

#### Operated By NEWSME Landfill Operations, LLC

April 29, 2021

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

Re: Juniper Ridge Landfill 2020 Annual Report

Dear Ms. Parmelee:

Enclosed for your review is the Juniper Ridge Landfill 2020 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: Lou Pizzuti, BGS

William Mayo, City of Old Town

#### **2020 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 2021** 



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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 2020 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 2 of Solid Waste Orders #S-20700-WD-BW-M;
- Conditions 1 and 3 of Solid Waste Order #S-020700-WD-BM-Z; and
- Conditions 1 and 2 of Solid Waste Orders #S-20700-WD-BZ-C.

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.

To date, Cells 11 and 12 have been 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. Cell 11 was constructed in 2018, followed by Cell 12 in 2020. Approval to commence waste placement in Cell 12 was issued by the MEDEP on September 4, 2020. In 2020 filling occurred primarily in Cell 11 and 12, along with other adjacent cells located in the 2004 permitted footprint. Intermediate cover was placed once final waste grades were reached.

As of December 31, 2020, 7,458,799 cubic yards of total permitted capacity remained at the JRL. Of that total permitted capacity, 895,289 cubic yards remained in the previously constructed Cells 1-10 of the 2004 permitted footprint (#S-020700-WD-N-A), 645,310 cubic yards remained in the previously constructed Cells 11 and 12 (the first two of seven landfill cells to be built as part of the JRL expansion footprint (#S-020700-WD-BI-N)), and 6,563,510 cubic yards remained entire JRL expansion footprint (#S-020700-WD-BI-N).

#### 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 2020, a compliance evaluation performed by JRL's environmental manager, a summary of 2020 operations and operational information, a summary of facility site changes, a summary of the site monitoring performed at and around the site during 2020, 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 2020:

- Construction of Cell 12 and associated infrastructure;
- Placement of soft layer/frost layer material in Cell 12, along with routine waste material placement in both Cells 11 and 12 of the expansion footprint;
- Continuance of placing waste material in the 2004 permitted footprint;
- Completed the rough coat (binder) on the access road adjacent to Cell 12;
- Completed Detention Pond 10;
- Relocated the clean water loading rack near the lined stormwater pond;
- Completed the relocation of the old scales to the new scale house;
- Excavation and stockpiling of soils from 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 Cells 11 and 12 of the expansion. Components installed included new vertical LFG extraction wells, gas collection trenches, 12" header piping, and lateral extraction piping;
- Relocated the former office building for future use as a storage building; and
- Completed drilling of Cell 13 Baseline Monitoring wells.

#### 2.2 Summary of Applications Submitted and/or Approved at JRL in 2020

The following MEDEP, Local, and Federal applications were submitted and/or approved during 2020 relating to operations at JRL:

Table 2-1 Summary of Applications Submitted and/or Approved at JRL, 2020

Application for Sales and Use Tax Exemption Certification (Water/Air Pollution Control Facilities)  Permission to Relocate the Former JRL Office Building to the South End of JRL for Future Use as Cold Storage  One Time Waste Disposal – Gravel, Soil, and RR Ballast Stone with Sika (GAC Chemical Corporation)  On-going disposal of Various Special Wastes and Revisions  MEDEP  A-921-75-G-X / MEDEP  A-921-75-G-X / MEDEP  MEDEP  S-020700-W  MEDEP  S-020700-W	N ved issued)		
Water/Air Pollution Control Facilities   64-A-Permission to Relocate the Former JRL Office Building to the South End of JRL for Future Use as Cold Storage   MEDEP   (no permit One Time Waste Disposal – Gravel, Soil, and RR Ballast Stone with Sika (GAC Chemical Corporation)   MEDEP   S-020700-W	ved issued)		
the South End of JRL for Future Use as Cold Storage  One Time Waste Disposal – Gravel, Soil, and RR Ballast Stone with Sika (GAC Chemical Corporation)  On-going disposal of Various Special Wastes and Revisions  MEDEP  S-020700-W	issued)		
the South End of JRL for Future Use as Cold Storage (no permit  One Time Waste Disposal – Gravel, Soil, and RR Ballast  Stone with Sika (GAC Chemical Corporation)  On-going disposal of Various Special Wastes and Revisions			
Stone with Sika (GAC Chemical Corporation)  On-going disposal of Various Special Wastes and Revisions	T-CC-N		
Stone with Sika (GAC Chemical Corporation) On-going disposal of Various Special Wastes and Revisions	T-CC-N		
On-going disposal of Various Special Wastes and Revisions			
	TI CD N		
to On-going Special Waste Licenses	U-CD-N		
Maine Construction General Permit - Cell 12 Construction Approx			
Area, Detention Pond 10, Clearing Future Cell 13, and a MEDEP (after 14 day	y waiting		
portion of Cell 14 perio	d)		
Federal Fish & Wildlife Permit Renewal  US Department of Fish  No License	decision		
(Bird Depredation) and Wildlife by 12/3:	1/20		
One Time Waste Disposal – Soil Impacted with Pulp Sludge  MEDEP  S-020700-W	T-CE-N		
and Ash (Rowe School - Yarmouth)	I-CE-N		
Application for Order of Compliance with a Solid Waste			
Condition (License Amendment #S-020700-WD-BL-A and #S MEDEP S-020700-W	D-BZ-C		
020700-WD-BM-Z- Condition #7)			
Submittal of the Cell 12 Construction Design Report MEDEP S-020700-W	D-CB-C		
Submittal of 8 permit change orders, test pad results, and  MEDEP  Approx	ved		
construction documentaion report for Cell 12 construction (no permit	issued)		
One Time Waste Disposal – PCB/Lead Paint Building Debris  MEDEP  S-020700-W	/T_CF_N		
(St. John's Church - South Portland)	5-020700-W1-C1-IV		
Request to Eliminate VOA Sampling on Cell 12 Baseline Approx	ved.		
Monitoring Wells after Two Sampling Rounds (MW-04-09A, MEDEP (no permit			
MW-04-09B, and MW-502)	133464)		
One Time Waste Disposal – Lead Stabilized Soil  MEDEP S-020700-W	T-CH-N		
(Stanley's Boat Yard - Southwest Harbor)			
Request for Approval to Commence Operations in Cell 12  MEDEP  Approv			
One Time Waste Disposal – PCB Contaminated Plywood			
(MT. Ararat High School-Topsham)  MEDEP  S-020700-W	/T-CJ-N		
One Time Waste Disposal – Graphite and Carbon Dust			
(Fiber Materials - Biddeford)  MEDEP  S-020700-W	VT-CI-N		
Submittal to Use Existing Well PW-80-01 (as a Replacement No deci	sion		
for MW-504A), During the Cell 13 Baseline Monitoring by 12/3:	1/20		
One Time Waste Disposal – Contaminated Solid			
(CMP Utility Pole Storage Area - Bridgton)  MEDEP  S-020700-W	1-CK-N		
Minor Revision Application for JRL Air License A-921-70-B-R			
to Reflect the Update in Applicable USEPA Standards for No License	decision		
I MEDED I	by 12/31/20		
XXX and NESHAP Subpart AAAA			

#### 2.3 <u>Compliance Self-Audit</u>

As required by Section 401.4.D (1) (b) of the Rules, JRL performed an annual evaluation of landfill operations for calendar year 2020. 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 2020

During calendar year (CY) 2020, JRL received and disposed of a total of 835,261 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 to prevent out-of-state wastes from being accepted at the facility.

#### 3.2 <u>Estimates of Capacity Utilized during 2020 and Remaining Capacity</u>

Based on the June 26, 2020 aerial survey results, approximately -171,021 cubic yards of capacity was utilized from Cells 1-10 of the 2004 permitted footprint (#S-020700-WD-N-A), while approximately 1,286,021 cubic yards was utilized in Cells 11 and 12 of the JRL expansion footprint (#S-020700-WD-BI-N) during 2020. Capacity gained in the 2004 permitted footprint was due to routine settlement.

As of December 31, 2020, 7,458,799 cubic yards of total permitted capacity remained at the JRL. Of that total permitted capacity, 895,289 cubic yards remained in the previously constructed Cells 1-10 of the 2004 permitted footprint (#S-020700-WD-N-A), 645,310 cubic yards remained in the previously constructed Cells 11 and 12, the first two of seven landfill cells to be built as part of the JRL expansion footprint (#S-020700-WD-BI-N), and 6,563,510 cubic yards remained entire JRL expansion footprint (#S-020700-WD-BI-N).

These remaining capacity totals are based on survey data through June 26, 2020 and an estimate of the capacity consumed for the remainder of the year using a compaction rate of 0.93 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, 2020

·	Summary of Wastes Accepted at Juniper Ridge Landfill						
1         Bypass MSW <sup>6</sup> 110,866         Maine         13.3           CDD/MSW Processing Residue - OBW         1,685         Maine         0.2           CDD/MSW Processing Residue - OBW         1,685         Maine         0.2           CDD/MSW Processing Residue - OBW         84,350         Maine         10.1           4         CDD Processing Residue - Fines¹         100,134         Maine         12.0           5         FEPR         - Maine         0.0           6         Mixed CDD         322,636         Maine         0.0           8         Wood from CDD²         2,107         Maine         0.3           9         Residue/Trash from Single Stream         6,800         Maine         0.8           Special Wastes Types           10         Burn Pile Ash and/or Hot Loads Area Ash         614         Maine         0.1           11         Catch Basin Grit & Street Sweeping         692         Maine         0.1           12         Coal, Oil & Multi-fuel Boiler Ash         6,253         Maine         0.7           13         Contaminated Soil & Debris         7,432         Maine         0.0           14         Dredged Spoils         129         Maine	Report Year 2020						
CDD/MSW Processing Residue - OBW	Waste Type #		Total (tons)	Origin	% Total Waste		
2         (Disposed of in the Original 2004 Permitted Footprint)         1,685         Maine         0.2           CDD/MSW Processing Residue - OBW         84,350         Maine         10.1           4         CDD Processing Residue - Fines¹         100,134         Maine         12.0           5         FEPR         -         Maine         0.0           6         Mixed CDD         322,636         Maine         38.6           7         MSW4         55,470         Maine         6.6           8         Wood from CDD²         2,107         Maine         0.3           9         Residue/Trash from Single Stream         6,800         Maine         0.8           Special Wastes Types           10         Burn Pile Ash and/or Hot Loads Area Ash         614         Maine         0.1           11         Catch Basin Grit & Street Sweeping         692         Maine         0.1           12         Coal, Oil & Multi-fuel Boiler Ash         6,253         Maine         0.7           13         Contaminated Soil & Debris         7,432         Maine         0.0           14         Dredged Spoils         129         Maine         0.0           15         Graphite/Carbon Dust <td>1</td> <td>Bypass MSW<sup>6</sup></td> <td>110,866</td> <td>Maine</td> <td>13.3</td>	1	Bypass MSW <sup>6</sup>	110,866	Maine	13.3		
CDD/MSW Processing Residue - OBW		CDD/MSW Processing Residue - OBW	1 605	Maino	0.2		
3	2	(Disposed of in the Original 2004 Permitted Footprint)	1,085	IVIAIIIE	0.2		
CDB Processing Residue - Fines¹   100,134   Maine   12.0		CDD/MSW Processing Residue - OBW	94 250	Maino	10.1		
5         FEPR         -         Maine         0.0           6         Mixed CDD         322,636         Maine         38.6           7         MSW4         55,470         Maine         6.6           8         Wood from CDD2         2,107         Maine         0.3           9         Residue/Trash from Single Stream         6,800         Maine         0.8           Special Wastes Types           10         Burn Pile Ash and/or Hot Loads Area Ash         614         Maine         0.1           11         Catch Basin Grit & Street Sweeping         692         Maine         0.1           12         Coal, Oil & Multi-fuel Boiler Ash         6,253         Maine         0.7           13         Contaminated Soil & Debris         7,432         Maine         0.7           14         Dredged Spoils         129         Maine         0.0           15         Graphite/Carbon Dust         4         Maine         0.0           16         Industrial WWTP Sludge         17,964         Maine         2.2           17         Leather Scraps         29         Maine         0.1           19         MSW Incinerator Ash         31,265         Maine	3	(Disposed of in the Expansion Permitted Footprint) <sup>5</sup>	64,530	Mairie	10.1		
6         Mixed CDD         322,636         Maine         38.6           7         MSW <sup>4</sup> 55,470         Maine         6.6           8         Wood from CDD <sup>2</sup> 2,107         Maine         0.3           9         Residue/Trash from Single Stream         6,800         Maine         0.8           Special Wastes Types           10         Burn Pile Ash and/or Hot Loads Area Ash         614         Maine         0.1           11         Catch Basin Grit & Street Sweeping         692         Maine         0.1           12         Coal, Oil & Multi-fuel Boiler Ash         6,253         Maine         0.7           13         Contaminated Soil & Debris         7,432         Maine         0.9           14         Dredged Spoils         129         Maine         0.0           15         Graphite/Carbon Dust         4         Maine         0.0           16         Industrial WWTP Sludge         17,964         Maine         2.2           17         Leather Scraps         29         Maine         0.0           18         Lime Mud/Grit         1,039         Maine         0.1           19         MSW Incinerator Ash         31,265	4	CDD Processing Residue - Fines <sup>1</sup>	100,134	Maine	12.0		
7         MSW <sup>4</sup> 55,470         Maine         6.6           8         Wood from CDD <sup>2</sup> 2,107         Maine         0.3           9         Residue/Trash from Single Stream         6,800         Maine         0.8           Special Wastes Types           10         Burn Pile Ash and/or Hot Loads Area Ash         614         Maine         0.1           11         Catch Basin Grit & Street Sweeping         692         Maine         0.1           12         Coal, Oil & Multi-fuel Boiler Ash         6,253         Maine         0.7           13         Contaminated Soil & Debris         7,432         Maine         0.9           14         Dredged Spoils         129         Maine         0.0           15         Graphite/Carbon Dust         4         Maine         0.0           16         Industrial WWTP Sludge         17,964         Maine         2.2           17         Leather Scraps         29         Maine         0.0           18         Lime Mud/Grit         1,039         Maine         0.1           19         MSW Incinerator Ash         31,265         Maine         3.7           20         Municipal WWTP/POTW Sludge         64,	5	FEPR	-	Maine	0.0		
8         Wood from CDD²         2,107         Maine         0.3           9         Residue/Trash from Single Stream         6,800         Maine         0.8           Special Wastes Types           10         Burn Pile Ash and/or Hot Loads Area Ash         614         Maine         0.1           11         Catch Basin Grit & Street Sweeping         692         Maine         0.1           12         Coal, Oil & Multi-fuel Boiler Ash         6,253         Maine         0.7           13         Contaminated Soil & Debris         7,432         Maine         0.9           14         Dredged Spoils         129         Maine         0.0           15         Graphite/Carbon Dust         4         Maine         0.0           16         Industrial WWTP Sludge         17,964         Maine         2.2           17         Leather Scraps         29         Maine         0.0           18         Lime Mud/Grit         1,039         Maine         0.1           19         MSW Incinerator Ash         31,265         Maine         0.1           20         Municipal WWTP/POTW Sludge         64,443         Maine         7.7           21         Non-Friable Asbestos	6	Mixed CDD	322,636	Maine	38.6		
9         Residue/Trash from Single Stream         6,800         Maine         0.8           Special Wastes Types           10         Burn Pile Ash and/or Hot Loads Area Ash         614         Maine         0.1           11         Catch Basin Grit & Street Sweeping         692         Maine         0.1           12         Coal, Oil & Multi-fuel Boiler Ash         6,253         Maine         0.7           13         Contaminated Soil & Debris         7,432         Maine         0.9           14         Dredged Spoils         129         Maine         0.0           15         Graphite/Carbon Dust         4         Maine         0.0           16         Industrial WWTP Sludge         17,964         Maine         2.2           17         Leather Scraps         29         Maine         0.0           18         Lime Mud/Grit         1,039         Maine         0.1           19         MSW Incinerator Ash         31,265         Maine         3.7           20         Municipal WWTP/POTW Sludge         64,443         Maine         7.7           21         Non-Friable Asbestos         840         Maine         0.1           22         Non-Hazardous Chemical	7	MSW <sup>4</sup>	55,470	Maine	6.6		
Special Wastes Types	8	Wood from CDD <sup>2</sup>	2,107	Maine	0.3		
10       Burn Pile Ash and/or Hot Loads Area Ash       614       Maine       0.1         11       Catch Basin Grit & Street Sweeping       692       Maine       0.1         12       Coal, Oil & Multi-fuel Boiler Ash       6,253       Maine       0.7         13       Contaminated Soil & Debris       7,432       Maine       0.9         14       Dredged Spoils       129       Maine       0.0         15       Graphite/Carbon Dust       4       Maine       0.0         16       Industrial WWTP Sludge       17,964       Maine       2.2         17       Leather Scraps       29       Maine       0.0         18       Lime Mud/Grit       1,039       Maine       0.1         19       MSW Incinerator Ash       31,265       Maine       3.7         20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine	9	Residue/Trash from Single Stream	6,800	Maine	0.8		
11       Catch Basin Grit & Street Sweeping       692       Maine       0.1         12       Coal, Oil & Multi-fuel Boiler Ash       6,253       Maine       0.7         13       Contaminated Soil & Debris       7,432       Maine       0.9         14       Dredged Spoils       129       Maine       0.0         15       Graphite/Carbon Dust       4       Maine       0.0         16       Industrial WWTP Sludge       17,964       Maine       2.2         17       Leather Scraps       29       Maine       0.0         18       Lime Mud/Grit       1,039       Maine       0.1         19       MSW Incinerator Ash       31,265       Maine       3.7         20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1		Special Wastes Types					
12       Coal, Oil & Multi-fuel Boiler Ash       6,253       Maine       0.7         13       Contaminated Soil & Debris       7,432       Maine       0.9         14       Dredged Spoils       129       Maine       0.0         15       Graphite/Carbon Dust       4       Maine       0.0         16       Industrial WWTP Sludge       17,964       Maine       2.2         17       Leather Scraps       29       Maine       0.0         18       Lime Mud/Grit       1,039       Maine       0.1         19       MSW Incinerator Ash       31,265       Maine       3.7         20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         2	10	Burn Pile Ash and/or Hot Loads Area Ash	614	Maine	0.1		
13         Contaminated Soil & Debris         7,432         Maine         0.9           14         Dredged Spoils         129         Maine         0.0           15         Graphite/Carbon Dust         4         Maine         0.0           16         Industrial WWTP Sludge         17,964         Maine         2.2           17         Leather Scraps         29         Maine         0.0           18         Lime Mud/Grit         1,039         Maine         0.1           19         MSW Incinerator Ash         31,265         Maine         3.7           20         Municipal WWTP/POTW Sludge         64,443         Maine         7.7           21         Non-Friable Asbestos         840         Maine         7.7           21         Non-Hazardous Chemical Related         2,239         Maine         0.1           22         Non-Hazardous Chemical Related         2,239         Maine         0.3           23         Oil Spill Debris         5,130         Maine         0.6           24         Polyethylene & Cellulose Trimmings         9,616         Maine         1.2           25         Pulp Mill Waste         946         Maine         0.1 <t< td=""><td>11</td><td>Catch Basin Grit &amp; Street Sweeping</td><td>692</td><td>Maine</td><td>0.1</td></t<>	11	Catch Basin Grit & Street Sweeping	692	Maine	0.1		
14       Dredged Spoils       129       Maine       0.0         15       Graphite/Carbon Dust       4       Maine       0.0         16       Industrial WWTP Sludge       17,964       Maine       2.2         17       Leather Scraps       29       Maine       0.0         18       Lime Mud/Grit       1,039       Maine       0.1         19       MSW Incinerator Ash       31,265       Maine       3.7         20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Ai	12	Coal, Oil & Multi-fuel Boiler Ash	6,253	Maine	0.7		
15       Graphite/Carbon Dust       4       Maine       0.0         16       Industrial WWTP Sludge       17,964       Maine       2.2         17       Leather Scraps       29       Maine       0.0         18       Lime Mud/Grit       1,039       Maine       0.1         19       MSW Incinerator Ash       31,265       Maine       3.7         20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.1         SUBTOTAL WASTE	13	Contaminated Soil & Debris	7,432	Maine	0.9		
16       Industrial WWTP Sludge       17,964       Maine       2.2         17       Leather Scraps       29       Maine       0.0         18       Lime Mud/Grit       1,039       Maine       0.1         19       MSW Incinerator Ash       31,265       Maine       3.7         20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         S	14	Dredged Spoils	129	Maine	0.0		
17       Leather Scraps       29       Maine       0.0         18       Lime Mud/Grit       1,039       Maine       0.1         19       MSW Incinerator Ash       31,265       Maine       3.7         20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       18.1         SUB	15	Graphite/Carbon Dust	4	Maine	0.0		
18         Lime Mud/Grit         1,039         Maine         0.1           19         MSW Incinerator Ash         31,265         Maine         3.7           20         Municipal WWTP/POTW Sludge         64,443         Maine         7.7           21         Non-Friable Asbestos         840         Maine         0.1           22         Non-Hazardous Chemical Related         2,239         Maine         0.3           23         Oil Spill Debris         5,130         Maine         0.6           24         Polyethylene & Cellulose Trimmings         9,616         Maine         1.2           25         Pulp Mill Waste         946         Maine         0.1           26         Sandblast Grit         487         Maine         0.1           27         Spoiled Foods         526         Maine         0.1           28         Sulfur Scrubbing Residues         792         Maine         0.1           29         Water/Air Filtration Media         41         Maine         0.0           30         WWTP Grit Screenings         734         Maine         0.1           SUBTOTAL WASTE TYPES 1-9         684,048         Maine         81.9           SUBTOTAL WASTE TYPES 1	16	Industrial WWTP Sludge	17,964	Maine	2.2		
19       MSW Incinerator Ash       31,265       Maine       3.7         20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	17	Leather Scraps	29	Maine	0.0		
20       Municipal WWTP/POTW Sludge       64,443       Maine       7.7         21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	18	Lime Mud/Grit	1,039	Maine	0.1		
21       Non-Friable Asbestos       840       Maine       0.1         22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	19	MSW Incinerator Ash	31,265	Maine	3.7		
22       Non-Hazardous Chemical Related       2,239       Maine       0.3         23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	20	Municipal WWTP/POTW Sludge	64,443	Maine	7.7		
23       Oil Spill Debris       5,130       Maine       0.6         24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	21	Non-Friable Asbestos	840	Maine	0.1		
24       Polyethylene & Cellulose Trimmings       9,616       Maine       1.2         25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	22	Non-Hazardous Chemical Related	2,239	Maine	0.3		
25       Pulp Mill Waste       946       Maine       0.1         26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	23	Oil Spill Debris	5,130	Maine	0.6		
26       Sandblast Grit       487       Maine       0.1         27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	24	Polyethylene & Cellulose Trimmings	9,616	Maine	1.2		
27       Spoiled Foods       526       Maine       0.1         28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	25	Pulp Mill Waste	946	Maine	0.1		
28       Sulfur Scrubbing Residues       792       Maine       0.1         29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	26	Sandblast Grit	487	Maine	0.1		
29       Water/Air Filtration Media       41       Maine       0.0         30       WWTP Grit Screenings       734       Maine       0.1         SUBTOTAL WASTE TYPES 1-9       684,048       Maine       81.9         SUBTOTAL WASTE TYPES 10-30       151,213       Maine       18.1	27	Spoiled Foods	526	Maine	0.1		
30         WWTP Grit Screenings         734         Maine         0.1           SUBTOTAL WASTE TYPES 1-9         684,048         Maine         81.9           SUBTOTAL WASTE TYPES 10-30         151,213         Maine         18.1	28	Sulfur Scrubbing Residues	792	Maine	0.1		
SUBTOTAL WASTE TYPES 1-9         684,048         Maine         81.9           SUBTOTAL WASTE TYPES 10-30         151,213         Maine         18.1	29			Maine	0.0		
SUBTOTAL WASTE TYPES 1-9         684,048         Maine         81.9           SUBTOTAL WASTE TYPES 10-30         151,213         Maine         18.1	30	WWTP Grit Screenings	734	Maine	0.1		
200,200	SUBTOTAL WA	STE TYPES 1-9	684,048	Maine	81.9		
GRAND TOTAL WASTE RECEIVED <sup>3</sup> 835,261 Maine	SUBTOTAL WA	STE TYPES 10-30	151,213	Maine	18.1		
	GRAND TOTAL	WASTE RECEIVED <sup>3</sup>	835,261	Maine			

<sup>1.</sup> Used as alternative daily cover (ADC).

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

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

<sup>4.</sup> Non-bypass MSW was limited to 81,800 tons in the Original 2004 Permitted Footprint from 04/01/19 - 03/31/20. During this time frame 80,366 tons were disposed of. An additional six month was also granted for the same area, allowing an additional 40,900 tons between 04/01/20 - 09/30/20. During this time frame 40,886 tons were disposed of. Numbers reported above are for calendar year 2020.

<sup>5.</sup> 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 to 85,000 tons for calendar year 2020.

<sup>6.</sup> CRM/MRC 8,357.94 tons, ecomaine 8,258.87 tons, PERC 94,249.25 tons

#### 3.3 Estimates of the Amount of Cover Material Placed

During 2020, a mixture of synthetic and soil cover was utilized as final waste grades were reached. Approximately 6 acres of synthetic cover (30 and 40-mil) was placed on the side slopes of Cell 11. Approximately 14 acres of soil cover was utilized on the top of the 2004 permitted footprint and the top of Cell 11, where previous soil cover had been removed to add additional waste material to reach final waste grade elevations.

Throughout 2020 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 2020 amounted to 102,241 tons. Utilization of waste-related materials for daily cover and bedding for the intermediate cover obviated the use of virgin soil material.

#### 3.4 <u>Summary of Changes to the Facility's Operations Manual</u>

Included as Attachment C are updated sections to include in the JRL Expansion Operations Manual (April 2020). Once included the Operations Manual will be complete and will be considered the April 2021 revision. The updates sections for the 2021 revision are listed below:

- Binder Cover/Spline Label
- JRL Expansion Operations Manual Narrative Section
- Appendix A MEDEP Operating Permits
- Appendix C Operator Training Program Outline
- Appendix D Cell Development Plans for Cell 13 (to be added)
- Appendix F Updated JRL SWPPP

#### 3.5 Proposed Changes to the Operations Manual or Other Landfill Operations

During 2021, JRL staff plan to continue updating the revised April 2021 JRL Expansion Operations Manual as changes arise. Changes will likely occur with the addition of Cell 13, set to be constructed during the 2021 construction season.

In 2021 JRL will continue filling/shaping Cell 11 and 12 until Cell 13 is constructed. Once constructed, due to the lack of availability of MSW for disposal at the JRL (except for bypass MSW if available), 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 13.

The Cap 1 final cover installation is currently scheduled to occur sometime in 2022, along with the construction of Cell 14.

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

During 2020, the JRL facility experienced spills, fires, and waste related events. All spills were properly cleaned up by JRL Staff or a 3<sup>rd</sup> party environmental services company. Further details of the events are listed below.

#### **Petroleum Related Spills**

One (1) Small hydraulic fluid spill occurred in 2020. The spill occurred when a 3<sup>rd</sup> party hauler's trailer detached from his truck while turning onto the landfill access road from Route 16. During the event, a hydraulic hose from the truck ruptured. The MEDEP spill hotline was contacted regarding the spill.

#### **Leachate Related Spills**

Two (2) Leachate related spills occurred in 2020. One small leachate spill occurred near a concrete manhole structure next to the lined stormwater pond (formerly the leachate pond). The other small leachate spill occurred on the JRL Perimeter Access Road where it meets with the bottom of the West Road. The MEDEP was contacted regarding both spills.

#### **Waste Related Fires**

During 2020, 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 2020, several small areas of synthetic immediate cover were damaged around landfill gas (LFG) infrastructure due to heavy rain/wind events. 3<sup>rd</sup> 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.

#### **Waste Related Events**

Two (2) Waste related events occurred at JRL in 2020. The first occurred on the dates of 08-06-20 thru 08-07-20 and the second on 09-07-20 and 09-14-20. After these two events, the MEDEP was notified and informed of each occurrence. Additional information was provided if requested.

#### 3.7 <u>Updated Cell Development Plans</u>

Cell 11 and 12 plans will remain in the JRL Expansion Operations Manual, along with the future plans for Cell 13. Cell 13 is set to be constructed during the 2021 construction season and will represent the third cell of the 9.35 million cubic yard permitted expansion.

#### 3.8 <u>Copies of Reports Prepared in Accordance with the Landfill's Hazardous and</u> Special Waste Handling and Exclusion Plan

During 2020, 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.

#### 3.9 <u>Inspections and Testing</u>

During 2020, 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. Completed sample inspection sheets are included in Attachment D of this Annual Report.

#### 3.10 <u>Description of System Failures and/or Repairs</u>

Routine and non-routine maintenance activities were performed on the leachate and landfill gas collection infrastructure, access roads, stormwater structures, and cover systems during 2020. Leachate maintenance activities are listed chronologically in Attachment E. A summary of other identified landfill maintenance activities are in Attachment D.

During report year 2020, 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 2020, the following minor facility site changes not requiring Department approval occurred:

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

During 2021, 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; and
- Continued efforts to mitigate wind-damage of landfill synthetic intermediate cover materials.

#### 5.0 MONITORING

#### Water Quality

The 2020 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 2020, 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 2020 Water Quality Report, Attachment F of this report. Below in Table 5-1, are leachate volumes of each pump station, along with total leachate hauled for 2019 and 2020 are compared. As seen, leachate flows decreased for 2020. This decrease was largely attributed to a lower total rainfall in 2020 as compared to 2019, and an increase of installed synthetic intermediate cover material on Cell 11.

Table 5-1 Leachate Total Comparison, 2019 & 2020

Total Leachate Pumped By Cell Pump Stations							
	Cell 4	Cell 5	Cell 8 Cell 11		Cell 12		
2020	7,328,981	2,656,795	3,928,875	619,838	1,051,635		
2019	7,998,140	3,970,689	5,218,911	2,734,562	0		
Difference	-9%	-49%	-33%	-341%	100%		
	Total Le	achate Produc	ed (Hauled) By	Month			
	2020	2019		Difference			
January	1,665,470	1,949,915	-17%				
February	1,048,445	1,312,876	-25%				
March	1,585,340	1,895,360	-20%				
April	1,302,425	2,573,450	-98%				
May	1,166,005	2,006,565		-72%			
June	1,057,245	1,829,710		-73%			
July	1,152,965	1,647,955	-43%				
August	August 1,001,035 2,342,420 -134%						
September	987,085	1,480,785	80,785 -50%				
October	1,303,400	1,668,845	-28%				
November	1,311,335	1,447,460	-10%				
<b>December</b> 2,405,515 2,031,960 16%							
TOTAL	15,986,265	15,986,265 22,187,301 -39%					

#### **Landfill Gas Monitoring**

The 2020 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 2020 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 2020 Air Monitoring Evaluation for JRL is included as Attachment H of this report. Two types of air monitoring activities occurred on-site during 2020; (1) hydrogen sulfide (H<sub>2</sub>S) monitoring with stationary continuous monitors, and (2) quarterly methane (CH<sub>4</sub>) emission surface scans on the landfill intermediate cover. Additionally, odor complaints from the 24-hour JRL odor complaint hotline provided an opportunity to evaluate the effectiveness of odor control measures at the JRL.

#### **Geotechnical Monitoring**

The 2020 Annual Geotechnical Monitoring Report for JRL is included as Attachment I of this report. During 2020, 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 MEBEP 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 2020 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 2020

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.

#### **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 13 Design Report Review (submitted on 03-12-21).

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

- MEDEP 2020 annual report fee invoice will be paid once received.
- MEDEP 2020 annual license fee of \$15,011.00 was paid on July 07, 2020.

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

- MEDEP 2019 annual report was submitted on April 29, 2020.
- MEDEP 2019 annual report fee of \$3,885.00 was paid on February 27, 2020.
- MEDEP 2019 annual license fee of \$14,623.00 was paid on July 29, 2019.

#### 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.

A complete re-issue of the JRL Expansion Operations manual, with all of the sections updated, was distributed in April 2020 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 as part of 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 2020, 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 13 which will be constructed throughout the 2021 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 predetermined 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. Two elevated levels of H2S (a separate component of LFG) were detected in 2020. They were recorded on two separate occasions and were in non-LFG collection infrastructure. The MEDEP was notified of the occurrences and they were 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 are 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: 2020
DEP LICENSE NUMBER #S-020700-WD-N	I-A & #S-020700-WD-BI-N
	handling and disposal per 06-096 C.M.R. ch. 401, § 4(D) and ity 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: <u>04444</u>
Phone: 207-862-4200 x224	E-mail: wayne.boyd@casella.com
along with your report.	report is being submitted. If so, submit this cover sheet only owledge and believe this report is true, accurate and complete.
Signature of person completing this form: Printed name of person completing this form:_	Date Signed 04/29/21 effrey Pelletier
Please return two (2) paper copies and an electronic fee by April 30 of the reporting year to:	nic copy of your completed form with the required annual report

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

#### **ATTACHMENT C**

### **Updated Operations Manual Sections**

Included in this attachment are revised documents meant to update the previous JRL Expansion Operations Manual (Revised in April 2020). These new documents supersede previous versions and incorporates JRL's current operations of both the 2004 permitted footprint and the landfill expansion. The following appendices were reviewed and updated in April 2021. Digital versions of these documents are included as a separate file that includes the completely revised JRL Expansion Operations Manual (Revised in April 2021).

