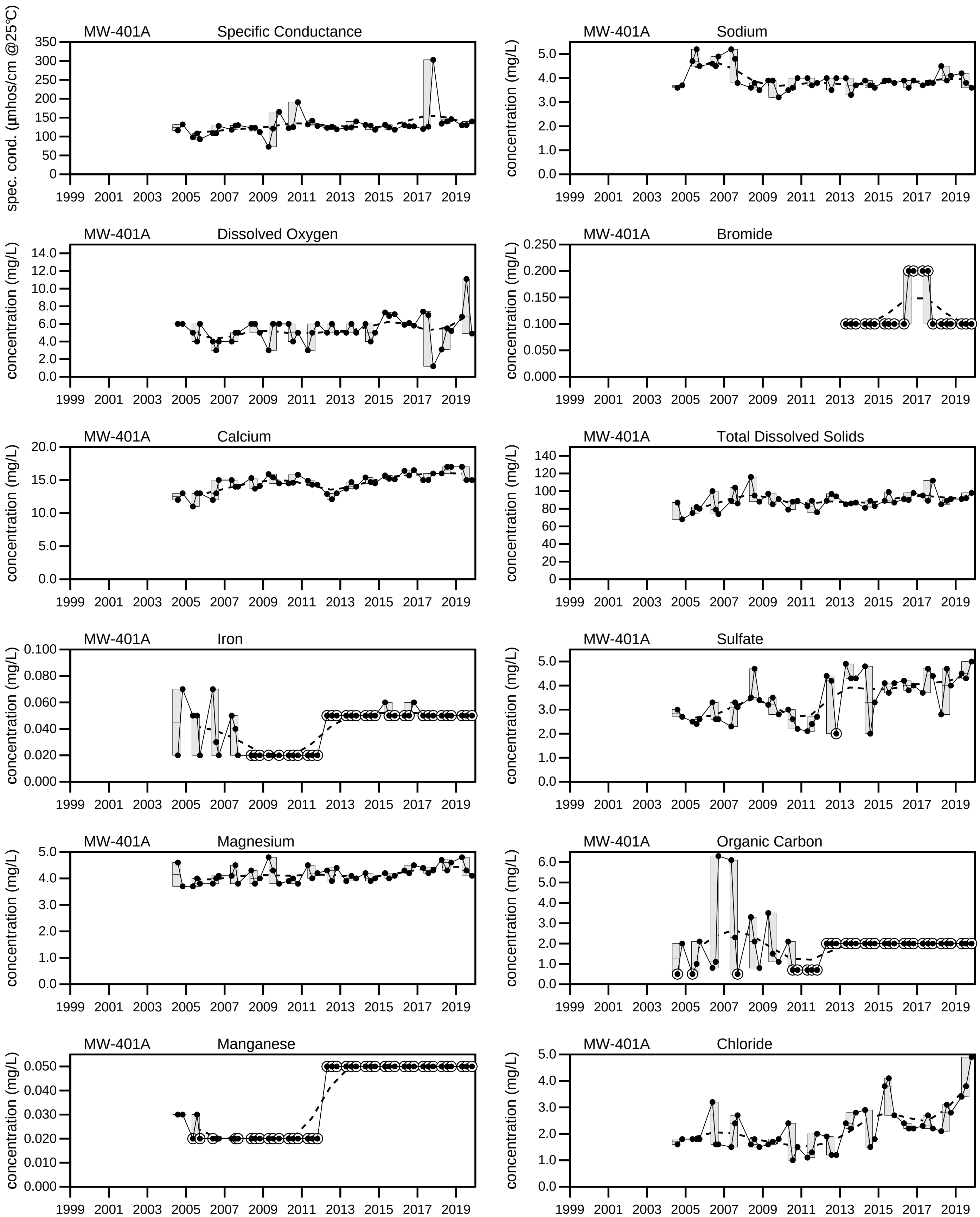
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 533

Printed: 3/17/2020 10:34

SME SEVEE & MAHER ENGINEERS



LEGEND

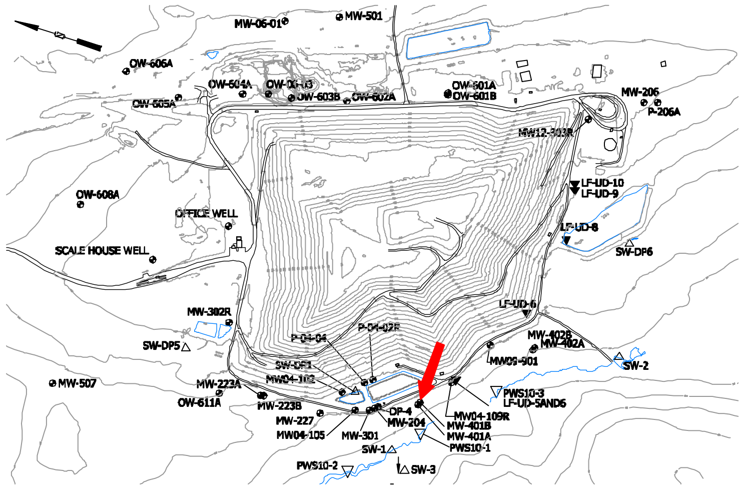
- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

MW-401A

Sevee & Maher Engineers, Inc.

Well Description



MW-401B is located downgradient of the landfill and former leachate pond and monitors groundwater quality in the overburden.

Screen Interval: **10 ft. to 20 ft.**

Sampled: **3 Times Annually**

Sampled Since: **07/29/04**

Material Screened: **Overburden**

Well Condition: **Good**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean ± SE	n
Specific Conductance (µmhos/cm @25°C)		216	267	327	180	to	699	370 ± 17	44
pH (STU)		↑ 7.7	7.2	6.8	5.9	to	7.5	6.8 ± 0.06	44
Temperature (Deg C)		7.5	9.2	10	5.9	to	16.1	9.5 ± 0.31	44
Water Level Elevation (Feet)		151	150.56	↑ 151.12	148.47	to	151.07	150 ± 0.09	44
Eh (mV)		186	216	213	-33	to	417	180 ± 16	44
Dissolved Oxygen (mg/L)		0.3	3.7	1.9	0.1	to	5	0.81 ± 0.12	44
Arsenic (mg/L)		**<u>0.021</u>**	**<u>0.02</u>**	**<u>0.013</u>**	0.002	to	0.058	0.016 ± 0.002	44
Calcium (mg/L)		26	34	38	25.3	to	100	42 ± 2.3	44
Iron (mg/L)		0.63	1.4	1.6	0.19	to	19	2.8 ± 0.51	44
Magnesium (mg/L)		8.1	10	10	8	to	36	12 ± 0.78	44
Manganese (mg/L)		0.13	0.16	0.13	0.05	to	2.9	0.37 ± 0.09	44
Potassium (mg/L)		0.9	1.1	1.2	0.9	to	3.2	1.4 ± 0.08	44
Sodium (mg/L)		↓ 9.7	11	10	9.8	to	33	16 ± 0.89	44
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.24	to	3.2	0.5 ± 0.07	44
Nitrite/Nitrate - (N) (mg/L)		0.05 U	0.21	0.067	0.05 U	to	1 U	0.21 ± 0.09	12
Total Dissolved Solids (mg/L)		166	167	208	142	to	488	230 ± 11	44
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	36	5.3 ± 0.79	44
Sulfate (mg/L)		12	11	14	5.3	to	69.2	18 ± 2	44
Bicarbonate (CaCO3) (mg/L)		120	130	150	108	to	245	150 ± 5	44
Organic Carbon (mg/L)		2 U	2 U	2 U	0.7 U	to	8.9	2.5 ± 0.21	44
Chloride (mg/L)		6.4	9.1	10	6.3	to	40.5	15 ± 1.3	44
Bromide (mg/L)		0.14	0.15	↑ 0.23	0.1 U	to	0.22	0.17 ± 0.01	18
Turbidity (field) (NTU)		0.3	0.6	2.2	0	to	6.7	1.2 ± 0.21	44

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

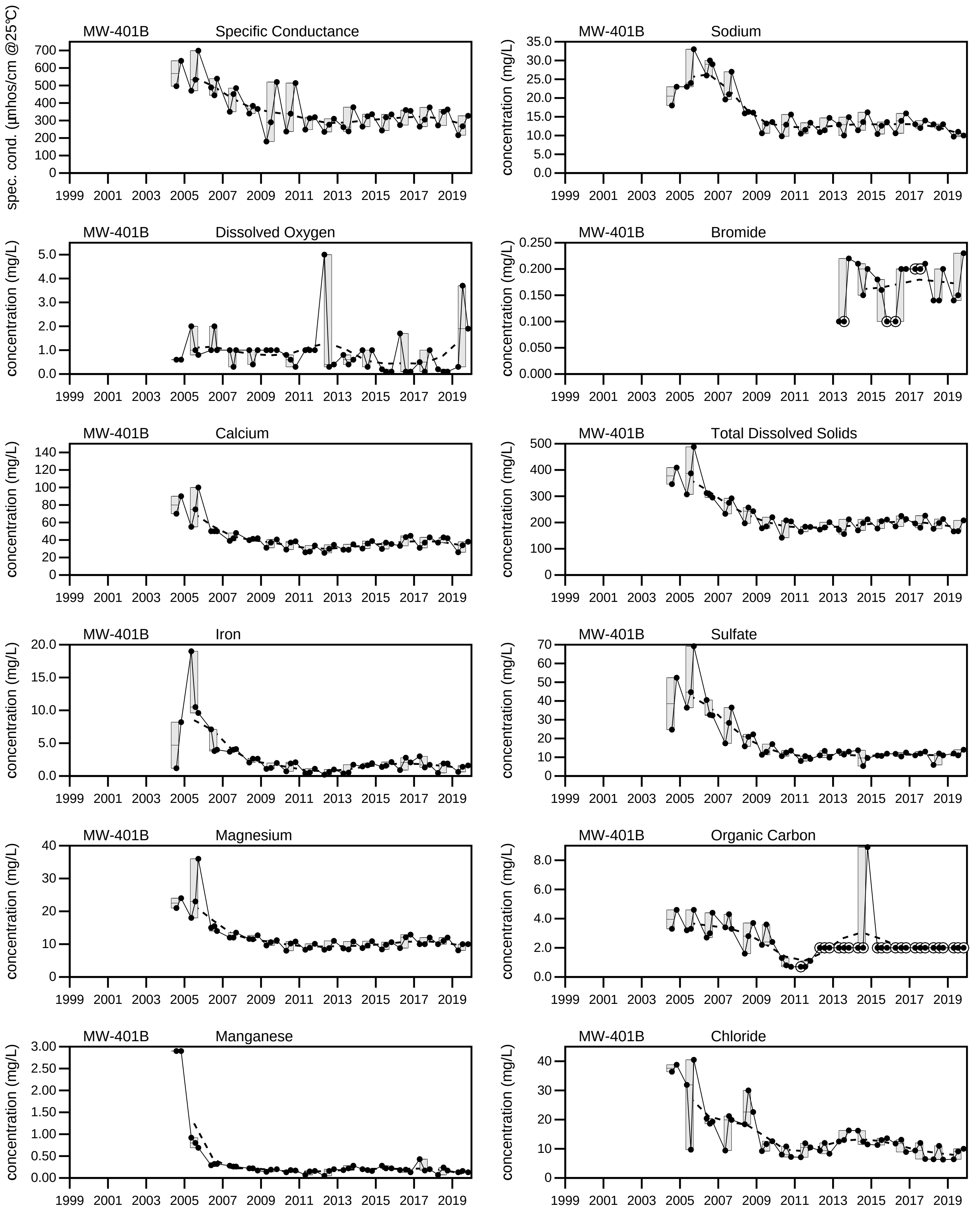
Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 533
Printed: 3/17/2020 10:34

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

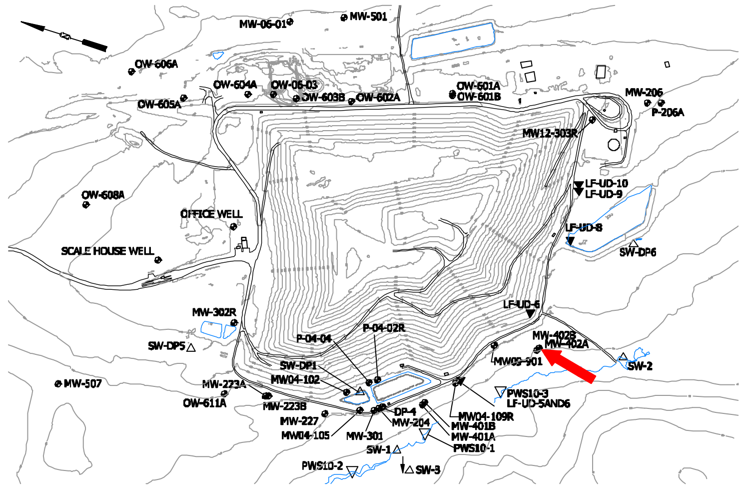
Juniper Ridge Landfill

MW-401B

Sevee & Maher Engineers, Inc.

Well Description

MW-402A monitors water quality within the bedrock downgradient of the landfill.



Screen Interval:	**95.5 ft. to 105.5 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**07/29/04**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min	Max	Mean	SE	n
Specific Conductance (μmhos/cm @25°C)		122	124	128	58	to 197	130	± 2.9	44
pH (STU)		8.5	7.9	8.1	7.3	to 9.5	8.3	± 0.077	44
Temperature (Deg C)		6	12.7	9.5	5.2	to 14.7	10	± 0.39	44
Water Level Elevation (Feet)		152.14		152.15	151.74	to 152.2	150	± 0.034	18
Eh (mV)		344	339	220	106	to 460	310	± 13	44
Dissolved Oxygen (mg/L)		3.5	↑6.1	3.3	2	to 6	4.1	± 0.16	44
Arsenic (mg/L)		**<u>0.017</u>**	**<u>0.02</u>**	**<u>0.019</u>**	0.012	to 0.028	0.019	± 0.000	44
Calcium (mg/L)		12	12	11	7.7	to 14	11	± 0.19	44
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to 0.26	0.042	± 0.006	44
Magnesium (mg/L)		3.1	3.4	3.1	2.6	to 3.4	2.9	± 0.028	44
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to 0.05 U	0.035	± 0.002	44
Potassium (mg/L)		0.6	0.7	0.7	0.3	to 1.3	0.64	± 0.021	44
Sodium (mg/L)		8.5	10	8.5	7.4	to 11	8.7	± 0.13	44
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U	to 1	0.41	± 0.023	44
Nitrite/Nitrate - (N) (mg/L)		0.06	0.064	0.062	0.05 U	to 2 U	0.3	± 0.16	12
Total Dissolved Solids (mg/L)		87	90	83	58	to 100	83	± 1.3	44
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to 4 U	3.8	± 0.079	44
Sulfate (mg/L)		9.2	8.8	↑11	3	to 9.6	6.3	± 0.29	44
Bicarbonate (CaCO3) (mg/L)		55	55	57	46	to 59	53	± 0.41	44
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to 8.1	1.8	± 0.19	44
Chloride (mg/L)		1.5	1.4	1.7	0.8	to 3.1	1.8	± 0.068	44
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to 0.2 U	0.12	± 0.01	18
Turbidity (field) (NTU)		0.2	2.1	0.4	0	to 3.7	0.43	± 0.1	44

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 533

Printed: 3/26/2020 08:59

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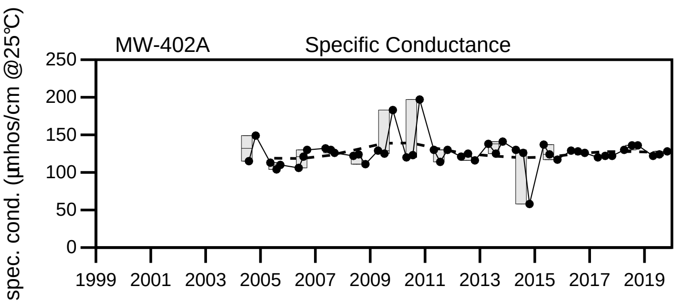
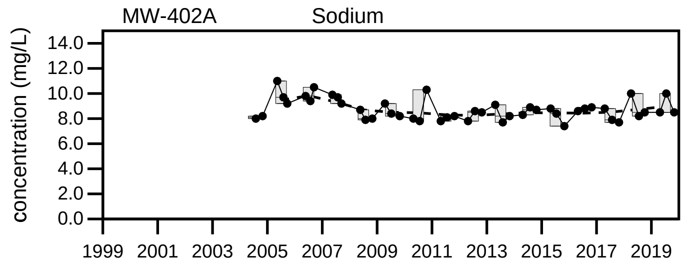
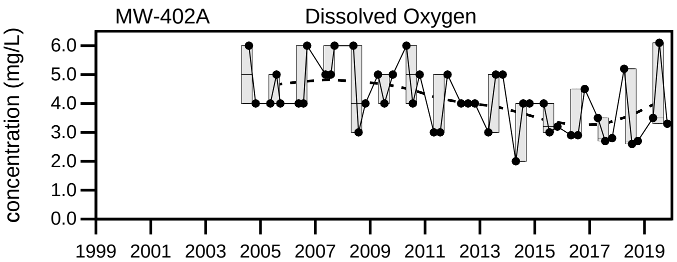
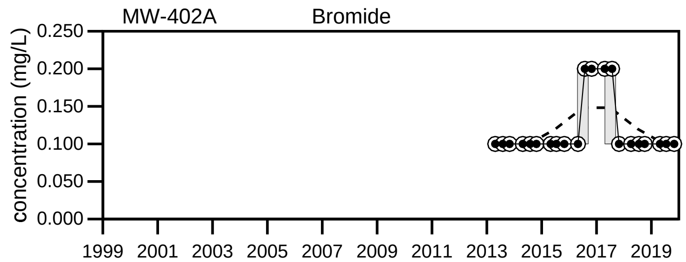
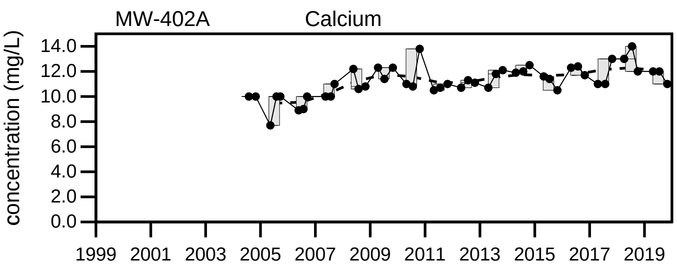
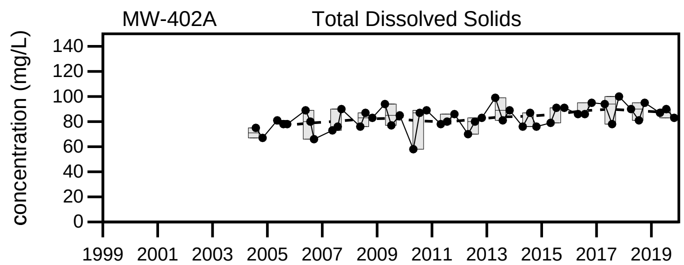


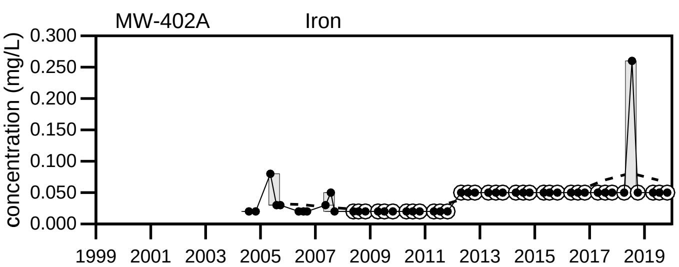


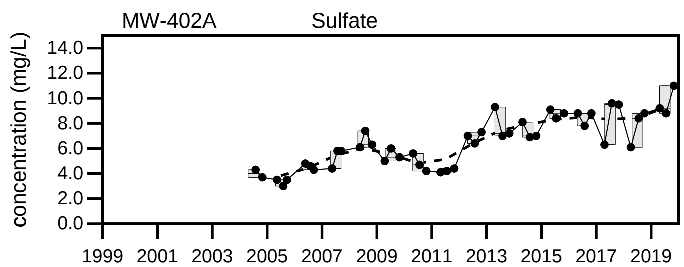


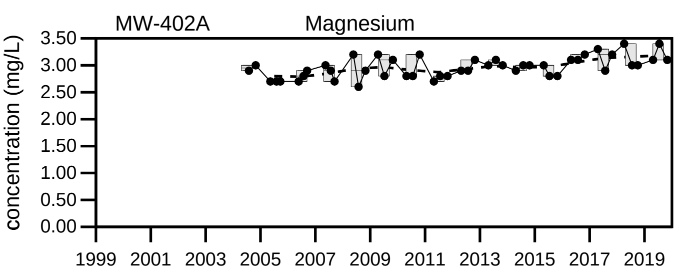


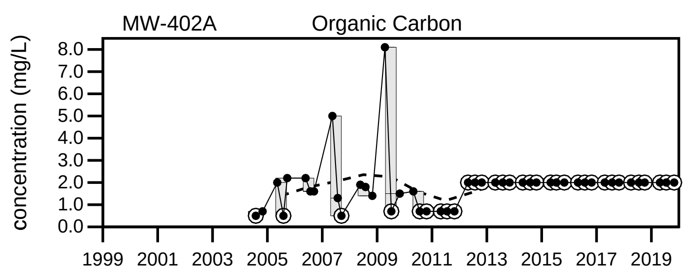


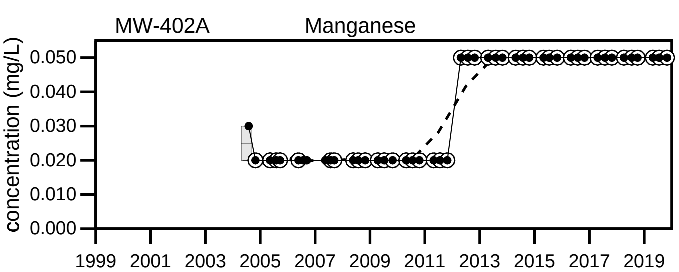


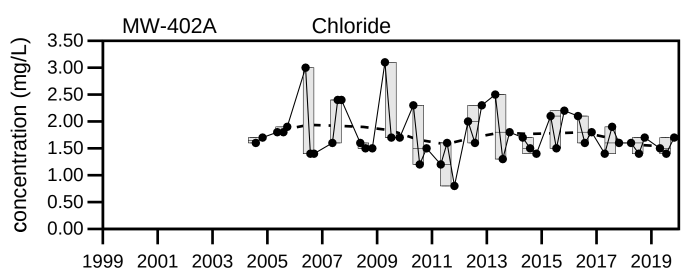












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value

- FFT smoothing of yearly mean values.
- Sample Event
- BDL

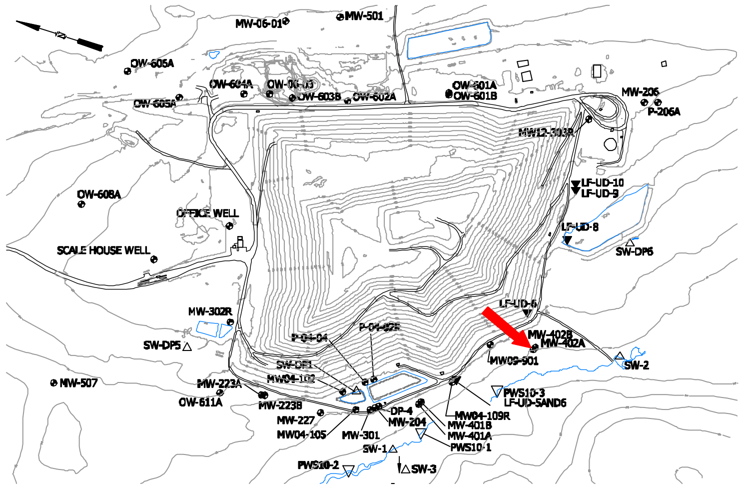
Juniper Ridge Landfill

MW-402A

Sevee & Maher Engineers, Inc.

Well Description

MW-402B monitors water quality within the overburden downgradient of the landfill.



Screen Interval:	**12 ft. to 22 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**07/29/04**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)		143	143	151	96 to	246	150 ±	3.2	44
pH (STU)		8.9	8.3	8.1	7 to	9.2	8.4 ±	0.07	44
Temperature (Deg C)		↓ 5.2	10.6	9.9	5.4 to	13.8	9.4 ±	0.31	44
Water Level Elevation (Feet)		150.3	149.02	150.09	146.92 to	150.56	150 ±	0.14	44
Eh (mV)		265	319	208	11 to	467	240 ±	15	44
Dissolved Oxygen (mg/L)		0.1	3.2	1.2	0.1 to	6.8	0.78 ±	0.16	44
Arsenic (mg/L)		<u>**0.02**</u>	<u>**0.017**</u>	<u>**0.02**</u>	0.01 to	0.031	0.018 ±	0.000	44
Calcium (mg/L)		15	13	14	13 to	17.2	15 ±	0.15	44
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to	0.18	0.041 ±	0.004	44
Magnesium (mg/L)		4.8	5.2	4.8	4.5 to	5.5	4.9 ±	0.04	44
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to	0.05	0.035 ±	0.002	44
Potassium (mg/L)		0.6	0.7	0.7	0.4 to	2.2	0.71 ±	0.04	44
Sodium (mg/L)		8.2	9.8	8.1	7.6 to	12	8.6 ±	0.14	44
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.21 to	0.61	0.39 ±	0.02	44
Nitrite/Nitrate - (N) (mg/L)		0.05 U	0.05 U	0.05 U	0.05 U to	2 U	0.29 ±	0.16	12
Total Dissolved Solids (mg/L)		88	93	88	64 to	124	95 ±	1.5	44
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to	9.3	4.2 ±	0.19	44
Sulfate (mg/L)		9.8	9.7	2.6	2.3 to	44.9	9.1 ±	0.87	44
Bicarbonate (CaCO3) (mg/L)		65	67	69	34 to	79	66 ±	0.89	44
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U to	5.2	1.8 ±	0.15	44
Chloride (mg/L)		1.5	1.3	18	1 to	26.5	2.4 ±	0.56	44
Bromide (mg/L)		0.1 U	0.1 U	0.11	0.1 U to	0.2 U	0.12 ±	0.01	18
Turbidity (field) (NTU)		0.3	1.2	0.2	0 to	3.5	0.51 ±	0.13	44

<u>**underlined/bold**</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

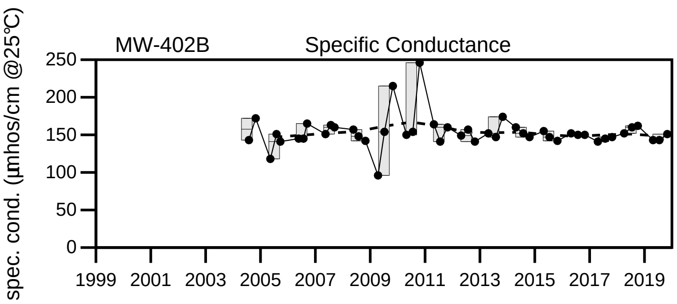
Q3= 7 - 2019

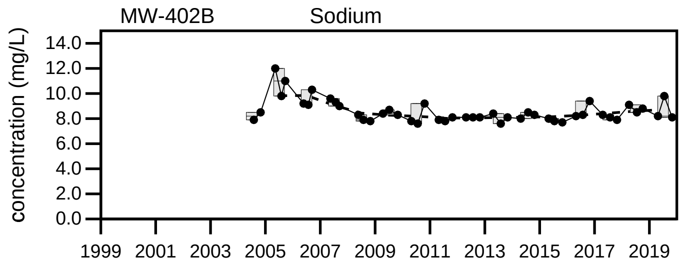
Q4= 10 - 2019

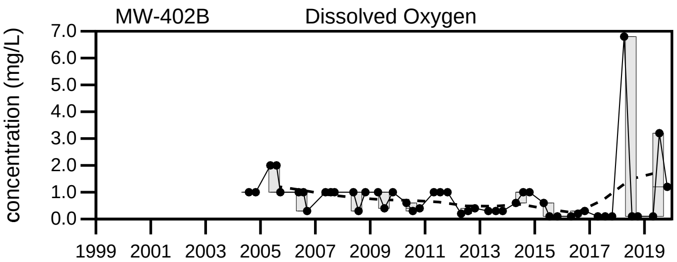
Data Group: 533

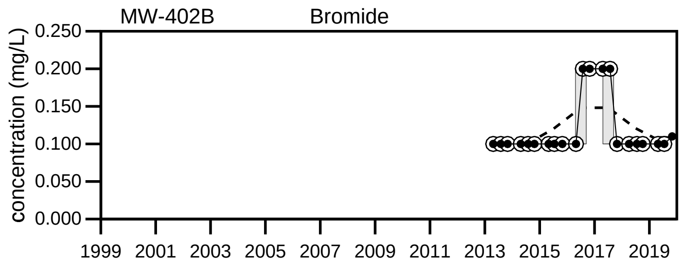
Printed: 3/17/2020 10:34

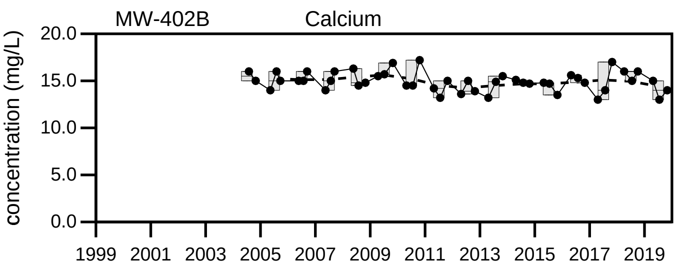
SME SEVEE & MAHER ENGINEERS

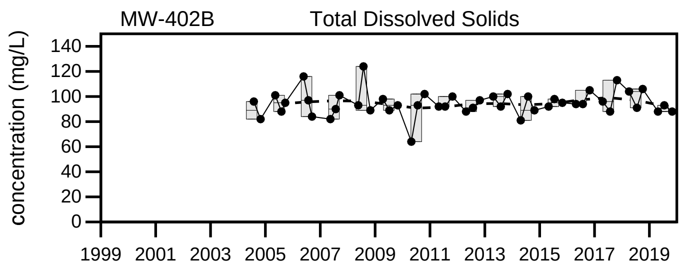


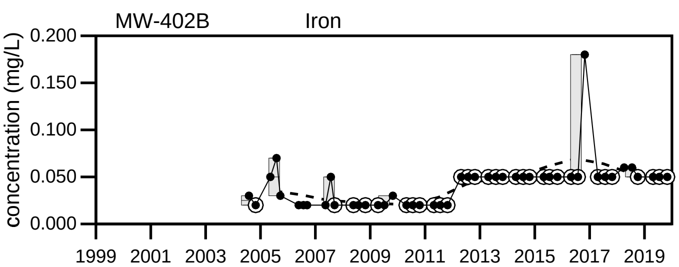


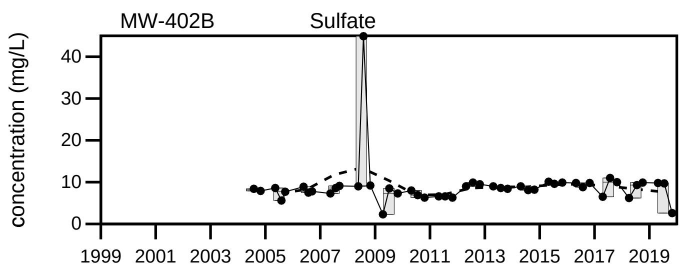


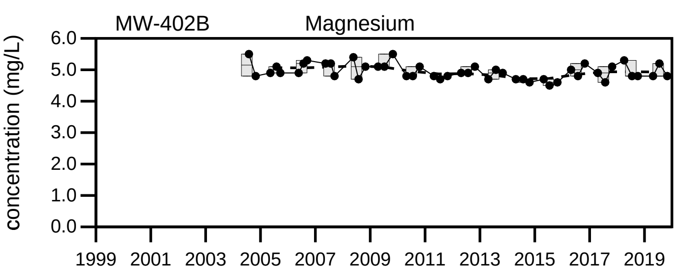


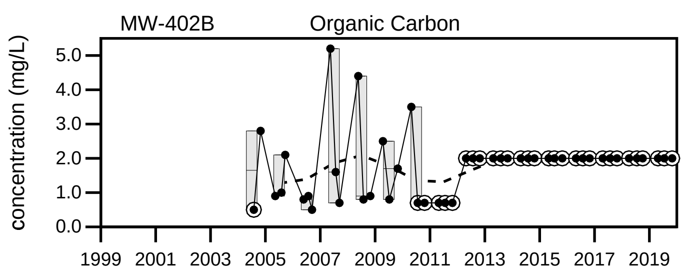


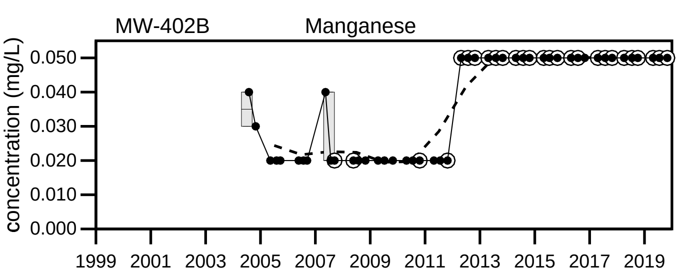


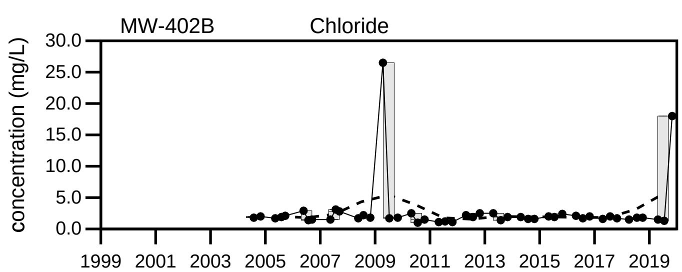












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

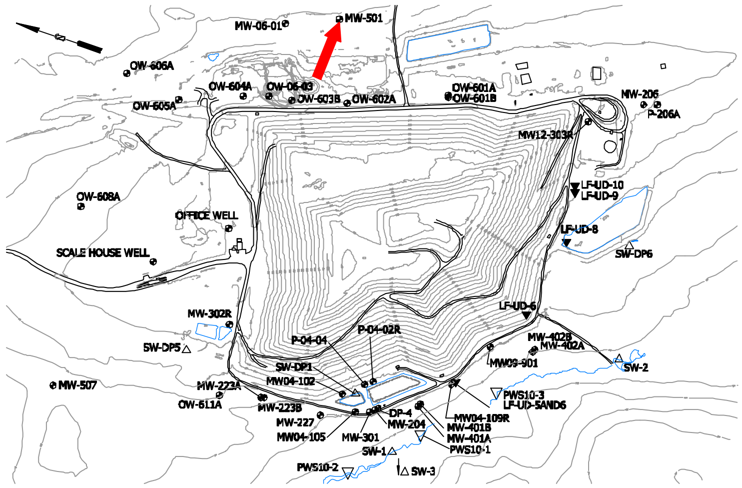
Juniper Ridge Landfill

MW-402B

Sevee & Maher Engineers, Inc.

Well Description

MW-501 monitors bedrock groundwater downgradient of Cell 11 of the landfill expansion.



Screen Interval:	**57 ft. to 67 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**Apr-18**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		↑297	↓176	↑367	202	to	255	220	±	13	4
pH (STU)		6.7	7.8	6.9	6.7	to	8.8	7.7	±	0.47	4
Temperature (Deg C)		8	↑13.3	9	6.5	to	9.2	8.2	±	0.61	4
Eh (mV)		383	↓200	↓208	327	to	553	420	±	54	4
Dissolved Oxygen (mg/L)		6.3	↑13.3	4.7	4.1	to	8	6.5	±	0.83	4
Arsenic (mg/L)		0.005 U	0.009	0.005 U	0.005 U	to	0.009	0.007	±	0.000	4
Calcium (mg/L)		↑47	↓21	↑60	30	to	33	31	±	0.75	4
Iron (mg/L)		↑0.17	0.05 U	0.05 U	0.05 U	to	0.05	0.05	±	0	4
Magnesium (mg/L)		↑6.8	5.1	↑7.8	4.9	to	5.7	5.4	±	0.17	4
Manganese (mg/L)		↑0.21	0.05 U	0.05 U	0.05 U	to	0.08	0.06	±	0.007	4
Potassium (mg/L)		0.8	0.8	↑1	0.7	to	0.8	0.73	±	0.03	4
Sodium (mg/L)		↑5.1	4.3	↑5.4	3.9	to	4.6	4.1	±	0.17	4
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U	to	0.33	0.27	±	0.02	4
Nitrite/Nitrate - (N) (mg/L)		↑0.43	0.25	↑0.57	0.18	to	0.25	0.22	±	0.02	4
Total Dissolved Solids (mg/L)		↑190	↓117	↑247	130	to	157	140	±	6.9	4
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	2.5 U	2.5	±	0	4
Sulfate (mg/L)		2.9	2.5	↑47	2.5	to	9.8	4.5	±	1.8	4
Bicarbonate (CaCO3) (mg/L)		140	75	170	No historical data for Bicarbonate (CaCO3).						
Organic Carbon (mg/L)		2 U	↑6.4	2 U	2 U	to	2 U	2	±	0	4
Chloride (mg/L)		10	9	↓2.4	8.3	to	11	9.8	±	0.56	4
Bromide (mg/L)		↑0.12	0.1 U	0.1 U	0.1 U	to	0.1 U	0.1	±	0	4
Turbidity (field) (NTU)		↓0.2	0.4	↓0.1	0.4	to	3.9	2.1	±	0.84	4

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

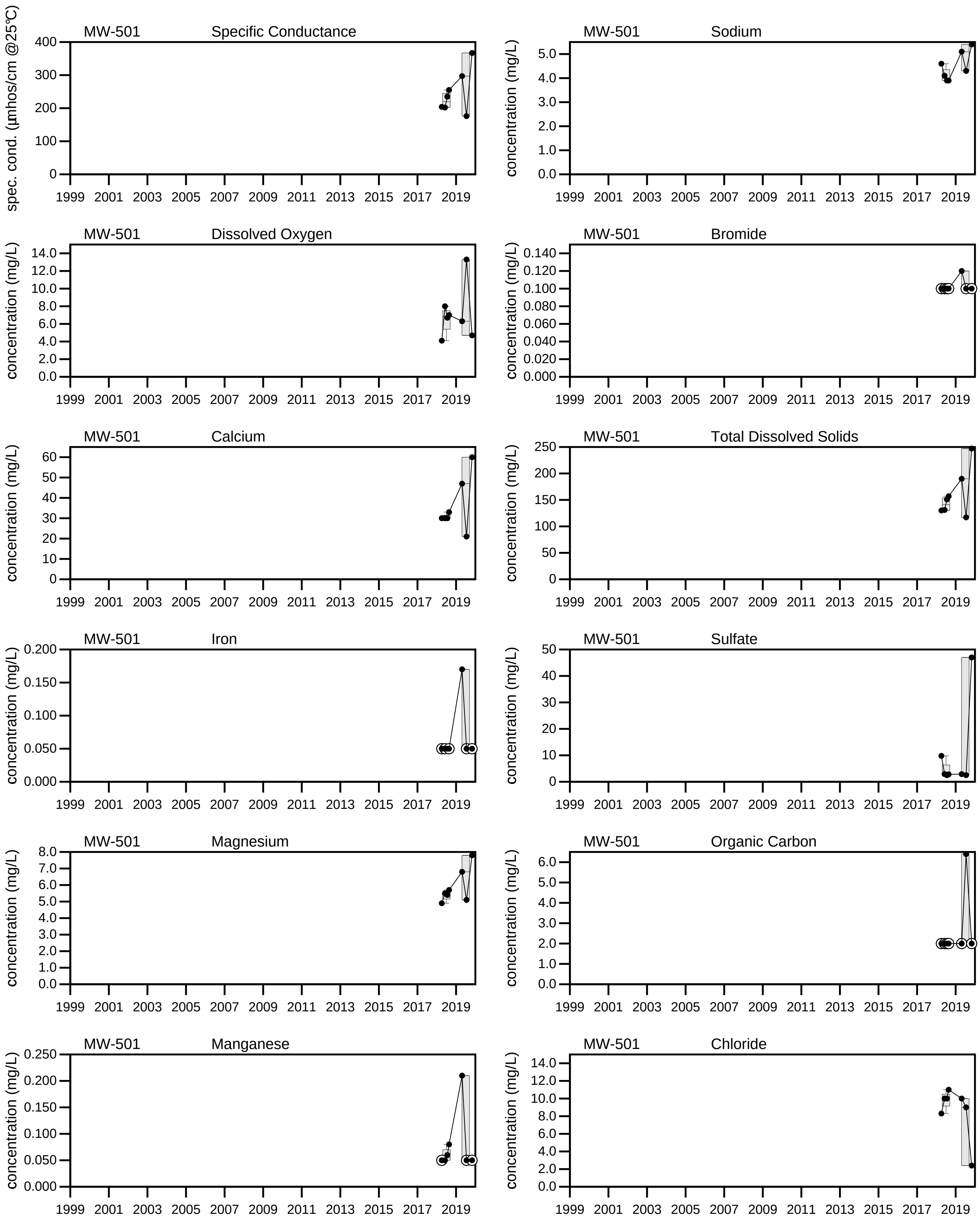
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL

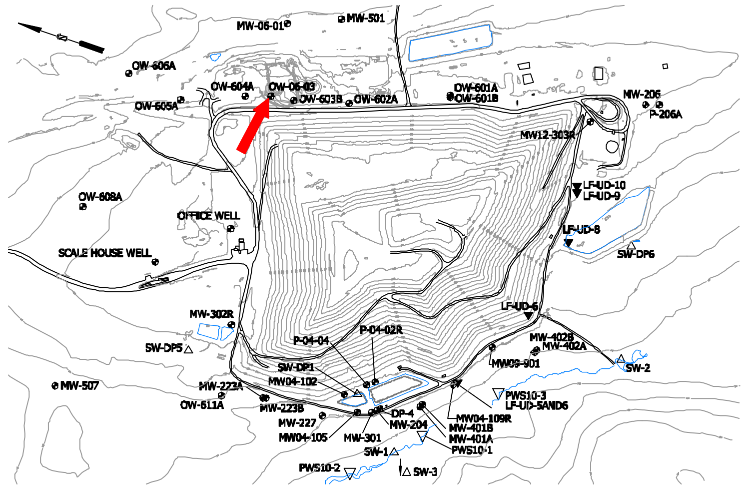
Juniper Ridge Landfill

MW-501

Sevee & Maher Engineers, Inc.

Well Description

OW-06-03 monitors overburden groundwater downgradient of Cell 11 of the landfill expansion.



Screen Interval:	**10 ft. to 15 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**Apr-18**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		↑409	I	↑448	193	to	193	190	±	0	1
pH (STU)		↑6	I	↑6.4	5.6	to	5.6	5.6	±	0	1
Temperature (Deg C)		↓6.2	I	↑10.3	8.7	to	8.7	8.7	±	0	1
Water Level Elevation (Feet)		↑185.54	I	↑182.91	181.72	to	181.72	180	±	0	1
Eh (mV)		↓358	I	↓176	401	to	401	400	±	0	1
Dissolved Oxygen (mg/L)		↓3	I	↓0.9	6	to	6	6	±	0	1
Arsenic (mg/L)			I		0.005 U	to	0.005 U	0.005	±	0	1
Calcium (mg/L)			I		17	to	17	17	±	0	1
Iron (mg/L)			I		0.32	to	0.32	0.32	±	0	1
Magnesium (mg/L)			I		4.4	to	4.4	4.4	±	0	1
Manganese (mg/L)			I		0.65	to	0.65	0.65	±	0	1
Potassium (mg/L)			I		1.1	to	1.1	1.1	±	0	1
Sodium (mg/L)			I		6.6	to	6.6	6.6	±	0	1
Total Kjeldahl Nitrogen (mg/L)			I		0.25 U	to	0.25 U	0.25	±	0	1
Nitrite/Nitrate - (N) (mg/L)			I		0.1	to	0.1	0.1	±	0	1
Total Dissolved Solids (mg/L)			I		84	to	84	84	±	0	1
Total Suspended Solids (mg/L)			I		2.5 U	to	2.5 U	2.5	±	0	1
Sulfate (mg/L)			I		2.1	to	2.1	2.1	±	0	1
Bicarbonate (CaCO3) (mg/L)			I		No historical data for Bicarbonate (CaCO3).						
Organic Carbon (mg/L)			I		2	to	2	2	±	0	1
Chloride (mg/L)			I		1.6	to	1.6	1.6	±	0	1
Bromide (mg/L)			I		0.58	to	0.58	0.58	±	0	1
Turbidity (field) (NTU)		↑8.2	I	↑10.2	2.7	to	2.7	2.7	±	0	1

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 I = The sampling location yielded insufficient quantity to coll

Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 606

Printed: 3/17/2020 10:23

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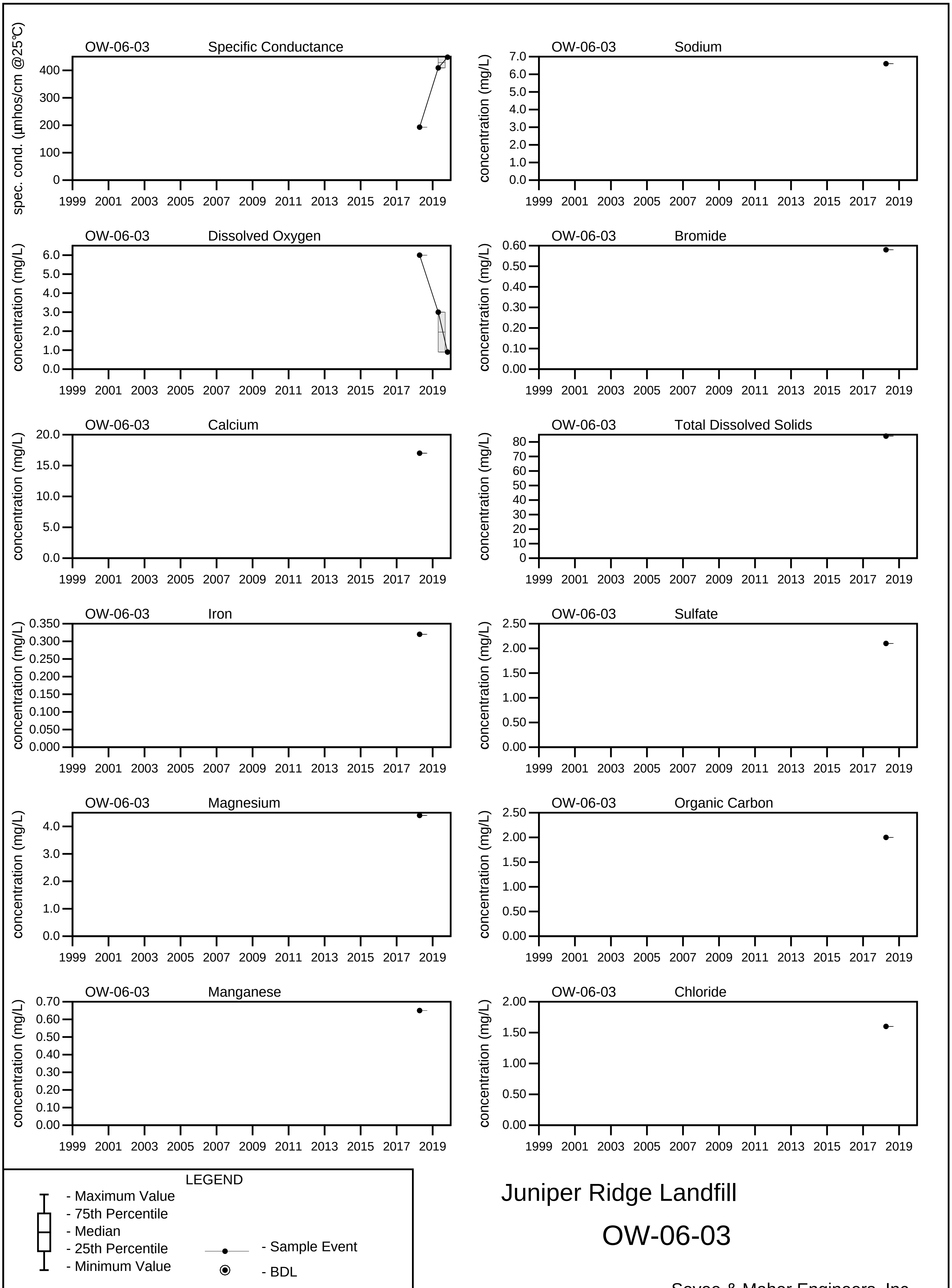
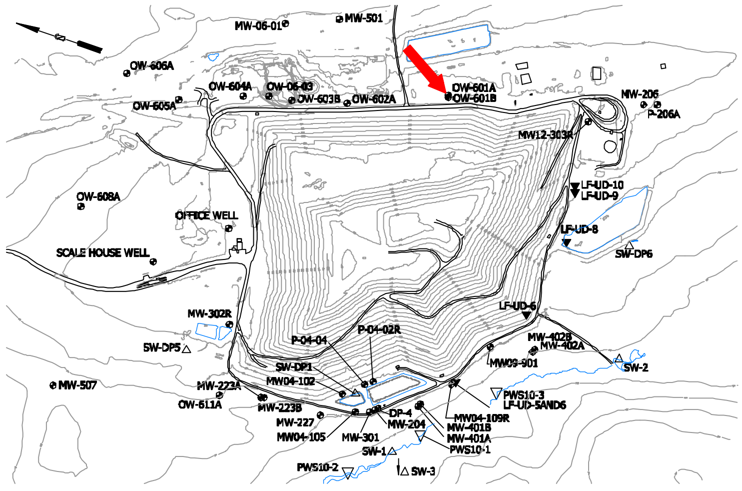

OW-06-03 Specific Conductance
spec. cond. (µmhos/cm @25°C)
0
100
200
300
400
OW-06-03 Sodium
concentration (mg/L)
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
OW-06-03 Dissolved Oxygen
concentration (mg/L)
0.0
1.0
2.0
3.0
4.0
5.0
6.0
OW-06-03 Bromide
concentration (mg/L)
0.00
0.10
0.20
0.30
0.40
0.50
0.60
OW-06-03 Calcium
concentration (mg/L)
0.0
5.0
10.0
15.0
20.0
OW-06-03 Total Dissolved Solids
concentration (mg/L)
0
10
20
30
40
50
60
70
80
OW-06-03 Iron
concentration (mg/L)
0.000
0.050
0.100
0.150
0.200
0.250
0.300
0.350
OW-06-03 Sulfate
concentration (mg/L)
0.00
0.50
1.00
1.50
2.00
2.50
OW-06-03 Magnesium
concentration (mg/L)
0.0
1.0
2.0
3.0
4.0
OW-06-03 Organic Carbon
concentration (mg/L)
0.00
0.50
1.00
1.50
2.00
2.50
OW-06-03 Manganese
concentration (mg/L)
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
OW-06-03 Chloride
concentration (mg/L)
0.00
0.50
1.00
1.50
2.00
1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019
LEGEND
- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL
Juniper Ridge Landfill
OW-06-03
Sevee & Maher Engineers, Inc.

Well Description

OW-601A monitors bedrock groundwater downgradient of Cell 11 of the landfill expansion.



Screen Interval:	**88 ft. to 98 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**Apr-18**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)		↑410	↑409	378	324	to 379	350	± 13	4
pH (STU)		7.2	7.1	↓7	7.1	to 7.4	7.2	± 0.06	4
Temperature (Deg C)		↓6.4	13.3	11.3	8.2	to 14.2	11	± 1.6	4
Water Level Elevation (Feet)		181.34	181.74	179.69	178.84	to 182.34	180	± 0.84	4
Eh (mV)		↑402	↑291	↑314	187	to 276	240	± 21	4
Dissolved Oxygen (mg/L)		↓0.9	2	6.4	1.5	to 7.9	4.2	± 1.4	4
Arsenic (mg/L)			0.005 U		0.005 U	to 0.005 U	0.005	± 3E-11	5
Calcium (mg/L)			42		36	to 43	40	± 1.3	5
Iron (mg/L)			0.05 U		0.05 U	to 0.97	0.33	± 0.17	5
Magnesium (mg/L)			↑12		8.8	to 11	10	± 0.41	5
Manganese (mg/L)			↓0.07		0.19	to 0.29	0.22	± 0.02	5
Potassium (mg/L)			↑2.5		1.8	to 2.3	2	± 0.1	5
Sodium (mg/L)			↑16		6.6	to 13	8.9	± 1.2	5
Total Kjeldahl Nitrogen (mg/L)			↑0.86		0.25 U	to 0.3	0.26	± 0.01	4
Nitrite/Nitrate - (N) (mg/L)			↑0.33		0.18	to 0.3	0.24	± 0.03	4
Total Dissolved Solids (mg/L)			↑234		180	to 212	200	± 7.2	4
Total Suspended Solids (mg/L)			2.5 U		2.5 U	to 7100	1800	± 1800	4
Sulfate (mg/L)			↑11		2.1	to 7	5.5	± 1.1	4
Bicarbonate (CaCO3) (mg/L)			140		No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)			2 U		2 U	to 2 U	2	± 0	4
Chloride (mg/L)			26		16	to 27	21	± 2.6	4
Bromide (mg/L)			0.18		0.13	to 1.1	0.39	± 0.24	4
Turbidity (field) (NTU)		↓1.7	↓1.7	↓2	3.3	to 1355	350	± 340	4

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

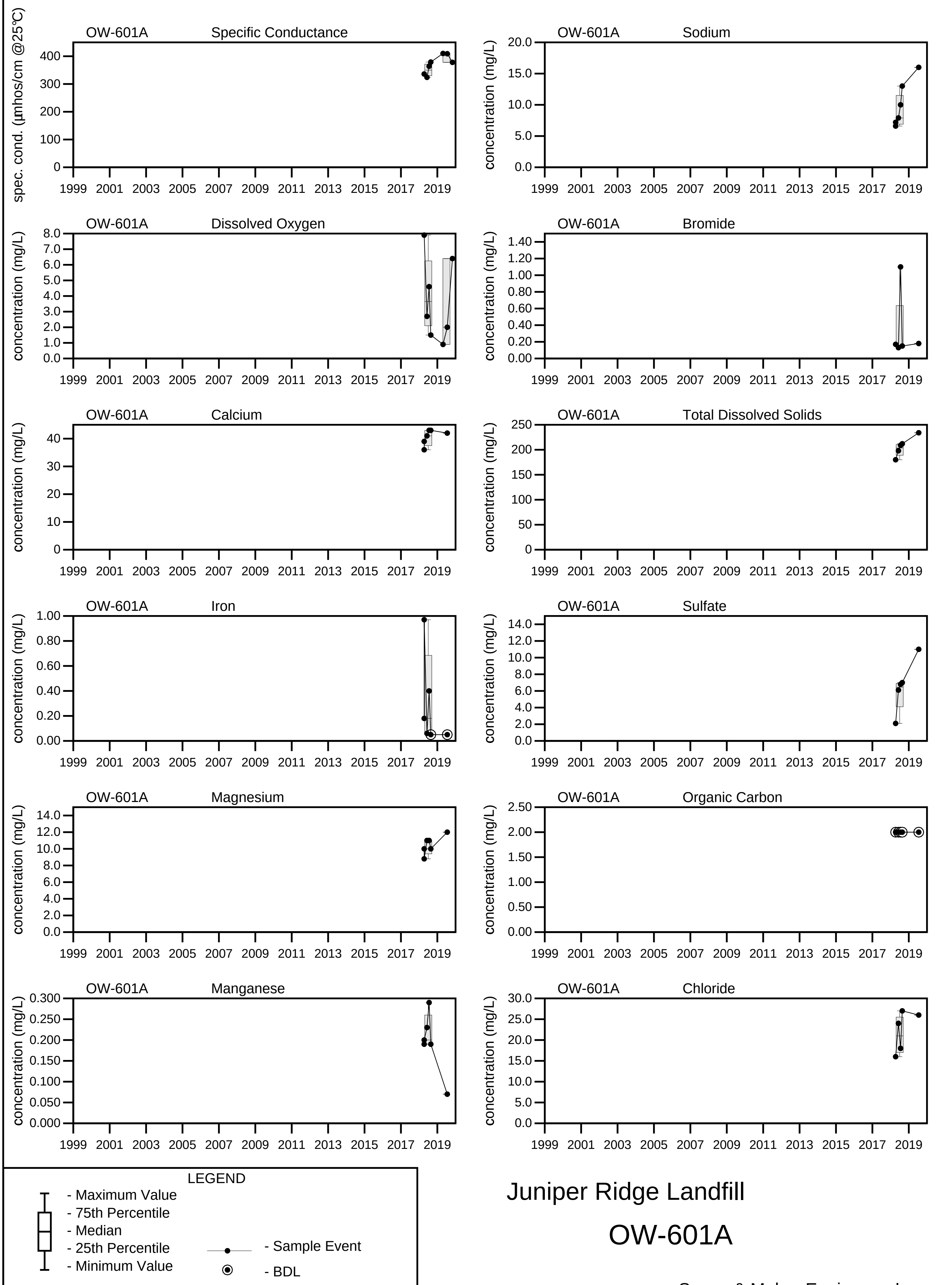
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



Juniper Ridge Landfill

OW-601A

Sevee & Maher Engineers, Inc.

OW-601B

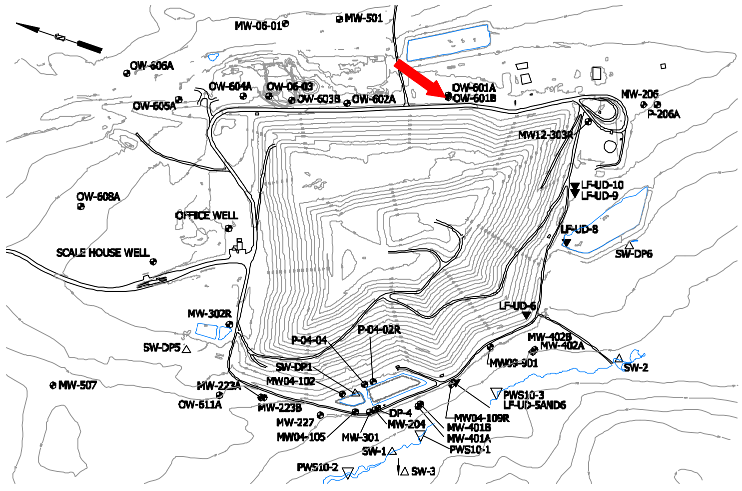
Juniper Ridge Landfill

OW-601B

annual stats 2019 G13

Well Description

OW-601B monitors overburden groundwater downgradient of Cell 11 of the landfill expansion.



Screen Interval:	**51 ft. to 61 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**Apr-18**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)						
Indicator Parameters	Q1	Q2	Q3	Q4	Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		358	351	369	323	to	386	350	±	14	4
pH (STU)		6.5	6.2	↑6.7	6.2	to	6.5	6.3	±	0.08	4
Temperature (Deg C)		↓7.7	11	10.4	8.6	to	14.7	11	±	1.5	4
Water Level Elevation (Feet)		180.92	181.34	179.2	178.42	to	181.95	180	±	0.85	4
Eh (mV)		↑406	↓259	328	287	to	370	340	±	19	4
Dissolved Oxygen (mg/L)		2.5	2.1	3	1.4	to	4.4	3.3	±	0.7	4
Arsenic (mg/L)			0.005 U		0.005 U	to	0.007	0.0055	±	0.000	4
Calcium (mg/L)			↓34		36	to	40	39	±	0.95	4
Iron (mg/L)			↑0.74		0.05 U	to	0.28	0.18	±	0.05	4
Magnesium (mg/L)			13		11	to	13	12	±	0.41	4
Manganese (mg/L)			**<u>0.64</u>**		0.05 U	to	1	0.31	±	0.23	4
Potassium (mg/L)			1.8		1.4	to	1.9	1.7	±	0.13	4
Sodium (mg/L)			↑8.7		6.8	to	8.2	7.5	±	0.35	4
Total Kjeldahl Nitrogen (mg/L)			0.25 U		0.25 U	to	0.25 U	0.25	±	0	4
Nitrite/Nitrate - (N) (mg/L)			0.51		0.25	to	0.58	0.44	±	0.07	4
Total Dissolved Solids (mg/L)			213		184	to	277	220	±	21	4
Total Suspended Solids (mg/L)			3.3		2.5 U	to	16	7.7	±	2.9	4
Sulfate (mg/L)			3.1		2 U	to	10 U	4.4	±	1.9	4
Bicarbonate (CaCO3) (mg/L)			120		No historical data for Bicarbonate (CaCO3).						
Organic Carbon (mg/L)			2 U		2 U	to	2 U	2	±	0	4
Chloride (mg/L)			26		22	to	61	39	±	8.4	4
Bromide (mg/L)			0.2		0.16	to	0.5 U	0.27	±	0.08	4
Turbidity (field) (NTU)		↓1	↑5.7	↑6.3	2.5	to	5	3.3	±	0.6	4

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

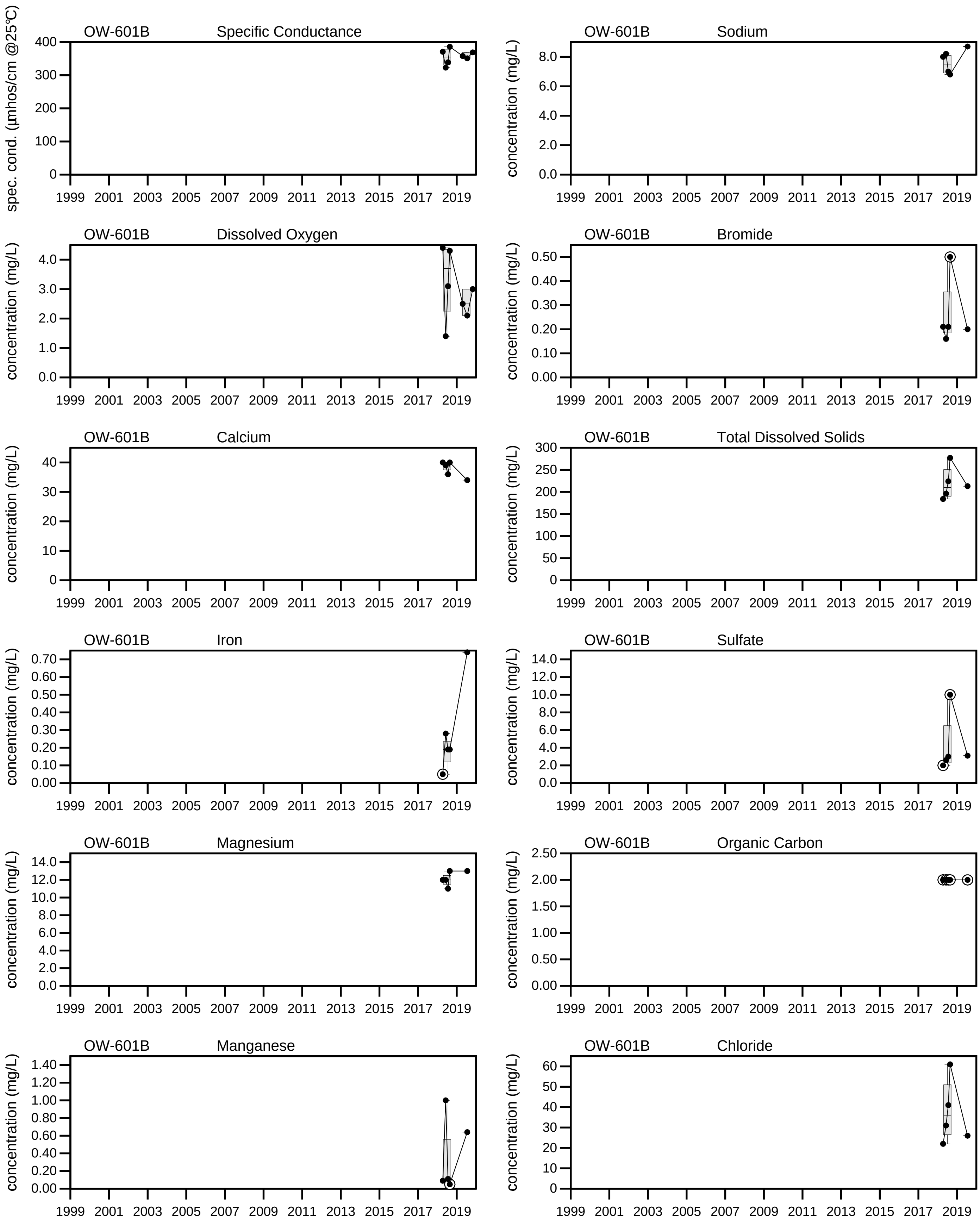
Q3= 7 - 2019

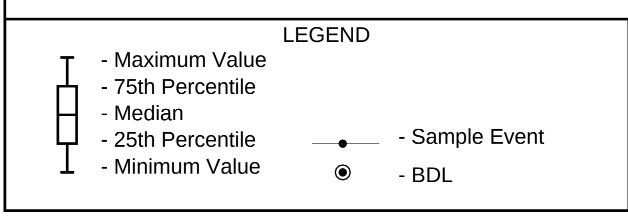
Q4= 10 - 2019

Data Group: 606

Printed: 3/17/2020 10:23

SME SEVEE & MAHER ENGINEERS





Juniper Ridge Landfill

OW-601B

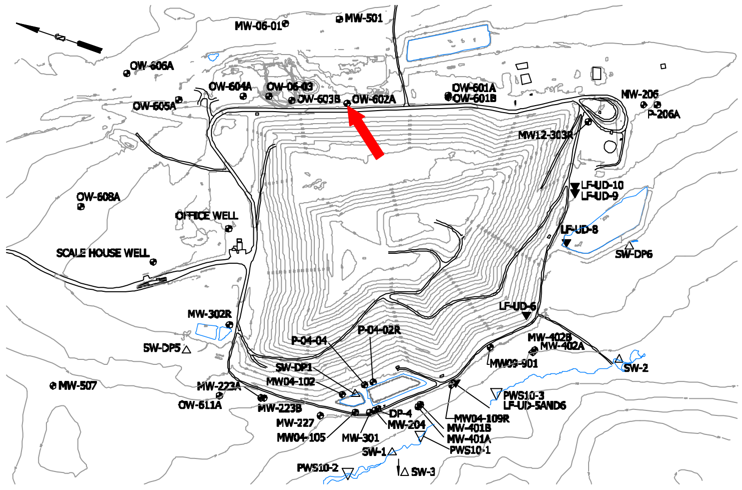
Sevee & Maher Engineers, Inc.