#### Updated documents include:

- C1 Binder Cover/Spline Label
- C2 JRL Expansion Operations Manual Narrative Section
- C3 Appendix A (MEDEP Operating Permits)
- C4 Appendix C (Operator Training Program Outline)
- C5 Appendix D (Cell Development Plans for Cell 13)
- C6 Appendix F (Updated JRL SWPPP)

## **ATTACHMENT D Facility Inspection Reports/ Other Maintenance Activities**

Appendices included within Attachment D:

- Weekly/Monthly/Quarterly Site Inspection Reports JRL Other Maintenance Activities D-1

## Weekly/Monthly Site Inspection Reports

STI SP001 MONTHLY ABOVEGROUND TANK AND CONTAINER CHECKLIST

NICHOCOTONIC CLONESTEINS	Juni	per Ridge I		Old Tow	n, ME	INSPECTO	NOIC TITLE	. LH2	
INSPECTOR'S SIGNATURE:				12020		tacili	ty MA	naze	
checklist shall be completed or	a monthi	γ basis and	d bé retai	ned with	the SPCC F	lan for at	least 3 ye	arš.	
ank#:	1	2	3	4	5	6	7	8	9
LOCATION:	1	aintenance ilding	<u> </u>	Active Ce	ll of Landfil	1	Office Building	Near Leachate Tank	Thiopaq Transforme
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 Qil	366-GAL Diesel	270-GAL Mineral Oi
TANK CONTAINMENT:	· · · · · · · · · · · · · · · · · · ·								
Water in primary tank, secondary container?	○ <u>Yes</u> ✓ No	O Yes ♥ No	○ Yes ♥ No	NA	NA	NA	O¥es ONo	<u>Yes</u> <b>YNo</b>	NA
Debris or fire hazard in containment?	○ Yes • No	<u>O Yes</u> ♥ No	<u>Yes</u> <b>⊘</b> No	○ <u>Yes</u> ● No	O Yes No	O <u>Yes</u> <b>♥ No</b>	O¥es ON•	O <u>Yes</u> Ø No	NA
Drain valves operable and In a closed position?	Ores ○ No	O∕Yes O <u>No</u>	<b>€</b> Yes ○ <u>No</u>	<b>⊙Yes</b> ○ <u>No</u>	<b>y</b> Yes ○ <u>№</u> 0	<b>V</b> Yes ○ <u>No</u>	ON:	<b>⊘Yes</b> ○ <u>No</u>	NA
Containment egress pathways clear and gates/doors operable?	<b>(√Yes</b> ○ <u>Nio</u>	Ø Yes ○ <u>No</u>	®Yes O№	<b>Ø</b> Yes ○ <u>No</u>	<b>Ves</b> ○ <u>No</u>	NA	OYes ON⊒	<b>⊘Yes</b> ○ <u>No</u>	NA
Concrete intact and in good condition with no cracks?	Ves O No	Yes No	¥ Yes ○ <u>No</u>	NA	NA	NA	OYes ONo	Yes No	ØYes ○ <u>No</u>
LEAK DETECTION:									
Visible signs of leakage around the tank, concrete pad, containment, ring wall or ground	○ <u>Yes</u> • No	○ <u>Yes</u> ❤ No	O <u>Yes</u> ØNo	O Yes O No	○ No ○ Yes	○ <u>Yes</u> <b>®</b> No	O No O ₹ēē	O Yes <b>⊘</b> No	O Yes ♥No
TANK ATTACHMENTS AND APPURT	ANCES:		,						
Ladder and platform structure secure with	Yes	Yes	<b>⊘</b> Yes	<b>⊘</b> Yes	<b></b> ∀es	<b>O</b> Yes	O Yes	Ø Yes	<b></b>
no sign of severe corrosion or damage?	ONo	O <u>N</u> e	O <u>N∘</u>	O <u>No</u>	O №	O No	O 1/2 11	ON∘	O No
Tank liquid level gauge readable and In d condition?	<b>⊘ Yes</b> ○ №o	ØYes O <u>N</u> ⊇	<b>©</b> Yes ○ №o	<b>Yes</b> O <u>No</u>	<b>⊘</b> Yes ○ <u>No</u>	Yes O <u>No</u>	O Ves	ØYes O№º	NA
rank openings properly sealed?	<b>③Yes</b> ○ <u>No</u>	Ø Yes ○ <u>No</u>	Yes O No	ঔYes <u>ৌথ০</u>	ØYes ○No	<b>⊘</b> Yes ○ No	O les	<b>⊘</b> Yes ○ <u>No</u>	ØYes ○№
GENERAL HOUSEKEEPING:	,							-	
Fire extinguisher nearby?	Yes	<b> (</b> ✓Yes	<b></b>	Yes	<b>⊘</b> Yes	Yes	es	<b></b>	<b> ∀ Yes</b>
F-111	<u>ONo</u> <b>⊘Yes</b>	O No O Yes	O No <b>Yes</b>	ON0	ONO	O No	O Ves	O No O Yes	<u>O№</u> CYes
Spill equipment nearby?	Ovo Les	O No	O No	NA	NA	NA	Ö1º	ON∘	O No
TANK#:				9			10		
				Inside Ma	intenance	Building	tnside Ru	bb Storag	e Building
			_	55-GAL D	rums & 220	-GAL Tote	55-GAL D	)rum	
PORTABLE CONTAINERS:							T		
Are portable containers in designated	storage are	ea? 	<u>-</u>	ੴYes (					
Debris, spill, or other fire hazards in co	ontainment	or storage	area?	O Yes O No			○ Yes ♥ No		
Water in outdoor secondary containm				<u>Yes</u> <b>ƳNo</b>			O Yes O No		
Drain valves operable and in a closed position?				♥Yes ○ No			ØYes ○No		
Egress pathways clear and gates/doors operable?							ØYes ○ <u>No</u>		
Container distorting, buckling, denting, or bulging?				O Yes ( No			OYes ØNo		
Visible signs of leakage around the con	ntainer or s	torage area	1?	Yes (	No		O Yes (	) No	
* Office build		as b	een )	nemé	ved.	· <u></u>			

#### WEEKLY/MONTHLY INSPECTION FORM

Site Name/Company	Juniper Ridge Landfill/NEWSME Landfill Operations, LLC
Location	2828 Bennoch Road, Alton, Maine
Date of Visit	6/12/2020
Inspector Name/Signature	hoven Benet 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

	Inspection of Active Areas at the I	<u>facility</u>					
	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 Plt	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)				
2 laborers are picking litter. South road was repaired.							

Table 2
Inspection of Stabilized Areas at the Facility

	Inspection of Stabilized Areas at the	racmity	
	Stabilized Active Areas at the Fa	cility	
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	2 labour dre,	pidei	ghtter

Table 3
Inspection of Stormwater BMPs, Conveyances and Outfalls

mspect	ion of Stormwater BMPS, Conveyances and Outtains
ВМР	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	Nove
Detention Pond 6	Nove
Litter Fence	None

Table 3
Inspection of Stormwater BMPs, Conveyances and Outfalls

	but of Stormwater Birrs, Conveyances and Duttalls
BMP	Describe where any of the following were observed:
Lookata Chama	<ul> <li>Any evidence that the BMP is not functioning properly.</li> </ul>
Lechate Storage Tank Containment Area	
Leachate Storage Tank Containment Area Riprap Outlet	None
Leachate Loading Rack Catch Basin	Nme
Detention Pond 9	None
2,000-Gallon Underground Storage Tank	None None None None None None None None
Detention Pond 5	None
Outfall No. 1	None
Outfall No. 2	None
Outfall No. 3	None
Outfall No. 4	None
Outfall No. 5	None

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

Reference	Description	Schedule Schedule

Certi	fica	tion
-------	------	------

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: Antrew Benetl

Telephone: 249-3536

Signature: Condrew Sound

Date: 6/12/2020

# 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: June Ridge Londfill Sampler's Name: Anorew Benell						
·	Facility Address: 1828 Benoch Rol MSGP Permit Number: MFRO 9 B417			D4 11		
_010	Ham 11/1/4	07768	72 Hour	e Since last Ou	alifying Storm?	Ned or No
	<del>.</del>		(circle)	3 Strice last Qu	amying otom.	
Measurable Discharge	from outfall?	Ves or No (ci				
Outfall Number	#1	#2	<b>H</b> 3	#4	#5	
Observation Time	7:45 m	9-15 an	# 7.52 on	3:10 am	757 am	
Est. Time from Onset of Discharge	<1h	<1h	KIHT	21hr	<1h	
Discharge Type (rain, snow melt or ice melt)	Run + saw	Rayton	Roint som	Rein + sow melt	nelt,	
Sample Volume (ml)	1000	1000	1000 ml	1000 ml	locemi	
Color	Clear	clear	Clear	clear	clear	
Odor	none	rine	MME	NOTE	1412	
Clarity	clear	clear	clear	dew	clear	
Floating Solids*	None	Now	MAR	NONE	gene slight	(grev1,009.45)
Settled Solid*	None	None	More	MME	nne	,.
Suspended Solid*	Nene	New	Nine	12078	me	
Foam	Now	Kens	Now	nne	None	
Oil Sheen	Nene	New	None	noe	N.me	
Possible Source of Any Observed Contamination	NA	NA	NA	NA	NA	
*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 kno	imprisonment for knowingly violating the law.  Name: Andrew Benne # Date: 3/13/2020					
Name: A 13 Vew Sevin	¥ #	Date: <u>5/15/</u>	24.49	<u></u>		
Signature: and	driv be	met	Date:	3/13/20	20	



Standard Operating Procedure Bureau of Water Quality Attachment B

Date: April 20, 2006 Revised: June 12, 2017 Doc Number: DEPLW0768

### General Comments

outtall sampled.	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 I	Comments:	Sun terned to rean writed 7:30 am.	
Outfall 2	Comments:		
Outfall 3	Comments:		
Outfall 4	Comments -		
Outfall 5	Comments _		
<del>Outfall ú</del>	Comments:		

### ROUTINE INSPECTION REPORT

Site Name/Company	Juniper Ridge Landfill/NEWSME Landfill Operations, LLC	
Location	2828 Bennoch Road, Alton, Maine	
Date of Visit	3/25/2020	
Inspector Name/Signature	Andrew Benett andrew Bennett	
Weather	Eartly Cloudy	

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 Scale House and Scale	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.
Office Building	Building has been removed,
Soil Stockpile Areas	n 1
Borrow Pit	None None
Wood Waste Handling Area	Nove

Routine Inspection Form NEWSME Landfill Operations, LLC 2628 Bennoch Road, Alton, Maine St.Germain Collins File No.: 2553 January 2017 Page 2

Table 1
Inspection of Potential Pollutant Sources (PPS)

	pectron of t becittain total and boardes (1.5)
Maintenance Building	Neng
Rubb Building	None
LFG Treatment Facility	None None None None None None None
Leachate Storage Tank	Nove
Leachate Loading Rack	None
Leachate Collection System	None
Gravel Laydown Area	None
Employee Parking Area	None
1,500-Gallon Gasoline Tank	Nene
1,500-Gallon Diesel Tank	None
2,500-Gallon Diesel Delivery Truck	None None None None
Access Roads	None

Routine Inspection Form NEWSME Landfill Operations, LLC 2828 Bennoch Road, Alton, Maine St.Germain Collins File No.: 2553 January 2017 Page 3

Table 2
Inspection of Structural Control Measures and Outfalls

mspe	ction of Structural Control Measures and Outfalls
ВМР	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 None None None
Detention Pond 6	None
Litter Fence	Some letter against fence.
Leachate Storage Tank Containment Area	Some litter against fence.  None  None  None  None  None
Leachate Storage Tank Containment Area Riprap Outlet	Nove
Leachate Loading Rack Catch Basin	None
Detention Pond 9	Neve
2,000-Gallon Underground Storage Tank	None
Detention Pond 5	Now
Outfall No. 1	New Nove
Outfall No. 2	Nove

Routine Inspection Form NEWSME Landfill Operations, LLC 2828 Bennoch Road, Alton, Maine St.Germain Collins File No.: 2553 January 2017 Page 4

Table 2
Inspection of Structural Control Measures and Outfalls

Outfall No. 3	None
Outfall No. 4	Neme
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
1	

Routine Inspection Form NEWSME Landfill Operations, LLC 2828 Bennoch Road, Alton, Maine St.Germain Collins File No.: 2553 January 2017 Page 5

### 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: And Manager Penalty Signature:

Date: 3/25/292e

### 2020 Juniper Ridge Landfill Other Maintenance Activities

Below is a list of all other maintenance activities that occurred throughout 2020. A list of all leachate maintenance and cleaning activities is chronologically listed in Attachment E of the 2020 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 278 improvements were made to the LFG system throughout 2020. These improvements included: well/gas collection trench installations/extensions, maintenance to all collection well head components (valves, ports, hoses), and torn well boots.
- The flare flame arrestor was 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.

### **Other Site Maintenance**

- The old office/operators breakroom building was relocated to the south end of the landfill for future use as a cold storage building. A new office/operators breakroom was constructed as an addition to the shop.
- A new fiber optic line was installed to update landfill communication.
- The water loadout rack was relocated from its former location (near the old office building) to a new location next to Detention Pond 1A.

### **Scale House Maintenance**

- A new scale house and two scales were installed. One of the scales was new and the other was relocated from the previous scale location.
- Scales were cleaned, de-iced, and calibrated as necessary.

### **Stormwater Maintenance**

- The geomembrane lined storage pond that feeds into Detention Pond 1A was cleaned along with its associated structures.
- All stormwater ditches on the north, west, and south sides of the landfill were cleaned. Culverts were cleaned as necessary.
- Both sides of Detention Pond #5 were cleaned with new drainage sand installed.
- Seeding and mulching occurred as necessary to prevent erosion. New erosion control mix was added around the level lip spreader and prior to Outfall #2.
- Continuous litter patrols were performed by 3rd party temporary personnel.

## ATTACHMENT E Leachate Collection Maintenance Activities

202	20 Juniper Ridge Landfill Leachate Maintenance and Repairs
01/31/20	Emptied surface water from the leachate force main manholes. Inspected the manholes and pressure gauges.
04/10/20	Drained the leachate force main to relocate the water loadout rack. Inspected the force main for buildup.
04/15/20	Cleaned the pump station and valve pit near the lined stormwater pond. Removed valves and installed blind flanges.
06/12/20	Emptied surface water from the leachate force main manholes. Inspected the manholes and pressure gauges.
07/24/20	Cleaned leachate collection lines around the east side of the landfill.
08/03/20	Cleaned leachate collection lines around the southeast side of the landfill.
09/15/20	Removed and cleaned leachate collection pumps #1 & #2 in Cell 11 pump station. Relocated the pumps to Cell 12 pump station for future use.
09/22/20	Cleaned leachate collection lines around the north, west, and south sides of the landfill.
09/30/20	Emptied surface water from the leachate force main manholes. Inspected the manholes and pressure gauges.
10/15/20	Temporarily removed leachate collection pump #2 from both the Cell 5 and Cell 8 pump stations. Cleaned the pumps, hoses, discharge lines, valves, sumps, and transducers.
10/20/20	Emptied surface water from the leachate force main manholes. Inspected the manholes and pressure gauges.
10/27/20	Temporarily removed leachate collection pump #1 from both the Cell 5 and Cell 8 pump stations. Cleaned the pumps, hoses, discharge lines, valves, sumps, and transducers.
11/11/20	Temporarily removed leachate collection pump #2 in Cell 8 pump station. Cleaned and repaired an electrical issue.
11/16/20	Temporarily removed leachate collection pumps #1 & #2 from the Cell 4 pump station. Cleaned the pumps, hoses, discharge lines, valves, sumps, and transducers.
11/25/20	Temporarily removed leachate collection pump #2 in Cell 4 pump station. Cleaned and repaired an electrical issue.
12/07/20	Repaired a leachate collection discharge line in the Cell 12 pump station.
12/23/20	Temporarily removed leachate collection pump #2 in Cell 8 pump station. Cleaned and repaired an electrical issue.

# ATTACHMENT F Water Quality Monitoring Report

# 2020 ANNUAL WATER QUALITY REPORT JUNIPER RIDGE LANDFILL

Prepared for

### **NEWSME LANDFILL OPERATIONS, LLC**

April 2021





4 Blanchard Road P.O. Box 85A Cumberland, Maine 04021 Phone: 207.829.5016 smemaine.com

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### 2020 ANNUAL WATER QUALITY REPORT JUNIPER RIDGE LANDFILL

### **EXECUTIVE SUMMARY**

Water quality samples were obtained in April, July, and October 2020 at the Juniper Ridge Landfill (JRL) in accordance with the current site Environmental Monitoring Plan. The 2020 water quality data for the JRL monitoring locations are consistent with the historical data for the site and with the setting of monitoring locations 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 2020 water quality data, identifies trends at multiple locations and for a number of parameters, both upgradient and downgradient from the landfill. Historical groundwater quality data through 2020 indicate that these trends, however, are largely attributable to landfill operations and changes in redox conditions, which occur as expected around the landfill due to the construction 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. <sup>1</sup>

Leachate from monitoring location LT-C4LR during 2020 and historically since July 2013 is generally characterized by high parameter values. In 2020, the annual maximum value of specific conductance in JRL leachate (i.e., monitoring location LT-C4LR) was 25,800 µmhos/cm in July 2020. The annual maximum concentrations of chloride and arsenic at monitoring location LT-C4LR were 13,000 mg/L (July 2020) and 0.33 mg/L (July 2020), respectively. 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.

There was no flow at JRL underdrain monitoring locations LF-UD-1, LF-UD-3A,B, LF-UD-4, LF-UD-7, LF-UD-8, LF-UD-9, LF-UD-10, and LP-UD-1 during any of the three 2020 monitoring events; thus, no samples were obtained at these locations during 2020. The eight underdrain monitoring locations with no flow during any of the three 2020 monitoring events is more than the four locations with no flow during any of the three 2019 monitoring events, which is likely attributed to the lower precipitation total in 2020 compared to 2019 (i.e., 37.60 inches in 2020 compared to 52.00 inches in 2019). There were also no samples obtained from LF-UD-5and6 and LF-UD-6 in October 2020. These occurrences of no flow at these underdrain monitoring locations are consistent with previous observed patterns.

<sup>&</sup>lt;sup>1</sup> 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.

Where there was flow during 2020 from underdrain monitoring locations (LF-UD-2, LF-UD-5and6, LF-UD-6, and LP-UD-2), the underdrain monitoring data do not show adverse effects from the performance of the landfill cells or leachate collection and transport systems. The greatest specific conductance value measured during 2020 was at LF-UD-6 (579 µmhos/cm in April 2020); however, this value is lower than the historical maximum value at this location (919 µmhos/cm in August 2013) and there is currently a statistically significant decreasing trend (95% confidence level) for specific conductance at this location for the past five years. Specific conductance was measured at an annual low value of 225 µmhos/cm at LF-UD-6 in February 2020. There were no specific conductance values above 500 µmhos/cm at the remaining underdrain monitoring locations monitored in 2020. Specific conductance values for all underdrain locations monitored in 2020 were below their respective historical maximum values.

During 2020, annual maximum chloride concentrations from the sampled underdrain monitoring locations (ranging from less than the laboratory reporting limit of 2.0 mg/L at LF-UD-6 to 10 mg/L at LF-UD-2) were low relative to the JRL leachate and do not indicate influence from the presence of landfill leachate. The arsenic concentrations in the underdrain monitoring locations sampled during 2020 were low (ranging from less than the laboratory reporting limit of 0.005 mg/L at LF-UD-2, LF-UD-5and6, LF-UD-6, and LP-UD-2 to 0.005 mg/L at LF-UD-2) and generally consistent with those at groundwater monitoring wells across the site, including multiple upgradient monitoring locations. There were no volatile organic compounds (VOCs) detected in 2020 above laboratory reporting limits at any of the sampled underdrain locations.

Based on review of 2020 and historical data, SME has identified 18 of the 28 site-wide groundwater monitoring locations with water quality that: (1) do not indicate influence from landfill leachate; and (2) show limited influence from landfill construction operations. The annual maximum specific conductance values at these wells range from 98  $\mu$ mhos/cm to 419  $\mu$ mhos/cm. The annual maximum chloride concentrations at these monitoring locations were very low and ranged from 1.5 mg/L to 11 mg/L.

More pronounced water quality changes have been observed at 10 of the site groundwater monitoring locations (see Table 7-3), which include wells both upgradient and downgradient from the landfill. These changes are evidenced at some monitoring locations 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 comprise: (1) upgradient monitoring locations MW12-303R and P-206A; (2) side-gradient monitoring location MW-302R; (3) downgradient monitoring locations MW-223A, MW223B, MW-301; and (4) OW-06-03, OW-601A, OW-602B, and MW-501, which are downgradient from Cell 11 of the landfill expansion. These

monitoring locations 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.

Arsenic is the only parameter analyzed in groundwater monitoring wells that was detected above a maximum contaminant level (MCL) in 2020. During 2020, 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 2020. The maximum arsenic concentration detected at site-wide monitoring locations was 0.028 mg/L at MW-401B in July 2020. There were no arsenic concentrations detected above its MCL at pore-water sampling locations in 2020. There were no arsenic exceedances of the Maine Freshwater Criterion Continuous Concentration (MFCCC) during 2020 at surface water monitoring locations SW-1, SW-2, and SW-3.

The 2020 surface water, stormwater, and pore-water monitoring data are generally 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. One exception to this were the anomalously high specific conductance value and chloride concentration (among other parameters) at SW-DP1 during the April 2020 monitoring event. This was likely due to an overboard discharge from the active landfill in the vicinity of SW-DP1. MEDEP was notified of the discharge and residual material was removed by NEWSME. The July and October 2020 monitoring results indicate that the affected parameters at SW-DP1 are returning to values consistent with those prior to April 2020. With the exception of SW-DP1 in April 2020, all specific conductance values and chloride and arsenic concentrations at the surface water, stormwater, and pore-water monitoring locations were within their respective historical ranges.

2020 was the eighth year of supplemental monitoring for dissolved methane at monitoring well MW-223B and the sixth 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  $\mu$ g/L at MW-223B in April, July, and October 2020. The 2020 dissolved methane concentrations were within their respective historical ranges at PWS10-1 and PWS10-2. The July 2020 dissolved methane concentration at PWS10-3 (4,000  $\mu$ g/L) was greater than the previous historical maximum concentration of 280  $\mu$ g/L in July 2019. The historical dissolved 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  $\mu$ g/L in the top 25 centimeters of saturated soils². 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

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<sup>&</sup>lt;sup>2</sup> 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.

biological activity. The greatest concentration of dissolved methane detected at pore-water monitoring locations in 2020 (4,000  $\mu$ g/L at PWS10-3) occurred during the July monitoring event.

Baseline analytical monitoring for Cell 12 monitoring wells was performed in 2020. These locations were analyzed for the baseline monitoring parameters listed in Table 3-2. Samples were collected during February, April, June, and August 2020. As allowed by the Maine Solid Waste Management Rules, Chapter 405, Section 2.C.(3)(c), some parameters were discontinued from the program prior to completion of all four baseline monitoring events. These discontinuations were based on the absence of analytes at levels above laboratory practical quantitation limits. The baseline analytical monitoring program for Cell 12 monitoring wells is summarized in this report.

### 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 2020.

Water quality has been monitored at the site since 1990 when the site was first selected for a landfill.<sup>3</sup> This report describes the results of the water quality sampling and an analysis of site water quality in 2020 completed by Sevee & Maher Engineers, Inc. (SME). The analysis compares the 2020 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 2020 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).<sup>4,5</sup> Descriptions of the 2020 water quality monitoring results are provided in this report. There were supplemental components to the 2020 water quality monitoring program, consisting of sampling and analyses for dissolved methane at one monitoring well and three pore-water sampling locations.

In addition to EMP and supplemental monitoring, baseline analytical monitoring for Cell 12 monitoring wells MW-04-09A, MW-04-09B, and MW-502 was performed in 2020.

Descriptions of the site setting, facility layout, monitoring locations, analytical parameters, and 2020 site activities are also included herein. This report was preceded by a similar report prepared by SME in 2020 evaluating the 2019 site water quality.<sup>6</sup>

<sup>&</sup>lt;sup>3</sup> 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*).

<sup>&</sup>lt;sup>4</sup> SME, April 2016, Environmental Monitoring Plan, Juniper Ridge Landfill, Old Town, Maine, Prepared for NEWSME Landfill Operations LLC, Revised April 2016.

<sup>&</sup>lt;sup>5</sup> 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).

<sup>&</sup>lt;sup>6</sup> SME, April 2020, 2019 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

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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 2020 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. A landfill expansion was approved by Board Order #S-020700-WD-BI-N and includes expansion Cells 11 through 17. Cell 11 was constructed in 2018 and Cell 12 was constructed in 2020. Development of Cell 12 included site grading, construction of the landfill perimeter dike and temporary pump station, installation of a new leachate force main and landfill gas header, abandonment of the former administration building water supply well and the former scale house building water supply well (the latter to be completed in 2021), and modifications to perimeter stormwater drainage ditches east and north of the landfill. Intermediate cover and landfill gas collection piping and wells were installed within several areas of the active landfill cells in 2020.

Waste filling in 2020 occurred primarily in Cell 7, 9, 10, 11, and 12. In 2020, JRL received 835,261 tons of non-hazardous waste including, but not limited to, construction and demolition debris (CDD), municipal solid waste, front end process residue (FEPR), incinerator and boiler ashes, sludges, CDD fines, contaminated soils, oil spill debris, and other solid waste for which the facility has either blanket or individual permits. As of December 2020, approximately 895,289 cubic yards of permitted capacity remains in Cells 1-10 and approximately 6,563,510 cubic yards of permitted capacity remains in Cells 11-17.

### 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. At a few locations outside of the landfill boundary, bedrock outcrops are exposed at the ground surface. In addition, there were several isolated, discontinuous, washed till zones found beneath the till. However, these discontinuous washed till zones are often found within finer grained glacial tills.

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 2020 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 twenty-four of the site's twenty-eight current groundwater monitoring locations 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** 2020 SUMMARY OF SITE GROUNDWATER ELEVATION TRENDS

Location Designation <sup>1</sup>	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)
OW-602A	Downgradient (Expansion)	Apr-18 to Oct-20	-6.9	-2.703
OW-603B	Downgradient (Expansion)	Apr-18 to Oct-20	-5.5	-2.115
OW-604A	Downgradient (Expansion)	Apr-18 to Oct-20	-5.5	-2.115
OW-601A	Downgradient (Expansion)	Apr-18 to Oct-20	-4.5	-1.753
OW-601B	Downgradient (Expansion)	Apr-18 to Oct-20	-4.4	-1.717
P-206A	Upgradient	Jul-13 to Oct-20	-6.3	-0.877
OW-06-03	Downgradient (Expansion)	Apr-18 to Oct-20	-2.0	-0.767
MW12-303R	Upgradient	Oct-12 to Oct-20	-4.4	-0.548
MW-302R	Side-Gradient	May-08 to Oct-20	-4.5	-0.365
MW-206	Upgradient	May-07 to Oct-20	-1.5	-0.110
MW04-102	Downgradient	May-07 to Oct-20	-1.5	-0.110
P-04-04	Downgradient	May-07 to Oct-20	-1.5	-0.110
MW04-105	Downgradient	May-07 to Oct-20	-1.0	-0.073
MW-223B	Downgradient	May-07 to Oct-20	-1.0	-0.073
MW-223A	Downgradient	May-07 to Oct-20	-1.0	-0.073
MW-204	Downgradient	May-07 to Oct-20	-0.5	-0.037
MW-401A	Downgradient	May-07 to Oct-20	-0.4	-0.033
MW-227	Downgradient	May-07 to Oct-20	-0.3	-0.026
MW-402B	Downgradient	May-07 to Oct-20	-0.3	-0.026
MW04-109R	Downgradient	Dec-09 to Oct-20	-0.2	-0.018
MW-401B	Downgradient	May-07 to Oct-20	-0.2	-0.018
DP-4	Downgradient	May-07 to Oct-20	-0.1	-0.011
P-04-02R	Downgradient	Jul-15 to Oct-20	-0.02	-0.004
MW09-901	Downgradient	Dec-09 to Oct-20	+1.2	+0.110
Notes:				

As shown in Table 1-1, twenty-three of the twenty-four monitoring wells included in this analysis have downward water level trends for data collected later than 2007. Six of the monitoring locations included in Table 1-1 (OW-06-03, OW-601A, OW-601B, OW-602A, OW-603B, and OW-604B) are located downgradient of Cell 11 of the landfill expansion and have now been monitored since 2018. Early monitoring of groundwater elevation trends at these locations shows that the cut-off of recharge from precipitation by the Cell 11 landfill liner system has resulted in groundwater elevation change rates ranging from -2.703 feet per year (feet/year) at OW-602A to -0.767 feet/year at OW-06-03.

The remaining monitoring locations are upgradient or downgradient from all or a portion of Cells 1 through 10 of the JRL. 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 -0.877 feet/year at P-206A to -0.110 feet/year at MW-206. Thirteen of the fourteen downgradient monitoring locations analyzed for groundwater elevation trends for data collected later than 2007 have

Site monitoring locations are described in Section 2.0.

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 and P-04-04 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. Side-gradient monitoring location MW-302R has a greater rate of groundwater elevation decline than the downgradient monitoring locations; 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.

The site monitoring wells that are not included in the analysis summarized in Table 1-1 include MW-301, MW-402A, MW06-01, and MW-501. Monitoring locations MW-301, MW-402A, and MW06-01 also show indications of declining water levels but were not included since the rates of decline cannot be quantified with available data. Monitoring well MW-501 has been flowing during each of the monitoring events in 2018 through 2020.

Monitoring well MW-301 is 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.

Monitoring well MW-402A is located downgradient from the JRL and the former leachate pond. 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. These observations signify an overall decline of groundwater elevations at MW-402A from 2009 through 2020. Similarly, groundwater intermittently flows from monitoring well MW06-01. The groundwater elevations appear to be trending down for water levels measured below the top of the well casing at MW06-01.

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 2020 total precipitation of 37.60 inches, which is 4.33 inches below the normal precipitation reported by the NCDC for Bangor, Maine. The average groundwater elevations were generally lower in 2020 at most groundwater monitoring wells compared to 2019, when there was a total precipitation of 52.00 inches.

### 2.0 MONITORING LOCATIONS

Sampling during 2020 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).<sup>7,8</sup>

### 2.1 2020 Monitoring Locations

Sampling events during 2020 were completed in April, July, and October 2020. In 2020, water quality samples for the detection monitoring program were obtained by SME from 28 groundwater monitoring wells and piezometers,<sup>9</sup> three pore-water sample locations, three surface water locations, three stormwater locations, four underdrain locations,<sup>10</sup> and one leachate monitoring location. 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 on 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.

During 2020, SME also performed baseline water quality monitoring at the Cell 12 monitoring wells. Groundwater samples were collected from three groundwater monitoring wells in February, April, June, and August 2020. The locations of the wells are shown on Figure 1-2 and they are summarized in Table 2-5. The baseline water quality monitoring is further discussed in Sections 2.9, 3.2, and 7.5.

<sup>&</sup>lt;sup>7</sup> SME, April 2016, Environmental Monitoring Plan, Juniper Ridge Landfill, Old Town, Maine, Prepared for NEWSME Landfill Operations LLC, Revised April 2016.

<sup>&</sup>lt;sup>8</sup> 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).

<sup>&</sup>lt;sup>9</sup> Three of the site groundwater monitoring wells (DP-4, MW04-105, and MW-204) are sampled only during the fall monitoring event, and for field parameters only. Six of the site groundwater monitoring wells (OW-06-03, OW-601A, OW-601B, OW-602A, OW-603B, and OW-604A) are sampled for detection monitoring parameters only during the summer monitoring event and are monitored for field parameters only during the spring and fall monitoring events.

<sup>&</sup>lt;sup>10</sup> Samples were obtained from four underdrain monitoring locations during one or more of the three 2020 sampling events. Eight additional locations were not sampled due to dry conditions (LF-UD-1, LF-UD-3A,B, LF-UD-4, LF-UD-7, LF-UD-8, LF-UD-9, LF-UD-10, and LP-UD-1). No composite samples were required to be taken at Manhole #5 (LF-COMP) and Manhole #7 (LP-COMP).

TABLE 2-1
2020 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 <sup>1</sup>	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	0.819.2	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 <sup>1</sup>	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 <sup>1</sup>	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
OW-06-03 <sup>1</sup>	Downgradient Expansion (Cell 11)	10.0 – 15.0	203.0	188.0 - 193.0	Overburden
OW-601A <sup>1</sup>	Downgradient Expansion (Cell 11)	88.0 - 98.0	214.9	116.9 – 126.9	Bedrock
OW-601B <sup>1</sup>	Downgradient Expansion (Cell 11)	51.0 - 61.0	214.5	153.5 – 163.5	Overburden
OW-602A <sup>1</sup>	Downgradient Expansion (Cell 11)	52.0 – 62.0	211.7	149.7 – 159.7	Bedrock
OW-603B <sup>1</sup>	Downgradient Expansion (Cell 11)	34.0 – 44.0	205.1	161.1 – 171.1	Overburden
OW-604A <sup>1</sup>	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
MW06-01	Downgradient Expansion (Cell 11)	10.0 – 20.0	163.3	143.3 – 153.3	Overburden

### <u>Notes</u>

MW-204, DP-4, and MW04-105 were sampled only during the fall sampling event for field parameters only. Six of the site groundwater monitoring wells (OW-06-03, OW-601A, OW-601B, OW-602A, OW-603B, and OW-604A) are sampled for detection monitoring parameters only during the summer monitoring event and are monitored for field parameters only during the spring and fall monitoring events.

TABLE 2-2

### 2020 SURFACE WATER, STORMWATER, LEACHATE, AND UNDERDRAIN MONITORING LOCATIONS

Location	Water Body			
Designation	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			
	Composite sample of LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4,			
LF-COMP	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			
LF-COIVIP	in manhole covers both of the inlet pipes at MH #7			
LT-C4LR	Leachate – On-site leachate storage tank			

TABLE 2-3
2020 SAMPLING FREQUENCY

Sample Type	Location Designation		Monitoring: Detection Parameters (D) Field Parameters Only (FP)		
		Spring	Summer	Fall	Monthly
	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	
Groundwater	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	
	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	
	SW-1	D	D	D	
Surface Water	SW-2	D	D	D	
	SW-3	D	D	D	
Chaman	SW-DP1	D	D	D	
Stormwater	SW-DP5	D	D	D	
Detention Pond	SW-DP6	D	D	D	
	PWS10-1	D	D	D	
Pore-Water	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)			Field Parameters
		Spring	Summer	Fall	Monthly
	LF-UD-1	D	D	D	Х
	LF-UD-2	D	D	D	Х
	LF-UD-3A,B	D	D	D	Х
	LF-UD-4	D	D	D	Х
	LF-UD-5and6	D	D	D	Х
	LF-UD-6	D	D	D	Х
Underdrains <sup>1</sup>	LF-UD-7	D	D	D	Х
Onderdrains-	LF-UD-8	D	D	D	Х
	LF-UD-9	D	D	D	X
	LF-UD-10	D	D	D	Х
	LP-UD-1	D	D	D	X
	LP-UD-2	D	D	D	Х
	LF-COMP	D	D	D	Х
	LP-COMP	D	D	D	X
Leachate	LT-C4LR	D	D	D	
Notes					

Notes

### 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<sup>11</sup> 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.

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.

Juniper Ridge personnel complete monthly underdrain and leak detection monitoring.

<sup>&</sup>lt;sup>11</sup> 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 monitoring locations SW-1, SW-2, and SW-3 are located in 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 sample monitoring locations SW-DP1, SW-DP5, and SW-DP6 are located 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.