Juniper Ridge Landfill

annual stats 2019 G13

Well Description

OW-602A monitors bedrock groundwater downgradient of Cell 11 of the landfill expansion.



Screen Interval:	**52 ft. to 62 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**Apr-18**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)		↓93	↓110	↓120	143	to 144	140	± 0.25	4
pH (STU)		7.1	6.8	7.1	6.7	to 8.2	7.4	± 0.31	4
Temperature (Deg C)		↓7.2	8.7	9.2	7.9	to 17.5	11	± 2.3	4
Water Level Elevation (Feet)		178.72	178.42	↓177.37	177.92	to 183.25	180	± 1.2	4
Eh (mV)		391	308	324	301	to 467	360	± 36	4
Dissolved Oxygen (mg/L)		10	11.2	8.2	7.5	to 12.9	10	± 1.1	4
Arsenic (mg/L)			0.005 U		0.005 U	to 0.008	0.0058	± 0.000	4
Calcium (mg/L)			↓13		14	to 18	17	± 0.95	4
Iron (mg/L)			0.05 U		0.05 U	to 0.1	0.063	± 0.01	4
Magnesium (mg/L)			3		2.8	to 4.1	3.5	± 0.27	4
Manganese (mg/L)			0.05 U		0.05 U	to 0.05 U	0.05	± 0	4
Potassium (mg/L)			0.4		0.4	to 0.6	0.48	± 0.05	4
Sodium (mg/L)			2.8		2.5	to 3	2.7	± 0.12	4
Total Kjeldahl Nitrogen (mg/L)			↑0.72		0.25 U	to 0.3	0.26	± 0.01	4
Nitrite/Nitrate - (N) (mg/L)			↑0.26		0.05 U	to 0.15	0.11	± 0.02	4
Total Dissolved Solids (mg/L)			77		59	to 100	87	± 9.5	4
Total Suspended Solids (mg/L)			2.5 U		2.5 U	to 2.5 U	2.5	± 0	4
Sulfate (mg/L)			↓2.8		3.9	to 4.6	4.4	± 0.16	4
Bicarbonate (CaCO3) (mg/L)			43		No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)			2 U		2 U	to 2 U	2	± 0	4
Chloride (mg/L)			5.6		2.3	to 13	9.8	± 2.5	4
Bromide (mg/L)			0.1 U		0.1 U	to 0.1 U	0.1	± 0	4
Turbidity (field) (NTU)		0.9	1.6	0.7	0.5	to 3.7	2.1	± 0.65	4

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

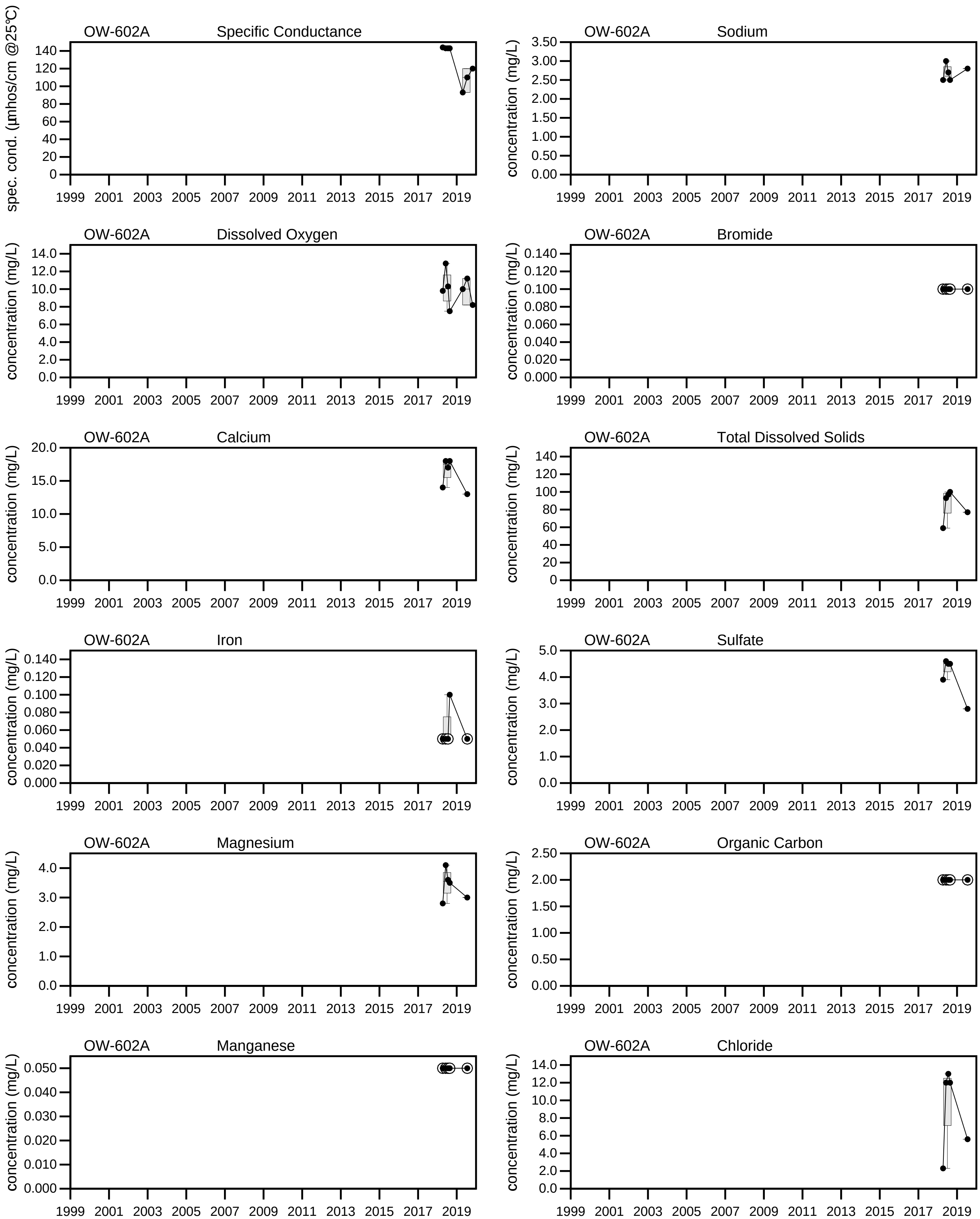
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 606

Printed: 3/17/2020 10:23

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL

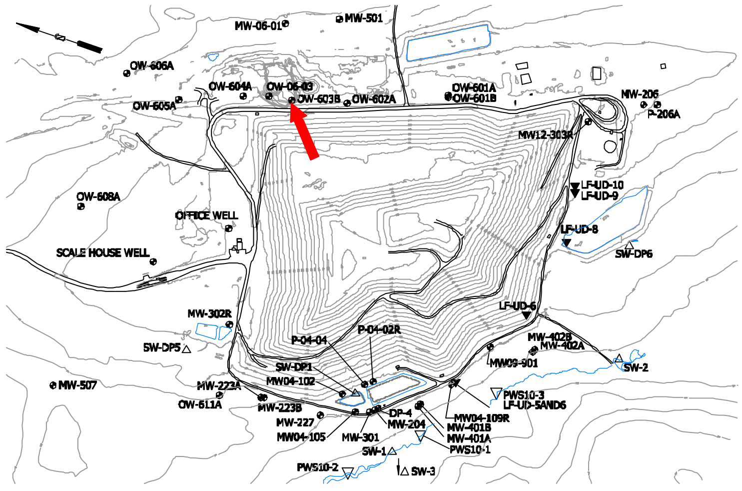
Juniper Ridge Landfill

OW-602A

Sevee & Maher Engineers, Inc.

Well Description

OW-603B monitors overburden groundwater downgradient of Cell 11 of the landfill expansion.



Screen Interval:	**34 ft. to 44 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**Apr-18**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		↓122	136	185	136	to	302	220	±	34	4
pH (STU)		6.4	6.2	6.5	5.7	to	7.1	6.2	±	0.31	4
Temperature (Deg C)		↓6.3	12.3	10.2	7.7	to	19.7	13	±	2.9	4
Water Level Elevation (Feet)		↓181.17	182.67	↓181.51	182.47	to	187.63	180	±	1.1	4
Eh (mV)		409	↓304	400	315	to	415	380	±	23	4
Dissolved Oxygen (mg/L)		↑5.8	↑7.5	↓0.1	0.3	to	5	2.6	±	1.1	4
Arsenic (mg/L)			0.008		0.005 U	to	0.017	0.0074	±	0.002	5
Calcium (mg/L)			↓12		13	to	34	22	±	4.1	5
Iron (mg/L)			0.08		0.05	to	19	4.2	±	3.7	5
Magnesium (mg/L)			4.7		4.5	to	11	7.3	±	1.2	5
Manganese (mg/L)			0.2		0.11	to	0.93	0.47	±	0.16	5
Potassium (mg/L)			1.6		1	to	3.7	1.8	±	0.49	5
Sodium (mg/L)			5.4		3.9	to	8.5	5.5	±	0.83	5
Total Kjeldahl Nitrogen (mg/L)			↑11		0.25 U	to	1.2	0.51	±	0.23	4
Nitrite/Nitrate - (N) (mg/L)			↑0.28		0.054	to	0.11	0.086	±	0.01	4
Total Dissolved Solids (mg/L)			99		99	to	161	120	±	15	4
Total Suspended Solids (mg/L)			2.5 U		2.5 U	to	1500	380	±	370	4
Sulfate (mg/L)			↑2.9		2.1	to	2.4	2.3	±	0.08	4
Bicarbonate (CaCO3) (mg/L)			60		No historical data for Bicarbonate (CaCO3).						
Organic Carbon (mg/L)			2 U		2 U	to	4	2.5	±	0.5	4
Chloride (mg/L)			2		1.2	to	2.5	1.9	±	0.28	4
Bromide (mg/L)			0.1 U		0.1 U	to	1.1	0.39	±	0.24	4
Turbidity (field) (NTU)		22.1	9.3	32.6	2.2	to	430	110	±	110	4

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

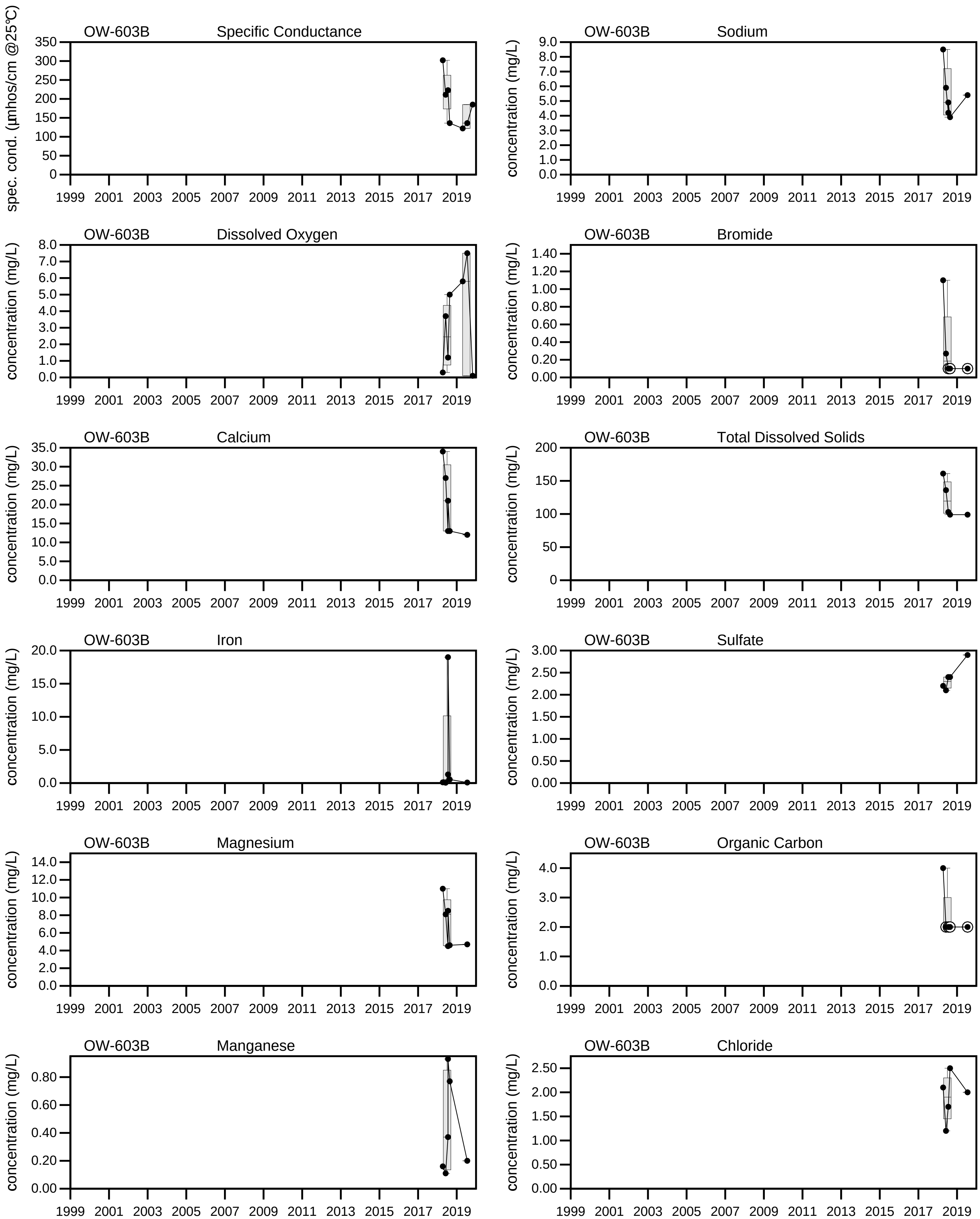
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL

Juniper Ridge Landfill

OW-603B

Sevee & Maher Engineers, Inc.

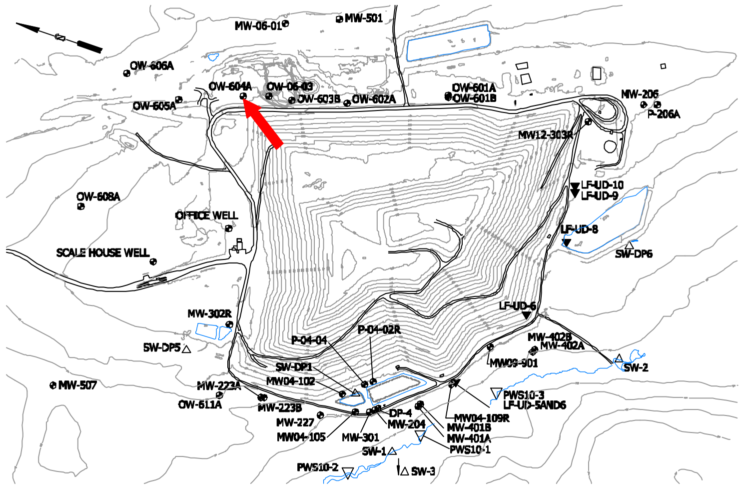
OW-604A

Juniper Ridge Landfill

annual stats 2019 G13

Well Description

OW-604A monitors bedrock groundwater downgradient of Cell 11 of the landfill expansion.



Screen Interval:	**39 ft. to 49 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**Apr-18**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		119	124	120	78	to	125	95	±	10	4
pH (STU)		6.4	6.1	6.3	6	to	7.8	6.6	±	0.41	4
Temperature (Deg C)		↓6.2	14.1	11	7.1	to	16.9	12	±	2.4	4
Water Level Elevation (Feet)		177.81	178.95	179.06	175.73	to	184.5	180	±	1.9	4
Eh (mV)		429	↓293	417	334	to	548	420	±	45	4
Dissolved Oxygen (mg/L)		5.2	3.2	↓0.1 U	1.6	to	7.5	5.1	±	1.3	4
Arsenic (mg/L)			0.005 U		0.005 U	to	0.007	0.0055	±	0.000	4
Calcium (mg/L)			13		8.9	to	15	11	±	1.4	4
Iron (mg/L)			0.05 U		0.05 U	to	0.05 U	0.05	±	0	4
Magnesium (mg/L)			↑4.2		2.3	to	3.4	2.7	±	0.25	4
Manganese (mg/L)			0.05 U		0.05 U	to	0.05 U	0.05	±	0	4
Potassium (mg/L)			0.6		0.5	to	0.6	0.55	±	0.03	4
Sodium (mg/L)			↑4.4		2.7	to	3.5	3.1	±	0.16	4
Total Kjeldahl Nitrogen (mg/L)			↑0.62		0.25 U	to	0.28	0.26	±	0.008	4
Nitrite/Nitrate - (N) (mg/L)			↑0.57		0.16	to	0.46	0.26	±	0.07	4
Total Dissolved Solids (mg/L)			87		62	to	101	75	±	9.1	4
Total Suspended Solids (mg/L)			2.5 U		2.5 U	to	2.5 U	2.5	±	0	4
Sulfate (mg/L)			2.8		2.5	to	3.5	2.8	±	0.23	4
Bicarbonate (CaCO3) (mg/L)			53		No historical data for Bicarbonate (CaCO3).						
Organic Carbon (mg/L)			2 U		2 U	to	2 U	2	±	0	4
Chloride (mg/L)			1.5		1.1	to	1.9	1.6	±	0.18	4
Bromide (mg/L)			0.1 U		0.1 U	to	0.1 U	0.1	±	0	4
Turbidity (field) (NTU)		2	↑5.8	3.7	1.2	to	3.7	2.8	±	0.55	4

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

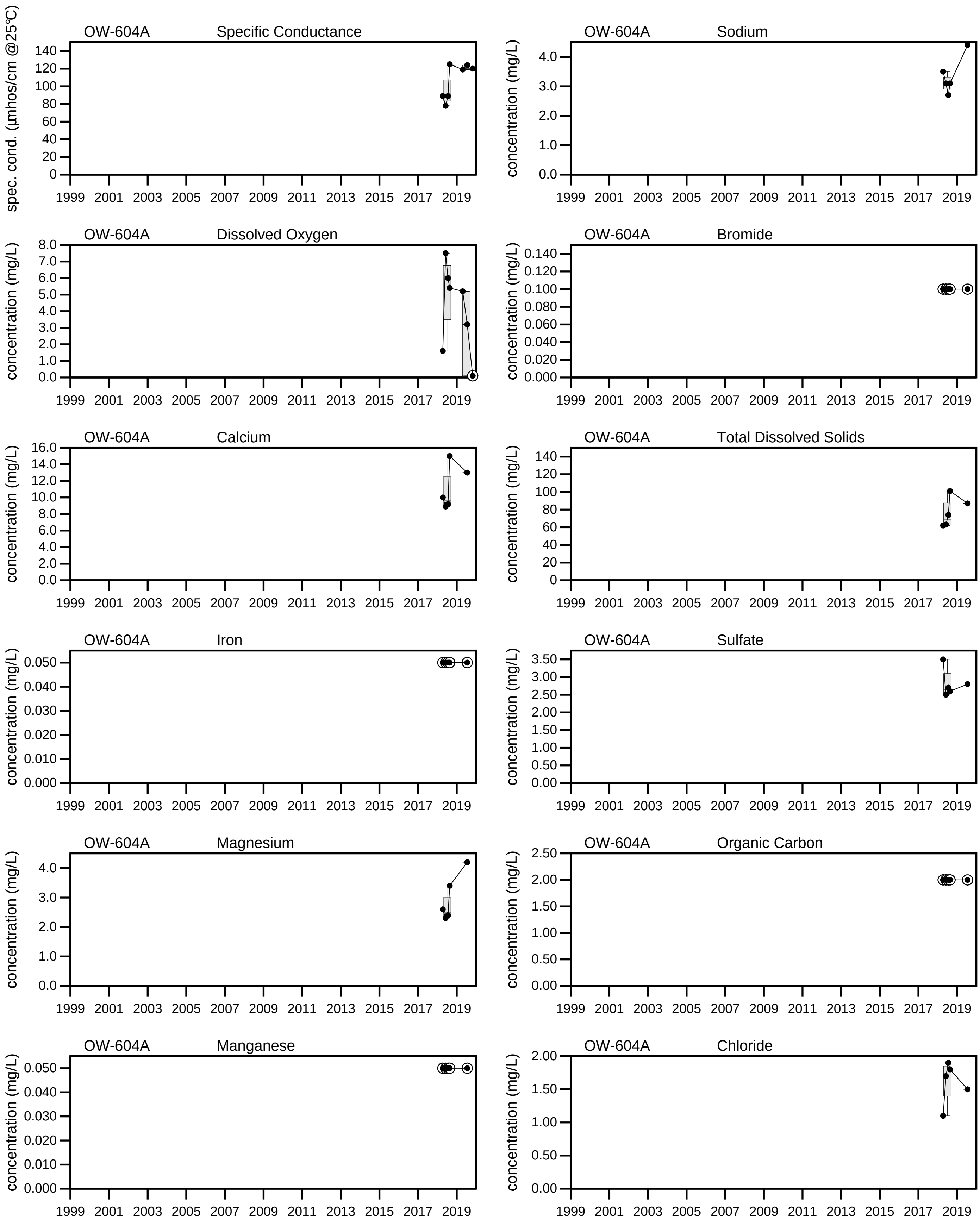
Q3= 7 - 2019

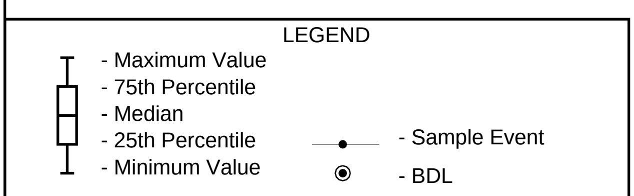
Q4= 10 - 2019

Data Group: 606

Printed: 3/17/2020 10:23

SME SEVEE & MAHER ENGINEERS





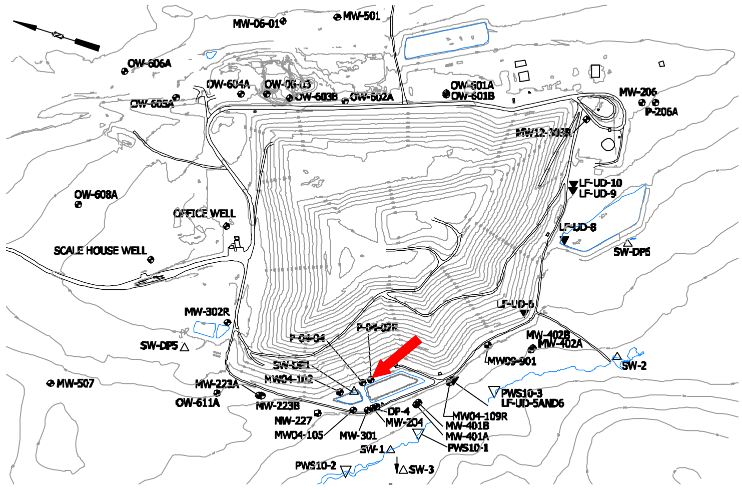
Juniper Ridge Landfill

OW-604A

Sevee & Maher Engineers, Inc.

Well Description

P-04-02R monitors the water quality in the overburden downgradient of the landfill, between the former leachate pond and the landfill toe. P-04-02R replaced well P-04-02 in 2015. Survey info received on 2/1/2019



Screen Interval:	**27.13 ft. to 32.13 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**7/15/15**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)						
Indicator Parameters	Q1	Q2	Q3	Q4	Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		327	401	331	284	to	772	550	±	40	11
pH (STU)		↑ 8.3	8	8.2	7.7	to	8.2	8	±	0.05	11
Temperature (Deg C)		11	15.1	12	8.4	to	15.4	12	±	0.72	11
Water Level Elevation (Feet)		159.86	158.23	159.22	157.22	to	159.92	160	±	0.28	11
Eh (mV)		401	305	254	118	to	470	320	±	32	11
Dissolved Oxygen (mg/L)		2.9	↑ 7.1	0.7	0.2	to	6.2	2.8	±	0.64	11
Arsenic (mg/L)		0.007	0.008	0.006	0.005 U	to	0.016	0.0083	±	0.000	15
Calcium (mg/L)		27	22	22	17.5	to	37	29	±	1.1	15
Iron (mg/L)		0.05 U	0.05 U	0.09	0.05 U	to	1.52	0.17	±	0.1	15
Magnesium (mg/L)		7.5	7.3	6.6	4.3	to	10.2	8.1	±	0.36	15
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.05 U	to	0.21	0.063	±	0.01	15
Potassium (mg/L)		1.9	2	1.8	1.6	to	2.5	2	±	0.08	15
Sodium (mg/L)		**<u>50</u>**	**<u>61</u>**	**<u>49</u>**	32.7	to	112	72	±	5.7	15
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U	to	0.5	0.41	±	0.04	11
Nitrite/Nitrate - (N) (mg/L)		0.088	0.097	0.1	0.05 U	to	2 U	0.29	±	0.18	11
Total Dissolved Solids (mg/L)		233	260	215	188	to	456	340	±	26	11
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	26	6	±	2.1	11
Sulfate (mg/L)		57	57	↓ 9	32.4	to	158	100	±	13	11
Bicarbonate (CaCO3) (mg/L)		130	150	140	82	to	150	120	±	5.8	11
Organic Carbon (mg/L)		2 U	2 U	2 U	2 U	to	32.5	4.8	±	2.8	11
Chloride (mg/L)		↓ 1.9	↓ 2.4	6.2	3	to	42.5	12	±	3.4	11
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.4 U	0.17	±	0.04	11
Turbidity (field) (NTU)		0.9	1.3	2.9	0.8	to	18.2	3.6	±	1.6	11

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

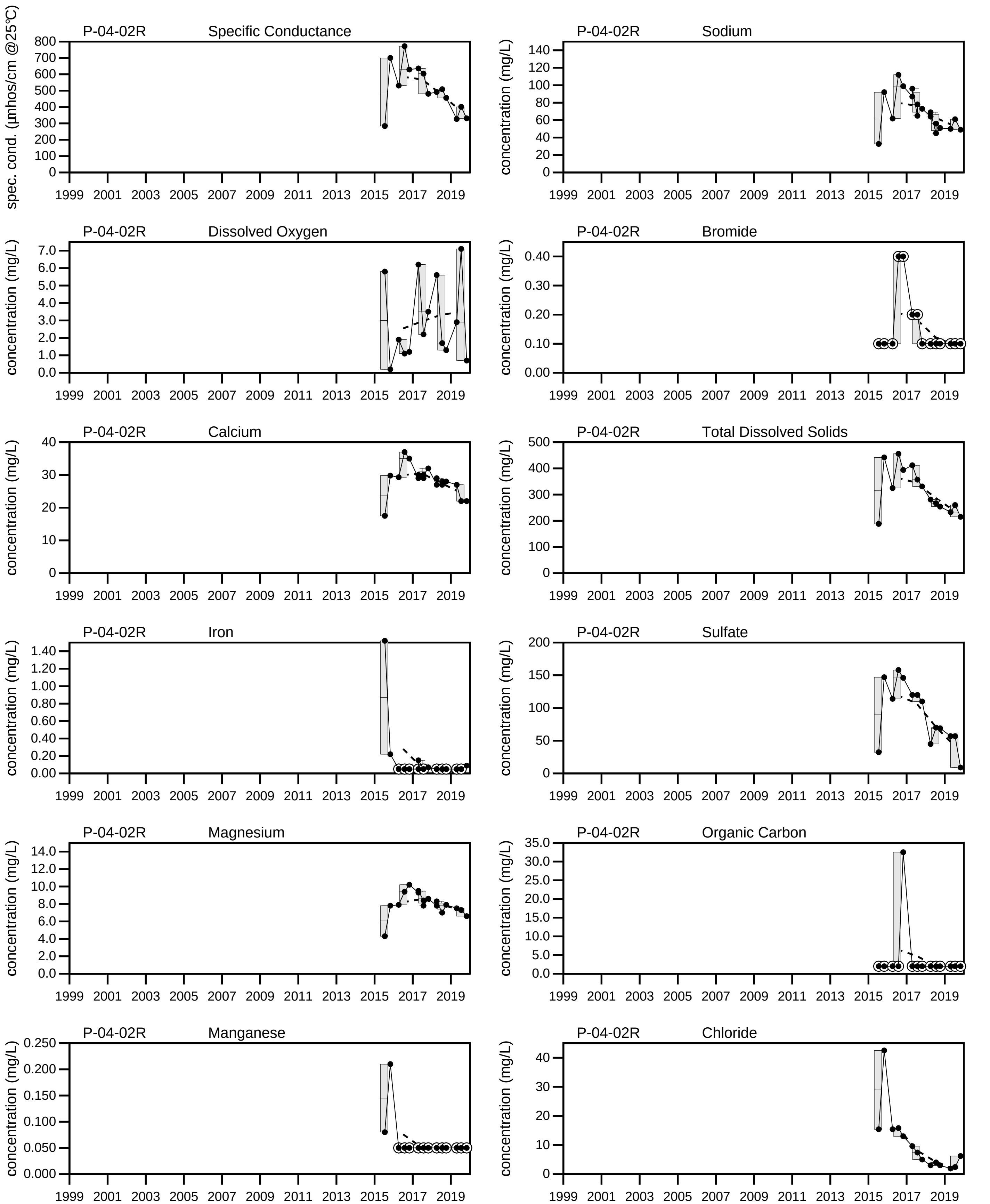
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

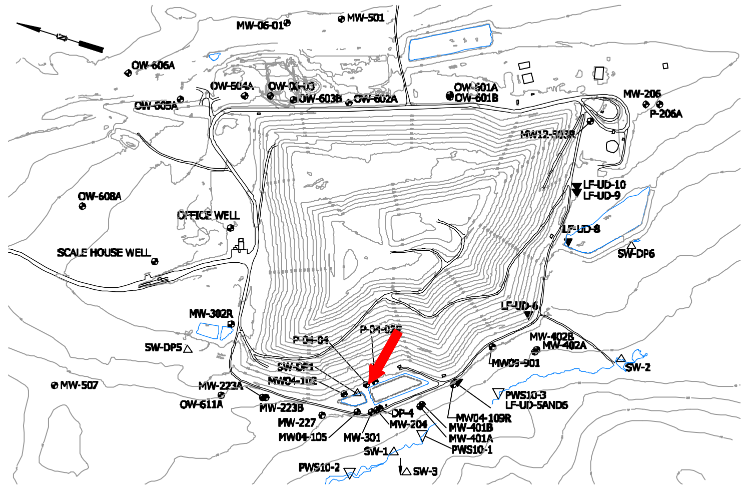
Juniper Ridge Landfill

P-04-02R

Sevee & Maher Engineers, Inc.

Well Description

P-04-04 monitors the water quality in the overburden downgradient of the landfill, between the former leachate pond and landfill toe.



Screen Interval: **27.21 ft. to 32.21 ft.**

Sampled: **3 Times Annually**

Sampled Since: **02/05/04**

Material Screened: **Overburden**

Well Condition: **Good**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (μmhos/cm @25°C)		182	190	187	148	to	405	190	±	5.8	47
pH (STU)		8.2	8.1	7.9	6.2	to	8.4	7.8	±	0.06	47
Temperature (Deg C)		9.6	16	12	3.4	to	19.5	12	±	0.51	47
Water Level Elevation (Feet)		160.38	159.65	160.05	140.18	to	161.85	160	±	0.53	47
Eh (mV)		402	304	247	151	to	520	320	±	13	45
Dissolved Oxygen (mg/L)		6.3	↑ 7.7	2.4	1	to	7.6	3.7	±	0.23	47
Arsenic (mg/L)		0.005 U	0.007	0.007	0.001	to	0.014	0.007	±	0.000	47
Calcium (mg/L)		24	21	22	11	to	58.1	23	±	0.84	47
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.93	0.059	±	0.02	47
Magnesium (mg/L)		5.8	5.9	5.8	4.8	to	6.1	5.4	±	0.05	47
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.12	0.038	±	0.003	47
Potassium (mg/L)		1.4	1.5	1.4	0.9	to	4.6	1.5	±	0.08	47
Sodium (mg/L)		4.4	4.9	4.4	3.6	to	73	6.9	±	1.5	47
Total Kjeldahl Nitrogen (mg/L)		0.27	0.25 U	0.25 U	0.17	to	0.9	0.43	±	0.02	45
Nitrite/Nitrate - (N) (mg/L)		0.13	0.13	0.14	0.05 U	to	2 U	0.32	±	0.16	12
Total Dissolved Solids (mg/L)		118	115	114	92	to	287	120	±	4	47
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	21	4.2	±	0.38	47
Sulfate (mg/L)		9.7	9.1	8.8	4.1	to	28.8	9.2	±	0.66	47
Bicarbonate (CaCO3) (mg/L)		76	81	78	72	to	153	82	±	1.9	47
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	3.8	1.6	±	0.1	47
Chloride (mg/L)		4.3	5.6	5.9	0.9	to	7.2	2.1	±	0.16	47
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.12	±	0.01	18
Turbidity (field) (NTU)		0.8	1.4	2.2	0	to	162	4.6	±	3.4	47

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

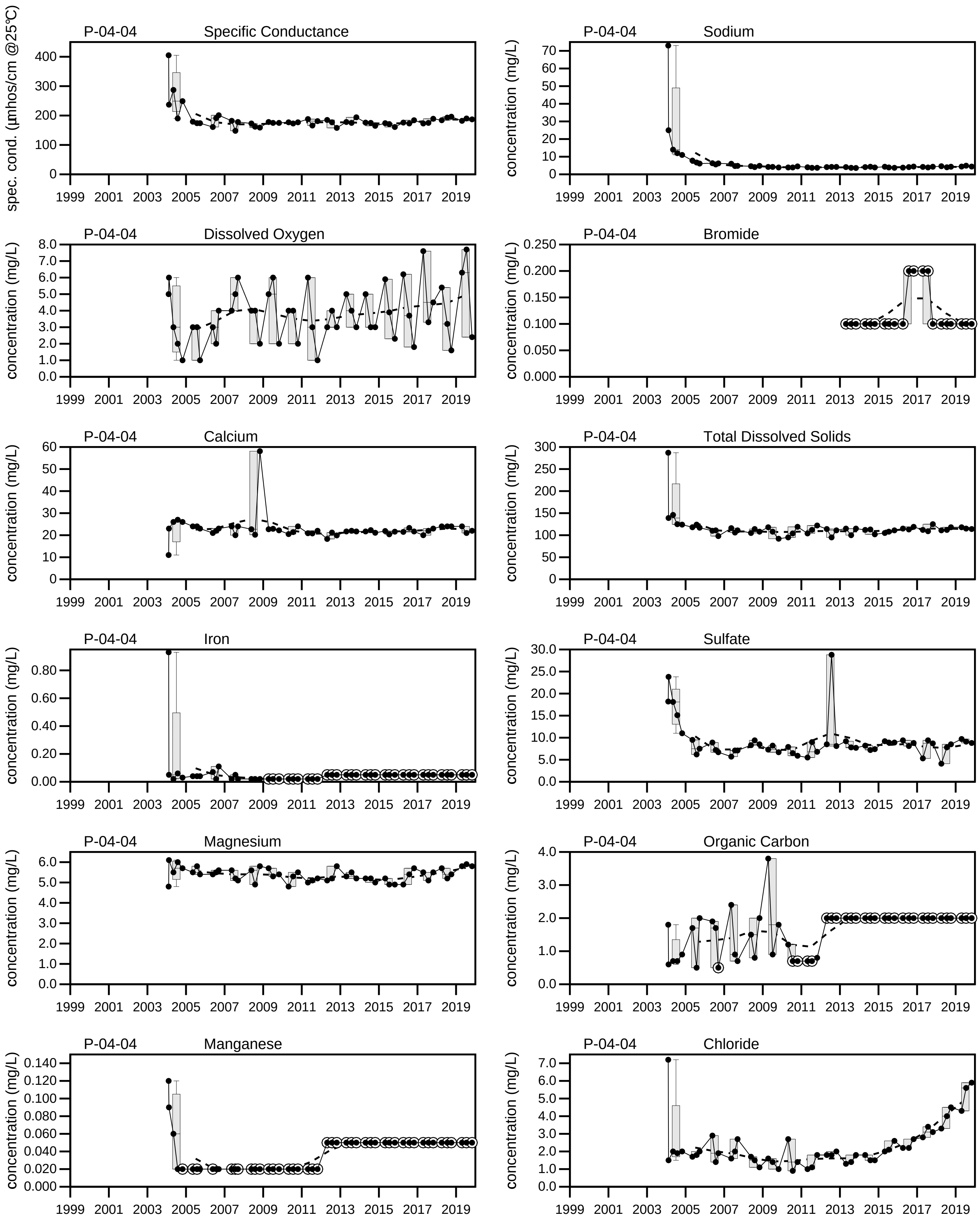
Q3= 7 - 2019

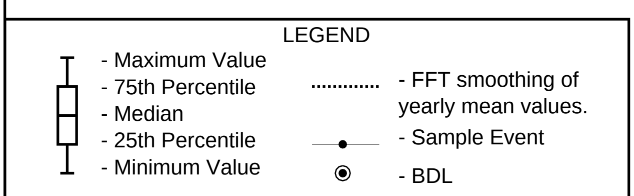
Q4= 10 - 2019

Data Group: 533

Printed: 3/17/2020 10:34

SME SEVEE & MAHER ENGINEERS





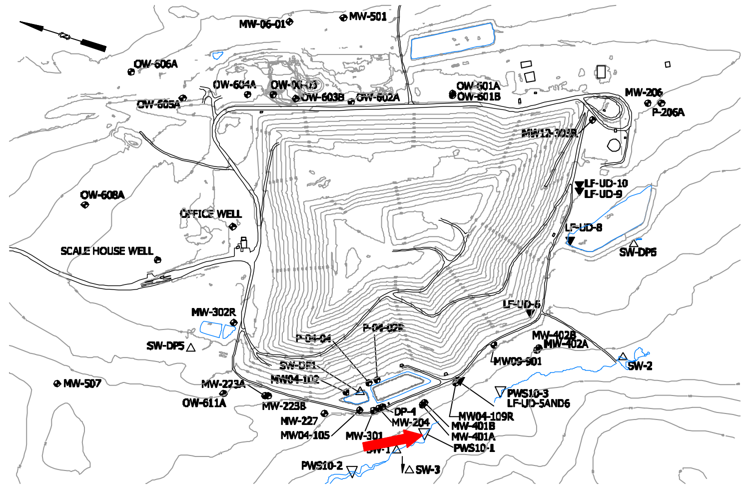
Juniper Ridge Landfill

P-04-04

Sevee & Maher Engineers, Inc.

Well Description

PWS10-1 is a pore water sampling location along the unnamed tributary to Pushaw stream. PWS10-1 is downgradient of the landfill.



Sampled: **3 Times Annually**

Sampled Since: **04/26/2010**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/2000 - 12/31/2019) Min to Max	Mean ± SE	n
Specific Conductance (μmhos/cm @25°C)		187	131	172	76 to 438	210 ± 17	27
Dissolved Oxygen (mg/L)		3.1	5.3	6.7	0 to 9.5	2.2 ± 0.44	27
Calcium (mg/L)		21	9.9	20	6.8 to 38.1	21 ± 1.8	27
Iron (mg/L)		3.8	4.1	0.75	0.07 to 30.3	4 ± 1.1	27
Magnesium (mg/L)		6.5	2.9	5.3	2.3 to 12.7	6.5 ± 0.54	27
Manganese (mg/L)		0.2	**<u>0.8</u>**	0.22	0.05 U to 0.92	0.26 ± 0.044	27
Sodium (mg/L)		6.9	6.3	5.3	4.3 to 10	7.2 ± 0.3	27
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	0.12 ± 0.01	18
Total Dissolved Solids (mg/L)		141	105	134	87 to 197	140 ± 6.4	27
Sulfate (mg/L)		6.4	2 U	9.9	1 to 15	3.7 ± 0.59	27
Organic Carbon (mg/L)		10	↑21	9.4	3.8 to 19.7	9.8 ± 0.76	27
Chloride (mg/L)		8.7	8.4	8.7	3.1 to 22.9	9.8 ± 0.89	27

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEGPW16=20 mg/L, Manganese MEGPW16=0.3 mg/L, Iron MEGPW16=5 mg/L

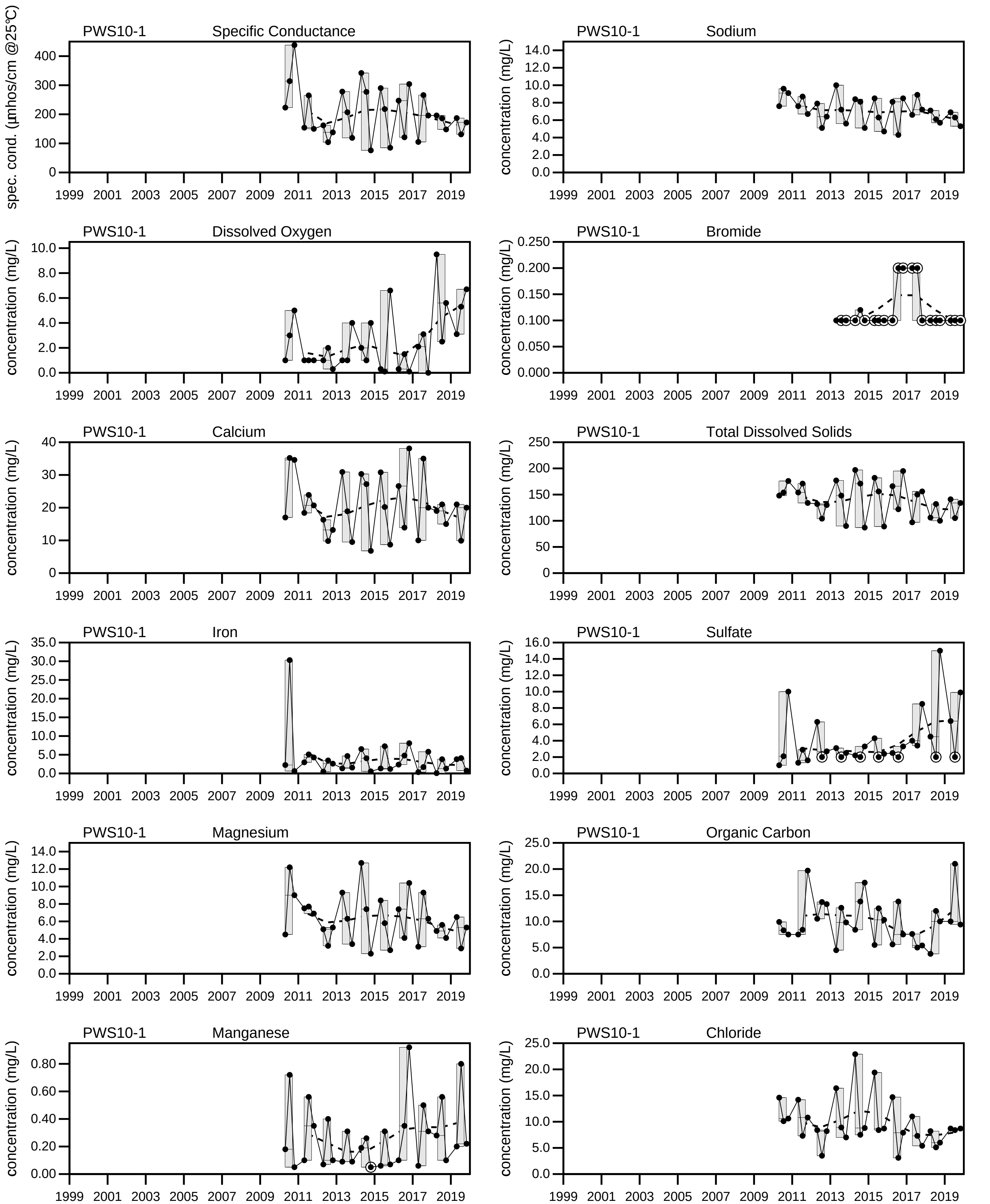
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

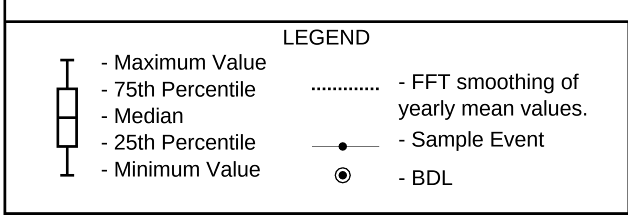
Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019





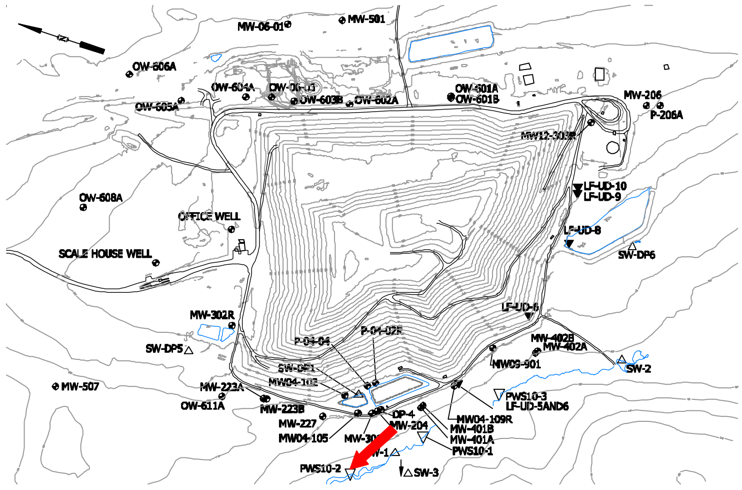
Juniper Ridge Landfill

PWS10-1

Sevee & Maher Engineers, Inc.

Well Description

PWS10-2 is a pore water sampling location along the unnamed tributary to Pushaw stream. PWS10-2 is downgradient of the landfill.



Sampled: **3 Times Annually**

Sampled Since: **04/26/2010**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/2000 - 12/31/2019) Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)		135	↑276	101	63	to 204	110	± 6.7	26
Dissolved Oxygen (mg/L)		7.8	7.2	↑11.3	0.2	to 10.1	3.7	± 0.56	26
Calcium (mg/L)		8.7	9.7	9	5.7	to 16	11	± 0.6	26
Iron (mg/L)		↓0.05 U	2.7	0.45	0.08	to 13.8	2.4	± 0.55	26
Magnesium (mg/L)		↓1.2	2.6	↓1.2	1.3	to 4.7	2.9	± 0.19	26
Manganese (mg/L)		0.05 U	0.28	↑**<u>0.94</u>**	0.02 U	to 0.44	0.13	± 0.025	26
Sodium (mg/L)		4.8	5.4	2.9	1.6	to 7.8	4.1	± 0.25	26
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to 0.2 U	0.12	± 0.011	17
Total Dissolved Solids (mg/L)		79	106	76	38	to 119	84	± 3.7	26
Sulfate (mg/L)		↑12	2 U	↑15	1.6	to 9.7	4.2	± 0.49	26
Organic Carbon (mg/L)		7.5	↑24	6.4	2.6	to 14.7	9	± 0.64	26
Chloride (mg/L)		8.3	8.5	6.8	3	to 19.8	6.7	± 0.71	26

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEGPW16=20 mg/L, Manganese MEGPW16=0.3 mg/L, Iron MEGPW16=5 mg/L

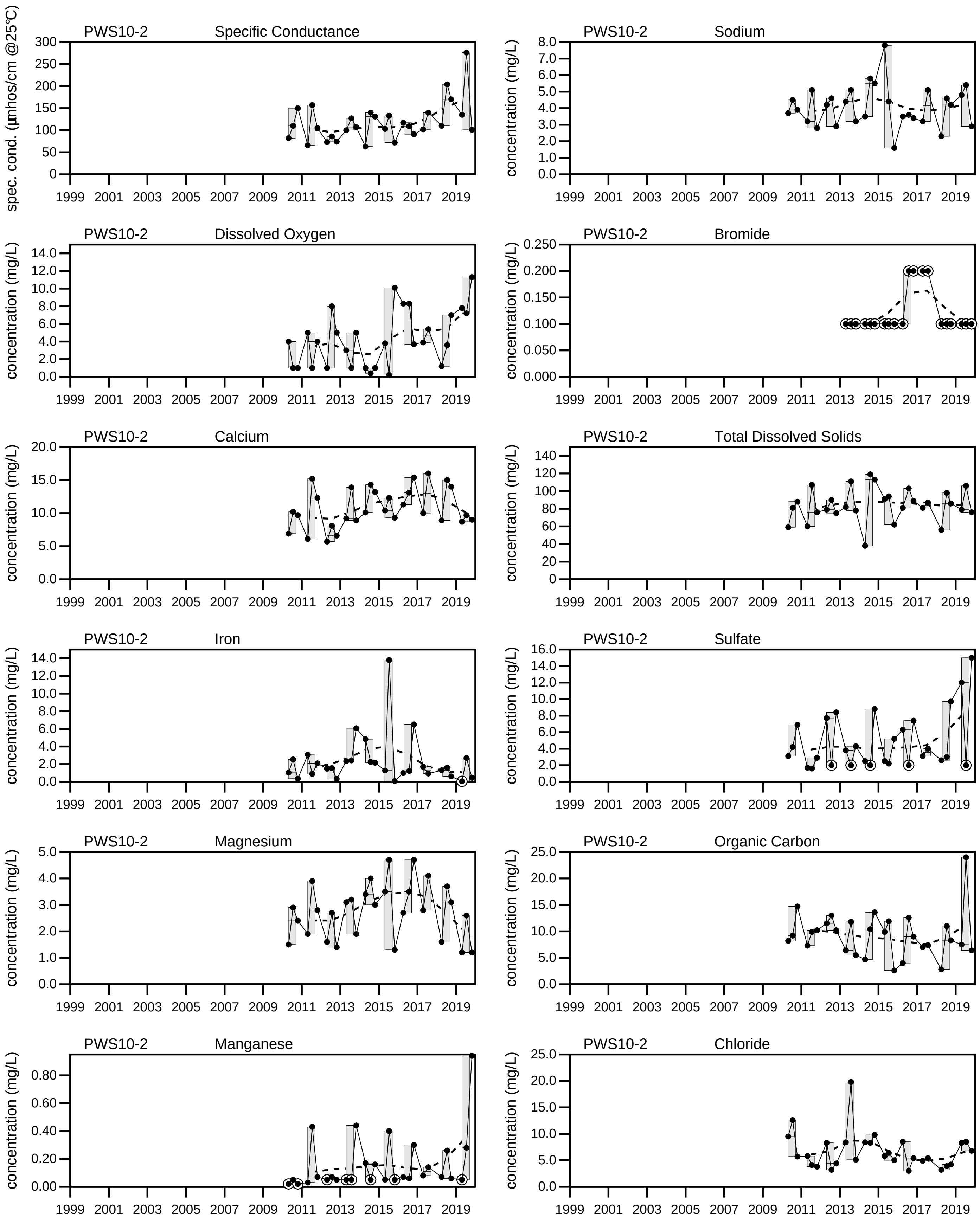
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

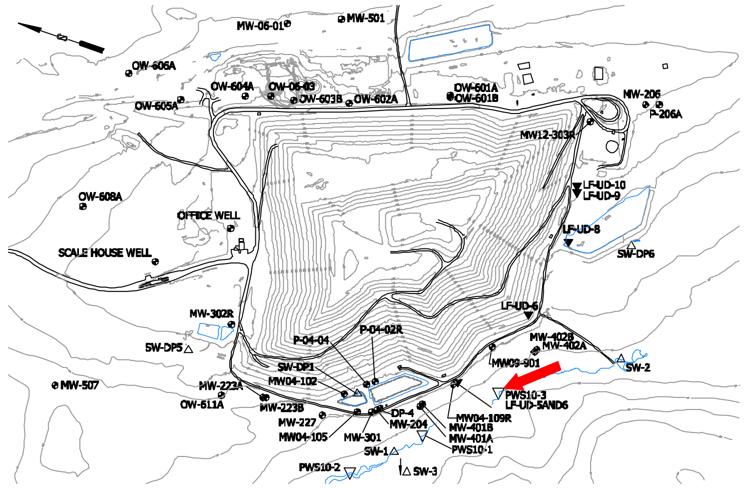
Juniper Ridge Landfill

PWS10-2

Sevee & Maher Engineers, Inc.

Well Description

PWS10-3 is a pore water sampling location along the unnamed tributary to Pushaw stream. PWS10-3 is downgradient of the landfill.



Sampled: **3 Times Annually**

Sampled Since: **04/26/2010**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/2000 - 12/31/2019) Min to Max	Mean ± SE	n
Specific Conductance (µmhos/cm @25°C)		82	83	98	42 to 222	110 ± 11	24
Dissolved Oxygen (mg/L)		7.3	9.9	9.3	0.8 to 10.3	4 ± 0.56	24
Calcium (mg/L)		4.3	6.6	↓3	3.5 to 25	10 ± 1.2	24
Iron (mg/L)		0.34	**<u>5.9</u>**	0.7	0.17 to 20.8	3.5 ± 0.95	24
Magnesium (mg/L)		1.6	2.3	↓0.7	1.3 to 5	2.9 ± 0.21	24
Manganese (mg/L)		0.05 U	**<u>0.34</u>**	0.21	0.02 to 1.48	0.23 ± 0.065	24
Sodium (mg/L)		↑8.6	5.8	↓0.5	2.5 to 6.4	4.4 ± 0.22	24
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	0.12 ± 0.011	15
Total Dissolved Solids (mg/L)		82	82	↓29	48 to 141	96 ± 4.5	24
Sulfate (mg/L)		2.3	2 U	2 U	0.6 U to 47.3	5.8 ± 2	24
Organic Carbon (mg/L)		13	↑27	2 U	2 U to 21.6	13 ± 1.1	24
Chloride (mg/L)		↑15	8.9	↓1 U	1.7 to 8.9	4.6 ± 0.41	24

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Sodium MEGPW16=20 mg/L, Manganese MEGPW16=0.3 mg/L, Iron MEGPW16=5 mg/L

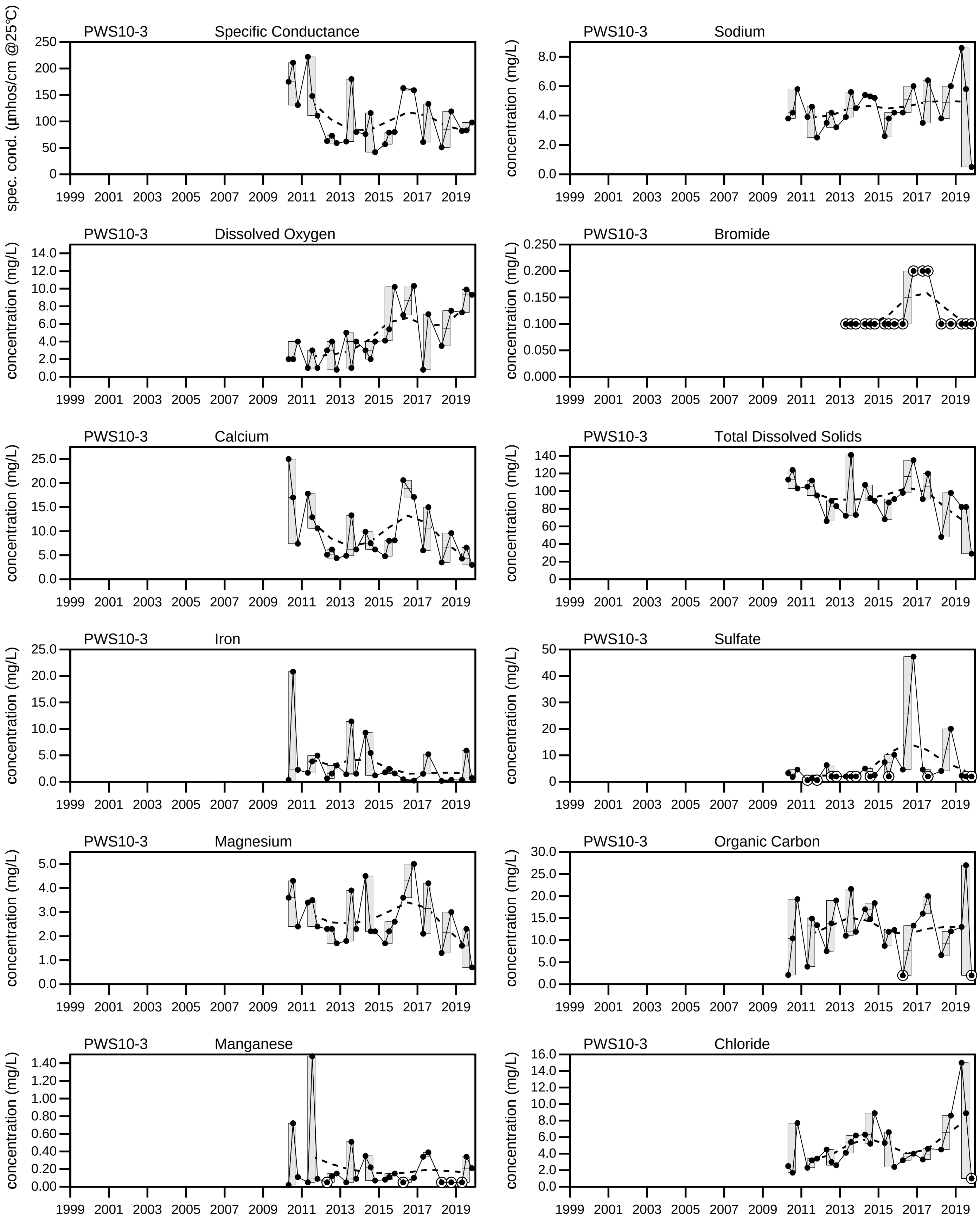
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value

- FFT smoothing of yearly mean values.
- Sample Event
- BDL

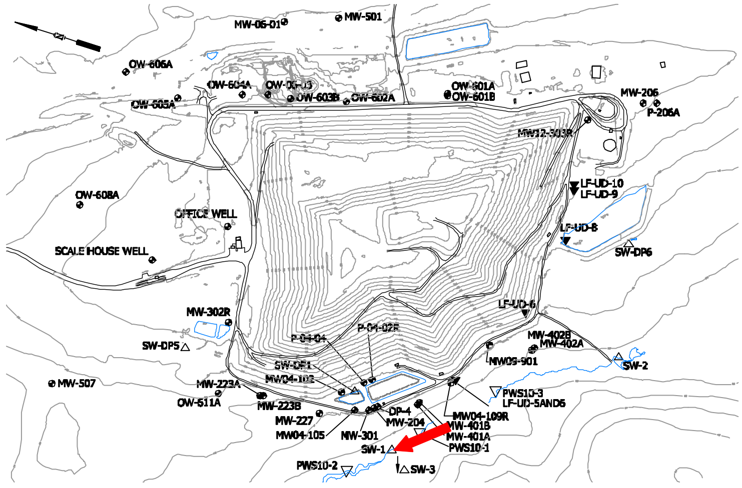
Juniper Ridge Landfill

PWS10-3

Sevee & Maher Engineers, Inc.

Well Description

SW-1 is located downgradient of the landfill and monitors surface water quality in an unnamed tributary to Pushaw Stream.



Sampled: **3 Times Annually**

Sampled Since: **11/13/90**

Sampling Method: **Grab**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)						
Indicator Parameters	Q1	Q2	Q3	Q4	Min		Max	Mean	±	SE	n
Specific Conductance (µmhos/cm @25°C)		125	109	228	10	to	345	100	±	6.3	86
pH (STU)		6.9	6.7	6.6	5.8	to	8.2	6.9	±	0.06	86
Temperature (Deg C)		5.4	↑ 27.5	10.6	0	to	26.3	12	±	0.79	86
Eh (mV)		372	356	240	52.7	to	549	300	±	16	55
Dissolved Oxygen (mg/L)		8.5	4.2	8.3	0.6	to	15.1	5.2	±	0.31	84
Arsenic (mg/L)		0.005 U	0.006	0.005 U	0.001	to	0.012	0.0047	±	0.000	44
Calcium (mg/L)		15	10	27	3.1	to	48	10	±	0.88	74
Iron (mg/L)		0.14	**<u>4.8</u>**	0.21	0.08	to	19.4	2	±	0.35	79
Magnesium (mg/L)		4.2	3.3	7.2	0.21	to	10.7	2.9	±	0.21	74
Manganese (mg/L)		0.05 U	1.1	0.12	0.001	to	4.8	0.21	±	0.06	79
Potassium (mg/L)		0.9	0.5	1.5	0.1	to	5	1	±	0.15	44
Sodium (mg/L)		5	6.5	8	2.9	to	12	5.7	±	0.2	79
Nitrite/Nitrate - (N) (mg/L)		0.15	0.05 U	0.12	0.05 U	to	2 U	0.31	±	0.16	12
Total Phosphorus Mixed Forms (PO4 and		0.16	0.08	0.04 U	0.01 U	to	0.95	0.094	±	0.02	56
Total Dissolved Solids (mg/L)		97	118	142	30	to	230	88	±	4	79
Total Suspended Solids (mg/L)		2.5 U	30	16	2.5 U	to	1490	72	±	37	44
Sulfate (mg/L)		5.3	8.8	10	0.2	to	17	3.4	±	0.35	79
Bicarbonate (CaCO3) (mg/L)		48	33	100	10.6	to	148	39	±	5	44
Organic Carbon (mg/L)		8.2	21	5	4.5	to	34	12	±	0.48	79
Biochemical Oxygen Demand (mg/L)		1 U	5	4	1 U	to	12	4.2	±	0.27	56
Chloride (mg/L)		7.3	9.4	9.7	1 U	to	27.6	7.9	±	0.53	79
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.12	±	0.01	18
Turbidity (field) (NTU)		1.1	3.3	2.5	0	to	175	5.7	±	2.7	65

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Chloride MFCCC=230 mg/L, Iron MFCCC=1 mg/L, Arsenic MFCCC=0.15 mg/L

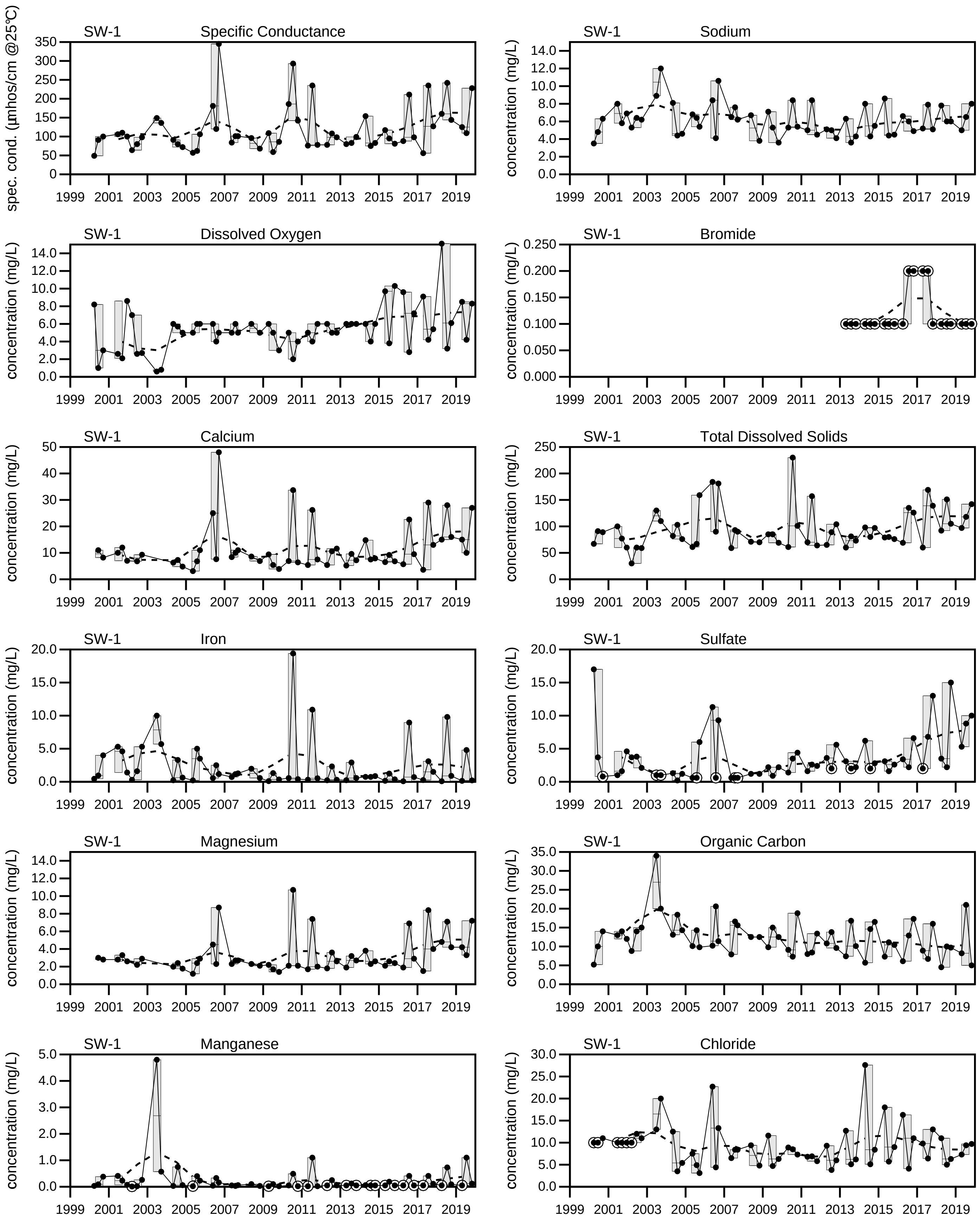
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

SW-1

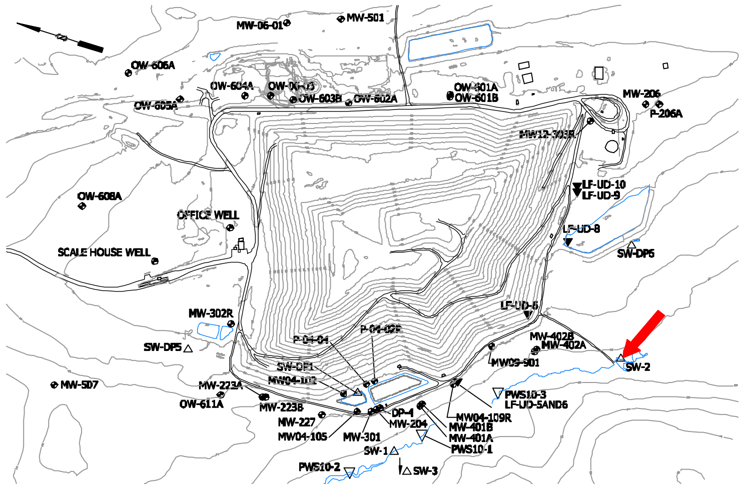
Sevee & Maher Engineers, Inc.

Juniper Ridge Landfill

annual stats 2019 G5

Well Description

SW-2 is located upgradient of the landfill and monitors surface water quality in an unnamed tributary to Pushaw Stream.



Sampled: **3 Times Annually**

Sampled Since: **11/13/90**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		83	85	66	10	to	150	74	±	2.6	92
pH (STU)		6.6	6.3	5.9	5.42	to	8.5	6.7	±	0.07	94
Temperature (Deg C)		4.9	28.8	8	0	to	29.6	13	±	0.88	93
Eh (mV)		360	397	281	69.2	to	516	320	±	15	56
Dissolved Oxygen (mg/L)		6	4.2	13.7	0.4	to	13.7	4.5	±	0.27	92
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U	to	0.011	0.004	±	0.000	45
Calcium (mg/L)		4.8	5.9	4.9	0.1 U	to	11	5.9	±	0.24	80
Iron (mg/L)		0.48	**<u>1.7</u>**	0.29	0.03 U	to	8.8	1.1	±	0.12	86
Magnesium (mg/L)		1.8	2.3	1.9	0.1 U	to	3.7	2.1	±	0.07	80
Manganese (mg/L)		0.05 U	0.33	0.05 U	0.003	to	0.43	0.09	±	0.008	86
Potassium (mg/L)		1.4	0.3 U	0.3 U	0.1 U	to	1.7	0.54	±	0.05	45
Sodium (mg/L)		8.4	7.5	4.6	1 U	to	14	5.4	±	0.23	86
Nitrite/Nitrate - (N) (mg/L)		0.05 U	0.05 U	0.05 U	0.05 U	to	2 U	0.3	±	0.16	12
Total Phosphorus Mixed Forms (PO4 and		0.04 U	0.05	0.04 U	0.01	to	0.43	0.056	±	0.01	59
Total Dissolved Solids (mg/L)		73	93	66	2	to	131	71	±	2.3	86
Total Suspended Solids (mg/L)		2.5 U	22	2.5 U	2.5 U	to	89	12	±	2.6	45
Sulfate (mg/L)		2 U	2 U	2 U	0.1 U	to	9.2	2.2	±	0.19	86
Bicarbonate (CaCO3) (mg/L)		13	23	13	8.5	to	46	20	±	1.3	45
Organic Carbon (mg/L)		13	↑ 30	13	1 U	to	24.1	14	±	0.51	86
Biochemical Oxygen Demand (mg/L)		1 U	3	1 U	1 U	to	42	5.1	±	0.71	58
Chloride (mg/L)		16	12	9.3	2 U	to	23	8	±	0.49	86
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.12	±	0.01	18
Turbidity (field) (NTU)		0.9	3.2	0.8	0	to	10	1.8	±	0.24	68

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Chloride MFCCC=230 mg/L, Iron MFCCC=1 mg/L, Arsenic MFCCC=0.15 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

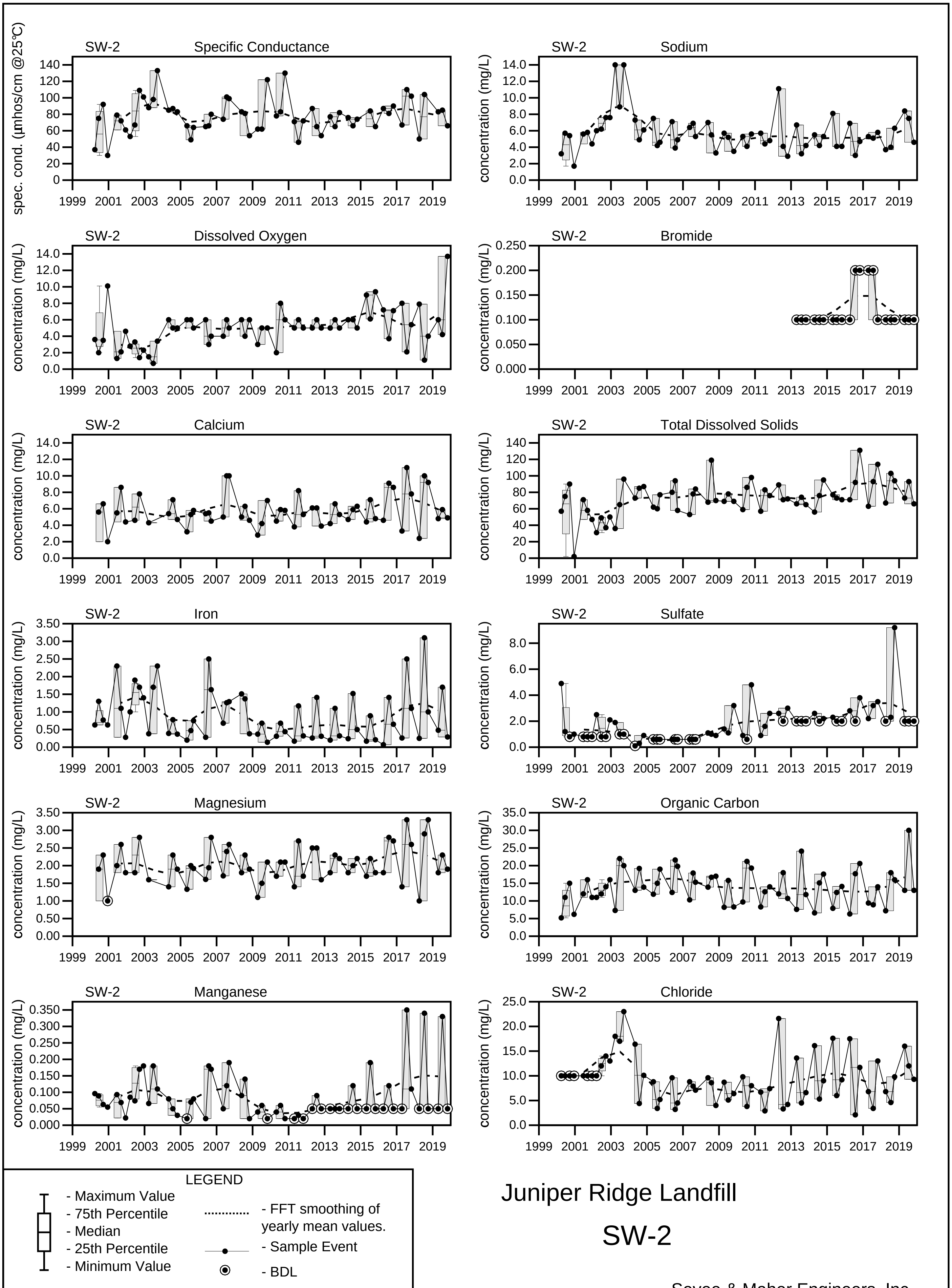
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 536

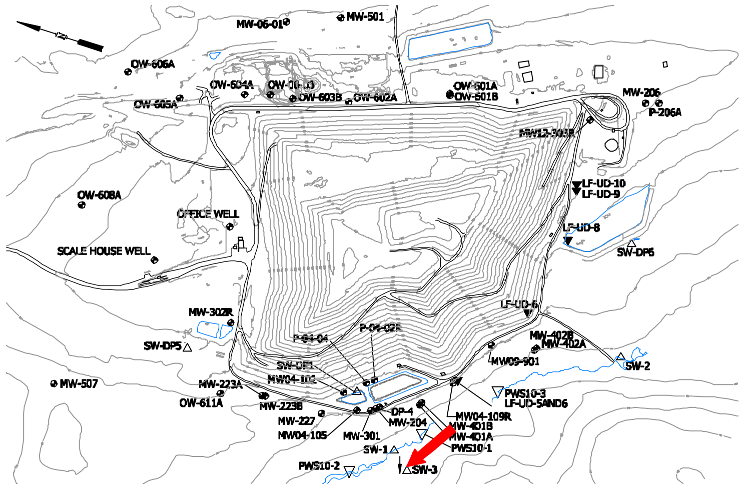
Printed: 3/17/2020 11:12

SME SEVEE & MAHER ENGINEERS


SW-2 Specific Conductance
spec. cond. (µmhos/cm @25°C)
SW-2 Sodium
SW-2 Dissolved Oxygen
SW-2 Bromide
SW-2 Calcium
SW-2 Total Dissolved Solids
SW-2 Iron
SW-2 Sulfate
SW-2 Magnesium
SW-2 Organic Carbon
SW-2 Manganese
SW-2 Chloride
concentration (mg/L)
1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019
LEGEND
- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL
Juniper Ridge Landfill
SW-2
Sevee & Maher Engineers, Inc.

Well Description

SW-3 is located downgradient of the landfill and monitors surface water quality in an unnamed tributary of Pushaw Stream.



Sampled: **3 Times Annually**

Sampled Since: **05/26/94**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	Q1	Q2	Q3	Q4	Min		Max	Mean		SE	n
	2019				Historical (1/1/1980 - 12/31/2019)						
Specific Conductance (µmhos/cm @25°C)		70	92	99	20	to	151	82	±	3	79
pH (STU)		7.4	7.6	7.5	5.4	to	8.8	6.9	±	0.08	79
Temperature (Deg C)		7.1	24.3	8.6	0	to	27.4	12	±	0.83	79
Eh (mV)		330	300	232	23.8	to	507	310	±	15	57
Dissolved Oxygen (mg/L)		9	5.7	10.3	1	to	12.6	5.8	±	0.3	78
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U	to	0.008	0.0036	±	0.000	45
Calcium (mg/L)		4.4	8.3	4.8	2.8	to	12	7	±	0.27	71
Iron (mg/L)		0.3	**2.1**	0.46	0.17	to	3.5	0.87	±	0.08	78
Magnesium (mg/L)		1.2	2.2	1.3	0.47	to	3.1	1.9	±	0.07	71
Manganese (mg/L)		0.05 U	0.51	0.05 U	0.004	to	1.3	0.16	±	0.03	78
Potassium (mg/L)		0.8	1.1	0.4	0.2	to	2.4	0.66	±	0.06	45
Sodium (mg/L)		6.1	4.8	3.1	2.4	to	11	4.8	±	0.16	78
Nitrite/Nitrate - (N) (mg/L)		0.05 U	0.05 U	0.05 U	0.05 U	to	2 U	0.32	±	0.16	12
Total Phosphorus Mixed Forms (PO4 and		0.04 U	0.05	0.04 U	0.01 U	to	0.4	0.044	±	0.007	54
Total Dissolved Solids (mg/L)		63	93	66	31	to	210	74	±	2.8	78
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	17	4.6	±	0.42	45
Sulfate (mg/L)		2.7	2 U	2.5	0.4	to	35	4	±	0.54	78
Bicarbonate (CaCO3) (mg/L)		11	31	11	10	to	43	22	±	1.4	45
Organic Carbon (mg/L)		11	19	14	5.7	to	40	12	±	0.5	78
Biochemical Oxygen Demand (mg/L)		1 U	2 U	1 U	1 U	to	7	4.3	±	0.22	54
Chloride (mg/L)		10	7.3	5.9	1 U	to	20	6.8	±	0.4	78
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.12	±	0.01	18
Turbidity (field) (NTU)		0.8	1.3	0.5	0	to	16	1.6	±	0.29	67

underlined/bold - values exceed a regulatory standard listed below.

Applicable Limits:
Chloride MFCCC=230 mg/L, Iron MFCCC=1 mg/L, Arsenic MFCCC=0.15 mg/L

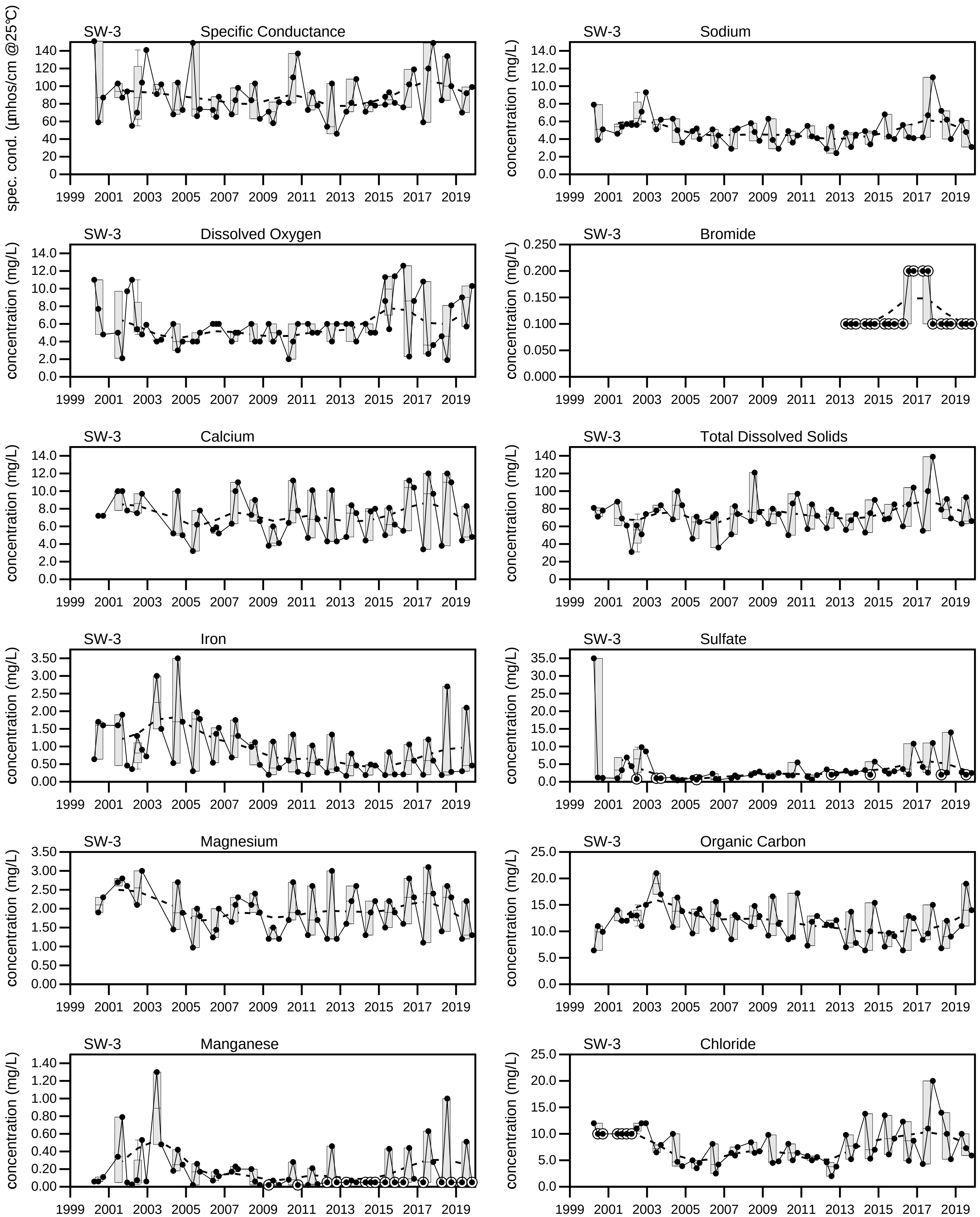
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

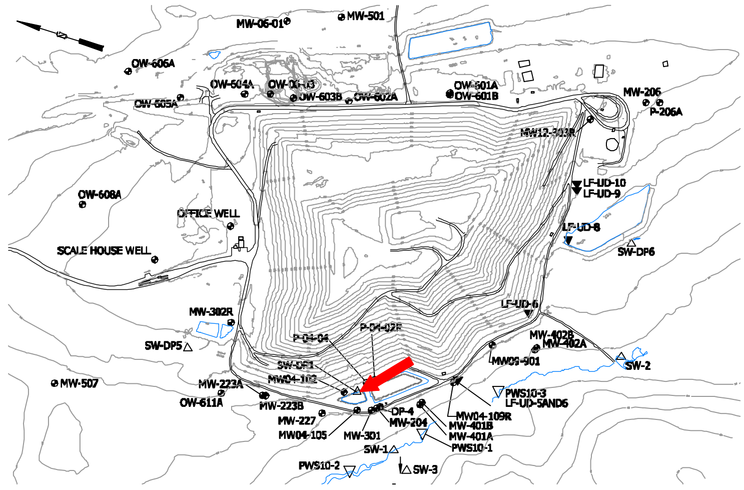
Juniper Ridge Landfill

SW-3

Sevee & Maher Engineers, Inc.

Well Description

SW-DP1 is located in Detention Pond #1 which is situated to the north of the former leachate pond.



Sampled: **3 Times Annually**

Sampled Since: **05/03/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		101	79	106	34	to	400	140	±	11	45
pH (STU)		7.1	8.9	6.9	6.3	to	9.4	7.5	±	0.11	45
Temperature (Deg C)		9	28.7	10.6	1.9	to	31.1	17	±	1.1	45
Eh (mV)		367	327	241	200	to	486	330	±	11	45
Dissolved Oxygen (mg/L)		9.9	8.4	9.5	0.8	to	12.5	6.5	±	0.3	45
Arsenic (mg/L)		0.005 U	0.005	0.005 U	0.001 U	to	0.013	0.0043	±	0.000	45
Calcium (mg/L)		14	12	15	3.8	to	40	18	±	1.2	45
Iron (mg/L)		0.28	0.29	**<u>1.4</u>**	0.05	to	2.94	0.47	±	0.08	45
Magnesium (mg/L)		1.1	1.1	1.7	0.4	to	7.6	2.7	±	0.24	45
Manganese (mg/L)		0.06	0.05	0.14	0.02	to	0.88	0.091	±	0.02	45
Potassium (mg/L)		1.1	0.4	2.1	0.3 U	to	25	2.6	±	0.65	45
Sodium (mg/L)		1.6	1.2	1.6	0.8	to	25	4	±	0.63	45
Nitrite/Nitrate - (N) (mg/L)		0.15	0.05 U	0.23	0.05 U	to	2 U	0.3	±	0.16	12
Total Phosphorus Mixed Forms (PO4 and		0.04 U	0.04 U	0.06	0.01 U	to	0.15	0.046	±	0.005	45
Total Dissolved Solids (mg/L)		69	60	84	44	to	262	96	±	6.5	45
Total Suspended Solids (mg/L)		3.7	2.5 U	16	2.5 U	to	115	11	±	2.9	45
Sulfate (mg/L)		21	12	9.4	0.2	to	30	8.7	±	0.86	45
Bicarbonate (CaCO3) (mg/L)		21	23	42	7.2	to	170	49	±	4.6	45
Organic Carbon (mg/L)		2 U	2.3	3.6	2 U	to	13.3	3.9	±	0.4	45
Chloride (mg/L)		3.2	1.5	2.2	1.4	to	15.2	5.4	±	0.48	45
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.12	±	0.01	18
Turbidity (field) (NTU)		1.4	0.8	1.2	0	to	28.1	3.8	±	0.82	45

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Chloride MFCCC=230 mg/L, Iron MFCCC=1 mg/L, Arsenic MFCCC=0.15 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

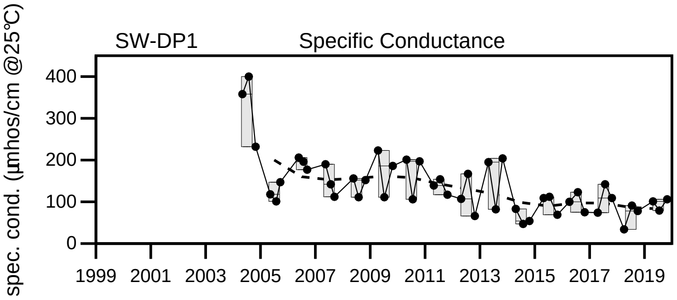
Q4= 10 - 2019

Data Group: 540

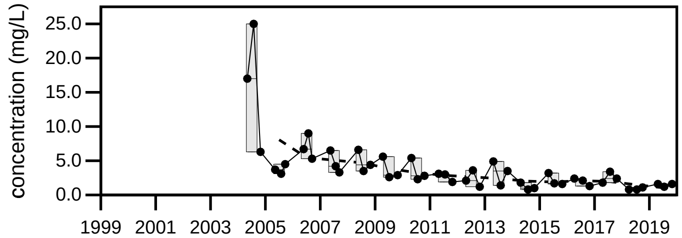
Printed: 3/17/2020 11:46

SME SEVEE & MAHER ENGINEERS

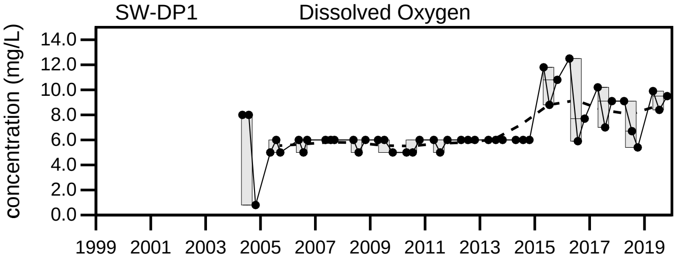
SW-DP1 Specific Conductance



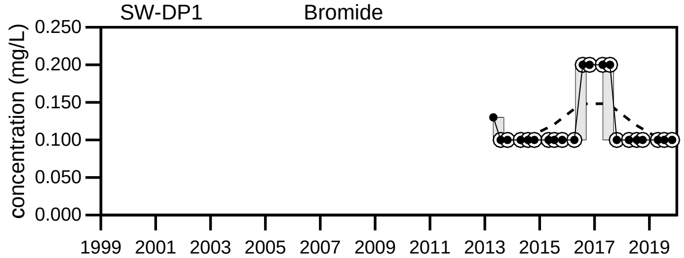
SW-DP1 Sodium



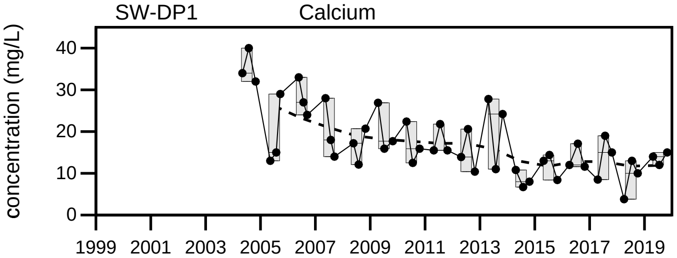
SW-DP1 Dissolved Oxygen



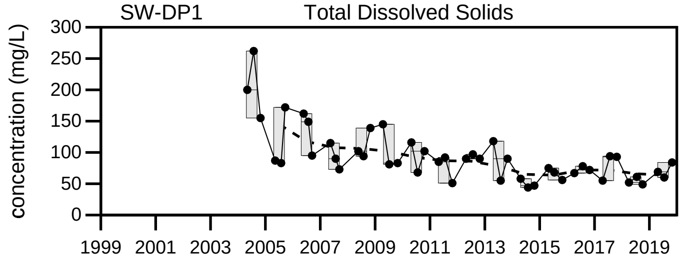
SW-DP1 Bromide



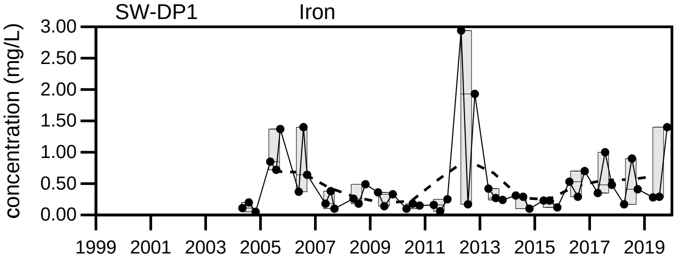
SW-DP1 Calcium



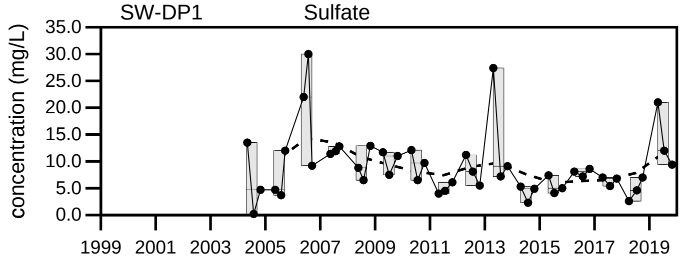
SW-DP1 Total Dissolved Solids



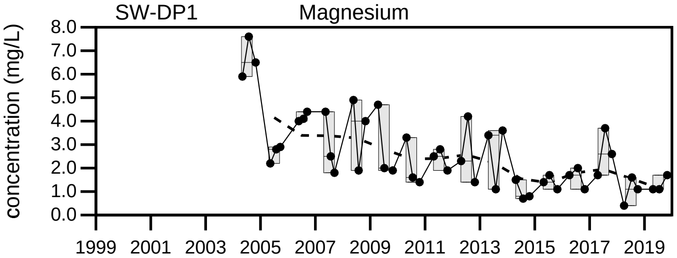
SW-DP1 Iron



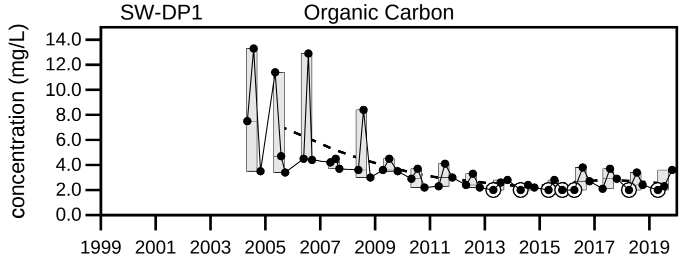
SW-DP1 Sulfate



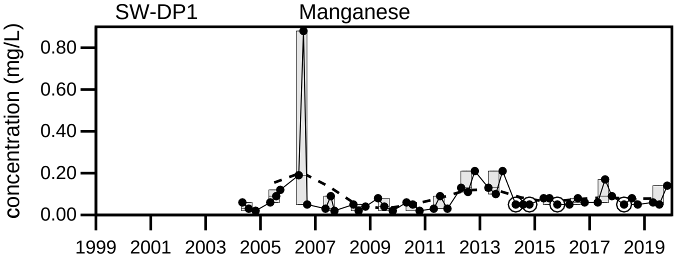
SW-DP1 Magnesium



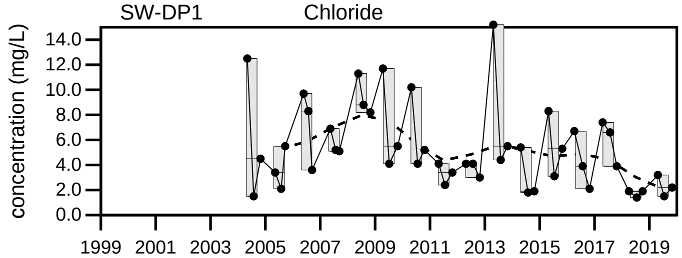
SW-DP1 Organic Carbon



SW-DP1 Manganese



SW-DP1 Chloride



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

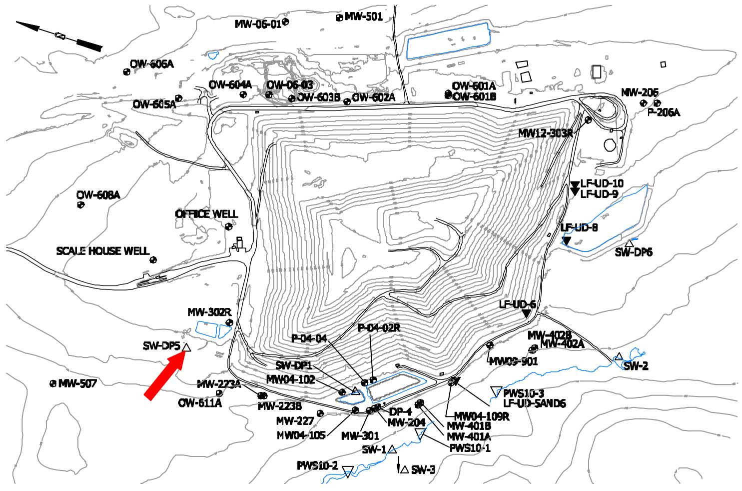
Juniper Ridge Landfill

SW-DP1

Sevee & Maher Engineers, Inc.

Well Description

Sample collected from outfall on the west side of Detention Pond #5.



Sampled: **3 Times Annually**

Sampled Since: **4/23/2013**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		133	102	107	51	to	208	140	±	16	9
pH (STU)		7.3	↑ 8.3	7	6.9	to	8.1	7.6	±	0.15	9
Temperature (Deg C)		9.7	28.3	9.3	8.7	to	30.7	19	±	2.9	9
Eh (mV)		369	307	239	218	to	459	330	±	31	9
Dissolved Oxygen (mg/L)		7.8	6.8	10	5	to	15.2	7.8	±	1.1	9
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U	to	0.01	0.006	±	0.000	9
Calcium (mg/L)		19	14	16	5.3	to	29	19	±	2.3	9
Iron (mg/L)		↑ **<u>1.7</u>**	0.23	**<u>1.1</u>**	0.23	to	1.34	0.42	±	0.12	9
Magnesium (mg/L)		1.4	0.9	1	0.5	to	1.8	1.2	±	0.16	9
Manganese (mg/L)		0.15	0.13	↑ 0.25	0.05 U	to	0.22	0.1	±	0.02	9
Potassium (mg/L)		1.3	1.4	1.3	0.7	to	2.6	1.7	±	0.21	9
Sodium (mg/L)		2.9	1.5	↓ 1.2	1.3	to	8.6	3.4	±	0.8	9
Nitrite/Nitrate - (N) (mg/L)		0.3	0.063	0.065	0.05	to	2 U	0.71	±	0.44	4
Total Phosphorus Mixed Forms (PO4 and		0.07	0.04 U	0.06	0.04	to	0.1	0.058	±	0.006	9
Total Dissolved Solids (mg/L)		103	74	80	47	to	137	98	±	9.4	9
Total Suspended Solids (mg/L)		↑ 50	↓ 2.5 U	21	5	to	29	11	±	2.4	9
Sulfate (mg/L)		30	14	26	2.5	to	38.1	21	±	4.3	9
Bicarbonate (CaCO3) (mg/L)		26	32	23	9	to	57	31	±	5.1	9
Organic Carbon (mg/L)		2	3	2 U	2 U	to	5.6	3.1	±	0.45	9
Chloride (mg/L)		4.5	2.4	2.3	1.6	to	20.9	8.5	±	2.5	9
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.11	±	0.01	9
Turbidity (field) (NTU)		0.8	0.8	1.8	0.4	to	9.8	2.8	±	0.95	9

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Chloride MFCCC=230 mg/L, Iron MFCCC=1 mg/L, Arsenic MFCCC=0.15 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 540

Printed: 3/17/2020 11:46

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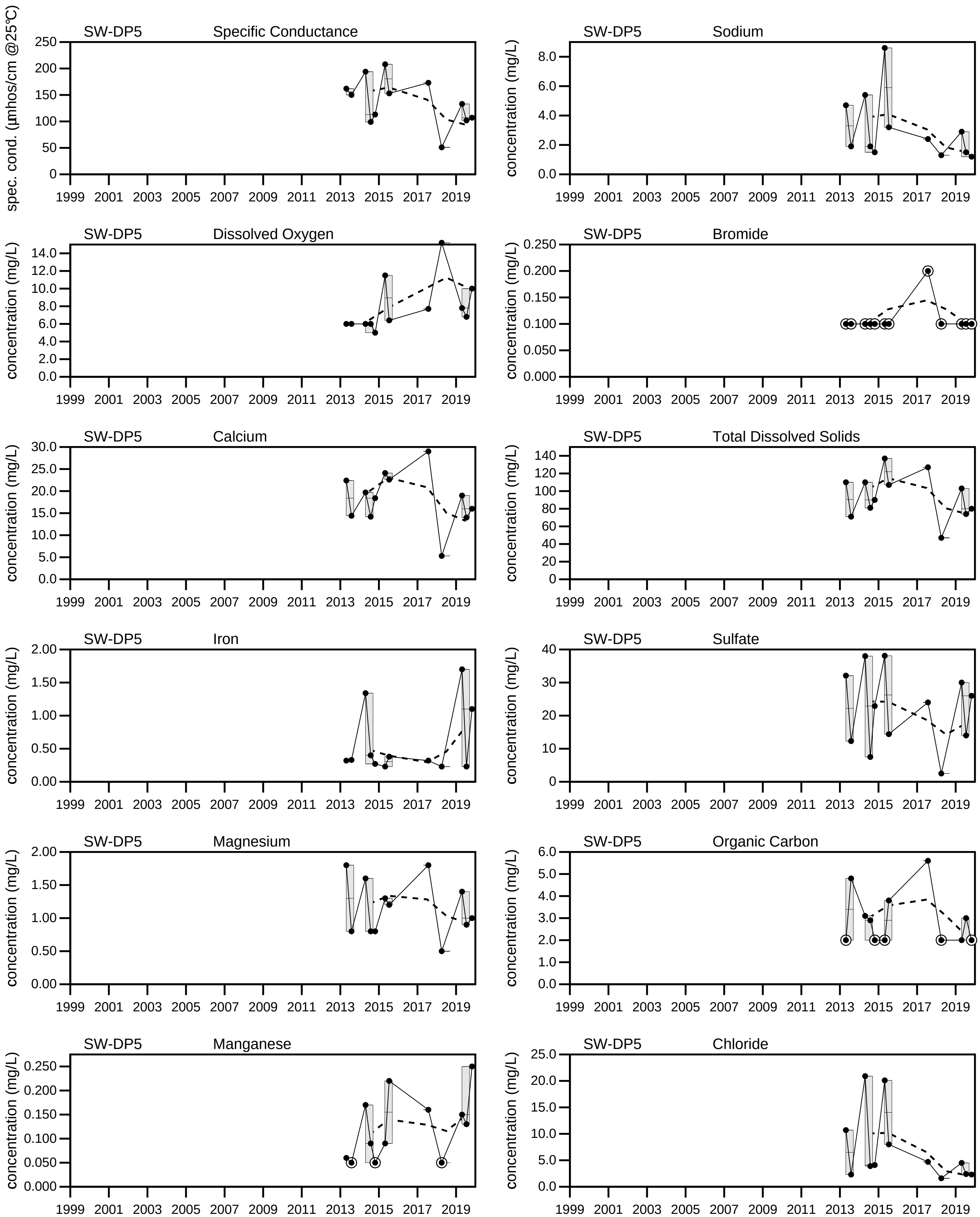


LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

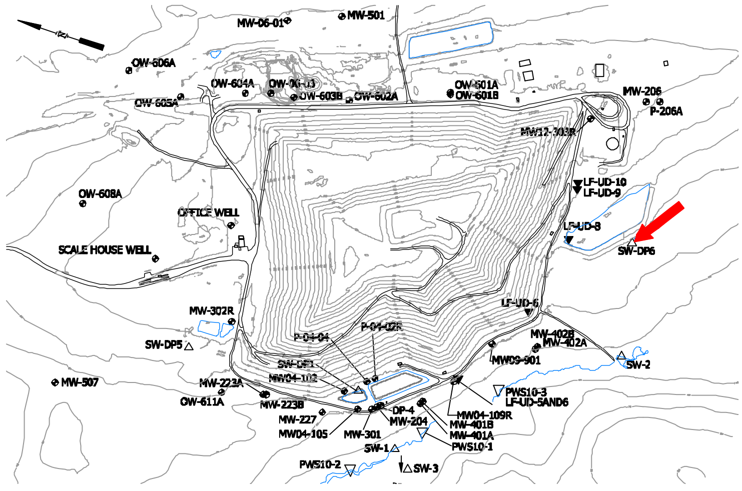
Juniper Ridge Landfill

SW-DP5

Sevee & Maher Engineers, Inc.

Well Description

SW-DP6 is located in Detention Pond #6, which is situated to the south of the landfill and west of the leachate storage tank.



Sampled: **3 Times Annually**

Sampled Since: **10/27/2009**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	Q2	Q3	Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)		78	65	↓ 50	59	to	427	140	±	17	28
pH (STU)		6.7	7.3	↓ 6.2	6.3	to	8.4	7.3	±	0.1	28
Temperature (Deg C)		8.1	29.2	10.3	2.4	to	29.6	16	±	1.6	28
Eh (mV)		368	375	246	212	to	547	360	±	16	28
Dissolved Oxygen (mg/L)		↑ 11.7	6.8	10.3	4.5	to	10.4	6.4	±	0.33	28
Arsenic (mg/L)		0.005	0.005	0.005 U	0.002 U	to	0.011	0.0052	±	0.000	28
Calcium (mg/L)		8.1	6.6	↓ 4.6	5.3	to	63.3	16	±	2.3	28
Iron (mg/L)		**<u>1.3</u>**	**<u>1.6</u>**	0.38	0.1	to	3.05	0.9	±	0.15	28
Magnesium (mg/L)		1.2	1.1	↓ 0.7	0.8	to	7.3	2	±	0.25	28
Manganese (mg/L)		0.1	0.05 U	0.05 U	0.05 U	to	0.96	0.16	±	0.04	28
Potassium (mg/L)		1.6	1.5	0.9	0.7	to	3.4	1.7	±	0.13	28
Sodium (mg/L)		3.5	2.8	↓ 1.3	1.4	to	7.5	3.5	±	0.34	28
Nitrite/Nitrate - (N) (mg/L)		0.05 U	0.056	0.05 U	0.05 U	to	2 U	0.3	±	0.16	12
Total Phosphorus Mixed Forms (PO4 and		0.06	0.04 U	0.04 U	0.03	to	0.14	0.059	±	0.006	28
Total Dissolved Solids (mg/L)		57	59	↓ 43	44	to	323	100	±	11	28
Total Suspended Solids (mg/L)		9.3	3.7	5	2.5 U	to	54	12	±	2.7	28
Sulfate (mg/L)		12	8.7	12	2 U	to	155	22	±	5.3	28
Bicarbonate (CaCO3) (mg/L)		12	14	6.3	6	to	75	25	±	3.6	28
Organic Carbon (mg/L)		4.2	6.5	4.6	2.1	to	11.9	5.3	±	0.43	28
Chloride (mg/L)		6.7	4.6	1.7	1.1	to	22.3	8.3	±	1.1	28
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.12	±	0.01	18
Turbidity (field) (NTU)		1.1	1.8	2.2	0	to	12	2.9	±	0.5	28

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

Applicable Limits:
Chloride MFCCC=230 mg/L, Iron MFCCC=1 mg/L, Arsenic MFCCC=0.15 mg/L

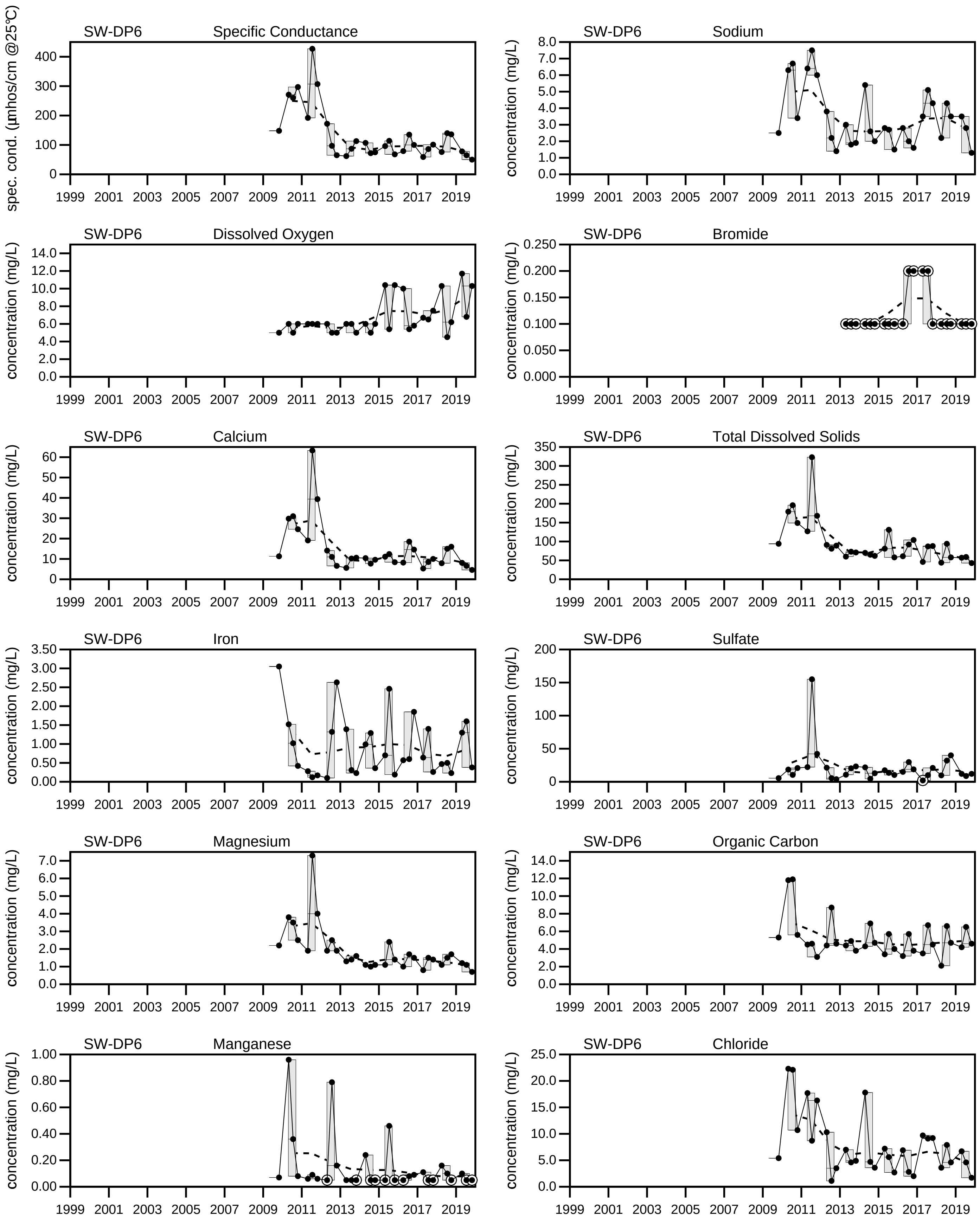
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019

Q4= 10 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

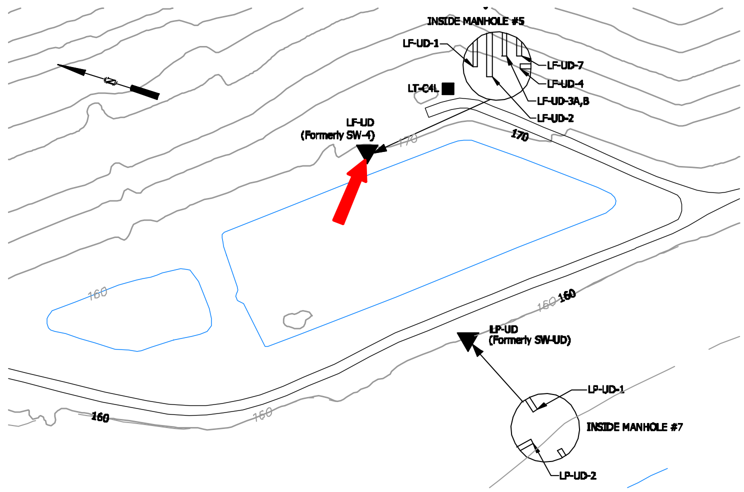
Juniper Ridge Landfill

SW-DP6

Sevee & Maher Engineers, Inc.

Well Description

Manhole #5 composite sample



Sampled:

Sampled Since: **See comments below**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)	446	395	453	410	194	to	498	360	±	10	60
pH (STU)	7.5	8.2	8	7.9	6.7	to	8.4	7.4	±	0.05	60
Temperature (Deg C)	↓ 5	17.1	25.3	20	5.6	to	29.7	18	±	0.65	60
Eh (mV)	410	364	370	384	304	to	446	370	±	4	60
Dissolved Oxygen (mg/L)	8	8	8	8	4	to	10	6.9	±	0.17	58
Alkalinity (CaCO3) (field) (mg/L)	200	200	210	200	80	to	250	150	±	4.8	60
Turbidity (field) (NTU)	7	3.7	2.5	1.1	0	to	129.3	4.4	±	2.2	59

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

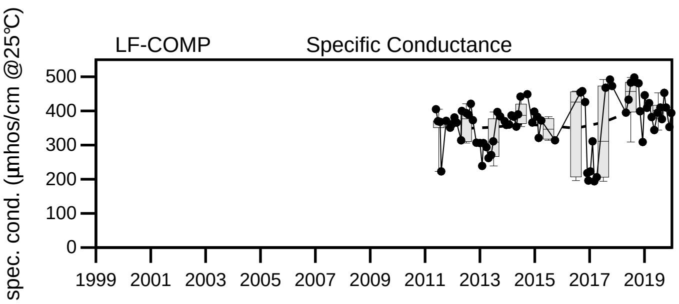
During times when LF-UD-1, LF-UD-2, LF-UD-3A & B, LF-UD-4, and LF-UD-7 have not been able to be sampled seperately due to pipe submergence, LF-COMP has been collected from manhole #5. Field parameters are measured at this location during some monthly monitoring rounds by NEWSME.

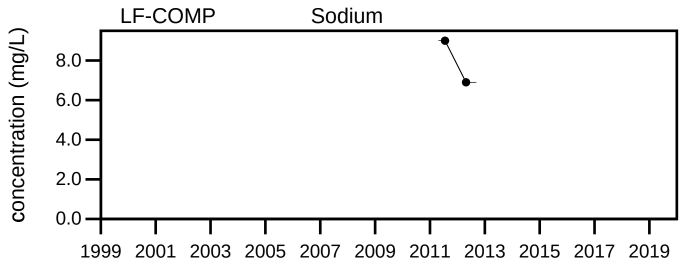
Q1= 1 - 2019

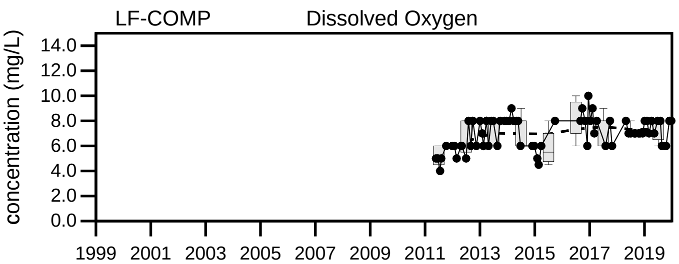
Q2= 4 - 2019

Q3= 7 - 2019

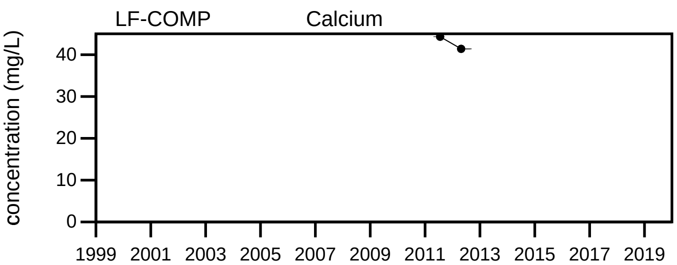
Q4= 10 - 2019

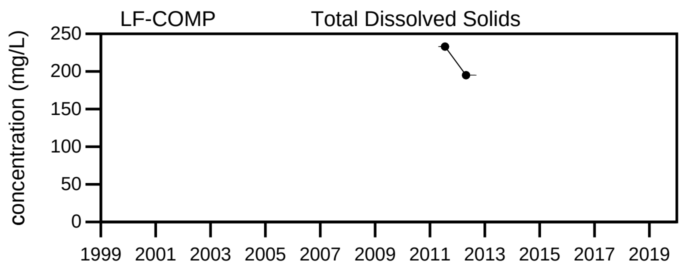


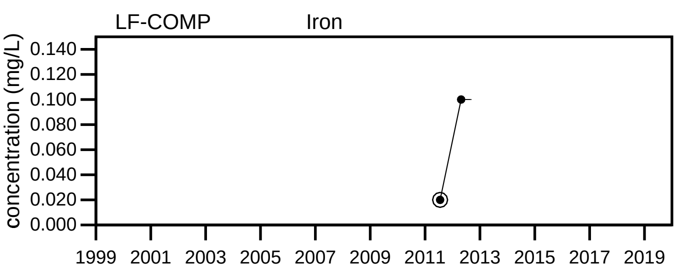


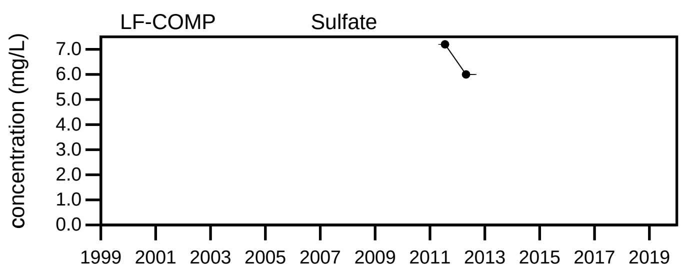


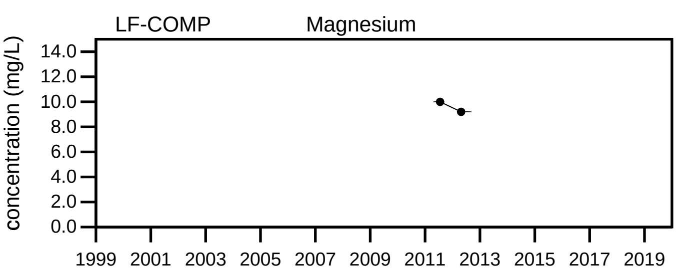
No data for Bromide at LF-COMP

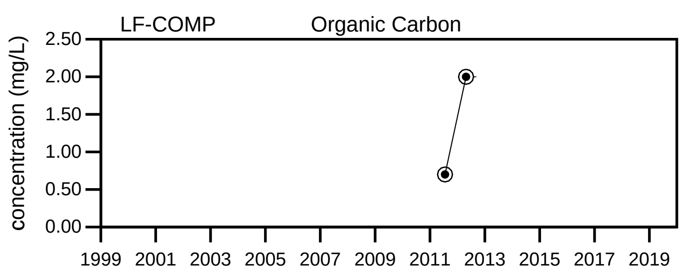


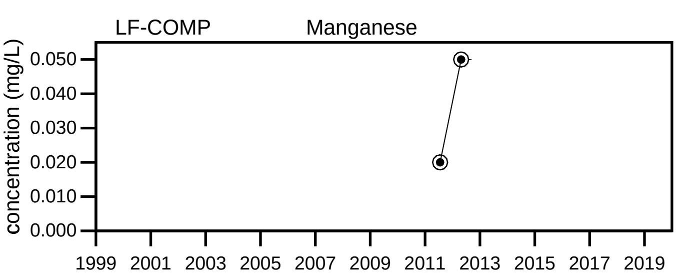


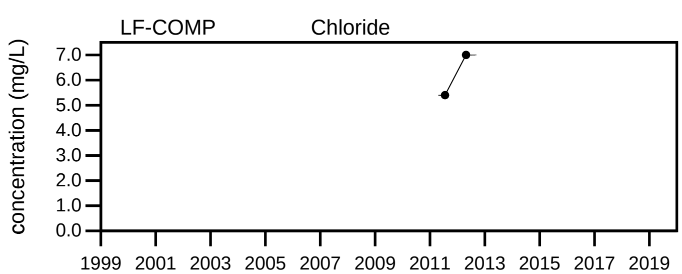












LEGEND

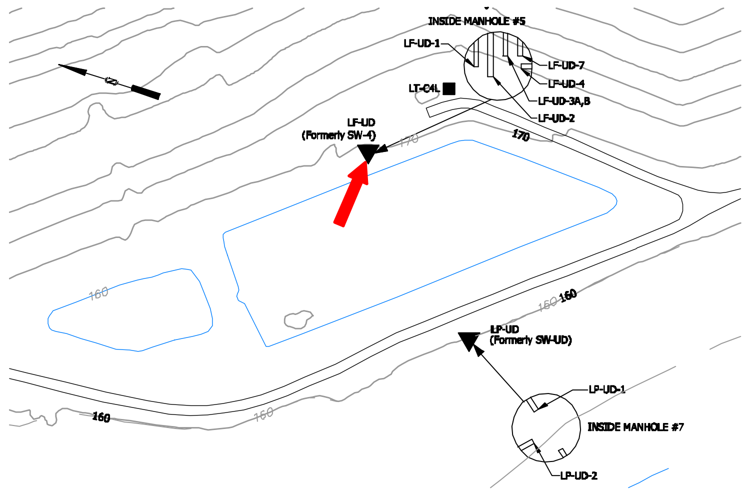
- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

LF-COMP

Sevee & Maher Engineers, Inc.

Well Description



LF-UD-1 monitors the landfill underdrain from Cell #1 at Manhole #5.

Sampled: **Monthly & 3 Times Annually**

Sampled Since: **07/28/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)	H8	354	H8	355	102	to	611	330	±	6.1	137
pH (STU)	H8	7	H8	↑ 8.4	6.3	to	8.3	7.3	±	0.04	137
Temperature (Deg C)	H8	6.9	H8	12.4	0.6	to	25.9	14	±	0.44	137
Eh (mV)	H8	341	H8	352	173	to	524	340	±	5.4	137
Dissolved Oxygen (mg/L)	H8	7.6	H8	8	2	to	11	6.5	±	0.14	136
Flow Rate (cfs)		0.0006	H8	0.0006	0.00002	to	0.0067	0.0012	±	0.000	117
Arsenic (mg/L)		0.005 U	F6	F6	0.001	to	0.015	0.0059	±	0.000	29
Calcium (mg/L)		58	F6	F6	25	to	58	42	±	1.7	29
Iron (mg/L)		0.05	F6	F6	0.02 U	to	4.57	0.23	±	0.16	29
Magnesium (mg/L)		10	F6	F6	7.4	to	14	10	±	0.3	29
Manganese (mg/L)		0.05 U	F6	F6	0.02 U	to	0.1	0.033	±	0.004	29
Potassium (mg/L)		3.3	F6	F6	1.8	to	4.1	3	±	0.14	29
Sodium (mg/L)		7.8	F6	F6	5.8	to	10	8	±	0.19	29
Nitrite/Nitrate - (N) (mg/L)		0.4	F6	F6	0.07	to	2 U	0.54	±	0.3	6
Total Phosphorus Mixed Forms (PO4 and		0.04 U	F6	F6	0.01 U	to	0.33	0.039	±	0.01	29
Total Dissolved Solids (mg/L)		214	F6	F6	130	to	290	200	±	7.4	29
Total Suspended Solids (mg/L)		↓ 2.5 U	F6	F6	4 U	to	394	24	±	13	29
Sulfate (mg/L)		13	F6	F6	4.1	to	35	9.5	±	1.2	29
Bicarbonate (CaCO3) (mg/L)		170	F6	F6	110	to	179	150	±	4.3	29
Alkalinity (CaCO3) (field) (mg/L)	H8	H8		120	40	to	485	140	±	4.2	131
Organic Carbon (mg/L)		2 U	F6	F6	0.5 U	to	6.4	1.9	±	0.2	29
Chloride (mg/L)		2.2	F6	F6	1.9	to	26	9.3	±	1.6	29
Bromide (mg/L)		0.1 U	F6	F6	0.1 U	to	0.21	0.16	±	0.01	10
Turbidity (field) (NTU)	H8	0.4	H8	0.6	0	to	8.1	1.1	±	0.12	136

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

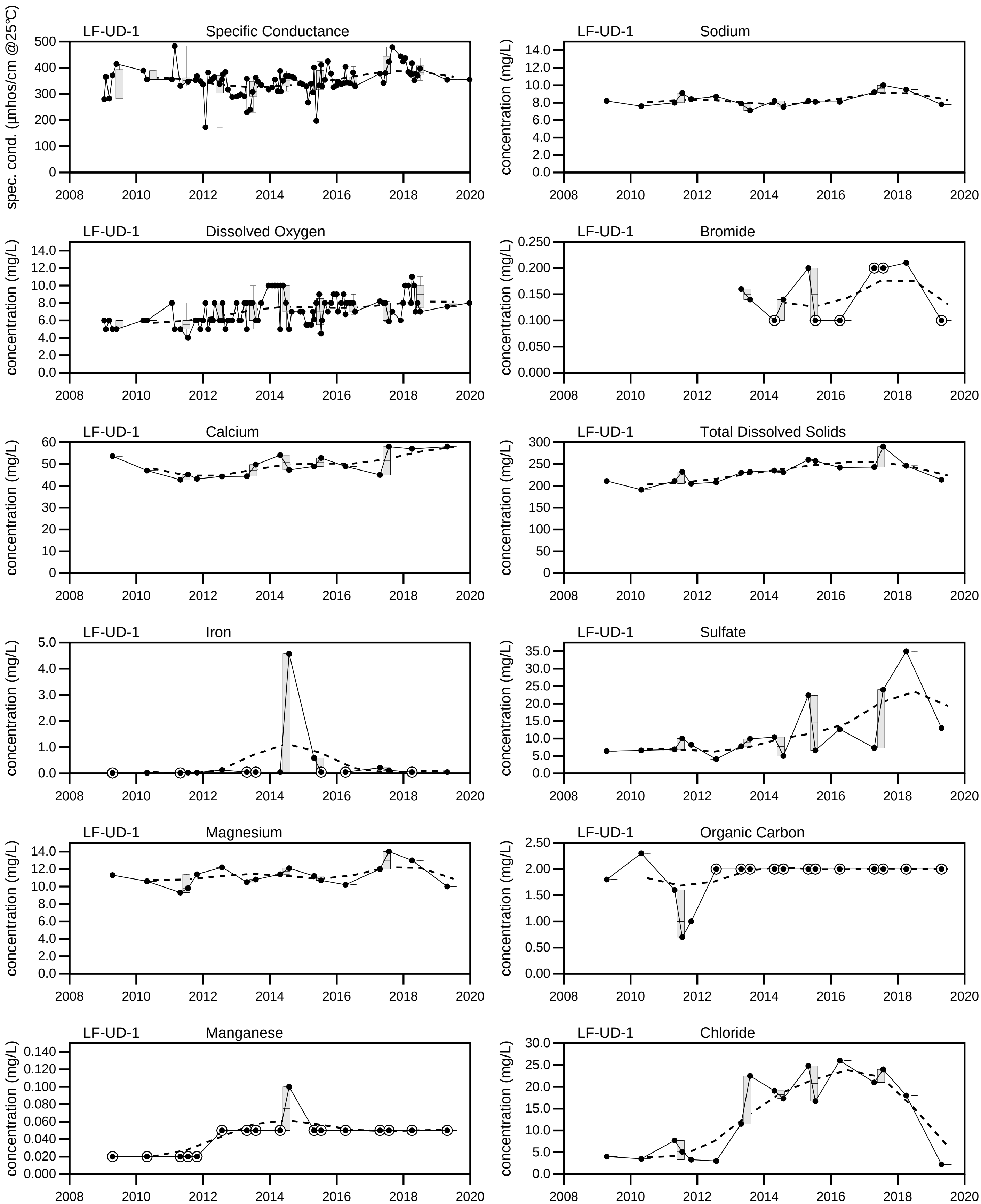
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019
Q2= 4 - 2019
Q3= 7 - 2019
Q4= 10 - 2019

U = Not Detected above the laboratory reporting limit.
H8 = No flow from pipe. See LF-COMP for readings
F6 = No flow. Sample not taken.