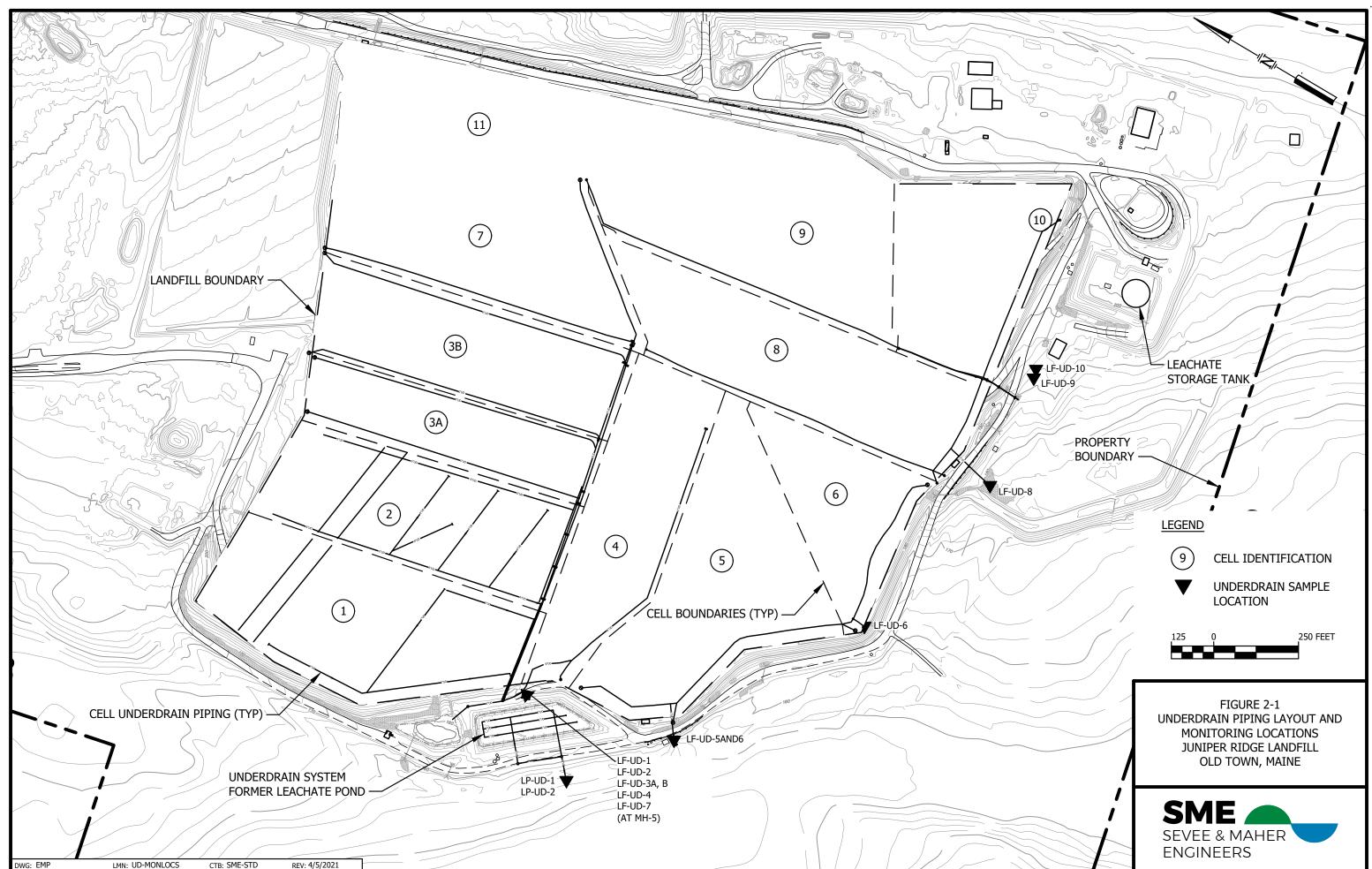
# 2.5 Leachate Sample Location

During the 2020 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 2020 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. The base grades for Cell 5 and Cell 6 were designed such that the Cell 5 underdrain would also accommodate flow from the Cell 6 underdrain. The combined flow from the Cell 5 and Cell 6 underdrains then drain 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-5 and 6); 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



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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, was 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.

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-5and6, 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 2020, 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 2020 detection monitoring events. LF-COMP samples were obtained from manhole MH #5 and analyzed for field parameters during each of the twelve 2020 monthly monitoring events.

Composite LP-COMP samples were not obtained during the routine monitoring events in 2020 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 2020 monthly monitoring events.

## 2.7 Annual Monitoring Well Specific Conductance Measurements

Specific conductance measurements were taken in 2020 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 2020 and historical fall specific conductance measurements are included in Appendix C.

TABLE 2-4

2020 MONITORING WELL AND PIEZOMETER LOCATIONS
USED FOR ANNUAL SPECIFIC CONDUCTANCE MEASUREMENTS

Location Designation						
DP-4	MW-402B					
MW04-101 <sup>1</sup>	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 <sup>2</sup>					
MW09-901	P-209A					
MW-223B	P-209B					
MW-227	P-209C <sup>3</sup>					
MW-301	P-211A					
MW-302R	P-211B					
MW-401A	P-220A <sup>4</sup>					
MW-401B	P-220B <sup>4</sup>					
MW-402A						

#### Notes:

- Location damaged or destroyed. Specific conductance was not measured in October 2020.
- Water level in P-206A was not high enough to pump in October 2020 and specific conductance was not measured at this location.
- P-209C was dry in October 2020 and specific conductance was not measured at this location.
- P-220A and P-220B were inaccessible in October 2020 and specific conductance was not measured at these locations.

**⊕** MW-206A

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# 2.8 Water Quality Landfill Gas Monitoring Program

Concurrent with the routine water quality monitoring events in 2020, 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 2020 and historical landfill gas monitoring are included in Appendix H.

# 2.9 Baseline Water Quality Monitoring Wells for Cell 12

Baseline water quality for Cell 12 monitoring wells was completed in 2020. Baseline monitoring locations are shown in Table 2-5. The locations of these wells are shown on Figure 1-2 and well construction details are summarized in Table 2-5.

TABLE 2-5
2020 BASELINE WATER QUALITY MONITORING WELLS FOR CELL 12

Monitoring Well	Implementation Schedule	Screen Depth Interval (feet-BGS)	Ground Surface Elevation (feet-NGVD)	Screen Interval Elevation (feet-NGVD)	Geologic Formation Screened
MW-04-09A	Cell 12	38.0 - 39.0	167.0	129.0 - 128.0	Till
MW-04-09B	Cell 12	14.0 - 15.0	167.0	153.0 – 152.0	Bedrock
MW-502	Cell 12	38.0 – 43.0	TBD	TBD	Bedrock

#### 3.0 MONITORING PARAMETERS

#### 3.1 Detection Monitoring Program

Table 2-3 shows the monitoring locations where detection monitoring was performed in 2020. Sampling during 2020 was completed in general accordance with the current EMP for the JRL (revised April 2016) and the EMP for the JRL expansion (SME, 2016; SME, 2017). 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 2020 monitoring event.

A supplementary addition to the 2020 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, July, and October 2020. The results of the supplementary dissolved methane monitoring are discussed in Sections 7.3 and 7.4.

TABLE 3-1
2020 DETECTION MONITORING ANALYTICAL PROGRAM

Water Quality Parameter <sup>1</sup>	Method	Practical Quantitation Limit (PQL) <sup>2</sup> (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 <sub>4</sub> )	SW846/9056	1.0
Nitrate Plus Nitrite (NO <sub>3</sub> -N/NO <sub>2</sub> -N)	U.S. EPA 353.2	0.05
Bicarbonate (HCO <sub>3</sub> -CaCO <sub>3</sub> )	SM 2320B	1.5
Volatile Organic Compounds (VOCs) <sup>4,8</sup>	U.S.EPA 8260B	0.0005 - 0.02
Total Kjeldahl Nitrogen (TKN)⁵	US EPA 351.2	0.25
Total Phosphorous <sup>6</sup>	U.S.EPA 365.3	0.04
Biochemical Oxygen Demand (BOD) <sup>7</sup>	SM 5210B	1.0
<u>Field Parameters</u> Groundwater Elevation	Field Measurement	NA <sup>3</sup>
Specific Conductance	Field Measurement	NA NA
Dissolved Oxygen (DO)	Field Measurement	NA NA
, , ,	Field Measurement	NA NA
pH Eh	Field Measurement	NA NA
Temperature	Field Measurement	NA NA
Turbidity	Field Measurement (APHA 2130)	NA NA
Surface Water Flow Rate		
Field Observations	Visual Observations	NA NA
Total Alkalinity (as CaCO <sub>3</sub> ) 9	Field Measurement	NA NA

#### Notes:

- In April 2020, leachate samples from LT-C4LR were analyzed for Appendix A, Column 3 parameters (from Chapter 405 MEDEP Solid Waste Regulations).
- <sup>2</sup> At dilution factor of unity. Some PQLs may differ for surface and stormwater analysis.
- <sup>3</sup> NA = Not Applicable.
- <sup>4</sup> 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.
- <sup>5</sup> Monitoring wells and leachate only.
- <sup>6</sup> Surface waters, stormwater, pore-water, and underdrain only.
- <sup>7</sup> Surface waters only (excluding stormwater detention ponds and underdrains).
- In April 2020, LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, LF-UD-5and6, LF-UD-6, LF-UD-7, LF-UD-9, 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.

# 3.2 Baseline Analytical Program for Monitoring Wells for Cell 12

Baseline analytical monitoring for Cell 12 monitoring wells was performed in 2020 at the locations shown in Table 2-4. These locations were analyzed for the baseline monitoring parameters listed in Table 3-2. Samples were collected during February, April, June, and August 2020. As allowed by the Maine Solid Waste Management Rules Chapter 405, Section 2.C.(3)(c), and as described in Table 3-2, some parameters were discontinued from the program prior to completion of all four baseline monitoring events. These discontinuations were based on the absence of analytes at levels above laboratory practical quantitation limits. The changes in the parameters and locations included in the baseline program were reviewed with the Maine Department of Environmental Projection prior to making the changes. The results of the baseline analytical monitoring are summarized in Section 7.5.

TABLE 3-2
2020 BASELINE ANALYTICAL PROGRAM FOR MONITORING WELLS FOR CELL 12

Water Quality		PQL <sup>1</sup>
Parameter	Method	(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
Boron (B) <sup>5</sup>	SW846/6010B/6010C	0.05
Copper (Cu)	SW846/6010B/3010A	0.003
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 (CI)	SW846/9056	1.0
Bromide (Br)	SW846/9056	0.1
Sulfate (SO <sub>4</sub> )	SW846/9056	1.0 to 2.0
Sulfide (S <sup>2-</sup> )	8131 HACH	0.1
Ammonia (NH <sub>3</sub> )	SM 4500 NH3-B/SM 4500 NH3-C	0.5
Nitrate Plus Nitrite (NO <sub>3</sub> -N/NO <sub>2</sub> -N)	U.S. EPA 353.2	0.05
Alkalinity (CaCO <sub>3</sub> )	SM 2320B	1.5
Volatile Organic Compounds (VOCs) 3,4	U.S.EPA 8260B	0.0005 - 0.02
Dissolved Methane 5	8015mod/RSK-175	0.020
Total Kjeldahl Nitrogen (TKN)	US EPA 351.2	0.25
Total Phosphorous <sup>5</sup>	U.S.EPA 365.3	0.04
Biochemical Oxygen Demand (BOD) 5	SM 5210B	1.0
Field Parameters		
Groundwater Elevation	Field Measurement	NA <sup>2</sup>
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
Field Observations	Visual Observations	NA

#### Notes:

- At dilution factor of unity. Some PQLs may differ for surface and stormwater analysis.
- NA = Not Applicable.
- 3 VOCs are the 47 organic constituents listed in Appendix I of 40 CFR Part 258 plus diethyl ether and tetrahydrofuran. PQLs for VOCs are reported at a dilution factor of unity.
- <sup>4</sup> With agreement from MEDEP, MW-502 and MW-04-09B were sampled for VOCs only in February and April 2020 since there were no detections of VOCs above their respective PQLs. MW-04-09A was sampled for VOCs in February, April, June, and August 2020. The only VOC detection above a laboratory reporting limit at MW-04-09A was a one-time detection of m,p-xylene at 1.1 μg/L in April 2020.
- <sup>5</sup> Boron, dissolved methane, total phosphorous, and BOD were inadvertently omitted from baseline sampling at the Cell 12 monitoring wells. Boron, dissolved methane, total phosphorous, and BOD will be included in the 2021 monitoring program for MW04-09A, MW-04-09B, and MW-502.

#### 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 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.

## 4.3 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.

# 4.4 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<sub>2</sub>S 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.

# 4.5 Sample Handling and Chain-of-Custody

After obtaining the water quality samples in 2020, 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, and VOC analyses. Katahdin Analytical Services (Katahdin) of Scarborough, Maine, under subcontract to MEL, performed the analyses for total Kjeldahl nitrogen, semi-volatile organic compounds (SVOC), herbicides, pesticides, and polychlorinated biphenyls (PCBs). 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 are 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 2020 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 2020.

## 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 2020, 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 2020 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 2020, the annual maximum value of specific conductance in JRL leachate (i.e., monitoring location LT-C4LR) was 25,800 µmhos/cm in July 2020. The annual maximum concentrations of chloride and arsenic at monitoring location LT-C4LR were 13,000 mg/L (July 2020) and 0.33 mg/L (July 2020), 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 2020 (0.028 mg/L at MW-401B in July 2020) is approximately an order of magnitude lower than in the JRL leachate in 2020. 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 2020 water quality data summary, and a statistical summary of the historical data prior to 2020. Parameter concentrations that exceeded historical minimum and maximum concentration values in 2020 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 can be seen visually 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 2020 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 2020 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 are 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 2020 analyses are five-year statistically significant decreasing trends (95% confidence level) for total suspended solids, total Kjeldahl nitrogen, and bromide, 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. As an example, 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, especially when including key indicator parameters, are noted in our evaluation of the water quality in the site monitoring locations. <sup>12</sup> 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

<sup>&</sup>lt;sup>12</sup> 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.

trend, but remain within a range consistent with upgradient concentrations). The results of the trend 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 2020 and how they compare to chloride to bromide ratios for site monitoring locations during 2020.

# 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 2020. 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 2020 at monitoring locations as described in Section 2.0 of this report. Samples were obtained during April, July, and October 2020. Laboratory analytical reports, field data sheets, and data validation documentation have been presented in tri-annual data submittals forwarded to the MEDEP during 2020 for each monitoring event.

The 2020 water quality data for the JRL is generally consistent with the historical data for the site. The 2020 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 landfill operations and changes in redox conditions, which occur as expected around the landfill due to the construction 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.<sup>13</sup>

Only one of the parameters analyzed in groundwater monitoring wells, arsenic, was detected above an MCL in 2020. During 2020, 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 2020. The maximum arsenic concentration detected at site-wide monitoring locations was 0.028 mg/L at MW-401B in July 2020. There were no arsenic concentrations detected above its MCL at pore-water sampling locations in 2020. There were no arsenic MFCCC exceedances during 2020 at surface water monitoring locations SW-1, SW-2, and SW-3.

The low arsenic concentrations at the JRL in 2020 are a continuation since 2017 of generally site-wide lower concentrations of arsenic compared to recent previous concentrations. In contrast to 2020 arsenic data, all routine monitoring wells (19 at the time) and two of the three pore-water sampling locations had arsenic MCL exceedances during one or more sampling event in 2016.

The limited presence of arsenic at JRL monitoring locations in 2020 is attributed to reducing conditions associated with decreasing groundwater recharge from site development. These reducing conditions are

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<sup>&</sup>lt;sup>13</sup> 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.

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 2020, 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. The baseline analytical monitoring results of three new monitoring locations downgradient from Cell 12 in 2020 are discussed in Section 7.5.

#### 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 2020. 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 2020 and October 2020 and was sampled for the parameters listed in Appendix A, Column 3 of the Chapter 405 MEDEP Solid Waste Rules during the April 2020 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 2020, approximately 16.0 million gallons of leachate were loaded into tanker trucks and transported from JRL for off-site treatment.

Leachate parameter values during 2020 and historically since July 2013 are generally characterized by high parameter values. Leachate parameter values during 2020 were generally consistent with historical values. There was only one parameter (temperature) with a new historical maximum value in 2020 and two parameters (iron and manganese) with new historical minimum concentrations (see Appendix E). The specific conductance values recorded at LT-C4LR in 2020 ranged from 17,490  $\mu$ mhos/cm in April 2020 to 25,800  $\mu$ mhos/cm in July 2020. Chloride concentrations at LT-C4LR in 2020 ranged from 7,400 mg/L in October 2020 to 13,000 mg/L in July 2020. Arsenic concentrations at LT-C4LR in 2020 ranged from 0.24 mg/L in October 2020 to 0.33 mg/L in July 2020. The 2020 data from the leachate monitoring location is included in Appendix D.

There are not multiple (four or more) parameters for LT-C4LR with statistically significant increasing or decreasing trends (95% confidence level) over the past three years or five years.

Leachate was monitored for VOCs, SVOCs, herbicides, pesticides, and PCBs during the April 2020 monitoring event at LT-C4LR and for VOCs during the July 2020 and October 2020 monitoring events at

LT-C4LR. Appendix D includes the monitoring results at LT-C4LR for 2020 and the results of VOC, SVOC, herbicide, pesticide, and PCB parameters detected at levels above their respective laboratory reporting limits are summarized below:

- Methylene chloride (1.2 μg/L in July 2020, 30 μg/L in October 2020);
- Acetone (1,200 µg/L in April 2020, 560 µg/L in July 2020, 1,700 µg/L in October 2020);
- 1,2-dichloroethane (1.8 μg/L in July 2020);
- Methyl ethyl ketone (1,000 μg/L in April 2020, 300 μg/L in July 2020, 2,100 μg/L in October 2020);
- Benzene (5.0 μg/L in July 2020);
- 4-methyl-2-pentanone (20 μg/L in July 2020);
- Toluene (26 μg/L in April 2020, 16 μg/L in July 2020, 24 μg/L in October 2020);
- Ethylbenzene (7.8 μg/L in July 2020);
- m,p-xylene (9.1 µg/L in July 2020, 12 µg/L in October 2020);
- o-xylene (5.3 μg/L in July 2020);
- Tetrahydrofuran (420 μg/L in April 2020, 490 μg/L in July 2020, 350 μg/L in October 2020);
- Cis-1,2-dichloroethene (1.5 μg/L in July 2020);
- 1,4-dichlorobenzene (1.0 μg/L in July 2020);
- Diethyl ether (6.5 µg/L in July 2020);
- Phenol (190 μg/L in April 2020);
- Naphthalene (20 µg/L in April 2020);
- 3&4-methylphenol (540 µg/L in April 2020); and
- Acenaphthene (14 μg/L in April 2020).

There were no detections of the VOC parameters listed above in groundwater or underdrain samples obtained during 2020.<sup>14</sup> The VOC and SVOC parameters shown above have previously been detected above laboratory reporting limits at LT-C4LR and/or LT-C4L (i.e., the former leachate collection location). There were no herbicides, pesticides, or PCBs parameters detected above the laboratory reporting limits in April 2020.

 $<sup>^{14}</sup>$  This excludes the detection of m,p-xylene at a concentration of 1.1  $\mu$ g/L in April 2020 at Cell 12 baseline monitoring location MW-04-09A.

Bromide was present in the leachate (LT-C4LR) samples obtained during 2020 at concentrations ranging from 52 mg/L in April 2020 to 120 mg/L in July 2020. 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 2020 were approximately 160 to 1 in April 2020, 108 to 1 in July 2020, and 96 to 1 in October 2020.

While the ratio of chloride to bromide can be used to differentiate a variety of bromide sources, <sup>15</sup> the bromide concentrations in the JRL water quality sampling locations in 2020 were either non-detect or at very low values, with the exception of an anomalously high bromide concentration of 1.1 mg/L detected at stormwater monitoring location SW-DP1 in April 2020. This exceeded the previous historical maximum value of 0.13 mg/L at SW-DP1 in April 2013. This new historical maximum value was likely due to an overboard discharge from the active landfill in the vicinity of SW-DP1, which is discussed further in Section 7.4. MEDEP was notified of the discharge and residual material was removed by NEWSME. The bromide concentration at SW-DP1 decreased to a concentration of 0.22 mg/L in July 2020 and was not detected above the laboratory reporting limit of 0.1 mg/L in October 2020.

Other than SW-DP1, the highest bromide concentration detected at the JRL water quality monitoring locations in 2020 was 0.32 mg/L at MW09-901 in April 2020.

In addition to SW-DP1, there were seven other monitoring locations (LF-UD-5 and 6, LP-UD-2, MW09-901, MW-223A, OW-604A, SW-1, and SW-3) with bromide detected at new historical maximum values in 2020, but only at slightly higher values than previous historical maximum values.

The 2020 bromide detections and chloride to bromide ratios are summarized in Table 7-1. The bromide concentrations above the laboratory reporting limits during 2020 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. The chloride to bromide ratios summarized in Table 7-1 ranged from 14 to 1 at LF-UD-5and6 in April and July 2020 to 253 to 1 at MW-223B in April and October 2020, with a median ratio of approximately 69 to 1. The range of the chloride to bromide ratio results in 2020 is generally similar to those calculated for previous years.

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<sup>&</sup>lt;sup>15</sup> 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.

<sup>&</sup>lt;sup>16</sup> 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.

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.<sup>17</sup> These values are consistent with JRL leachate and for site monitoring locations where bromide was detected at low concentrations (see Table 7-1).

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.

TABLE 7-1

SUMMARY OF CHLORIDE TO BROMIDE RATIOS FOR 2020 BROMIDE DETECTIONS
ABOVE LABORATORY REPORTING LIMITS

Location Designation	Date	Chloride Concentration (mg/L)	Bromide Concentration (mg/L)	Chloride to Bromide Ratio		
	April 2020	8,300	52	160:1		
LT-C4LR	July 2020	13,000	120	108:1		
	October 2020	7,400	77	96:1		
15 UD 3	April 2020	10	0.11	91:1		
LF-UD-2	July 2020	6.9	0.10	69:1		
15 UD 5	April 2020	2.3	0.17	14:1		
LF-UD-5and6	July 2020	2.5	0.18	14:1		
101103	July 2020	4.2	0.13	32:1		
LP-UD-2	October 2020	8.4	0.12	70:1		
	April 2020	4.2	0.16	26:1		
MW04-109R	July 2020	3.6	0.23	16:1		
	October 2020	2.8	0.14	20:1		
	April 2020	6.0	0.32	19:1		
MW09-901	July 2020	4.4	0.29	15:1		
	October 2020	3.3	0.15	22:1		
	April 2020	32	0.15	213:1		
MW-223A	July 2020	31	0.23	135:1		
	October 2020	31	0.13	238:1		
	April 2020	38	0.15	253:1		
MW-223B	July 2020	38	0.22	173:1		
	October 2020	38	0.15	253:1		
MW-227	July 2020	1.5	0.10	15:1		
MW-301	July 2020	25	0.11	227:1		
	April 2020	9.4	0.15	63:1		
MW-401B	July 2020	8.4	0.21	40:1		
Ī	October 2020	7.2	0.19	38:1		
MW-501	July 2020	24	0.10	240:1		
OW-601A	July 2020	20	0.13	154:1		

<sup>&</sup>lt;sup>17</sup> 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.

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Location Designation	Date	Chloride Concentration (mg/L)	Bromide Concentration (mg/L)	Chloride to Bromide Ratio
OW-601B	July 2020	44	0.24	183:1
OW-604A	July 2020	4.7	0.10	47:1
SW-1	July 2020	12	0.13	92:1
SW-3	October 2020	18	0.11	164:1
CW DD4	April 2020	79	1.1	72:1
SW-DP1	July 2020	12	0.22	55:1
Note: U = not detected	above indicated labora	tory 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-1, LF-UD-3A,B, LF-UD-4, LF-UD-7, LF-UD-8, LF-UD-9, LF-UD-10, and LP-UD-1 during any of the three 2020 monitoring events; thus, no samples were obtained at these locations during 2020. The eight underdrain monitoring locations with no flow during any of the three 2020 monitoring events is more than the four locations with no flow during any of the three 2019 monitoring events, which is likely attributed to the lower precipitation total in 2020 compared to 2019 (i.e., 37.60 inches in 2020 compared to 52.00 inches in 2019). There were also no samples obtained from LF-UD-5 and 6 and LF-UD-6 in October 2020. These occurrences of no flow at these underdrain monitoring locations are consistent with previous observed patterns.

The 2020 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

2020 ANNUAL MAXIMUM SPECIFIC CONDUCTANCE VALUES
AND CHLORIDE AND ARSENIC CONCENTRATIONS AT
UNDERDRAIN MONITORING LOCATIONS

Location		cific Conducta nhos/cm in JR in July 2020)		(13,0	Chloride 00 mg/L in JRL in July 2020		Arsenic (0.33 mg/L in JRL Leachate in July 2020)			
Location Designation	μmhos/cm		y Significant end dence Level) mg/L		Statistically Significant Trend (95% Confidence Level)		mg/L	Tre	/ Significant end dence Level)	
		3-Year	5-Year		3-Year	5-Year		3-Year	5-Year	
LF-COMP	485	Decreasing	-	NS	I	I	NS		I	
LF-UD-1	NS	I		NS	I	I	NS		I	
LF-UD-2	439	Decreasing	Increasing	10	Decreasing	Decreasing	0.005	ı	_	
LF-UD-3A,B	NS	I	-	NS	I	I	NS	I	I	
LF-UD-4	NS	I	I	NS	Ī	ı	NS		I	
LF-UD-5and6	326	Decreasing	_	2.5	_	-	0.005 U		_	
LF-UD-6	579	_	Decreasing	2 U	_	_	0.005 U	_	Decreasing	

Location	Specific Conductance (25,800 μmhos/cm in JRL Leachate in July 2020)			(13,0	Chloride 00 mg/L in JRL in July 2020		Arsenic (0.33 mg/L in JRL Leachate in July 2020)			
Designation	μmhos/cm	Statistically Significant Trend (95% Confidence Level)		d mg/I		Statistically Significant Trend (95% Confidence Level)		Tre	Significant end lence Level)	
		3-Year	5-Year		3-Year	5-Year		3-Year	5-Year	
LF-UD-7	NS	I	I	NS	I	I	NS	I	I	
LF-UD-8	NS	1	1	NS	I	1	NS	1	I	
LF-UD-9	NS	I	I	NS	I	I	NS	Į	1	
LF-UD-10	NS	I	I	NS	I	I	NS	Į	1	
LP-COMP	303	Decreasing	-	NS	I	ı	NS	I	I	
LP-UD-1	NS	I	ı	NS	I	ı	NS	I	I	
LP-UD-2	310	Decreasing	-	8.4	-	Decreasing	0.005 U	-	Decreasing	

#### Notes:

U = not detected above indicated laboratory reporting limit

NS = not sampled in 2020

- = 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 17,490  $\mu$ mhos/cm in April 2020 to 25,800  $\mu$ mhos/cm in July 2020 at LT-C4LR). The greatest specific conductance value measured during 2020 was at LF-UD-6 (579  $\mu$ mhos/cm in April 2020); however, this value is lower than the historical maximum value at this location (919  $\mu$ mhos/cm in August 2013) and there is currently a statistically significant decreasing trend (95% confidence level) for specific conductance at this location for the past five years. Specific conductance was measured at an annual low value of 225  $\mu$ mhos/cm at LF-UD-6 in February 2020. There were no specific conductance values above 500  $\mu$ mhos/cm at the remaining underdrain monitoring locations in 2020. Specific conductance values for all underdrain locations monitored in 2020 were below their respective historical maximum values.

During 2020, chloride concentrations from the sampled underdrain monitoring locations were low relative to the JRL leachate (chloride was detected in leachate at a concentration of 13,000 mg/L at LT-C4LR in July 2020) and do not indicate influence from the presence of landfill leachate.

The arsenic concentrations in the underdrain monitoring locations sampled during 2020 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. Six of the landfill underdrain monitoring locations (LF-COMP, LF-UD-2, LF-UD-5 and 6, LF-UD-6, LP-COMP, and LP-UD-2) have statistically significant decreasing trends (95% confidence level) for specific conductance for either the past three or five years. The remaining underdrain monitoring locations have insufficient data for statistically significant trend analyses (95% confidence level) over the past three and

five years. The only noted statistically significant increasing trend (95% confidence level) for specific conductance, chloride, or arsenic at underdrain monitoring locations is for specific conductance at LF-UD-2 over the past five years; however, there is also a statistically significant decreasing trend (95% confidence level) for specific conductance over the past three years at LF-UD-2 and 2020 specific conductance measurements at LF-UD-2 are within historical range.

Sample pipe submergence conditions did not occur for the LF-COMP and LP-COMP sampling locations during the three 2020 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 2020.

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 or decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) over the past three years. There were two underdrain monitoring locations with statistically significant increasing trends (95% confidence level) for multiple parameters (i.e., four or more) over the past five years. There was one underdrain monitoring location with statistically significant decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) over the past five years. Underdrain sampling locations with statistically significant trends (95% confidence level) for multiple parameters (i.e., four or more) over the past five years are:

- LF-UD-2 Four parameters (specific conductance, Eh, sodium, and bicarbonate) have statistically significant increasing trends (95% confidence level) over the past five years. Visual review of the historical specific conductance and Eh data indicate that the values measured for these parameters over the past several years are generally consistent with their previous historical values and 2020 specific conductance values (ranging from 302 μmhos/cm in March 2020 to 439 μmhos/cm in April 2020) remain comparable to or modestly greater than at monitoring locations upgradient from the JRL. Visual review of sodium and bicarbonate concentrations at LF-UD-2 do show increasing values over the past decade or more. All historical sodium concentrations at LF-UD-2 remain below the MEG of 20 mg/L.
- LF-UD-5and6 Four parameters (Eh, bromide, turbidity, and nitrate plus nitrite) have statistically significant increasing trends (95% confidence level) over the past five years.

 LF-UD-6 – Seven parameters (specific conductance, pH, arsenic, calcium, magnesium, sodium, and bicarbonate) have statistically significant decreasing trends (95% confidence level) over the past five years.

VOCs were analyzed at all sampled underdrain locations (both landfill and former leachate pond underdrains) in April 2020. There were no VOCs detected in 2020 above laboratory reporting limits at any of the sampled underdrain locations.

## 7.3 Groundwater Quality

During 2020, routine water quality samples were obtained from 28 detection monitoring well locations at the JRL during April, July, and October 2020.<sup>18</sup> 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 2020 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 2020 at the JRL is provided in Table 7-3. The table contains a comparison of 2020 values of key indicator parameters (i.e., specific conductance, chloride, and arsenic) from leachate monitoring location LT-C4LR to the site's 28 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 provided in Appendix F. The groundwater monitoring locations shown in Table 7-3 are listed in order of 2020 annual maximum specific conductance values from high to low.

<sup>&</sup>lt;sup>18</sup> MW-204, DP-4, and MW04-105 were sampled only during the fall sampling event for field parameters only. Six of the site groundwater monitoring wells (OW-06-03, OW-601A, OW-601B, OW-602A, OW-603B, and OW-604A) are sampled for detection monitoring parameters only during the summer monitoring event and are monitored for field parameters only during the spring and fall monitoring events.

## TABLE 7-3

## 2020 ANNUAL MAXIMUM SPECIFIC CONDUCTANCE VALUES AND CHLORIDE AND ARSENIC CONCENTRATIONS AT GROUNDWATER MONITORING LOCATIONS

			Specific Conductance (25,800 μmhos/cm in JRL Leachate in July 2020)		Chloride (13,000 mg/L in JRL Leachate in July 2020)			Arsenic (0.33 mg/L in JRL Leachate in July 2020)			Multiple Parameters		Multiple Parameters				
Location Designation	Position Relative to Landfill	Material Screened	μmhos/cm	Statistically Trend (95%	/ Significant Confidence /el)	mg/L	Statistically Significant Trend (95% Confidence		Statistically Significant Trend (95% Confidence		mg/L	Statisticall Trend (95%	y Significant 6 Confidence vel)	with Decre Trends	-	with Incre	asing Trends
				3-Year	5-Year		3-Year	5-Year		3-Year	5-Year	3-Year	5-Year	3-Year	5-Year		
OW-06-03 <sup>2</sup>	Downgradient Expansion (Cell 11)	Overburden	778	Increasing	I	NS	l <sup>3</sup>	I	NS	I 3	I	No <sup>3</sup>	ı	No <sup>3</sup>	I		
MW-223A	Downgradient	Bedrock	583	_	Increasing	32	-	Decreasing	0.005 U	_	Decreasing	No	Yes (4)	No	Yes (9)		
MW12-303R	Upgradient	Overburden	577	_	-	77	_	-	0.005 U	_	_	No	No	No	No		
MW-302R	Side-gradient	Bedrock	562	-	-	47	-	-	0.005 U	-	_	No	No	No	No		
MW-223B	Downgradient	Overburden	505	_	Increasing	38	-	-	0.005 U	_	_	No	No	Yes (4)	Yes (10)		
P-04-02R	Downgradient (in proximity of former leachate pond)	Overburden	419	Decreasing	Decreasing	2.8	-	Decreasing	0.008	_	_	Yes (8)	Yes (8)	No	No		
OW-601A	Downgradient Expansion (Cell 11)	Bedrock	415	_	ı	20	-	I	0.005 U	_	I	No	ı	Yes (4)	ı		
MW04-109R	Downgradient (in proximity of former leachate pond)	Overburden	408	Decreasing	_	4.2	Decreasing	Decreasing	0.005 U	_	Decreasing	Yes (5)	Yes (4)	No	No		
OW-601B	Downgradient Expansion (Cell 11)	Overburden	403	_	ı	44	-	I	0.005 U	_	I	No	ı	No	ı		
MW09-901	Downgradient	Overburden	348	Decreasing	-	6.0	Decreasing	-	0.005 U	_	Decreasing	Yes (6)	Yes (5)	No	No		
MW-501	Downgradient Expansion (Cell 11)	Bedrock	310	_	ı	24	-	I	0.005 U	_	I	No	ı	No	ı		
MW-401B	Downgradient	Overburden	296	-	-	9.4	-	-	0.028	_	_	No	No	No	No		
MW04-105	Downgradient (in proximity of former leachate pond)	Overburden	276	I	-	NS	I	l <sub>3</sub>	NS	I	³		Not As	sessed			
MW-204	Downgradient	Overburden	265	I	-	NS	I	l <sub>3</sub>	NS	I	³		Not As	sessed			
DP-4	Downgradient (in proximity of former leachate pond)	Overburden	249	I	-	NS	I	l <sub>3</sub>	NS	I	³		Not As	sessed			
MW-301	Downgradient	Bedrock	248	_	Increasing	25	-	Increasing	0.006	_	Decreasing	No	Yes (4)	No	Yes (5)		
P-206A	Upgradient	Bedrock	244	-	Increasing	22	-	Increasing	0.006	Decreasing	Decreasing	No	No	No	Yes (8)		
MW04-102	Downgradient (in proximity of former leachate pond)	Overburden	235	-	Decreasing	1.6	-	Decreasing	0.005 U	_	Decreasing	No	No	No	No		
P-04-04	Downgradient (in proximity of former leachate pond)	Overburden	197	-	-	7.5	Increasing	Increasing	0.008	_	Decreasing	No	No	No	Yes (4)		
MW-227	Downgradient	Overburden	184	Decreasing	Decreasing	1.5	-	Decreasing	0.016	_	_	No	No	No	No		
OW-602A	Downgradient Expansion (Cell 11)	Bedrock	171	-	I	11	-	I	0.005 U	_	I	No	I	No	I		
OW-604A	Downgradient Expansion (Cell 11)	Bedrock	160	Increasing	I	4.7	-	ı	0.005 U	_	I	No	I	No	I		
MW-402B	Downgradient	Overburden	157	_		1.5		Decreasing	0.018	-	Decreasing	No	No	No	No		
MW-206	Upgradient	Overburden	148	-		2.8	-	Increasing	0.006	Decreasing	Decreasing	No	No	No	No		
MW-401A	Downgradient	Bedrock	147	-	-	5.3	Increasing	Increasing	0.007	-	_	No	No	No	No		
MW-402A	Downgradient	Bedrock	134	-	-	1.8	-	-	0.020	-	_	No	No	No	No		
OW-603B	Downgradient Expansion (Cell 11)	Overburden	130	Decreasing	l l	NS	3	1	NS	3	I	No <sup>3</sup>	I	No <sup>3</sup>	l l		
MW06-01	Downgradient Expansion (Cell 11)	Overburden	98	_	I	7.8	-	I	0.005 U	_	I	No	I	No	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. 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/or landfill operations, and do not indicate significant landfill related impacts to water quality from malfunction of landfill liners.
- 3. Insufficient data for detection monitoring parameters (i.e., trends available for field parameters only).