Data Group: 537
Printed: 3/17/2020 11:21

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

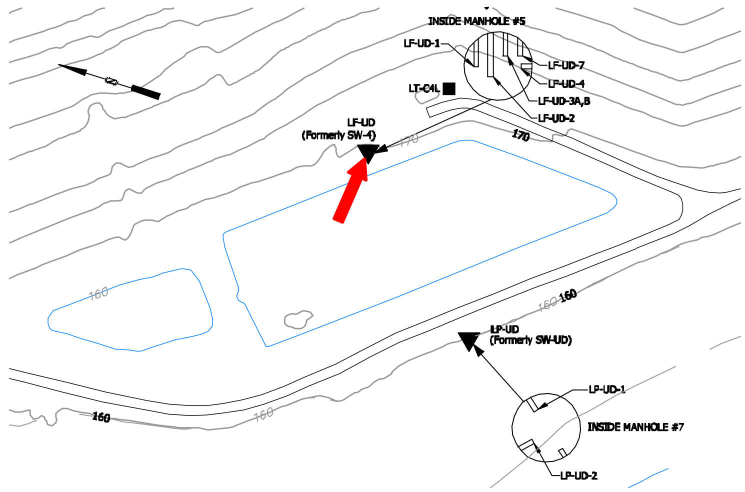
Juniper Ridge Landfill

LF-UD-1

Sevee & Maher Engineers, Inc.

Well Description

LF-UD-2 monitors the landfill underdrain from Cell #2 at Manhole #5.



Sampled: **Monthly & 3 Times Annually**

Sampled Since: **07/28/04**

Sampling Method: **Grab**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)	430	380	428	386	134	to 709	330	± 6.9	177
pH (STU)	7.4	7.9	8.2	8.4	6	to 8.4	7.5	± 0.04	177
Temperature (Deg C)	5.1	18.4	25.8	20.9	2.2	to 28.4	16	± 0.37	177
Eh (mV)	402	403	383	369	168	to 554	340	± 5.3	177
Dissolved Oxygen (mg/L)	7	8	9.5	8.7	2	to 10.2	6.3	± 0.1	175
Flow Rate (cfs)	0.0003	0.0003	0.0017	0.0011	0.0001	to 0.0223	0.0025	± 0.000	160
Arsenic (mg/L)		F6	0.005 U	0.005 U	0.001 U	to 0.024	0.0073	± 0.000	41
Calcium (mg/L)		F6	59	52	20	to 71.5	43	± 2.2	41
Iron (mg/L)		F6	0.05 U	0.7	0.02 U	to 0.71	0.074	± 0.02	41
Magnesium (mg/L)		F6	12	10	6.1	to 15	10	± 0.36	41
Manganese (mg/L)		F6	0.05 U	0.05 U	0.02 U	to 0.05 U	0.035	± 0.002	41
Potassium (mg/L)		F6	3.8	3.5	1.9	to 5	3.1	± 0.12	41
Sodium (mg/L)		F6	11	9.2	5.2	to 18.1	7.5	± 0.37	41
Nitrite/Nitrate - (N) (mg/L)		F6	0.26	0.22	0.05 U	to 2 U	0.4	± 0.15	12
Total Phosphorus Mixed Forms (PO4 and		F6	0.07	0.04	0.01 U	to 0.66	0.046	± 0.02	41
Total Dissolved Solids (mg/L)		F6	262	222	132	to 294	210	± 8.5	41
Total Suspended Solids (mg/L)		F6	2.7	↑ 83	2.5 U	to 45	9.1	± 1.7	41
Sulfate (mg/L)		F6	12	11	2 U	to 56	8.5	± 1.5	41
Bicarbonate (CaCO3) (mg/L)		F6	200	180	92	to 220	150	± 5.4	41
Alkalinity (CaCO3) (field) (mg/L)	175	175	175	150	35	to 350	140	± 3.3	163
Organic Carbon (mg/L)		F6	2 U	2 U	0.6	to 12	1.9	± 0.29	41
Chloride (mg/L)		F6	15	11	1.7	to 41.2	12	± 1.7	41
Bromide (mg/L)		F6	0.11	0.12	0.1 U	to 0.2	0.16	± 0.01	18
Turbidity (field) (NTU)	5.7	↑ 8.7	0.6	2.2	0	to 8.5	0.88	± 0.1	176

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

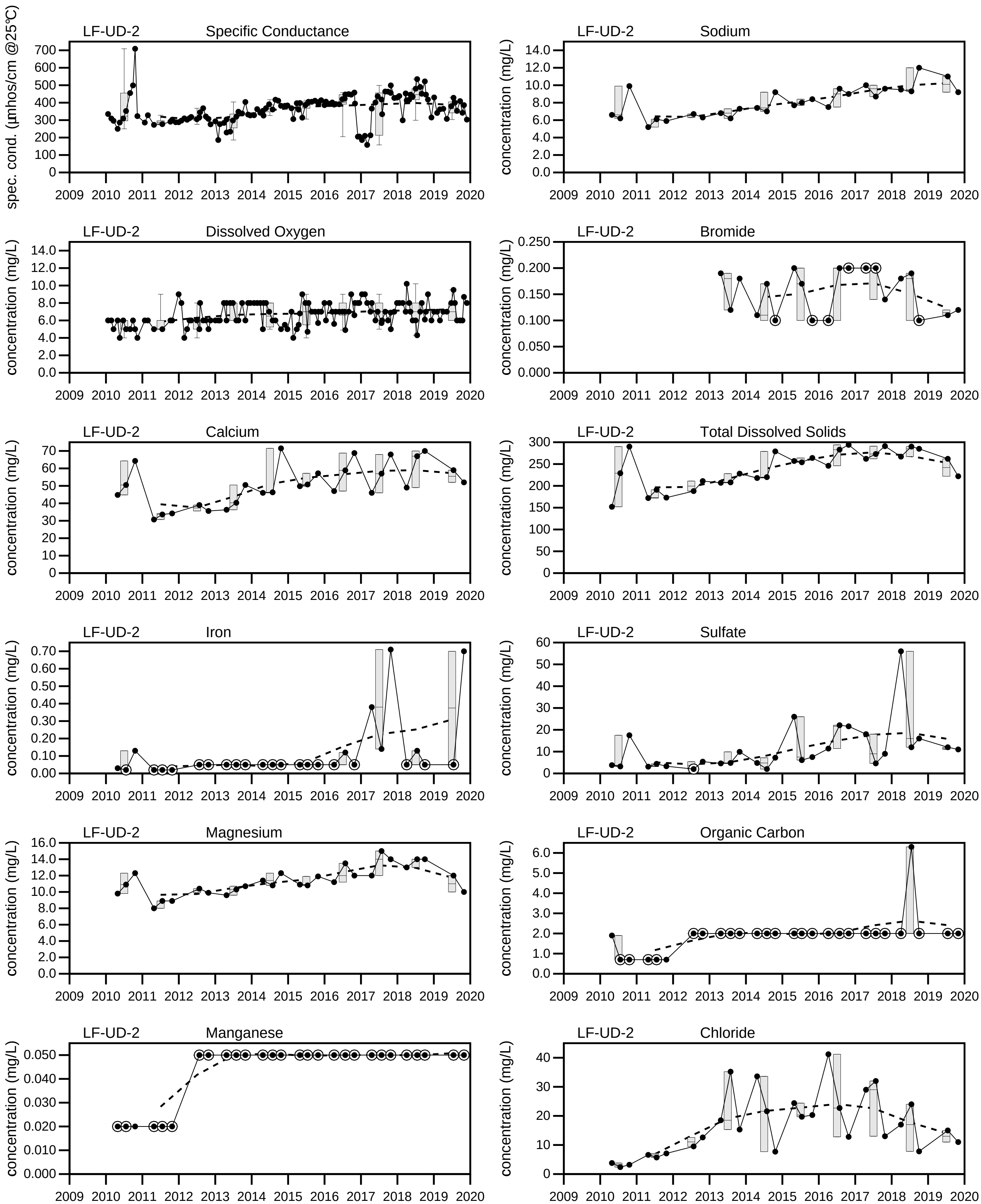
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019
Q2= 4 - 2019
Q3= 7 - 2019
Q4= 10 - 2019

U = Not Detected above the laboratory reporting limit.
H8 = No flow from pipe. See LF-COMP for readings
F6 = No flow. Sample not taken.

Data Group: 537
Printed: 3/17/2020 11:21

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

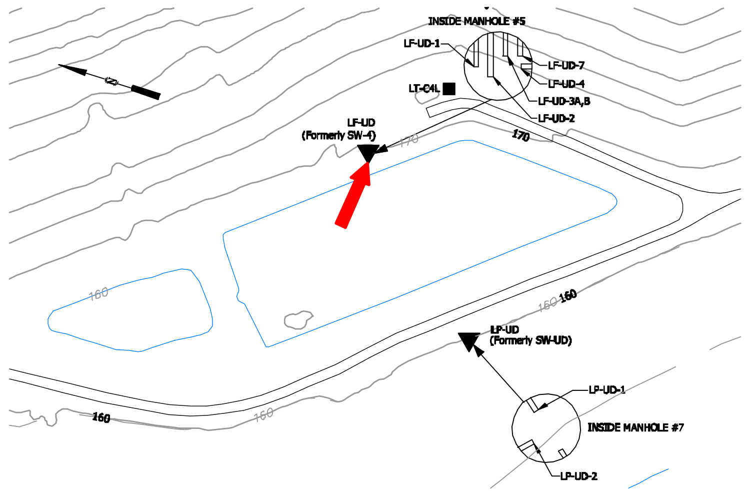
Juniper Ridge Landfill

LF-UD-2

Sevee & Maher Engineers, Inc.

Well Description

LF-UD-3A, B monitors the landfill underdrains from cell 3A and cell 3B at Manhole #5.



Sampled: **3 Times Annually**

Sampled Since: **July 2011**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)	H8	H8	H8	H8	126	to	565	370	±	19	27
pH (STU)	H8	H8	H8	H8	6.2	to	8.4	7.6	±	0.12	27
Temperature (Deg C)	H8	H8	H8	H8	5	to	19.8	13	±	0.82	27
Eh (mV)	H8	H8	H8	H8	94	to	447	290	±	13	27
Dissolved Oxygen (mg/L)	H8	H8	H8	H8	4	to	8	5.6	±	0.14	27
Flow Rate (cfs)		H8	H8	H8	0.0003	to	0.0067	0.0033	±	0.000	27
Arsenic (mg/L)		F6	F6	F6	0.003 U	to	0.01	0.0048	±	0.001	5
Calcium (mg/L)		F6	F6	F6	46.4	to	69.9	56	±	4.4	5
Iron (mg/L)		F6	F6	F6	0.02 U	to	0.02 U	0.02	±	1E-10	5
Magnesium (mg/L)		F6	F6	F6	8.2	to	12.5	10	±	0.81	5
Manganese (mg/L)		F6	F6	F6	0.02 U	to	0.12	0.048	±	0.02	5
Potassium (mg/L)		F6	F6	F6	1.8	to	3.3	2.4	±	0.31	5
Sodium (mg/L)		F6	F6	F6	6	to	9.5	8	±	0.63	5
Nitrite/Nitrate - (N) (mg/L)		F6	F6	F6	No historical data for Nitrite/Nitrate - (N).						
Total Phosphorus Mixed Forms (PO4 and		F6	F6	F6	0.01 U	to	0.01	0.01	±	7E-11	5
Total Dissolved Solids (mg/L)		F6	F6	F6	163	to	263	230	±	17	5
Total Suspended Solids (mg/L)		F6	F6	F6	4 U	to	4 U	4	±	0	5
Sulfate (mg/L)		F6	F6	F6	8.3	to	16.3	13	±	1.3	5
Bicarbonate (CaCO3) (mg/L)		F6	F6	F6	123	to	201	160	±	15	5
Alkalinity (CaCO3) (field) (mg/L)	H8	H8	H8	H8	85	to	475	180	±	17	27
Organic Carbon (mg/L)		F6	F6	F6	1.2	to	4.8	3.4	±	0.66	5
Chloride (mg/L)		F6	F6	F6	2.4	to	12.6	7.8	±	1.7	5
Bromide (mg/L)		F6	F6	F6	No historical data for Bromide.						
Turbidity (field) (NTU)	H8	H8	H8	H8	0	to	5	0.9	±	0.2	27

underlined/bold - values exceed a regulatory standard listed below.

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Comments

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019 H8 = No flow from pipe. See LF-COMP for readings

Q2= 4 - 2019 F6 = No flow. Sample not taken.

Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 537

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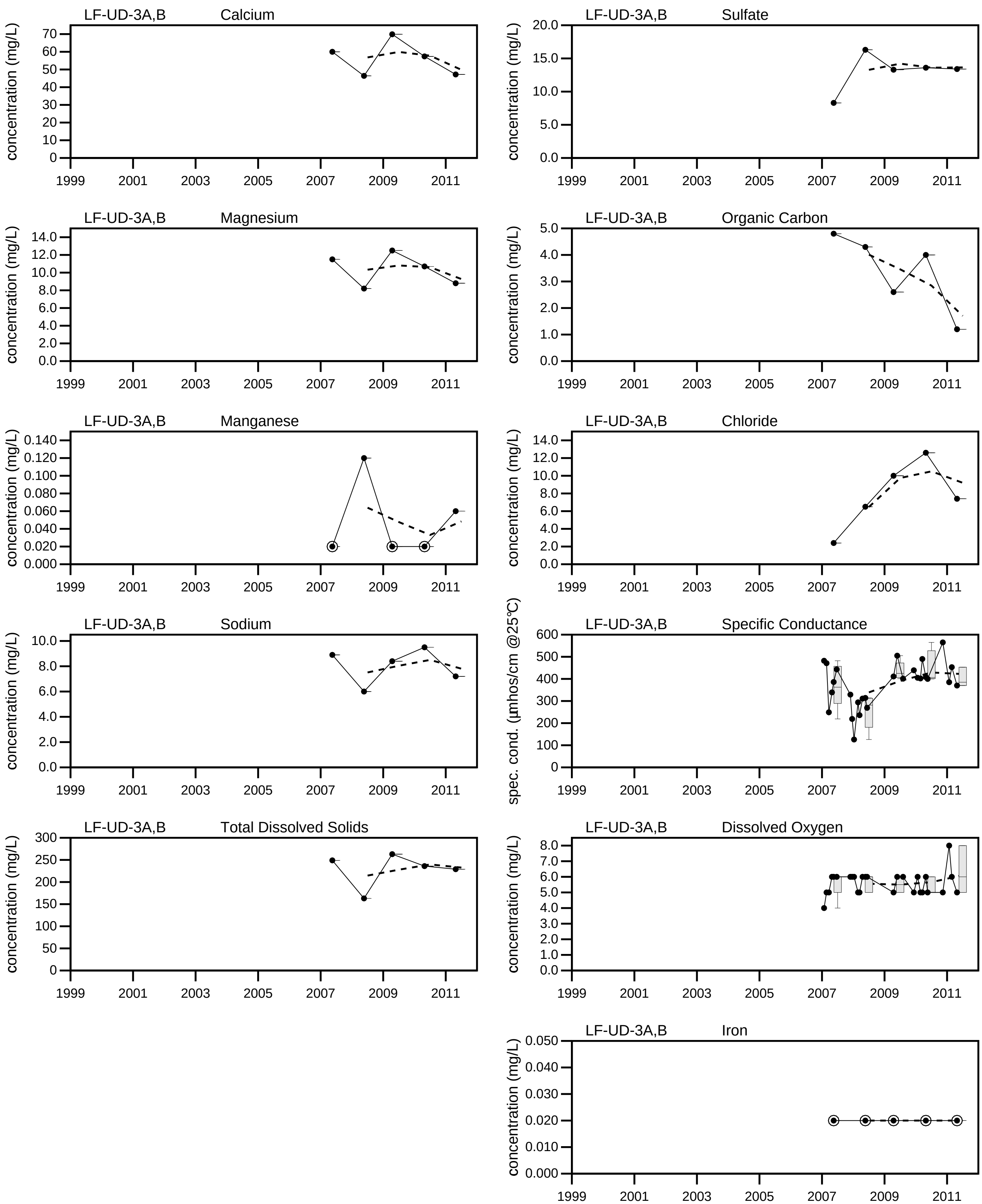


LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

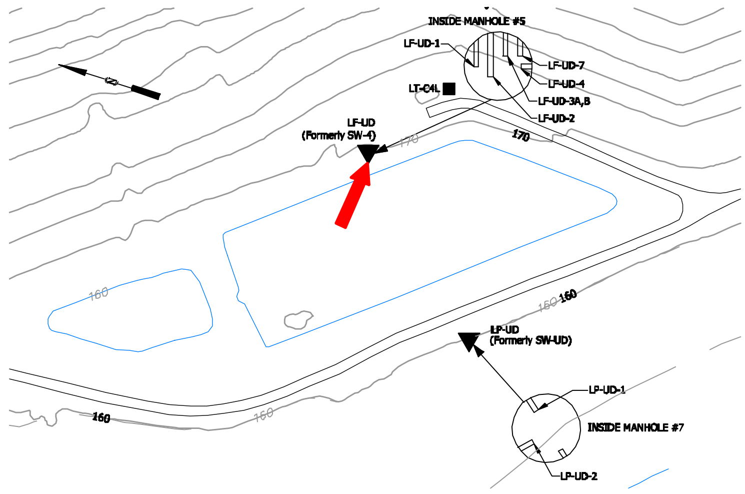
Juniper Ridge Landfill

LF-UD-3A,B

Sevee & Maher Engineers, Inc.

Well Description

LF-UD-4 monitors the landfill underdrain from Cell #4 at Manhole #5.



Sampled: **Monthly & 3 Times Annually**

Sampled Since: **03/11/2009**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean	±	SE	n
Specific Conductance (μmhos/cm @25°C)	H8	H8	H8	390	327	to	562	430	±	8	36
pH (STU)	H8	H8	H8	8.1	6.9	to	8.3	7.5	±	0.07	36
Temperature (Deg C)	H8	H8	H8	20.3	4.5	to	30.7	17	±	0.83	36
Eh (mV)	H8	H8	H8	377	212	to	571	360	±	14	36
Dissolved Oxygen (mg/L)	H8	H8	H8	8	4	to	10	6.3	±	0.26	36
Flow Rate (cfs)		H8	H8	0.0006	0.0002	to	0.0078	0.0018	±	0.000	33
Arsenic (mg/L)		F6	F6	0.005	0.002	to	0.014	0.0075	±	0.001	11
Calcium (mg/L)		F6	F6	51	44.8	to	75.7	57	±	3	11
Iron (mg/L)		F6	F6	↑ 1.4	0.02 U	to	0.28	0.077	±	0.02	11
Magnesium (mg/L)		F6	F6	↓ 9.9	10.6	to	14	12	±	0.41	11
Manganese (mg/L)		F6	F6	↑ 0.16	0.02 U	to	0.05 U	0.047	±	0.003	11
Potassium (mg/L)		F6	F6	3.4	3.4	to	5.8	4.2	±	0.22	11
Sodium (mg/L)		F6	F6	8.5	7.4	to	11	9.4	±	0.33	11
Nitrite/Nitrate - (N) (mg/L)		F6	F6	0.22	0.13	to	0.25	0.19	±	0.02	5
Total Phosphorus Mixed Forms (PO4 and		F6	F6	↑ 0.18	0.01 U	to	0.04	0.037	±	0.003	11
Total Dissolved Solids (mg/L)		F6	F6	235	206	to	298	260	±	8.4	11
Total Suspended Solids (mg/L)		F6	F6	↑ 210	4 U	to	110	17	±	9.7	11
Sulfate (mg/L)		F6	F6	11	2 U	to	24.9	13	±	2.2	11
Bicarbonate (CaCO3) (mg/L)		F6	F6	180	136	to	210	180	±	6.9	11
Alkalinity (CaCO3) (field) (mg/L)	H8	H8	H8	250	92	to	300	170	±	8.6	31
Organic Carbon (mg/L)		F6	F6	2 U	2 U	to	5.1	2.3	±	0.28	11
Chloride (mg/L)		F6	F6	12	2.4	to	24	12	±	2.2	11
Bromide (mg/L)		F6	F6	0.13	0.1 U	to	0.2	0.17	±	0.02	8
Turbidity (field) (NTU)	H8	H8	H8	2.6	0	to	9.1	0.95	±	0.26	36

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

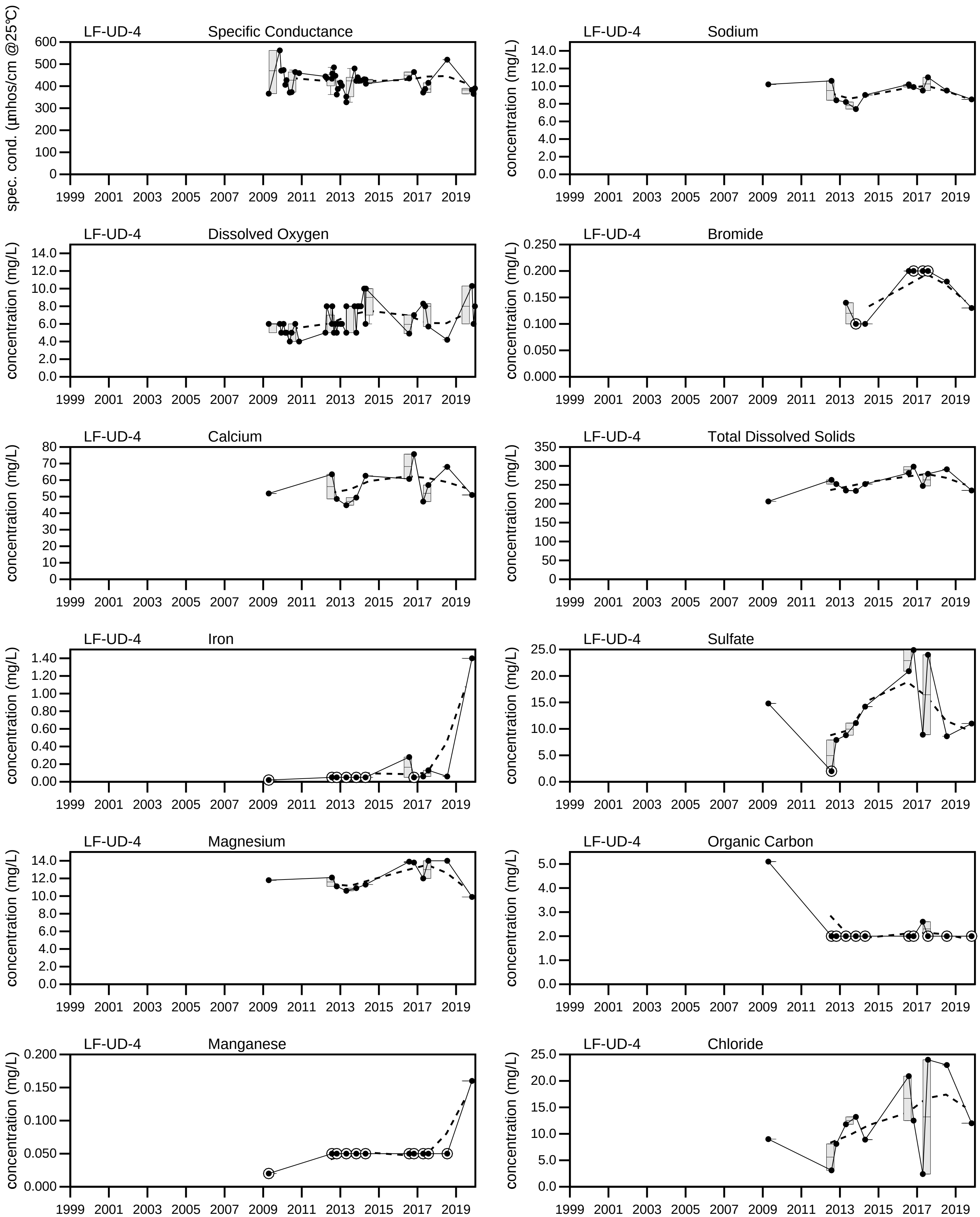
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019
Q2= 4 - 2019
Q3= 7 - 2019
Q4= 10 - 2019

U = Not Detected above the laboratory reporting limit.
H8 = No flow from pipe. See LF-COMP for readings
F6 = No flow. Sample not taken.

Data Group: 537
Printed: 3/17/2020 11:21

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

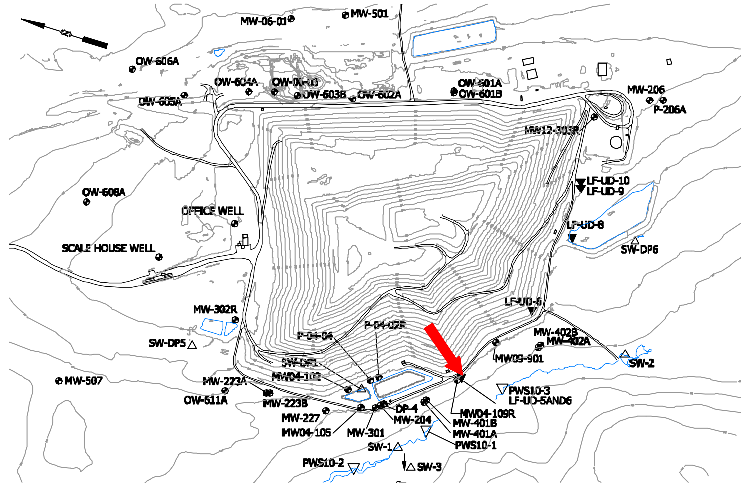
Juniper Ridge Landfill

LF-UD-4

Sevee & Maher Engineers, Inc.

Well Description

LF-UD-5and6 monitors the landfill underdrain from Cell #5 and Cell #6(composite). This underdrain pipe is located southeast of MW04-109R.



Sampled:	**3 Times Annually and Monthly**
Sampled Since:	**July 2011**
Sampling Method:	**Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)	F6	328	338	304	117	to	652	390	±	8.1	110
pH (STU)	F6	8.2	8.2	8.3	6.7	to	8.32	7.7	±	0.04	110
Temperature (Deg C)	F6	7.6	25.3	20.5	4.2	to	26.5	16	±	0.45	110
Eh (mV)	F6	357	357	376	70	to	515	350	±	5.8	109
Dissolved Oxygen (mg/L)	F6	9.7	8	9.5	4	to	12.8	7.4	±	0.16	108
Flow Rate (cfs)	F6	0.0011	0.0006	0.0006	0.00003	to	0.0045	0.00072	±	9E-05	88
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U	to	0.024	0.011	±	0.001	23
Calcium (mg/L)		42	45	40	38	to	71.3	55	±	1.8	23
Iron (mg/L)		0.05 U	0.05 U	0.88	0.02 U	to	11.3	0.6	±	0.49	23
Magnesium (mg/L)		9.5	10	9.1	8.4	to	15.4	11	±	0.35	23
Manganese (mg/L)		0.05 U	0.05 U	0.05	0.02 U	to	0.25	0.055	±	0.009	23
Potassium (mg/L)		↓2.4	2.7	↓2.5	2.6	to	7	4.1	±	0.24	23
Sodium (mg/L)		7.5	8.5	7.4	6.2	to	10.2	8.3	±	0.23	23
Nitrite/Nitrate - (N) (mg/L)		0.14	0.12	0.14	0.05 U	to	0.5 U	0.21	±	0.05	10
Total Phosphorus Mixed Forms (PO4 and		0.04 U	0.04 U	0.08	0.01	to	0.16	0.045	±	0.006	23
Total Dissolved Solids (mg/L)		192	211	199	192	to	332	250	±	7.4	23
Total Suspended Solids (mg/L)		2.5 U	2.5 U	69	2.5 U	to	154	20	±	8.2	23
Sulfate (mg/L)		9.7	9.2	9.9	8.7	to	39	15	±	1.4	23
Bicarbonate (CaCO3) (mg/L)		150	170	160	150	to	238	190	±	5.3	23
Alkalinity (CaCO3) (field) (mg/L)	F6	175	180	175	35	to	435	180	±	6.1	97
Organic Carbon (mg/L)		2 U	2 U	2 U	1.5	to	2.5	2	±	0.04	23
Chloride (mg/L)		↓1.5	2	2.1	1.7	to	6.2	3.1	±	0.2	23
Bromide (mg/L)		0.1	0.1 U	0.15	0.1 U	to	0.2 U	0.13	±	0.01	15
Turbidity (field) (NTU)	F6	0.8	2.5	8.1	0	to	30.88	2.1	±	0.41	109

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

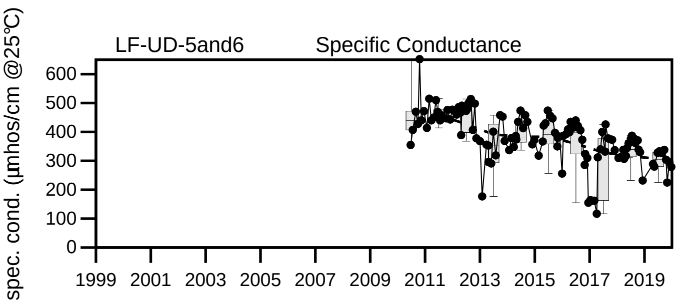
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

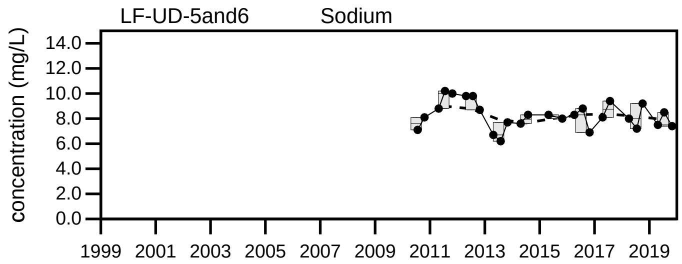
Q1= 1 - 2019
Q2= 4 - 2019
Q3= 7 - 2019
Q4= 10 - 2019

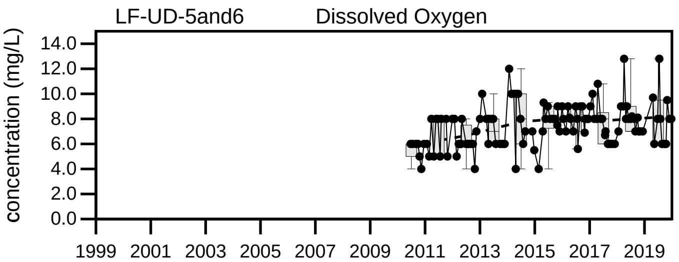
U = Not Detected above the laboratory reporting limit.
F6 = No flow. Sample not taken.
F = The sampling location was frozen.

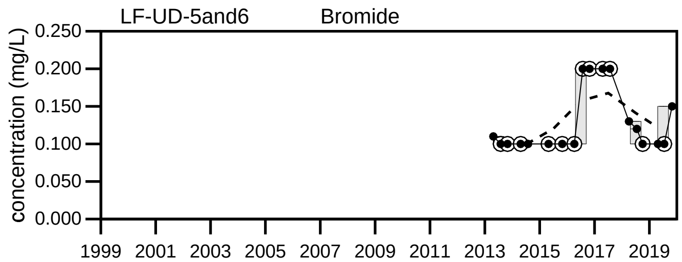
Data Group: 537
Printed: 3/17/2020 11:21

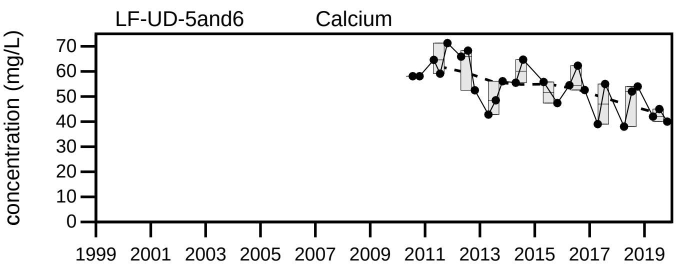
SME SEVEE & MAHER ENGINEERS

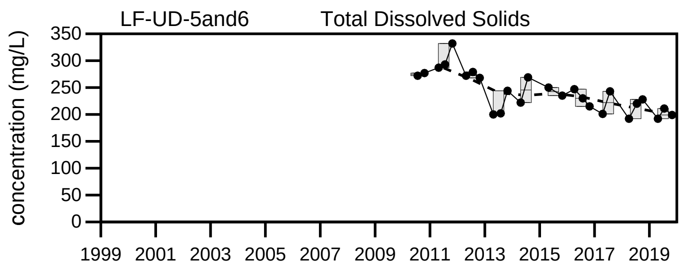


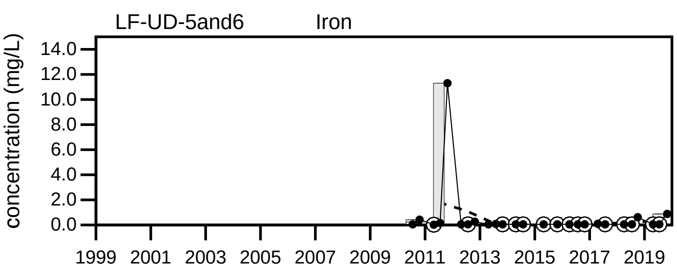


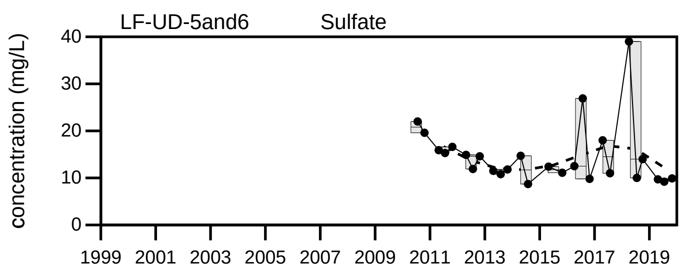


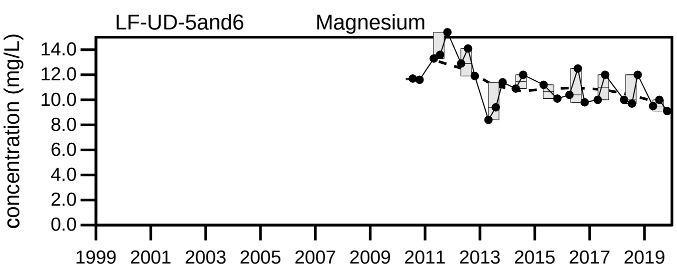


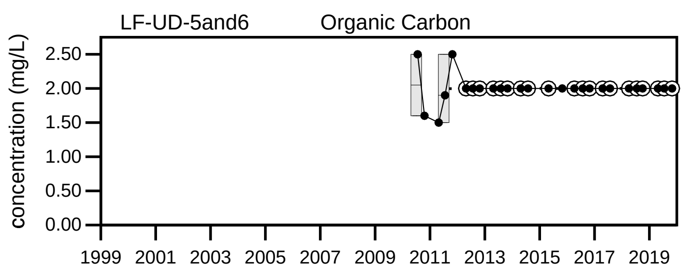


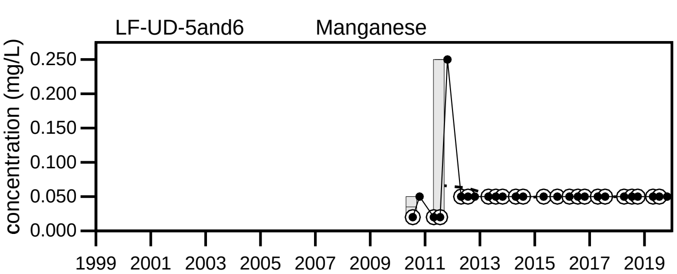


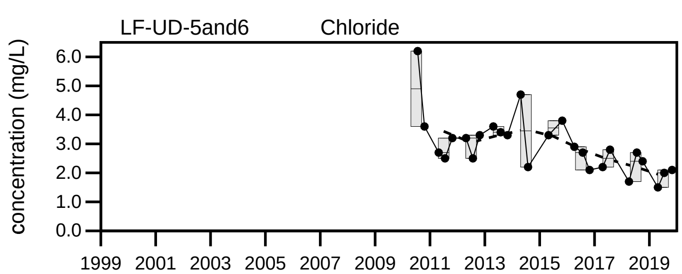












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value

- FFT smoothing of yearly mean values.
- Sample Event
- BDL

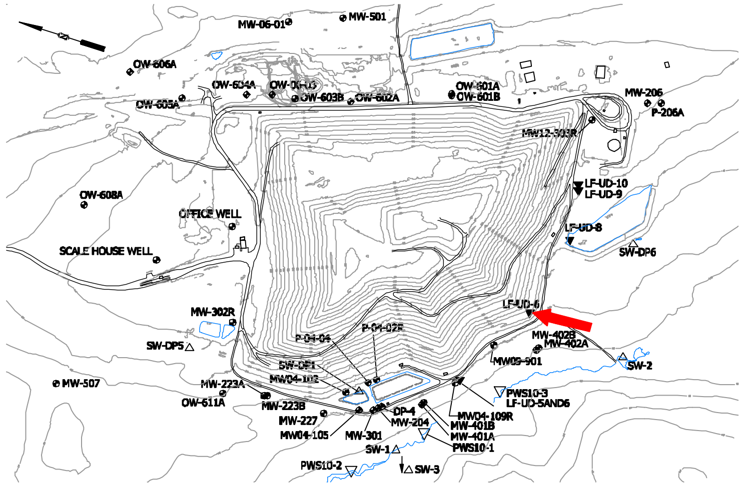
Juniper Ridge Landfill

LF-UD-5and6

Sevee & Maher Engineers, Inc.

Well Description

LF-UD-6 monitors the landfill underdrain from Cell #6. This underdrain pipe is located along the south perimeter of the landfill.



Sampled: **Monthly and 3 Times Annually**

Sampled Since: **02/03/2011**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)	337	380	↓ 82	310	212	to	919	610	± 22	92
pH (STU)	7.7	8.3	7.8	↓ 6.4	6.7	to	8.5	7.4	± 0.03	91
Temperature (Deg C)	15.3	21	↑ 24.8	20.4	7.6	to	23.9	17	± 0.4	92
Eh (mV)	386	375	379	449	140	to	490	380	± 5.8	91
Dissolved Oxygen (mg/L)	7	8	9	6.6	3.6	to	10	6.3	± 0.15	90
Flow Rate (cfs)		0.0022	0.0006	0.0011	0.00056	to	0.0045	0.0022	± 0.000	20
Arsenic (mg/L)		0.005	0.005 U	0.005 U	0.003	to	0.026	0.015	± 0.002	21
Calcium (mg/L)		59	↓ 24	↓ 24	47	to	96.4	76	± 3.1	21
Iron (mg/L)		0.05 U	0.05 U	0.1	0.02 U	to	6.28	0.35	± 0.3	21
Magnesium (mg/L)		7.4	↓ 3.3	↓ 2.9	6.6	to	25.4	18	± 1.4	21
Manganese (mg/L)		0.05 U	0.05 U	↑ 0.68	0.02 U	to	0.17	0.053	± 0.006	21
Potassium (mg/L)		2.4	↓ 1.7	5.3	1.9	to	5.9	4.1	± 0.24	21
Sodium (mg/L)		2	↓ 0.9	↓ 0.5	1	to	74.3	38	± 6.6	21
Nitrite/Nitrate - (N) (mg/L)		↑ 27	9.1	↑ 20	1.4	to	12	4.4	± 1.1	9
Total Phosphorus Mixed Forms (PO4 and		0.09	0.13	↑ 0.65	0.01	to	0.27	0.087	± 0.01	21
Total Dissolved Solids (mg/L)		309	↓ 149	186	172	to	563	410	± 30	21
Total Suspended Solids (mg/L)		2.5 U	8.7	↑ 150	2.5 U	to	102	10	± 4.9	21
Sulfate (mg/L)		6.5	3.3	4.6	2 U	to	143	60	± 10	21
Bicarbonate (CaCO3) (mg/L)		↓ 84	↓ 49	↓ 4.9	120	to	359	270	± 16	21
Alkalinity (CaCO3) (field) (mg/L)	75	↓ 60	↓ 45	180	70	to	490	220	± 11	83
Organic Carbon (mg/L)		2 U	2 U	2.8	2 U	to	3.6	2.7	± 0.12	21
Chloride (mg/L)		1.2	1 U	1.9	1 U	to	18.2	7.9	± 1.2	21
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.5 U	0.14	± 0.03	15
Turbidity (field) (NTU)	2.1	1.4	13.8	43.6	0.1	to	126.9	5.5	± 1.5	91

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

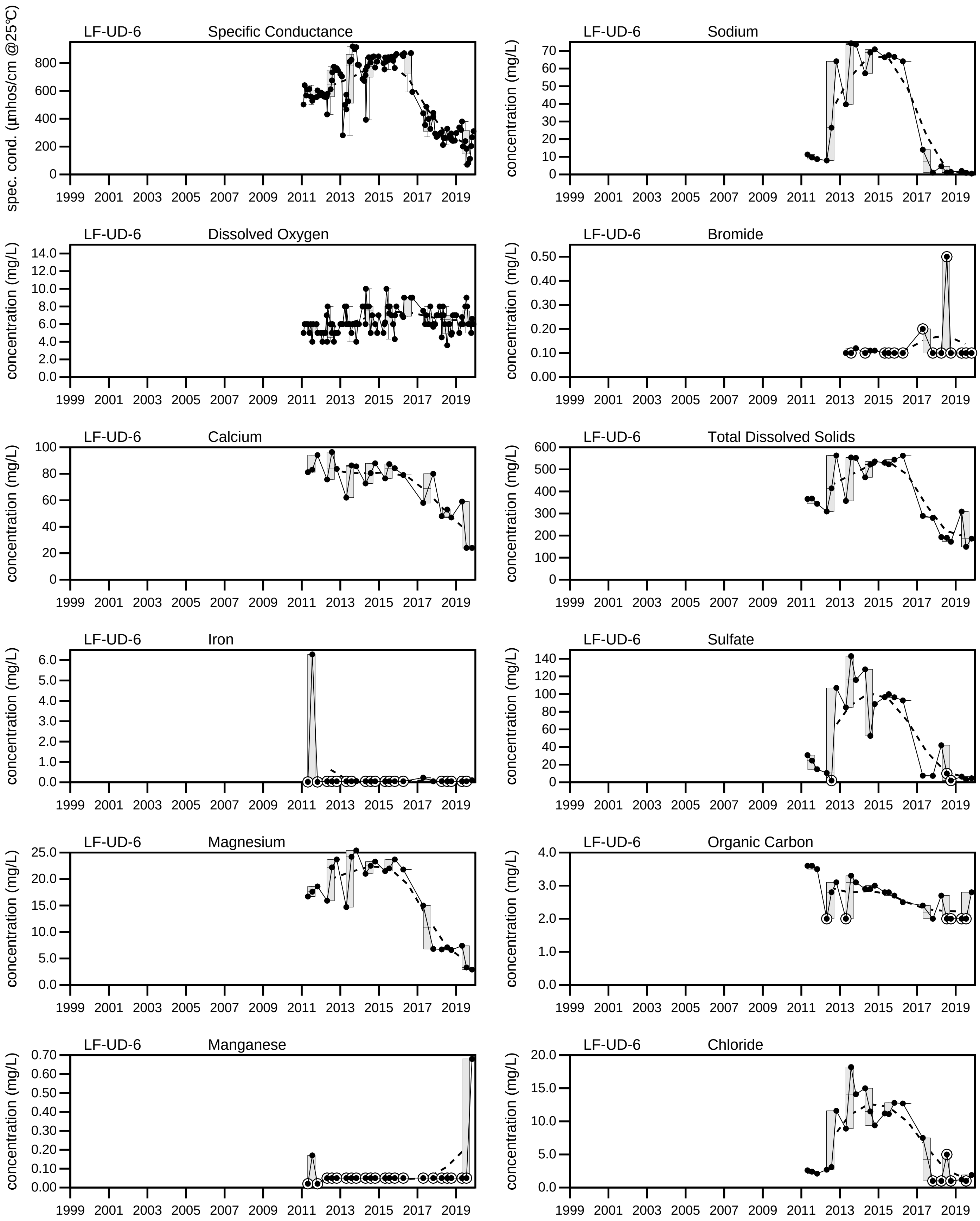
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019
Q2= 4 - 2019
Q3= 7 - 2019
Q4= 10 - 2019

U = Not Detected above the laboratory reporting limit.
L = Could not locate sampling location.
FK = Outside range of available field kits.
F = The sampling location was frozen.

Data Group: 537
Printed: 3/17/2020 11:21

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

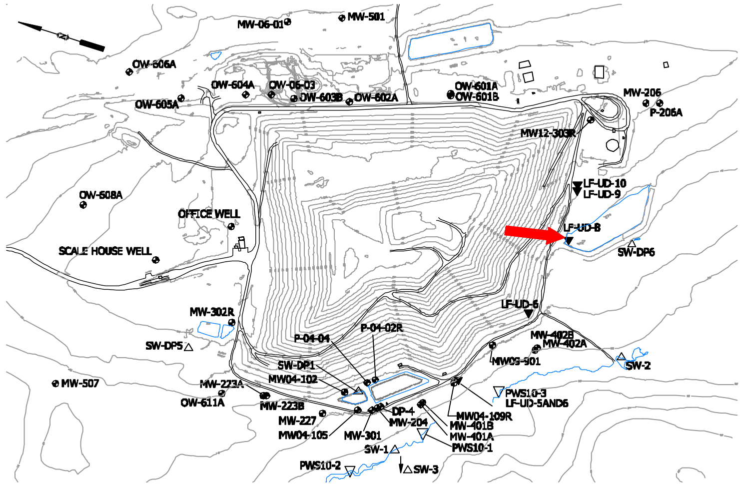
Juniper Ridge Landfill

LF-UD-6

Sevee & Maher Engineers, Inc.

Well Description

LF-UD-8 monitors the landfill underdrain from Cell #8. This underdrain pipe is located along the southern perimeter of the landfill.



Sampled: **3 Times Annually**

Sampled Since: **4/23/2013**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (μmhos/cm @25°C)	F6	88	71	105	64	to	407	230	±	36	14
pH (STU)	F6	6.8	8.3	8	6.8	to	8.5	7.5	±	0.13	14
Temperature (Deg C)	F6	7.9	↑ 26.9	10	2.8	to	24	11	±	1.4	14
Eh (mV)	F6	347	305	250	235	to	568	380	±	23	14
Dissolved Oxygen (mg/L)	F6	9.3	6	↑ 10.9	5	to	10.8	7.4	±	0.56	14
Flow Rate (cfs)		0.0022	F6	0.0011	0.00003	to	0.0045	0.0014	±	0.000	12
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U	to	0.014	0.0076	±	0.001	8
Calcium (mg/L)		8.7	6.4	↓ 4.8	5.3	to	50.1	23	±	6.8	8
Iron (mg/L)		↑ 1.1	↑ 1.5	0.35	0.05 U	to	0.85	0.41	±	0.12	8
Magnesium (mg/L)		1.3	1	0.8	0.8	to	11.1	4.6	±	1.7	8
Manganese (mg/L)		0.1	0.05 U	0.05 U	0.05 U	to	0.15	0.07	±	0.01	8
Potassium (mg/L)		1.6	1.4	0.9	0.8	to	3.7	2.1	±	0.47	8
Sodium (mg/L)		3.5	2.6	↓ 1.3	2.1	to	7.3	4.3	±	0.83	8
Nitrite/Nitrate - (N) (mg/L)		0.058	0.05 U	0.062	0.05 U	to	0.5 U	0.22	±	0.14	3
Total Phosphorus Mixed Forms (PO4 and		↑ 0.1	0.04 U	0.04	0.04 U	to	0.08	0.046	±	0.005	8
Total Dissolved Solids (mg/L)		70	↓ 53	↓ 42	55	to	222	120	±	26	8
Total Suspended Solids (mg/L)		11	5.5	6.7	4 U	to	43	9.8	±	4.8	8
Sulfate (mg/L)		14	8.7	13	4.6	to	49	15	±	5	8
Bicarbonate (CaCO3) (mg/L)		14	14	↓ 6	9.4	to	180	75	±	28	8
Alkalinity (CaCO3) (field) (mg/L)	F6	F6			15	to	185	120	±	18	11
Organic Carbon (mg/L)		4.7	↑ 6.3	4.8	2 U	to	5.7	3.4	±	0.54	8
Chloride (mg/L)		7.1	4.7	↓ 2	3.3	to	14	5.4	±	1.3	8
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.11	±	0.01	8
Turbidity (field) (NTU)	F6	1.2	2.1	2.1	0.04	to	24.35	2.7	±	1.7	14

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

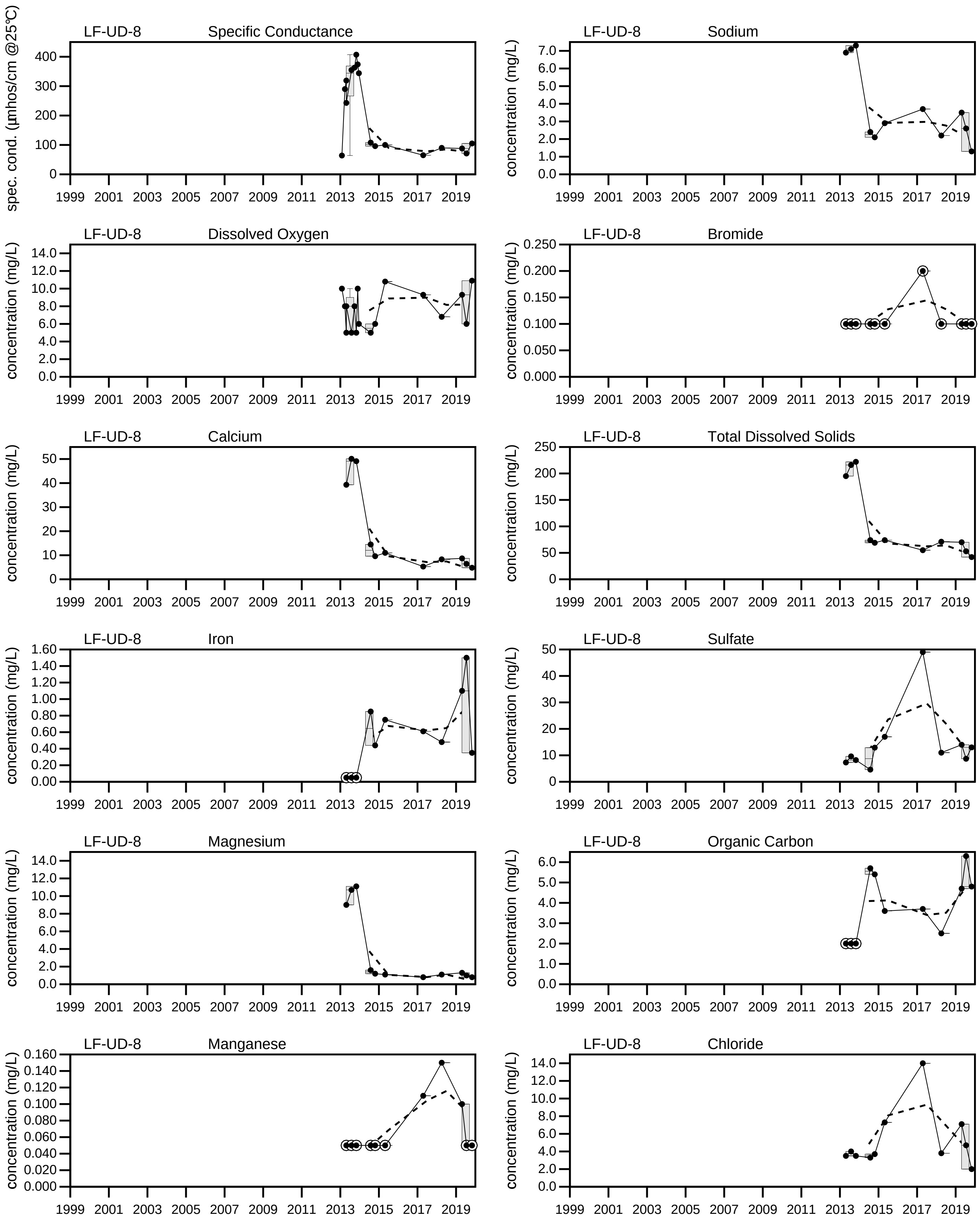
Q1= 1 - 2019
Q2= 4 - 2019
Q3= 7 - 2019
Q4= 10 - 2019

U = Not Detected above the laboratory reporting limit.
H6 = Pipe under water, could not measure flow.
F6 = No flow. Sample not taken.
F12 = Pipe under water, no sample taken.
F = The sampling location was frozen.

Data Group: 537

Printed: 3/17/2020 11:21

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

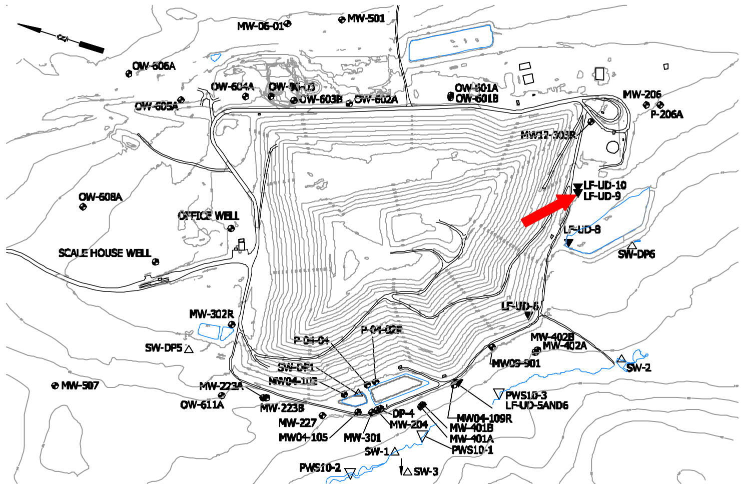
Juniper Ridge Landfill

LF-UD-8

Sevee & Maher Engineers, Inc.

Well Description

LF-UD-9 monitors the landfill underdrain from Cell #9. This underdrain pipe is located along the southern perimeter of the landfill.



Sampled:	**3 Times Annually**
Sampled Since:	**April 2016**
Sampling Method:	**Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)	F6	201	F6	F6	135	to	292	200	±	47	3
pH (STU)	F6	↓6.6	F6	F6	7.3	to	7.6	7.4	±	0.1	3
Temperature (Deg C)	F6	↑15.1	F6	F6	7.1	to	10.7	8.6	±	1.1	3
Eh (mV)	F6	↓278	F6	F6	375	to	458	400	±	27	3
Dissolved Oxygen (mg/L)	F6	7	F6	F6	7	to	10.8	8.9	±	1.1	3
Flow Rate (cfs)		↓0.0004	F6	F6	0.0011	to	0.0045	0.003	±	0.001	3
Arsenic (mg/L)		F6	F6	F6	0.007	to	0.007	0.007	±	0	1
Calcium (mg/L)		F6	F6	F6	55	to	55	55	±	0	1
Iron (mg/L)		F6	F6	F6	1.4	to	1.4	1.4	±	0	1
Magnesium (mg/L)		F6	F6	F6	6.8	to	6.8	6.8	±	0	1
Manganese (mg/L)		F6	F6	F6	0.06	to	0.06	0.06	±	0	1
Potassium (mg/L)		F6	F6	F6	4.3	to	4.3	4.3	±	0	1
Sodium (mg/L)		F6	F6	F6	6.5	to	6.5	6.5	±	0	1
Nitrite/Nitrate - (N) (mg/L)		F6	F6	F6	0.88	to	0.88	0.88	±	0	1
Total Phosphorus Mixed Forms (PO4 and		F6	F6	F6	0.08	to	0.08	0.08	±	0	1
Total Dissolved Solids (mg/L)		F6	F6	F6	224	to	224	220	±	0	1
Total Suspended Solids (mg/L)		F6	F6	F6	57	to	57	57	±	0	1
Sulfate (mg/L)		F6	F6	F6	11	to	11	11	±	0	1
Bicarbonate (CaCO3) (mg/L)		F6	F6	F6	90	to	90	90	±	0	1
Alkalinity (CaCO3) (field) (mg/L)	F6	30	F6	F6	25	to	50 U	38	±	13	2
Organic Carbon (mg/L)		F6	F6	F6	2.7	to	2.7	2.7	±	0	1
Chloride (mg/L)		F6	F6	F6	5.1	to	5.1	5.1	±	0	1
Bromide (mg/L)		F6	F6	F6	0.2 U	to	0.2 U	0.2	±	0	1
Turbidity (field) (NTU)	F6	9.6	F6	F6	1.2	to	49.6	32	±	15	3

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019 F6 = No flow. Sample not taken.

Q2= 4 - 2019

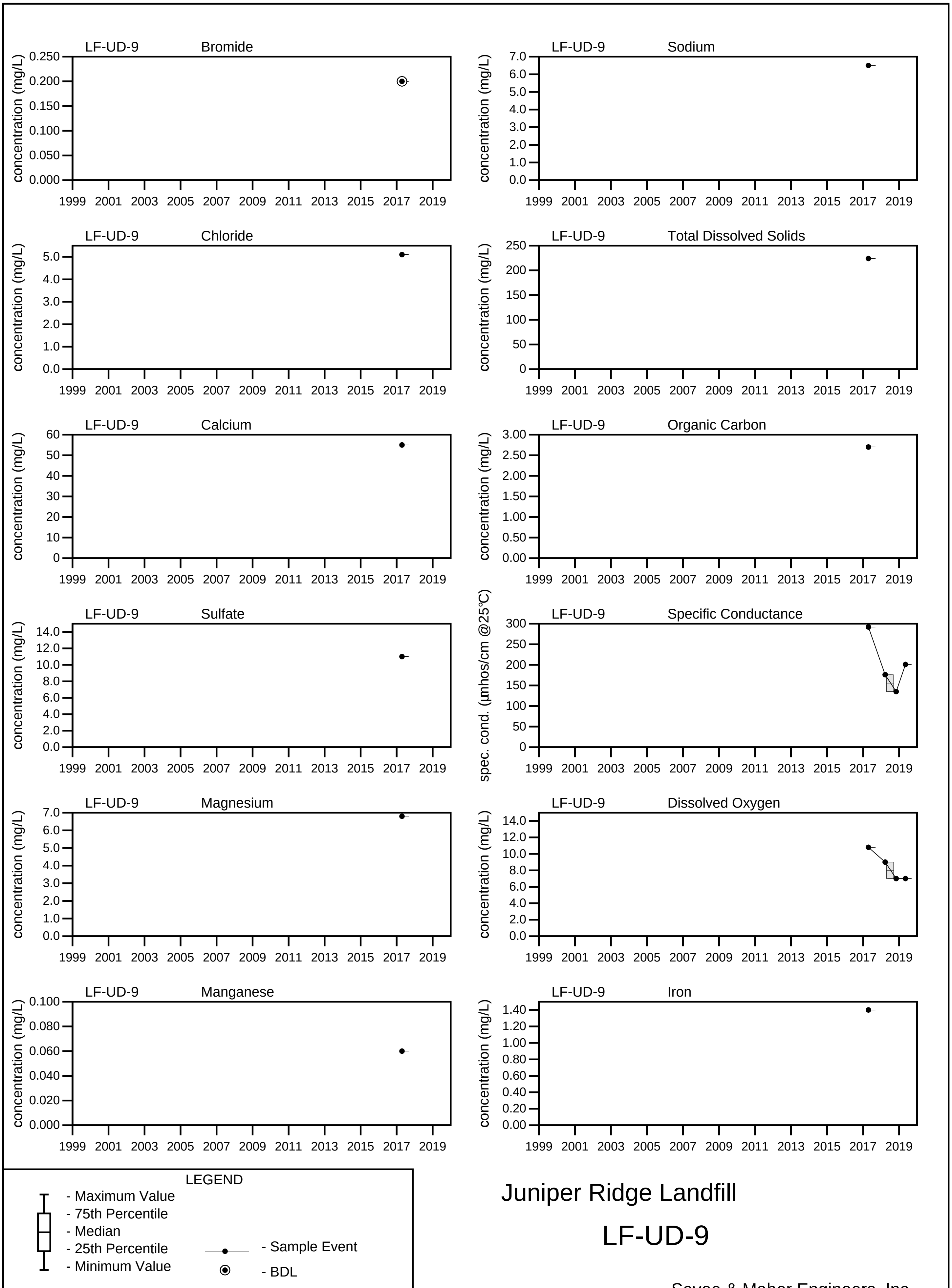
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 548

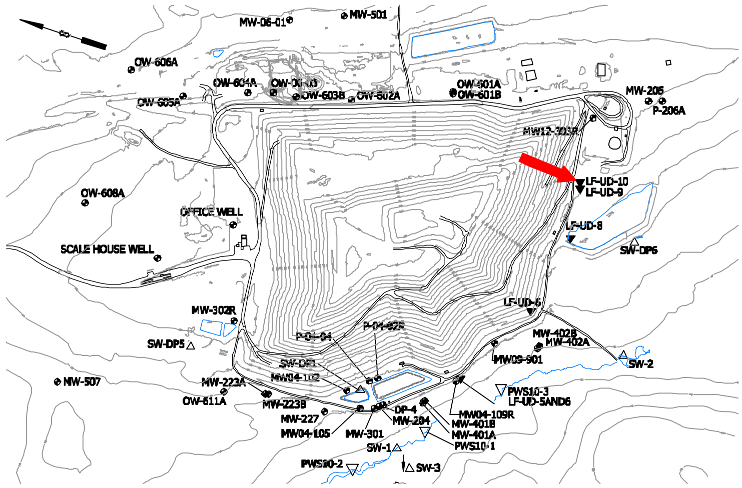
Printed: 3/17/2020 09:40

SME SEVEE & MAHER ENGINEERS


LF-UD-9 Bromide
LF-UD-9 Sodium
LF-UD-9 Chloride
LF-UD-9 Total Dissolved Solids
LF-UD-9 Calcium
LF-UD-9 Organic Carbon
LF-UD-9 Sulfate
LF-UD-9 Specific Conductance
LF-UD-9 Magnesium
LF-UD-9 Dissolved Oxygen
LF-UD-9 Manganese
LF-UD-9 Iron
concentration (mg/L)
spec. cond. (µmhos/cm @25°C)
1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019
LEGEND
- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL
Juniper Ridge Landfill
LF-UD-9
Sevee & Maher Engineers, Inc.

Well Description

LF-UD-10 monitors the landfill underdrain from Cell #10. This underdrain pipe is located along the southern perimeter of the landfill.



Sampled: **3 Times Annually**

Sampled Since: **October 2017**

Sampling Method:

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)	F6	↓111	F6	F6	119	to 175	140 ±	17	3
pH (STU)	F6	7.3	F6	F6	6.8	to 7.3	7 ±	0.15	3
Temperature (Deg C)	F6	↑14.9	F6	F6	5.1	to 10.6	8.2 ±	1.6	3
Eh (mV)	F6	↓295	F6	F6	387	to 455	420 ±	20	3
Dissolved Oxygen (mg/L)	F6	7	F6	F6	7	to 9	8 ±	0.58	3
Flow Rate (cfs)		↑0.0178	F6	F6	0.00056	to 0.0045	0.0028 ±	0.001	3
Arsenic (mg/L)		F6	F6	F6	No historical data for Arsenic.				
Calcium (mg/L)		F6	F6	F6	No historical data for Calcium.				
Iron (mg/L)		F6	F6	F6	No historical data for Iron.				
Magnesium (mg/L)		F6	F6	F6	No historical data for Magnesium.				
Manganese (mg/L)		F6	F6	F6	No historical data for Manganese.				
Potassium (mg/L)		F6	F6	F6	No historical data for Potassium.				
Sodium (mg/L)		F6	F6	F6	No historical data for Sodium.				
Nitrite/Nitrate - (N) (mg/L)		F6	F6	F6	No historical data for Nitrite/Nitrate - (N).				
Total Phosphorus Mixed Forms (PO4 and		F6	F6	F6	ata for Total Phosphorus Mixed Forms (PO4 and Organic)				
Total Dissolved Solids (mg/L)		F6	F6	F6	No historical data for Total Dissolved Solids.				
Total Suspended Solids (mg/L)		F6	F6	F6	No historical data for Total Suspended Solids.				
Sulfate (mg/L)		F6	F6	F6	No historical data for Sulfate.				
Bicarbonate (CaCO3) (mg/L)		F6	F6	F6	No historical data for Bicarbonate (CaCO3).				
Alkalinity (CaCO3) (field) (mg/L)	F6	↓0 D3	F6	F6	25	to 50 U	38 ±	13	2
Organic Carbon (mg/L)		F6	F6	F6	No historical data for Organic Carbon.				
Chloride (mg/L)		F6	F6	F6	No historical data for Chloride.				
Bromide (mg/L)		F6	F6	F6	No historical data for Bromide.				
Turbidity (field) (NTU)	F6	49.5	F6	F6	12.9	to 49.6	35 ±	11	3

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019 F6 = No flow. Sample not taken.

Q2= 4 - 2019 D3 = Sample too dark to take reading.

Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 548

Printed: 3/17/2020 09:40

SME SEVEE & MAHER ENGINEERS

No data for Calcium at LF-UD-10

No data for Sulfate at LF-UD-10

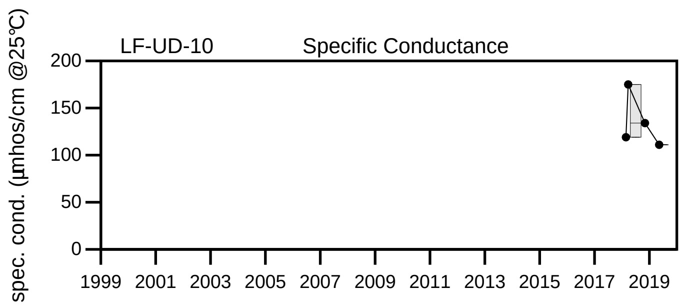
No data for Magnesium at LF-UD-10

No data for Organic Carbon at LF-UD-10

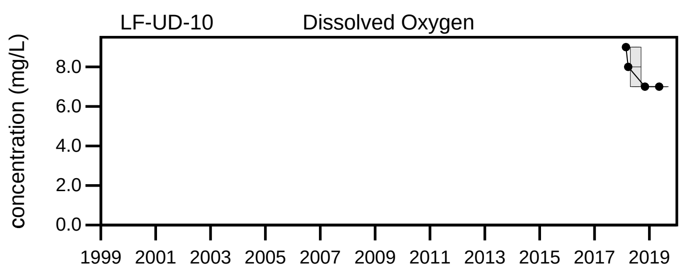
No data for Manganese at LF-UD-10

No data for Chloride at LF-UD-10

No data for Sodium at LF-UD-10



No data for Total Dissolved Solids at LF-UD-10



No data for Iron at LF-UD-10

LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL

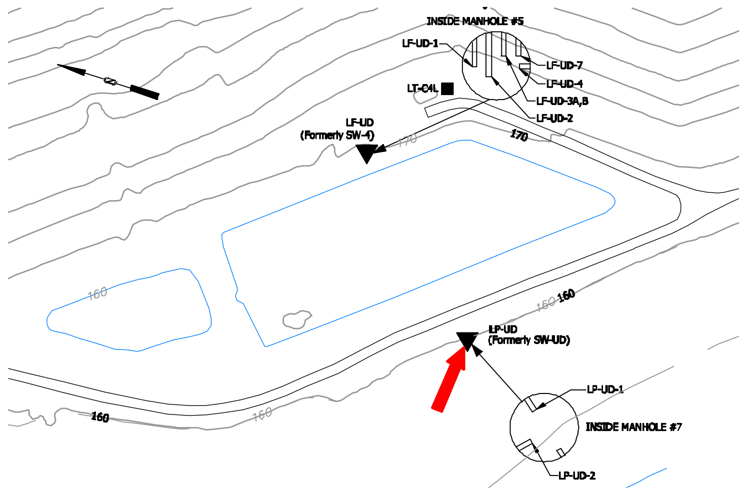
Juniper Ridge Landfill

LF-UD-10

Sevee & Maher Engineers, Inc.

Well Description

Manhole #7 composite sample



Sampled: **See comments below**

Sampled Since: **10/27/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)	429	270	294	285	92	to	665	300	±	11	61
pH (STU)	7.7	8.1	7.4	7.5	6	to	8.4	7	±	0.054	61
Temperature (Deg C)	6	15.1	↑25.1	9.3	5.8	to	22	14	±	0.6	61
Eh (mV)	378	366	361	389	191	to	520	360	±	5.7	61
Dissolved Oxygen (mg/L)	7	8	8	8	3	to	10	7	±	0.22	60
Alkalinity (CaCO3) (field) (mg/L)	130	130	150	145	75	to	260	130	±	3.9	61
Turbidity (field) (NTU)	↑7.4	0.9	0.4	1.6	0	to	4	0.97	±	0.11	61

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

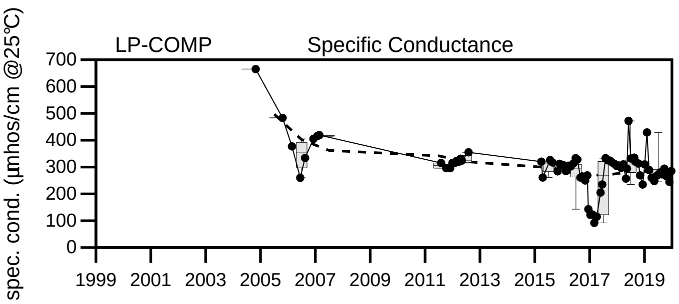
During times when LP-UD-1 and LP-UD-2 have not been able to be sampled seperately due to pipe submergence, LP-COMP has been collected from manhole #7. Field parameters are measured at this location during some monthly monitoring rounds by NEWSME.

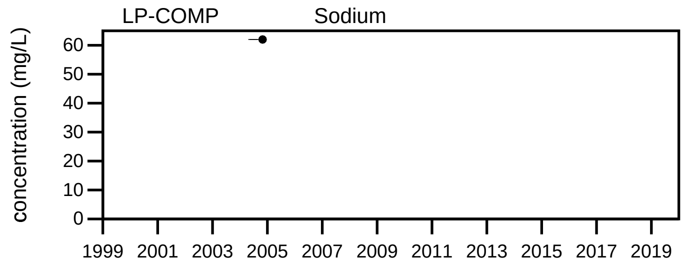
Q1= 1 - 2019

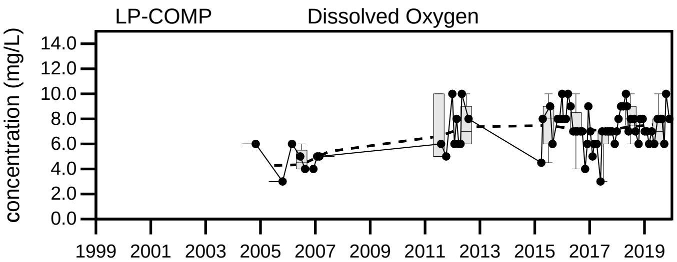
Q2= 4 - 2019

Q3= 7 - 2019

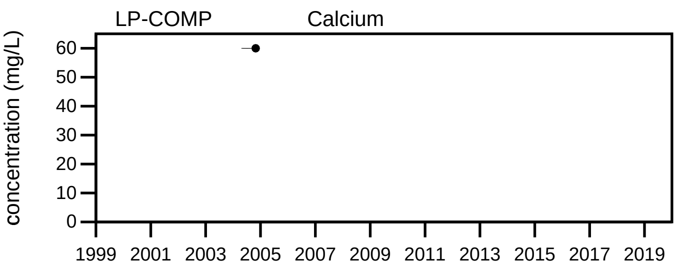
Q4= 10 - 2019

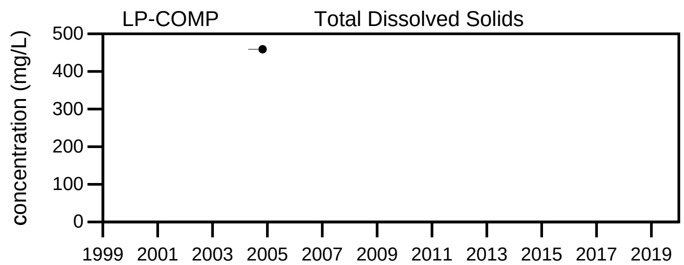


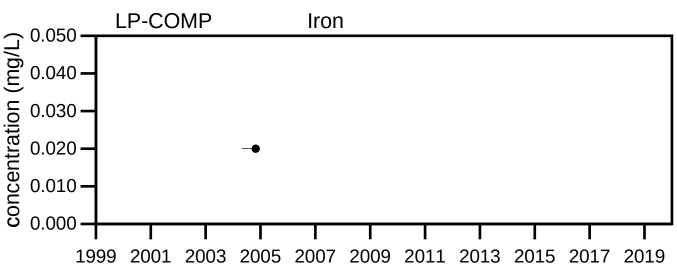


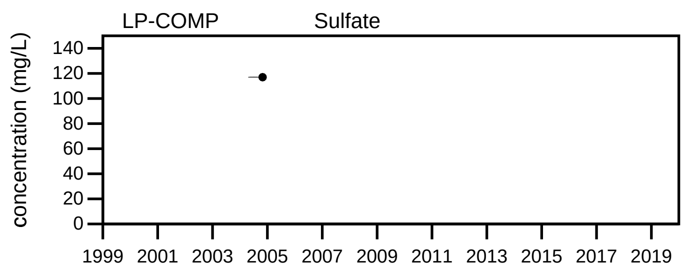


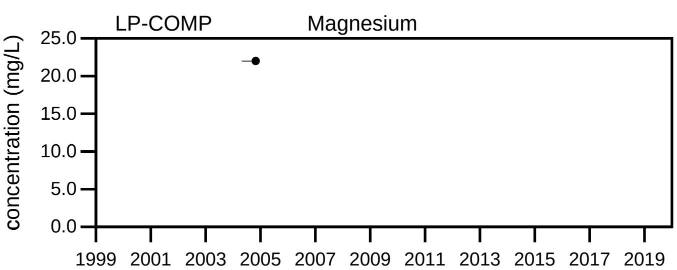
No data for Bromide at LP-COMP

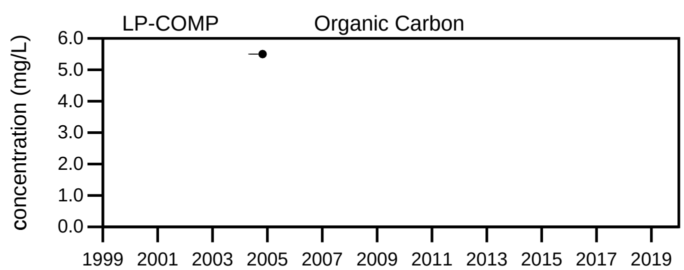


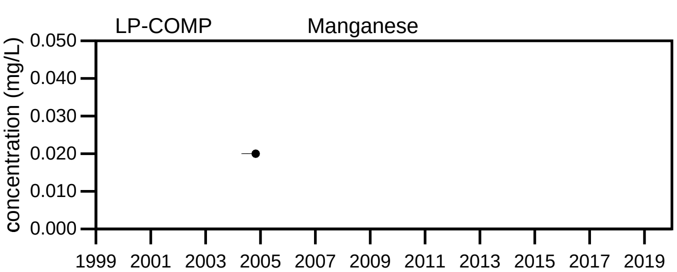


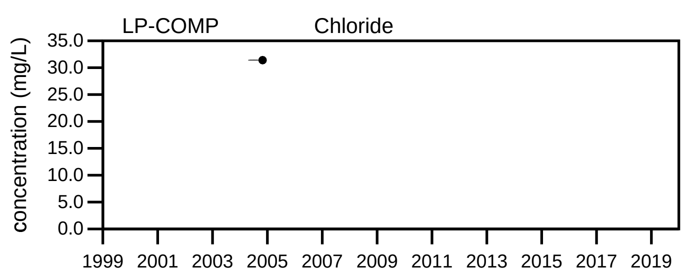












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value

- FFT smoothing of yearly mean values.
- Sample Event
- BDL

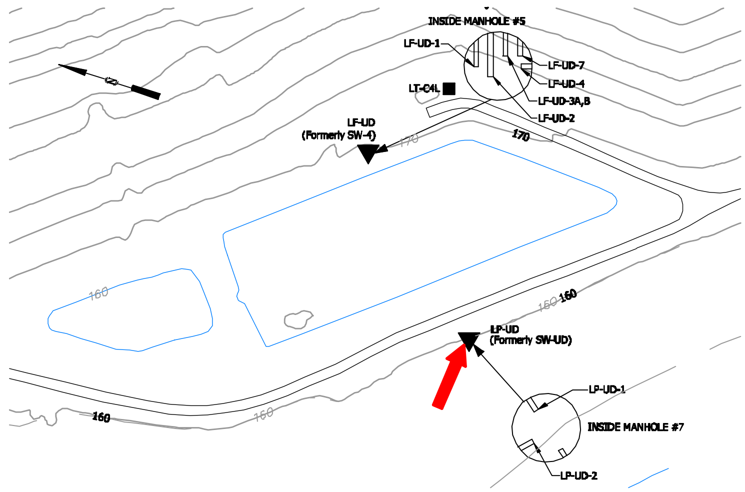
Juniper Ridge Landfill

LP-COMP

Sevee & Maher Engineers, Inc.

Well Description

LP-UD-1 is located at Manhole #7 and monitors the leachate underdrain from the southern end of the former leachate pond.



Sampled: **Monthly and 3 Times Annually**

Sampled Since: **07/28/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min	Max	Mean ± SE	n
Specific Conductance (µmhos/cm @25°C)	H9	↓241	H9	H9	517	to 517	520 ± 0	1
pH (STU)	H9	↑7.1	H9	H9	6.8	to 6.8	6.8 ± 0	1
Temperature (Deg C)	H9	↓6.2	H9	H9	8.3	to 8.3	8.3 ± 0	1
Eh (mV)	H9	↑370	H9	H9	368	to 368	370 ± 0	1
Dissolved Oxygen (mg/L)	H9	↓2.5	H9	H9	5	to 5	5 ± 0	1
Flow Rate (cfs)		0.0011	H9	H9	No historical data for Flow Rate.			
Arsenic (mg/L)		0.005 U	F6	F6	No historical data for Arsenic.			
Calcium (mg/L)		32	F6	F6	No historical data for Calcium.			
Iron (mg/L)		0.05	F6	F6	No historical data for Iron.			
Magnesium (mg/L)		8.7	F6	F6	No historical data for Magnesium.			
Manganese (mg/L)		0.05 U	F6	F6	No historical data for Manganese.			
Potassium (mg/L)		1.7	F6	F6	No historical data for Potassium.			
Sodium (mg/L)		5.5	F6	F6	No historical data for Sodium.			
Nitrite/Nitrate - (N) (mg/L)		0.31	F6	F6	No historical data for Nitrite/Nitrate - (N).			
Total Phosphorus Mixed Forms (PO4 and		0.04 U	F6	F6	ata for Total Phosphorus Mixed Forms (PO4 and Organic)			
Total Dissolved Solids (mg/L)		163	F6	F6	No historical data for Total Dissolved Solids.			
Total Suspended Solids (mg/L)		2.5 U	F6	F6	No historical data for Total Suspended Solids.			
Sulfate (mg/L)		23	F6	F6	No historical data for Sulfate.			
Bicarbonate (CaCO3) (mg/L)		120	F6	F6	No historical data for Bicarbonate (CaCO3).			
Alkalinity (CaCO3) (field) (mg/L)	H9	H9			125	to 125	130 ± 0	1
Organic Carbon (mg/L)		2 U	F6	F6	No historical data for Organic Carbon.			
Chloride (mg/L)		3.1	F6	F6	No historical data for Chloride.			
Bromide (mg/L)		0.1 U	F6	F6	No historical data for Bromide.			
Turbidity (field) (NTU)	H9	↑0.4	H9	H9	0	to 0	0 ± 0	1

underlined/bold - values exceed a regulatory standard listed below.

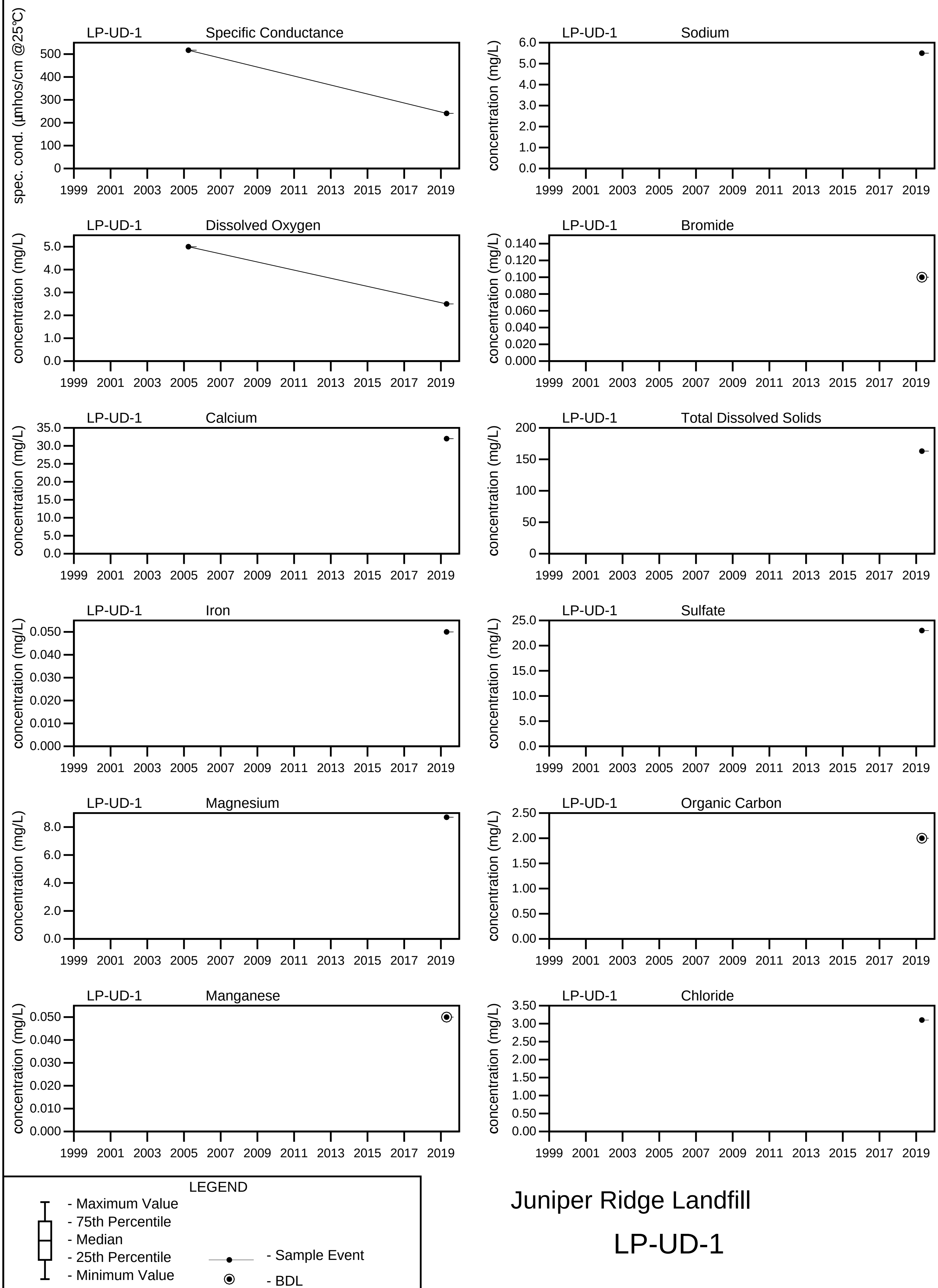
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019
Q2= 4 - 2019
Q3= 7 - 2019
Q4= 10 - 2019

U = Not Detected above the laboratory reporting limit.
H9 = No flow from pipe. See LP-COMP for readings
F6 = No flow. Sample not taken.



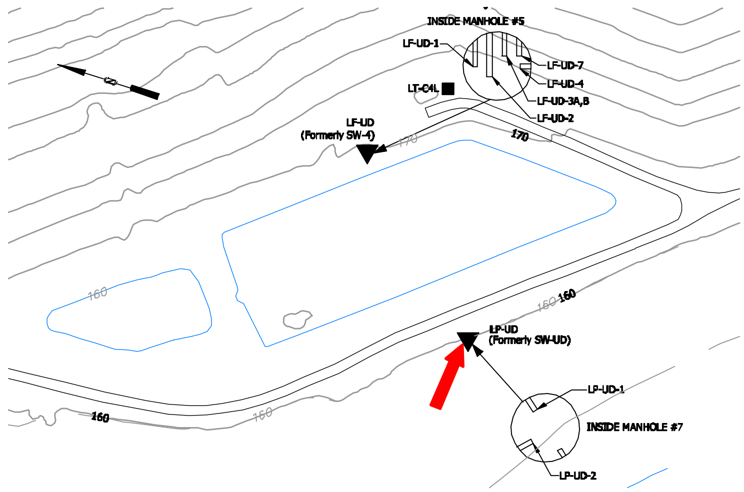
Juniper Ridge Landfill

LP-UD-1

Sevee & Maher Engineers, Inc.

Well Description

LP-UD-2 is located in Manhole #7 and monitors the water quality of the leachate underdrain on the north end of the former leachate pond.



Sampled: **Monthly and 3 Times Annually**

Sampled Since: **07/28/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min		Max	Mean		SE	n
Specific Conductance (µmhos/cm @25°C)	444	299	300	273	110	to	834	330	±	6.5	162
pH (STU)	7.7	8	7.5	7.4	5.7	to	8.5	7.1	±	0.03	162
Temperature (Deg C)	6.1	6.3	↑ 25.2	20.9	1.3	to	24.9	13	±	0.38	162
Eh (mV)	376	380	402	395	157	to	520	340	±	5.2	161
Dissolved Oxygen (mg/L)	8	9	8	8	1	to	12	6.6	±	0.14	162
Flow Rate (cfs)	0.0004	0.0033	0.0022	0.0045	0.0003	to	0.0089	0.002	±	0.000	121
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U	to	0.024	0.0063	±	0.000	44
Calcium (mg/L)		33	32	34	28.8	to	68.2	38	±	1.2	44
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	2.86	0.18	±	0.08	44
Magnesium (mg/L)		8.8	9.9	9.2	7.7	to	21	11	±	0.35	44
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.8	0.065	±	0.02	44
Potassium (mg/L)		1.8	2.3	2.1	1.7	to	25	3.5	±	0.54	44
Sodium (mg/L)		↓ 5.6	7.3	↓ 6.3	6.4	to	58	12	±	1.3	44
Nitrite/Nitrate - (N) (mg/L)		0.3	0.22	0.23	0.1	to	2 U	0.39	±	0.15	12
Total Phosphorus Mixed Forms (PO4 and		0.04 U	0.04 U	0.04 U	0.01 U	to	0.11	0.03	±	0.003	44
Total Dissolved Solids (mg/L)		154	159	165	151	to	455	210	±	7.6	44
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U	to	73	5.5	±	1.6	44
Sulfate (mg/L)		8.9	9.5	9.3	2 U	to	116	15	±	2.7	44
Bicarbonate (CaCO3) (mg/L)		120	130	130	90	to	229	140	±	4.1	44
Alkalinity (CaCO3) (field) (mg/L)	150	125	135	125	30	to	350	140	±	3.5	148
Organic Carbon (mg/L)		2 U	2 U	2 U	0.7 U	to	6.3	2	±	0.14	44
Chloride (mg/L)		3.1	4	3	2.3	to	31.1	7.9	±	0.72	44
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U	to	0.2 U	0.12	±	0.01	18
Turbidity (field) (NTU)	3.8	1.7	0.4	1.1	0	to	60	1.3	±	0.38	161

underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2019 U = Not Detected above the laboratory reporting limit.

Q2= 4 - 2019

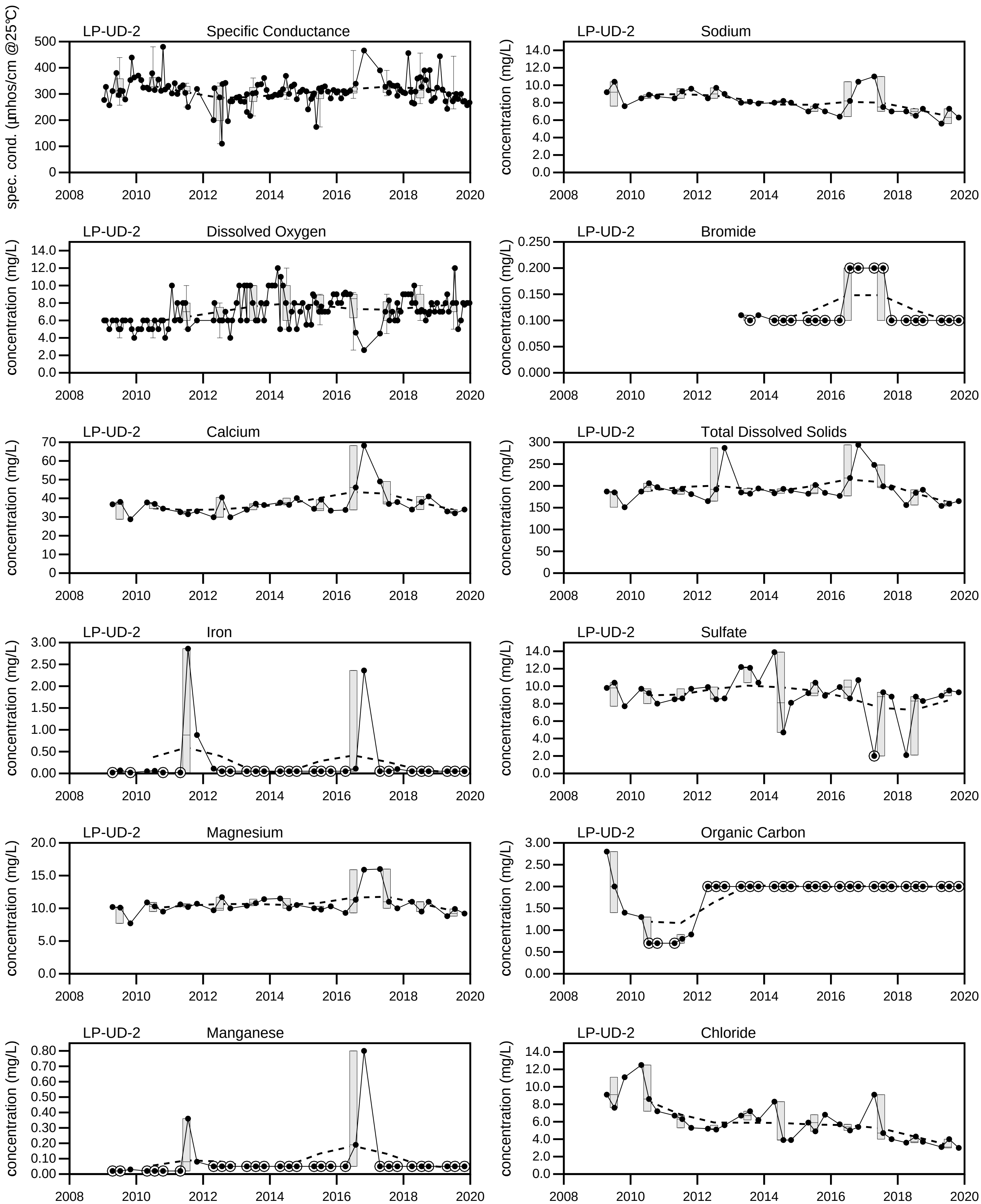
Q3= 7 - 2019

Q4= 10 - 2019

Data Group: 537

Printed: 3/17/2020 11:21

SME SEVEE & MAHER ENGINEERS



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

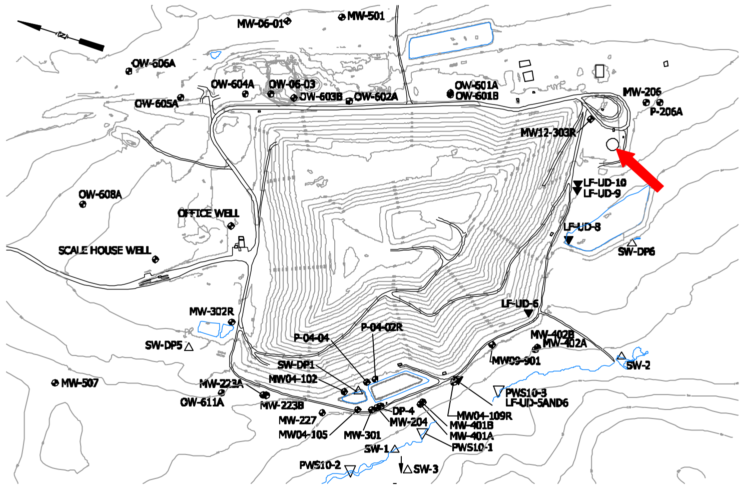
Juniper Ridge Landfill

LP-UD-2

Sevee & Maher Engineers, Inc.

Well Description

Leachate collection location for cells #1, #2, #3A, #3B, #4 and #7.



Sampled: **Replaced by leach. stor. tank (LT-C4LR) 2013.**

Sampled Since: **4/15/2009**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	Q1 (2019)	Q2 (2019)	Q3 (2019)	Q4 (2019)	Historical (1/1/1980 - 12/31/2019) Min	Max	Mean	SE	n
Nitrate (N) (mg/L)		240			5 U	1210	110	56	22
Specific Conductance (µmhos/cm @25°C)		13730	21908	18730	11470	30700	23000	930	30
pH (STU)		7	7.1	7.1	5.5	7.6	7	0.084	30
Temperature (Deg C)		9.6	26.1	15.2	9.4	28.3	18	0.89	30
Eh (mV)		-6	7	-59	-178	238	23	21	30
Dissolved Oxygen (mg/L)		7.5	D2	D2	1	8	2.6	0.8	8
Aluminum (mg/L)		0.52			0.201	0.72	0.4	0.064	10
Antimony (mg/L)		0.005 U			0.005 U	0.065	0.02	0.006	10
Arsenic (mg/L)		0.14	0.24	0.23	0.059	0.6	0.21	0.026	30
Barium (mg/L)		0.86			0.77	1.873	1.3	0.096	10
Beryllium (mg/L)		0.0006 U			0.0002 U	0.003 U	0.0013	0.000	10
Cadmium (mg/L)		↓0.0006 U			0.0007	0.0161	0.0052	0.001	22
Calcium (mg/L)		560	510	350	259	1759	560	64	30
Chromium (mg/L)		0.078			0.024	0.105	0.059	0.01	10
Cobalt (mg/L)		↓0.01 U			0.012	0.05 U	0.028	0.005	10
Copper (mg/L)		0.023			0.003 U	0.065	0.019	0.004	22
Iron (mg/L)		17	↓5.1	12	5.4	179	32	6.7	30
Lead (mg/L)		0.007			0.002	0.095	0.028	0.01	10
Magnesium (mg/L)		230	310	280	179	532	340	17	30
Manganese (mg/L)		10	4.4	4.1	1.5	26	6.6	1.3	30
Mercury (mg/L)		0.0005 U			0.0002 U	0.0005 U	0.00041	5E-05	10
Nickel (mg/L)		↓0.022			0.025 U	0.304	0.1	0.014	22
Potassium (mg/L)		↓580	1000	870	714	1982	1300	63	30
Selenium (mg/L)		0.017			0.005 U	0.098	0.032	0.009	10
Silver (mg/L)		0.001 U			0.0003	0.2	0.027	0.02	10
Sodium (mg/L)		1300	2200	1900	1024	8135	2500	240	30
Thallium (mg/L)		0.004 U			0.001 U	0.02 U	0.0098	0.002	10
Vanadium (mg/L)		0.016			0.01	0.1	0.039	0.009	10
Zinc (mg/L)		0.093			0.011	0.604	0.14	0.057	10
Tin (mg/L)		0.015 U			0.005 U	0.157	0.057	0.016	10
Total Kjeldahl Nitrogen (mg/L)		470	780	660	290	1400	790	46	28
Ammonia (N) (mg/L)		330			74	840	580	40	22
Nitrite/Nitrate - (N) (mg/L)			0.5 U	0.073	0.05 U	10 U	1.8	1.2	8
Total Dissolved Solids (mg/L)		8744	12152	9832	13	19816	13000	770	30
Total Suspended Solids (mg/L)		40	180	48	5	625	80	21	30
Sulfate (mg/L)		2200	2000	1900	10.4	2900	700	160	30
Sulfide (mg/L)		29			0.18	78	12	4	21

Data Group: 538
Printed: 3/18/2020 13:01

Juniper Ridge Landfill					annual stats 2019 G7	
Ca-mg Hardness (CaCO3) (mg/L)	2300			1400 to 6212	2500 ± 440	10
Bicarbonate (CaCO3) (mg/L)	1900	3000	2600	1370 to 4710	3100 ± 140	30
Alkalinity (CaCO3) (mg/L)	1900			1370 to 3700	2700 ± 240	10
Organic Carbon (mg/L)	↓110	480	570	182 to 2560	920 ± 130	30
Biochemical Oxygen Demand (mg/L)	760			39 to 4850	1400 ± 310	21
Chemical Oxygen Demand (mg/L)	1400			959 to 8110	3600 ± 470	22
Chloride (mg/L)	12000	14000	11000	2560 to 24300	12000 ± 1000	30
Bromide (mg/L)	83	40 U	47	10 U to 188	67 ± 8.4	22
Cyanide (ug/L)	17			0.006 to 74	14 ± 7.8	10
Turbidity (field) (NTU)	↑1733	609	1407	6.1 to 1416	300 ± 110	17

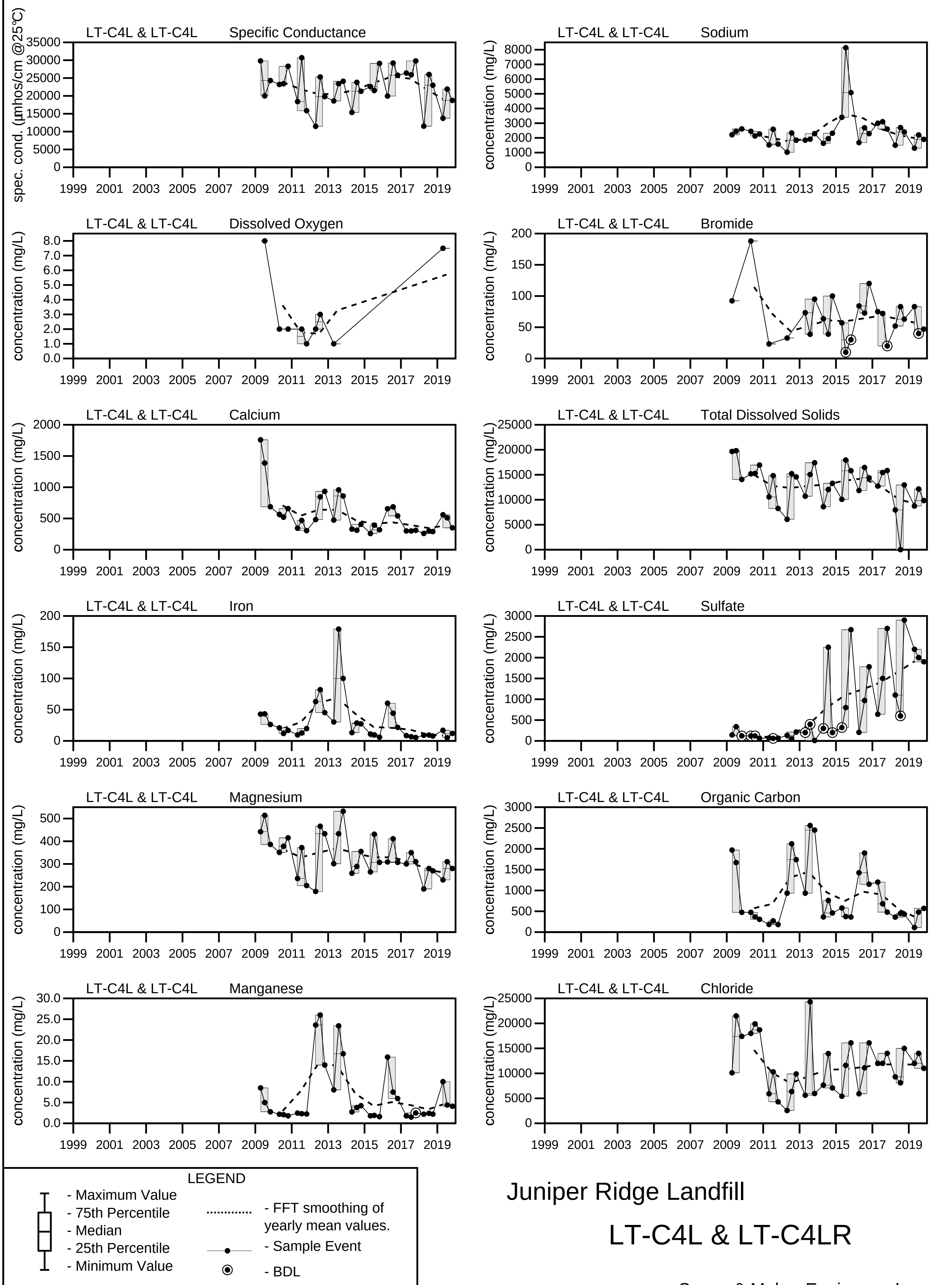
underlined/bold - values exceed a regulatory standard listed below.

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019
Q3= 7 - 2019
Q4= 10 - 2019

U = Not Detected above the laboratory reporting limit.
D2 = Sample too dark to read D.O. reading.



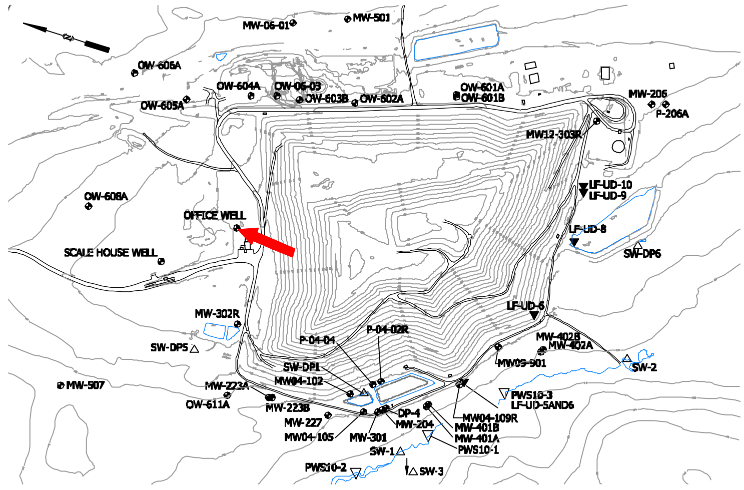
Juniper Ridge Landfill

LT-C4L & LT-C4LR

Sevee & Maher Engineers, Inc.

Well Description

Open borehole bedrock groundwater supply well for office.



Screen Interval:	**18 ft. to 202 ft.**
Sampled:	**1 Time Annually**
Sampled Since:	**April 2016**
Material Screened:	**Bedrock**
Well Condition:	**good**
Sampling Method:	**Grab**

Chemical Summary

	2019				Historical (1/1/1980 - 12/31/2019)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)		353	372		300	to 434	350	± 44	3
pH (STU)		7	7.2		6.9	to 7.2	7	± 0.1	3
Temperature (Deg C)		9.6	↑ 12.8		8.3	to 9.7	9.1	± 0.42	3
Eh (mV)		↑ 420	↓ 267		302	to 381	340	± 23	3
Dissolved Oxygen (mg/L)		↓ 6.2	7		6.4	to 8.6	7.4	± 0.64	3
Arsenic (mg/L)		0.005 U	0.005 U		0.005 U	to 0.005 U	0.005	± 4E-11	3
Calcium (mg/L)		50	43		37	to 51	42	± 4.5	3
Iron (mg/L)		0.05 U	0.05 U		0.05 U	to 0.05 U	0.05	± 0	3
Magnesium (mg/L)		5.6	5.3		4.7	to 6.2	5.4	± 0.43	3
Manganese (mg/L)		0.05 U	0.05 U		0.05 U	to 0.05 U	0.05	± 0	3
Potassium (mg/L)		0.9	0.7		0.6	to 0.9	0.8	± 0.1	3
Sodium (mg/L)		↑ 14	13		8.3	to 13	10	± 1.4	3
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U		0.25 U	to 0.5 U	0.42	± 0.08	3
Nitrite/Nitrate - (N) (mg/L)		0.42	↑ 0.65		0.2	to 0.57	0.4	± 0.11	3
Total Dissolved Solids (mg/L)		↑ 230	218		174	to 221	200	± 14	3
Total Suspended Solids (mg/L)		2.5 U	2.5 U		2.5 U	to 4 U	3.1	± 0.47	3
Sulfate (mg/L)		19	18		14	to 43	24	± 9.3	3
Bicarbonate (CaCO3) (mg/L)		110	120		93	to 120	110	± 7.9	3
Organic Carbon (mg/L)		2 U	2 U		2 U	to 2 U	2	± 0	3
Chloride (mg/L)		↑ 29	↑ 30		19.5	to 23	22	± 1.2	3
Bromide (mg/L)		0.1 U	0.1 U		0.1 U	to 0.5 U	0.37	± 0.13	3
Turbidity (field) (NTU)		2.1	↑ 2.8		0.5	to 2.1	1.2	± 0.47	3

underlined/bold - values exceed a regulatory standard listed below.

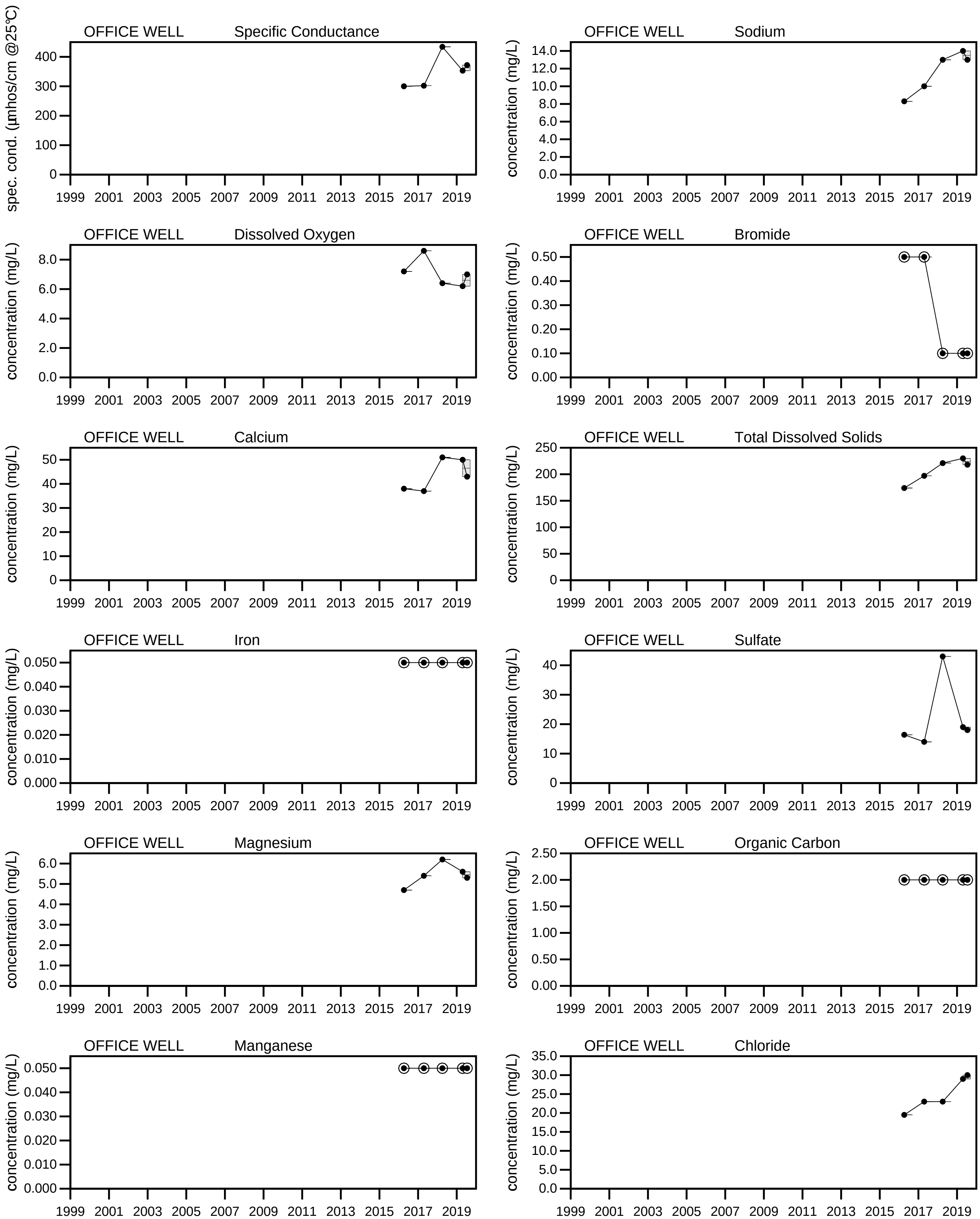
Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019



LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL

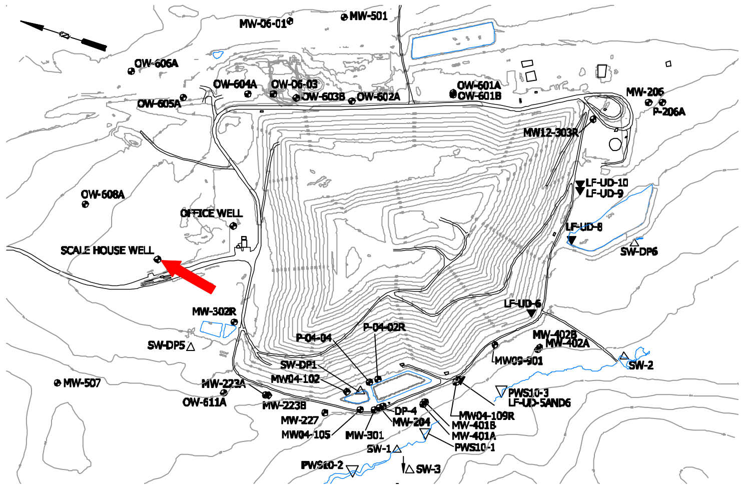
Juniper Ridge Landfill

OFFICE WELL

Sevee & Maher Engineers, Inc.

Well Description

Open borehole bedrock groundwater supply well for scale house.



Screen Interval:	**45 ft. to 325 ft.**
Sampled:	**1 Time Annually**
Sampled Since:	**April 2016**
Material Screened:	**Bedrock**
Well Condition:	**good**
Sampling Method:	**Grab**

Chemical Summary

Indicator Parameters	2019 Q1	2019 Q2	2019 Q3	2019 Q4	Historical (1/1/1980 - 12/31/2019) Min	Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)		↓480	↓540		545	to 585	570	± 13	3
pH (STU)		7.1	7		7	to 7.2	7.1	± 0.06	3
Temperature (Deg C)		7.6	↑18.5		6.1	to 8.1	7.1	± 0.58	3
Eh (mV)		↑420	↓269		276	to 397	350	± 38	3
Dissolved Oxygen (mg/L)		6.1	7.1		5.6	to 8.2	6.9	± 0.75	3
Arsenic (mg/L)		0.005 U	0.005 U		0.005 U	to 0.005	0.005	± 4E-11	3
Calcium (mg/L)		↓59	64		64	to 69.8	66	± 1.9	3
Iron (mg/L)		0.09	0.05 U		0.05 U	to 0.22	0.11	± 0.06	3
Magnesium (mg/L)		↓8.2	8.8		8.5	to 9.6	8.9	± 0.34	3
Manganese (mg/L)		0.05 U	0.05 U		0.05 U	to 0.05 U	0.05	± 0	3
Potassium (mg/L)		1.4	1.5		1.3	to 1.5	1.4	± 0.07	3
Sodium (mg/L)		↑<u>**25**</u>	↑<u>**26**</u>		18.8	to 23	21	± 1.2	3
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U		0.25 U	to 0.7	0.48	± 0.13	3
Nitrite/Nitrate - (N) (mg/L)		0.47	0.62		0.2	to 0.65	0.48	± 0.14	3
Total Dissolved Solids (mg/L)		310	329		309	to 360	340	± 15	3
Total Suspended Solids (mg/L)		2.5 U	2.5 U		2.5 U	to 4	3	± 0.5	3
Sulfate (mg/L)		↑24	↑21		7.6	to 15.2	13	± 2.5	3
Bicarbonate (CaCO3) (mg/L)		130	130		130	to 140	130	± 3	3
Organic Carbon (mg/L)		2 U	2 U		2 U	to 2 U	2	± 0	3
Chloride (mg/L)		60	75		58	to 75.6	69	± 5.6	3
Bromide (mg/L)		↓0.2 U	↓0.2 U		0.3 U	to 0.5 U	0.43	± 0.07	3
Turbidity (field) (NTU)		↑4.3	1.5		0.7	to 4	1.8	± 1.1	3

<u>**underlined/bold**</u> - values exceed a regulatory standard listed below.

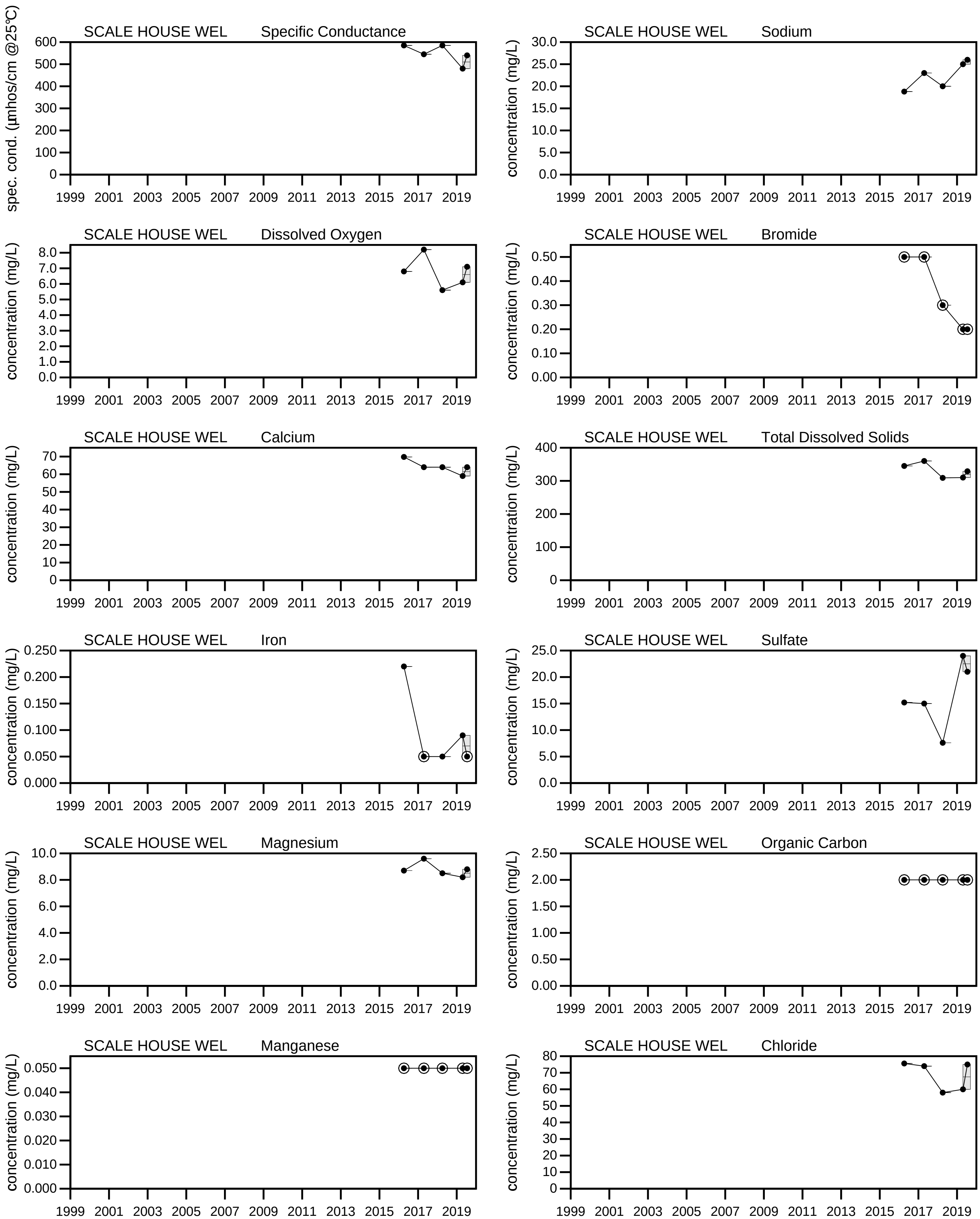
Applicable Limits:
Sodium MEG16=20 mg/L, Manganese MEG16=0.3 mg/L, Iron MEG16=5 mg/L, Arsenic MEG16=0.01 mg/L, MCL=0.01 mg/L

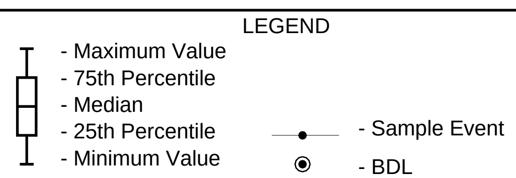
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= 4 - 2019 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2019





Juniper Ridge Landfill

SCALE HOUSE WELL

Sevee & Maher Engineers, Inc.

APPENDIX F

MANN-KENDALL TREND ANALYSIS RESULTS

SME
SEVEE & MAHER
ENGINEERS

Summary of Mann-Kendall Trend Analysis
95% Confidence (alpha=0.05)
Juniper Ridge Landfill 2019

	Increasing Trends		Decreasing Trends		No Trends	
LOCATION	3 Year	5 Year	3 Year	5 Year	3 Year	5 Year
DP-4	Insufficient Data		Insufficient Data		Insufficient Data	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, Well Depth, TURB (fld)
LF-COMP	ALK (fld)				Spec Cond, pH, Temp, Eh, DO, TURB (fld)	Spec Cond, pH, Temp, Eh, DO, ALK (fld), TURB (fld)
LF-UD-1		Spec Cond, DO		Temp, Flow Rate	Spec Cond, pH, Temp, Eh, DO, Flow Rate, ALK (fld), TURB (fld)	pH, Eh, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, Bromide, TURB (fld), NO2/NO3 - N
LF-UD-10	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LF-UD-2	TURB (fld)	Na, HCO3	Flow Rate	Flow Rate, As, Cl	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, Bromide, NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, Ca, Fe, Mg, Mn, K, P, TDS, TSS, SO4, ALK (fld), OC, Bromide, TURB (fld), NO2/NO3 - N
LF-UD-3A,B	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LF-UD-4		Insufficient Data	Flow Rate	Insufficient Data	Spec Cond, pH, Temp, Eh, DO, TURB (fld)	Insufficient Data
LF-UD-5and6	TURB (fld)		Flow Rate, SO4	Spec Cond, As, Ca, Mg, K, TDS, HCO3, ALK (fld), Cl	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, HCO3, ALK (fld), OC, Cl, Bromide, NO2/NO3 - N	pH, Temp, Eh, DO, Flow Rate, Fe, Mn, Na, P, TSS, SO4, OC, Bromide, TURB (fld), NO2/NO3 - N
LF-UD-6		Eh	Spec Cond, pH, Eh, Ca, Mg, HCO3, ALK (fld)	Spec Cond, pH, DO, As, Ca, Mg, Na, TDS, SO4, HCO3, ALK (fld), OC, Cl	Temp, DO, Flow Rate, As, Fe, Mn, K, Na, P, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Temp, Flow Rate, Fe, Mn, K, P, TSS, Bromide, TURB (fld), NO2/NO3 - N
LF-UD-7	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LF-UD-8				TDS	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, Flow Rate, As, Ca, Fe, Mg, Mn, K, Na, P, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N
LF-UD-9	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LP-COMP	DO, ALK (fld)				Spec Cond, pH, Temp, Eh, TURB (fld)	Spec Cond, pH, Temp, Eh, DO, ALK (fld), TURB (fld)
LP-UD-1	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LP-UD-2	TURB (fld)	Spec Cond, Eh	Spec Cond, Eh, Mg, Na, TDS, ALK (fld), Cl	pH, As, **(TSS)**, HCO3, ALK (fld), Cl	pH, Temp, DO, Flow Rate, As, Ca, Fe, Mn, K, P, TSS, SO4, HCO3, OC, Bromide, NO2/NO3 - N	Temp, DO, Flow Rate, Ca, Fe, Mg, Mn, K, Na, P, TDS, SO4, OC, Bromide, TURB (fld), NO2/NO3 - N
LT-C4LR	Mn, TSS	SO4	As, K, Na, HCO3	Ni, K, Na, TDS, HCO3	Spec Cond, pH, Temp, Eh, Ca, Fe, Mg, TKN, TDS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Se, Ag, Tl, V, Zn, Sn, TKN, NH3 - N, NO3 - N, TSS, S=, Hard(CaMg), ALK, OC, BOD5, COD, Cl, Bromide, CN, NO2/NO3 - N
MW04-102	SO4			Eh, As, **(TKN)**, **(TSS)**, Cl	Spec Cond, pH, Temp, Water Elev., MP Elev, Water Depth, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, DO, Well Depth, Ca, Fe, Mg, Mn, K, Na, TDS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
MW04-105	Insufficient Data		Insufficient Data		Insufficient Data	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, Well Depth, TURB (fld)
MW04-109R	Bromide	Mg, Mn, TURB (fld)	DO	As, **(TSS)**	Spec Cond, pH, Temp, MP Elev, Water Depth, Water Elev., Eh, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, MP Elev, Water Depth, Water Elev., Eh, DO, Well Depth, Ca, Fe, K, Na, TKN, TDS, SO4, HCO3, OC, Cl, Bromide, NO2/NO3 - N

MW-06-01	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
MW09-901	Bromide	Spec Cond, Ca, Mg, TDS, HCO3, Cl, Bromide	DO, K	pH, DO, As, Na, TKN, **(TSS)**	Spec Cond, pH, Temp, MP Elev, Water Elev., Water Depth, Eh, As, Ca, Fe, Mg, Mn, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, TURB (fld), NO2/NO3 - N	Temp, MP Elev, Water Elev., Water Depth, Eh, Well Depth, Fe, Mn, K, SO4, OC, TURB (fld), NO2/NO3 - N
MW12-303R		K, TKN, SO4, Bromide, TURB (fld)	Cl	As, Na	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Water Elev., MP Elev, Water Depth, Eh, DO, Well Depth, Ca, Fe, Mg, Mn, TDS, TSS, HCO3, OC, Cl, NO2/NO3 - N
MW-204	Insufficient Data		Insufficient Data		Insufficient Data	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, Well Depth, TURB (fld)
MW-206	TURB (fld)	Mg, TURB (fld)	DO	As, TKN	Spec Cond, pH, Temp, MP Elev, Water Depth, Water Elev., Eh, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, NO2/NO3 - N	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, Ca, Fe, Mn, K, Na, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, NO2/NO3 - N
MW-223A	SO4, HCO3, NO2/NO3 - N	Spec Cond, Ca, Mg, K, Na, TDS, SO4, HCO3, Bromide, TURB (fld), NO2/NO3 - N	DO	As, **(TSS)**	Spec Cond, pH, Temp, Water Depth, MP Elev, Water Elev., Eh, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, OC, Cl, Bromide, TURB (fld)	pH, Temp, MP Elev, Water Elev., Water Depth, Eh, DO, Well Depth, Fe, Mn, TKN, OC, Cl
MW-223B	Mg, TDS, HCO3, NO2/NO3 - N	Spec Cond, Ca, Mg, K, Na, TDS, SO4, HCO3, NO2/NO3 - N		As, TKN, **(TSS)**	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, As, Ca, Fe, Mn, K, Na, TKN, TSS, SO4, OC, Cl, Bromide, TURB (fld), Methane	pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, Well Depth, Fe, Mn, OC, Cl, Bromide, TURB (fld), Methane
MW-227	TURB (fld)	TURB (fld)		**(TKN)**, Cl	Spec Cond, pH, Temp, Water Elev., Water Depth, MP Elev, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, NO2/NO3 - N	Spec Cond, pH, Temp, MP Elev, Water Depth, Water Elev., Eh, DO, Well Depth, As, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, HCO3, OC, Bromide, NO2/NO3 - N
MW-301	Spec Cond, Mg, TDS, Cl	Spec Cond, Water Depth, Ca, Mg, K, TDS, Cl	As	Water Elev., As, **(TKN)**, TSS	pH, Temp, MP Elev, Water Depth, Water Elev., Eh, DO, Ca, Fe, Mn, K, Na, TKN, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N	pH, Temp, MP Elev, Eh, DO, Well Depth, Fe, Mn, Na, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
MW-302R		SO4, NO2/NO3 - N		As, **(TSS)**	Spec Cond, pH, Temp, MP Elev, Water Depth, Water Elev., Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, Well Depth, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, HCO3, OC, Cl, Bromide, TURB (fld)
MW-401A	Cl	Spec Cond, Eh, Mg		As, **(TKN)**, **(TSS)**	Spec Cond, pH, Temp, Water Depth, MP Elev, Water Elev., Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N	pH, Temp, Water Elev., MP Elev, Water Depth, DO, Well Depth, Ca, Fe, Mn, K, Na, TDS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N
MW-401B	Bromide		Na	As, Mn, **(TKN)**, Cl	Spec Cond, pH, Temp, Water Depth, MP Elev, Water Elev., Eh, DO, As, Ca, Fe, Mg, Mn, K, TKN, TDS, TSS, SO4, HCO3, OC, Cl, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Water Elev., Water Depth, MP Elev, Eh, DO, Well Depth, Ca, Fe, Mg, K, Na, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
MW-402A		Mg		pH, **(TKN)**, TSS, Cl	Spec Cond, pH, Temp, Water Depth, Water Elev., MP Elev, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, Temp, Water Elev., Water Depth, MP Elev, Eh, DO, Well Depth, As, Ca, Fe, Mn, K, Na, TDS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
MW-402B				As, **(TKN)**, Cl, **(NO2/NO3 - N)**	Spec Cond, pH, Temp, Water Elev., MP Elev, Water Depth, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, MP Elev, Water Depth, Water Elev., Eh, DO, Well Depth, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld)
MW-501	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
OFFICE WELL	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data

OW-06-03	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
OW-601A	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
OW-601B	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
OW-602A	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
OW-603B	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
OW-604A	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
P-04-02R	NO2/NO3 - N	pH, HCO3	Spec Cond, Ca, Mg, Na, TDS, SO4, Cl	Spec Cond, As, Ca, Na, **(TKN)**, TDS, TSS, SO4, Cl	pH, Temp, Water Elev., Water Depth, MP Elev, Eh, DO, As, Fe, Mn, K, TKN, TSS, HCO3, OC, Bromide, TURB (fld)	Temp, Water Depth, Water Elev., MP Elev, Eh, DO, Well Depth, Fe, Mg, Mn, K, OC, Bromide, TURB (fld), NO2/NO3 - N
P-04-04	Mg, Na, Cl, NO2/NO3 - N	Spec Cond, Ca, Mg, Na, TDS, Cl		As, **(TSS)**	Spec Cond, pH, Temp, MP Elev, Water Depth, Water Elev., Eh, DO, As, Ca, Fe, Mn, K, TKN, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld)	pH, Temp, MP Elev, Water Elev., Water Depth, Eh, DO, Well Depth, Fe, Mn, K, TKN, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
P-206A	TDS, HCO3	Spec Cond, Ca, Mg, K, Na, Cl		As, Mn	Spec Cond, pH, Temp, MP Elev, Water Elev., Water Depth, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	pH, Temp, Water Depth, MP Elev, Water Elev., Eh, DO, Well Depth, Fe, SO4, TURB (fld), NO2/NO3 - N
PWS10-1		Eh, DO, SO4	Na	As, Methane	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, P, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), Methane, NO2/NO3 - N	Spec Cond, pH, Temp, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N
PWS10-2	DO	Eh		As, TURB (fld)	Spec Cond, pH, Temp, Eh, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), Methane, NO2/NO3 - N	Spec Cond, pH, Temp, DO, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, Methane, NO2/NO3 - N
PWS10-3	DO	Eh		TURB (fld)	Spec Cond, pH, Temp, Eh, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), Methane, NO2/NO3 - N	Spec Cond, pH, Temp, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, Methane, NO2/NO3 - N
SCALE HOUSE WELL	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
SW-1		Ca, Mg, SO4		pH	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, BOD5, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, Temp, Eh, DO, As, Fe, Mn, K, Na, P, TDS, TSS, HCO3, OC, BOD5, Cl, Bromide, TURB (fld), NO2/NO3 - N
SW-2			pH	pH	Spec Cond, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, BOD5, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, BOD5, Cl, Bromide, TURB (fld), NO2/NO3 - N
SW-3				**(TSS)**, **(BOD5)**, **(NO2/NO3 – N)**	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, BOD5, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, SO4, HCO3, OC, Cl, Bromide, TURB (fld)
SW-DP1				Cl	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
SW-DP5				Na, Cl	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, P, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
SW-DP6			Na, Cl	HCO3, **(NO2/NO3 – N)**	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, P, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, P, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld)

3-yr trend: 1/1/2017 to 12/31/2019 5-yr trend: 1/1/2015 to 12/31/2019

Key

Ag = Silver	Al = Aluminum	ALK (fld) = Alkalinity (CaCO3) (field)
ALK = Alkalinity (CaCO3)	As = Arsenic	Ba = Barium
Be = Beryllium	BOD5 = Biochemical Oxygen Demand	Bromide = Bromide
Ca = Calcium	Cd = Cadmium	Cl = Chloride
CN = Cyanide	Co = Cobalt	COD = Chemical Oxygen Demand
Cr = Chromium	Cu = Copper	DO = Dissolved Oxygen
Eh = Eh	Fe = Iron	Flow Rate = Flow Rate
Hard(CaMg) = Ca-mg Hardness (CaCO3)	HCO3 = Bicarbonate (CaCO3)	Hg = Mercury
K = Potassium	Methane = Methane	Mg = Magnesium
Mn = Manganese	MP Elev = Water Level Reference Point	Na = Sodium
NH3 - N = Ammonia (N)	Ni = Nickel	NO2/NO3 - N = Nitrite/Nitrate - (N)
NO3 - N = Nitrate (N)	OC = Organic Carbon	P = Total Phosphorus
Pb = Lead	pH = pH	S= = Sulfide
Sb = Antimony	Se = Selenium	Sn = Tin
SO4 = Sulfate	Spec Cond = Specific Conductance	TANNIC = Tannin & Lignins (Tannic Acid)
TDS = Total Dissolved Solids	Temp = Temperature	TKN = Total Kjeldahl Nitrogen
Tl = Thallium	TSS = Total Suspended Solids	TURB (fld) = Turbidity (field)
V = Vanadium	Water Depth = Water Level Depth	Water Elev. = Water Level Elevation
Well Depth = Well Depth	Zn = Zinc	

- Values below the laboratory PQL (non-detects) are divided by 2. All other data qualifiers are ignored but any associated value is used.