U = not detected above indicated laboratory reporting limit NS = not sampled in 2020

-= no trend

I = insufficient data

Arsenic concentrations at nine of the twenty-three groundwater quality monitoring locations with sufficient data for Mann-Kendall trend analyses indicate that there are statistically significant decreasing trends (95% confidence level) for arsenic over the past three and/or five years. Arsenic concentrations site-wide are generally low with values less than the MCL and MEG of 0.01 mg/L at 19 of the 23 monitoring locations where arsenic was sampled in 2020. At the four groundwater monitoring locations where arsenic did exceed the MCL and MEG, MW-227, MW-401B, MW-402A, and MW-402B, arsenic concentrations were only detected as high as 0.028 mg/L (at MW-401B in July 2020). 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 2020 and historical data, SME has identified 18 of the 28 site-wide groundwater monitoring locations with water quality that: (1) does not indicate influence from landfill leachate; and (2) currently shows limited influence from landfill construction operations. These 18 groundwater monitoring locations are identified on Table 7-3 as the locations with non-bold text. The 2020 annual maximum specific conductance values at these wells range from 98  $\mu$ mhos/cm to 419  $\mu$ mhos/cm. The 2020 annual maximum chloride concentrations at these monitoring locations were very low and ranged from 1.5 mg/L to 11 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, both upgradient and downgradient from the landfill. These changes are evidenced at some monitoring locations 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 landfill operations and changes in redox conditions, which occur as expected around the landfill due to the construction 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 10 of the site monitoring locations that currently 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 location MW-302R; (3) downgradient monitoring locations MW-223A, MW223B, and MW-301; and (4) OW-06-03, OW-601A, OW-601B, and MW-501, which are downgradient from Cell 11 of the landfill expansion. Groundwater quality at these monitoring locations is discussed below.

## **Extended Discussion on JRL Groundwater Quality**

<u>Upgradient Monitoring Locations MW12-303R and P-206A</u>: 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 2020 annual maximum values for parameters identified with current or recent increasing trends are shown below:

- Specific conductance (244 μmhos/cm in April 2020);
- Calcium (24 mg/L in April 2020);
- Magnesium (6.5 mg/L in April and July 2020);
- Potassium (1.3 mg/L in July 2020);
- Total dissolved solids (135 mg/L in April 2020);
- Sulfate (3.4 mg/L in July 2020);
- Bicarbonate (83 mg/L in July 2020); and
- Chloride (22 mg/L in July 2020).

There were no MCL and/or MEG exceedances for parameters analyzed at P-206A during 2020. 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 eight parameters at P-206A for the past five years (specific conductance, calcium, magnesium, potassium, total dissolved solids, sulfate, bicarbonate, and chloride). The recent trends appear to be stabilizing over the past two to three years for specific conductance, calcium, total dissolved solids, and chloride.

The noted increasing parameter values at P-206A appear to have subsided in 2020 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) in 2018, only magnesium and bicarbonate had new historical maximum values detected in 2020.

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.<sup>19</sup> 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 the access road 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.

In general, the recent water quality parameter value increases observed at MW12-303R appear to be stabilizing or improving. 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 no parameters for the past three years and five years with statistically significant increasing trends (95% confidence level). There are not statistically

<sup>&</sup>lt;sup>19</sup> SME, August 2015, Juniper Ridge Landfill, June 2015 Supplemental Water Quality Data and July 2015 Water Quality Data Results.

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 two parameters (nitrate plus nitrite and organic carbon) at MW12-303R with new historical maximum values detected in October 2020. Each of these parameters had substantially lower values in April and July 2020. The organic carbon concentration in October 2020 at MW12-303R (34 mg/L) is likely elevated due to an identified laboratory instrumentation malfunction, as indicated by the laboratory analytical report. The organic carbon concentrations at MW12-303R in April and July 2020 were 4.4 mg/L and less than the laboratory reporting limit of 2.0 mg/L, respectively. The nitrate plus nitrite concentrations at MW12-303R in April and July 2020 were 0.58 mg/L and 0.17 mg/L, respectively.

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 2020 KEY INDICATOR PARAMETER VALUES AT MW12-303R

Parameter	October 2012 Value	Historical Maximum Value	2020 Range of Values		
Specific Conductance (µmhos/cm)	189	1,711 (April 2018)	280 (July 2020) to 577 (October 2020)		
Chloride (mg/L)	4.9	220 (April 2018)	29 (July 2020) to 77 (October 2020)		
Arsenic (mg/L)	0.005 U	0.036 mg/L (July 2016)	0.005 U (April, July, October 2020)		
Notes: U = not detected above indicated la	boratory reporting	z limit			

Sodium exceeded its MEG of 20 mg/L at MW12-303R only in October 2020 with a concentration of 24 mg/L. The nitrate plus nitrite concentration in October 2020 at MW12-303R (12 mg/L) indicates exceedance of the 10 mg/L MCL and MEG for nitrate and/or 1 mg/L MCL and MEG for nitrite. There were no other parameters analyzed at MW12-303R with MCL and/or MEG exceedances in 2020.

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).

<u>Down- and Side-gradient Monitoring Locations MW-223A, MW-223B, MW-302R:</u> Groundwater monitoring wells MW-223A and MW223B monitor the bedrock and overburden groundwater, respectively, hydraulically downgradient and northwest of the JRL. Bedrock groundwater monitoring location MW-302R is located northwest from the JRL and categorized as being side-gradient from the landfill; however, as the JRL is situated along the crest of a northwest-southeast trending drumlin, this side-gradient monitoring location is not fully hydraulically isolated from the landfill and surrounding

operations (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. <sup>20,21</sup> Additional insight into the water quality changes at these wells was discussed in the 2016 through 2019 site water quality evaluations, with the sampling of the Scale House Well and Office Well during those years. 22,23,24,25 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,<sup>26</sup> 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 not sampled again during 2020. As part of the landfill expansion construction, the Office Well was decommissioned in 2020. The Scale House Well will be decommissioned in 2021 with a vibrating wire piezometer installed in it.

Table 7-5 summarizes the 2020 annual maximum water quality parameter results for nine parameters at MW-302R, MW-223A, and MW-223B that are elevated with respect to upgradient groundwater quality.

<sup>20</sup> SME, April 2015. 2014 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

<sup>&</sup>lt;sup>21</sup> SME, April 2016, 2015 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

<sup>&</sup>lt;sup>22</sup> SME, March 2017. 2016 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

<sup>&</sup>lt;sup>23</sup> SME, April 2018. 2017 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations, LLC.

<sup>&</sup>lt;sup>24</sup> SME, April 2019, 2018 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

<sup>&</sup>lt;sup>25</sup> SME, April 2020, 2019 Annual Water Quality Report, Juniper Ridge Landfill, prepared for NEWSME Landfill Operations LLC.

<sup>&</sup>lt;sup>26</sup> 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).

TABLE 7-5
SUMMARY OF 2020 ANNUAL MAXIMUM WATER QUALITY PARAMETER VALUES AT MW-302R, MW-223A, AND MW-223B

Parameter	MW-302R	MW-223A	MW-223B	Upgradient Comparison (MW-206)					
Specific Conductance (µmhos/cm)	562	583	505	148					
Arsenic (mg/L)	0.005 U	0.005 U	0.005 U	0.006					
Calcium (mg/L)	54	100	67	18					
Magnesium (mg/L)	4.6	11	17	5.2					
Sodium (mg/L)	27	6.2	6.1	4.7					
Total Dissolved Solids (mg/L)	254	376	326	101					
Sulfate (mg/L)	29	22	16	2.6					
Bicarbonate (mg/L)	120	250	190	74					
Chloride (mg/L)	47	32	38	2.8					
Notes: U – not detected above the indicated laboratory reporting limit									

Piper and Stiff diagrams were plotted using April 2020 data for 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 for MW-223A and MW-223B, and show that MW-223A, MW-223B, and MW-302R 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.

Aside from the seasonal fluctuation in water quality data at MW-302R, the water quality is generally stable. Organic carbon and pH were the only parameters analyzed at MW-302R with new historical maximum values in 2020. The organic carbon concentration in October 2020 at MW-302R (24 mg/L) is anomalously higher than the previous historical maximum value of 3.1 mg/L and is reported (i.e., flagged) to likely be elevated due to an identified laboratory instrumentation malfunction. The pH value is near neutral (7.1 standard units in July 2020) and was preceded by a new historical minimum value (5.7 standard units in April 2020). There are not statistically significant increasing or decreasing trends (95% confidence level) at MW-302R 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 nine parameters (specific conductance, calcium, magnesium, potassium, sodium, sulfate, bicarbonate, bromide, and nitrate plus nitrate) over the past five years. There are statistically significant decreasing trends (95% confidence level) for four parameters (pH, dissolved oxygen, arsenic, and chloride) at MW-223A over the past five years. There are not statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (i.e., four or more) at MW-223A over the past three years.

There are statistically significant increasing trends (95% confidence level) at MW-223B for four parameters (iron, total dissolved solids, bicarbonate, and bromide) over the past three years, and for ten parameters (specific conductance, calcium, magnesium, potassium, sodium, total dissolved solids, sulfate, bicarbonate, bromide, 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-223B over the past three years or five 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.

There were five groundwater quality parameters detected at new historical maximum values at MW-223A in 2020: calcium (100 mg/L in April and October 2020), total dissolved solids (376 mg/L in July 2020), bicarbonate (250 mg/L in October 2020), bromide (0.23 mg/L in July 2020), and organic carbon (44 mg/L in October 2020). The organic carbon concentration in October 2020 at MW-223A is anomalously higher than the previous historical maximum value of 3.4 mg/L and is reported (i.e., flagged) to likely be elevated due to an identified laboratory instrumentation malfunction. There were two groundwater quality parameters detected at new historical maximum values at MW-223B in 2020: bicarbonate (190 mg/L in October 2020) and organic carbon (47 mg/L in October 2020). The organic carbon concentration in October 2020 at MW-223B is anomalously higher than the previous historical maximum value of 8.0 mg/L and is reported (i.e., flagged) to likely be elevated due to an identified laboratory instrumentation malfunction.

There were no MCL or MEG exceedances of analyzed parameters at MW-223A and MW-223B in 2020. Sodium exceeded its MEG of 20 mg/L at MW-302R in July 2020 (22 mg/L) and October 2020 (27 mg/L). Sodium has previously exceeded its MEG at MW-302R. There were no other MCL or MEG exceedances of analyzed parameters at MW-302R in 2020.

The recent water quality and noted trends at 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).

<u>Downgradient location MW-301</u>: 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 2020. Although parameter concentrations at MW-301 remained relatively low during 2020, the Mann-Kendall analyses indicate that there are five parameters (specific conductance, calcium, magnesium, total dissolved solids, and chloride) at MW-301 with statistically significant increasing trends (95% confidence level) for the past five years. Review of the 2020 data for these parameters shows that their values are steadily increasing. The specific conductance values at MW-301 range from 228  $\mu$ mhos/cm to 248  $\mu$ mhos/cm during 2020, remaining generally consistent with those at upgradient monitoring location MW-206, which has a historical maximum value of 269  $\mu$ mhos/cm (April 2018). Chloride concentrations at MW-301 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 maximum chloride concentration was 25 mg/L in July 2020.

There were four parameters at MW-301 (pH, arsenic, total Kjeldahl nitrogen, and total suspended solids) with statistically significant decreasing trends (95% confidence level) over the past five years. There were not multiple parameters (i.e., four or more) with statistically significant increasing or decreasing trends (95% confidence level) at MW-301 for the past three years.

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 are specific conductance, calcium, magnesium, sodium, and chloride.

OW-06-03, OW-601A, OW-601B, and MW-501, downgradient from Cell 11: Monitoring locations OW-06-03, OW-601A, OW-601B, and MW-501 are four of the eight new monitoring locations downgradient from Cell 11 of the landfill expansion. Groundwater quality monitoring began at these locations in 2018.

Chloride concentrations at monitoring locations OW-601A, OW-601B, and MW-501 are somewhat greater than at monitoring locations upgradient from the JRL. Detection monitoring parameters are sampled and

analyzed only during the summer (i.e., July 2020) at OW-06-03, OW-601A, and OW-601B. The July 2020 chloride concentrations at OW-601A and OW-601B were 20 mg/L and 44 mg/L, respectively. There was insufficient groundwater to sample OW-06-03 in July 2020. Monitoring location MW-501 was sampled in April, July, and October 2020 and the annual maximum chloride concentration was 24 mg/L (July 2020).

Monitoring locations OW-06-03, OW-601A, OW-601B, and MW-501 were sampled four times for baseline monitoring in 2018. Annual maximum chloride concentrations in 2018 at OW-601A (27 mg/L in August 2018) and OW-601B (61 mg/L in August 2018) were greater than chloride concentrations detected at these locations in 2020. The chloride concentrations detected at MW-501 during the baseline monitoring in 2018 were somewhat lower than the chloride concentrations detected in 2020. So far, there has only been sufficient groundwater for sampling detection monitoring parameters at OW-06-03 in April 2018. The chloride concentration at OW-06-03 was 1.6 mg/L in April 2018.

Specific conductance values at OW-601A, OW-601B, and MW-501 during 2020 and since 2018 have generally been consistent with other groundwater monitoring locations downgradient from the JRL. The annual maximum specific conductance values measured at OW-601A, OW-601B, and MW-501 during 2020 were 415  $\mu$ mhos/cm, 403  $\mu$ mhos/cm, and 310  $\mu$ mhos/cm, respectively. Specific conductance values measured at OW-06-03 have increased since it was first sampled in April 2018 (193  $\mu$ mhos/cm) to 2020 (641  $\mu$ mhos/cm in April 2020 and 778  $\mu$ mhos/cm in October 2020).

Arsenic was not detected above the laboratory reporting limit of 0.005 mg/L at OW-601A, OW-601B, and MW-501 during 2020.

2020 is the first year that there is sufficient groundwater quality data for performing three-year Mann-Kendall trend analyses at OW-06-03, OW-601A, OW-601B, and MW-501. At OW-06-03, there is only sufficient data for three-year Mann-Kendall analyses for field parameters. Specific conductance and turbidity have three-year statistically significant increasing trends (95% confidence level) at OW-06-03. For OW-601B and MW-501, there are not multiple parameters (i.e., four or more) with statistically significant increasing or decreasing trends (95% confidence level) over the past three years. There are four parameters (potassium, sodium, total dissolved solids, and sulfate) with statistically significant increasing trends (95% confidence level) at OW-601A over the past three years.

There were no MCL exceedances for parameters analyzed at OW-06-03, OW-601A, OW-601B, and MW-501 during 2020. The only MEG exceedance for parameters analyzed at OW-06-03, OW-601A, OW-601B, and MW-501 during 2020 was a sodium concentration of 25 mg/L at OW-601A in July 2020.

Monitoring locations OW-06-03, OW-601A, and OW-601B are located in close proximity to the landfill access road and may be influenced by winter road salting. Additionally, OW-06-03, OW-601A, OW-601B, and MW-501 are likely influenced by the recent construction of the Cell 11 liner system. Additional

monitoring data from these locations over time will be useful for evaluating groundwater quality influences from the construction of Cell 11.

#### **VOCs**

VOCs were analyzed at MW-401B in April 2020. No VOCs were detected above the laboratory reporting limits at MW-401B in 2020.

#### **MCL and MEG Exceedances**

Parameters detected at concentrations that were above MCLs or MEGs at groundwater monitoring locations in 2020 are identified in Table 7-6.

TABLE 7-6
2020 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) (0.01 mg/L MCL and MEG)
MW04-109R	0.37 (April 2020) 0.96 (July 2020) 1.3 (October 2020)	-	-
MW12-303R	-	24 (October 2020)	-
MW-227	_	-	0.016 (April 2020) 0.013 (July 2020) 0.012 (October 2020)
MW-302R	-	22 (July 2020) 27 (October 2020)	-
MW-401B	_	-	0.023 (April 2020) 0.028 (July 2020) 0.016 (October 2020)
MW-402A	_	-	0.020 (April 2020) 0.018 (July 2020) 0.015 (October 2020)
MW-402B	_	-	0.017 (April 2020) 0.018 (July 2020) 0.016 (October 2020)
OW-601A	_	25 (July 2020)	_
P-04-02R	-	49 (April 2020) 47 (July 2020) 43 (October 2020)	-

With the exception of the sodium MEG exceedance in 2020 at OW-601A, which has only been monitored since 2018, 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 landfill operations and decreasing groundwater recharge from site development. 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 2020 monitoring rounds, as recommended by the MEDEP. Dissolved methane was not detected above the laboratory reporting limit of 20  $\mu$ g/L at MW-223B in April, July, and October 2020.

#### 7.4 Surface Water, Stormwater, and Pore-Water

Surface water at the site was monitored in 2020 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 2020. Additionally, three pore-water sampling locations were monitored in 2020 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 2020 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

2020 ANNUAL MAXIMUM SPECIFIC CONDUCTANCE VALUES
AND CHLORIDE AND ARSENIC CONCENTRATIONS AT
SURFACE WATER, STORMWATER, AND PORE-WATER MONITORING LOCATIONS

Location Designation		cific Conducta nhos/cm in JR in July 2020)		(13,0	Chloride 00 mg/L in JRL in July 2020		Arsenic (0.33 mg/L in JRL Leachate in July 2020)			
	μmhos/cm	Statistically Significa Trend (95% Confider Level)		mg/L	Trend (95%	y Significant 6 Confidence vel)	mg/L	Trend (95%	Significant Confidence (el)	
		3-Year	5-Year		3-Year	5-Year		3-Year	5-Year	
SW-1	241			17	Increasing	_	0.005 U	_	_	
SW-2	77	-	-	12	_	-	0.005 U	-	-	
SW-3	94	-	ı	18	_	ı	0.005 U	ı	ı	
SW-DP1	439	Increasing	ı	79	Increasing	ı	0.005 U	ı	ı	
SW-DP5	173	-	I	6.8	_		0.005 U	ı	I	
SW-DP6	91	-	ı	4.3	<ul> <li>Decreasing</li> </ul>		0.005 U	ı	ı	
PWS10-1	346			13	Increasing		0.005	-	-	
PWS10-2	142			17	Increasing	Increasing	0.005	-	Decreasing	
PWS10-3	197	_	_	7.8	_			_		

#### Notes

U = not detected above indicated laboratory reporting limit

- = no trend

I = insufficient data

The 2020 surface water, stormwater, and pore-water monitoring location data are generally 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. One exception to this was the anomalously high specific conductance value and chloride concentration at SW-DP1 during the April 2020 monitoring event, which is discussed further below. With the exception of SW-DP1 in April 2020, all specific conductance values and chloride and arsenic concentrations at the surface water, stormwater, and pore-water monitoring locations were within their respective historical ranges and the noted statistically significant increasing trends (95% confidence level) appear to be consistent with typical historical water quality changes over time (see box and whisker plots in Appendix E).

Further description of the JRL surface water, stormwater, and pore-water sampling locations and notable observations from their 2020 water quality data are provided below.

<u>Surface Water Monitoring Locations</u>: 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 2020 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 2020 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 2020 monitoring event at concentrations of 4.3 mg/L, 1.2 mg/L, and 1.4 mg/L, respectively. Iron also exceeded its MFCCC in October 2020 at SW-1 with a concentration of 2.3 mg/L. MFCCC exceedances for iron have occurred historically at these locations, and the 2020 iron concentrations at each of these locations were below their respective historical maximum concentrations. Iron concentrations were below the MFCCC standard at SW-1, SW-2, and SW-3 in April 2020 and SW-2 and SW-3 in October 2020. There were no other MFCCC exceedances at SW-1, SW-2, and SW-3 for parameters analyzed during 2020.

There were not multiple parameters (i.e., four or more) with statistically significant increasing or decreasing trends (95% confidence level) at SW-2 and SW-3 over the past three years and five years. There were four parameters (magnesium, potassium, sodium, and total dissolved solids) with statistically significant increasing trends (95% confidence level) at SW-1 over the past five years. Magnesium, potassium, sodium, and total dissolved solids concentrations at SW-1 during 2020 were within their respective historical ranges.

<u>Stormwater Monitoring Locations</u>: 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. The April 2020 monitoring data indicated a spike in many parameter values. The most pronounced increases in parameter values in April 2020 at SW-DP1 were for specific conductance, calcium, manganese, potassium, total dissolved solids, sodium, chloride, and bromide. Specific conductance, sodium, chloride, and bromide were all detected at new historical maximum values during April 2020. The values of these parameters decreased during the July and October 2020 monitoring events. Table 7-8 provides a summary of the April 2020 stormwater quality in comparison to the previous monitoring event and the July and October 2020 monitoring events.

TABLE 7-8
SUMMARY OF RECENT STORMWATER QUALITY CHANGES AT SW-DP1

Parameter	October 2019	April 2020	July 2020	October 2020
Specific Conductance (µmhos/cm)	106	439	206	148
Calcium (mg/L)	15	24	31	23
Manganese (mg/L)	0.14	0.11	0.69	0.32
Potassium (mg/L)	2.1	12	2.9	5.3
Total Dissolved Solids (mg/L)	84	251	164	114
Sodium (mg/L)	1.6	27	8.8	3.2
Chloride (mg/L)	2.2	79	12	6.3
Bromide (mg/L)	0.1 U	1.1	0.22	0.1 U
Notes: U – not detected above the indicate	d laboratory repo	rting limit		

An overboard discharge occurred in from the active landfill in the vicinity of SW-DP1 prior to sample collection in April 2020. The MEDEP was notified of the discharge and residual material was removed by NEWSME. The April 2020 parameter value increases at SW-DP1 can likely be attributed to the overboard discharge. The July and October 2020 monitoring results indicate that the affected parameters at SW-DP1 are returning to values consistent with those prior to April 2020.

Stormwater quality monitoring at SW-DP5 began in April 2013. The 2020 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 pH, manganese, and organic carbon in 2020 at SW-DP5; however, there had only been twelve rounds of sampling data for comparison prior to 2020. Additionally, the organic carbon concentration in October 2020 at SW-DP5 is reported (i.e., flagged) to likely be elevated due to an identified laboratory instrumentation malfunction.

Stormwater quality monitoring at SW-DP6 began in October 2009. The stormwater quality at SW-DP6 during 2020 is characterized by continued low parameter concentrations that do not indicate influences from landfill leachate or landfill operations. All monitored parameters at SW-DP6 were within their respective historical ranges during 2020 with the exception of a new historical minimum value for total dissolved solids in April 2020.

The iron concentrations at SW-DP1 and SW-DP5 exceeded the MFCCC standard of 1 mg/L during the October 2020 monitoring event. The exceedances are summarized below:

- 1.5 mg/L iron in October 2020 at SW-DP1; and
- 1.2 mg/L iron in October 2020 at SW-DP5.

MFCCC exceedances for iron have occurred historically at these locations. There were no other MFCCC exceedances at SW-DP1, SW-DP5, and SW-DP6 for parameters analyzed during 2020.

There were not multiple parameters (i.e., four or more) with statistically significant increasing or decreasing trends (95% confidence level) at SW-DP5 and SW-DP6 over the past three years and five years. There were eleven parameters with statistically significant increasing trends (95% confidence level) at SW-DP1 over the past three years. These trends are attributed to the abovementioned April 2020 spike in multiple parameter values. The increase in parameter values was likely due to the overboard discharge that occurred from the active landfill and have since begun to decrease.

<u>Pore-Water Monitoring Locations</u>: 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 2020 and historical pore-water quality data indicates 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 2020. These occurrences are identified on the individual water quality summary sheets contained in Appendix E.

There were not multiple parameters (95% confidence level) at PWS10-1 and PWS10-3 with statistically significant decreasing or increasing trends (95% confidence level) over the past three years and five years. There were four parameters (potassium, sodium, sulfate, and chloride) with statistically significant increasing trends (95% confidence level) over the past five years at PWS10-2. There were not multiple parameters (95% confidence level) at PWS10-2 with statistically significant decreasing trends (95% confidence level) over the past three and five years or increasing trends over the past three years.

The pore-water samples were analyzed for dissolved methane during the April, July, and October 2020 monitoring events, as recommended by the MEDEP. The dissolved methane concentrations for pore-water samples in 2020 are summarized in Table 7-9.

TABLE 7-9

2020 DISSOLVED METHANE CONCENTRATIONS AT PORE-WATER MONITORING LOCATIONS

Location Designation	April 2020 (μg/L)	July 2020 (μg/L)	October 2020 (μg/L)		
PWS10-1	270	45	20 U		
PWS10-2	20 U	38	300		
PWS10-3	20 U	20 U 4,000			

The 2020 dissolved methane concentrations are lower than the historical maximum concentrations detected at PWS10-1 and PWS10-2 in July 2015: 4,600  $\mu$ g/L dissolved methane at PWS10-1 and 690  $\mu$ g/L at PWS10-2. The July 2020 dissolved methane concentration at PWS10-3 was greater than the previous historical maximum concentration of 280  $\mu$ g/L in July 2019. 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  $\mu$ g/L in the top 25 centimeters of saturated soils<sup>27</sup>. 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 concentration of dissolved methane detected at pore-water monitoring locations in 2020 (4,000  $\mu$ g/L at PWS10-3) occurred during the July monitoring event.

While the pore-water sampling locations are grouped with surface water and stormwater monitoring locations, the samples are obtained from soil and the sampling results from these locations are compared to MCL and MEG standards for groundwater. There were no MCL exceedances during 2020 at the

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<sup>&</sup>lt;sup>27</sup> 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.

pore-water monitoring locations for the parameters analyzed. The MEG exceedances for parameters analyzed during 2020 at the pore-water monitoring locations are summarized as follows:

- Manganese was above its MEG of 0.3 mg/L in 2020 at PWS10-1 (2.3 mg/L in April 2020, 2.6 mg/L in July 2020, 0.41 mg/L in October 2020);
- Manganese was above its MEG of 0.3 mg/L in 2020 at PWS10-2 (0.61 mg/L in July 2020);
- Manganese was above its MEG of 0.3 mg/L in 2020 at PWS10-3 (2.8 mg/L in July 2020, 1.0 mg/L in October 2020);
- Iron was above its MEG of 5.0 mg/L in 2020 at PWS10-1 (8.1 mg/L in April 2020, 13 mg/L in July 2020); and
- Iron was above its MEG of 5.0 mg/L in 2020 at PWS10-3 (13 mg/L in July 2020).

#### 7.5 Baseline Water Quality Monitoring Wells for Cell 12

During 2020, SME performed baseline water quality monitoring at the Cell 12 monitoring wells. Groundwater samples were collected from groundwater monitoring wells MW-04-09A, MW-04-09B, and MW-502 in February, April, June, and August 2020. The locations of these wells are shown in Figure 1-2 and well construction details are summarized in Table 2-5. These locations were analyzed for the baseline monitoring parameters listed in Table 3-2. Boron, dissolved methane, total phosphorous, and BOD were inadvertently omitted from baseline sampling at the Cell 12 monitoring wells; analysis for these parameters will be included in the 2021 monitoring program for MW-04-09A, MW-04-09B, and MW-502.

The baseline water quality monitoring data results from the Cell 12 monitoring wells were submitted to MEDEP in 2020. <sup>28,29</sup> The results are briefly summarized below.

• The 2020 annual maximum specific conductance values and chloride concentrations at the baseline water quality monitoring wells for Cell 12 are shown in Table 7-10.

<sup>&</sup>lt;sup>28</sup> SME, 2020. Letter from SME to MEDEP with subject: *Juniper Ridge Landfill, Cell 12 Baseline Monitoring Wells – Sampling Results and Request to Modify Sampling Program,* dated June 11, 2020.

<sup>&</sup>lt;sup>29</sup> SME, 2020. Letter from SME to MEDEP with subject: *Juniper Ridge Landfill, Cell 12 Baseline Monitoring Wells – Sampling Results*, dated October 7, 2020.

**TABLE 7-10** 

## 2020 ANNUAL MAXIMUM SPECIFIC CONDUCTANCE VALUES AND CHLORIDE CONCENTRATIONS AT BASELINE WATER QUALITY MONITORING WELLS FOR CELL 12

Monitoring Well	Specific Conductance (µmhos/cm)	Chloride (mg/L)	Implementation Schedule		
MW-04-09A	389	5.7	Cell 12		
MW-04-09B	127	3.4	Cell 12		
MW-502	389	21	Cell 12		

- The only MCL and/or MEG exceedances from the baseline water quality monitoring data results from the Cell 12 monitoring wells were manganese and sodium in MW-04-09A (manganese 0.32 mg/L in April; sodium 26 mg/L in April, 43 mg/L in June, and 53 mg/L in August).
- Groundwater samples from groundwater quality monitoring wells MW-04-09B and MW-502 were analyzed for VOCs during the February and April 2020 monitoring events. There were no VOCs detected above laboratory reporting limits during these monitoring events at MW-04-09B and MW-502.

Groundwater samples from groundwater quality monitoring well MW-04-09A were analyzed for VOCs during the February, April, June, and August 2020 monitoring events. M,p-xylene was detected at a concentration of 1.1  $\mu$ g/L in April 2020 at MW-04-09A; all other VOCs were non-detect at laboratory reporting limits. There were no VOCs detected above laboratory reporting limits at MW-04-09A during the February, June, and August 2020 monitoring events.

Monitoring wells MW-04-09A, MW-04-09B, and MW-502 will be incorporated into the EMP in 2021 to monitor the operations of Cell 12. The baseline and 2021 water quality data from these wells will be incorporated into the 2021 Annual Water Quality Report for the JRL.

#### 7.6 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 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 2020 in accordance with the LAP and there were no LDSAL exceedances.

#### 8.0 WATER QUALITY GAS MONITORING

As part of the 2020 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. With one exception during 2020, all methane gas monitoring results were below the meter detection limit. Methane was detected at 13 percent methane by volume in the headspace of monitoring location OW-06-03 during the July 2020 monitor event but was below the meter detection limit during the April and October 2020 monitoring events.

Hydrogen sulfide ( $H_2S$ ) was also monitored at the above-mentioned locations in 2020 and was not detected at any of the locations.

Historical and 2020 gas monitoring results for the site are included in Appendix H. With the exception of the methane gas detection at OW-06-03 during the July 2020 monitoring event, the 2020 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 2020 at the JRL in accordance with the current site EMP. The 2020 water quality data for the JRL is consistent with the historical data for the site and with the setting of monitoring locations 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 2020 water quality data, identifies trends at multiple locations and for a number of parameters, both upgradient and downgradient from the landfill. Historical groundwater quality data through 2020 indicate that these trends, however, are largely attributable to landfill operations and changes in redox conditions, which occur as expected around the landfill due to the construction 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.<sup>30</sup>

Leachate parameter values from monitoring location LT-C4LR during 2020 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 2020, the annual maximum value of specific conductance in JRL leachate (i.e., monitoring location LT-C4LR) was 25,800 µmhos/cm in July 2020. The annual maximum concentrations of chloride and arsenic at monitoring location LT-C4LR were 13,000 mg/L (July 2020) and 0.33 mg/L (July 2020), respectively.

There was no flow at JRL underdrain monitoring locations LF-UD-1, LF-UD-3A,B, LF-UD-4, LF-UD-7, LF-UD-8, LF-UD-9, LF-UD-10, and LP-UD-1 during any of the three 2020 monitoring events; thus, no samples were obtained at these locations during 2020. The eight underdrain monitoring locations with no flow during any of the three 2020 monitoring events is more than the four locations with no flow during any of the three 2019 monitoring events, which is likely attributed to the lower precipitation total in 2020 compared to 2019 (i.e., 37.60 inches in 2020 compared to 52.00 inches in 2019). There were also no samples obtained from LF-UD-5 and 6 and LF-UD-6 in October 2020. These occurrences of no flow at these underdrain monitoring locations are consistent with previous observed patterns.

Where there was flow during 2020 from underdrain monitoring locations (LF-UD-2, LF-UD-5and6, LF-UD-6, and LP-UD-2), the underdrain monitoring data do not show adverse effects from the performance of the landfill cells or leachate collection and transport systems. The greatest specific

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<sup>&</sup>lt;sup>30</sup> 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.

conductance value measured during 2020 was at LF-UD-6 (579  $\mu$ mhos/cm in April 2020); however, this value is lower than the historical maximum value at this location (919  $\mu$ mhos/cm in August 2013) and there is currently a statistically significant decreasing trend (95% confidence level) for specific conductance at this location for the past five years. Specific conductance was measured at an annual low value of 225  $\mu$ mhos/cm at LF-UD-6 in February 2020. There were no specific conductance values above 500  $\mu$ mhos/cm at the remaining underdrain monitoring locations monitored in 2020. Specific conductance values for all underdrain locations monitored in 2020 were below their respective historical maximum values.