- Samples collected for data quality control are not analyzed.

- Data sets with less than 5 data points are not analyzed.

- Data sets with a period shorter than the intended period of analysis (e.g. 3-yr analysis or 5-yr analysis) are not analyzed.

- Significant events in historical data can affect the distribution in a way that compromises the assumption of a monotonic data set. Events could include the cessation of filtering, a spill, changing sampling protocols or analytical method changes that alter the detection limit.

Note: Parameters in parentheses and bold text were excluded from SME's evaluation of the statistical screen due to all or most data values being non-detect with variable laboratory detection limits. These parameters were identified with statistically significant decreasing trends (95% confidence level) over the past five years, but are considered for the purposes of this analysis to have no discernible statistically significant trends.

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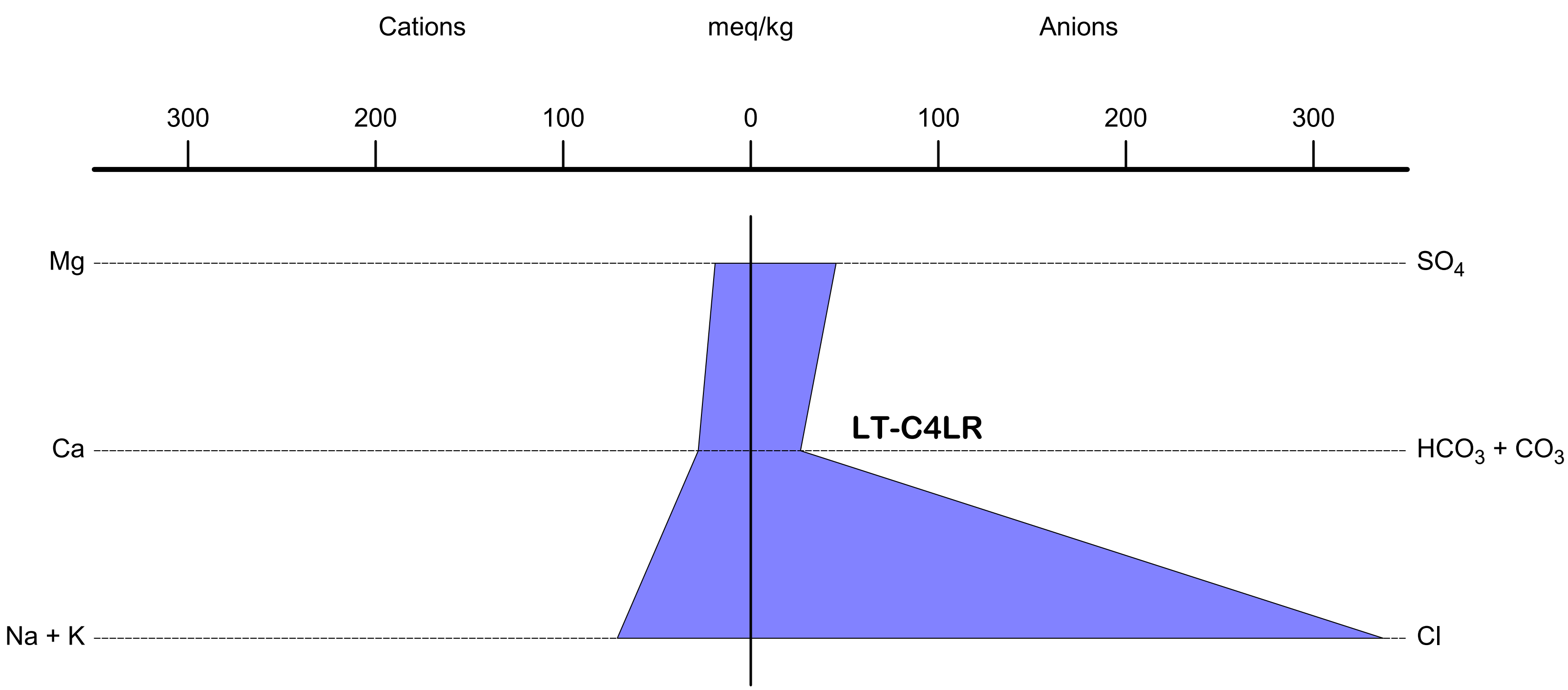
Hollander, M. and Wolfe, A.M Nonparameteric Statistical Methods, John Wiley Sons, 1999

APPENDIX G

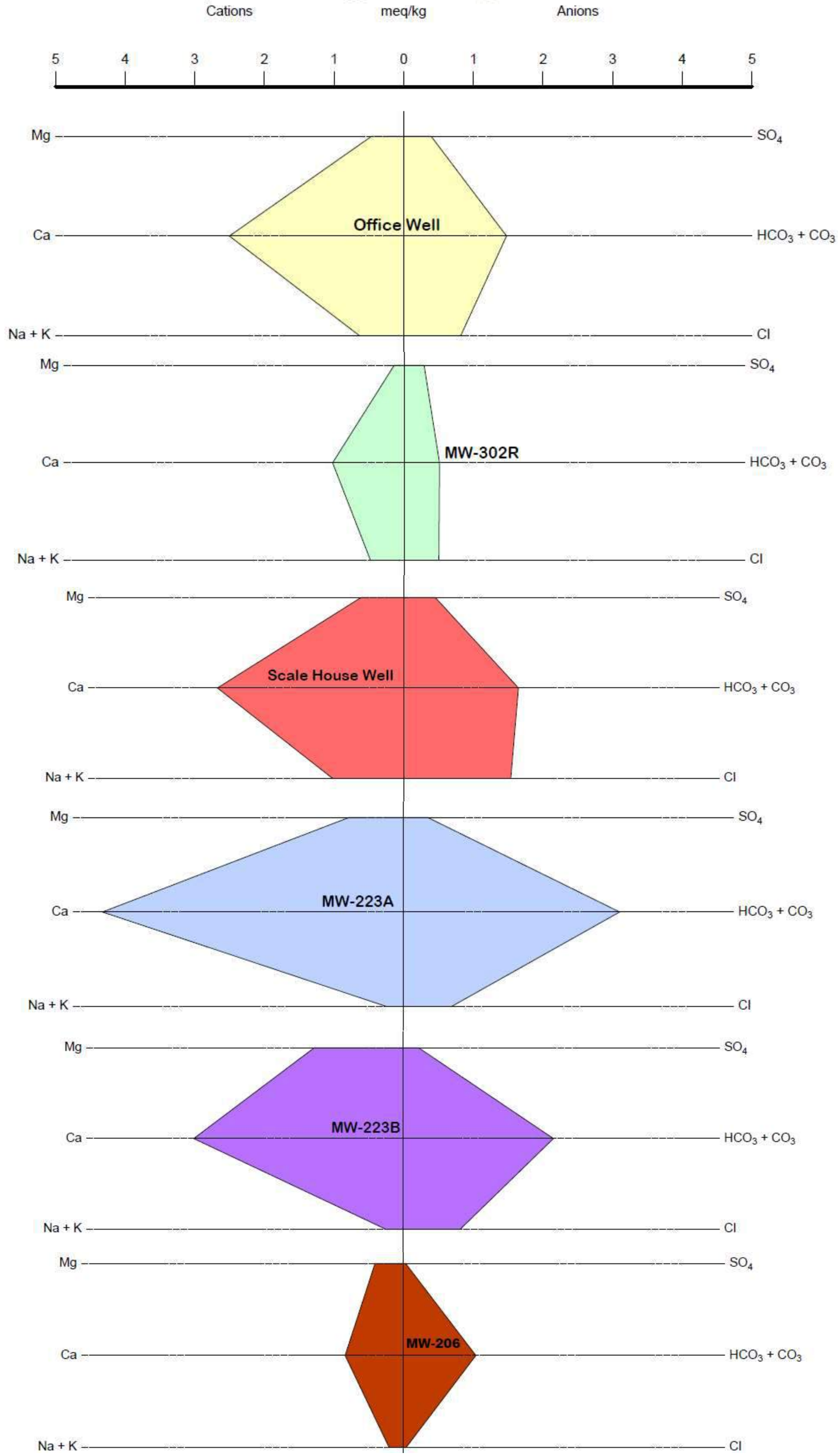
STIFF AND PIPER DIAGRAMS FOR SCALE HOUSE WELL, OFFICE WELL, MW-302R, MW-223A, MW-223B, AND LT-C4LR

SME
SEVEE & MAHER
ENGINEERS

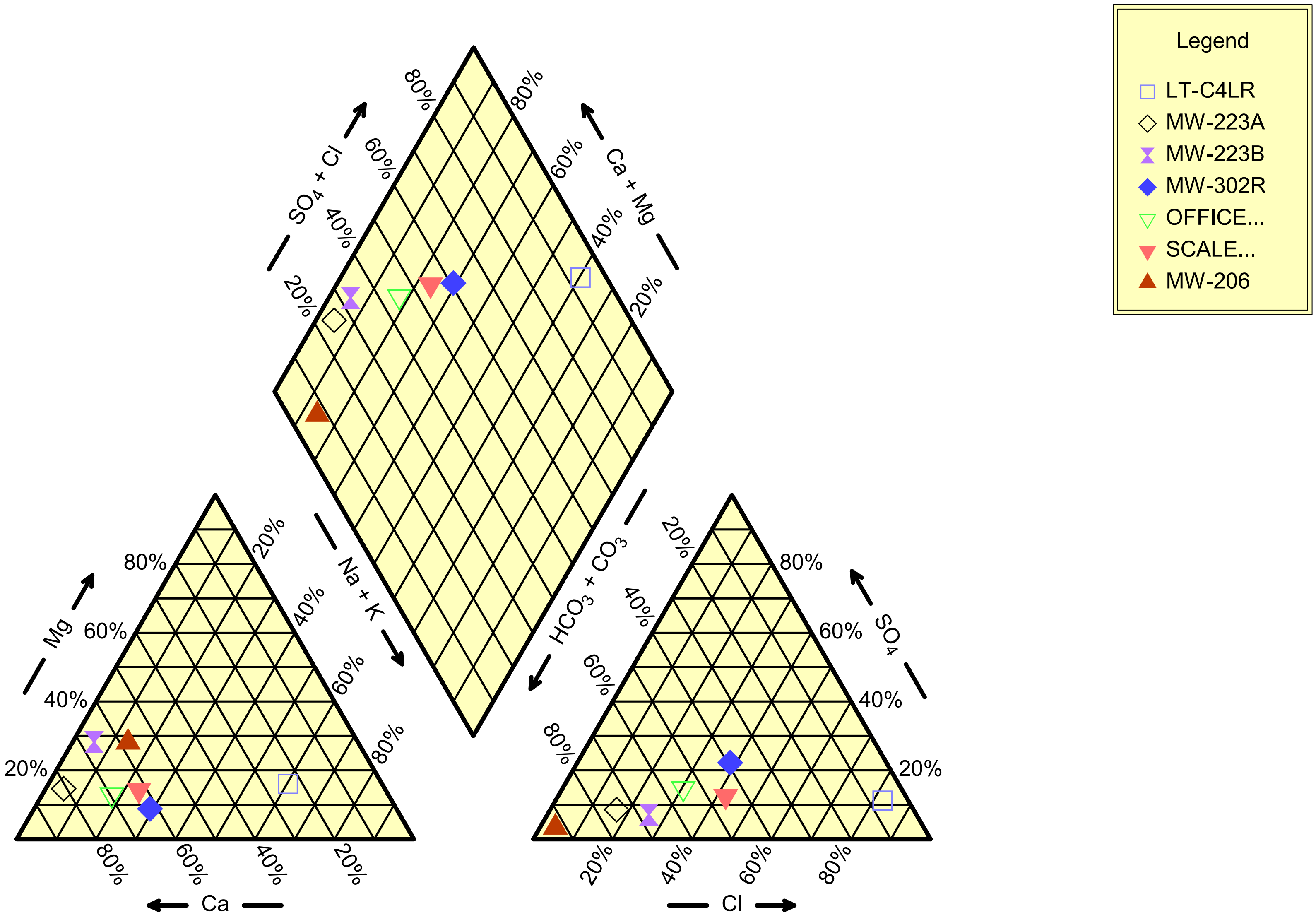
Stiff Diagram - April 2019



Stiff Diagram - April 2019



Piper Diagram - April 2019



APPENDIX H

2019 AND HISTORICAL GAS MEASUREMENT DATA

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(DP-4) Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.

DP-4

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/26/2010	0.1 US		0		19.8	0
7/19/2010	0.1 US		0		20.4	0
10/18/2010	0.1 US	0.1 US	0	0	21.2	0
4/25/2011	0.1 US	0.1 US	0	0	20.7	0
7/18/2011	0.1 US	0.1 US	0	0	20.3	0
10/24/2011	0.1 US	0.1 US	0	0	20.8	0
4/25/2012	0.1 US	0.1 US	0	0	20.4	0
7/25/2012	0.1 US	0.1 US	0	0	20.7	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.8	0
7/31/2013	0.1 US	0.1 US	0	0	20.5	0
10/30/2013	0.1 US	0.1 US	0	0	21.1	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.2	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/29/2015	0.1 US	0.1 US	0	0	21.5	0
7/14/2015	0.1 US	0.1 US	0	0	20.7	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/6/2016	0.1 US	0.1 US	0	0	19.5	0
7/25/2016	0.1 US	0.1 US	0	0	20.4	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/23/2017	0.1 US	0.1 US	0	0	20.7	0
4/3/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	20.5	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

LF-UD

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.1	0
10/19/2010	0.1 US	0.1 US	0	0	21	0
4/26/2011	0.1 US	0.1 US	0	0	20.8	0
7/19/2011	0.1 US	0.1 US	0	0	19.8	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/24/2012	0.1 US	0.1 US	0	0	20.2	0
10/23/2012	0.1 US	0.1 US	0	0	21.1	0
4/23/2013	0.1 US	0.1 US	0	0	20.6	0
7/30/2013	0.1 US	0.1 US	0	0	20.9	0
10/29/2013	0.1 US	0.1 US	0	0	20.5	0
4/22/2014	0.1 US	0.1 US	0	0	20.3	0
7/30/2014	0.1 US	0.1 US	0	0	20.5	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/28/2015	0.1 US	0.1 US	0	0	24.8	0

SUMMARY REPORT

Methane - H2S - Oxygen - CO2 - Report

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(LF-UD)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/14/2015	0.1 US	0.1 US	0	0	20.1	0
10/27/2015	0.1 US	0.1 US	0	0	22	0
4/5/2016	0.1 US	0.1 US	0	0	20.3	0
7/26/2016	0.1 US	0.1 US	0	0	20.7	0
10/25/2016	0.1 US	0.1 US	0	0	20.6	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	17.2	0
10/2/2018	0.1 US	0.1 US	0	0	20.9	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

LP-LD

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.6	0
7/19/2010	0.1 US		0		20.4	0
10/19/2010	0.1 US	0.1 US	0	0	21	0
4/26/2011	0.1 US	0.1 US	0	0	20.8	0
7/19/2011	0.1 US	0.1 US	0	0	19.9	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.3	0
7/24/2012	0.1 US	0.1 US	0	0	20.7	0
10/23/2012	0.1 US	0.1 US	0	0	20.9	0
4/23/2013	0.1 US	0.1 US	0	0	20.6	0
7/30/2013	0.1 US	0.1 US	0	0	20.6	0
10/29/2013	0.1 US	0.1 US	0	0	20.7	0
4/22/2014	0.1 US	0.1 US	0	0	20.3	0
7/30/2014	0.1 US	0.1 US	0	0	20.5	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/28/2015	0.1 US	0.1 US	0	0	22.1	0
7/14/2015	0.1 US	0.1 US	0	0	20.6	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/5/2016	0.1 US	0.1 US	0	0	20.3	0
7/26/2016	0.1 US	0.1 US	0	0	18.9	0
10/25/2016	0.1 US	0.1 US	0	0	20.6	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.7	0
4/3/2018	0.1 US	0.1 US	0	0	21.1	0
7/16/2018	0.1 US	0.1 US	0	0	20	0
10/2/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

LP-UD

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.1	0
7/21/2010	0.1 US		0		20.6	0

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(LP-UD)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
10/19/2010	0.1 US	0.1 US	0	0	21	0
4/26/2011	0.1 US	0.1 US	0	0	20.8	0
7/19/2011	0.1 US	0.1 US	0	0	20	0
10/26/2011	0.1 US	0.1 US	0	0	20.7	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/24/2012	0.1 US	0.1 US	0	0	20.7	0
10/23/2012	0.1 US	0.1 US	0	0	21.2	0
4/23/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.7	0
10/29/2013	0.1 US	0.1 US	0	0	20.8	0
4/22/2014	0.1 US	0.1 US	0	0	20.3	0
7/30/2014	0.1 US	0.1 US	0	0	20.5	0
10/21/2014	0.1 US	0.1 US	0	0	21.1	0
4/28/2015	0.1 US	0.1 US	0	0	22.1	0
7/14/2015	0.1 US	0.1 US	0	0	20.8	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/5/2016	0.1 US	0.1 US	0	0	20.3	0
7/26/2016	0.1 US	0.1 US	0	0	20.4	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21.1	0
7/16/2018	0.1 US	0.1 US	0	0	20	0
10/2/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

LT-C4L&LT-C4LR

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/30/2013	0.1 US	0.1 US	0	0	20.6	0
10/29/2013	0.1 US	0.1 US	0	0	21.4	0
4/21/2014	0.1 US	0.1 US	0	0	20.8	0
7/30/2014	0.1 US	0.1 US	0	0	20.1	0
10/21/2014	0.1 US	0.1 US	0	0	20.8	0
4/29/2015	0.1 US	0.1 US	0	0	22.4	0
7/14/2015	0.1 US	0.1 US	0	0	20.6	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/6/2016	0.1 US	0.1 US	0	0	19.6	0
7/26/2016	0.1 US	0.1 US	0	0	20.3	0
10/25/2016	0.1 US	0.1 US	0	0	20.6	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.7	0
4/3/2018	0.1 US	0.1 US	0	0	20.9	0
7/16/2018	0.1 US	0.1 US	0	0	20.1	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

(MW04-102) Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW04-102						
4/27/2010	0.1 US		0		20.8	0
7/21/2010	0.1 US		0		20.1	0
10/19/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	21.1	0
7/19/2011	0.1 US	0.1 US	0	0	20.2	0
10/25/2011	0.1 US	0.1 US	0	0	21	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.2	0
10/22/2012	0.1 US	0.1 US	0	0	21.2	0
4/23/2013	0.1 US	0.1 US	0	0	20.8	0
7/31/2013	0.1 US	0.1 US	0	0	20.7	0
10/28/2013	0.1 US	0.1 US	0	0	20.8	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.5	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/29/2015	0.1 US	0.1 US	0	0	22.4	0
7/14/2015	0.1 US	0.1 US	0	0	20.8	0
10/27/2015	0.1 US	0.1 US	0	0	21.5	0
4/5/2016	0.1 US	0.1 US	0	0	20.6	0
7/26/2016	0.1 US	0.1 US	0	0	20.4	0
10/25/2016	0.1 US	0.1 US	0	0	20.6	0
4/19/2017	0.1 US	0.1 US	0	0	20.2	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/25/2017	0.1 US	0.1 US	0	0	20.7	0
4/3/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	20.5	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0
MW04-105						
4/27/2010	0.1 US		0		20.7	0
7/19/2010	0.1 US		0		20.5	0
10/18/2010	0.1 US	0.1 US	0	0	21.2	0
4/26/2011	0.1 US	0.1 US	0	0	20.9	0
7/18/2011	0.1 US	0.1 US	0	0	20.2	0
10/25/2011	0.1 US	0.1 US	0	0	21	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.2	0
10/22/2012	0.1 US	0.1 US	0	0	21.1	0
4/24/2013	0.1 US	0.1 US	0	0	20.8	0
7/30/2013	0.1 US	0.1 US	0	0	20.5	0
10/29/2013	0.1 US	0.1 US	0	0	21.5	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.2	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/28/2015	0.1 US	0.1 US	0	0	20.9	0

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(MW04-105)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/14/2015	0.1 US	0.1 US	0	0	20.6	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/5/2016	0.1 US	0.1 US	0	0	20.6	0
7/26/2016	0.1 US	0.1 US	0	0	20.5	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/19/2017	0.1 US	0.1 US	0	0	20.4	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/23/2017	0.1 US	0.1 US	0	0	20.7	0
4/3/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	20.6	0
10/1/2018	0.1 US	0.1 US	0	0	21	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW04-109R

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.8	0
7/20/2010	0.1 US		0		20.4	0
10/19/2010	0.1 US	0.1 US	0	0	21.3	0
4/26/2011	0.1 US	0.1 US	0	0	21	0
7/19/2011	0.1 US	0.1 US	0	0	20.4	0
10/25/2011	0.1 US	0.1 US	0	0	20.3	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.4	0
10/23/2012	0.1 US	0.1 US	0	0	21.2	0
4/23/2013	0.1 US	0.1 US	0	0	20.8	0
7/30/2013	0.1 US	0.1 US	0	0	20.4	0
10/29/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.5	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/28/2015	0.1 US	0.1 US	0	0	20.7	0
7/14/2015	0.1 US	0.1 US	0	0	20.6	0
10/27/2015	0.1 US	0.1 US	0	0	21.5	0
4/5/2016	0.1 US	0.1 US	0	0	20.6	0
7/26/2016	0.1 US	0.1 US	0	0	20.5	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21.1	0
7/16/2018	0.1 US	0.1 US	0	0	20.4	0
10/2/2018	0.1 US	0.1 US	0	0	21	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-06-01

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

(MW09-901) Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW09-901						
4/27/2010	0.1 US		0		20.7	0
7/20/2010	0.1 US		0		20.3	0
10/19/2010	0.1 US	0.1 US	0	0	21.3	0
4/26/2011	0.1 US	0.1 US	0	0	21	0
7/19/2011	0.1 US	0.1 US	0	0	20.2	0
10/25/2011	0.1 US	0.1 US	0	0	21	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.3	0
10/23/2012	0.1 US	0.1 US	0	0	21.1	0
4/23/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.8	0
10/29/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.7	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/28/2015	0.1 US	0.1 US	0	0	21.2	0
7/14/2015	0.1 US	0.1 US	0	0	20.6	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/5/2016	0.1 US	0.1 US	0	0	20.6	0
7/26/2016	0.1 US	0.1 US	0	0	20	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/18/2017	0.1 US	0.1 US	0	0	20.8	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21.1	0
7/16/2018	0.1 US	0.1 US	0	0	20.4	0
10/2/2018	0.1 US	0.1 US	0	0	21	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0
MW12-303R						
10/22/2012	0.1 US	0.1 US	0	0	21.1	0
4/22/2013	0.1 US	0.1 US	0	0	20.6	0
7/29/2013	0.1 US	0.1 US	0	0	20.6	0
10/28/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/29/2014	0.1 US	0.1 US	0	0	20.2	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	21.9	0
7/13/2015	0.1 US	0.1 US	0	0	21	0
10/26/2015	0.1 US	0.1 US	0	0	21	0
4/4/2016	0.1 US	0.1 US	0	0	20.6	0
7/25/2016	0.1 US	0.1 US	0	0	20.4	0
10/24/2016	0.1 US	0.1 US	0	0	20.6	0
4/17/2017	0.1 US	0.1 US	0	0	21.3	0
7/24/2017	0.1 US	0.1 US	0	0	20.9	0
10/23/2017	0.1 US	0.1 US	0	0	20.7	0

(MW12-303R)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/2/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	20.9	0
10/1/2018	0.1 US	0.1 US	0	0	20.9	0
4/22/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-204

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.5	0
7/19/2010	0.1 US		0		20.4	0
10/19/2010	0.1 US	0.1 US	0	0	21.2	0
4/27/2011	0.1 US	0.1 US	0	0	20.9	0
7/19/2011	0.1 US	0.1 US	0	0	20.4	0
10/25/2011	0.1 US	0.1 US	0	0	20	0
4/25/2012	0.1 US	0.1 US	0	0	20.2	0
7/23/2012	0.1 US	0.1 US	0	0	20.4	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.7	0
7/31/2013	0.1 US	0.1 US	0	0	20.6	0
10/30/2013	0.1 US	0.1 US	0	0	21.1	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.3	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/29/2015	0.1 US	0.1 US	0	0	21.4	0
7/14/2015	0.1 US	0.1 US	0	0	20.8	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/6/2016	0.1 US	0.1 US	0	0	19.5	0
7/26/2016	0.1 US	0.1 US	0	0	20.4	0
10/25/2016	0.1 US	0.1 US	0	0	20.6	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.4	0
10/23/2017	0.1 US	0.1 US	0	0	20.7	0
4/3/2018	0.1 US	0.1 US	0	0	20.9	0
7/16/2018	0.1 US	0.1 US	0	0	20.6	0
10/1/2018	0.1 US	0.1 US	0	0	19.8	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-206

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/26/2010	0.1 US		0		20.4	0
7/19/2010	0.1 US		0		20	0
10/18/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	20.4	0
7/18/2011	0.1 US	0.1 US	0	0	20.5	0
10/24/2011	0.1 US	0.1 US	0	0	20.6	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.2	0
10/22/2012	0.1 US	0.1 US	0	0	21.1	0
4/22/2013	0.1 US	0.1 US	0	0	20.5	0

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(MW-206)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/31/2013	0.1 US	0.1 US	0	0	20.6	0
10/28/2013	0.1 US	0.1 US	0	0	20.8	0
4/21/2014	0.1 US	0.1 US	0	0	20.6	0
7/29/2014	0.1 US	0.1 US	0	0	20.2	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	21.9	0
7/13/2015	0.1 US	0.1 US	0	0	21	0
10/26/2015	0.1 US	0.1 US	0	0	21	0
4/4/2016	0.1 US	0.1 US	0	0	20.8	0
7/26/2016	0.1 US	0.1 US	0	0	20.5	0
10/24/2016	0.1 US	0.1 US	0	0	20.7	0
4/17/2017	0.1 US	0.1 US	0	0	21.2	0
7/24/2017	0.1 US	0.1 US	0	0	20.9	0
10/23/2017	0.1 US	0.1 US	0	0	20.7	0
4/2/2018	0.1 US	0.1 US	0	0	20.8	0
7/16/2018	0.1 US	0.1 US	0	0	20.3	0
10/1/2018	0.1 US	0.1 US	0	0	20.9	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-223A

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.7	0
7/20/2010	0.1 US		0		20.4	0
10/19/2010	0.1 US	0.1 US	0	0	21.2	0
4/26/2011	0.1 US	0.1 US	0	0	21.1	0
7/19/2011	0.1 US	0.1 US	0	0	20.1	0
10/25/2011	0.1 US	0.1 US	0	0	20.9	0
4/25/2012	0.1 US	0.1 US	0	0	20.2	0
7/23/2012	0.1 US	0.1 US	0	0	20.1	0
10/23/2012	0.1 US	0.1 US	0	0	21.3	0
4/23/2013	0.1 US	0.1 US	0	0	20.8	0
7/30/2013	0.1 US	0.1 US	0	0	19.9	0
10/29/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.1	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/28/2015	0.1 US	0.1 US	0	0	20.7	0
7/14/2015	0.1 US	0.1 US	0	0	20.6	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/5/2016	0.1 US	0.1 US	0	0	20.6	0
7/26/2016	0.1 US	0.1 US	0	0	20	0
10/25/2016	0.1 US	0.1 US	0	0	20.6	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21.1	0
7/16/2018	0.1 US	0.1 US	0	0	20.2	0
10/2/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0

(MW-223A)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-223B

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.7	0
7/20/2010	0.1 US		0		20.4	0
10/19/2010	0.1 US	0.1 US	0	0	21.2	0
4/26/2011	0.1 US	0.1 US	0	0	21.1	0
7/19/2011	0.1 US	0.1 US	0	0	20	0
10/25/2011	0.1 US	0.1 US	0	0	20.9	0
4/25/2012	0.1 US	0.1 US	0	0	20.2	0
7/23/2012	0.1 US	0.1 US	0	0	20.1	0
10/23/2012	0.1 US	0.1 US	0	0	21.3	0
4/23/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20	0
10/29/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.1	0
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/28/2015	0.1 US	0.1 US	0	0	20.7	0
7/14/2015	0.1 US	0.1 US	0	0	20.6	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/5/2016	0.1 US	0.1 US	0	0	20.6	0
7/26/2016	0.1 US	0.1 US	0	0	20.3	0
10/25/2016	0.1 US	0.1 US	0	0	20.6	0
4/18/2017	0.1 US	0.1 US	0	0	21	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21.1	0
7/16/2018	0.1 US	0.1 US	0	0	20.2	0
10/2/2018	0.1 US	0.1 US	0	0	21.2	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-227

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.8	0
7/20/2010	0.1 US		0		20.3	0
10/19/2010	0.1 US	0.1 US	0	0	21.3	0
4/26/2011	0.1 US	0.1 US	0	0	20.9	0
7/19/2011	0.1 US	0.1 US	0	0	20.1	0
10/25/2011	0.1 US	0.1 US	0	0	20.8	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.1	0
10/23/2012	0.1 US	0.1 US	0	0	21.2	0
4/23/2013	0.1 US	0.1 US	0	0	20.8	0
7/30/2013	0.1 US	0.1 US	0	0	19.8	0
10/29/2013	0.1 US	0.1 US	0	0	21.4	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.1	0

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Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
10/21/2014	0.1 US	0.1 US	0	0	20.9	0
4/28/2015	0.1 US	0.1 US	0	0	20.8	0
7/14/2015	0.1 US	0.1 US	0	0	20.7	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/5/2016	0.1 US	0.1 US	0	0	20.7	0
7/26/2016	0.1 US	0.1 US	0	0	20.3	0
10/25/2016	0.1 US	0.1 US	0	0	20.6	0
4/18/2017	0.1 US	0.1 US	0	0	20.9	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	20.3	0
10/2/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-301

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/26/2010	0.1 US		0		19.8	0
7/19/2010	0.1 US		0		20.4	0
10/19/2010	0.1 US	0.1 US	0	0	21.2	0
4/27/2011	0.1 US	0.1 US	0	0	20.9	0
7/20/2011	0.1 US	0.1 US	0	0	20.1	0
10/25/2011	0.1 US	0.1 US	0	0	20.1	0
4/25/2012	0.1 US	0.1 US	0	0	20.2	0
7/25/2012	0.1 US	0.1 US	0	0	20.7	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/22/2013	0.1 US	0.1 US	0	0	20.8	0
7/31/2013	0.1 US	0.1 US	0	0	20.5	0
10/30/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.3	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/29/2015	0.1 US	0.1 US	0	0	21	0
7/14/2015	0.1 US	0.1 US	0	0	20.6	0
10/27/2015	0.1 US	0.1 US	0	0	21.5	0
4/6/2016	0.1 US	0.1 US	0	0	19.6	0
7/27/2016	0.1 US	0.1 US	0	0	18.7	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/19/2017	0.1 US	0.1 US	0	0	20.1	0
7/25/2017	0.1 US	0.1 US	0	0	20.9	0
10/25/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	20.6	0
10/1/2018	0.1 US	0.1 US	0	0	21.2	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-302R

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(MW-302R)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/26/2010	0.1 US		0		20.2	0
7/19/2010	0.1 US		0		20.4	0
10/18/2010	0.1 US	0.1 US	0	0	21	0
4/25/2011	0.1 US	0.1 US	0	0	20.4	0
7/18/2011	0.1 US	0.1 US	0	0	20.5	0
10/24/2011	0.1 US	0.1 US	0	0	20.5	0
4/25/2012	0.1 US	0.1 US	0	0	20.2	0
7/23/2012	0.1 US	0.1 US	0	0	20.3	0
10/22/2012	0.1 US	0.1 US	0	0	21.2	0
4/22/2013	0.1 US	0.1 US	0	0	20.5	0
7/31/2013	0.1 US	0.1 US	0	0	20.7	0
10/28/2013	0.1 US	0.1 US	0	0	21	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/29/2014	0.1 US	0.1 US	0	0	20.3	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	21.9	0
7/13/2015	0.1 US	0.1 US	0	0	20.9	0
10/26/2015	0.1 US	0.1 US	0	0	21.3	0
4/4/2016	0.1 US	0.1 US	0	0	20.6	0
7/25/2016	0.1 US	0.1 US	0	0	20.5	0
10/24/2016	0.1 US	0.1 US	0	0	20.6	0
4/17/2017	0.1 US	0.1 US	0	0	21.3	0
7/24/2017	0.1 US	0.1 US	0	0	20.9	0
10/23/2017	0.1 US	0.1 US	0	0	20.7	0
4/2/2018	0.1 US	0.1 US	0	0	20.8	0
7/16/2018	0.1 US	0.1 US	0	0	20.5	0
10/1/2018	0.1 US	0.1 US	0	0	19.8	0
4/22/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0
MW-401A						
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	20.5	0
7/18/2011	0.1 US	0.1 US	0	0	20.1	0
10/24/2011	0.1 US	0.1 US	0	0	20.9	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.3	0
10/22/2012	0.1 US	0.1 US	0	0	21.2	0
4/22/2013	0.1 US	0.1 US	0	0	20.5	0
7/29/2013	0.1 US	0.1 US	0	0	20.4	0
10/28/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.5	0
7/29/2014	0.1 US	0.1 US	0	0	20.4	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	20.9	0
7/13/2015	0.1 US	0.1 US	0	0	20.9	0
10/26/2015	0.1 US	0.1 US	0	0	21.3	0

(MW-401A)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/6/2016	0.1 US	0.1 US	0	0	19.5	0
7/25/2016	0.1 US	0.1 US	0	0	20.2	0
10/24/2016	0.1 US	0.1 US	0	0	20.6	0
4/17/2017	0.1 US	0.1 US	0	0	21.2	0
7/24/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/2/2018	0.1 US	0.1 US	0	0	20.9	0
7/16/2018	0.1 US	0.1 US	0	0	20.4	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-401B

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	20.5	0
7/18/2011	0.1 US	0.1 US	0	0	20.1	0
10/24/2011	0.1 US	0.1 US	0	0	20.9	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.4	0
10/22/2012	0.1 US	0.1 US	0	0	21.2	0
4/22/2013	0.1 US	0.1 US	0	0	20.5	0
7/29/2013	0.1 US	0.1 US	0	0	20.4	0
10/28/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.5	0
7/29/2014	0.1 US	0.1 US	0	0	20.4	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	20.9	0
7/13/2015	0.1 US	0.1 US	0	0	20.9	0
10/26/2015	0.1 US	0.1 US	0	0	21.3	0
4/6/2016	0.1 US	0.1 US	0	0	19.5	0
7/25/2016	0.1 US	0.1 US	0	0	20.3	0
10/24/2016	0.1 US	0.1 US	0	0	20.6	0
4/17/2017	0.1 US	0.1 US	0	0	21.2	0
7/24/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.7	0
4/2/2018	0.1 US	0.1 US	0	0	20.9	0
7/16/2018	0.1 US	0.1 US	0	0	20.4	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-402A

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.3	0
10/20/2010	0.1 US	0.1 US	0	0	21.2	0
4/27/2011	0.1 US	0.1 US	0	0	20.8	0

(MW-402A)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/20/2011	0.1 US	0.1 US	0	0	20.2	0
10/26/2011	0.1 US	0.1 US	0	0	20.8	0
4/24/2012	0.1 US	0.1 US	0	0	20.2	0
7/25/2012	0.1 US	0.1 US	0	0	20.9	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/22/2013	0.1 US	0.1 US	0	0	20.9	0
7/31/2013	0.1 US	0.1 US	0	0	20.9	0
10/30/2013	0.1 US	0.1 US	0	0	20.8	0
4/21/2014	0.1 US	0.1 US	0	0	20.6	0
7/30/2014	0.1 US	0.1 US	0	0	20.7	0
10/22/2014	0.1 US	0.1 US	0	0	21	0
4/29/2015	0.1 US	0.1 US	0	0	21.3	0
7/15/2015	0.1 US	0.1 US	0	0	20.9	0
10/28/2015	0.1 US	0.1 US	0	0	21.9	0
4/6/2016	0.1 US	0.1 US	0	0	20	0
7/27/2016	0.1 US	0.1 US	0	0	19.9	0
10/26/2016	0.1 US	0.1 US	0	0	20.7	0
4/19/2017	0.1 US	0.1 US	0	0	21.2	0
7/26/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/4/2018	0.1 US	0.1 US	0	0	20.5	0
7/16/2018	0.1 US	0.1 US	0	0	20.5	0
10/1/2018	0.1 US	0.1 US	0	0	21	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-402B

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.3	0
10/20/2010	0.1 US	0.1 US	0	0	21.2	0
4/27/2011	0.1 US	0.1 US	0	0	20.8	0
7/20/2011	0.1 US	0.1 US	0	0	20.2	0
10/26/2011	0.1 US	0.1 US	0	0	20.8	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.9	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/22/2013	0.1 US	0.1 US	0	0	20.9	0
7/31/2013	0.1 US	0.1 US	0	0	20.9	0
10/30/2013	0.1 US	0.1 US	0	0	20.8	0
4/21/2014	0.1 US	0.1 US	0	0	20.6	0
7/30/2014	0.1 US	0.1 US	0	0	20.7	0
10/22/2014	0.1 US	0.1 US	0	0	21	0
4/29/2015	0.1 US	0.1 US	0	0	21.3	0
7/15/2015	0.1 US	0.1 US	0	0	20.9	0
10/28/2015	0.1 US	0.1 US	0	0	21.9	0
4/6/2016	0.1 US	0.1 US	0	0	20	0
7/27/2016	0.1 US	0.1 US	0	0	19.9	0
10/26/2016	0.1 US	0.1 US	0	0	20.7	0
4/19/2017	0.1 US	0.1 US	0	0	19.9	0

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(MW-402B)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/26/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/4/2018	0.1 US	0.1 US	0	0	20.6	0
7/16/2018	0.1 US	0.1 US	0	0	20.5	0
10/1/2018	0.1 US	0.1 US	0	0	21	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

MW-501

4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

OW-06-03

4/23/2019	0.1 US	0.1 US	0	0	15.6	0
7/15/2019	0.1 US	0.1 US	0	0	20.4	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

OW-601A

4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

OW-601B

4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

OW-602A

4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

OW-603B

4/23/2019	0.1 US	0.1 US	0	0	8.6	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

OW-604A

4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

P-04-02R

7/15/2015	0.1 US	0.1 US	0	0	20.8	0
10/28/2015	0.1 US	0.1 US	0	0	21.9	0
4/6/2016	0.1 US	0.1 US	0	0	21	0
7/27/2016	0.1 US	0.1 US	0	0	19.6	0
10/26/2016	0.1 US	0.1 US	0	0	20.8	0
4/19/2017	0.1 US	0.1 US	0	0	20.2	0
7/26/2017	0.1 US	0.1 US	0	0	20.9	0

(P-04-02R)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
10/25/2017	0.1 US	0.1 US	0	0	20.7	0
4/3/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	20.3	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/22/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

P-04-04

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/26/2010	0.1 US		0		20	0
7/21/2010	0.1 US		0		20.2	0
10/20/2010	0.1 US	0.1 US	0	0	21.3	0
4/27/2011	0.1 US	0.1 US	0	0	20.8	0
7/20/2011	0.1 US	0.1 US	0	0	19.9	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/25/2012	0.1 US	0.1 US	0	0	20.4	0
7/25/2012	0.1 US	0.1 US	0	0	20.9	0
10/24/2012	0.1 US	0.1 US	0	0	21	0
4/24/2013	0.1 US	0.1 US	0	0	20.8	0
7/31/2013	0.1 US	0.1 US	0	0	20.4	0
10/30/2013	0.1 US	0.1 US	0	0	20.7	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.6	0
10/22/2014	0.1 US	0.1 US	0	0	20.9	0
4/29/2015	0.1 US	0.1 US	0	0	21.7	0
7/15/2015	0.1 US	0.1 US	0	0	20.8	0
10/28/2015	0.1 US	0.1 US	0	0	21.9	0
4/6/2016	0.1 US	0.1 US	0	0	21	0
7/27/2016	0.1 US	0.1 US	0	0	19.6	0
10/26/2016	0.1 US	0.1 US	0	0	20.8	0
4/19/2017	0.1 US	0.1 US	0	0	21.2	0
7/26/2017	0.1 US	0.1 US	0	0	20.9	0
10/25/2017	0.1 US	0.1 US	0	0	20.6	0
4/3/2018	0.1 US	0.1 US	0	0	21	0
7/16/2018	0.1 US	0.1 US	0	0	20.3	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/22/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

P-206A

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/31/2013	0.1 US	0.1 US	0	0	20.5	0
10/28/2013	0.1 US	0.1 US	0	0	20.8	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/29/2014	0.1 US	0.1 US	0	0	20.6	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	21.9	0
7/13/2015	0.1 US	0.1 US	0	0	21	0
10/26/2015	0.1 US	0.1 US	0	0	21	0
4/4/2016	0.1 US	0.1 US	0	0	20.8	0

(P-206A)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
7/25/2016	0.1 US	0.1 US	0	0	20.5	0
10/24/2016	0.1 US	0.1 US	0	0	20.7	0
4/17/2017	0.1 US	0.1 US	0	0	21.2	0
7/24/2017	0.1 US	0.1 US	0	0	20.9	0
10/23/2017	0.1 US	0.1 US	0	0	20.7	0
4/2/2018	0.1 US	0.1 US	0	0	20.8	0
7/16/2018	0.1 US	0.1 US	0	0	20.3	0
10/1/2018	0.1 US	0.1 US	0	0	20.9	0
4/22/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

S Property Line

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.6	0
7/20/2010	0.1 US		0		20.2	0
10/20/2010	0.1 US	0.1 US	0	0	21	0
4/27/2011	0.1 US	0.1 US	0	0	20.7	0
7/20/2011	0.1 US	0.1 US	0	0	20	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.6	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.6	0
10/29/2013	0.1 US	0.1 US	0	0	21.2	0
4/21/2014	0.1 US	0.1 US	0	0	20.6	0
7/30/2014	0.1 US	0.1 US	0	0	20.6	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	21.3	0
7/15/2015	0.1 US	0.1 US	0	0	20.8	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/4/2016	0.1 US	0.1 US	0	0	20.6	0
7/25/2016	0.1 US	0.1 US	0	0	20	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/18/2017	0.1 US	0.1 US	0	0	20.8	0
7/26/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.7	0
4/4/2018	0.1 US	0.1 US	0	0	20.8	0
7/16/2018	0.1 US	0.1 US	0	0	20.5	0
10/1/2018	0.1 US	0.1 US	0	0	21	0
4/23/2019	0.1 US	0.1 US	0	0	20.7	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

W Property Line A

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.5	0
7/20/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21.1	0
4/27/2011	0.1 US	0.1 US	0	0	20.8	0
7/20/2011	0.1 US	0.1 US	0	0	20	0

REPORT PREPARED: 12/19/2019 10:21

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Methane - H2S - Oxygen - CO2 - Report

SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD
CUMBERLAND CENTER, ME 04021

(W Property Line A)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.6	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.7	0
10/29/2013	0.1 US	0.1 US	0	0	21.3	0
4/21/2014	0.1 US	0.1 US	0	0	20.6	0
7/30/2014	0.1 US	0.1 US	0	0	20.7	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	21.4	0
7/15/2015	0.1 US	0.1 US	0	0	20.9	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/4/2016	0.1 US	0.1 US	0	0	20.6	0
7/25/2016	0.1 US	0.1 US	0	0	20.2	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/18/2017	0.1 US	0.1 US	0	0	20.8	0
7/26/2017	0.1 US	0.1 US	0	0	20.9	0
10/24/2017	0.1 US	0.1 US	0	0	20.6	0
4/4/2018	0.1 US	0.1 US	0	0	20.8	0
7/16/2018	0.1 US	0.1 US	0	0	20.5	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.9	0

W Property Line B

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
4/27/2010	0.1 US		0		20.5	0
7/20/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21	0
4/27/2011	0.1 US	0.1 US	0	0	20.7	0
7/20/2011	0.1 US	0.1 US	0	0	20	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.6	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.7	0
10/29/2013	0.1 US	0.1 US	0	0	21.3	0
4/21/2014	0.1 US	0.1 US	0	0	20.7	0
7/30/2014	0.1 US	0.1 US	0	0	20.6	0
10/20/2014	0.1 US	0.1 US	0	0	20.9	0
4/27/2015	0.1 US	0.1 US	0	0	21.4	0
7/15/2015	0.1 US	0.1 US	0	0	20.9	0
10/27/2015	0.1 US	0.1 US	0	0	21.3	0
4/4/2016	0.1 US	0.1 US	0	0	20.6	0
7/25/2016	0.1 US	0.1 US	0	0	20.1	0
10/25/2016	0.1 US	0.1 US	0	0	20.7	0
4/18/2017	0.1 US	0.1 US	0	0	20.8	0
7/26/2017	0.1 US	0.1 US	0	0	20.9	0

SEVEE & MAHER ENGINEERS, INC.
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CUMBERLAND CENTER, ME 04021

(W Property Line B)

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
10/24/2017	0.1 US	0.1 US	0	0	20.7	0
4/4/2018	0.1 US	0.1 US	0	0	20.7	0
7/16/2018	0.1 US	0.1 US	0	0	20.4	0
10/1/2018	0.1 US	0.1 US	0	0	21.1	0
4/23/2019	0.1 US	0.1 US	0	0	20.9	0
7/15/2019	0.1 US	0.1 US	0	0	20.9	0
10/28/2019	0.1 US	0.1 US	0	0	20.8	0

Notes: TYPE - Sample Type Qualifier where D = Duplicate Sample.

Concentration Qualifier Notes:

US - Not Detected above the reported reporting limit determined by interpreted instrument specification.

ATTACHMENT G

Landfill Gas Monitoring Evaluation

JUNIPER RIDGE LANDFILL

2019 ANNUAL GAS MONITORING EVALUATION

JUNIPER RIDGE LANDFILL

Operated by NEWSME Landfill Operations, LLC

2828 Bennoch Road, Old Town, Maine 04468 • (207) 394-4372

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1.0 INTRODUCTION

In accordance with the Maine Department of Environmental Protection (MEDEP) Chapter 401, Solid Waste Management Rules, Section 401.4.D(4)(d), an evaluation of the gas monitoring results for Juniper Ridge Landfill's (JRL) past year, including a comparison of the past year's results to the previous year's results is provided below.

Throughout 2019, the following regular landfill gas (LFG) monitoring activities occurred at JRL: (1) well-tuning of LFG collection trenches and wells (well heads), (2) continuous flow measurement at the landfill gas combustion flare, and (3) landfill gas composition measurement during well-tuning activities at the landfill gas combustion flare.

Additionally, as of December 8, 2014, JRL became subject to the operational standards of 40 Code of Federal Regulations (CFR) Part 60 Subpart WWW (the New Source Performance Standards [NSPS] for Municipal Solid Waste [MSW] landfills) and 40 CFR Part 63 Subpart AAAA (the National Emission Standard for Hazardous Air Pollutants [NESHAP] for MSW landfills). Reports completed in accordance with NSPS requirements are submitted separately to the MEDEP Bureau of Air Quality.

2.0 WELL FIELD ACTIVITY

During 2019, well field activities consisted of the addition of new infrastructure, as well as discontinuing older infrastructure due to malfunction or insufficient methane production. Anomalies associated with routine operation of the well field were also monitored. A summary is provided below.

2.1 Active, New, and Discontinued Well Heads

At the beginning of 2019, the JRL well field consisted of 159 active collection devices. During the course of 2019 a total of 10 gas collection trenches and 3 vertical wells were discontinued or replaced. Prior to discontinuing active well heads, JRL staff first sought MEDEP approval. Active well heads may be discontinued for one or more of the following reasons: 1) low methane production over a sustained period, 2) high oxygen, or 3) inadequate flow. Table 2-1 shows all well heads that were monitored during 2019, as well as their status as of the end of the year. By the end of 2019, 195 gas collection devices were active.

Table 2-1 All Well Heads Monitored at JRL, 2019

ID	Type	Status	ID	Type	Status
JRCT1001	Horizontal	Active	JRGCT508	Horizontal	Active
JRCT1002	Horizontal	Active	JRGCT511	Horizontal	Active
JRCT1003	Horizontal	Active	JRGCT601	Horizontal	Active
JRCT1004	Horizontal	Active	JRGCT603	Horizontal	Discontinued
JRCT1005	Horizontal	Active	JRGCT604	Horizontal	Active
JRCT1006	Horizontal	Active	JRGCT606	Horizontal	Active
JRCT1007	Horizontal	Active	JRGCT607	Horizontal	Active
JRCT1008	Horizontal	Active	JRGCT701	Horizontal	Active
JRCT1009	Horizontal	Active	JRGCT702	Horizontal	Active
JRCT1010	Horizontal	Active	JRGCT703	Horizontal	Active
JRCT1011	Horizontal	Active	JRGCT704	Horizontal	Active
JRCT1012	Horizontal	Active	JRGCT705	Horizontal	Active
JRCT1013	Horizontal	Active	JRGCT706	Horizontal	Active
JRCT1014	Horizontal	Active	JRGCT707	Horizontal	Active
JRCT1015	Horizontal	Active	JRGCT708	Horizontal	Active
JRCT1101	Gas Well	Active	JRGCT709	Horizontal	Active
JRCT1102	Gas Well	Active	JRGCT711	Horizontal	Active
JRCT1103	Gas Well	Active	JRGCT712	Horizontal	Active
JRCT1104	Gas Well	Active	JRGCT810	Horizontal	Active
JRCT1105	Gas Well	Active	JRGCT829	Horizontal	Active
JRCT1106	Gas Well	Active	JRGCT830	Horizontal	Active
JRCT1107	Gas Well	Active	JRGCT831	Horizontal	Active
JRCT1108	Gas Well	Active	JRGCT902	Horizontal	Discontinued
JRCT1109	Gas Well	Active	JRGCT903	Horizontal	Discontinued
JRCT1110	Gas Well	Active	JRGCT904	Horizontal	Discontinued
JRCT1111	Gas Well	Active	JRGCT905	Horizontal	Discontinued
JRCT1112	Gas Well	Active	JRGCT906	Horizontal	Discontinued
JRFLARE4	Flare	Active	JRGCT907	Horizontal	Discontinued
JRGCT2A1	Horizontal	Active	JRGCT908	Horizontal	Discontinued
JRGCT3A1	Horizontal	Discontinued	JRGCT909	Horizontal	Discontinued
JRGCT3A4	Horizontal	Active	JRGCT910	Horizontal	Active
JRGCT3B1	Horizontal	Active	JRGCT911	Horizontal	Active
JRGCT3B2	Horizontal	Active	JRGCT912	Horizontal	Active
JRGCT502	Horizontal	Active	JRGCT913	Horizontal	Active
JRGCT503	Horizontal	Active	JRGCT914	Horizontal	Active
JRGCT505	Horizontal	Active	JRGCT915	Horizontal	Active

Table 2-1 All Well Heads Monitored at JRL, 2019 Cont.

ID	Type	Status	ID	Type	Status
JRGCT916	Horizontal	Active	JR-GW-24	Gas Well	Active
JRGCT918	Gas Well	Active	JR-GW-25	Gas Well	Active
JRGCT919	Horizontal	Active	JR-GW-28	Gas Well	Active
JRGCT920	Horizontal	Active	JR-GW-29	Gas Well	Active
JRGCT921	Horizontal	Active	JR-GW30R	Gas Well	Active
JRGCT922	Horizontal	Active	JR-GW31R	Gas Well	Active
JRGCT923	Horizontal	Active	JR-GW32R	Gas Well	Active
JRGCT924	Horizontal	Active	JR-GW-33	Gas Well	Discontinued
JRGCT925	Horizontal	Active	JR-GW33R	Gas Well	Active
JRGCT926	Horizontal	Active	JR-GW-37	Gas Well	Active
JRGCT927	Horizontal	Active	JR-GW-38	Gas Well	Active
JRGCT928	Horizontal	Active	JR-GW-39	Gas Well	Active
JRGCT929	Horizontal	Active	JR-GW-40	Gas Well	Active
JRGCT930	Horizontal	Active	JR-GW-41	Gas Well	Active
JR-GW-03	Gas Well	Active	JR-GW-42	Gas Well	Active
JR-GW-04	Gas Well	Active	JR-GW42B	Gas Well	Active
JR-GW-05	Gas Well	Active	JR-GW-46	Gas Well	Active
JR-GW-06	Gas Well	Active	JR-GW-47	Gas Well	Active
JR-GW-09	Gas Well	Active	JR-GW-48	Gas Well	Active
JR-GW-10	Gas Well	Active	JR-GW-49	Gas Well	Active
JR-GW100	Gas Well	Active	JR-GW50B	Gas Well	Active
JR-GW101	Gas Well	Active	JR-GW50R	Gas Well	Active
JR-GW102	Gas Well	Active	JR-GW-51	Gas Well	Active
JR-GW104	Gas Well	Active	JR-GW51B	Gas Well	Active
JR-GW106	Gas Well	Active	JR-GW-55	Gas Well	Active
JR-GW-11	Gas Well	Active	JR-GW-56	Gas Well	Active
JR-GW-12	Gas Well	Active	JR-GW56R	Gas Well	Active
JR-GW-13	Gas Well	Active	JR-GW57R	Gas Well	Active
JR-GW-14	Gas Well	Active	JR-GW-58	Gas Well	Active
JR-GW-15	Gas Well	Active	JR-GW58B	Gas Well	Active
JR-GW-16	Gas Well	Active	JR-GW-59	Gas Well	Active
JR-GW-18	Gas Well	Active	JR-GW59B	Gas Well	Active
JR-GW19R	Gas Well	Active	JR-GW59R	Gas Well	Active
JR-GW20R	Gas Well	Active	JR-GW-60	Gas Well	Active
JR-GW22R	Gas Well	Active	JR-GW60B	Gas Well	Active
JR-GW23R	Gas Well	Active	JR-GW-62	Gas Well	Active

Table 2-1 All Well Heads Monitored at JRL, 2019 Cont.

ID	Type	Status	ID	Type	Status
JR-GW-64	Gas Well	Active	JR-GW-88	Gas Well	Active
JR-GW-65	Gas Well	Active	JR-GW-89	Gas Well	Active
JR-GW-66	Gas Well	Active	JR-GW-90	Gas Well	Active
JR-GW-67	Gas Well	Active	JR-GW-91	Gas Well	Active
JR-GW-68	Gas Well	Active	JR-GW-92	Gas Well	Active
JR-GW68B	Gas Well	Active	JR-GW-93	Gas Well	Active
JR-GW68C	Gas Well	Active	JR-GW-94	Gas Well	Active
JR-GW-69	Gas Well	Active	JR-GW-95	Gas Well	Active
JR-GW69B	Gas Well	Active	JR-GW-96	Gas Well	Active
JR-GW--7	Gas Well	Active	JR-GW-97	Gas Well	Active
JR-GW-70	Gas Well	Active	JR-GW-98	Gas Well	Active
JR-GW-72	Gas Well	Active	JR-GW-99	Gas Well	Active
JR-GW-74	Gas Well	Active	JR-GW--A	Gas Well	Active
JR-GW-75	Gas Well	Active	JR-GW-H2	Gas Well	Active
JR-GW-76	Gas Well	Active	JR-GW--I	Gas Well	Active
JR-GW76B	Gas Well	Active	JR-GW--L	Gas Well	Active
JR-GW-77	Gas Well	Discontinued	JR-GW--M	Gas Well	Discontinued
JR-GW77R	Gas Well	Active	JR-GW--S	Gas Well	Active
JR-GW-78	Gas Well	Active	JR-GW--U	Gas Well	Active
JR-GW78B	Gas Well	Active	JR-GW--V	Gas Well	Active
JR-GW78C	Gas Well	Active	JR-GW--W	Gas Well	Active
JR-GW-79	Gas Well	Active	JR-GW--X	Gas Well	Active
JR-GW79B	Gas Well	Active	JR-GW--Y	Gas Well	Active
JR-GW-80	Gas Well	Active	JR-GW--Z	Gas Well	Active
JR-GW-81	Gas Well	Active	JR-LC-SE	Horizontal	Active
JR-GW-82	Gas Well	Active	JRLGV401	Other	Active
JR-GW-83	Gas Well	Active	JRLGV402	Other	Active
JR-GW-84	Gas Well	Active	JR-OP101	Gas Well	Active
JR-GW-85	Gas Well	Active	JROP11NE	Other	Active
JR-GW-86	Gas Well	Active	JR-OP-69	Other	Active
JR-GW86B	Gas Well	Active	JR-OP901	Gas Well	Active
JR-GW-87	Gas Well	Active	JR-OP-SE	Gas Well	Active

2.2 Changes and Anomalies in the Well Field

The facility was operated in accordance with NSPS requirements during the entirety of 2019. As discussed in Section 2.1, numerous collection trenches and wells were added and discontinued throughout 2019 as part of routine operations. Readings in excess of NSPS thresholds for temperature, oxygen, and vacuum were promptly addressed, and follow-ups were completed in accordance with NSPS requirements. Excess readings were provided in separate reports to the MEDEP.

Due to the types of waste currently/previously disposed of at JRL (primarily construction debris, construction debris processing residuals, sludge, and ash), which tend to have higher decomposition temperatures than typical household waste, operating some of JRL's well heads according to NSPS guidelines (with default gas temperature of 131 °F (55 °C)) has not always been possible. With that in mind, upon careful review by JRL staff and the MEDEP, several Higher Operating Value (HOV) allowances have been granted for temperature, to allow for proper gas collection to occur at these locations. JRL will continue to submit HOV requests as necessary to ensure continued compliance and a successful operation.

Aside from high decomposition temperatures, high oxygen readings and high pressure readings can also occur at active well heads. Since NSPS requires all active well heads in areas without synthetic cover to have applied vacuum, if at any time gas wells are depleted to quickly or if gas generation slows due to landfill conditions, then high oxygen readings can be observed. High pressure readings occur when not enough vacuum is applied to a specific location. Upon careful review by JRL staff and the MEDEP, several HOV allowances have been granted for vacuum, to allow for proper gas collection at these locations. JRL will continue to submit HOV requests as necessary to ensure continued compliance and a successful operation.

3.0 LANDFILL GAS COMPOSITION

During well-tuning activities, the composition of the landfill gas supplied to the flare was measured and concentrations of methane, carbon dioxide, and oxygen (CH_4, CO_2, O_2 respectively), and balance gas were recorded. During 2019, JRL staff operated the well field with the intent of: maintaining a target methane concentration in the range of 40-45% (by volume) in the gas supplied to the flare, for both odor control and greenhouse gas reduction; and maintaining an oxygen concentration at satisfactory low levels (i.e. < 5%) in order to maintain high efficiency in the vacuum system and prevent possible landfill complications associated with oxygen infiltration. Balance gas levels are also monitored, as a confirmation of landfill collection efficiency and oxygen infiltration prevention. The concentration of carbon dioxide at the flare is not of great concern but is measured in addition to the more important levels of methane and oxygen.

Since gas composition is not measured daily, monthly average gas compositions at the flare were computed from routine measurements that occurred during well-tuning activities. The monthly average concentrations of methane and oxygen are shown in Figure 3-1. As can be seen, the concentration of CH_4 remained slightly below the target range of 40-45% for the majority of the year and only reached 40% in June. The variation in gas concentration was slightly lower than in prior years. The lowest monthly average CH_4 concentration of 34.4% occurred in September. The highest monthly average concentration of 40.1% occurred in June. The average CH_4 concentration for 2019 was 37.6%, a decrease from the 2018 average concentration of 40.9%. This may be attributable to changes in waste mix relative to previous years, which has resulted in increased generation of Carbon Dioxide and Hydrogen Sulfide at the expense of Methane. Monthly average oxygen concentrations were below 1.0% for the entirety of 2019, except for the month of April. In April, the average oxygen concentration increased to 1.8%, the result of a significant leak in the vacuum system near the flare skid. The leak was identified and corrected on May 14th. The lowest monthly average oxygen concentrations were in the months of June through November when the average oxygen concentration was between 0.3% and 0.4%. The average oxygen concentration during 2019 was 0.7%, lower than the 2018 average of 1.0%.