During 2020, annual maximum chloride concentrations from the sampled underdrain monitoring locations (ranging from less than the laboratory reporting limit of 2.0 mg/L at LF-UD-6 to 10 mg/L at LF-UD-2) were low relative to the JRL leachate and do not indicate influence from the presence of landfill leachate.

The arsenic concentrations in the underdrain monitoring locations sampled during 2020 were low (ranging from less than the laboratory reporting limit of 0.005 mg/L at LF-UD-2, LF-UD-5 and 6, LF-UD-6, and LP-UD-2 to 0.005 mg/L at LF-UD-2) 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 2020. There were no VOCs detected in 2020 above laboratory reporting limits at any of the sampled underdrain locations.

Based on review of 2020 and historical data, SME has identified 18 of the 28 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 annual maximum specific conductance values at these wells range from 98  $\mu$ mhos/cm to 419  $\mu$ mhos/cm. The annual maximum chloride concentrations at these monitoring locations were very low and ranged from 1.5 mg/L to 11 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 10 of the site groundwater monitoring locations (see Table 7-3), which include wells both upgradient and downgradient from the landfill. These changes are evidenced as some monitoring locations 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 location MW-302R; (3)

downgradient monitoring locations MW-223A, MW223B, and MW-301; and (4) OW-06-03, OW-601A, OW-602B, and MW-501 which are downgradient from Cell 11 of the landfill expansion. Current and recent water quality at these locations are discussed in detail in Section 7.3 and summarized below:

• <u>Upgradient Monitoring Locations MW12-303R and P-206A</u>: 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. Annual maximum values for specific conductance, chloride, and arsenic at P-206A during 2020 were 244 μmhos/cm, 22 mg/L, and 0.006 mg/L, respectively. There were no MCL and/or MEG exceedances for parameters analyzed at P-206A during 2020, and recent increasing trends appear to be stabilizing over the past two to three years for specific conductance, calcium, total dissolved solids, and chloride. The noted increasing parameter values at P-206A appear to have subsided in 2020 compared to 2018. In 2018 monitoring, there were eight parameters at P-206A with new historical maximum values (specific conductance, pH, calcium, magnesium, sodium, total dissolved solids, bicarbonate, and chloride), and in 2020 only magnesium and bicarbonate had new historical maximum values detected.

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.

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 or improving. Specific conductance, chloride, and arsenic values have declined substantially since they were recently reported at historical maximum values. Specific

conductance values at MW12-303R have decreased from an historical maximum value of 1,711  $\mu$ mhos/cm in April 2018 to values ranging from 280  $\mu$ mhos/cm to 577  $\mu$ mhos/cm during 2020. Chloride concentrations at MW12-303R have decreased from an historical maximum value of 220 mg/L in April 2018 to values ranging from 29 mg/L to 77 mg/L during 2020. Arsenic concentrations at MW12-303R have decreased from an historical maximum value of 0.036 mg/L in July 2016 to not detected above the laboratory reporting limit of 0.005 mg/L during 2020.

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: As discussed in Section 7.3, previous water quality evaluations addressed water quality and identified similarities 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. Water quality assessment, the results of bedrock pumping tests conducted in 2009, and the established hydrogeology in this area indicate 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 not sampled during 2020. As part of the landfill expansion construction, the Office Well was decommissioned in 2020. The Scale House Well will be decommissioned in 2021 with a vibrating wire piezometer installed in it.

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. Annual maximum specific conductance values and chloride and arsenic concentrations at MW-302R during 2020 were 562  $\mu$ mhos/cm, 47 mg/L, and less than the laboratory reporting limit of 0.005 mg/L, respectively.

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. Annual maximum specific conductance values and chloride and arsenic concentrations at MW-223A during 2020 were 583  $\mu$ mhos/cm, 32 mg/L, and less than the laboratory reporting limit of 0.005 mg/L, respectively. Annual maximum specific conductance values and chloride and arsenic concentrations at MW-223B during 2020 were 505  $\mu$ mhos/cm, 38 mg/L, and less than the laboratory reporting limit of 0.005 mg/L, respectively.

There were no MCL and/or MEG exceedances for parameters analyzed at MW-223A and MW-223B during 2020. Sodium was the only parameter with an MCL and/or MEG exceedance at MW-302R during 2020.

The recent water quality and noted trends at 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.

<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 2020, as noted in Section 7.3, there are increasing trends in the water quality data. Review of water quality data at MW-301 suggests that there may be a correlation between the parameter value increases discussed in detail in Section 7.3, and a repair of the well in 2013. Following repairs to MW-301, 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 specific conductance values at MW-301 (e.g., ranging from 228  $\mu$ mhos/cm to 248  $\mu$ mhos/cm during 2020) remain generally consistent with those at upgradient monitoring location MW-206, which has a historical maximum value of 269  $\mu$ mhos/cm (April 2018). Chloride concentrations at MW-301 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 maximum chloride concentration was 25 mg/L in July 2020.

There were no parameters analyzed at MW-301 that exceeded MCL or MEG standards in 2020.

• OW-06-03, OW-601A, OW-601B, and MW-501: Monitoring locations OW-06-03, OW-601A, OW-601B, and MW-501 are four of the eight new monitoring locations downgradient from Cell 11 of the landfill expansion. Groundwater quality monitoring began at these locations in 2018.

Chloride concentrations at monitoring locations OW-601A, OW-601B, and MW-501 are somewhat greater than at monitoring locations upgradient from the JRL. The 2020 annual maximum chloride concentrations at OW-601A, OW-601B, and MW-501 were 20 mg/L, 44 mg/L, and 24 mg/L, respectively. There was insufficient groundwater to sample OW-06-03 in 2020.

Specific conductance values at OW-601A, OW-601B, and MW-501 during 2020 and since 2018 have generally been consistent with other groundwater monitoring locations downgradient from the JRL. The annual maximum specific conductance values measured at OW-601A, OW-601B, and MW-501 during 2020 were 415  $\mu$ mhos/cm, 403  $\mu$ mhos/cm, and 310  $\mu$ mhos/cm, respectively. Specific conductance values measured at OW-06-03 have increased since it was first sampled in April 2018 (193  $\mu$ mhos/cm) to 2020 (641  $\mu$ mhos/cm in April 2020 and 778  $\mu$ mhos/cm in October 2020).

There were no MCL exceedances for parameters analyzed at OW-06-03, OW-601A, OW-601B, and MW-501 during 2020. The only MEG exceedance for parameters analyzed at OW-06-03, OW-601A, OW-601B, and MW-501 during 2020 was a sodium concentration of 25 mg/L at OW-601A in July 2020.

Monitoring locations OW-06-03, OW-601A, and OW-601B are located in close proximity to the landfill access road and may be influenced by winter road salting. Additionally, OW-06-03, OW-601A, OW-601B, and MW-501 are likely influenced by the construction of the Cell 11 liner system. Additional monitoring data from these locations over time will be useful for evaluating groundwater quality influences from the recent construction of Cell 11.

Arsenic is the only parameter analyzed in groundwater monitoring wells detected above its MCL in 2020. There were only four monitoring wells in the detection monitoring analytical program with arsenic concentrations detected above its MCL (0.01 mg/L) during 2020. The maximum arsenic concentration detected at site-wide monitoring locations was 0.028 mg/L at MW-401B in July 2020. There were no arsenic concentrations detected above its MCL at pore-water or surface water sampling locations in 2020.

The 2020 surface water, stormwater, and pore-water monitoring location data are generally 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. One exception to this were the anomalously high specific conductance value and chloride concentration (among other parameters) at SW-DP1 during the April 2020 monitoring event. The July and October 2020 monitoring results indicate that the affected parameters at SW-DP1 are returning to values consistent with those prior to April 2020. With the exception of SW-DP1 in April 2020, all specific conductance values and chloride and arsenic concentrations at the surface water, stormwater, and pore-water monitoring locations were within their respective historical ranges. As noted in Section 7.3, the elevated values at SW-DP1 were due to an overboard discharge from the active landfill and this was addressed with MEDEP and resolved prior to sampling in July and October 2020.

2020 was the eighth year of supplemental monitoring for dissolved methane at monitoring well MW-223B and the sixth 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  $\mu$ g/L at MW-223B in 2020. The 2020 dissolved methane concentrations were within their respective historical ranges at PWS10-1 and PWS10-2. The July 2020 dissolved methane concentration at PWS10-3 (4,000  $\mu$ g/L) was greater than the previous historical maximum concentration of 280  $\mu$ g/L in July 2019. The historical and 2020 dissolved 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  $\mu$ g/L in the top 25 centimeters of

saturated soils<sup>31</sup>. 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 concentration of dissolved methane detected at pore-water monitoring locations in 2020  $(4,000 \, \mu g/L \, at \, PWS10-3)$  occurred during the July monitoring event.

During 2020, SME performed baseline water quality monitoring at the Cell 12 monitoring wells, as noted in Section 7.5. Groundwater samples were collected from groundwater monitoring wells MW-04-09A, MW-04-09B, and MW-502 in February, April, June, and August 2020. Baseline monitoring wells were analyzed for the monitoring parameters listed in Table 3-2 of this report. The baseline water quality monitoring data results from the Cell 12 monitoring wells were submitted to MEDEP in 2020. Monitoring locations MW-04-09A, MW-04-09B, and MW-502 will be incorporated into the EMP in 2021 for monitoring Cell 12. The baseline and 2021 water quality data from these wells will be incorporated into the 2021 Annual Water Quality Report for the JRL.

#### 9.2 Closure and Recommendations

Upgradient 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 2021, which will include water quality monitoring for Cell 12 monitoring wells MW-04-09A, MW-04-09B, and MW-502.

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<sup>&</sup>lt;sup>31</sup> 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.

#### **APPENDIX A**

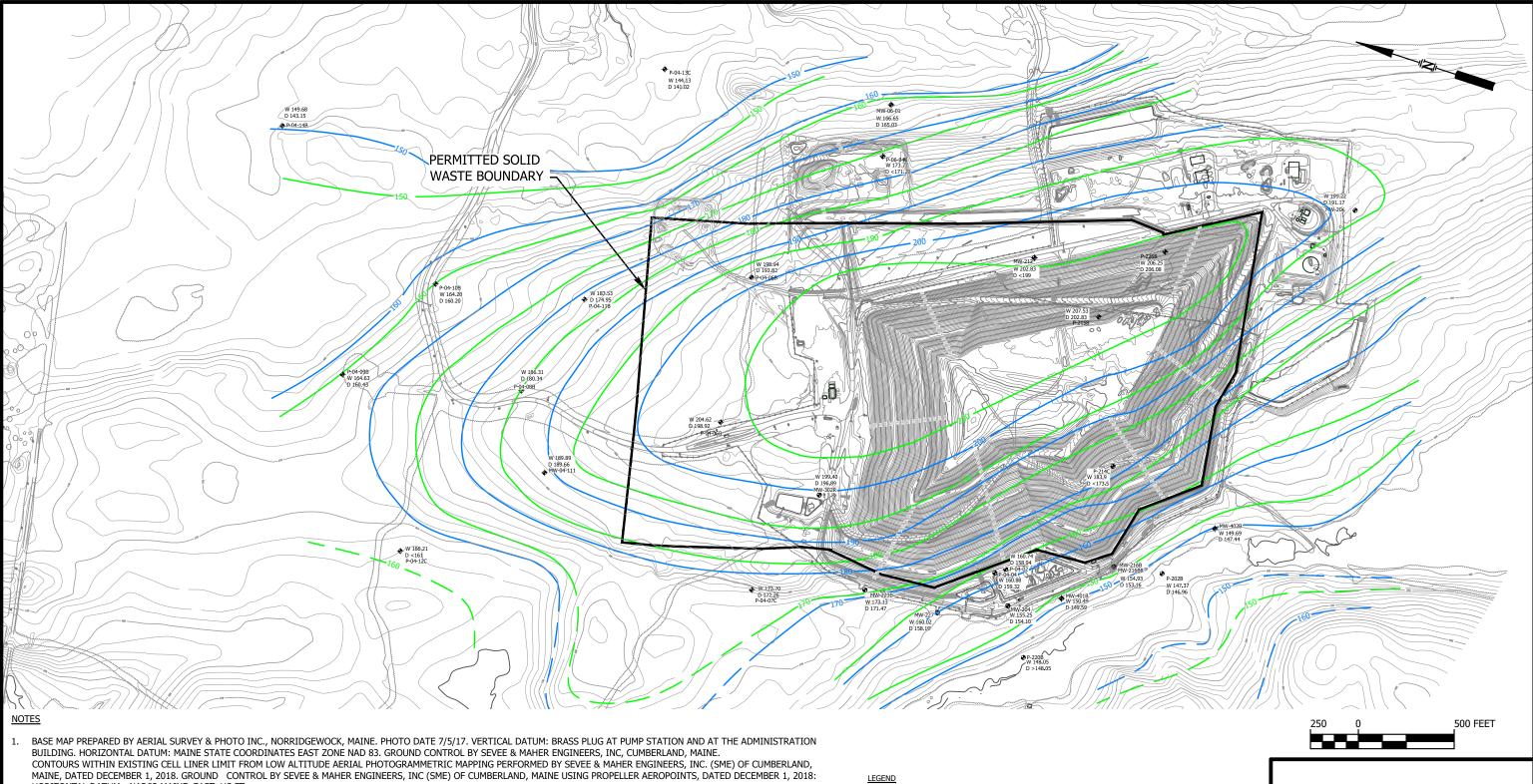
# RESPONSES TO MEDEP COMMENTS REGARDING THE PREVIOUS ANNUAL WATER QUALITY REVIEW (NONE RECEIVED)



#### **APPENDIX B**

INTERPRETED SHALLOW GROUNDWATER PHREATIC SURFACE AND UPPER
BEDROCK POTENTIOMETRIC SURFACE CONTOUR MAPS AND
2020 QUANTITATIVE ANALYSIS OF MEASURED CHANGES IN
GROUNDWATER ELEVATIONS AT MONITORING LOCATIONS





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.

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.

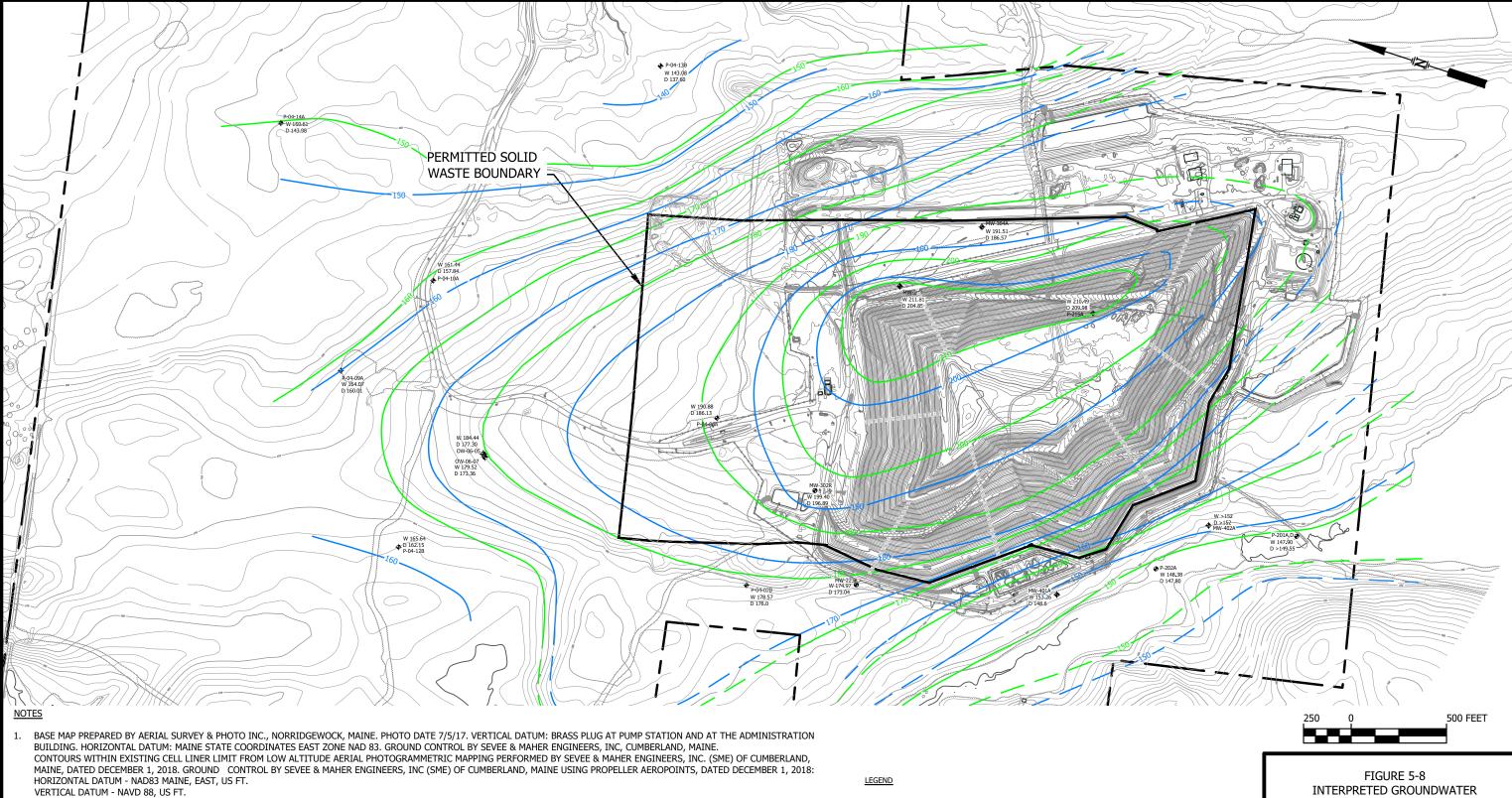
- 3. LOCATIONS OF EXPLORATIONS ARE APPROXIMATE.
- GROUNDWATER CONTOURS BASED ON WATER LEVEL MEASUREMENTS RECORDED DURING SPRING AND FALL OF 2007 (WET AND DRY SEASONS RESPECTIVELY). SUMMER DATA FROM 2008 (WET AND DRY SEASONS RESPECTIVELY).

INTERPRETED WET-SEASON POTENTIOMETRIC SURFACE, (2007) IN BEDROCK (ELEVATION IN FEET NGVD). INTERPRETED DRY-SEASON POTENTIOMETRIC SURFACE, (2007), IN BEDROCK (ELEVATION IN FEET NGVD). MW-227 **4** 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



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



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).

150 — INTERPRETED WET-SEASON UPPER BEDROCK POTENTIOMETRIC SURFACE CONTOUR (ELEVATION IN FEET NGVD).

<del>--- 150 --</del>

MW-223A W 174.97

D 173.04

INTERPRETED DRY-SEASON UPPER BEDROCK POTENTIOMETRIC SURFACE CONTOUR (ELEVATION IN FEET NGVD).

WELL/PIEZOMETER LOCATION WITH ELEVATION OF GROUNDWATER FOR WET (W) AND DRY (D) SEASON.

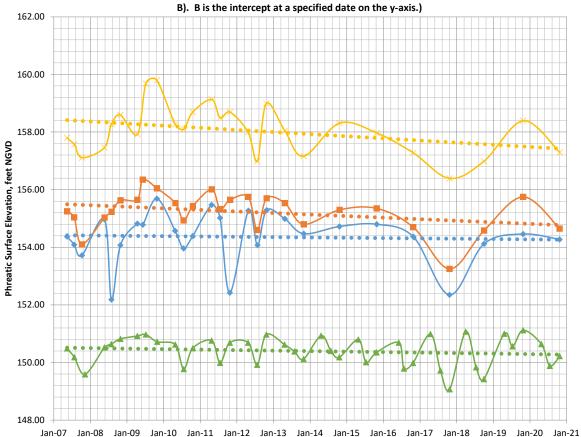
INTERPRETED GROUNDWATER
POTENTIOMETRIC SURFACE
IN UPPER BEDROCK
JUNIPER RIDGE LANDFILL EXPANSION
OLD TOWN, MAINE



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

#### **Shallow Groundwater Downgradient of Leachate Pond**

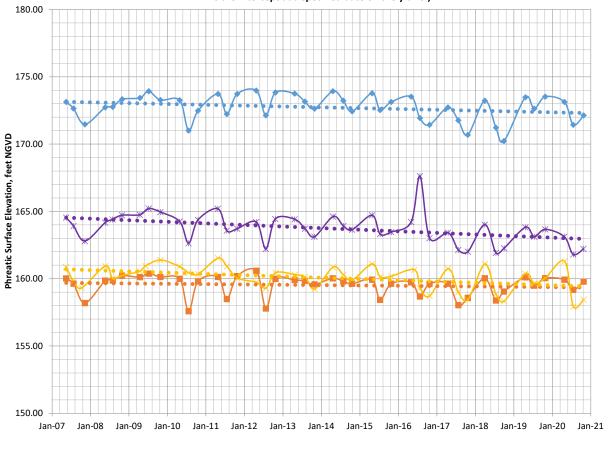
(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx +





### **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.)





#### **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.)



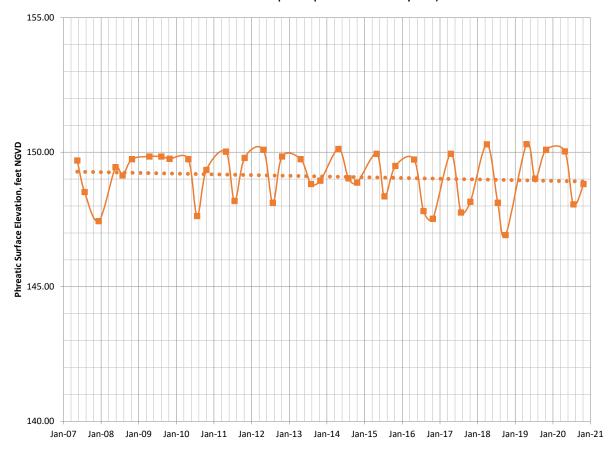
y = -0.0015x + 246.19

y = -0.0003x + 211.61

#### **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.)



**─** MW-402B

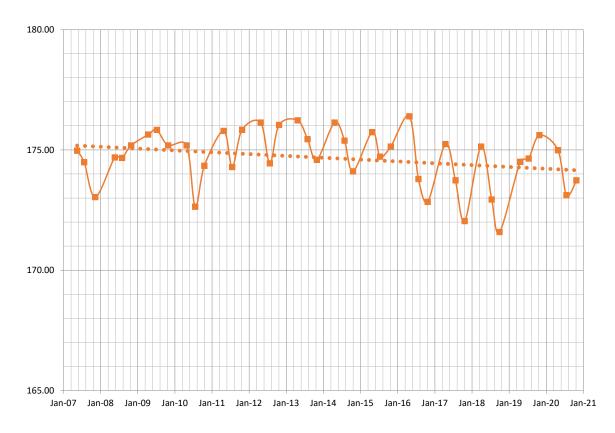
• • • Linear (MW-402B)

y = -7E-05x + 152.16

## **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.)



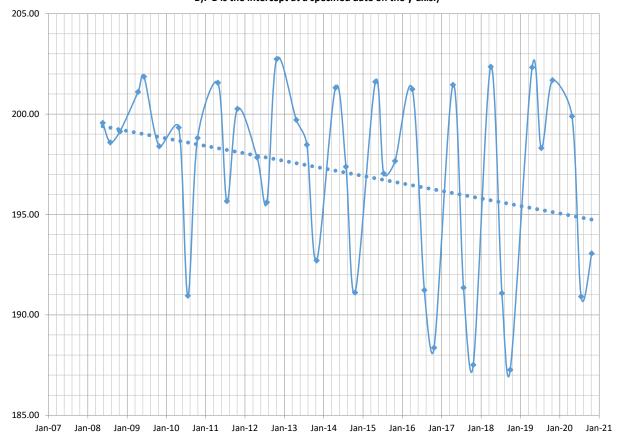
**─** MW-223A

• • • Linear (MW-223A)

y = -0.0002x + 183.35

## 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.)

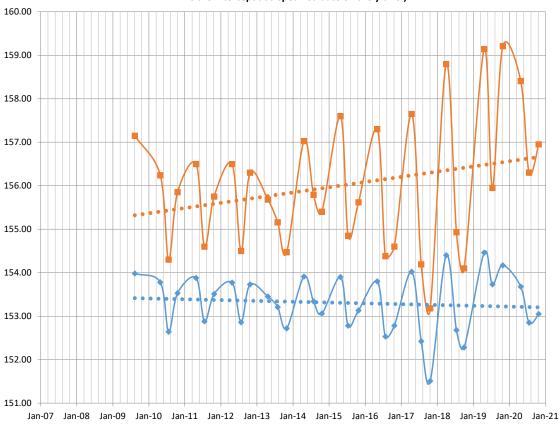


**→** MW-302R

• • • Linear (MW-302R)

y = -0.001x + 239.84

B is the intercept at a specified date on the y-axis.)

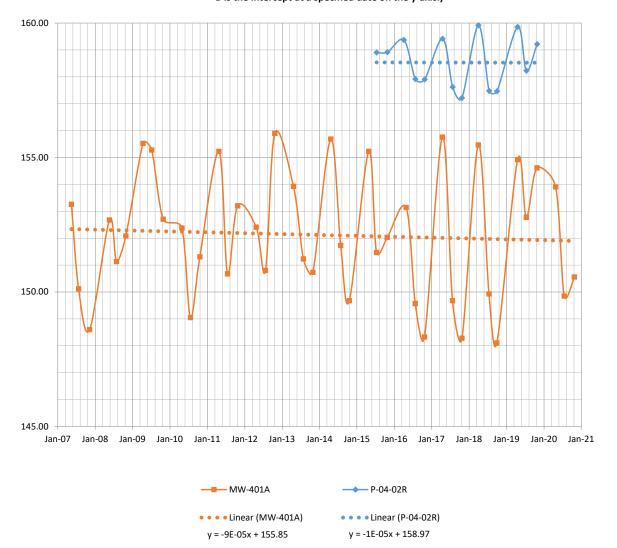




#### **Deep Groundwater Downgradient of Leachate Pond**

(Dotted lines are Linear Trendlines from EXCEL, slope values (m) are presented in the Legend as (y = mx + B).

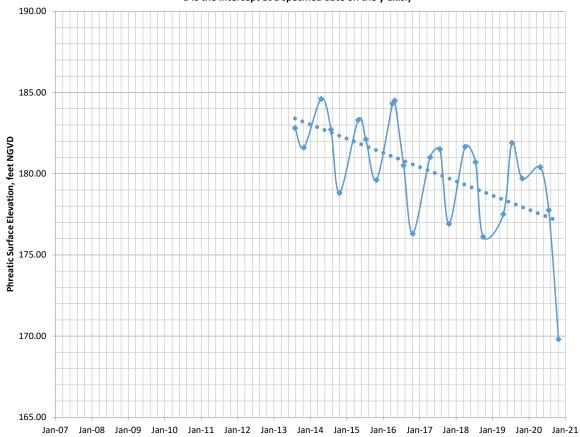
B is the intercept at a specified date on the y-axis.)



#### **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.)



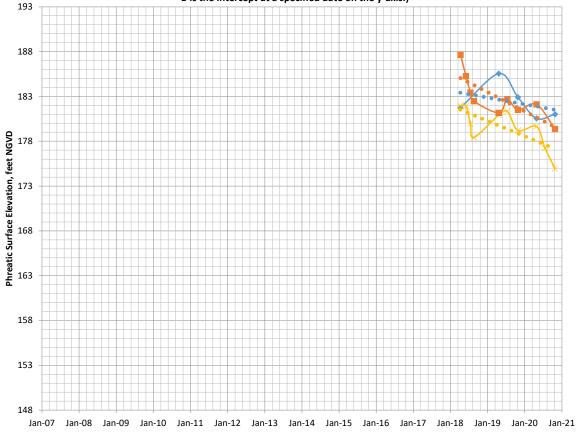
→ P-206A • • • Linear (P-206A)

y = -0.0024x + 282.66

#### **Overburden Groundwater Downgradient of Expansion**

(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.)



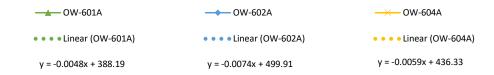


## **Bedrock Groundwater Downgradient of Expansion**

(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**

# 2020 AND HISTORICAL FALL SPECIFIC CONDUCTANCE DATA (EXPANDED LOCATIONS)



REPORT PREPARED: 3/15/2021 13:52						SUMMARY REPORT			Page 1 of 12			
	FOR: Juniper R	idge Landfill				Conductivity and Water Levels			SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021			
(DP-4)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth							
Date		μmhos/cm @25°C	Feet	Feet	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							
	10/26/2020	249	15.1	154.27	27.12							
MW04-101	l											
	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	!	!		!							
3.53370.4.4.04	10/28/2020	!	!		!							
MW04-102	2											
	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							
	10/26/2020	224	8	162.22	18.05							
MW04-104							T					
	10/28/2008	192		1							1	
	10/27/2009	213	7.3	160.76	28						1	
	10/18/2010	229	8	160.06	28							
	10/25/2011	206	8	160.06	28						1	
	10/22/2012	231	7.5	160.56	28							
	10/29/2013	209	9	159.06	28.05							

REPORT PREPA	RED: 3/15/2021	13:52				SUMMARY REPORT		Page 2 of 12		
	FOR: Juniper Ri	dge Landfill					SEVEE & MAHER ENGINEERS, INC.			
	·					Conductivity and Water Levels		4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021		
(MW04-104)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth					
,		μmhos/cm	Feet	Feet	Feet					
Date		@25°C								
	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					
	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					
	10/28/2020	231	8	160.06	27.9					
MW04-105	ľ		1	T	T					
	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 10/27/2020	218 276	7.2	158.39	22.83					
7.55510.4.4005		2/6	8.3	157.29	22.84					
MW04-109R					_					
	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 10/27/2020	418 391	5.96	154.17	22.97					
7.5557.404	10/2//2020	391	7.08	153.05	27.98					
MW-204										
	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					
	10/26/2020	265	10.1	154.65	24.47					
MW-206		_			<del>,</del>		 			
	10/28/2009	141	6.05	198.62	23.08					

REPORT PREPARED: 3/15/2021 13:52 FOR: Juniper Ridge Landfill						SUMMARY REPORT  Conductivity and Water Levels	Page 3 of 12 SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD		
						Conductivity and water Ecvois	CUMBERLAND CENTER, ME 04021		
(MW-206)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth				
Date		μmhos/cm @25°C	Feet	Feet	Feet				
	10/18/2010	187	6.85	197.82	23.08				
	10/13/2010	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				
	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				
-	10/26/2020	148	9.6	195.07	23.15				
MW-216BF					1				
141 44 - 2 1 UDF				T	T				
	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				
	10/27/2020	196	6	153.4	22.48				
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	.55	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				
	10/27/2020	583	2.8	173.74	35.57				
MW-223B		1	1	1	1				
1.1 11 2200	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	173.20	20				
	10/19/2010	327	2.2	173.73	19.93				
	10/23/2012	333	2.1	173.83	20.05				
	10/29/2013	336	3.3	173.63	20.07				
	10/20/2014	350	3.5	172.43	20.07				

DEDORT DRED	NDED: 2/45/2024	40.50								Page 4 of 12		
REPORT PREPARED: 3/15/2021 13:52						SUMMARY REPORT			SEVEE & MAHER ENGINEERS, INC.			
	FOR: Juniper Ri	dge Landfill				Conductivity and Wate	r Levels			4 BLANCHARD RC CUMBERLAND CE	AD	
(MW-223B)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth							
Date		μmhos/cm @25°C	Feet	Feet	Feet							
		T										
	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							
	10/27/2020	505	3.8	172.13	20.07							
MW-227												
	10/27/2009	182	4.1	160.13	22.2							
	10/19/2010	189	4.42	159.81	22.3							
	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							
	10/27/2020	184	4.45	159.78	22.31							
MW-301											·	
1,1,1,001	10/00/0000	070	4.05	100.11	105.15							
	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 10/26/2020	248 248	F1	404.44	185.1							
	10/26/2020	240	1.8	164.11	185.12							
MW-302R												
	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							

REPORT PREP	ARED: 3/15/2021	13:52				SUMMARY REPORT	Page 5 of 12
	FOR: Juniper R	idge Landfill				Conductivity and Water Levels	SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(MW-302R)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth		
Date		μmhos/cm @25°C	Feet	Feet	Feet		
	10/00/0000	500	40.0	400.00	20.07		
NAME	10/26/2020	562	13.8	193.06	32.27		
MW12-303I							
	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 32.08	189.54	43.4 43.4		
	10/1/2018 10/28/2019	380	29.12	176.81 179.77	43.4		
	10/26/2019	577	33.4	179.77	43.4		
MW-401A	10/20/2020	311	33.4	170.45	70.7		
1,1,1,1,10111	10/28/2009	165	4.12	152.71	111.98		
	10/28/2009	191	4.12 5.52	152.71	111.96		
	10/24/2011	128	3.62	153.21	112.1		
	10/22/2012	119	0.93	155.21	112.02		
	10/28/2013	140	6.1	150.73	112.02		
	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		
	10/26/2020	122	6.27	150.56	112.03		
MW-401B							
	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		
	10/26/2020	296	7.1	150.22	23.13		
MW-402A							
	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		