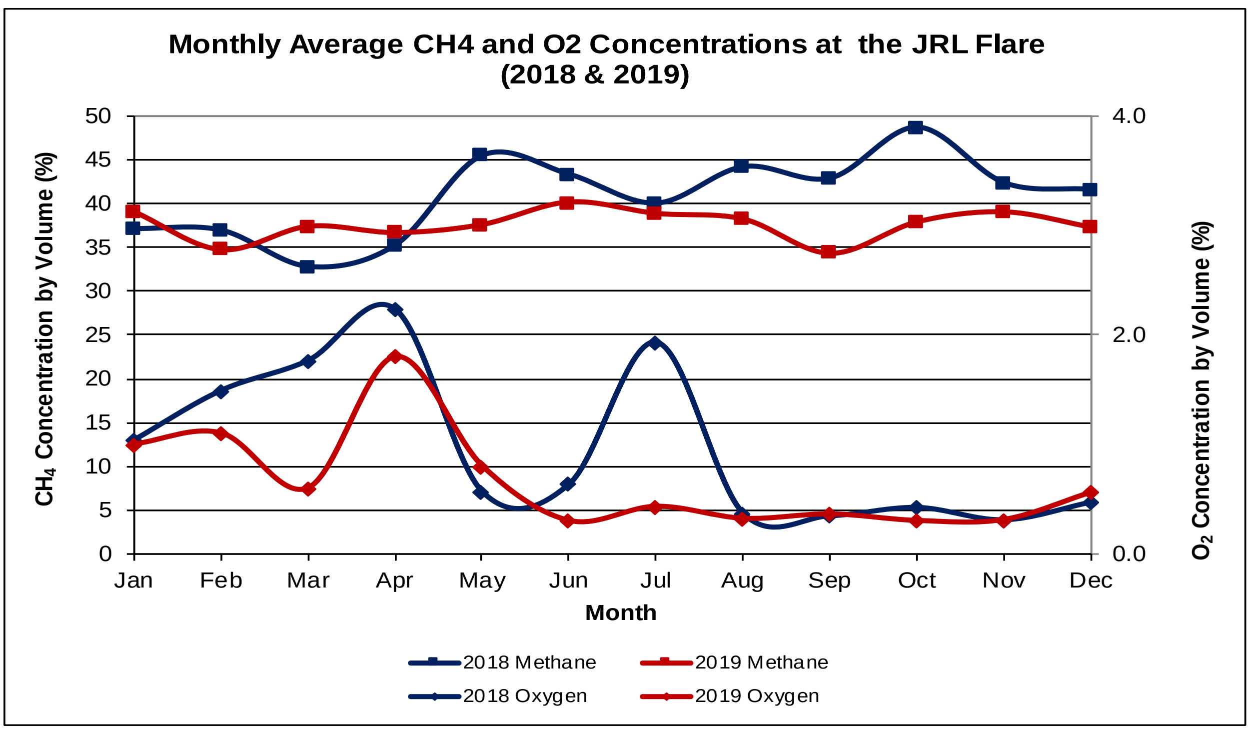

Figure 3-1 Monthly Average Landfill Gas Composition at JRL, 2018 & 2019

4.0 LANDFILL GAS FLOW

The flow rate of landfill gas supplied to the JRL flare and the Thiopaq® gas treatment system was measured and recorded on a continuous basis using a thermal flow meter. This data has been compiled into total monthly landfill gas flows. The average daily flow rate of landfill gas supplied to the flare at JRL each month during 2019 (and 2018 for comparison) is summarized on Table 4-1 and Figure 4-1.

As previously discussed in the 2017 and 2018 annual reports, there were some inconsistent flow meter readings throughout 2017 and the early part of 2018. To resolve this issue, the flow meter was replaced on April 17, 2018 with a different type, better suited to measure flow rates of saturated gas. Once replaced, more consistent readings were observed with flows similar to those of the Thiopaq flow meter, which runs in series during normal operation and is also used on-site.

For the purpose of this report, suspect flow meter readings from January through April 2018, were corrected with data from the Thiopaq flow meter on days when no bypass events occurred. Readings recorded after April 17, 2018 were taken from the new flare flow meter which was calibrated prior to being installed.

Table 4-1 shows the data reflected in Figure 4-1, and the total monthly landfill gas flows. The total flow during 2019 was 887 million standard cubic feet (MMSCF), an increase of approximately 2.3% from total flow recorded in 2018.

Table 4-1 Volumetric Flow of Landfill Gas at JRL, 2018 & 2019

	Total Flow (MMSCF)		Average Flow Rate (SCFM)	
Month	**2019**	**2018**	**2019**	**2018**
Jan	80.9	78.8	1,813	1,766
Feb	76.7	73.9	1,902	1,832
Mar	72.6	114.2	1,627	2,559
Apr	64.5	77.2	1,494	1,787
May	61.9	58.3	1,388	1,307
Jun	55.2	62.7	1,277	1,450
Jul	66.3	64.7	1,486	1,450
Aug	88.9	60.3	1,992	1,350
Sep	90.0	61.5	2,083	1,424
Oct	73.8	77.8	1,653	1,742
Nov	60.9	65.7	1,409	1,521
Dec	95.5	71.5	2,140	1,602
Totals	**887**	**867**		
Average			**1,689**	**1,649**

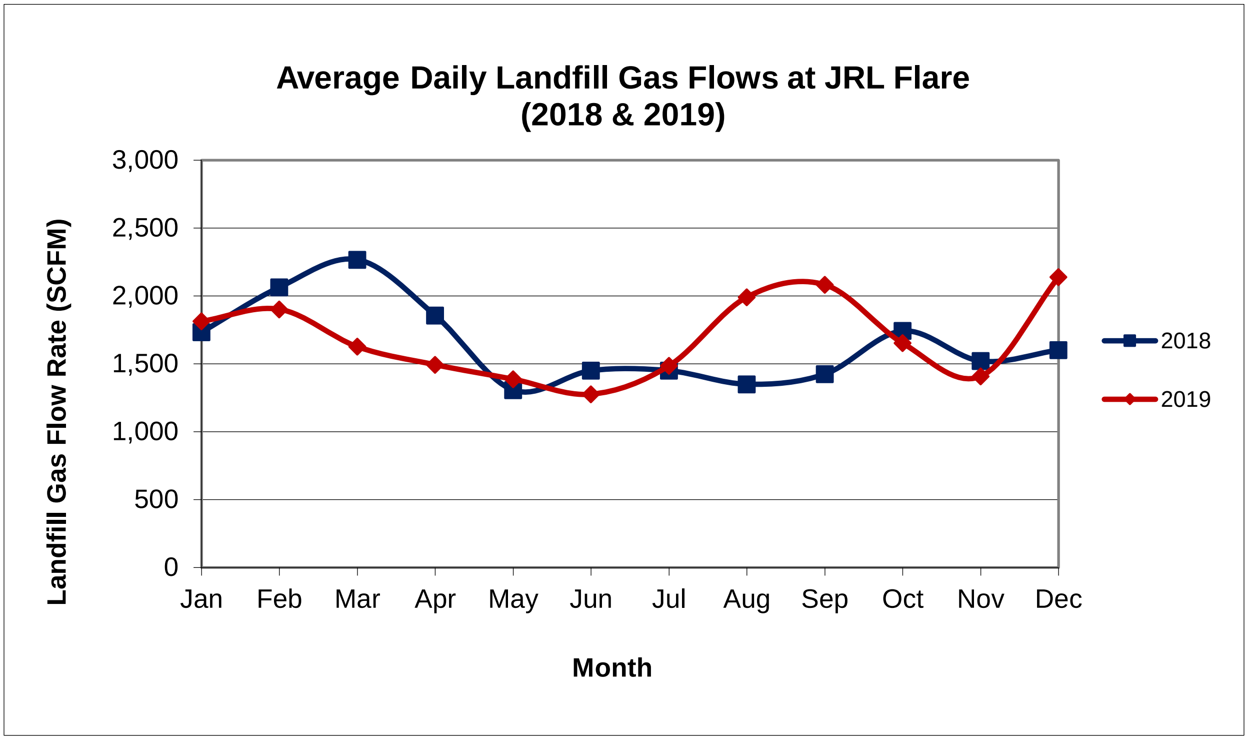

Figure 4-1 Average Landfill Gas Flow Rate at JRL, 2018 & 2019

5.0 ENERGY GENERATED BY METHANE COMBUSTION

JRL has a candlestick type flare which burns the methane (CH_4) present in the landfill gas. Methane has an approximate heating value of 1,009 BTU/SCF (BTU per standard cubic foot). Using this heating value, along with the methane concentrations and landfill gas flows presented in the previous sections, the energy generated by the combustion of methane in the JRL flare was calculated.

Table 5-1 shows the monthly totals of energy generated by CH_4 combustion, along with the average daily combustion energy for 2019 and 2018, based on the corrected flow meter data as described in section 4. Figures 5-1 and 5-2 further portray LFG energy combustion during its destruction through the use of the flare. The calculated total energy converted to heat by combustion at JRL during 2019 was 355,455 MMBTUs, compared to 373,190 MMBTUs in 2018, a decrease of 4.8%.

Table 5-1 Energy Generated by CH_4 Combustion at JRL, 2018 & 2019

	Monthly Total (MMBTUs)		Daily Average (MMBTUs/day)	
Month	**2019**	**2018**	**2019**	**2018**
January	33,746	30,729	1,089	991
February	28,530	32,886	1,019	1,174
March	29,029	35,514	936	1,146
April	25,315	30,235	844	1008
May	24,897	28,368	803	915
June	23,645	29,015	788	967
July	27,535	27,705	888	894
August	36,312	28,477	1,171	919
September	33,083	28,214	1,103	940
October	29,892	40,489	964	1,306
November	25,372	29,748	846	992
December	38,098	31,811	1,229	1,026
Totals	**355,455**	**373,190**		
Average			**973**	**1,023**

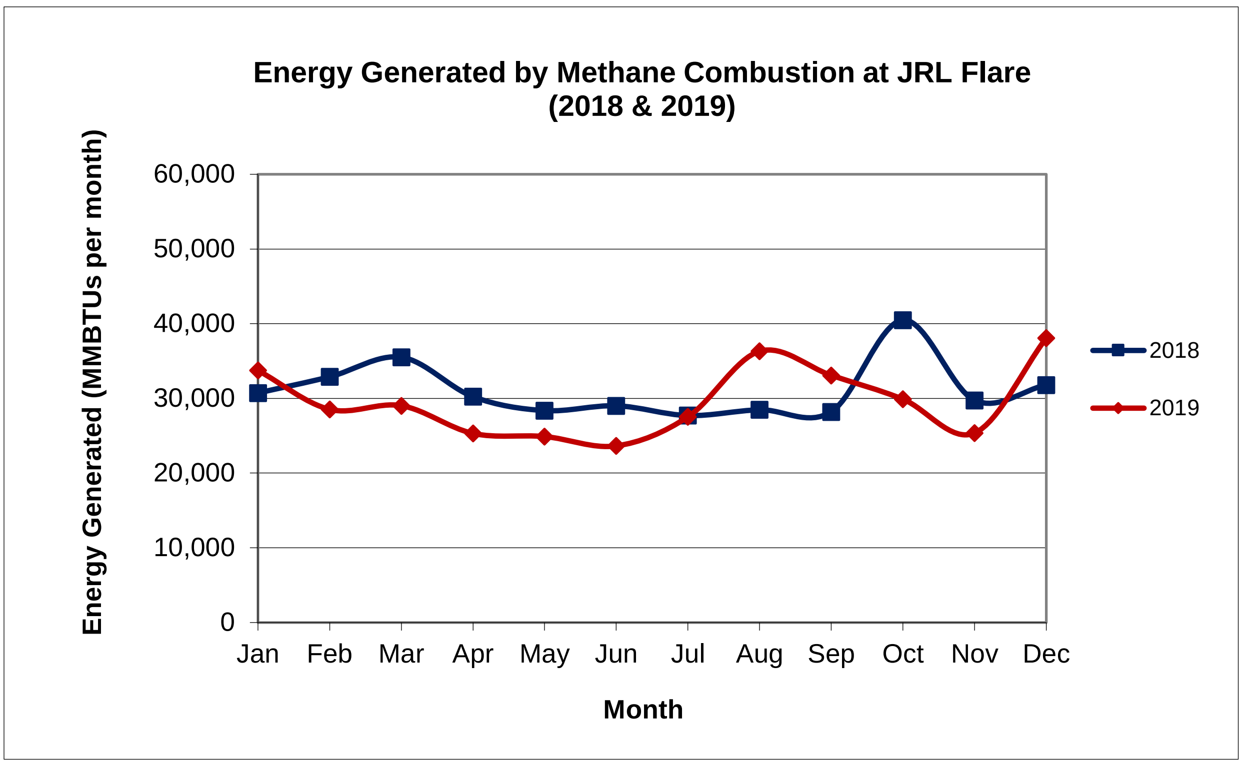

Figure 5-1 Energy Generated by CH4 Combustion at JRL Flare, 2018 & 2019

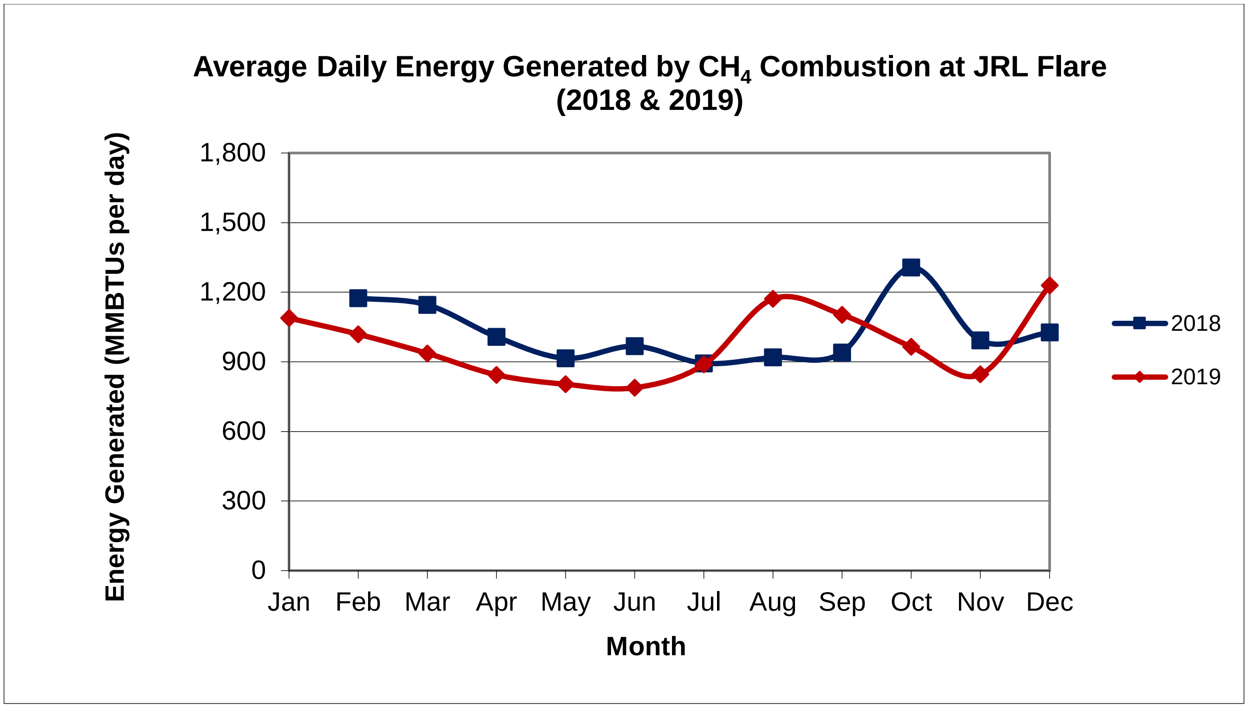

Figure 5-2 Avg. Daily Energy Generated by CH_4 Combustion at JRL Flare, 2018 & 2019

6.0 SUMMARY

Throughout 2019, routine landfill gas (LFG) monitoring took place at various on-site gas management locations in accordance with NSPS requirements, with results being submitted via electronic deliverable document to the MEDEP as required. At the beginning of 2019, the JRL well field consisted of 159 active well heads. At the end of 2019, 195 well heads remained active.

The average CH_4 concentration for 2019 was 37.6%, a decrease from the 2018 average concentration of 40.9%. The average oxygen concentration during 2019 was 0.7%, lower than the 2018 average of 1.0%.

The total measured flow in 2019 was 887 million standard cubic feet (MMSCF), an increase of approximately 2.3% from total flow recorded in 2018. The calculated total energy converted to heat by combustion at JRL during 2019 was 355,455 MMBTUs, compared to 373,190 MMBTUs in 2018, a decrease of 4.8%.

ATTACHMENT H

Landfill Air Monitoring Evaluation

JUNIPER RIDGE LANDFILL

2019 ANNUAL AIR MONITORING EVALUATION

JUNIPER RIDGE LANDFILL

Operated by NEWSME Landfill Operations, LLC

2828 Bennoch Road, Old Town, Maine 04468 • (207) 394-4372

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1.0 INTRODUCTION

In accordance with the Maine Department of Environmental Protection (MEDEP) Chapter 401, Solid Waste Management Rules, Section 401.D(4)(e), NEWSME Landfill Operations, LLC evaluated the 2019 air monitoring results, including a comparison of the 2019 results to the previous year's results. Two types of air monitoring activities occurred at the Juniper Ridge Landfill (JRL) during 2019; (1) hydrogen sulfide (H2S) monitoring at stationary continuous monitors; and (2) quarterly methane (CH4) emission surface scans on the landfill's intermediate cover. The air monitoring was completed in general accordance with the procedures specified in the current JRL operations manual.

H2S monitors are Honeywell® Analytics MDA Single Point Monitors (SPM) utilizing EP hydrides Chemcassettes® also provided by Honeywell®. Readings were taken at 15 minute intervals and data-logged. Monitors are located at four different off-site locations surrounding the landfill as shown in Figure 1-1.

Figure 1-1 Juniper Ridge Landfill H_2S Single Point Monitoring Locations

Methane scans were completed using a MicroFID® (flame ionizing detector) or similar mobile device, and completed once every quarter by taking measurements along an approximate 30 meter spacing grid on the intermediate cover system. Measurements were also collected at cover penetrations in the pattern (i.e. gas collection piping, etc.) and at noticeable punctures, cracks, or holes in the intermediate cover.

Additionally, odor complaints from the 24-hour JRL odor complaint hotline for 2019 were summarized and compared to 2018 results.

2.0 STATIONARY H_2S MONITORING RESULTS

Using the four Honeywell Analytics SPMs located off-site (on the access road, W. Coiley Road, W. Old Town Road (Route 43), and Old Stagecoach Road), real-time data is collected and recorded at 15-minute intervals. If at any time off-site monitors detect concentrations greater than 15 parts per billion (ppb), then scale house personnel are alerted by automated telephone messages. Personnel then report any alert to supervisory staff, who are responsible for reporting H_2S readings greater than 15 ppb in the facility's Monthly Status Report and to the Old Town Code Enforcement Officer if H_2S levels exceed 30 ppb.

The Honeywell Chemcassette® tapes utilized in the SPMs at JRL are capable of continuously detecting hydrogen sulfide levels down to 2 ppb and quantitatively measuring down to 4 ppb. The quantitation limit (4 ppb) is the lowest numerical value that can be determined with suitable precision and accuracy and the detection limit (2 ppb) is the lowest numerical value that can be reasonably estimated by the instrument (typically half the quantitation limit). The summarized data provided below is an average of readings, including non-detect (values less than 2 ppb) readings taken at each instrument, therefore the average values (monthly and annually) are typically less than the detection limit of the Chemcassettes®.

In 2019, data logged readings, along with SPM maintenance records and associated weather data from an on-site weather station were provided to the MEDEP on a periodic basis. SPM maintenance includes Chemcassette® change outs, which generally occur every 6 weeks, along with recommended maintenance performed by the manufacturer.

The annual average H_2S calculated value at the Access Road, 552 W. Old Town Road, the Stage Coach Road, and the W. Coiley Road SPMs are presented in Table 2-1 & Figure 2-1. Due to the vast number of non-detect readings, also known as zero readings, the average H_2S values for all four meters were below the detection limit of 2 ppb for both 2018 and 2019.

Table 2-1 Annual SPM H_2S Averages

Juniper Ridge Landfill 2019 Annual SPM H_2S Averages					
Location	Bangor Wind Rose %[1]	Bangor Wind Rose % plus 50% calm[2]	Non Detect Readings	Average in ppb (Non-Detect = 0 ppb)	Average in ppb (Non-Detects = 1 ppb[3])
Access Rd.	5.3%	9.8%	33,412	0.001	0.053
552 W. Old Town Rd.	4.6%	9.1%	32,513	0.078	0.121
Stage Coach	8.8%	13.3%	30,260	0.225	0.305
W. Coiley Rd.	14.7%	19.2%	31,888	0.124	0.271
Total Number of Readings in 2019: 33,426					
Juniper Ridge Landfill 2018 Annual SPM H_2S Averages					
Location	Bangor Wind Rose %[1]	Bangor Wind Rose % plus 50% calm[2]	Non Detect Readings	Average in ppb (Non-Detect = 0 ppb)	Average in ppb (Non-Detects = 1 ppb[3])
Access Rd.	13.5%	18.0%	32,525	0.123	0.252
552 W. Old Town Rd.	4.1%	8.6%	32,403	0.134	0.173
Stage Coach	6.4%	10.9%	30,580	0.271	0.344
W. Coiley Rd.	19.1%	23.6%	31,550	0.212	0.409
Total Number of Readings in 2018: 34,040					

[1] Bangor Wind Rose percentage of time wind in direction of SPM.
[2] Bangor Wind Rose percentage of time wind in direction of SPM plus 50% of Calm.
[3] Used 1 ppb instead of 0 for non-detect readings when the wind was in the direction of meter and 50% of time when the wind was calm; percentages are shown for each SPM in the second column.

In addition, the annual average H_2S values at these meters were also calculated using the most recent local wind direction and duration data from the Bangor International Airport Weather Station. Non-detect readings were replaced with a conservative estimate of half the detection limit of the SPM's, 1 ppb, for the percentage of time wind was in the direction of each meter, along with half of the total calm wind rose data. This data evaluation technique was developed in cooperation with the City of Old Town during the review of the JRL Expansion Application. These results are also presented in Table 2-1, shown in Figure 2-2.

When comparing the 2019 and 2018 Annual SPM H_2S averages of the four SPMs located around JRL, all four SPMs saw a decrease in 2019. The average off-site H2S level remained very low during both 2019 and 2018. Monthly average H2S calculated values for each location are shown in Figures 2-3 through 2-6 and should be used for comparative analysis only due to their low averages, below the quantitative and detection limits of the instruments. These averages were plotted via a simple average of the monthly readings, non-detect (zero) readings were not edited.

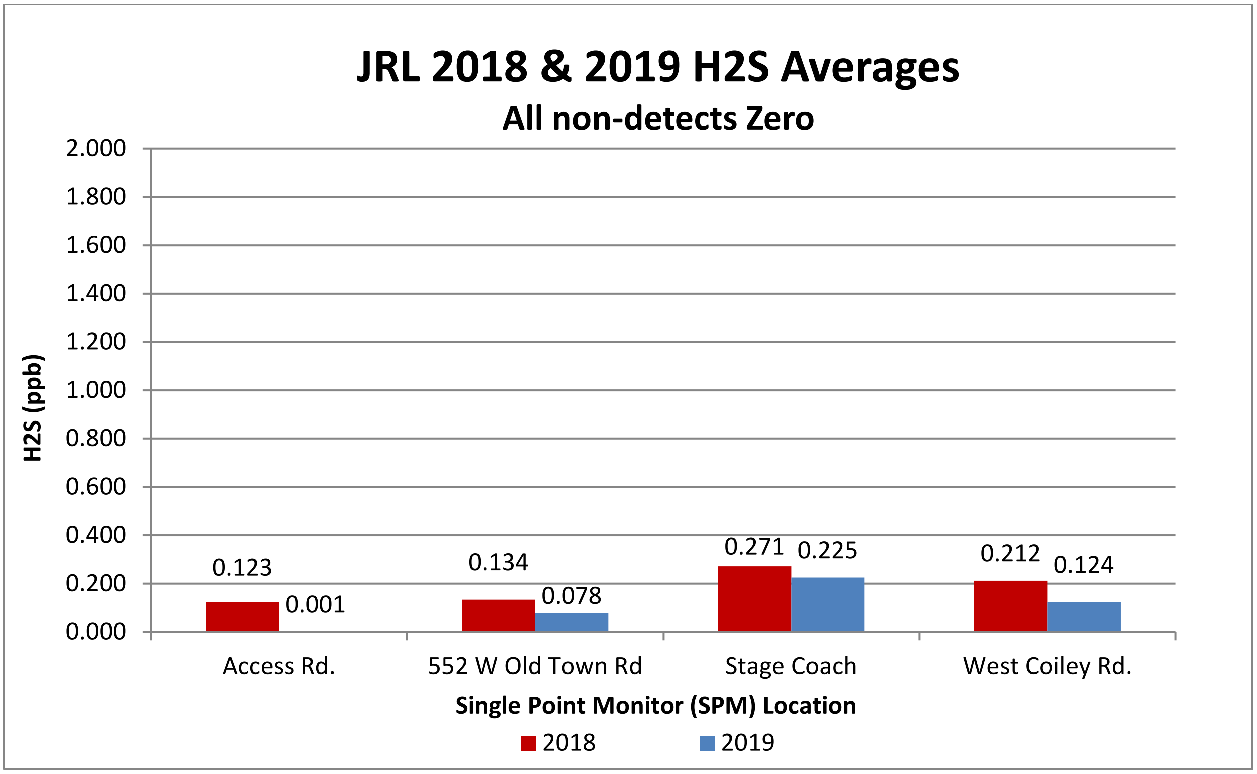

Figure 2-1 Annual Avg. H_2S readings at all four SPM locations, 2018 & 2019

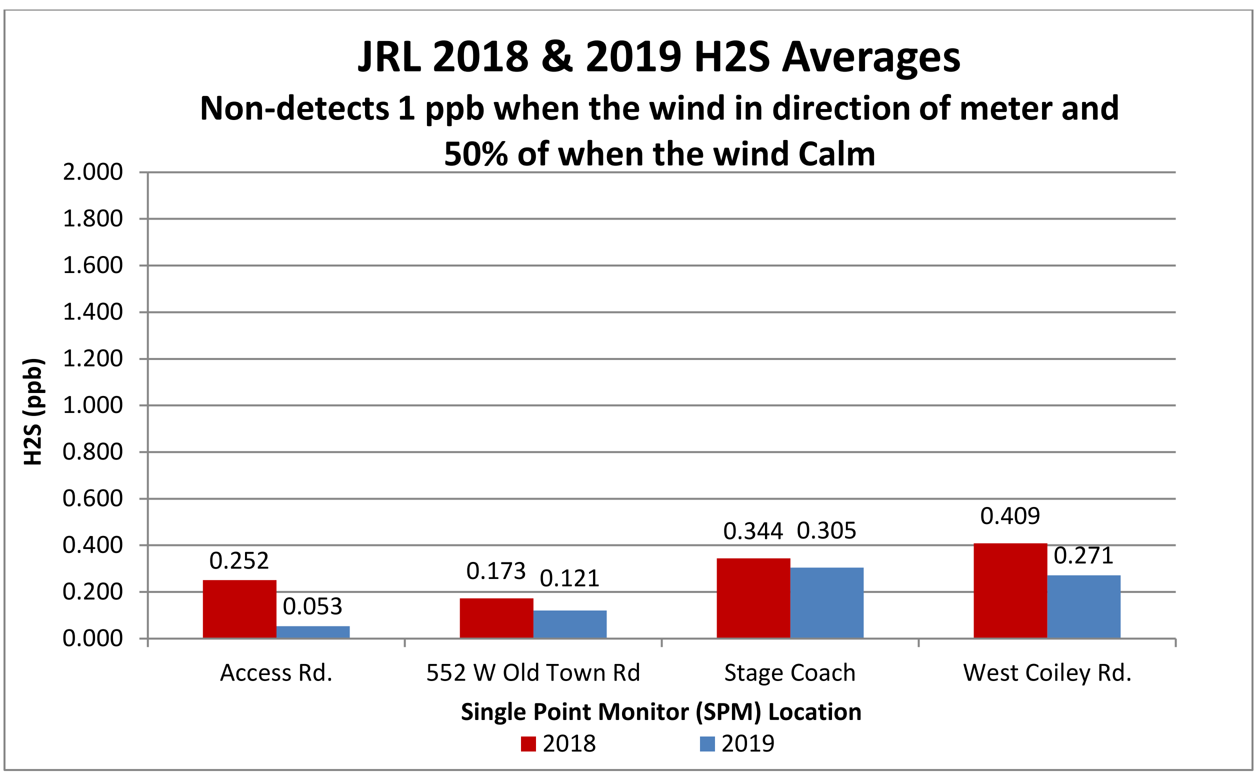

Figure 2-2 Annual Avg. H_2S readings at all four SPM locations with percentages of non-detects at 1 ppb based on wind rose data, 2018 & 2019

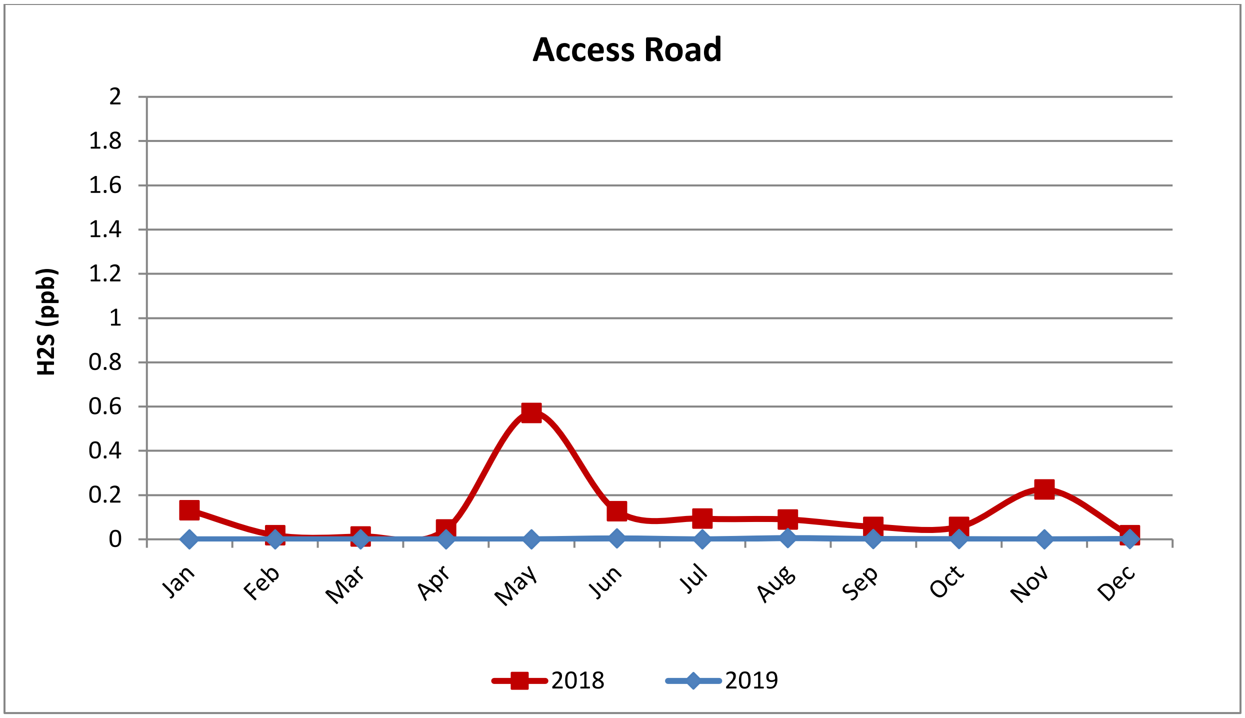

Figure 2-3 Monthly Avg. H_2S readings at the Access Road SPM, 2018 & 2019

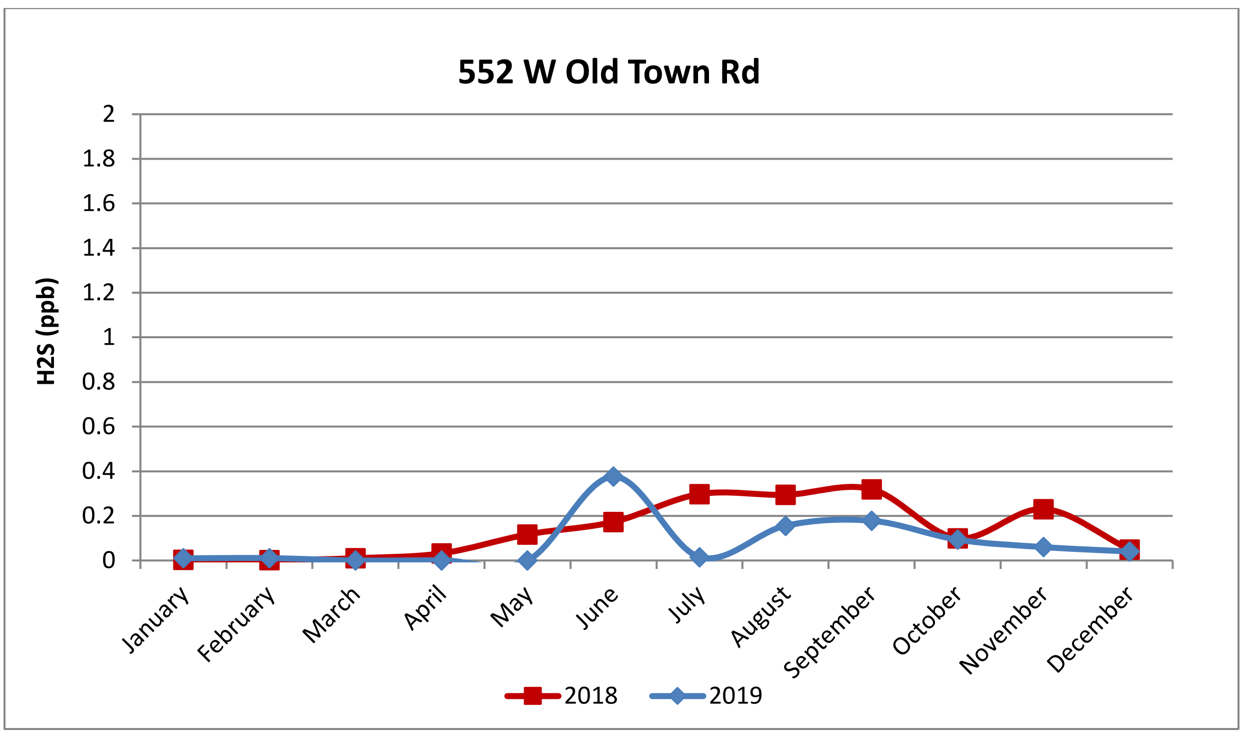

Figure 2-4 Monthly Avg. H_2S readings at the 552 W Old Town Road SPM, 2018 & 2019

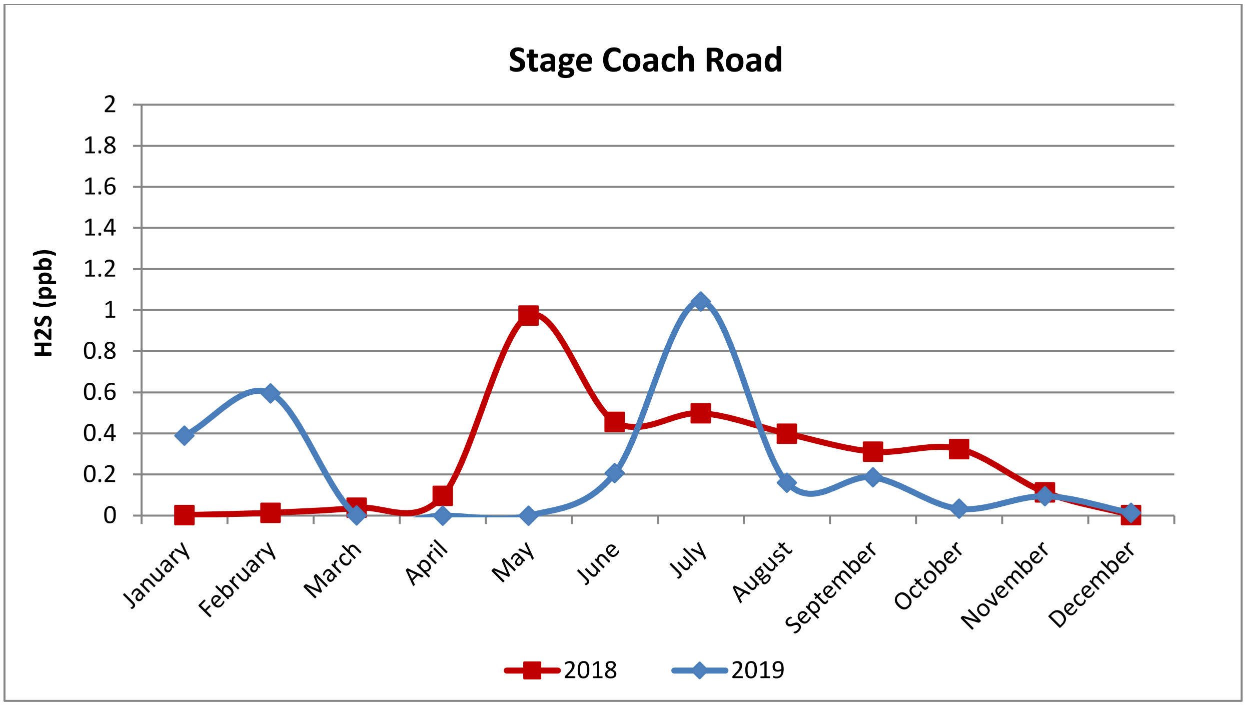

Figure 2-5 Monthly Avg. H_2S readings at the Stage Coach Road SPM, 2018 & 2019

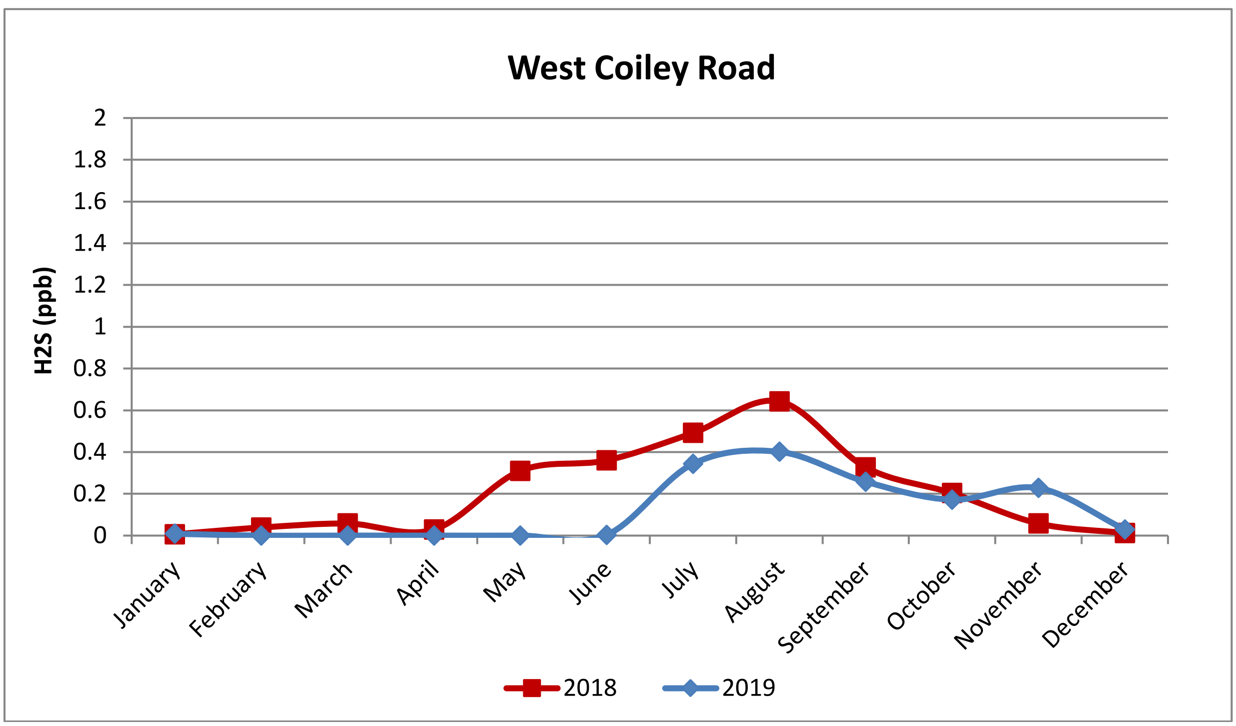

Figure 2-6 Monthly Avg. H_2S readings at the West Coiley Road SPM, 2018 & 2019

Instantaneous peak readings were identified during 2018 and 2019, to determine if any short duration H2S episodes occurred. They are provided in Table 2-2 below.

Table 2-2 Annual highest two readings at each SPM

Juniper Ridge Landfill Hydrogen Sulfide Single Point Monitor Highest Two Annual Readings					
Year	**Location**	**Date**	**Highest Reading (ppb)**	**Date**	**2nd Highest Reading (ppb)**
2019	Access Rd.	12/10/2019 8:27	4.89	6/12/2019 17:50	4.34
2019	552 W Old Town Rd	11/3/2019 13:58	18.80	11/3/2019 13:43	11.68
2019	Stage Coach	7/26/2019 20:27	12.79	9/20/2019 22:15	11.01
2019	West Coiley Rd.	11/8/2019 13:33	7.34	11/8/2019 13:48	5.23
2018	Access Rd.	1/10/2018 17:42	9.79	1/10/2018 17:27	8.68
2018	552 W Old Town Rd	11/15/2018 23:30	6.79	11/15/2018 23:00	6.34
2018	Stage Coach	11/3/2018 17:50	4.67	7/7/2018 11:29	4.23
2018	West Coiley Rd.	12/19/2018 11:51	11.24	8/10/2018 9:45	6.01

Throughout 2018 and 2019, all H_2S readings except for one, remained relatively low and below action levels (<15 ppb), at all four off-site SPM's. The one H_2S spike (18.8 ppb) occurred on November 3, 2019 at the 552 W Old Town Rd SPM. Other lower readings were also recorded during that time and lasted for a period of approximately 90 minutes before returning to zero. It is likely that the readings were attributed to a loss of synthetic cover material which occurred on November 1, 2019, due to high winds. The MEDEP was notified of the occurrence and the incident was noted as required in the JRL Monthly Status Report. After the occurrence, the damaged area was promptly repaired. On-site landfill gas management systems continue to function well in preventing off-site migration of H2S.

3.0 ODOR COMPLAINTS

Complaints recorded via the 24-hour JRL complaint hotline are provided for 2018 and 2019 in Table 3-1 below. Detailed complaint logs were submitted as part of the facility's monthly reports to the MEDEP during 2019. During the year, the JRL complaint hotline received a total of 15 landfill related complaints. All 15 of which were odor related. This is an increase from the 12 landfill related complaints for 2018, 11 of which were odor related and 1 was noise related. All 15 were confirmed as likely coming from the landfill. Odor complaints were logged as they occurred.

Site visits were conducted at the location of complaint if requested, to allow for validity of all complaints. Close attention was paid to complaints, which helped determine operational effectiveness of all odor control measures and/or systems. Changes were made to those measures and/or systems as necessary.

Mobile complaints continue to make up a significant portion of total complaints. Mobile complaints originate from a caller who noted an odor while traveling on a public roadway. In 2019 the JRL complaint hotline received 10 mobile odor related complaints, 66% of total odor related complaints received. In comparison, in 2018 72% of the odor related complaints received were mobile complaints.

A total of four different individuals notified JRL of odor complaints during 2019, the same number as in 2018. With the exception of one complaint, all of the complaints were from the residents of two homes.

Table 3-1 Summary of Complaints at Juniper Ridge Landfill, 2018 & 2019

2019	-OBJECT OF COMPLAINT-						MONTH
MONTH	ODOR	NOISE	LIGHTS	DUST	BIRDS	OTHER	TOTAL
JAN.	0	0	0	0	0	0	0
FEB.	1	0	0	0	0	0	1
MAR.	3	0	0	0	0	0	3
APR.	1	0	0	0	0	0	1
MAY	1	0	0	0	0	0	1
JUN.	0	0	0	0	0	0	0
JUL.	0	0	0	0	0	0	0
AUG.	1	0	0	0	0	0	1
SEP.	0	0	0	0	0	0	0
OCT.	1	0	0	0	0	0	1
NOV.	3	0	0	0	0	0	3
DEC.	4	0	0	0	0	0	4
TOTALS	***15***	***0***	***0***	***0***	***0***	***0***	***15***

2018	-OBJECT OF COMPLAINT-						MONTH
MONTH	ODOR	NOISE	LIGHTS	DUST	BIRDS	OTHER	TOTAL
JAN.	2	0	0	0	0	0	2
FEB.	2	0	0	0	0	0	2
MAR.	1	0	0	0	0	0	1
APR.	0	0	0	0	0	0	0
MAY	0	0	0	0	0	0	0
JUN.	1	1	0	0	0	0	2
JUL.	1	0	0	0	0	0	1
AUG.	0	0	0	0	0	0	0
SEP.	0	0	0	0	0	0	0
OCT.	0	0	0	0	0	0	0
NOV.	2	0	0	0	0	0	2
DEC.	2	0	0	0	0	0	2
TOTALS	***11***	***1***	***0***	***0***	***0***	***0***	***12***

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4.0 CH_4 SURFACE SCANS

Landfill methane (CH_4) emission surface scans are performed to determine the effectiveness of intermediate landfill cover and landfill gas collections systems in controlling landfill gas migration. Quarterly surface scans were completed on the landfill intermediate cover at JRL during 2019 in accordance with the JRL Operations Manual and the requirements of the New Source Performance Standards (NSPS) for municipal solid waste (MSW) landfills contained in 40 Code of Federal Regulations (CFR) Part 60, Subpart WWW. Copies of the 2019 surface scans are kept on file and uploaded to our engineering firm's Landfill Gas Management Suite (LFGMS).

Surface scans were completed in general accordance with the procedures outlined in NSPS, specifically Section 60.753(d) which states that each owner or operator of an MSW landfill with a gas collection and control system shall:
"Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage…"

Surface scans were completed using a MicroFID® (flame ionizing detector) device and a Landtec SEM5000 portable methane detector, which NEWSME acquired in 2019. The MicroFID® device has a detection limit of 0.5 parts per million (ppm) and a concentration range of 0.5 to 50,000 ppm, while the SEM5000 portable methane detector has the same detection limit, but has a concentration range of 0.5 ppm to 100% methane. During 2019, a total of 17 readings above 500 ppm were detected during surface scans, compared to 12 which were detected in 2018. A quarterly breakdown is provided in Table 4-1. These readings and their locations are documented, copies are provided to the site supervisor, and necessary corrective actions are taken. Follow-up is performed 10 days and 30 days after the initial reading in excess of 500 ppm or any subsequent reading in excess of 500 ppm.

Table 4-1 Readings above 500 ppm found during CH_4 Surface Scans, 2018 & 2019

Surface Scan Readings above 500 ppm					
	Q1	Q2	Q3	Q4	TOTAL
2019	13	1	3	0	17
2018	2	5	1	4	12

Overall, annual readings above 500 ppm were higher in 2019 than in 2018. All of these were resolved on the first follow-up, showing the effectiveness of the synthetic and soil intermediate cover system. Damage to cover boots for the gas extraction piping due to landfill consolidation and settlement continue to be the primary cause of readings above 500 ppm. These damages are repaired as soon as practical.

5.0 SUMMARY

Two types of air monitoring activities occurred at the Juniper Ridge Landfill (JRL) during 2019; (1) hydrogen sulfide H2S monitoring with stationary continuous monitors and, (2) quarterly methane emission surface scans on the landfill intermediate cover.

When comparing the average readings of the four H2S SPMs in 2018 and 2019, all four decreased from 2018 to 2019. The average off-site H2S level remained very low during both 2018 and 2019.

Peak H2S readings also remained low at the four off-site SPMs. The highest single reading recorded on any of the four meters was a peak of 18.8 ppb. The MEDEP was notified of the occurrence and the incident was noted as required in the JRL Monthly Status Report. No other readings above 15 ppb were recorded.

During the year, the JRL complaint hotline received a total of 15 landfill related complaints. All 15 of which were odor related. This is an increase from the 12 landfill related complaints for 2018, 11 of which were odor related and 1 was noise related. All 15 were confirmed as likely coming from the landfill. A total of four different individuals notified JRL of odor complaints during 2019, the same number as in 2018. With the exception of one complaint, all of the complaints were from the residents of two homes.

During 2019, a total of 17 readings above 500 ppm were detected during methane surface scans. This is compared to 12 which were detected in 2018. Most of these readings occurred around landfill intermediate cover penetrations and were promptly corrected. All follow-up readings showed the issues were resolved.

ATTACHMENT I

Geotechnical Monitoring Report

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2019 Annual Geotechnical Landfill Inspection Report
Juniper Ridge Landfill
Old Town, Maine

April 2020

Report to:

BGS/NEWSME Landfill Operations, LLC
Hampden, Maine

Casella Waste Systems, Inc.
Saco, Maine

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EXECUTIVE SUMMARY

This 2019 Annual Landfill Geotechnical Monitoring Report for the Juniper Ridge Landfill (JRL) summarizes the geotechnical conditions of the facility over the past year. These conditions were ascertained from monitoring that was performed to assure that the field behavior of the landfill continues to be consistent with parameters and assumptions used in the facility design. This report describes the geotechnical activities performed in accordance with the current Geotechnical Monitoring Plan (Appendix N of the Operations Manual) and Stability and Settlement Monitoring Plan (Section 3.1.5 of the Design Report), prepared and included as part of the JRL Expansion Application (SME 2015) for a new solid waste license, as approved by the Board of Environmental Protection under Solid Waste License #S-020700-WD-BI-N and Natural Resources Protection Act #L-19015-TG-D-N dated 06/01/2017.

The geotechnical monitoring at JRL during 2019 emphasized weekly stability and settlement observations of the landfill surface made during operations, and an independent geotechnical inspection of the landfill surface and slope topography conducted on October 16, 2019. Other specific monitoring activities in 2019 included: (a) comparisons of semi-annual topographic surveys, (b) review of waste types, quantities, and location of waste placement, and (c) evaluation of fluid pressure data measured by an electronic transducer placed on the base of Cell 11 to indicate the leachate head on the liner and to track whether or not the leachate collection system performance is consistent with design assumptions.

This document supplements previous monitoring reports made through 2010 (REW 2005a, 2006, 2007a, 2008a, 2009, 2010), and subsequent landfill inspection reports from the last eight years (REW 2011, 2012, 2013, 2014, 2015, 2016, 2017, and 2018,). All monitoring data indicates that settlement and stability of the landfill waste is consistent with design parameters and assumptions. Information provided by the Cell 11 transducer demonstrates that the fluid levels in the leachate collection layer are at minimal levels, verifying that this drainage layer is performing as designed. No changes to the Geotechnical Monitoring Plan are proposed for geotechnical monitoring during 2020.

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2019 Annual Landfill Geotechnical Monitoring Report
Juniper Ridge Landfill Facility
Old Town, Maine

1. INTRODUCTION

This 2019 Annual Landfill Geotechnical Monitoring Report has been prepared for the State of Maine's Juniper Ridge Landfill (JRL) that is owned by the State of Maine Bureau of General Services (BGS) and operated by NEWSME Landfill Operations, LLC. (NEWSME), a subsidiary of Casella Waste Systems Inc. (CWSI). The landfill site plan (Figure 1), is based on an aerial topographic survey (Figure 2) performed on June 24, 2019.

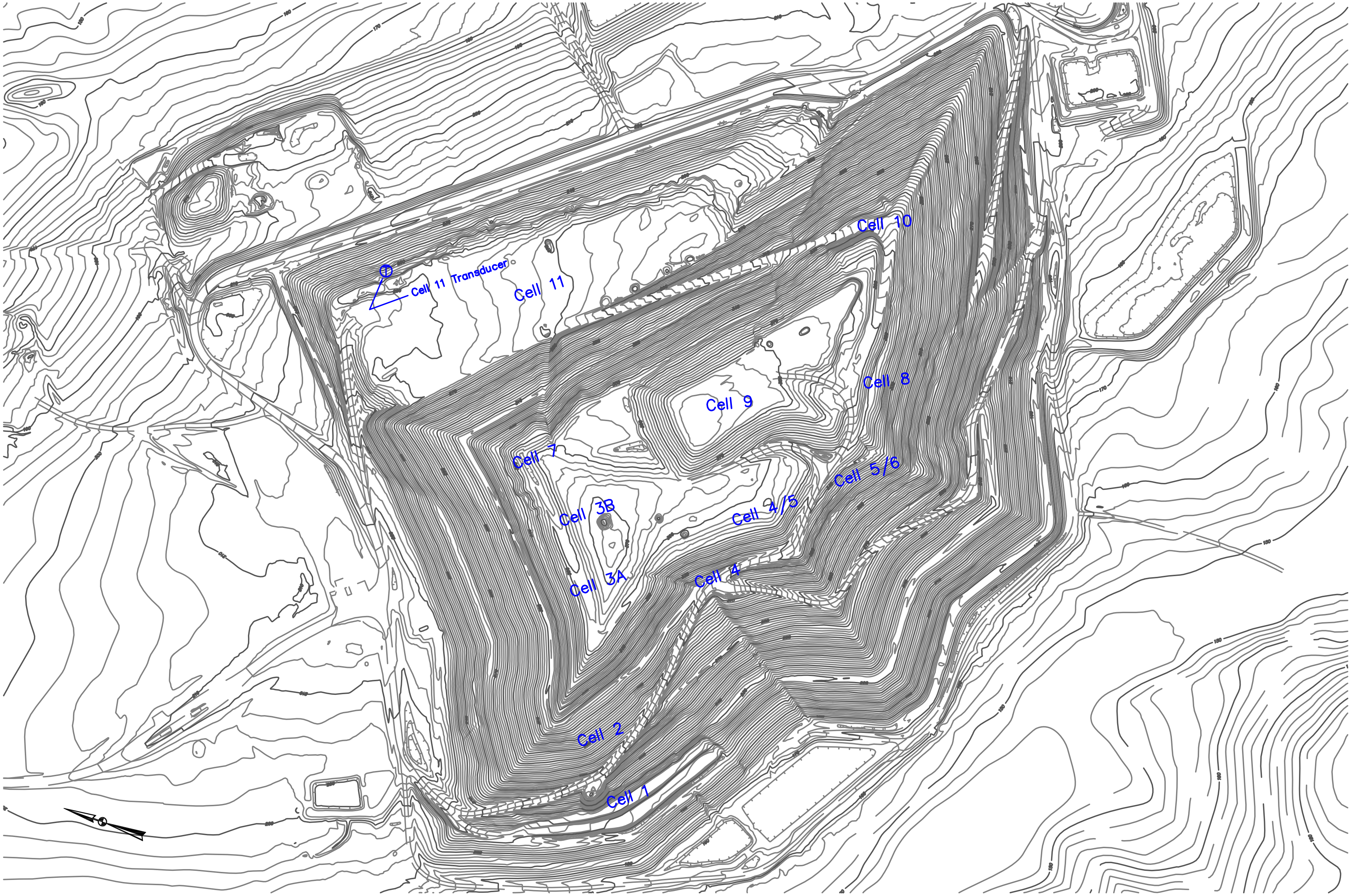
This report describes the geotechnical activities performed in accordance with the current Geotechnical Monitoring Plan (Appendix N of the Operations Manual) and Stability and Settlement Monitoring Plan (Section 3.1.5 of the Design Report), prepared and included as part of the JRL Expansion Application (SME 2015) for a new solid waste license, as approved by the Board of Environmental Protection under Solid Waste License #S-020700-WD-BI-N and Natural Resources Protection Act #L-19015-TG-D-N dated 06/01/2017. This report presents the results of this monitoring that verifies the consistency of the landfill's geotechnical performance with design parameters and assumptions, and with the goals of the JRL Expansion Operations Manual (NEWSME 2020).

2. HISTORY OF LANDFILL DEVELOPMENT & MONITORING

JRL was initially developed by Fort James Operating Company (FJC), a subsidiary of Georgia-Pacific Corporation, for its own use in the disposal of treatment plant sludges and other wastes from its mill in Old Town, Maine. In 2004, the State of Maine, through the State Planning Office (SPO), agreed to purchase the landfill for disposal of other approved in-state wastes including: construction and demolition debris (CDD), oversized bulky waste (OBW), front end processing residue (FEPR), ash from waste incinerators, other ashes from industrial incinerators, bypass municipal solid waste (bypass MSW), and other miscellaneous wastes. This section discusses the history of landfill development at the site.

2.1 Fort James Operation

Approximately 68 acres of a 780-acre property was licensed by FJC as a secure landfill, and operated by FJC from 1996 until 2004 when the State of Maine purchased the landfill. During this period, JRL, then called the West Old Town Landfill (WOTL), was used mainly for disposal of combined sludge from FJC's primary and secondary treatment plant in Old Town and fly ash from a biomass boiler at Eastern Paper's mill in Lincoln. Placement of the sludge began in December 1996 along the western portion of Cell 1. By 2001, operations had moved to the east into Cell 2. Details relating to the geotechnical behavior of FJC's sludge during the sequential landfill development is presented in previous reports (REW 2007a,b).



(ref: 06/24/19 aerial topographic survey)

Title: Site Plan Juniper Ridge Landfill		By: REW	Richard E. Wardwell, P.E., Ph.D. Geotechnical & Groundwater Engineering 19 Old Lake Road, PO Box 169 Lake George, NY 12845
		Checked: REW	
Project: 2019 Annual Geotechnical Monitoiring Report		Date: March 2020	
Client: State of Maine BGS/NEWSME Landfill Operations LLC, Old Town, Maine		Scale: ~1" = 375'	

Figure No: 1

Project No: 1751

Title:	Aerial Photograph (6/24/19) Juniper Ridge Landfill	By:	REW	Richard E. Wardwell, P.E., Ph.D. Geotechnical & Groundwater Engineering 19 Old Lake Road, PO Box 169 Lake George, NY 12845
		Checked:	REW	
Project:	2019 Geotechnical Monitoring Report	Date:	Feb. 2020	
Client:	State of Maine/NEWSME Landfill Operations LLC, West Old Town, Maine	Scale:	~ 1" = 100'	

Project No: 1751

Figure No: 2

2.2 State of Maine Purchase and Operations

In February 2004, the State of Maine, through the SPO, purchased the landfill from FJC. It selected CWSI through its subsidiary NEWSME, to operate the disposal of in-state wastes. Approximately 50,000 tons of sludge from FJC's Old Town mill were initially placed in landfill Cells 1 & 2 before the mill closed in 2006. To improve deposit stability, CWSI stabilized the existing sludge at the site by mixing it with approved in-state waste streams, i.e. CDD, OBW, FEPR, incinerator ash, bypass MSW, and other miscellaneous wastes. A detailed description of the test plots constructed to determine the geotechnical behavior of this waste and the sludge stabilization program were presented in previous annual monitoring reports (REW 2005a, 2006, 2007a, 2008a, 2009, 2010, 2011) and an annual geotechnical landfill inspection report (REW 2012).

Once the sludge stabilization program was completed by mid-2006, landfill operations moved into Cell 3A/B, followed sequentially with Cells 4-10 under MEDEP Solid Waste License #S-020700-WD-N-A. Deposited in these cells was a mixture of in-state wastes, which included but not limited to various percentages of CDD, MSW (Cells 3-10 only), bypass MSW, OBW, MSW incinerator ash and other ashes, CDD wood fines for cover, contaminated soils, WWTP/POTW sludge, lime mud and grit, oil spill debris, pulp mill waste, other approved miscellaneous special wastes.

In mid-2015, with the help of SME, BGS/NEWSME submitted JRL Expansion Application (SME 2015) to the MEDEP. On June 6, 2017, that application was approved by the BEP under Solid Waste License #S-020700-WD-BI-N and Natural Resources Protection Act #L-19015-TG-D-N. During 2018, the first cell (Cell 11) of a 6-cell, 54 acre landfill expansion was constructed. As a result, a mixture of similar in-state wastes as described above for Cells 3-10, (excluding MSW for Expansion Cells 11-16) was approved. Based on performance to date, this mixture of wastes are stable at slopes up to 2.5H:1V. Even so, the mixture from these waste streams are highly compressible and subject to gas generation, but, based on more than 12 years of operational experience, the in-state waste mixture is more stable and less compressible than the waste-stabilized sludge.

2.3 Overview of Past Geotechnical Monitoring

Once the stability of the waste-stabilized sludge was resolved (see MEDEP 2008; REW 2008b; *2008 GMR*, REW 2009; *2010 GMR*, REW 2011), the previous program (REW 2007b) was modified to represent the monitoring needs associated with current waste mixtures placed in a landfill founded on a firm soil (see *2011 GMR*, REW 2012). Specifically, reliance on the extensive measurements of in-situ instruments was shifted to observation methodologies that are used to assure that the geotechnical performance of the landfill remained consistent with design analyses. This approach has been in service since 2010 and now applied to the most recent GMP included in the JRL Expansion Operations Manual (NEWSME 2020).

3. CURRENT SITE ACTIVITIES AND OPERATION

3.1 Cell 11 Construction and Soft Layer Placement

Throughout the 2018 construction season, the first cell (Cell 11) of a 6-cell, 54 acre JRL expansion was completed and approval to place waste was granted by the MEDEP. Once approved, soft waste material placement was initiated in the basal area of the cell, and extended through 2019. Due to a lack of sufficient adequate soft protective material (intended to protect the liner/leachate collection system) in the incoming waste, some suitable soft waste was excavated from the Cells 1 & 2 during 2019 (as shown in Figure 3) and placed as 5 ft. thick layer of protective material in Cell 11 (also see, SME [2018] & MEDEP [2018] correspondence in Appendix A, and the site photos ##29-32 in Appendix F).

3.2 2019 Waste Placement and Operation

As portions of the protective layer were completed, mixed waste placement during 2019 continued in the active portions of Cell 11 and on the upper portions of Cells 7/9/10 to bring this latter area to interim grades in preparation for intermediate cover. As summarized in Table 1, waste composition during this period was dominated by forms of CDD, MSW (Cells 3-10 only), bypass MSW, OBW, MSW incinerator ash and other ashes, CDD wood fines for cover, contaminated soils, WWTP/POTW sludge, oil spill debris, pulp mill waste, other approved miscellaneous special wastes. By mid-year (when the aerial photography was made), approximately 50 feet of the mixed waste was placed in Cell 11, raising its grade to a maximum elevation of approximately 276 ft. mean sea level (msl). Wastes placed over the southeastern portion of Cells 9/10 raised the grade in this area to a maximum elevation of about 386 ft. msl.

The remaining landfill capacity in Cells 1-11 by the end of 2019 is summarized in Appendix B. After the capacity of Cell 11 is exhausted, expansion will continue in five additional landfill cells (i.e. Cells 12 to 16) located north of the existing operations. It is expected that future expansion cells will receive similar types and quantities of wastes placed in the current operation of Cell 11.