Conductivity and Water Levels	REPORT PREPA	ARED: 3/15/2021	13:52				SUMMARY REPO	)RT			Page 6 of 1	2
Continue		FOR: Juniper Ri	idge Landfill								4 BLANCH	ARD ROAD
Date   Post   Po	(MW 402 A)					Well Depth					OOMBERE	VIII OLIVIER, ME 04021
Date	(NI W-402A)			-		F						
1998/0916   128   0.05   152.68   193.85	Date			reet	reet	reet						
1998/0916   128   0.05   152.68   193.85		10/3/2018	136	0.45	151.75	108.3						
MW-402B					_							
100202006   216   296   149.76   25.26		10/28/2020	112	F1		108.55						
100202006   216   296   149.76   25.26	MW-402B	·			•							·
100000015		10/28/2009	215	2 98	149 76	25.26						
10032011   100   2.58   149.79   25.18												
1924/2015					_							
100280916   142   3.87   148.87   25.13		10/24/2012	141	2.9	149.84							
10282015   142   3.25   148.49   25.16		10/30/2013	174	3.8	148.94	25.18						
100/26/2017   147   4.86   148.16   26.16		10/22/2014	147		148.87							
103/2016   103/2016   102/2017   103/2016		10/28/2015		3.25	149.49							
10920218   162   5.82   146.92   25.16					_							
103920216					_							
MW09-901   131   3.92   148.82   25.2												
MW09-901  10/9/2010 300 9.28 158.85 22.75  10/23/2012 197 8.8 156.3 22.73  10/23/2013 195 10.63 154.47 22.8  10/27/2014 286 9.7 155.4 22.8  10/27/2015 318 9.48 156.5 22.8 22.8  10/27/2015 318 9.48 156.5 22.8 22.8  10/27/2015 333 10.5 154.6 22.8 22.8  10/28/2017 392 11.92 153.18 22.8  10/28/2019 330 11. 154.1 22.82 11. 10. 10. 10. 10. 10. 10. 10. 10. 10.					_							
10/9/2013   300   9.25   155.85   22.75	7.555700.004	10/28/2020	131	3.92	148.82	25.2						
10/23/2013   197   8.8   156.3   22.73	MW09-901											
10232013   195   1063   154.47   22.8		10/19/2010	300	9.25	155.85	22.75						
1021/2014   266   9.7   155.4   22.8			197	8.8	156.3							
102772015   318   9.48   155.02   22.82					_							
10/25/2016   353   10.5   154.6   22.82					_							
10/24/2017   392												
10/22/2018   390					_							
10/28/2015   333   5.88   159.21   22.82												
P-04-02R					_							
P-04-02R												
10/28/2015   700	D 04 02D	10/21/2020	341	0.10	130.33	22.01						
10/26/2016   629   12.81   157.91   37.96	P-04-02K					1						
10/25/2017												
10/30/2019												
10/30/2019   331   11.5   159.22   38					_							
Total Control Contro												
P-04-04    10/27/2009	1											
10/27/2009	D 04 04	10/20/2020	204	13.10	137.34	37.00						
10/20/2010	P-04-04					1						
10/26/2011					_							
10/24/2012												
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     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									+			
10/26/2016     184     10.53     158.72     32.3<												
10/25/2017     189     10.8     158.45     32.34	1											
10/3/2018 10/30/2019 187 9.2 160.05 32.34												
10/30/2019 187 9.2 160.05 32.34									+			
		10/28/2020	167	10.8	158.45	37.1						

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	FOR: Juniper R	tidge Landfill				Conductivity and Water Levels			SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(P-201A)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth		,		
Date		μmhos/cm @25°C	Feet	Feet	Feet				
P-201A									
	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 10/29/2019	187 176	3.4 1.99	146.15 147.56	21.62 21.62				
	10/29/2019	186	2.86	146.69	22.48				
P-201B	10/21/2020	100	2.00	140.03	22.40				
1 2012	5/19/2008		0	152.18					
	7/30/2008		2.8	149.38					
	10/29/2008	146	2.0	140.00					
	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				
D 201C	10/27/2020	116	2.66	149.52	73.97				
P-201C	5/40/0000			450.40	1			T	
	5/19/2008		0	152.19					
	7/30/2008	126	1.68	150.51					
	10/29/2008 10/27/2009	136	2.45	140.74	40.45				
	10/19/2010	209 235	2.45 2.29	149.74 149.9	49.45 49.4				
	10/19/2010	147	2.25	149.94	49.4				
	10/23/2011	121	F1	1-10.04	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	1.00					
	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				

REPORT PRE	EPARED: 3/15/2021	1 13:52				SUMMARY REPORT		Page 8 of 12	
	FOR: Juniper R	Ridge Landfill				Conductivity and Water Leve	ls	SEVEE & MAHER ENG 4 BLANCHARD ROAD CUMBERLAND CENTE	
(P-201C)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth				
Date		μmhos/cm @25°C	Feet	Feet	Feet				
	10/2/2018	156	5.65	146.54	67.82				
	10/29/2019	150	2.62	149.57	67.82				
	10/27/2020	141	4.39	147.8	68.05				
P-201D									
	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	440.00	43.02				
	10/23/2012 10/30/2013	128 279	3.1 2.57	148.23 148.76	49.46				
	10/30/2013	153	3.02	148.31	49.8 49.42				
	11/6/2014	155	2.14	149.19	49.42				
	10/28/2015	142	2.14	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				
	10/27/2020	134	3.22	148.11	48.57				
P-201E									
I ZUIL	E/40/0000			450.00					
	5/19/2008 7/30/2008		0 A	152.26					
	10/29/2008	249	A						
	10/27/2009	532	2.2	150.06	Q				
	10/19/2010	286	F1	100.00	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				
	10/27/2020	122	2.02	150.24	43.1				
P-202A									
	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					

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	FOR: Juniper R	idge Landfill				Conductivity and Water L	_evels	4 BLANC	& MAHER ENGINEERS, INC CHARD ROAD RLAND CENTER, ME 04021
(P-202A)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth				
Date		μmhos/cm @25°C	Feet	Feet	Feet				
		1	T	1	T				
	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				
	10/28/2020	99	2.98	146.4	21.18				
P-202B									
	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				
	10/28/2020	87	2.31	147.06	6.02				
P-206A									
	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				
	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				
	10/26/2020	F5	30 A6	174.51	93.15				
P-209A	1	"		"					
1 20711	F/0.1000-1	1		1	1				
	5/21/2008		L	1					
	7/30/2008		L	1					
	10/29/2008	69	0.05	471.01	55.05				
	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	400.40	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	70	3.25	175.54	FF 00				
	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				

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	FOR: Juniper Ri	dge Landfill				Conductivity and Water Levels	SEVEE & MAHER ENGINEERS, IN 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 0402
(P-209A)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth		
Date		μmhos/cm @25°C	Feet	Feet	Feet		
	10/27/2020	70	22.72	455.00	E4 644		
P-209B	10/27/2020	72	23.73	155.06	54.644		
r-209b							
	5/21/2008 7/30/2008		L				
	10/29/2008	100	L				
	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 84	0.12	178.7	30.65		
	10/27/2020	84	23.95	154.87	30.81		
P-209C							
	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 10/28/2015		D D		0.00		
	10/28/2015	D D	D		9.82 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		
	10/27/2020	D	D		9.87		
P-211A							
	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		
		140	5.4	178.17	25.6		
	10/25/2011	140					
	10/22/2012	176	3.8	179.77	25.62		
	10/22/2012 10/29/2013	176 215	3.8 7.4	179.77 176.17	25.63		
	10/22/2012 10/29/2013 10/21/2014	176	3.8 7.4 5.5	179.77 176.17 178.07			
	10/22/2012 10/29/2013	176 215	3.8 7.4	179.77 176.17	25.63		

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	FOR: Juniper R	idge Landfill				Conductivity and Water Levels	4	SEVEE & MAHER ENG I BLANCHARD ROAD CUMBERLAND CENTE	
(P-211A)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth		,		
Date		μmhos/cm @25°C	Feet	Feet	Feet				
				_					
	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				
	10/28/2020	422	6.42	177.15	25.65				
P-211B									
	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 10/25/2011	101 123	6.4	177.57 177.87	13.42 13.45				
	10/23/2011	165	4.3	177.67	13.43				
	10/29/2013	194	7.8	179.67	13.43				
	10/21/2014	249	5.7	178.27	13.44				
	11/6/2014	243	4.36	179.61	13.44				
	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				
	10/28/2020	473	6.4	177.57	13.5				
P-220A									
	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	1	46.7				
	10/27/2015	187	F1	447.00	40.8				
	10/25/2016	189	0.37	147.62	40.8				
	10/26/2017 10/2/2018	137 177	0.35 0.35	147.64	40.0				
	10/2/2018	1// F12	0.35 F12	147.64	40.8 F12				
	10/30/2019	A A	A A		A A				
P-220B	10/20/2020	^	^		^			<u> </u>	
1 -22UD	E/40/2002		0	140.05					
	5/19/2008 7/30/2008		0	148.05					
	7/30/2008 10/29/2008	157	F1						
	10/29/2008	239	F1	+	22.85				
	10/27/2009	309	F1	+	22.85				
	10/26/2011	202	F1	1	22.82				
	10/22/2012	233	F1	1	22.85				
	10/28/2013	205	F1	148.05	22.88				
	10/20/2014	154	F1		22.8				

REPORT PR	EPARED: 3/15/2021 FOR: Juniper R					SUMMARY Conductivity an				4 BLANC	of 12 MAHER ENGIN HARD ROAD LLAND CENTER	·
(P-220B)		Specific Conductance	Water Level Depth	Water Level Elevation	Well Depth			·				
Date		μmhos/cm @25°C	Feet	Feet	Feet							
	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							
	10/26/2020	Α	Α		Α							

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
- A6- Approximate value.
- D- The sampling location was dry.
- F1- Well was flowing
- F12- Pipe under water, no sample taken.
- F5- Water level not high enough to pump.
- L- Could not locate sampling location.
- Q- An obstruction prevented the collection of data.

### **APPENDIX D**

## **2020 AND HISTORICAL WATER QUALITY DATA**



# SUMMARY REPORT

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SEVEE & MAHER ENGINEERS, INC.

	F	FOR: Juniper Ric	dge Landfill						Field Data						SEVEE & MAHER 4 BLANCHARD RC CUMBERLAND CE	AD
(DP-4)			Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date	Туре	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
DP-4																
4/25/2011	XX G	WXXXX4AD	277	6.4	12.2	169.37	155.47	13.9	282	1			70	2.5		
7/18/2011		WXXXX4EB	282	6.4	18.2	169.37	155.02	14.35	233	1			95	0.6		
10/24/2011	XX G	WXXXX4I6	256	6.7	13.8	169.37	152.42	16.95	312	0.8		27.06	70	1.6		
4/25/2012	XX G	WXXXX52G	334	6.3	9.1	169.37	155.27	14.1	232	1			120	5.9		
7/25/2012	XX G	WXXXX57F	313	6.2	13.8	169.37	154.07	15.3	25	0.6			120	3.7		
10/24/2012	XX G	WXXXX5E6	302	7.3	9.4	169.37	155.29	14.08	221	1		27.06	100	7.9		
4/24/2013	XX G	WXXXX5IH	293	6.5	7.2	169.37	154.99	14.38	240	1			70	10		
10/30/2013	XX G	WDP4X689	273	5.8	10.7	169.37	154.47	14.9	217	0.8		27.06	70	3.9		
10/21/2014		WDP4X72C	239	6.7	13.1	169.37	154.72	14.65	343	0.8		27.05	75	0.6		
10/28/2015	XX G	WDP4X7J6	278	6.6	10.5	169.37	154.8	14.57	257	0.9		27.05		3		
10/26/2016	XX G	WDP4X908	267	6.5	10.2	169.37	154.37	15	296	0.6		27.1		7		
10/23/2017	XX G	WDP4X9I7	201	6.2	14.3	169.37	152.35	17.02	284	0.4		22.17		5.5		
10/3/2018	XX G	WDP4XB25	214	6.3	12.3	169.37	154.12	15.25	285	1.4		27.16		4.7		
10/28/2019		WDP4XBJ5	272	6.5	10.7	169.37	154.46	14.91	236	0.5		27.1		14.9		
10/26/2020	XX G	WDP4XD49	249	6.4	11.8	169.37	154.27	15.1	315	0.6		27.12		12.5		
LF-CO	MP															
5/25/2011	XX LF	-CMPX4FE	405	6.8	23.3				352	5			100	0.07		
6/20/2011		CMPX4G5	370	7	23.8				376	5			125	1		
7/19/2011	XX LF	FXXXX4F1	368	6.8	24.7				404	4			113	0		
8/3/2011	XX LF	FCMPX4JF	223	7.1	22.7				337	5			90	129.3		
10/8/2011	XX LF	FCMPX4J4	371	7.1	24.8				370	6			80	0.6		
11/30/2011	XX LF	CMPX50I	351	7.1	20				382				90	24.9		
12/29/2011	XX LF	CMPX506	362	7.4	17.2				341	6			125	1.1		
1/26/2012	XX LF	CMPX58I	381	7.5	17				372	6			140	1.05		
2/24/2012	XX LF	CMPX599	366	7.5	13.7				371	5			145	0.91		
3/23/2012	XX LF	FCMPX5A0	I	I	I				I	I			Į.	I		
4/16/2012	XX LF	FCMPX5AB	I	I	I				I	I			I	1		
4/24/2012	XX LF	FXXXX53B	314	7.2	17.8				403	6			85	4.4		
5/3/2012	XX LF	FCMPX5B2	400	7	18.7				446	6			140	11.82		
6/29/2012	XX LF	FCMPX5BD	394	6.9	22.5				444	5			125	0.07		
7/31/2012		FCMPX5C4	389	7.3	29.7				383	8			150	0.33		
8/31/2012		FCMPX5F5	421	6.9	22.1				384	6			150	0.27		
9/27/2012		FCMPX5FG	373	7.3	21.2				348	8			150	0.14		
11/13/2012		CMPX5G7	307	7.6	17.7				355	6			135	3.91		
12/31/2012		FCMPX5GI	306	7.7	11.4				406	8			130	5.27		
1/30/2013		FCMPX60E	239	7.1	15.1				426	7			100	9.85		
2/15/2013		FCMPX602	306	7.5	13.5				407	6			145	3.75		
3/28/2013		FCMPX617	294	8	16.7				333	8			170	0.74		
4/24/2013		FCMPX61J	262	7.1	15.9				347	6			160	0.39		
5/30/2013		FCMPX62B	271	7.3	20.4				331	8			160	0.4		
6/26/2013		FCMPX633	311	7.8	20.2				397	8			150	1.48		
8/20/2013	,,,,	FCMPX69D	397	7.1	25.3				383	6			150	0.44		
9/26/2013		FCMPX691	384	8.1	18.3				399	8			125	0.72		
11/25/2013		FCMPX6A6	370	8.4	7.2				371	8			160	0.32		
12/17/2013		FCMPX6D6	359	7.5	8.9				433	8			185	5.86		
1/24/2014		FCMPX6DI	360	7.4	7.2				342	8			170	2.17		
2/24/2014	XX LF	FCMPX6HF	387	7.5	11.4				397	9 E2			200	1.46		

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														CUMBERLAND	CENTER, ME 04021
(LF-COM	IP)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date -	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
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		390	7.7	21.5				355	8			200	0.63		
6/24/2014		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		449	7.6	23.1				345				165	0.09		
11/28/2014		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		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		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		481	7	14.9				374	7			190	1.7		
11/2/2018		399	7.1	11.3				361	7			150	2.8		
12/7/2018		309	8	8.4				374	7			175	1.1		
1/3/2019		446	6.7	4.9				373	8			150	2		
2/2/2019		409	7.5	3.2				410	8			200	7		
3/2/2019		423	7	5	1			372	7			200	2.2		
4/5/2019		382	8.2	12.9				354	8			155	1.9		
5/10/2019		344	7	14.4	1			321	7			160	3.7		
6/24/2019		395	7.5	17.1	1			364	8			200	0.5		
7/30/2019		410	8	20.6	1			337	8			210	2.5		
8/20/2019		376	7.6	25.3	1			357	6			180	0.3		
9/20/2019		453	7.2	21.5	1			370	6			200	0.2		
10/14/2019		410	7.8	18.9	1			339	6			200	0.3		
11/27/2019		353	7.7	20	1			384	8			190	1.1		
12/23/2019		394	7.9	12.7	1			353	8			135	0.3		
1/17/2020		374	8.2	11.6	1			377	10			175	2.4		
2/4/2020		378	8.3	12.4	1			337	10			175	0.2		
3/27/2020	701	328	7.3	11.7	1			415	6			200	0.4		
4/29/2020	701	380	8.2	16.9	1			334	6			200	0.4		
5/27/2020		438	7.2	18.4	1			346	6			200	0.2		
6/28/2020	XX LFCMPXD0A	401	7.3	21.9	<u> </u>	<u> </u>	<u> </u>	338	5	<u> </u>	<u> </u>	210	2.8		

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													CUMBERLAND	CENTER, ME 04021
(LF-COMP)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
7/11/2020 XX LFCMPXD14	429	7.1	20.7				361	5			250	1.1		
8/3/2020 XX LFCMPXD52	485	7.1	21.5				374	6			250	0.6		
9/27/2020 XX LFCMPXD5I	402	7.2	17.7				409	6			250	14.2		
10/31/2020 XX LFCMPXD6C	417	8.2	14.3				397	8			250	0.6		
11/29/2020 XX LFCMPXD76	320	7.6	15.3				410	6			175	15.6		
12/13/2020 XX LFCMPXD80	217	7	12.5				380	5			105	67.9		
LF-UD-1												1 21.12		
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	0.0000		345	2.3		
3/25/2011 XX LFUD1X4C6	H2	H2	H2				310	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		
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 2/24/2014 XX LFUD1X6H7	325	8	6.2				284	10	0.0003		150	1.3		
	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		

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CF-UD-1   Conductance   Part   Conductance   Part   Conductance   Part   Conductance   Part   Part	
Date   Type   Sample   D	
4/20/2014   XX	
4/29/2014   XX   FUDIXFINE   310   8.1   15.7   324   10   0.0006   175   1.78   365   374   20   357   10   0.0003   175   0.4   357	
6/24/2014 XX   FUDIXI/14   369   7   20.6   371   8   0.0004   170   0.27   7/29/2014 XX   FUDIXI/14   368   7   21   337   5   0.0022   40   8.1   8.1   8.2   8/26/2014   XX   FUDIXI/14   366   7.2   23.1   388   7   0.0006   175   0.29   9/23/2014   XX   FUDIXI/14   360   7.6   22.6   353   0.0001   160   0.05   102/10214   XX   FUDIXI/15   360   7.6   22.6   353   0.0001   160   0.05   102/10214   XX   FUDIXI/15   360   7.6   22.6   353   0.0001   160   0.05   102/10214   XX   FUDIXI/15   360   7.6   22.6   353   0.0001   160   0.05   102/10214   XX   FUDIXI/15   360   341   7   15.8   383   7   0.0006   160   M   12/20214   XX   FUDIXI/16   337   6.9   16.1   413   7   0.0007   150   0.28   12/20215   XX   FUDIXI/16   337   6.9   16.1   413   7   0.0007   150   0.28   12/20215   XX   FUDIXI/16   339   6.9   13.4   404   5.5   0.0006   140   0.46   12/20215   XX   FUDIXI/16   339   6.9   13.4   404   5.5   0.0003   150   0.3   3/28/2015   XX   FUDIXI/16   339   6.9   13.4   404   404   5.5   0.0003   150   0.3   4/28/2015   XX   FUDIXI/16   333   7.8   23.2   32.2   32.6   9   0.0002   150   0.83   4/28/2015   XX   FUDIXI/16   333   7.8   23.2   32.2   32.6   9   0.0002   150   0.5   1.8   1.8   1.8   1.2	
7/28/2014   XX   FUDIXABL   368   7   21   337   5   0.0022   40   8.1	
8/26/2014   XX   FUDIX74A   386   7.2   23.1   385   7   0.0006   175   0.29	
9/23/2014   XX	
10/21/2014   XX   FUDIX735   F6   F6   F6   F6   F6   F6   F6   F	
11/28/2014   XX   FUDIX75D   341   7   15.8   383   7   0.0006   160   M   1/28/2014   XX   FUDIX75D   337   6.9   16.1   413   7   0.0007   150   0.28   12/3/2015   XX   FUDIX75H   329   7.9   13.8   384   5.5   0.0006   140   0.46   12/21/2015   XX   FUDIX75H   329   7.9   13.8   384   5.5   0.0006   140   0.46   150   0.3   150   0.3   150   0.3   150   0.3   150   0.3   150   0.3   150   0.3   150   0.3   150   0.4   150   150   0.5   150   150   0.5	
12/24/2014   XX   FUDIX766   337   6.9   16.1	
2/3/2015   XX   FUDIX76H   329   7.9   13.8   384   5.5   0.0006   140   0.46   2/21/2015   XX   FUDIX776   267   7.6   17.9   377   5.5   0.0003   150   0.3   150   0.3   3/28/2015   XX   FUDIX746   339   6.9   13.4   404   5.5   0.0003   160   0.4   4/16/2015   XX   FUDIX746   339   6.9   13.4   404   5.5   0.0003   160   0.4   4/16/2015   XX   FUDIX746   339   6.9   13.4   404   5.5   0.0003   160   0.4   4/16/2015   XX   FUDIX74   306   7.1   17.6   384   7   0.0006   150   0.83   4/28/2015   XX   FUDIX792   401   7.4   16.6   300   6.1   0.0022   150   0.5   1.8   4/28/2015   XX   FUDIX76C   333   7.8   23.2   326   9   0.0002   165   0.4   4/28/2015   XX   FUDIX76C   333   7.8   23.2   326   9   0.0002   165   0.4   4/28/2015   XX   FUDIX76C   411   6.9   20.7   313   4.5   0.002   165   0.4   4/28/2015   XX   FUDIX76C   411   6.9   20.7   313   4.5   0.002   165   0.5   4/28/2015   XX   FUDIX76C   330   7.4   23.3   367   6   0.0002   135   0.7   4/28/2015   XX   FUDIX76C   335   7.1   21.1   364   8   0.0001   195   0.5   4/28/2015   XX   FUDIX801   425   7.3   21.3   365   7   F14   200   0.1   4/28/2015   XX   FUDIX801   425   7.3   21.3   365   7   F14   200   0.1   4/28/2015   XX   FUDIX80D   378   8.1   16.1   339   8   0.0002   170   0.6   4/28/2015   XX   FUDIX815   326   6.8   15.2   376   9   0.0002   185   0.2   4/28/2015   XX   FUDIX816   332   7.2   11.2   362   9   0.0002   180   0.7   4/28/2015   XX   FUDIX816   XX   FUDIX816   X3   FUDIX824   347   6.9   9.2   338   7   0.0002   180   0.7   4/28/2016   XX   FUDIX824   337   6.9   9.2   338   7   0.0002   180   0.7   4/28/2016   XX   FUDIX824   338   8   10.6   357   8   0.0003   170   0.1   4/28/2016   XX   FUDIX824   331   6.8   13.3   342   9   0.0003   180   0.7   4/28/2016   XX   FUDIX825   331   6.8   13.3   342   9   0.0003   180   0.7   4/28/2016   XX   FUDIX826   341   6.8   13.3   342   9   0.0003   180   0.7   4/28/2016   XX   FUDIX826   341   6.8   13.3   342   9   0.0003   180   0.7   4/28/2016   XX   FUDIX826   341   6.8	
2/21/2015   XX	
3/28/2015   XX   FUDIX7A6   339   6.9   13.4   404   5.5   0.0003   160   0.4   4/16/2015   XX   FUDIX7AJ   306   7.1   17.6   384   7   0.0006   150   0.83   4/28/2015   XX   FUDIX7B2   401   7.4   16.6   300   6.1   0.0022   150   0.5   4/28/2015   XX   FUDIX7EC   411   6.9   20.7   313   4.5   0.002   165   0.4   4/28/2015   XX   FUDIX7EC   411   6.9   20.7   313   4.5   0.002   165   0.4   4/28/2015   XX   FUDIX7EC   411   6.9   20.7   313   4.5   0.002   135   0.7   4/28/2015   XX   FUDIX7EG   330   7.4   23.3   367   6   0.0002   135   0.7   4/28/2015   XX   FUDIX7EG   330   7.4   23.3   367   6   0.0002   135   0.7   4/28/2015   XX   FUDIX7EG   354   7.1   21.1   364   8   0.0001   195   0.5   4/28/2015   XX   FUDIX7B3   354   7.1   21.1   364   8   0.0001   195   0.5   4/28/2015   XX   FUDIX7B3   7.3   21.3   365   7   F14   200   0.1   4/28/2015   XX   FUDIX7B3   F6   F6   F6   F6   F6   F6   F6   F	
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       165       0.4         7/23/2015       XX       LFUD1X7GE       330       7.4       23.3       367       6       0.0002       135       0.7         8/24/2015       XX       LFUD1X7GB       354       7.1       21.1       364       8       0.0001       195       0.5         9/26/2015       XX       LFUD1X8GB       354       7.1       21.1       364       8       0.0001       195       0.5         9/26/2015       XX       LFUD1X8GB       354       7.1	
4/28/2015       XX       LFUDIX792       401       7.4       16.6       300       6.1       0.0022       1.8       1.8         5/22/2015       XX       LFUDIX7F4       197       7.4       18.8       373       8       0.0002       150       0.5         6/22/2015       XX       LFUDIX7EC       333       7.8       23.2       326       9       0.0002       165       0.4         7/14/2015       XX       LFUDIX7CE       411       6.9       20.7       313       4.5       0.002       0.5         7/23/2015       XX       LFUDIX7CE       411       6.9       20.7       313       4.5       0.002       0.5         8/24/2015       XX       LFUDIX7GE       330       7.4       23.3       367       6       0.0002       135       0.7         8/24/2015       XX       LFUDIX7GB       354       7.1       21.1       364       8       0.0001       195       0.5         9/26/2015       XX       LFUDIX8GB       354       7.1       21.1       364       8       0.0001       195       0.5         10/27/2015       XX       LFUDIX8GB       35       8       1	
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         9           7/14/2015         XX         LFUD1X7CE         411         6.9         20.7         313         4.5         0.002         0.5         0.5           7/23/2015         XX         LFUD1X7FG         330         7.4         23.3         367         6         0.0002         135         0.7           8/24/2015         XX         LFUD1X7FG         330         7.4         23.3         367         6         0.0002         135         0.7           8/24/2015         XX         LFUD1X7FG         330         7.4         23.3         367         6         0.0002         135         0.7           9/26/2015         XX         LFUD1XFGB         354         7.1         21.1         364         8         0.0001         195         0.5           9/26/2015         XX         LFUD1X81         425         7.3         21.3         365         7         F14<	
6/22/2015 XX LFUDIXTCE 333 7.8 23.2 326 9 0.0002 165 0.4 7/14/2015 XX LFUDIXTCE 411 6.9 20.7 313 4.5 0.002 0.5 7/23/2015 XX LFUDIXTG 330 7.4 23.3 367 6 0.0002 135 0.7 8/24/2015 XX LFUDIXTG 354 7.1 21.1 364 8 0.0001 195 0.5 9/26/2015 XX LFUDIXTG 354 7.3 21.3 365 7 F14 200 0.1 195 0.5 10/27/2015 XX LFUDIXTG 356 F6	
7/14/2015         XX         LFUDIX7CE         411         6.9         20.7         313         4.5         0.002         0.5         0.5           7/23/2015         XX         LFUDIX7FG         330         7.4         23.3         367         6         0.0002         135         0.7           8/24/2015         XX         LFUDIX7GB         354         7.1         21.1         364         8         0.0001         195         0.5           9/26/2015         XX         LFUDIX801         425         7.3         21.3         365         7         F14         200         0.1           10/27/2015         XX         LFUDIX801         425         7.3         21.3         365         7         F14         200         0.1           10/27/2015         XX         LFUDIX801         F6         <	
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         F0	
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         F0         F0         F0         F0         F0 <td></td>	
9/26/2015         XX         LFUDIX801         425         7.3         21.3         365         7         F14         200         0.1           10/27/2015         XX         LFUDIX7/3         F6	
10/27/2015         XX         LFUD1X7I3         F6	
10/31/2015         XX         LFUD1X80D         378         8.1         16.1         339         8         0.0002         170         0.6         170         0.0         185         0.2         170         0.6         170         0.6         170         0.0         185         0.2         180         0.7         170         0.0         180         0.7         170         0.0         180         0.7         171	
11/27/2015         XX         LFUD1X815         326         6.8         15.2         376         9         0.0002         185         0.2           12/30/2015         XX         LFUD1X811         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	
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	
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	
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	
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 LFUDIX896 344 6.8 15.8 297 8 0.0004 145 0.5	
5/26/2016 XX LFUDIX8CC 341 7.6 17.7 309 8 0.0002 175 0.2	
6/27/2016 XX LFUDIX8DG 382 6.7 20.6 433 8 0.0007 175 0.9	
7/20/2016 XX LFUDIX8F0 330 7.1 22.1 328 7 0.00006 175 0.4	
7/26/2016 XX LFUDIX8B3   I   I   I   I   I   I   I   I   I	
8/29/2016 XX LFUDIX90B F6 F6 F6 F6 F6 F6 F6	
9/23/2016 XX LFUDIX93A 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 H8 H8	
11/29/2016 XX LFUD1X94J H8	
12/13/2016 XX LFUD1X95C H8 H8 H8 H8 H8 H8 H8 H8 H8	
1/10/2017 XX LFUD1X99B H8	
2/8/2017 XX LFUD1X9A4 H8	
3/3/2017 XX LFUDIX9AH H8	
4/5/2017 XX LFUD1X98I H8	
4/18/2017 XX LFUDIX978 378 7.3 14 322 8.2 0.0006 0.8	
5/25/2017 XX LFUDIX9BA 342 7.12 16.7 425 8 0.0003 125 0.2	
6/16/2017 XX LFUDIX9EB 380 7.8 16.4 356 8 0.0003 195 0.4	
7/25/2017 XX LFUDIX9D6 423 8.1 20 312 5.9 0.0006 0.5	
7/31/2017 XX LFUD1X9F4 H8	
8/31/2017 XX LFUDIX9IE 479 6.9 20.2 386 7 0.0002 180 0.3	

#### SUMMARY REPORT Field Data

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(LF-UD-	1)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date	Туре	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
9/28/2017	XX LF	FUD1X9J6	H8	H8	H8				H8	H8	H8		H8	H8			
10/25/2017		FUD1X9H1	F6	F6	F6				F6	F6	F6		F6	F6		-	
10/26/2017		FUD1X9JI	H8	H8	H8				H8	H8	H8		H8	H8			
11/30/2017		FUD1XA0A	444	7.3	11.8				401	6	0.00014		175	0.3		-	
12/27/2017		FUD1XA13	424	7.2	10.9				422	8	0.0003		200	0.4			
1/19/2018		FUD1XA49	437	7.8	6.8				408	10	0.00007		200	0.5			
2/22/2018		FUD1XA52	384	7.2	6				389	10	0.00006		150	7.6			
3/24/2018	XX LF	FUD1XA8I	374	7.4	8.4				428	8	0.00007		145	1.3			
4/3/2018		FUD1XA30	418	7.8	9				472	11	0.00167			1.1			
4/28/2018	XX LF	FUD1XA9B	352	8	15.6				370	10	0.00019		125	0.5			
5/11/2018	XX LF	FUD1XAA4	378	7.6	14.3				434	7	0.00019		125	0.1			
6/2/2018	XX LF	FUD1XAD8	370	8	18.2				363	8	0.00014		150	1.1			
7/2/2018	XX LF	FUD1XAI8	397	7.9	20.2				355	7	0.00002		160	0.9			
7/17/2018	XX LF	FUD1XAC1	F6	F6	F6				F6	F6	F6		F6	F6			
8/17/2018	XX LF	FUD1XAJ3	H8	H8	H8				H8	H8	H8		H8	H8			
9/1/2018	XX LF	FUD1XB29	H8	H8	H8				H8	H8	H8		H8	H8			
10/2/2018	XX LF	FUD1XB0J	F6	F6	F6				F6	F6	F6		F6	F6			
10/13/2018	XX LF	FUD1XB33	H8	H8	H8				H8	H8	H8		H8	H8			
11/2/2018	XX LF	FUD1XB3H	H8	H8	H8				H8	H8	H8		H8	H8			
12/7/2018	XX LF	FUD1XB7G	H8	H8	H8				H8	H8			H8	H8			
1/3/2019	XX LF	FUD1XB8A	H8	H8	H8				H8	H8			H8	H8			
2/2/2019	XX LF	FUD1XB94	H8	H8	H8				H8	H8			H8	H8			
3/2/2019	XX LF	FUD1XB9I	H8	H8	H8				H8	H8			H8	H8			
4/5/2019	XX LF	FUD1XBAC	H8	H8	H8				H8	H8	H8		H8	H8			
4/23/2019	XX LF	FUD1XB5G	354	7	6.9				341	7.6	0.0006			0.4			
5/10/2019		FUD1XBE4	H8	H8	H8				H8	H8	H8			H8			
6/24/2019		FUD1XBEI	H8	H8	H8				H8	H8	H8			H8			
7/16/2019		FUD1XBC8	F6	F6	F6				F6	F6	F6			F6			
7/30/2019		FUD1XBFC	H8	H8	H8				H8	H8	H8			H8			
8/20/2019		FUD1XBG6	H8	H8	H8				H8	H8	H8			H8			
9/20/2019		FUD1XBJJ	H8	H8	H8				H8	H8	H8			H8			
10/14/2019		FUD1XC0D	H8	H8	H8				H8	H8	H8			H8			
10/29/2019		FUD1XBI1	F6	F6	F6				F6	F6	F6			F6			
11/27/2019		FUD1XC17	H8	H8	H8				H8	H8	H8			H8			
12/23/2019		FUD1XC2H	355	8.4	12.4				352	8	0.0006		120	0.6			
1/17/2020		FUD1XC3C	H8	H8	H8				H8	H8	H8		H8	H8			
2/4/2020		FUD1XC47	H8	H8	H8				H8	H8	H8		H8	H8			
3/27/2020		FUD1XCF4	H8	H8	H8				H8	H8	H8		H8	H8			
4/28/2020		FUD1XCD8	F6	F6	F6				F6	F6	F6		F6	F6		$\longrightarrow$	
4/29/2020		FUD1XCFI	H8	H8	H8				H8	H8	H8		H8	H8			
5/27/2020		FUD1XCJH	H8	H8	H8				H8	H8	H8		H8	H8			
6/28/2020		FUD1XD0B FUD1XD15	H8	H8	H8				H8	H8	H8		H8	H8			
7/11/2020	,,,,	FUD1XD15	H8	H8	H8	+			H8	H8	H8		H8	H8			
7/21/2020	,,,,	FUD1XD53	F6	F6	F6	+			F6	F6	F6		F6	F6			
8/3/2020		FUD1XD53	H8	H8	H8	+			H8	H8	H8		H8	H8			
9/27/2020		-UD1XD5J -UD1XD35	H8	H8	H8	+			H8	H8	H8		H8	H8			
10/27/2020		FUD1XD35	F6	F6	F6	+			F6	F6	F6		F6	F6			
10/31/2020		-UD1XD6D -UD1XD77	H8	H8	H8	+			H8	H8	H8		H8	H8			
11/29/2020		FUD1XD77	H8 H8	H8 H8	H8 H8				H8 H8	H8	H8		H8	H8			
12/13/2020	1 VV	OD INDUI	пв	ПÖ		<u> </u>	<u> </u>	<u> </u>	ПВ	H8	H8	<u> </u>	Н	H8			