Key: Excavation Area (yellow hatch)

Title: Excavation Area for Retrieving Suitable Soft Protective Waste for Cell 11 Juniper Ridge Landfill	By: REW	Checked: REW	Richard E. Wardwell, P.E., Ph.D. Geotechnical & Groundwater Engineering 19 Old Lake Road, PO Box 169 Lake George, NY 12845
Project: 2019 Geotechnical Monitoring Report	Date: Feb. 2020		
Client: State of Maine/NEWSME Landfill Operations LLC, West Old Town, Maine	Scale: ~ 1" = 100'		
Project No: 1751	Figure No: 3		

Table 1
2019 JRL Waste Summary

Summary of Wastes Accepted at Juniper Ridge Landfill Report Year 2019				
Waste Type #	**Waste Types**	**Total (tons)**	**Origin**	**% Total Waste**
1	Bypass MSW	40,614	Maine	5.0
2	CDD/MSW Processing Residue - OBW (Disposed of in the Original 2004 Permitted Footprint)	18,460	Maine	2.3
3	CDD/MSW Processing Residue - OBW (Disposed of in the Expansion Permitted Footprint)[5]	66,094	Maine	8.1
4	CDD Processing Residue - Fines[1]	140,256	Maine	17.1
5	FEPR	105	Maine	0.0
6	Mixed CDD	299,611	Maine	36.6
7	MSW[4]	79,910	Maine	9.8
8	Wood from CDD[2]	1,472	Maine	0.2
9	Residue/Trash from Single Stream	5,083	Maine	0.6
	Special Wastes Types			
10	Burn Pile Ash and/or Hot Loads Area Ash	383	Maine	0.0
11	Catch Basin Grit & Street Sweeping	448	Maine	0.1
12	Coal, Oil & Multi-fuel Boiler Ash	7,699	Maine	0.9
13	Contaminated Soil & Debris	22,037	Maine	2.7
14	Dredged Spoils	233	Maine	0.0
15	Industrial WWTP Sludge	15,002	Maine	1.8
16	Lead Paint Chips, Gravel, Plastic Cont. Bar. & PPE	9	Maine	0.0
17	Leather Scraps	54	Maine	0.0
18	MSW Incinerator Ash	37,688	Maine	4.6
19	Municipal WWTP/POTW Sludge	67,886	Maine	8.3
20	Non-Friable Asbestos	435	Maine	0.1
21	Non-Hazardous Chemical Related	2,266	Maine	0.3
22	Oil Spill Debris	3,259	Maine	0.4
23	PCB Impacted Concrete	691	Maine	0.1
24	Polyethylene & Cellulose Trimmings	4,845	Maine	0.6
25	Pulp Mill Waste	1,134	Maine	0.1
26	Sandblast Grit	299	Maine	0.0
27	Spoiled Foods	574	Maine	0.1
28	Sulfur Scrubbing Residues	844	Maine	0.1
29	Water/Air Filtration Media	0	Maine	0.0
30	WWTP Grit Screenings	1,066	Maine	0.1
SUBTOTAL WASTE TYPES 1-9		651,605	Maine	79.6
SUBTOTAL WASTE TYPES 10-30		166,852	Maine	20.4
GRAND TOTAL WASTE RECEIVED[3]		**818,457**	Maine	

1. Used as alternative daily cover (ADC)

2. Wood from CDD was received at the Juniper Ridge Landfill wood storage facility (ADC)

3. Total derived from sum of higher significant digit numbers, not rounded whole numbers as provided in the above table.

4. Non-bypass MSW limited to 81,800 tons in the Original 2004 Permitted Footprint from 01 APR – 31 MAR. Numbers reported above are for calendar years. Total no-bypass MSW from 04/01/19 - 03/31/20 was 80,366 tons.

5. On 12/20/19, MEDEP approved an increase of OBW in the Expansion area. The previous limit of 65,000 tons per year, set by expansion license #S-020700-WD-BI-N, was modified through solid waste minor revision #S-020700-WD-BW-M. The minor revision approved additional disposal of OBW prorated for the remainder of 2019, and increased to 85,000 tons for calendar year 2020.

4. 2019 GEOTECHNICAL LANDFILL MONITORING

During 2019, various monitoring was performed at JRL to ensure compliance with JRL's Solid Waste License #S-020700-WD-BI-N and Natural Resources Protection Act #L-19015-TG-D-N. Results of this monitoring verifies the consistency of the landfill's geotechnical performance with design parameters and assumptions, and with the goals of the JRL Expansion Operations Manual (NEWSME 2020). Specifically, geotechnical monitoring during this past year included: (1) visual observation of landfill slope stability, settlement, and general landfill conditions, (2) assessment of site aerial topographic surveys; (3) a review of waste types, quantities, location of waste placement, and filling sequences, and (4) evaluation of fluid levels in the leachate collection layer of Cell 11.

4.1 Landfill Observations

During 2019, performance of JRL was verified by routine weekly visual site inspections of the landfill during normal operations. A sample copy of the weekly/monthly inspection forms is presented in Appendix C (with copies of any specific inspection available upon request). Observations made during these inspections help confirm the corroboration of landfill performance with the design conditions used in the geotechnical analysis. In part, the revised stability and settlement analyses completed for the landfill design (REW 2005b, SME 2015) were verified in the field by monitoring the type, quantity, rate, location, and condition of waste placement in accordance with the JRL Expansion Operations Manual (NEWSME 2020).

4.2 Annual Inspection

To supplement weekly operational observations, an annual geotechnical inspection of the landfill area (performed on October 16, 2019) focused on the overall condition of the landfill that specifically looked for evidence of cracking, localized depressions, erosion, leachate breakout on sideslopes, areas of ponded water, stressed vegetation, and toe heaving. As previously mentioned, normal operations were taking place in Cell 11 while additional grading material was placed on the top of the landfill in the southeast portion of Cells 9/10. Synthetic Intermediate Cover Material (SICM) and, in small areas, earthen intermediate cover has been placed over the inactive portions of the landfill.

Geotechnical observations were made to confirm that waste placement procedures, sideslope construction, cover performance, and other construction/filling practices are consistent with the JRL Expansion Operations Manual (NEWSME 2020). Observation reports, using the checklist presented in the current GMP, were filled out and are included in Appendix D of this report. A photographic record of the October visit is included in Appendix F.

Inspection elements for assessment of geotechnical performance included:

Active Areas

- waste lift thickness
- active filling area slope angle
- final waste slope angle

- identification of areas with visible ponding, seepage, or indications of mass snow burial

Inactive Areas with Intermediate Cover (SICM or earthen material)

- overall surface and/or intermediate cover condition
- evidence of surface cracking
- localized surficial depressions in waste or cover surface
- erosion of cover material
- erosion of ditch linings
- leachate breakout on sideslopes
- areas of ponded water
- toe heaving
- grass kills
- gas venting

Geotechnical performance observations indicated that the landfill slopes were stable and that differential waste settlement was minor and can be managed to tolerable levels during final cover design. The active waste placement in Cell 9/10 and Cell 11 is performing as anticipated. At the time of the inspection, there were no indications of inconsistencies between site activities and JRL Expansion Operations Manual (NEWSME 2020).

An isolated bulge in the SICM was observed midway up the north face of Cells 3 & 7 (see Photo #3). The apparent deformity is actually one of the anchor systems use at JRL to constrain the temporary membrane during periods of high winds. This ballast was constructed by a placing a quantity of sand on the SICM, covering this material with a separate strip of membrane and welding that strip to the intermediate membrane cover. Other types of systems used at this landfill for this same purpose include Platipus hook anchors (refer to the internet hyperlink - https://www.youtube.com/watch?v=nVb0Z2824SY) and the historical use of sand bags tethered together with nylon ropes (e.g. see Photo # 4-5, 25, 26, 29). The areas of the landfill where the newer ballast cells and Platipus hook anchors have been installed is illustrated in Figure 4.

4.3 Fluid Pressure Measurements

In accordance with the Board Order for the landfill expansion, a fluid pressure transducer was installed in the leachate collection layer of Cell 11 (at the location shown on Figure 1) to confirm system design by measuring fluid levels in this drainage layer. This instrument was placed at the bottom of the 12-inch sand layer of the leachate collection system that overlies the geocomposite layer of the containment liner. The transducer is placed roughly at elevation 213 and is approximately 5 feet higher in elevation compared to the sump which is located closer to elevation 208.

To help determine the degree that the hydraulic head within the leachate collection layer is minimized, daily instrument readings were recorded during 2019 as presented in Appendix E. The small values demonstrate that the levels are minimal, verifying that the leachate collection at this location in Cell 11 is performing in accordance with design.

Key: Sand Ballast (yellow); Platipus Anchors (Green)

Figure No: 4	Project No: 1751	Title: Location of Sand Ballast & Platipus Anchors Juniper Ridge Landfill	By: REW Checked: REW	Richard E. Wardwell, P.E., Ph.D. Geotechnical & Groundwater Engineering 19 Old Lake Road, PO Box 169 Lake George, NY 12845
		Project: 2019 Geotechnical Monitoring Report	Date: Feb. 2020	
		Client: State of Maine/NEWSME Landfill Operations LLC, West Old Town, Maine	Scale: ~ 1" = 100'	

4.4 Surveys

A topographic survey of the landfill surface was completed on June 24, 2019 using aerial photogrammetric methods. A spot check of surface elevations indicates that the waste slope angles are consistent with the project design and JRL Expansion Operations Manual (NEWSME 2020). Elevation contours for covered areas were visually examined for depressions, heaving, and ditch slope continuity. Consistent with site observations, these observations indicate that the landfill is performing as anticipated during design with no noticeable differential settlements or instabilities. Exclusive of the excavation area in Cells 1 & 2, comparisons with the aerial survey made in June 2019 show no discernable differences in the overall topography of the landfill surface that would indicate large differential settlements or slope instabilities.

4.5 Modifications to the Geotechnical Monitoring Plan

As addressed last year, with the filling of Cell 11 in 2019, the current GMP, which was originally included in the JRL Expansion Application (SME 2015), is now included as part of the JRL Expansion Operations Manual (NEWSME 2020). This GMP is now implemented along with weekly routine inspections and an evaluation of fluid levels in the leachate collection layer of JRL expansion cells (i.e. Cells 11 to 16). No other modifications to the GMP are proposed for 2020.

5. SUMMARY

Geotechnical monitoring of JRL was performed to verify that the operations and field behavior of the facility is consistent with design analyses and geotechnical plans. Consistent with the modifications in 2008 and 2010, field observations of landfill activities were emphasized in assuring consistency with the JRL Expansion Operations Manual (NEWSME 2020) and, in the process, confirm that there were no indications of potential slope instabilities or excessive differential settlements that might impact the performance of the facility. Sand ballasts and Platipus anchors were installed on the SCIM at several locations to supplement the tethered sand bags in helping hold down the membrane during high winds. Due to the lack of sufficient, adequate soft waste to cover and protect the liner/leachate collection system in Cell 11 prior to the placement of the normal mixed waste, fine waste was extracted from the northwest corner of Cells 1/2 (an area known to be devoid of MSW) for use as supplemental soft material in the active cell.

In accordance with the current GMP, which is included as part of the JRL Expansion Operations Manual (NEWSME 2020), routine weekly visual site inspections of the landfill during normal operations were made in 2019, an annual geotechnical inspection performed on October 16, 2019, and an aerial topographic survey of the facility made on June 24, 2019 document that the landfill is performing as anticipated with no excessive deformations, slope movements, unexplained ponded water, or leachate breakouts. Site observations made of the inactive areas and the operational activity in Cell 11 and the top of Cells 9/10 indicate that the landfill is performing as anticipated during design. Measurements of the fluid levels in the leachate collection system at the base of Cell 11 (as measured by the in-place transducer) indicates that the head on the liner system is minimal and is performing in accordance with design.

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REW (2013), *2012 Geotechnical Landfill Inspection Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, North Bethesda, MD for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, April.

REW (2014), *2013 Geotechnical Landfill Inspection Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, Bethesda, MD for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, April.

REW (2015), *2014 Geotechnical Landfill Inspection Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, Bethesda, MD for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, April.

REW (2016), *2015 Geotechnical Landfill Inspection Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, Bethesda, MD for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, March.

REW (2017), *2016 Geotechnical Landfill Inspection Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, Lake George, NY for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, March.

REW (2018), *2017 Geotechnical Landfill Inspection Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, Lake George, NY for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, March.

SME (2015), *Juniper Ridge Landfill Expansion Application Geotechnical Monitoring Plan*, JRL Expansion Application, Volume IV - Operations Manual, Appendix N, Geotechnical Monitoring Plan (2015) submitted by State of Maine Bureau of General Services (as Owner), and NEWSME Landfill Operations, LLC (as Operator), July.

SME (2015), *Juniper Ridge Landfill Expansion Application Stability and Settlement Analysis*, JRL Expansion Application, Volume III-Design Report, Section 3.1.5, Stability and

Settlement Monitoring Plan (2015), submitted by State of Maine Bureau of General Services (as Owner), and NEWSME Landfill Operations, LLC (as Operator), July.

SME (2016), email from Sevee & Maher Engineers, Inc., Cumberland, ME to R.E. Wardwell, Bethesda, MD, Sevee & Maher Engineers, Inc., Cumberland, ME, March 9.

SME (2018), *JRL Landfill Follow-up to Last Weeks Conversation on Cell Development and Cover Placement* with attachment *Final Closure Development Plan,* email to MEDEP, October 15.

APPENDIX A

SME 10/15/18 and MEDEP 10/16/18 Correspondence

Jeffrey Pelletier

From:	Mike Booth <msb@smemaine.com>
Sent:	Monday, October 15, 2018 10:26 AM
To:	Kathy Tarbuck (kathy.tarbuck@maine.gov); stephen.e.farrar@maine.gov
Cc:	Wayne Boyd; Toni King; Jeffrey Pelletier; Peter Mailey
Subject:	JRL Landfill Follow-up to Last Weeks Conversation on Cell Development and Cover Placement
Attachments:	FINAL CLOSURE DEVELOPMENT PLAN.PDF

Kathy and Steve

As a follow up to our conversation last week about the sequencing for cell development and final cover placement at the Juniper Ridge Landfill (JRL), a summary of JRL's current vision/approach for cell construction and application of final cover..

Attached is a figure that shows the current closure sequence envisioned for JRL by NEWSME. Generally, it follows the closure sequence as presented in Volume III Section 3.5 of the Expansion Application. The boundaries of the closure stages have been modified based on further refinement of the original plan after consideration of current operational input such as the types and volumes of waste projected to be received, and operational issues such as maintaining access to various locations of the landfill. For example, the boundary of the Stage 1 closure area has changed to maintain the western site access road to the top of the landfill.

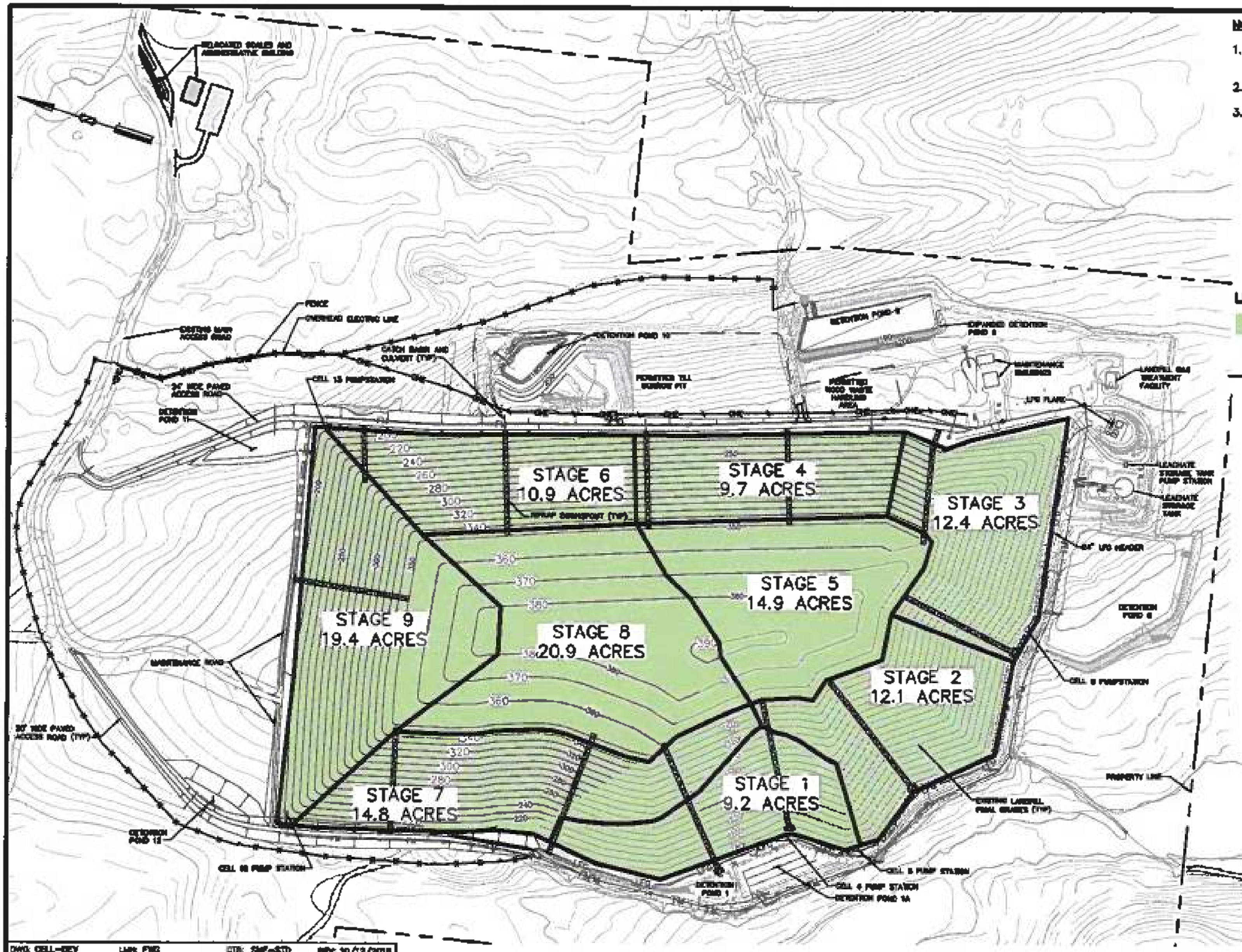
As far as timing for cell development and cover placement NEWSME's current plans are to phase the transition from waste placement in Cell 10 to placement of wastes into Cell 11, and in the Stage 1 closure area to recover remaining capacity as was discussed last week. The materials excavated to create working platforms for waste placement in the Stage 1 closure area will be used as the soft layer in Cell 11. This fall NEWSME plans to apply intermediate cover to the Cell 10 side slope areas, followed by cover placement to the top of the Cell. Intermediate cover placement as outlined in the Site's Operations Manual will be followed.
Knowing that about 100,000 cubic yards of material are still needed to fill the Stage 1 closure area, and the JRL'S current need to begin waste placement in Cell 11, NEWSME does not believe that the Stage 1 closure area will be ready for final cover in the 2019 construction season.

Current plans on include completing this cover during the 2021 construction season because the 2020 construction season will focus on the construction of Cell 12. Since Cell 12 will be the largest construction activity associate with the Expansion, in terms of the actual cell size and infrastructure construction, NEWSME is planning on completing some of the ancillary Cell 12 infrastructure next year. This includes activities such as moving the scales and office building and beginning to place the structural fill needed for the remaining portion of the eastern perimeter berm associated with the Expansion. The plans associated with these activities will be forwarded to the Department for your review when complete. At this time Cell 13 is tentatively scheduled for construction in 2022 and Stage 2 of closure would be undertaken in 2023. This pattern of alternating cell and cover construction is planned to be continued for the remaining cells and cover areas.
Please feel free to contact us with any questions,

Regards,

Michael Booth P.E.
Senior Project Manager

SME
SEVEE & MAHER
ENGINEERS
Sevee & Maher Engineers, Inc.
4 Blanchard Road, P.O. Box 85A



NOTES

1. GRADES SHOWN IN CELL REPRESENT BASE CELL GRADES PRIOR TO WASTE FILLING.
2. FINAL GRADES REPRESENT TOP OF WASTE.
3. AMOUNT OF AREA IDENTIFIED IN EACH STAGE REPRESENTS SURFACE AREA OF FINAL WASTE GRADE.

LEGEND

AREAS OF FINAL COVER

PERMANENT PUMP STATION

FM LEACHATE TRANSPORT FORCEMAIN

200 0 400 FEET

FIGURE 1

FINAL COVER DEVELOPMENT
JUNIPER RIDGE LANDFILL EXPANSION
OLD TOWN, MAINE

SME
SEVEE & MAHER
ENGINEERS

Jeffrey Pelletier

From:	Tarbuck, Kathy <Kathy.Tarbuck@maine.gov>
Sent:	Tuesday, October 16, 2018 3:33 PM
To:	Mike Booth; Farrar, Stephen E
Cc:	Wayne Boyd; Toni King; Jeffrey Pelletier; Peter Mailey; OConnor, Michael
Subject:	RE: JRL Landfill Follow-up to Last Weeks Conversation on Cell Development and Cover Placement
Attachments:	2018_10_16 SF memo JRLClosureDevelopment.pdf

Mike –

Attached is a review memo on the information submitted in your October 15, 2018 email.

Let us know if you have any questions.

Kathy

Kathy Tarbuck, P.E.
Senior Environmental Engineer in the Bureau of Remediation and Waste Management
Maine Department of Environmental Protection
ph (207) 287-7743
www.maine.gov/dep

From: Mike Booth [mailto:msb@smemaine.com]
Sent: Monday, October 15, 2018 10:26 AM
To: Tarbuck, Kathy <Kathy.Tarbuck@maine.gov>; Farrar, Stephen E <Stephen.E.Farrar@maine.gov>
Cc: wayne.boyd@casella.com; Toni King (toni.king@casella.com) <toni.king@casella.com>; Jeffrey M Pelletier (Jeffrey.Pelletier@casella.com) <Jeffrey.Pelletier@casella.com>; Peter Mailey <pcm@smemaine.com>
Subject: [EXTERNAL SENDER] JRL Landfill Follow-up to Last Weeks Conversation on Cell Development and Cover Placement

Kathy and Steve

As a follow up to our conversation last week about the sequencing for cell development and final cover placement at the Juniper Ridge Landfill (JRL), a summary of JRL's current vision/approach for cell construction and application of final cover..

Attached is a figure that shows the current closure sequence envisioned for JRL by NEWSME. Generally, it follows the closure sequence as presented in Volume III Section 3.5 of the Expansion Application. The boundaries of the closure stages have been modified based on further refinement of the original plan after consideration of current operational input such as the types and volumes of waste projected to be received, and operational issues such as maintaining access to various locations of the landfill. For example, the boundary of the Stage 1 closure area has changed to maintain the western site access road to the top of the landfill.

As far as timing for cell development and cover placement NEWSME's current plans are to phase the transition from waste placement in Cell 10 to placement of wastes into Cell 11, and in the Stage 1 closure area to recover remaining capacity as was discussed last week. The materials excavated to create working platforms for waste placement in the Stage 1 closure area will be used as the soft layer in Cell 11. This fall NEWSME plans to apply intermediate cover to the Cell 10 side slope areas, followed by cover placement to the top of the Cell. Intermediate cover placement as outlined in the Site's Operations Manual will be followed.
Knowing that about 100,000 cubic yards of material are still needed to fill the Stage 1 closure area, and the JRL'S current need to begin waste placement in Cell 11, NEWSME does not believe that the Stage 1 closure area will be ready for final cover in the 2019 construction season.

Current plans on include completing this cover during the 2021 construction season because the 2020 construction season will focus on the construction of Cell 12. Since Cell 12 will be the largest construction activity associate with the Expansion, in terms of the actual cell size and infrastructure construction, NEWSME is planning on completing some of the ancillary Cell 12 infrastructure next year. This includes activities such as moving the scales and office building and beginning to place the structural fill needed for the remaining portion of the eastern perimeter berm associated with the Expansion. The plans associated with these activities will be forwarded to the Department for your review when complete. At this time Cell 13 is tentatively scheduled for construction in 2022 and Stage 2 of closure would be undertaken in 2023. This pattern of alternating cell and cover construction is planned to be continued for the remaining cells and cover areas.
Please feel free to contact us with any questions,

Regards,

Michael Booth P.E.
Senior Project Manager

SME
SEVEE & MAHER
ENGINEERS
Sevee & Maher Engineers, Inc.
4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Office: 207.829.5016
Cell: 207-7492867
Fax: 207.829.5692

State of Maine
Department of Environmental Protection
Bureau of Remediation and Waste Management

MEMORANDUM

TO: Kathleen E. Tarbuck, P.E.; Project Manager - Technical Services
FROM: Stephen E. Farrar, P.E.; Environmental Engineer Specialist - Technical Services
DATE: October 16, 2018
SUBJ: Juniper Ridge Landfill
Closure Development Sequencing
File No. 2112.4001

****

We are in receipt of an email from Sevee & Maher Engineers, Inc. dated September 15, 2018 with an attached Final Cover Development sequencing plan (Plan) for the Juniper Ridge Landfill (JRL) in West Old Town. The Plan calls for final closure of the landfill in nine stages. In general, we concur with the sequence presented. We do, however, offer the following observations and recommendations:

1. The email text indicates that JRL plans to have intermediate cover applied to the side slope of Cell 10 this fall followed by cover placement on the top of the cell. It is unclear when intermediate cover installation on the top of Cell 10 is expected to be complete. We recommend that, to the extent practical considering waste types and the need for protective cover in Cell 11, waste placement activities be focused on bringing Cell 10 to interim grades for intermediate cover.

2. To supplement protective cover placement in Cell 11, JRL will excavate and transport suitable waste material from the Stage 1 closure area to the cell. They will then proceed to replace the borrowed waste and place additional waste to bring the area to final grade for closure. It is noted that JRL does not expect Stage 1 to be ready for final closure in 2019. It is our understanding that approximately 110,000 cubic yards of waste placement will be required. We recommend that, to the extent practical considering waste types, filling be focused on bringing Stage 1 to grade for final closure during the 2019 construction season.

3. If JRL is not able to close Stage 1 during 2019 it would be delayed until 2021 due to conflicts with Cell 12 construction during the 2020 construction season. Construction projects would then alternate annually between new cells and closure projects. With five remaining cells and nine closure stages, final closure of the site could extend several years beyond the landfill being filled to capacity. As cell development plans are updated on an annual basis we recommend that, to the extent practical, alternatives to shorten the gap between the completion of landfilling and final closure be considered.

Please let me know if there are any questions.

cc: Mike O'Connor

APPENDIX B

JRL Estimate of Landfill Capacity
December 31, 2019

Juniper Ridge Landfill
Estimate of Remaining Capacity as of December 31, 2019

	Values	Units	Source	
Landfill Capacity Remaining in Cells 1-10 as of December 31, 2018	928,491	cy	Calculated 2018 capacity evaluation	MSE Berm used for final waste surface for Cells 1-10 as permitted
Landfill Capacity Remaining in Cells 11-16 as of December 31, 2018	9,252,175	cy	Calculated 2018 capacity evaluation	
Remaining Site Capacity as of June 24, 2019 in landfill Cells 1-10	915,000	cy	June 24, 2019 Site Survey	MSEBerm used for final waste surface for Cells 1-10
Remaining Site Capacity as of June 24, 2019 in Expansion Cells 11 thru 16	8,205,400	cy	June 24, 2019 Site Survey	
Tons Placed in Landfill Cells 1-10 (tons) between June 25, 2019 and December 31, 2019.	154,492.91	tons	JRL Records	Jeff P. 03-30-2019
Tons Placed in Expansion Landfill Cells 11-16 (tons) between June 25, 2019 and December 31, 2019.	288,254.21	tons	JRL Records	Jeff P. 03-30-2020
Compaction Factor Three Year Running Average through June 2019	0.81	ton/cy	JRL Records	For Cells 1-11
Calculated Capacity Used in Cells 1-10 between June 25, 2019 and December 31 2019 (CY)	190,732	cy	Calculation	
Calculated Capacity Used in Cells 1-10 in 2019	204,223	cy	Calculation	
Calculated Capacity Used in Cells 11-16 between June 25, 2019 and December 31 2019 (CY)	355,869	cy	Calculation	Based on 0.81 compaction factor
Calculated Capacity Used in Cells 11-16 in 2019	1,402,645	cy	Calculation	
Estimated Remaining Cell 1 thru Cell 10 Capacity as of December 31, 2019	**724,268**	**cy**	Calculation	
Estimated Remaining Site Capacity in Cells 11-16 as of December 31, 2019	**7,849,531**	**cy**	Calculation	
Calculated Tons Disposed of in Landfill Cells 1 thru 10	**220,621.04**	**Tons**	JRL Records	
Calculated Tons Disposed of in Landfill Cell 11	**597,835.73**	**Tons**	JRL Records	Jeff P. 03-30-2020
Total Reported Tons Disposed of in Entire Landfill Cells 1 thru 11	**818,456.77**	**Tons**	JRL Records	

APPENDIX C

Weekly/Monthly Landfill Inspection Form

WEEKLY/MONTHLY INSPECTION FORM

Site Name/Company	Juniper Ridge Landfill/NEWSME Landfill Operations, LLC
Location	2828 Bennoch Road, Alton, Maine
Date of Visit	
Inspector Name/Signature	

Note: For weekly inspections, only Table 1 and Table 3 need to be completed. For monthly inspections, Tables 1, 2 and 3 need to be completed.

Table 1
Inspection of Active Areas at the Facility

Active Areas at the Facility			
Leachate	Is leachate observed on the ground, or leaking from tanks or piping, with evidence of or the potential to impact stormwater?	☐ Yes ☐ No	☐ Comments (see below)
Access Roads	Are industrial materials, residue or trash observed on roads where vehicles enter or exit the active landfill with evidence of or the potential to impact stormwater?	☐ Yes ☐ No	☐ Comments (see below)
MSW and CDD (windblown debris)	Is MSW and/or CDD on ground, tracking, blowing or whirling with evidence of or the potential to impact stormwater?	☐ Yes ☐ No	☐ Comments (see below)
Borrow Pit	Is there evidence of tracking or erosion from site soil borrow areas with potential to impact stormwater?	☐ Yes ☐ No	☐ Comments (see below)
Mobile Equipment	Is mobile equipment leaking oil or other liquids with evidence of or the potential to impact stormwater?	☐ Yes ☐ No	☐ Comments (see below)

Active Areas at the Facility	
Comments	

Table 2
Inspection of Stabilized Areas at the Facility

Stabilized Active Areas at the Facility			
Leachate	Is leachate observed on the ground, or leaking from tanks or piping, with evidence of or the potential to impact stormwater?	☐ Yes ☐ No	☐ Comments (see below)
Access Roads	Are industrial materials, residue or trash observed on roads where vehicles enter or exit the active landfill with evidence of or the potential to impact stormwater?	☐ Yes ☐ No	☐ Comments (see below)
MSW and CDD (windblown debris)	Is MSW and/or CDD on ground, tracking, blowing or whirling with evidence of or the potential to impact stormwater?	☐ Yes ☐ No	☐ Comments (see below)
Comments			

Table 3
Inspection of Stormwater BMPs, Conveyances and Outfalls

BMP	Describe where any of the following were observed: • Any evidence that the BMP is not functioning properly.
Detention Pond 1	
Geomembrane Lined Storage Pond	
Detention Pond 2	
Detention Pond 6	
Litter Fence	
Lechate Storage Tank Containment Area	
Leachate Storage Tank Containment Area Riprap Outlet	
Leachate Loading Rack Catch Basin	
Detention Pond 9	
2,000-Gallon Underground Storage Tank	
Detention Pond 5	
Outfall No. 1	
Outfall No. 2	
Outfall No. 3	

Table 3
Inspection of Stormwater BMPs, Conveyances and Outfalls

BMP	Describe where any of the following were observed: • Any evidence that the BMP is not functioning properly.
Outfall No. 4	
Outfall No. 5	

Table 4
New Potential Pollutant Source and/or Recommendations for Additional BMPs

Reference	Description	Schedule

Certification

☐ Site is in compliance with SWPPP and MSGP.
☐ Site is not in compliance with SWPPP and MSGP and either structural control measure maintenance, additional controls, or modifications to the SWPPP are required.

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

Name:	Telephone:
Signature:	Date:

APPENDIX D

Annual Geotechnical Landfill Inspection Form

Table B-1
Checklist: Annual Geotechnical Inspection
2019 Annual Geotechnical Landfill Monitoring Report, Juniper Ridge Landfill, Old Town, Maine

Observation Date: 10/16/2019
Monitor Name: Richard E. Wardwell
Weather: sunny, temperatures in high 50's

Observation Area	Sat.	Unsat	Description (location, direction, appearance, etc.)	Proposed Action
Active Area				
location description	-	-	Cell 11 (see Photos 6,7,12,13,15,16) & top of Cells 9/10 (see Photos 8, 10-18)	n/a
slope stability	X			
waste lift thickness	X			
active slope angle	X		~2½:1 to 3:1	
erosion	X			
leachate breakout	X		none observed (N/O)	
ponded water	X		N/O	
toe heaving	X		N/O	
overall condition	X		stable slope appearance	
Inactive Area (Synthetic)			Synthetic Interim Cover Material (SICM) over most slopes	
location description	-	-	except lower west slope	n/a
slope stability	X		isolated surface displacements (see Photo #3)	
cracking	X		N/O	
erosion	X		N/O	
leachate breakout	X		N/O	
ponded water	X		slight ponding where vegetation exists in intercepting ditches	none-stable slope (see Photo 4)
toe heaving	X		N/O	
overall condition	X		stable SICM slope appearance (see Photos 1-7, 14-20, 23-29)	
Interim Soil Cover				
location description	-	-	lower westerly slopes	n/a
overall surface condition	X		good grass cover except in excavation (see Photos 29, 30-32)	
cracking	X		N/O	
erosion of cover material	X		N/O	
erosion of ditch linings	X		N/O	
leachate breakout	X		N/O	
ponded water	X		N/O	
toe heaving	X		N/O	
grass kills	X		N/O	
gas venting	X		N/O	
overall condition	X		good stable condition (see Photos 19-27, 29, 30)	

APPENDIX E

Cell 11 Fluid Pressure Data

2019 Leachate Cell Floor Transducer (Cell 11)*

1st Qtr**

Date	Level (ft)
03/28/19	0.04
03/29/19	0.05
03/30/19	0.05
03/31/19	0.04

2nd Qtr

Date	Level (ft)
04/01/19	0.05
04/02/19	0.05
04/03/19	0.05
04/04/19	0.05
04/05/19	0.05
04/06/19	0.05
04/07/19	0.05
04/08/19	0.05
04/09/19	0.05
04/10/19	0.05
04/11/19	0.05
04/12/19	0.05
04/13/19	0.05
04/14/19	0.05
04/15/19	0.05
04/16/19	0.05
04/17/19	0.05
04/18/19	0.04
04/19/19	0.04
04/20/19	0.04
04/21/19	0.04
04/22/19	0.04
04/23/19	0.04
04/24/19	0.05
04/25/19	0.04
04/26/19	0.05
04/27/19	0.04
04/28/19	0.05
04/29/19	0.05
04/30/19	0.05
05/01/19	0.04
05/02/19	0.04
05/03/19	0.04
05/04/19	0.04
05/05/19	0.05
05/06/19	0.04
05/07/19	0.04
05/08/19	0.05
05/09/19	0.04
05/10/19	0.04
05/11/19	0.04
05/12/19	0.04
05/13/19	0.04
05/14/19	0.05
05/15/19	0.04
05/16/19	0.05
05/17/19	0.05
05/18/19	0.04

3rd Qtr

Date	Level (ft)
07/01/19	0.05
07/02/19	0.04
07/03/19	0.05
07/04/19	0.05
07/05/19	0.05
07/06/19	0.05
07/07/19	0.05
07/08/19	0.05
07/09/19	0.05
07/10/19	0.05
07/11/19	0.04
07/12/19	0.05
07/13/19	0.05
07/14/19	0.05
07/15/19	0.05
07/16/19	0.05
07/17/19	0.05
07/18/19	0.04
07/19/19	0.05
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07/26/19	0.05
07/27/19	0.05
07/28/19	0.05
07/29/19	0.05
07/30/19	0.05
07/31/19	0.05
08/01/19	0.05
08/02/19	0.05
08/03/19	0.05
08/04/19	0.05
08/05/19	0.05
08/06/19	0.04
08/07/19	0.05
08/08/19	0.04
08/09/19	0.04
08/10/19	0.05
08/11/19	0.05
08/12/19	0.04
08/13/19	0.05
08/14/19	0.05
08/15/19	0.04
08/16/19	0.04
08/17/19	0.05

4th Qtr

Date	Level (ft)
10/01/19	0.05
10/02/19	0.05
10/03/19	0.05
10/04/19	0.05
10/05/19	0.04
10/06/19	0.05
10/07/19	0.05
10/08/19	0.05
10/09/19	0.04
10/10/19	0.05
10/11/19	0.05
10/12/19	0.05
10/13/19	0.05
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10/31/19	0.05
11/01/19	0.01
11/02/19	0.05
11/03/19	0.05
11/04/19	0.05
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11/15/19	0.05
11/16/19	0.05
11/17/19	0.05

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05/21/19	0.05
05/22/19	0.05
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05/31/19	0.05
06/01/19	0.05
06/02/19	0.05
06/03/19	0.05
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06/06/19	0.05
06/07/19	0.05
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06/09/19	0.05
06/10/19	0.05
06/11/19	0.05
06/12/19	0.03
06/13/19	0.05
06/14/19	0.05
06/15/19	0.05
06/16/19	0.05
06/17/19	0.05
06/18/19	0.05
06/19/19	0.05
06/20/19	0.05
06/21/19	0.04
06/22/19	0.05
06/23/19	0.05
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06/25/19	0.04
06/26/19	0.04
06/27/19	0.04
06/28/19	0.05
06/29/19	0.05
06/30/19	0.05

08/18/19	0.04
08/19/19	0.05
08/20/19	0.05
08/21/19	0.05
08/22/19	0.05
08/23/19	0.05
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08/29/19	0.05
08/30/19	0.05
08/31/19	0.05
09/01/19	0.04
09/02/19	0.05
09/03/19	0.05
09/04/19	0.05
09/05/19	0.05
09/06/19	0.05
09/07/19	0.05
09/08/19	0.05
09/09/19	0.05
09/10/19	0.05
09/11/19	0.05
09/12/19	0.05
09/13/19	0.04
09/14/19	0.05
09/15/19	0.05
09/16/19	0.05
09/17/19	0.05
09/18/19	0.05
09/19/19	0.05
09/20/19	0.05
09/21/19	0.05
09/22/19	0.05
09/23/19	0.05
09/24/19	0.04
09/25/19	0.05
09/26/19	0.04
09/27/19	0.05
09/28/19	0.04
09/29/19	0.04
09/30/19	0.05

11/18/19	0.05
11/19/19	0.05
11/20/19	0.05
11/21/19	0.05
11/22/19	0.06
11/23/19	0.05
11/24/19	0.05
11/25/19	0.05
11/26/19	0.05
11/27/19	0.05
11/28/19	0.05
11/29/19	0.05
11/30/19	0.05
12/01/19	0.05
12/02/19	0.05
12/03/19	0.05
12/04/19	0.05
12/05/19	0.05
12/06/19	0.05
12/07/19	0.05
12/08/19	0.05
12/09/19	0.05
12/10/19	0.05
12/11/19	0.05
12/12/19	0.05
12/13/19	0.05
12/14/19	0.05
12/15/19	0.05
12/16/19	0.05
12/17/19	0.05
12/18/19	0.05
12/19/19	0.05
12/20/19	0.05
12/21/19	0.05
12/22/19	0.05
12/23/19	0.05
12/24/19	0.05
12/25/19	0.05
12/26/19	0.05
12/27/19	0.05
12/28/19	0.05
12/29/19	0.05
12/30/19	0.05
12/31/19	0.05

* Data prior to 03/28/19 was monitored by site personnel but not yet setup to be trended/recorded to accumulate a daily average as seen below by the facility SCADA Software. Site personal did however indicate that monitored levels were consistant with the recoreded values below.

APPENDIX F

Site Photographs

1. eastern portion of northern slope

2. western portion of northern slope

3. top northerneast slope looking northeast along surface water diversion & slope between Cell 3 & 7 (note: buldge in SICM)

4. northern slope looking southwesterly along transition slope between Cell 3 & Cell 1 & 2

10/16/19 Site Visit

5. northeast slope of landfill Cell 7, looking northeasterly

6. top northeast corner of landfill Cell 7, looking northeasterly over active opertions in north area of Cell 11

7. northeast corner of landfill Cell 7 looking southwesterly to northeast slope of Cell 9 & active Cell 11

8. top of landfill looking southeasterly towards Cells 8 & 9

9. landfill top looking down westerly slope of Cell 1 & 2 towards western detention ponds

10. top of Cell 9 looking north across top of Cell 7 & down the northern slope of Cell 9

11. top of Cell 9 looking southerly

12. top access road to Cell 9 looking northerly along eastern slope of Cell 9 towards Cell 11 operations

13. on easterly slope of Cell 9 looking easterly down to operations in Cell 11

14. looking southeasterly along southeastern ridge line of Cell 9

15. mid-southeastern ridge line of Cell 9 looking northerly across easterly slope of Cell 9 to Cell 11

16. on southeasterly ridge line looking northerly along lower eastern slope of Cell 11/9

17. on southeasterly ridge line looking along southern slope of Cell 8/9

18. on southeasterly ridge line looking westerly along upper southern slope of Cell 9

19. at Pump House 8 looking easterly along the lower southern slope of Cells 5/6/8


20. west of Pump House 8 looking easterly along Cell 8 south slope of & perimeter drainage ditch

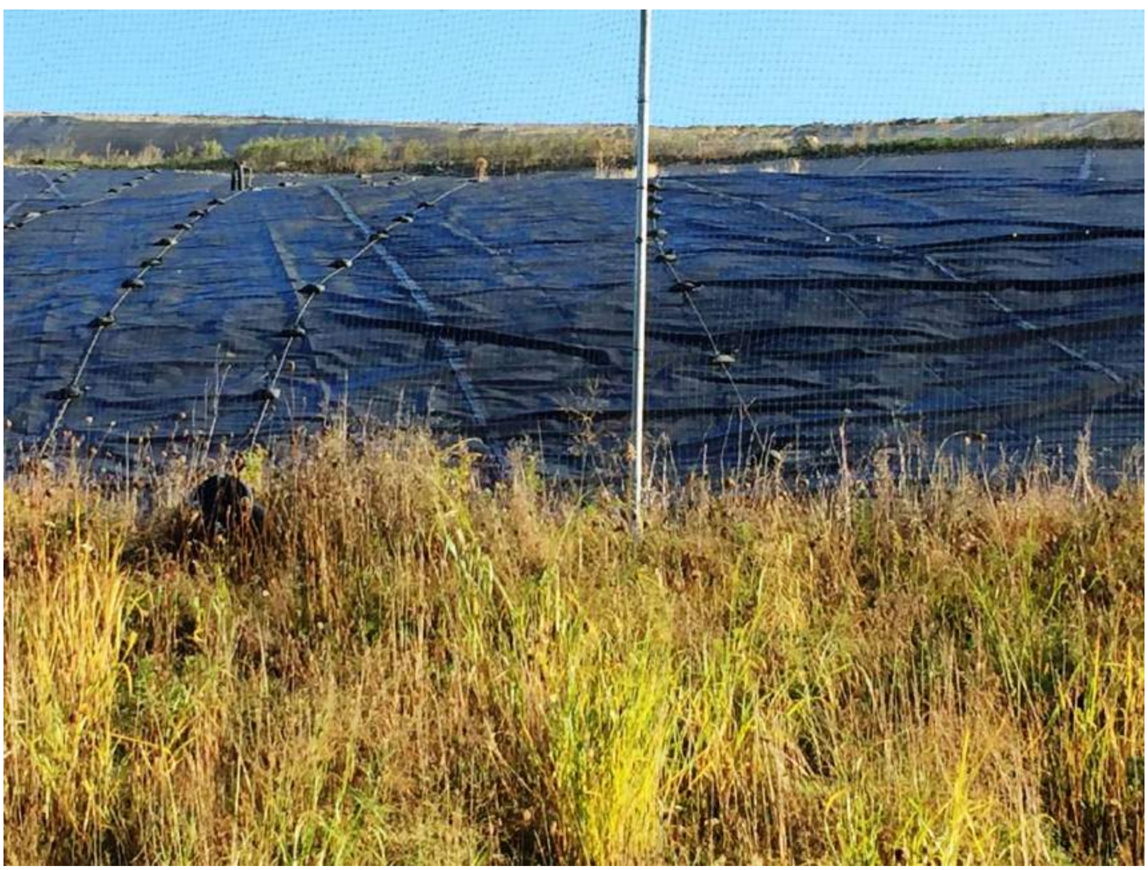
21. southern vegetative slope of Cell 8 & perimeter drainage ditch

22. south corner looking easterly to southerly vegetative slope of Cells 5/6

23. south corner looking northwest to southerly slope of Cells 4/5 & lower vegetative slope of Cells 5/6

24. southerly slope of Cells 4/5 & lower vegetative slope of Cells 5/6

25. looking northeasterly up the southwesterly slope of Cells 4/5/6



26. looking easterly up the southwesterly slope of Cells 4/5/6

27. looking southeasterly up the southwesterly slope of Cells 5/6

28. at the western detention pond looking southeasterly to the southwesterly slope of Cells 4/5/6

29. southwestern corner looking northeasterly to Cells 1&2 (with excavation area) and lower Cell 4

30. at western detention ponds looking easterly up the western slope of Cells 1/2
(towards excavation area)

31. excavation area looking northwesterly on the southwesterly slope of Cells 1 & 2

32. excavation area looking northwesterly on the southwesterly slope of Cells 1 & 2

ATTACHMENT J

Updated Closure and Post-Closure Cost Estimates

SME
SEVEE & MAHER
ENGINEERS

4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 10, 2020

Mr. Jeffrey Pelletier
Environmental Compliance Manager
NEWSME Landfill Operations LLC
358 Emerson Mill Rd
Hampden, ME 04444

Subject: Update of Opinion of Capital Closure and Post-Closure Costs
Calendar Year 2020
Juniper Ridge Landfill
Old Town, Maine

Dear Jeffrey:

As requested by NEWSME Landfill Operations LLC (NEWSME), Sevee & Maher Engineers, Inc. (SME) has updated our opinions of capital closure and post-closure costs for the Juniper Ridge Landfill (JRL) in Old Town, Maine for calendar year 2020. The capital closure cost is for those cells that, as of the end of the calendar year 2020, have been or will be constructed and operational, but have not received final cover. These include Cells 1, 2, 3A, 3B, 4, 5, 6, 7, 8, 9, 10, 11, and 12. In total, these landfill cells have approximately 89.5 acres of closure area. Our opinion of the capital closure cost to close the 89.5 acres is $21,441,000. This cost is based on a per-acre closure cost presented in Table 1, for a final cover consistent with the final waste grades and cover components requirements of Maine Department of Environmental Protection (MEDEP) Solid Waste Management Rules (SWMRs). The unit costs used to develop the closure cost are from material unit costs obtained for the 2020 Cell 12 construction project at JRL.

The post-closure monitoring and maintenance cost for the site (as of March 2020) is $12,735,300 for the items presented in Table 2. The post-closure costs assume a 30-year post-closure period and are based on 2020 dollars.

Our opinion of closure and post-closure costs is based on the following assumptions.

1. The closure of the individual cells will consist of placing final cover over the areas of the developed landfill which have not received final cover. Note that operational costs such as placement and removal of intermediate cover, and operational waste grading are not included in the final cover costs presented herein. The cost to install an active gas collection system as part of closure is only included for landfill areas which currently do not have any active gas systems. It's assumed that the current systems will continue to operate during the post-closure period. In areas that currently do not have active gas collection, it is assumed that a gas extraction system will be installed as part of the final cover construction.

2. The final cover of these cells will consist of the components outlined in the current SWMRs. Our opinion of closure costs is based on unit material prices from the construction bids for NEWSME's Cell 12 project adjusted for closure versus cell construction. This cost is also based on our current understanding of site conditions. Actual closure costs will vary and are dependent upon the actual nature and extent of waste placement, timing of closure, and other factors not evident at this time.
3. The post-closure costs include landfill inspection, water quality monitoring, leachate management, general site maintenance, gas treatment and maintenance, and engineering for the entire facility. These post-closure costs are based on our current understanding of site conditions, and projections of both leachate and landfill gas quantity and quality, and costs associated with treatment and disposal. Actual post-closure costs will vary and are dependent upon the actual nature of site conditions at the time of closure, long-term management decisions of NEWSME and the Regulators, and other factors not evident at this time.

If there are any questions concerning our opinion of costs presented in this letter, please feel free to contact us.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Rhonda M Forrester

Rhonda N. Forrester, P.E.
Project Manager

Attachments

Table 1	Opinion of Final Cover Costs for Juniper Ridge Landfill Developed Landfill Area as of December 2020
Table 2	Opinion of Post-Closure Monitoring and Maintenance Costs for Juniper Ridge Landfill Developed Landfill Area as of December 2020

cc: Toni King, NEWSME
Wayne Boyd, NEWSME

TABLE 1

OPINION OF FINAL COVER COSTS FOR JUNIPER RIDGE LANDFILL
DEVELOPED LANDFILL AREA
AS OF DECEMBER 2020

JUNIPER RIDGE LANDFILL PER-ACRE FINAL COVER COSTS (GAS COLLECTION NEEDED) (Update 4/2020)				
ITEM	UNIT	QUANT.	UNIT COST(1)	TOTAL
Mobilization	L.S.	1	$26,300	$26,300
Erosion Control	L.S.	1	$5,900	$5,900
Active Gas System	L.S.	1	$22,000	$22,000
Site Grading	L.S.	1	$3,500	$3,500
Drainage Terraces	L.S.	1	$20,800	$20,800
24" Compacted Clay	C.Y.	3,230	$19.80	$63,954
40 mil Textured Geomembrane	SQ.FT.	43,600	$0.42	$18,312
12" Drainage Sand	C.Y.	1,620	$24.20	$39,204
12" Vegetative Cover	C.Y.	1,620	$22	$34,982
Seed & Mulch	L.S.	1	$2,260	$2,260
Engineer/Const. Monitoring	L.S.	1	$22,000	$22,000
			Total	$259,212

JUNIPER RIDGE LANDFILL PER-ACRE FINAL COVER COSTS (EXISTING GAS COLLECTION) (Update 4/2020)				
ITEM	UNIT	QUANT.	UNIT COST(1)	TOTAL
Mobilization	L.S.	1	$26,300	$26,300
Erosion Control	L.S.	1	$5,900	$5,900
Site Grading	L.S.	1	$3,500	$3,500
Drainage Terraces	L.S.	1	$20,800	$20,800
24" Compacted Clay	C.Y.	3,230	$19.80	$63,954
40 mil Textured Geomembrane	SQ.FT.	43,600	$0.42	$18,312
12" Drainage Sand	C.Y.	1,620	$24.20	$39,204
12" Vegetative Cover	C.Y.	1,620	$22	$34,982
Seed & Mulch	L.S.	1	$2,260	$2,260
Engineer/Const. Monitoring	L.S.	1	$22,000	$22,000
			Total	$237,212

(1) Unit Cost (not including engineer/const. monitoring) based upon Third Party Construction Cost (JRL Cell 12 bid dated February 2020). These costs have been adjusted to reflect the cover construction on 3H to 1V sideslopes.

	Acres	Closure Cost
Area with Existing Gas Collection	79.9	$18,953,000
Area without Gas Collection (Cell 12)	9.6	$2,488,000
	Total	$21,441,000

TABLE 2

OPINION OF POST-CLOSURE MONITORING AND MAINTENANCE COSTS FOR JUNIPER RIDGE LANDFILL
DEVELOPED LANDFILL AREA AS OF DECEMBER 2020

ITEM	OPINION OF AVERAGE YEARLY COSTS	TOTAL COST FOR 30 YEAR PERIOD	ASSUMPTIONS
Leachate Collection, Transport and Disposal			
A. Electrical Costs to Operate Pump Stations	$ 1,600	$48,000	Assumes a 15 hp (75 percent efficiency) pump pumping for 805 hours per year with electrical costs of $0.18 /kWhr.
B. Disposal Costs for Leachate Years 1-30	$ 101,500	$3,045,000	Leachate generation is estimated for a 30 year period beginning with 19.2 M gallons at year 1 and decreasing to 0.332 M gallons at year 30. Transportation cost of $0.021/gal.
C. Annual Leachate Testing	$ 4,900	$147,000	Annual cost for pretreatment testing
	Subtotal Total	**$3,240,000**	
Post Closure Water Quality Monitoring			
A.1 Collect Samples From 24 Wells, 11 Underdrains,2 Leachate, 1 Leak Detection, 7 Surface Waters & 3 Pore Waters for 3 Rounds/Year & Methane Measurements From Wells 3 Times per Year	$ 42,000	$210,000	Assumes two rounds detection monitor parameters, one round extended parameters for years 1-5.
A.2 Collect Samples From 24 Wells, 11 Underdrains,2 Leachate, 1 Leak Detection, 7 Surface Waters & 3 Pore Waters for 2 Rounds/Year & Methane Measurements From Wells 2 Times per Year	$ 28,000	$140,000	Assumes one round detection monitor parameters, one round extended parameters for years 6-10.
A.3 Collect Samples From 24 Wells, 11 Underdrains,2 Leachate, 1 leak Detection, 7 Surface Waters & 3 Pore Waters for 1 Round/Year & Methane Measurements From Wells 1 Time per Year	$ 14,000	$280,000	Assumes one round extended parameters for years 11-30.
B.1 Analyses of 52 Samples 3 Times per Year	$ 51,300	$256,500	Assumes 24 wells,11 underdrains,2 leachate, 1 Leak Detection 7 surface,3 pore water & 4 QA/QC
B.2 Analyses of 52 Samples 2 Times per Year	$ 34,200	$171,000	Assumes 24 wells,11 underdrains,2 leachate, 1 leak detection, 7 surface,3 pore water & 4 QA/QC
B.3 Analyses of 52 Samples 1 Time per Year	$ 17,100	$342,000	Assumes 24 wells,11 underdrains,2 leachate, 1 leak detection, 7 surface,3 pore water & 4 QA/QC
C. Compile Data and Submit to MDEP	$ 4,500	$135,000	Assumes Report prepared and submitted to MEDEP after each sampling round
Subtotal Yearly Cost Years 1-5	$ 97,800		
Subtotal Yearly Cost Years 6-10	$ 66,700		
Subtotal Yearly Cost Years 11-30	$ 35,600		
	Subtotal Total	**$1,534,500**	
Landfill Inspection			
A. Monthly Site Walk Over & Report Generation	$ 9,180	$275,400	Assumes 9 hr. per month @ $85/hr.
Subtotal	**$ 9,180**	**$275,400**	
Active Landfill Gas Extraction System			
A. Gas Collection Equipment Replacement	$ 11,000	$330,000	General equipment replacement including well heads, condensate pumps etc.
B. Flare Maintenance	$ 6,000	$180,000	Replacement of flare parts such as flame arrestor media etc.
C. Blower Maintenance	$ 6,000	$180,000	Routine inspection and maintenance of blower & control system
D. System Operation and Inspection	$ 5,700	$171,000	General system operation & maintenance
E. Well Tuning	$ 11,000	$330,000	Well tuning once per month
F. Compliance Monitoring and Reporting	$ 18,000	$540,000	Includes Compliance Air Monitoring and Reporting
G. Electrical Costs to Operate Blowers, Heat & Control Panel Years 1-30	$ 62,000	$1,860,000	Electricity for blowers assumes varying horsepower requirement as gas decreases @$0.18/kWhr
H. Landfill Gas Treatment Costs Years 1-30	$ 78,500	$2,355,000	Includes treatment cost for H2S removal to 1,000 ppm using Thiopaq system at a cost of $2000 per ton
	Subtotal Total	**$5,946,000**	
Landfill Maintenance			
A. Cover Maintenance Including Annual Mowing & Erosion Repair	$ 9,000	$270,000	Assumes 2 man crew 10 days/ year
B.1 Pump Stations Inspections	$ 11,700	$351,000	Assumes 4.5 hr./ week @ $50 per hour
B.2 Pump Replacement Every Five Years (not annual cost)	$ 36,400	$218,400	Assumes replacing 13 on-site pumps every 5 years at $2,800 a piece.
C. General Site Maintenance	$ 8,000	$240,000	Assumes snow plowing 20 storms per year @ $400 per storm
D. Leachate Line Cleaning	$ 27,000	$540,000	Assumes leachate line cleaning once per year for years 1-10, then every other year, for years 11-30 @ $27,000 per cleaning
Subtotal	**$ 92,100**	**$1,619,400**	
Professional Services			
A. Engineering Services	$ 4,000	$120,000	General Services
Subtotal	**$ 4,000**	**$120,000**	
TOTAL		**$12,735,300**	

ATTACHMENT K

MSW Diversion

JRL 2019 Annual Report

Compliance with Condition 5 of #S-020700-WD-BC-A

(Casella MSW Landfilling Diversion)

Best efforts by Casella to divert MSW from landfilling at JRL to the greatest extent practicable:

5.A: A list and description of all diversion options evaluated and/or pursued by Casella, including currently operating Maine waste-to-energy facilities as options:

Diversion of MSW through Recycling

1. Casella Zero-Sort program delivering MSW recyclables collected in Maine to the Casella processing facility in Lewiston.
2. Casella cardboard recycling program wherein source separated cardboard is collected, baled, and marketed to end use recyclers.
3. Operation of the Casella Zero-Sort processing facility in Lewiston, Maine. Outreach to municipalities and businesses to participate in Casella's Zero-Sort recycling program.

Diversion of MSW to Maine Incinerators and Processing Facilities

ecomaine:

Casella's Pine Tree Waste hauling companies collect and deliver Maine MSW and recycling materials to the ecomaine incinerator and single stream recycling facility.

MMWAC:

Casella's Pine Tree Waste hauling companies collect and deliver Maine MSW to the MMWAC incinerator.

PERC:

In compliance with Condition 7 of the JRL MSW license amendment, Casella and the Penobscot Energy Recovery Company Limited Partnership entered into a January 1, 2014 Interim Disposal Agreement for Casella to deliver 30,000 tons per year of Maine MSW to the PERC incinerator in Orrington. Upon final and un-appealable approval of the JRL MSW amendment, the October 1, 2012 Casella/PERC Disposal Agreement pertaining to this obligation replaced the Interim Disposal Agreement. In January 2018, Casella renewed the agreement with PERC providing delivery of at least 80,000 tons per year.

In 2019 an agreement was reached with PERC to annually deliver up to 107,000 tons of Maine MSW. This agreement included an additional 27,000 tons of Maine MSW delivered to PERC. This is more than half of the expected annual throughput at the PERC facility. In addition, in the 2019 agreement with PERC a new provision has been added that if Coastal

Resource Management (CRM) cannot accept the commercial tons provided for in the CRM agreement that MSW from the Bangor and Waterville markets will be taken to PERC. This was a request by the DEP that Casella committed to try to accomplish through negotiations with PERC, and it has been accomplished.

COASTAL RESOURCE MANAGEMENT:

In 2017 an agreement was reached with CRM to deliver 40,000 tons annually of Maine municipal solid waste to CRM's recycling and processing facility in Hampden, in addition to deliveries of collected material from Municipal Review Committee (MRC) communities by Pine Tree Waste.

SWAP AGREEMENT:

A collective agreement was reached between Pine Tree Waste, Inc., NEWSME Landfill Operations, LLC, Waste Management Disposal Services of Maine, Inc., Municipal Review Committee, Inc., and Coastal Resources of Maine, LLC, pursuant to which bypass MSW and oversized bulky waste collected from some MRC communities, primarily within the greater Bangor area, would be delivered to JRL rather than being delivered to the Crossroads Landfill, and an equivalent amount of MSW originating in Maine that otherwise would be delivered by Pine Tree to JRL would instead by delivered by Pine Tree to the Crossroads Landfill.

Diversion by Disposal at Other Landfills

Casella's Pine Tree Waste hauling companies (Bethel, Hermon, Houlton, Mechanic Falls, Old Orchard Beach, Sanford, Scarborough, Waterville, and West Bath) collect Maine MSW and deliver to landfills other than Juniper Ridge: Bath, Brunswick, Fort Fairfield (RWS), and Norridgewock, Maine, and Berlin, New Hampshire.

5.B: A narrative detailing the specific efforts made by Casella to implement diversion options:

See narrative description in 5.A above.

5.C: A narrative describing the results of Casella's evaluation/pursuit of MSW diversion options, including the volume of waste and diversion destination of MSW successfully diverted and/or the specific reasons that MSW was not diverted to other destination options.

Maine MSW Recyclables Delivered to Casella Zero-Sort in Lewiston, ME

- Number of Maine municipalities participating in Casella Zero-Sort program in calendar 2019: 43
- Number of Maine businesses participating in Casella Zero-Sort program in calendar 2019: approx. 3,305
- Tons of Maine MSW recyclables processed in Casella's Zero-Sort program in calendar 2019: 28,876 tons

Casella cardboard recycling

Fiber brokered and baled directly from Maine municipalities or Maine businesses in calendar 2019:

- Brokered: 54,126 tons
- Baled: 22,450 tons

Maine MSW Delivered to Maine Incinerators and Processing Facilities in 2019

ecomaine:

- Single-stream recyclables: 10,149 tons
- MSW: 49,073 tons

MMWAC:

- MSW: 38,961 tons

PERC:

- Casella Lewiston Zero-Sort processing residue: 1,343 tons
- MSW: 114,008 tons

CRM:

- MSW: 8,037 tons

Maine MSW Delivered to Landfills Other than Juniper Ridge in 2019

Bath Landfill:

- MSW: 3,210 tons

Brunswick Landfill:

- MSW: 14,661 tons

Fort Fairfield Landfill:

- MSW: 16,069 tons

Norridgewock Landfill:

- MSW: 40,562 tons

Berlin, NH Landfill:

- MSW: 11,804 tons

Total Maine MSW diverted from disposal at JRL in 2019 through efforts described above

- 401,525 tons

Total Maine, non-bypass MSW disposed at JRL in 2019

- 79,910 tons

MSW DIVERSION FROM JUNIPER RIDGE LANDFILL	2014	2015	2016	2017	2018	2019
Maine MSW Recyclables Delivered to Casella Zero-Sort Facilities:						
Number of Maine municipalities participating in Casella Zero-Sort program:	52	62	64	63	59	43
Number of Maine businesses participating in Casella Zero-Sort program:	3,200	3,482	3,381	3,343	3,375	3,305
Tons of Maine MSW recyclables processed in Casella Zero-Sort program	25,026	28,688	35,851	30,263	30,376	28,876
Cardboard recycling: Fiber from Maine municipalities, businesses, or transfer stations (tons):						
Brokered:	37,385	53,244	55,903	47,613	53,445	54,126
Collected / Baled:	12,840	29,071	27,288	25,953	21,945	22,450
Maine MSW delivered by Casella to Maine incinerators or Processing Facilities (tons):						
a. ecomaine:						
i. Lewiston Zero-Sort processing residue:	97	329	-	-	-	-
ii. Single-stream recyclables:	42,506	11,430	11,934	11,697	11,127	10,149
iii. MSW:		41,130	45,837	48,295	48,047	49,073
b. MMWAC:						
i. Lewiston Zero-Sort processing residue:	-	1,742	2,777	3,080	484	-
ii. MSW:	147	32,212	35,384	37,707	36,949	38,961
c. PERC:						
i. Lewiston Zero-Sort processing residue:	-	-	-	-	2,608	1,343
ii. MSW:	89,902	89,054	79,443	76,477	96,124	114,008
d. CRM[1]						8,037
Maine MSW delivered by Casella to Maine landfills other than Juniper Ridge (tons):						
a. Bath Landfill:	388	6,097	5,740	5,445	4,747	3,210
i. Lewiston Zero-Sort processing residue:	-	-	-	-	603	-
b. Brunswick Landfill:	10,144	528	3,474	6,715	9,303	14,661
c. Fort Fairfield Landfill:	7,249	10,500	11,204	10,828	13,682	16,069
d. Norridgewock Landfill:	2,495	2,720	2,549	2,264	16,865	40,562
Maine MSW delivered by Casella to New Hampshire Landfills (tons):						
a. Berlin Landfill						11,804
Total Maine MSW diverted from disposal at JRL through efforts described above (tons):	228,179	306,745	317,384	306,337	346,305	401,525
Total Non-Bypass Maine MSW disposed at JRL (tons):	36,878	57,521	69,934	77,673	82,805	79,910

1 A portion of the volume noted as MSW to CRM was previously reported as recycling, due to CRM's ability to process co-mingled MSW and recycling