Page 6 of 55 REPORT PREPARED: 4/1/2021 10:00 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD Field Data CUMBERLAND CENTER, ME 04021 Specific (LF-UD-2) pН Temperature Water Level Water Level Water Level Eh Dissolved Flow Rate Well Depth Alkalinity Turbidity (field) Conductance Reference Point Elevation Depth Oxygen (CaCO3) (field) μmhos/cm STU Deg C Feet Feet Feet mV mg/L cfs Feet mg/L NTU Date Type Sample ID @25°C LF-UD-2 1/24/2011 XX LFUD2X47C 286 12 251 0.0011 350 0 2/24/2011 XX LFUD2X4BH 328 7.6 16.1 321 6 0.0033 260 0 XX LFUD2X4C7 3/25/2011 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 XX LFUD2X4FH H2 H2 H2 H2 H2 6/20/2011 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 XX LFUD2X4IF 10/8/2011 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 XX LFUD2X50A 11/30/2011 288 8 19.2 345 0.0022 100 0.27 12/29/2011 XX LFUD2X4JI 288 8.2 16.3 318 0.0022 110 0.2 9 1/26/2012 XX LFUD2X58A 297 8 16.8 357 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 20.9 391 0.0011 130 0.18 7 6 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 345 364 0.0011 120 0.01 7.1 28.4 8 8/31/2012 XX LFUD2X5EI 368 6.8 22.6 349 6 0.0011 125 0 9/27/2012 XX LFUD2X5F9 150 0.01 321 8.1 21.3 360 6 0.0006 10/23/2012 XX LFUD2X5DG 307 7.1 14.3 518 5 0.0045 100 1.2 11/13/2012 XX LFUD2X5G0 276 17.5 346 6 0.0011 115 0.63 8 12/31/2012 XX LFUD2X5GB 293 399 7.7 13.7 6 0.0003 115 0.72 1/30/2013 XX LFUD2X607 186 7 16.4 404 6 0.0022 85 4.1 XX LFUD2X5JF 7.7 2/15/2013 277 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 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 XX LFUD2X62G 6/26/2013 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 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 XX LFUD2X675 10/29/2013 404 7.3 17.3 260 6 0.0022 120 0.5

343

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0.0011

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0.0017

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175

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170

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145

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185

1.48

0.46

3.26

0.52

3.43

2.6

0.3

0.3

0.28

2.6

0.37

11/25/2013

XX LFUD2X69J

12/17/2013 XX LFUD2X6CJ

1/24/2014 XX LFUD2X6DB

2/24/2014 XX LFUD2X6H8

3/27/2014 XX LFUD2X6GG

4/22/2014 XX LFUD2X6F8

4/29/2014 XX LFUD2X6I0

5/23/2014 XX LFUD2X70J

6/24/2014 XX LFUD2X71B

7/29/2014 XX LFUD2X6JF

8/26/2014 XX LFUD2X74B

332

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391

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417

8.4

7.4

7.3

7.5

8.4

7.2

8.3

7.4

7.1

7.6

7.2

13.4

9.1

8.7

13.3

13.5

12.5

18.3

22.1

22.5

21.5

23.1

#### SUMMARY REPORT Field Data

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Control   Cont															CUMBERLAND CEI	NTER, ME 04021
Date   Type   Sample ID   Service   Sample ID   Service   Servic	(LF-UD-2)			pН	Temperature				Eh		Flow Rate	Well Depth				
1907/2009   XX   FURDING   382   7.4	Date Type	Sample ID		STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
1988/000  X	9/23/2014 XX	LFUD2X752	411	8	23.1				345		0.0011		175	0		
1924/0016   X	10/21/2014 XX	LFUD2X736	382	7.4	14.4				304	5	0.0022		70	0.4		
2007010   X   FINESCOP   388   8.1   16.1   370   7   0.0022   160   0	11/28/2014 XX	LFUD2X75E	382	7.2	14.7				369	5.5	0.0004		155	М		
2010/01/19   X   FINDOCE   306   7.4   18     376   4   0.0022   150   0.48	12/24/2014 XX	LFUD2X767	384	6.9	17.7				431	5	0.0022		125	0.16		
1,000   1,00	2/3/2015 XX	LFUD2X76I	368	8.1	16.1				370	7	0.0022		160	0		
4/16/2017   X   1700/2017	2/21/2015 XX	LFUD2X779	306	7.4	18				376	4	0.0022		150	0.46		
March   Marc	3/28/2015 XX	LFUD2X7A7	397	6.8	15.1				409	5	0.0022		150	0.29		
5022015 XX   \$U025767   \$36   \$6   \$214   \$30   \$37   \$4   \$0.003   \$77   \$0.01   \$770   \$0.5   \$770   \$7	4/16/2015 XX	LFUD2X7B0	360	7.1	19.2				385	5.5	0.0028		170	0.84		
50220016   XX   500200F	4/28/2015 XX	LFUD2X793	398	7.1	16.4				340	6.8	0.0033			1.1		
Triagrams   XX   SURCEMPT   408   72   248   37   88   0.0008   175   0.1	5/22/2015 XX	LFUD2X7F5	314	7.8	20.4				367	9	0.0017		170	0.5		
7222016   XX   VIOLEMEN   405   60   208	6/22/2015 XX	LFUD2X7ED	386	8	26.4				284	8	0.0017		140	0.2		
804/2015   XX   PUEZENG   405   6.9   20.8   372   7   0.0017   160   0.3	7/14/2015 XX	LFUD2X7CF	397	6.9	21.4				303	4.7	0.0033			0.3		
9989001   XX   FURDOW   411	7/23/2015 XX	LFUD2X7FH	405	7.2	24.8				375	8	0.0006		175	0.1		
10077001   XX   FIDDOXIN   403   7.5   14.9   303   5.7   0.001   15   0.5   10071001   XX   10070001   1007001	8/24/2015 XX	LFUD2X7G9	405	6.9	20.8				372	7	0.0017		160	0.3		
1015/12/15   X.	9/26/2015 XX	LFUD2X802	411	7.1	21.8				367	7	0.0017		200	0.1		
11/27/2015   XX	10/27/2015 XX	LFUD2X7I4	403	7.5	14.9				303	5.7	0.0011			0.5		
1203/12015   XX   FUD2X8B	10/31/2015 XX	LFUD2X80E	394	8.2	16.7				335	7	0.002		195	0.6		
114200  X   F-ID-288B	11/27/2015 XX	LFUD2X816	414	7	18.1				376	7	0.002		190	0.01		
2/18/2016   X   F-IDEXB8S   393   8.3   18.3   18.3   8.5   380   8   0.0011   178   0.01	12/30/2015 XX	LFUD2X81J	386	7.1	14.7				363	8	0.0011		190	0.2		
1917 2016   XX	1/14/2016 XX	LFUD2X82B	406	6.9	11.2				347	6	0.0007		170	0.01 U		
AFFOLIO   XX	2/18/2016 XX	LFUD2X883	393	8.3	18.3				360	8	0.0011		178	0.01		
AUXILIDITION   XX   FUDDESSP   392   6.9   21.2   239   7   0.0017   165   0.6	3/17/2016 XX	LFUD2X88F	401	6.9	17.6				345	7	0.0015		173	0.01		
Size	4/5/2016 XX	LFUD2X86E	389	8.4	18.8				271	5.6	0.0045			0.9		
62772016   XX   FUD2X8F1   420   6.8   21.9	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		
7726/2016   XX   FUDZXBG	6/27/2016 XX	LFUD2X8DH	420	6.8	21.9				554	7	0.0011		190	0.4		
829/2016   XX   F-UD2X98C	7/20/2016 XX	LFUD2X8F1	423	7	22.6				329	7	0.0011		200	0.02		
9/23/2016 XX	7/26/2016 XX	LFUD2X8B4	447	7.4	22.2				291	4.9	0.0017			0.4		
10/25/2016   XX	8/29/2016 XX	LFUD2X90C	449	7.02	23.8				332	7	0.0007			0.5		
10/31/2016   XX	9/23/2016 XX	LFUD2X93B	446	8.03	19.7				298	9	0.0006			0.4		
11/29/2016   XX	10/25/2016 XX	LFUD2X8J3	458	7.8	13.5				275	6.6	0.0011			0.8		
12/13/2016   XX	10/31/2016 XX	LFUD2X945	395	8.3	15.1				315	8	0.0006		100	0.2		
1/10/2017   XX   FUDZX99C   186   7.32   15.6   378   9   0.0003   135   0.4	11/29/2016 XX	LFUD2X950	205	7.24	11.6				369	8	0.0001		130	0.6		
28/2017   XX	12/13/2016 XX	LFUD2X95D	206	8.22	6				353	8	0.0002		125	1.5		
3/3/2017   XX   LFUDZYSSI	1/10/2017 XX	LFUD2X99C	186	7.32	15.6				378	9	0.0003		135	0.4		
4/5/2017       XX       LFUD2X98J       213       8.05       18.7       353       7       0.0017       130       0.4       9         4/18/2017       XX       LFUD2X979       366       8.1       14.5       314       8       0.0022       0.5       0.5       1         5/25/2017       XX       LFUD2X9BB       401       7.1       20.4       408       6       0.0017       150       0.3       0.3       1         6/16/2017       XX       LFUD2X9BC       437       8       18.6       357       7       0.0015       205       0.3       1         7/25/2017       XX       LFUD2X9DT       418       8.3       21.7       308       5.7       0.0022       0.3       0.3       1         7/31/2017       XX       LFUD2X9DF       418       8.3       21.7       394       6       0.0011       190       0.3       1         8/31/2017       XX       LFUD2X9IF       464       7       21.2       402       7       0.0017       245       0.2       1         9/28/2017       XX       LFUD2X9IF       463       8.1       20.1       379       6.9       0.0006       2.1 <td>2/8/2017 XX</td> <td>LFUD2X9A5</td> <td>210</td> <td>8.03</td> <td>15.5</td> <td></td> <td></td> <td></td> <td>354</td> <td>9</td> <td>0.0011</td> <td></td> <td>130</td> <td>0.2</td> <td></td> <td></td>	2/8/2017 XX	LFUD2X9A5	210	8.03	15.5				354	9	0.0011		130	0.2		
4/18/2017   XX	3/3/2017 XX	LFUD2X9AI	158	7.92	15.7				351	8	0.0002		155	0.7		
5/25/2017   XX	4/5/2017 XX	LFUD2X98J	213	8.05	18.7				353	7	0.0017		130	0.4		
6/16/2017 XX	4/18/2017 XX	LFUD2X979	366	8.1	14.5				314	8	0.0022			0.5		
7/25/2017   XX	5/25/2017 XX	LFUD2X9BB	401	7.1	20.4				408	6	0.0017		150	0.3		
7/31/2017   XX	6/16/2017 XX	LFUD2X9EC	437	8	18.6				357	7	0.0015		205	0.3		
8/31/2017 XX   FUD2X9IF   464   7   21.2   402   7   0.0017   245   0.2   9/28/2017   XX   FUD2X9I7   463   8.1   20.1   355   6   0.0004   180   0.5   10/25/2017   XX   FUD2X9H2   456   7.2   17.6   379   6.9   0.0006   2.1   10/26/2017   XX   FUD2X9JJ   499   6.9   18.9   417   5   0.0028   240   0.8   11/30/2017   XX   FUD2XA0B   427   7.5   13.4   409   7   0.0056   180   0.3   12/27/2017   XX   FUD2XA14   429   6.9   12.4   426   8   0.0006   200   0.2   1	7/25/2017 XX	LFUD2X9D7	418	8.3	21.7				308	5.7	0.0022			0.3		
9/28/2017 XX	7/31/2017 XX	LFUD2X9F5	334	7	23.6				394	6	0.0011		190	0.3		
10/25/2017     XX     LFUDZX9H2     456     7.2     17.6     379     6.9     0.0006     2.1     5       10/26/2017     XX     LFUDZX9JJ     499     6.9     18.9     417     5     0.00028     240     0.8       11/30/2017     XX     LFUDZXA0B     427     7.5     13.4     409     7     0.00056     180     0.3       12/27/2017     XX     LFUDZXA14     429     6.9     12.4     426     8     0.0006     200     0.2	8/31/2017 XX	LFUD2X9IF	464	7	21.2				402	7	0.0017		245	0.2		
10/26/2017     XX     LFUDZX9JJ     499     6.9     18.9     417     5     0.00028     240     0.8     11/30/2017       11/30/2017     XX     LFUDZXA0B     427     7.5     13.4     409     7     0.00056     180     0.3       12/27/2017     XX     LFUDZXA14     429     6.9     12.4     426     8     0.0006     200     0.2	9/28/2017 XX	LFUD2X9J7	463	8.1	20.1				355	6	0.0004		180	0.5		
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	10/25/2017 XX	LFUD2X9H2	456	7.2	17.6				379	6.9	0.0006			2.1		
12/27/2017 XX LFUD2XA14 429 6.9 12.4 426 8 0.0006 200 0.2	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		
1/19/2018 XX LFUD2XA4A 438 7.9 9 403 8 0.00074 175 0.9	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		

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														CUMBERI	LAND CENTER	., ME 04021
(LF-UD-2)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date Typ	e Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
0/00/0040 3/3/	LFUD2XA53	200	0.0		1			444	1 0	0.00050		445	0.0			
2/22/2018 XX 3/24/2018 XX		299	6.9	8				411	8	0.00056		115	0.2			
3/24/2018 XX 4/3/2018 XX		453 413	7.7	10 11.6				427	7	0.00028		150	2.4 0.8			
4/3/2018 XX 4/28/2018 XX		417	8.1					465 371	10.2	0.00446 0.00074		150	0.8			
5/11/2018 XX		417	8	18.1 17.6				420	7	0.00074		150 130	0.2			
6/2/2018 XX		434	8.1	17.6				365	6	0.00074		150	0.2			
7/2/2018 XX		480	7.9	22.3				356	6	0.00074		175	0.5			
7/17/2018 XX	LFUD2XAC2	535	8.1	19				451	4.3	0.00223		175	0.8			
8/17/2018 XX		490	7	22.8				342	7	0.00223		170	0.8			
9/1/2018 XX		451	7.8	20				365	8	0.0002		150	0.7			
10/2/2018 XX	LFUD2XB10	522	7.8	14.7				443	6.1	0.0002		150	0.7			
10/2/2018 XX 10/13/2018 XX		446	6.7	14.7				361	7	0.00036		175	2.9			
11/2/2018 XX		418	7.2	10.9				357	9	0.0002		180	1.4			
12/7/2018 XX		315	8.2	8.6				363	6	0.0002		180	1.11			
1/3/2019 XX		430	6.8	4.4				375	7	0.0002		135	1.6			
2/2/2019 XX		341	7.4	3				402	7	0.0003		150	5.3			
3/2/2019 XX		362	7.4	5.1				366	6	0.0002		175	5.3			
4/5/2019 XX		365	7.1	13.9				403	7	0.0002		150	5.7			
4/23/2019 XX		565 F6	7.9 F6	F6				403 F6	F6	F6		F6	5.9 F6			
5/10/2019 XX		307	7					311	7	0.0002		175	8.7			
6/24/2019 XX		380	7.4	15.1 18.4				357		0.0002		150	0.4			
7/16/2019 XX		428	8.1	18.4				383	9.5	0.0003		150	0.4			
7/16/2019 XX 7/30/2019 XX		400	8.2	20.8				334	8.5	0.0011		475	0.4			
		353	8.2	25.8				339	6	0.0002		175 160	0.5			
8/20/2019 XX																
9/20/2019 XX 10/14/2019 XX		409 342	7.4 8	21.5 19.1				368 339	6	0.0017 0.0002		150 150	0.6 0.1			
		342		19.1				214				150	2.2			
10/29/2019 XX		303	8.1 8.4	20.9				369	8.7	0.0011 0.0002		405	0.8			
11/27/2019 XX			6.4 H8	20.9 H8				H8	H8			125 H8	U.8 H8			
12/23/2019 XX 1/17/2020 XX	LFUD2XC3D	H8 339	8.5	11.6				382	10	H8 0.0003		160	2.3			
2/4/2020 XX		369	8					348	10	0.0003		150	0.4			
3/27/2020 XX		302	8.1	13.2 12				401	6	0.0002		175	0.4			
4/28/2020 XX	LFUD2XCD9	439	7.9	7.3				327	7.9	0.0009		1/5	0.4			
4/29/2020 XX		354	8.1	19				333	6	0.0000		160	0.5			
5/27/2020 XX		400	7.1	18.8	1			349	6	0.0001		175	0.1			-
6/28/2020 XX		347	7.1	22.1	1			316	5	0.0001		160	0.3			-
7/11/2020 XX	LFUD2XD16	363	7.3	21.4	1			357	6	0.0001		200	1.1			-
7/11/2020 XX 7/21/2020 XX		429	7.5	17.8				299	8.2	0.0001	-	200	0.8			
8/3/2020 XX		399	8	22.3				344	8	0.0006	-	200	0.8			
9/27/2020 XX		355	8	18.7				406	6	0.0001	-	250	1.1			
10/27/2020 XX		403	7.3	12				389	7.7	0.00002	-	230	0.4			
10/27/2020 XX 10/31/2020 XX		403 H8	7.3 H8	H8				389 H8	7.7 H8		-	+	0.4 H8			-
10/31/2020 XX 11/29/2020 XX		H8	H8	H8				H8 H8	H8		-	+	H8			-
11/29/2020 XX 12/13/2020 XX			H8 H8	H8 H8				H8 H8	H8 H8		-	+	H8 H8			-
LF-UD-3A.		H8	ПВ	Пδ				Пδ	Пδ				Πö			<u> </u>
	,	205	0.1	44.0	1	I		055		0.0011		475				
1/24/2011 XX		385	8.1	14.2				255	8	0.0011		475	0			-
2/24/2011 XX		453	7.3	17.8		-		326	6	0.0022	-	360	0			
3/25/2011 XX		H2	H2	H2				222	H2	H2		H2	H2			
4/26/2011 XX	LCAAAA4B1	370	7.9	17.4				309	5	0.0045	1	265	0.5			

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															COMBERLAND CEN	ITEN, IVIE 04021
(LF-UD	-3A,B)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date	Туре	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
5/25/201	1 XX	LFUD3A4F9	H2	H2	H2				H2	H2	H2		H2	H2		
6/20/201		LFUD3A4G0	H2	H2	H2				H2	H2	H2	+	H2	H2		
7/19/201	_	LFXXXX4EJ	H2	H2	H2				H2	H2	H2		H2	H2		
8/3/201		LFUD3A4JA	H2	H2	H2				H2	H2	H2		H2	H2		
10/8/201	_	LFUD3A4II	H8	H8	H8				H8	H8	H8		H8	H8		
10/25/201		LFXXXX4IC	F6	F6	F6				F6	F6	F6		F6	F6		
11/30/201	_	LFUD3A50D	H8	H8	H8				H8	H8	H8		H8	H8		
12/29/201	_	LFUD3A501	H8	H8	H8				H8	H8	H8		H8	H8		
1/26/201		LFXXXX58D	H8	H8	H8				H8	H8	110		H8	H8		
2/24/201		LFXXXX595	H8	H8	H8				H8	H8			H8	H8		
3/23/201		LFXXXX59G	F6	F6	F6				F6	F6			F6	F6		
4/16/201	_	LFXXXX5A7	F6	F6	F6				F6	F6			F6	F6		
4/24/201		LFXXXX534	H2	H2	H2				H2	H2			H2	H2		
5/3/201		LFXXXX5AI	H8	H8	H8				H8	H8		1	H8	H8		
6/29/201		LFXXXX5B9	H8	H8	H8				H8	H8			H8	H8		
7/24/201	2 XX	LFXXXX581	F6	F6	F6				F6	F6			F6	F6		
7/31/201		LFXXXX5C0	H8	H8	H8				H8	H8			H8	H8		
8/31/201	_	LFXXXX5F1	H8	H8	H8				H8	H8			H8	H8		
9/27/201	_	LFXXXX5FC	H8	H8	H8				H8	H8			H8	H8		
10/23/201	2 XX	LFXXXX5EC	F6	F6	F6				F6	F6			F6	F6		
11/13/201	2 XX	LFXXXX5G3	H8	H8	H8				H8	H8			H8	H8		
12/31/201	2 XX	LFXXXX5GE	H8	H8	H8				H8	H8			H8	H8		
1/30/201	3 XX	LFXXXX60A	H8	H8	Н8				H8	H8			H8	H8		
2/15/201	3 XX	LFXXXX5JI	H8	H8	Н8				H8	H8			H8	H8		
3/28/201	3 XX	LFXXXX613	H8	H8	H8				H8	H8			H8	H8		
4/23/201	3 XX	LFXXXX5J5	F6	F6	F6				F6	F6			F6	F6		
4/24/201	3 XX	LFXXXX61F	H8	H8	H8				H8	H8			H8	H8		
5/30/201	3 XX	LFXXXX627	H8	H8	H8				H8	H8			H8	H8		
6/26/201	3 XX	LFXXXX62J	H8	H8	H8				H8	H8			H8	H8		
7/30/201	3 XX	LFXXXX65A	F6	F6	F6				F6	F6			F6	F6		
8/20/201	3 XX	LFXXXX699	H8	H8	H8				H8	H8			H8	H8		
9/26/201		LFXXXX68H	H8	H8	H8				H8	H8			H8	H8		
10/29/201		LFXXXX67J	F6	F6	F6				F6	F6			F6	F6		
11/25/201		LFXXXX6A2	H8	H8	H8				H8	H8			H8	H8		
12/17/201		LFXXXX6D2	H8	H8	H8				H8	H8			H8	H8		
1/24/201		LFXXXX6DE	H8	H8	H8				H8	H8			H8	H8		
2/24/201	_	LFXXXX6HB	H8	H8	H8				H8	H8			H8	H8		
3/27/201	_	LFXXXX6GJ	H8	H8	H8				H8	H8			H8	H8		
4/22/201	_	LFXXXX6G6	F6	F6	F6				F6	F6			F6	F6		
4/29/201		LFXXXX6I3	H8	H8	H8				H8	H8			H8	H8		
5/23/201	_	LFXXXX712	H8	H8	H8				H8	H8			H8	H8		
6/24/201	_	LFXXXX71E	H8	H8	H8				H8	H8		1	H8	H8		
7/29/201		LFXXXX708	F6	F6	F6				F6	F6		1	F6	F6		
8/26/201		LFXXXX74E	F6	F6	F6				F6	F6		1	F6	F6		
9/23/201		LFXXXX755	H8	H8	H8				H8	H8		1	H8	H8		
10/21/201	_	LFXXXX73H	F6	F6	F6				F6	F6		1	F6	F6		
11/28/201		LFXXXX75H	H8	H8	H8				H8	H8		1	H8	H8		
12/24/201		LFXXXX76A	H8	H8	H8				H8	H8		1	H8	H8		
2/3/201	_	LFXXXX771	H8	H8	H8				H8	H8		1	H8	H8		
2/21/201	5 XX	LFXXXX77C	H8	H8	H8				H8	H8		1	H8	H8		

#### SUMMARY REPORT Field Data

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															COMBLITAIND	JENTER, ME 04021
(LF-UD-	3A,B)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date	Туре	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
3/28/201	5 77	LFXXXX7AA	H8	H8	H8				H8	H8			H8	H8		
4/16/201		LFXXXX7B3	F6	F6	F6				F6	F6			F6	F6	<del></del>	
4/10/201		LFXXXX79G	F6	F6	F6				F6	F6			F6	F6		
5/22/201		LFXXXX7F8	F6	F6	F6				F6	F6			F6	F6		
6/22/201		LFXXXX7EG	F6	F6	F6				F6	F6			F6	F6		
7/14/201		LFXXXX7D8	F6	F6	F6				F6	F6			F6	F6		
7/14/201	_	LFXXXX7G0	F12	F12	F12				F12	F12			F12	F12	<del></del>	
8/24/201	_	LFXXXX7GC	F12	F12	F12				F12	F12			F12	F12	<del></del>	
9/26/201		LFXXXX805	H8	H8	H8				H8	H8			H8	H8	<del></del>	
10/27/201		LFXXXX7IF	F6	F6	F6				F6	F6			F6	F6		
10/21/201		LFXXXX80H	F6	F6	F6				F6	F6			F6	F6		
11/27/201		LFXXXX819	F6	F6	F6				F6	F6			F6	F6		
12/30/201	_	LFXXXX822	F6	F6	F6				F6	F6			F6	F6		
1/14/201		LFXXXX82E	F6	F6	F6				F6	F6			F6	F6		
2/18/201		LFXXXX886	F6	F6	F6				F6	F6			F6	F6		
3/17/201		LFXXXX88I		F6					F6	F6						
4/5/201		LFXXXX877	F6 F6	F6	F6 F6				F6	F6	F6		F6 F6	F6 F6		
	_	LFXXXX89A	F6	F6					F6	F6	FO					
4/21/201	_	LFXXXX8CG		F6	F6 F6					F6			F6 F6	F6 F6		
5/26/201 6/27/201		LFXXXX8E0	F6 F6	F6	F6				F6 F6	F6			F6	F6		
7/20/201		LFXXXX8F4	F6	F6	F6				F6	F6			F6	F6		
		LFXXXX8BH									F0		FO			
7/26/201	_	LFXXXX90F	F6	F6 F6	F6				F6 F6	F6 F6	F6 F6			F6		
8/29/201 9/23/201	_	LFXXXX93E	F6 F6	F6	F6 F6				F6	F6	F6			F6 F6		
10/25/201		LFXXXX8JF		F6	F6				F6	F6	F6					
		LFXXXX948	F6											F6		
10/31/201		LFXXXX946 LFXXXX953	H8 H8	H8 H8	H8				H8	H8 H8	H8		110	H8		
11/29/201		LFXXXX953 LFXXXX95G		H8	H8				H8	H8	H8		H8	H8 H8		
12/13/201	_	LFXXXX99F	H8 H8	 Н8	H8 H8				H8	H8	H8		H8 H8	H8		
1/10/201 2/8/201		LFXXXX9A8	H8	 Н8	H8				H8 H8	H8	H8 H8		H8	H8		
3/3/201		LFXXXX9B1	H8	 Н8	H8				 Н8	H8	H8		H8	H8		
4/5/201		LFXXXX992	H8	H8	H8				H8	H8	H8		H8	H8		
4/18/201		LFXXXX982		F6					F6				ПО	F6		
		LFXXXX9BE	F6		F6					F6	F6		Fe			
5/25/201 6/16/201		LFXXXX9EF	F6 F6	F6 F6	F6 F6				F6 F6	F6 F6	F6 F6		F6 F6	F6 F6		
7/25/201		LFXXXX9EF LFXXXX9DJ	F6	F6	F6				F6	F6	F6		F6	F6		
7/31/201		LFXXXX9F8	H8	H8	H8				H8	H8	H8		H8	H8		
8/31/201	_	LFXXXX9II	F6	F6	F6				F6	F6	F6		F6	F6		
9/28/201	_	LFXXXX9II LFXXXX9JA	H8	F6 Н8	H8				H8	H8	H8		H8	H8		
10/25/201	_	LFXXXX9JA LFXXXX9HE	F6	F6	F6				F6	F6	F6		F6	F6		
	_	LFXXXX9HE LFXXXXA02	H8	H8	F6 H8				H8	H8	H8		H8	F6 H8		<u> </u>
10/26/201	_	LFXXXXA02 LFXXXXA0E	F6	F6	F6				F6	F6	F6		F6	F6		
11/30/201	_	LFXXXXAUE LFXXXXA17														<u> </u>
12/27/201	_	LFXXXXA17 LFXXXXA4D	F6	F6	F6				F6	F6	F6		F6	F6		
1/19/201	_	LFXXXXA4D LFXXXXA56	F6	F6	F6				F6	F6	F6		F6	F6		<u> </u>
2/22/201		LFXXXXA56 LFXXXXA92	F6	F6	F6				F6	F6	F6	-	F6	F6		
3/24/201	_	LFXXXXA92 LFXXXXA3E	F6	F6	F6				F6	F6	F6		F6	F6		<u> </u>
4/3/201	_	LFXXXXA3E LFXXXXA9F	F6	F6	F6				F6	F6	F6		F6	F6		<u> </u>
4/28/201			H8	H8	H8				H8	H8	H8		H8	H8		
5/11/201	_	LFXXXXAA8	F6	F6	F6				F6	F6	F6		F6	F6		
6/2/201	8 XX	LFXXXXADC	H8	H8	H8				H8	H8	H8	1	H8	H8		

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(LF-UD-3														
•	(A,B)	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)	
Date -	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
7/2/2018	XX LFXXXXAIC	H8	H8	H8				H8	Н8	H8		H8	H8	
		F6	F6	F6				F6	F6	F6		F6	F6	
8/17/2018		H8	H8	H8				H8	H8	H8		H8	H8	
	XX LFXXXXB2D	H8	H8	H8				H8	H8	H8		H8	H8	
		F6	F6	F6				F6	F6	F6		F6	F6	
		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	Н8	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		H8	H8	H8				H8	H8	H8		H8	H8	
8/20/2019	XX LFXXXXBGA	H8	H8	H8				H8	H8	H8		H8	H8	
9/20/2019		H8	H8	H8				H8	H8	H8		H8	H8	
		H8	H8	H8				H8	H8	H8		H8	H8	
		F6	F6	F6				F6	F6	F6		F6	F6	
		H8	H8	H8				H8	H8	H8		H8	H8	
12/23/2019		H8	H8	H8				H8	H8	H8		H8	H8	
1/17/2020		H8	H8	H8				H8	H8	H8		H8	H8	
		H8	H8	H8				H8	H8	H8		H8	H8	
		H8	H8	H8				H8	H8	H8		H8	H8	
		F6	F6	F6				F6	F6	F6		F6	F6	
		H8	H8	H8				H8	H8	H8		H8	H8	
		H8	H8	H8				H8	H8	H8		H8	H8	
		H8	H8	H8				H8	H8	H8		H8	H8	
		H8	H8	H8				H8	H8	H8		H8	H8	
		F6 H8	F6 H8	F6 H8				F6 H8	F6 H8	F6 H8		F6 H8	F6 H8	
		H8	H8	H8				H8	H8	H8		H8	H8	
		F6	F6	F6				F6	F6	F6		F6	F6	
		H8	H8	H8				H8	H8	H8		H8	H8	
11/29/2020		H8	H8	H8				H8	H8	H8		H8	H8	
	XX LFXXXXD85	H8	H8	H8				H8	H8	H8		H8	H8	
LF-UD-	I			1		<u>I</u>			1 112	1		1	1	
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	
		H2	H2	H2				H2	H2	H2		H2	H2	
4/26/2011		F12	F12	F12				F12	F12	F12		F12	F12	
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	
10/05/22	XX LFXXXX4GA	F6	F6	F6				F6	F6	F6		F6	F6	

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													CUMBERLAND CENTER, ME 0402
(LF-UD-4)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
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 11/25/2013 XX LFUD4X6A3	424	7	17.8				322 380	5	0.0022		110	0.3	
11/25/2013 XX LFUD4X6A3 12/17/2013 XX LFUD4X6D3	440 424	8.2 7.5	8.1 8.4				413	8	0.0006 0.0002		185 210	0.64 1.67	
1/24/2014 XX LFUD4X6DF	424	7.5	4.5				345	8	0.0002		160	0.61	
2/24/2014 XX LFUD4X6HC	H8	7.5 H8	4.5 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	0.0002		250	0.62	
5/23/2014 XX LFUD4X713	H2	H2	H2				H2	H2	H2		H2	H2	
6/24/2014 XX LFUD4X71F	H8	H8	H8	1			H8	H8	H8		H8	H8	
7/29/2014 XX LFXXXX709	F6	F6	F6	1			F6	F6	F6		F6	F6	
8/26/2014 XX LFUD4X74F	F6	F6	F6	1			F6	F6	F6		F6	F6	
9/23/2014 XX LFUD4X756	H8	H8	H8	1			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	
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	
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														CUMBERI	AND CENTER,	, ME 04021
(LF-UD-4)		Specific Conductance	рН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date Type	e Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
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	Н8	Н8	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	Н8	Н8	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			
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			
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													CUMBERLAN	ND CENTER, ME 04021
(LF-UD-4)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
11/2/2018 XX LFUD4XB42	H8	H8	H8				Н8	Н8	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		050	2.6		
11/27/2019 XX LFUD4XC1C 12/23/2019 XX LFUD4XC32	365 390	8	20.3				377 353	6	0.0002		250	0.5 0.4		
12/23/2019 XX LFUD4XC32 1/17/2020 XX LFUD4XC3H	390 H8	8.1 H8	13.2 H8				353 H8	8 H8	0.0001 H8		200 H8	0.4 H8	<del></del>	
2/4/2020 XX LFUD4XC4C	H8	H8	H8				H8	H8	H8		H8	H8	<del></del>	
3/27/2020 XX LFUD4XCF9	H8	H8	H8				H8	H8	H8		H8	H8		
4/28/2020 XX LFXXXXCE2	F6	F6	F6				F6	F6	F6		F6	F6	<del></del>	
4/29/2020 XX LFUD4XCG3	H8	H8	H8				H8	H8	H8		H8	H8		
5/27/2020 XX LFUD4XD02	H8	H8	H8				H8	H8	H8		H8	H8	-	
6/28/2020 XX LFUD4XD0G	H8	H8	H8				H8	H8	H8		H8	H8		
7/11/2020 XX LFUD4XD1A	H8	H8	H8				Н8	Н8	Н8		H8	H8		
7/21/2020 XX LFXXXXCIF	F6	F6	F6				F6	F6	F6		F6	F6		
8/3/2020 XX LFUD4XD58	H8	H8	H8				H8	H8	H8		H8	H8		
9/27/2020 XX LFUD4XD64	H8	H8	H8				H8	H8	H8		H8	H8		
10/27/2020 XX LFXXXXD3I	F6	F6	F6				F6	F6	F6		F6	F6		
10/31/2020 XX LFUD4XD6I	H8	H8	H8				H8	H8	H8		H8	H8		
11/29/2020 XX LFUD4XD7C	H8	H8	H8				H8	H8	H8		H8	H8		
12/13/2020 XX LFUD4XD86	H2	H2	H2				H2	H2	H2		H2	H2		
LF-UD-5and6														
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		1		354	5	0.0022		375	1.2		
3/25/2011 XX LFUD5X4CD	440	7.6	13.7	1				8	0.0022		150	1.5		
4/26/2011 XX LFXXXX4B4	450	6.9	16.8	1			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	1			382	8	0.0000		125	15.3		
7/19/2011 XX LFXXXX4F2 8/3/2011 XX LFUD5X4JD	440	7.3	21.9	1	1		403	5	0.0022		175	0	<del></del>	
	458	7.8	21.2	1	1		348	8	1		150	4.3		
10/8/2011 XX LFUD5X4J1 10/25/2011 XX LFXXXX4G7	447 476	7.7 7.3	20.3 17.8	+			358 250	8 5	0.0028		150 240	11.6 5.5		
11/30/2011 XX LFUD5X50G	443	7.6	15.7	+			347	J	0.0020		150	6.14		
12/29/2011 XX LFUD5X504	477	7.0	15.7	†			333	8			118	2.9	<del></del>	
1/26/2012 XX LFXXXX58G	473	8.3	11.9	1			359	8			150	14.95	<del></del>	
2/24/2012 XX LFXXXX597	460	8.1	15.2	1			348	5			175	3.16		
3/23/2012 XX LFXXXX59I	486	7.8	16.6	1			382	6			190	1.58		
4/16/2012 XX LFXXXX5A9	467	8	22.8	1			357	6			200	6.06		
		-		1	1	1		·	1	1				

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														CUMBERLAND	CENTER, ME 04021
(LF-UD-5an	nd6)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Ty	pe Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
4/24/2012 X	(X LFXXXX537	389	7.4	18.8				427	6			95	4.6		<del></del>
5/3/2012 X		491	8	17.4				370	8			160	1.16		
6/29/2012 X		473	7.2	23.1				416	6			175	0.55		
7/24/2012 X		482	7.3	22.4				417	6			260	3		
7/31/2012 X		500	7.5	23.6				355	6			200	0.13	-	
8/31/2012 X		514	7.3	21.5				317	6			200	0.12		
9/27/2012 X		407	7.9	18				354	6			170	30.88		
10/23/2012 X		498	7.3	14.5				423	4			160	6.7		
11/13/2012 X		378	7.3	16.8				390	7			175	0.2		
12/31/2012 X		368	8.3	10.7				303	8	0.0003		125	1.48		
1/30/2013 X		177	7.5	7.1				447	10			75	9.79		
2/15/2013 X	X LFXXXX600	F	F	F				F	F	F		F	F		
3/28/2013 X	X LFXXXX615	356	8.2	10.3				311	8	0.0002		170	0.66		
4/23/2013 X		353	7.8	10.9				237	6	0.0011		145	2.6		
4/24/2013 X	X LFXXXX61H	296	7.6	11.6				344	8	0.0002		190	0		
5/30/2013 X	X LFXXXX629	291	7.4	18.2				368	8	0.0022		200	0.09		
6/26/2013 X	X LFXXXX631	401	8	18.1				338	8	0.0006		175	0.67		
7/30/2013 X	X LFXXXX65C	319	7.5	20.9				240	6	0.0006		115	1.7		
8/20/2013 X	X LFXXXX69B	H8	H8	H8				H8	H8	H8		H8	H8		
9/26/2013 X	X LFXXXX68J	458	8.1	16				366	6	0.0004		150	0.63		
10/29/2013 X	X LFXXXX681	453	7.2	6.4				412	6	0.0011		120	8.0		
11/25/2013 X	X LFXXXX6A4	369	8.2	12.3				382	6	0.0022		150	0.34		
12/17/2013 X	X LFXXXX6D4	F12	F12	F12				F12	F12	F12		F12	F12		
1/24/2014 X		337	7.9	5.7				219	12	0.0003		175	0.53		
2/24/2014 X		379	7.6	11.4				365	10	0.0006		200	0.71		
3/27/2014 X		348	7.8	10.7				380	10	0.0008		200	0.33		
4/22/2014 X		386	7.1	14.5				70	4	0.0006		145	1.2		
4/29/2014 X		374	7.7	12.6				343	10	0.0003		225	0.44		
5/23/2014 X		435	7.9	15.9				342	10	0.0003		250	0.29		
6/24/2014 X		474	7.5	20.1				360	8	0.0004		240	0.09		
7/29/2014 X		413	7.9	20.7				393	6	0.0022		35	0.5		
8/26/2014 X		458	7.7	23.3				392	7			225	0.08		
9/23/2014 X		435	8.1	23.4				340		0.0003		180	0.35		
10/21/2014 X		F6	F6	F6				F6	F6	0.000		F6	F6		
11/28/2014 X 12/24/2014 X		357 372	7.9 7.2	14.1				358	7 5.5	0.0002		180	M		
		3/2 F	7.2 F	16.4 F				436 F	5.5 F	0.0003 F		180 F	0.12 F		
2/3/2015 X 2/21/2015 X		318	7.7	17.6	1			387	4	0.0003		155	1.17		
3/28/2015 X		518 F6	7.7 F6	17.6 F6				587 F6	F6	0.0003 F6		F6	1.17 F6		
3/28/2015 X 4/16/2015 X		367	7.5	17.3	-			382	7	0.0003		180	0.5		
4/16/2015 X 4/28/2015 X		422	7.5 8	11.6	+			382	9.3	0.0003		100	2.3		
5/22/2015 X		422	7.9	19.1	+			347	9.3	0.0017		220	0.5		
6/22/2015 X		430	8	26.5				319	9	0.0003	1	240	0.5		
7/14/2015 X		474 	ı	20.5				319 I	J J	0.0003		240 I	0.2 I		
7/14/2015 X 7/23/2015 X	01	456	7.4	24.2				375	8	0.0002		250	0.2		
8/24/2015 X	01	456	7.4	19.1				375	8	0.0002		200	0.2		
9/26/2015 X		397	8	19.7				351	8	0.0001		180	0.3		
10/27/2015 X		350	8.3	14				265	7.5	0.0002		100	1		
10/21/2015 X		380	8.1	13.7				336	9	0.0000		200	0.5		
11/27/2015 X		384	7.3	15.1				373	7	0.0002		210	0.4		
11/21/2010 /		554	7.0	10.1	1		1	5/ 5		0.0000	1	210	U.T		

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														CUMBERLAND (	CENTER, ME 04021
(LF-UD-5and6	)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
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 LFXXXXA3G	338	8	10.4				428	9	0.00056		130	0.3		
4/3/2018 XX 4/28/2018 XX	LFXXXXA3G LFXXXXA9H	307	8.2	9.8				484	12.8	0.00056		150	0.8		
4/28/2018 XX 5/11/2018 XX	LFXXXXA9H	317 344	7.8	15.4 13.2				411 441	8	0.00022		150 150	0.3		
6/2/2018 XX	LFXXXXAAA	360	7.8	16.2				374	8	0.00037 0.00045		140	0.4		
7/2/2018 XX	LFXXXXADE	376	7.9	19.5				364	8	0.00045		150	0.5		
7/17/2018 XX	LFXXXXAIE	376	8.2	19.5				486	8.2	0.0002		150	0.2		
8/17/2018 XX	LFXXXXACG LFXXXXAJ9	377	7.2	20.6				360	8.2	0.00056		150	0.8		
9/1/2018 XX	LFXXXXB2F	362	8	19.5				380	7	0.00017		175	2.4		
10/2/2018 XX	LFXXXXB2F LFXXXXB1E	362	8.1	19.5				485		0.0002		1/0	0.3		
10/2/2018 XX 10/13/2018 XX	LFXXXXB1E LFXXXXB39	371	7.5	13.2				485 371	8.1 7	0.00056		150	1.1		
10/13/2018 XX 11/2/2018 XX	LFXXXXB43	339	7.6	11.6				362	7	0.0001	<u> </u>	150	0.7		
12/7/2018 XX	LFXXXXB82	232	8.1	8.6				362	7	0.0002	<u> </u>	70	1.7		
1/3/2019 XX	LFXXXXB8G	232 F	8.1 F	8.6 F				387 F	F	0.0002 F	<u> </u>	70 F	1.7 F		
2/2/2019 XX	LFXXXXB9A	F6	F	F6				F6	F6	F6	<u> </u>	F6	F6		
3/2/2019 XX	LFXXXXBA4	F6	F6	F6				F6	F6	F6	<u> </u>	F6	F6		
4/5/2019 XX	LFXXXXBAI	Fb F	F F	F F				F F	F	F	<u> </u>	F	F		
4/3/2019 XX	EL AVANDAI	r	r	Г	1		1	Г	Г	F	L	F	Г		

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								i icia Data						CUMBERLAND CENTER, ME 04021
(LF-UD-5	and6)	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)	
Date -	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
4/23/2019	XX LFXXXXB6C	289	8.2	7.6				357	9.7	0.0011			0.4	
5/10/2019		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	
1/17/2020	XX LFXXXXC3I	305	8.4	7.6				386	10	0.0002		150	0.6	
2/4/2020	XX LFXXXXC4D	284	8.3	13.2				331	10	0.0002		150	0.1	
3/27/2020	XX LFXXXXCFA	249	8.3	13.2				392	6	0.0014		150	0.3	
4/28/2020	XX LFXXXXCE3	322	8.2	8.9				403	9.3	0.0006			1.6	
4/29/2020	XX LFXXXXCG4	266	8.3	16.5				330	6	0.0002		150	0.1	
5/27/2020	XX LFXXXXD03	320	7.9	19.7				331	6	0.0002		150	0.7	
6/28/2020	XX LFXXXXD0H	280	8.3	21.6				334	5	0.0002		175	1.2	
7/11/2020	XX LFXXXXD1B	314	7.5	21.2				353	5	0.0001		200	0.5	
7/21/2020	XX LFXXXXCIG	308	7.9	18.5				361	7.5	0.0002			0.4	
8/3/2020	XX LFXXXXD59	325	7.9	21.1				352	6	0.0001		175	0.1	
9/27/2020	XX LFXXXXD65	312	8.1	18.6				401	5	0.00003		175	11.1	
10/27/2020	XX LFXXXXD3J	D	D	D				D	D	D		D	D	
10/31/2020	XX LFXXXXD6J	326	8.5	14				404	8	0.00004		200	51.3	
11/29/2020	XX LFXXXXD7D	313	8.4	15.6				383	8	0.0001		140	22.6	
12/13/2020	XX LFXXXXD87	286	8	13.4				359	5	0.0001		155	38.52	
LF-UD-	6													
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		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	

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														CUIVIDERLAIN	ID CENTER, ME 04
(LF-UI	D-6)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
9/27/20	012 XX LFUD6X5FF	748	7.2	17.2				372	5			165	0.57		
	012 XX LFUD6X5C9	762	7.1	13.7				443	5	0.0022		240	0.8		
11/13/20		748	7.2	16.8				377	5	0.0022		250	1.5		-
12/31/20		720	7.2	14.7				362	6			250	0.82		
1/30/20		704	7.6	12.5				472	6			250	1.14		
2/15/20		281	7.6	10.6				374	6			110	5.3		
3/28/20		499	7.6	11				330	8			155	1.27		
4/23/20		572	7.3	12.2				234	6	0.0022		140	5		
4/24/20		467	7.7	12.2				351	8			225	0.87		
5/30/20		525	7.4	18.5				376	6			225	0.26	-	-
6/26/20		809	7.3	16.6				361	6			275	0.26		
7/30/20		823	7.3	19.5				140	5	0.0022		235	10.3		
8/20/20		919	7.4	21.4				374	6	0.0022		250	0.65		
9/26/20		899	7.4	16.6				379	6	F14		250	1.14		
10/29/20		913	7.7	16.1				422	4	0.0022		265	2.2		
11/25/20		788	7.6	15.3				396	6	0.0022		300	0.8		
12/17/20		785	7.7	7.6				403	6			225	1.55		
1/24/20		F6	F6	F6				F6	F6			F6	F6		
2/24/20		685	7.8	11.1				383	8			275	6.68		
3/27/20		672	7.7	14.9				339	8			250	13.75		
4/22/20		712	7	14.3				479	6	0.0022		160	1.6		
4/23/20		749	7.43	16.4				369	8	0.0022		350	8.27		
4/29/20		392	8.1	14.6				321	10			155	32.95		
5/23/20		774	7.6	19.6				361	8			350	0.94		
6/24/20		841	7.7	19.5				353	8			350	0.87		
7/29/20		803	7.5	19.7				386	5			90	0.7		
8/26/20		842	7.6	23.1				414	7			385	0.37		
9/23/20		847	7.6	23.3				352	•			300	1		
10/21/20		767	7.5	16.6				357	6	0.0022		240	0.4		
11/28/20		810	7.5	15.7				360	5	0.0022		260	M		
12/24/20		847	7.5	16				436	7			325	0.65		
2/3/20		F	F	F				F	F			F	F		
2/21/20		F6	F6	F6				F6	F6			F6	F6		
3/28/20		798	7.5	16.2				412	5			200	5.6		
4/16/20		754	7.6	17.1				380	6			200	8.75		
4/28/20		839	7.4	12.6				309	6.2	0.0022		200	2.2		
5/22/20		815	7.8	19.1				375	10	0.0022		335	0.5		
6/22/20		840	7.6	23.4				334	8			375	0.16		
	015 XX LFUD6X7DC	823	7.4	18				349	7.2	0.0022		0.0	0.8		
7/23/20		834	7.5	23.5				377	8	0.0022		275	0.1		
	015 XX LFUD6X7GF	845	7.5	17.1				370	7			400	0.8		
	015 XX LFUD6X808	816	7.5	20.6				362	6			350	0.3		
10/27/20		764	7.7	14.9			+	348	4.3	0.0022	+	330	1.2	<del></del>	<del></del>
	015 XX LFUD6X810	851	7.6	15.7				347	7	0.0022		475	1.2	<del></del>	
	015 XX LFUD6X81C	864	7.6	16.9			+	373	8	1	+	380	0.8	<del></del>	<del></del>
12/30/20		F6	7.6 F6	F6		1		F6	F6			F6	F6		
	016 XX LFUD6X82H	F6	F6	F6				F6	F6			F6	F6	<del></del>	
2/18/20	* . *	F6	F6	F6				F6	F6	F6		F6	F6	<del></del>	
3/17/20	* . *	859	7.3	16.1		1	1	329	7	FU		375	2.3	<del></del>	<del></del>
						1				0.0022		3/3		<del></del>	
4/5/20	016 XX LFUD6X87B	850	7.7	10.6	1	1		312	6.8	0.0022			1.1		

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																ND CENTER, ME	
(LF-UD-6)	)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date T	Type Sa	ample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
4/21/2016	XX LEUD	D6X89D	870	7.4	20.6				311	9			260	0.3			
5/26/2016		D6X8CJ	F6	F6	F6				F6	F6			F6	F6			
6/27/2016		D6X8E3	F6	F6	F6				F6	F6			F6	F6		-	-
7/20/2016		D6X8F7	F6	F6	F6				F6	F6			F6	F6			
7/26/2016		D6X8C1	D	D	D				D	D	D			D			
8/29/2016	XX LFUD	D6X90I	871	7.37	23.8				322	9			300	4.3			-
9/23/2016	XX LFUD	D6X93H	592	7.7	18.7				312	9			225	6.7			
10/25/2016	XX LFUD	D6X8JJ	Į	I	I				I	I	I		I	I			
10/31/2016	XX LFUD	D6X94B	H8	H8	H8				H8	H8			H8	H8			
11/29/2016	XX LFUD	D6X956	F6	F6	F6				F6	F6	F6		F6	F6			
12/13/2016	XX LFUD	D6X95J	F6	F6	F6				F6	F6	F6		F6	F6			
		D6X99I	F6	F6	F6				F6	F6	F6		F6	F6			
2/8/2017		D6X9AB	F6	F6	F6				F6	F6	F6		F6	F6			
		D6X9B4	F6	F6	F6				F6	F6	F6		F6	F6			
		D6X995	F6	F6	F6				F6	F6	F6		F6	F6			
4/18/2017		D6X986	439	7.6	14.2				366	7.5	0.0022			1.2			
		D6X9BH	355	7.33	17.2				426	6			175	0.7			
		D6X9EI	486	8.5	22.1				338	7			250	126.9			
		D6X9E3	1	1	I				I	I	I		1	1			
		D6X9FB	398	7.7	20.8				391	6			165	22.2			
		D6X9J1	327	7.2	22.4				413	8			145	0.7			
		D6X9JD	F6	F6	F6				F6	F6	F6		F6	F6			
		D6X9HI	413	7.2	18.9				407	5.7	0.0022		045	2.1			
		D6XA05 D6XA0H	442	7.5	19.3				405	6			215	32.3			
		D6XAUH D6XA1A	293 270	7	14.9				436	7			125 103	1.4			
12/27/2017 1/19/2018		D6XA1A D6XA4G	270	7.3 7.4	15.8 9.1				426 425	7			103	2.7 1.7			
		D6XA4G D6XA59	292	7.4	11				425	8			90	0.2			
3/24/2018		D6XA95	301	7.1	11.8				439	7			110	0.2			
4/3/2018		D6XA3I	302	7.6	15				461	4.5	0.00223		110	1.3			
		D6XA9I	212	7.3	17.7				418	8	0.00223		100	0.4			
5/11/2018		D6XAAB	263	7.2	17.9				454	7			105	1			
6/2/2018		D6XADF	262	7	20.1				394	6			115	1.2			
		D6XAIF	F6	F6	F6				F6	F6				F6		-	
7/17/2018	XX LFUD	D6XACI	328	8.4	20.4				466	3.6	0.00223			1.4			
8/17/2018		D6XAJA	268	6.7	23.9				374	6			115	0.9			
		D6XB2G	281	7	21.7				406	6			100	2.6	,		
10/2/2018	XX LFUD	D6XB1G	294	7.3	16.7				487	4.8	0.00056			0.5			
10/13/2018		D6XB3A	246	6.9	15.4				383	5			75	7.4			
11/2/2018	XX LFUD	D6XB44	241	6.8	13.2				381	7			70	1.6			
12/7/2018	XX LFUD	D6XB83	243	7.4	8.1				380	7			140	0.6			
1/3/2019	XX LFUD	D6XB8H	297	6.8	11.3				386	7			70	2.1			
2/2/2019	XX LFUD	D6XB9B	F	F	F				F	F			F	F			
3/2/2019	XX LFUD	D6XBA5	337	7.7	15.3				340	5			75	0.8			
		D6XBAJ	320	8.3	14.1				354	6			100	1.4			
4/23/2019		D6XB6E	380	7.1	14.7				375	6.8	0.0022			0.8			
5/10/2019		D6XBEB	201	7.1	15.4				314	6			35	1.4			
		D6XBF5	239	7.4	21				359	8			60	0.2			
		D6XBD5	184	7.8	20.7				379	9	0.0006			0.8			
7/30/2019	XX LFUD	D6XBFJ	70	7.3	21.2				343	8			35	0.9			

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								i icia bata						CUMBERLAND CENTER, ME 04021
(LF-UD-6	)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date -	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
8/20/2019	XX LFUD6XBGD	82	7.4	24.8				349	6			40	0.4	
9/20/2019		112	7.1	21.9				353	6			45	13.8	
	XX LFUD6XC10	204	6.4	20.3				373	5			180	43.6	
10/29/2019		267	6.3	17.5				282	6.6	0.0011			1.5	
11/27/2019		310	5.2	20.4				449	6			FK	2.2	
	XX LFUD6XC34	L	L	L				L	L			L	L	
1/4/2020		515	4.3	14				434	8			FK	1.6	
1/17/2020		460	4.4	14.8				520	8			FK	19.4	
	XX LFXXXXC50	225	4	18.6				488	6			FK	0.8	
3/27/2020		315	4.1	17.7				512	6				0.3	
4/28/2020		579	4.2	14.1				605	7	0.0006			0.6	
4/29/2020		H8	H8	H8				H8	H8	H8		H8	H8	
5/27/2020		F6	F6	F6				F6	F6	F6		F6	F6	
6/28/2020		F6	F6	F6				F6	F6	F6		F6	F6	
7/11/2020		F6	F6	F6				F6	F6	F6		F6	F6	
7/21/2020		D	D	D				D	D	D		D	D	
8/3/2020		F6	F6	F6				F6	F6	F6		F6	F6	
9/27/2020		F6	F6	F6				F6	F6	F6		F6	F6	
10/27/2020		D	D	D				D	D	D		D	D	
10/31/2020		F6	F6	F6				F6	F6	F6		F6	F6	
11/29/2020		F6	F6	F6				F6	F6	F6		F6	F6	
	XX LFXXXXD8D	F6	F6	F6				F6	F6	F6		F6	F6	
LF-UD-		1								1			1 12 1	
11/30/2011	XX LFUD7X510	H2	H2	H2				H2	H2			H2	H2	
12/29/2011	XX LFUD7X508	H2	H2	H2				H2	H2			H2	H2	
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		H8	H8	H8				H8	H8			H8	H8	
10/23/2012		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		H8	H8	H8				H8	H8			H8	H8	
2/15/2013		H8	H8	H8				H8	H8			H8	H8	
3/28/2013		H8	H8	H8				H8	Н8			H8	H8	
3/20/2013		F6	F6	F6				F6	F6			F6	F6	
4/23/2013	XX LFUD7X5JA				1			H8	H8			H8	H8	
		H8	H8	H8										
4/23/2013	XX LFUD7X620	H8 H8	H8 H8	H8 H8				H8	H8			H8	H8	
4/23/2013 4/24/2013	XX LFUD7X620 XX LFUD7X62C								H8 H8			H8 H8	H8 H8	
4/23/2013 4/24/2013 5/30/2013	XX LFUD7X620 XX LFUD7X62C	H8	H8 H8	H8 H8				H8 H8	H8				H8	
4/23/2013 4/24/2013 5/30/2013 6/26/2013	XX LFUD7X620 XX LFUD7X62C XX LFUD7X634 XX LFUD7X65F	H8 H8	H8	H8				H8				H8		

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CLF-UD-7	Flow Rate Well Depth Alkalinity (CaCO3) (field)  cfs Feet mg/L NTU    F6 F6
Date   Type   Sample   D	F6 F6 H8
11/25/2013   XX	H8 H
11/25/2013   XX	H8 H
12/17/2013   XX	H8 H
1/24/2014   XX	H8 H
2/24/2014   XX   FUD7X9HG	H8 H
3/27/2014   XX	H8 H
4/22/2014   XX   F-DD7X66B   F6   F6   F6   F6   F6   F6   F6	F6         F6           H8         H8           H8         H8           H8         H8           H8         H8           F6         F6           F6         F6           H8         H8
4/29/2014   XX	H8 H
5/23/2014   XX	H8 H8 H8 H8 H8 F6 F6 F6 H8 H8 H8
6/24/2014 XX	H8 H8 H8 F6 F6 F6 H8 H8 H8
7/29/2014         XX         LFUD7X70D         F6	F6 F6 F6 H8 H8
8/26/2014   XX	F6 F6 H8 H8
9/23/2014   XX	H8 H8
10/21/2014   XX	
11/28/2014         XX         LFUD7X762         H8	
12/24/2014   XX	H8 H8
2/3/2015         XX         LFUD7X776         H8	H8 H8
2/21/2015   XX   LFUD7X7FH   H8	H8 H8
3/28/2015   XX   LFUD7X7AF   H8	H8 H8
4/16/2015         XX         LFUD7X7B8         F6	H8 H8
4/28/2015         XX         LFUD7X7A1         F6	F6 F6
5/22/2015         XX         LFUD7X7FD         F6	F6 F6
6/22/2015         XX         LFUD7X7F1         F6         F2         F12         F12 <td>F6 F6</td>	F6 F6
7/14/2015         XX         LFUD7X7DD         F6         F2         F12	F6 F6
7/23/2015         XX         LFUD7X7G5         F12	F6 F6
8/24/2015         XX         LFUD7X7GH         F12	F12 F12
9/26/2015         XX         LFUD7X80A         F6	F12 F12
10/27/2015         XX         LFUD7X7J0         F6	F6 F6
10/31/2015         XX         LFUD7X812         F6	F6 F6
11/27/2015         XX         LFUD7X81E         F6	F6 F6
12/30/2015         XX         LFUD7X827         F6	F6 F6
1/14/2016 XX LFUD7X82J F6 F6 F6 F6 F6	F6 F6 F6
	F6 F6 F6
	F6 F6 F6
3/17/2016 XX LFUD7X893 F6 F6 F6 F6 F6 F6	F6 F6 F6
4/5/2016 XX LFUD7X87C F6 F6 F6 F6 F6 F6	F6 F6 F6
4/21/2016 XX LFUD7X89F F6 F6 F6 F6 F6 F6	F6 F6 F6
5/26/2016 XX LFUD7X8D1 F6 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 F6
7/26/2016 XX LFUD7X8C2 F6 F6 F6 F6 F6 F6	F6 F6
8/29/2016 XX LFUD7X91B F6 F6 F6 F6 F6 F6	F6 F6
9/23/2016 XX LFUD7X93J F6 F6 F6 F6 F6 F6	F6 F6
10/25/2016 XX LFUD7X900 F6 F6 F6 F6 F6 F6	F6 F6
10/31/2016 XX LFUD7X94D H8 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	
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	
4/5/2017 XX LFUD7X997 H8 H8 H8 H8 H8 H8	H8 H8 H8

#### SUMMARY REPORT Field Data

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														CUMBERLANI	CENTER, ME 04
(LF-UD-7)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
4/18/2017 XX	LFUD7X987	F6	F6	F6				F6	F6	F6			F6		
	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		
	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		
	LFUD7XA5B	F6	F6	F6				F6	F6	F6		F6	F6		
3/24/2018 XX	LFUD7XA97	F6	F6	F6				F6	F6	F6		F6	F6		
	LFUD7XA3J	F6	F6	F6	1			F6	F6	F6		F6	F6		
	LFUD7XAA0	H8	H8	H8	1			H8	H8	H8		H8	H8		
-,,	LFUD7XAAD	F6	F6	F6				F6	F6	F6		F6	F6		
	LFUD7XADH	H8	H8	H8				H8	H8	H8		H8	H8		
	LFUD7XAIH	H8	H8	H8				H8	H8	H8		H8	H8		
	LFUD7XACJ	F6	F6	F6				F6	F6	F6		F6	F6		
	LFUD7XAJC	H8	H8	H8				H8	H8	H8		H8	H8		
9/1/2018 XX	LFUD7XB2I	H8	H8	H8				H8	H8	H8		H8	H8		
	LFUD7XB1H	F6	F6	F6	-			F6	F6	F6		F6	F6		
	LFUD7XB3C	H8	H8	H8	-			H8	H8	H8		H8	H8		
11/2/2018 XX	LFUD7XB46	H8	H8	H8	-			H8	H8	H8		H8	H8		
	LFUD7XB85 LFUD7XB8J	H8	H8 H8	H8				H8 H8	H8 H8			H8	H8 H8		
2/2/2019 XX	LFUD7XB9D	H8 H8	H8	H8 H8				но Н8	H8			H8 H8	H8		
	LFUD7XBA7	H8	по Н8	H8	-			 Н8	H8			H8	H8		
	LFUD7XBB1	H8	H8	H8	<del>                                     </del>			H8	H8			H8	H8		
4/23/2019 XX	LFUD7XB6F	F6	F6	F6	+			F6	F6	F6		F6	F6		
	LFUD7XBED	H8	H8	H8	+			H8	H8	H8		H8	H8		
6/24/2019 XX	LFUD7XBF7	H8	H8	H8	+			H8	H8	H8		H8	H8		
	LFUD7XBD6	F6	F6	F6	+			F6	F6	F6		F6	F6		
	LFUD7XBG1	H8	H8	H8	1			H8	H8	H8		H8	H8		
8/20/2019 XX	LFUD7XBGF	H8	H8	H8	1		1	H8	H8	H8		H8	H8		
	LFUD7XC08	H8	H8	H8				H8	H8	H8		H8	H8		
	LFUD7XC12	H8	H8	H8				H8	H8	H8		H8	H8		
	LFUD7XBII	F6	F6	F6	1			F6	F6	F6		F6	F6		
11/27/2019 XX	LFUD7XC1G	H8	H8	H8	1			H8	H8	H8		H8	H8		
	LFUD7XC36	H8	H8	Н8				H8	H8	Н8		H8	H8		
1/17/2020 XX	LFUD7XC41	H8	H8	H8				H8	H8	H8		H8	H8		
2/4/2020 XX	LFUD7XC4G	H8	H8	H8				H8	H8	H8		H8	H8		
3/27/2020 XX	LFUD7XCFC	H8	H8	H8				H8	H8	H8		H8	H8		
4/28/2020 XX	LFUD7XCE6	F6	F6	F6				F6	F6	F6		F6	F6		
4/29/2020 XX	LFUD7XCG6	H8	H8	H8				Н8	H8	H8		H8	H8		
5/27/2020 XX	LFUD7XD05	H8	H8	H8				Н8	H8	H8		H8	H8		
6/28/2020 XX	LFUD7XD0J	H8	H8	H8				Н8	H8	H8		H8	H8		
7/11/2020 XX	LFUD7XD1D	H8	H8	H8				H8	H8	H8		H8	H8		
7/21/2020 XX	LFUD7XCIJ	F6	F6	F6				F6	F6	F6		F6	F6		

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													CUMBERLAND (	ENTER, ME 04021
(LF-UD-7)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
8/3/2020 XX LFUD7XD5B	H8	H8	H8				H8	H8	H8		H8	H8		
9/27/2020 XX LFUD7XD67	H8	H8	H8				H8	H8	H8		H8	H8		
10/27/2020 XX LFUD7XD42	F6	F6	F6				F6	F6	F6		F6	F6		
10/31/2020 XX LFUD7XD71	H8	H8	H8				H8	H8	H8		H8	H8		
11/29/2020 XX LFUD7XD7F	H8	H8	H8				H8	H8	H8		H8	H8		
12/13/2020 XX LFUD7XD89	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	8.0		
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	8.0		
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	8.0		
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		
7/14/2015 XX LFUD8X7DE	I	I	1				-	I	I		1	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	1			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	1			F6	F6	F6		F6	F6		
12/30/2015 XX LFUD8X828	F12	F12	F12	1			F12	F12	F12		F12	F12		
1/14/2016 XX LFUD8X830	F12	F12	F12				F12	F12	F12		F12	F12		

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														CUMBERLAN	ND CENTER, M	IE 04021
(LF-UD-8)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date T	ype Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
2/18/2016	XX LFUD8X88C	F12	F12	F12				F12	F12	F12		F12	F12			
3/17/2016		F12	F12	F12				F12	F12	F12		F12	F12	<del></del>		
4/5/2016		F6	F6	F6				F6	F6	F6		F6	F6			
4/21/2016		F12	F12	F12				F12	F12	F12		F12	F12	<del></del>		
5/26/2016		F12	F12	F12				F12	F12	F12		F12	F12	<del></del>		
	XX LFUD8X8E6	F6	F6	F6				F6	F6	F6		F6	F6			
7/20/2016		F6	F6	F6				F6	F6	F6		F6	F6	-		-
7/26/2016		F6	F6	F6				F6	F6	F6			F6			-
	XX LFUD8X91C	F6	F6	F6				F6	F6	F6			F6			
9/23/2016		F6	F6	F6				F6	F6	F6			F6			
10/25/2016		D	D	D				D	D	D			D			
	XX LFUD8X94E	H8	H8	H8				H8	H8	H8			H8			
11/29/2016	XX LFUD8X959	F6	F6	F6				F6	F6	F6			F6			
12/13/2016		F6	F6	F6				F6	F6	F6			F6			
1/10/2017	XX LFUD8X9A1	Α	Α	Α				Α	Α	Α		Α	Α			
2/8/2017	XX LFUD8X9AE	Α	Α	Α				Α	Α	Α		Α	Α			
3/3/2017	XX LFUD8X9B9	Α	Α	Α				Α	Α	Α		Α	Α			
4/5/2017	XX LFUD8X998	Α	Α	Α				Α	Α	Α		А	Α			
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			
	XX LFUD8X9JG	F6	F6	F6				F6	F6	F6		F6	F6			
	XX LFUD8X9I0	F6	F6	F6				F6	F6	F6		F6	F6			
	XX LFUD8XA08	F6	F6	F6				F6	F6	F6		F6	F6			
	XX LFUD8XA10	F6	F6	F6				F6	F6	F6		F6	F6			
	XX LFUD8XA1D	F	F	F				F	F	F		F	F			
1/19/2018		F6	F6	F6				F6	F6	F6		F6	F6			
	XX LFUD8XA5C	F6	F6	F6				F6	F6	F6		F6	F6			
3/24/2018		F12	F12	F12				F12	F12	F12		F12	F12			
4/3/2018		90	8.5	2.8				482	6.8	0.00223			2.6			
	XX LFUD8XAA1	F12	F12	F12				F12	F12	F12		F12	F12			
5/11/2018		F12	F12	F12				F12	F12	F12		F12	F12			
6/2/2018		F12	F12	F12				F12	F12	F12		F12	F12			
	XX LFUD8XAII XX LFUD8XAD0	F12	F12	F12				F12	F12	F12		F12	F12			
7/17/2018		D F6	D	D				D F6	D F6	D		D F6	D			
8/17/2018	XX LFUD8XAJD XX LFUD8XB2J		F6 F6	F6	1		1			F6 F6		F6	F6 F6			
		F6	F6	F6	+		+	F6 F6	F6	F6				<del></del>		
10/2/2018 10/13/2018		F6 F6	F6	F6				F6	F6	F6		F6	F6 F6			
	XX LFUD8XB3D	F6	F6	F6	+		+	F6	F6	F6		F6	F6			
12/7/2018	701	F6	F6	F6			+	F6	F6	FO		F6	F6	<del></del>		
	XX LFUD8XB90	F6	F6	F6				F6	F6			F6	F6	<del></del>		
	XX LFUD8XB9E	F6	F6	F6				F6	F6			F6	F6	<del></del>		
3/2/2019		F6	F6	F6				F6	F6			F6	F6	<del></del>		
	XX LFUD8XBB2	F6	F6	F6	+		1	F6	F6	F6		F6	F6	<del></del>		
	XX LFUD8XB6G	88	6.8	7.9	+		1	347	9.3	0.0022		10	1.2	<del></del>		
5/10/2019		F6	F6	7.9 F6	+		+	F6	9.5 F6	F6			F6	$\longrightarrow$		
3/10/2019	///	10	10	10	1		1	10	10	10	1		10			

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	. O. a. Garapar . a	-9						Field Data						4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(LF-UD-8	3)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
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	
1/17/2020		F	F	F				F	F	F			F	
2/4/2020		F6	F6	F6				F6	F6	F6			F6	
3/27/2020		F6	F6	F6				F6	F6	F6			F6	
4/28/2020		F6	F6	F6				F6	F6	F6			F6	
4/29/2020		F6	F6	F6				F6	F6	F6			F6	
5/27/2020		F6	F6	F6				F6	F6	F6		1	F6	
6/28/2020		F6	F6	F6				F6	F6	F6			F6	
7/11/2020		F6	F6	F6				F6	F6	F6			F6	
7/21/2020		F6	F6	F6				F6	F6	F6			F6	
8/3/2020		F6	F6	F6				F6	F6	F6			F6	
9/27/2020		F6	F6	F6				F6	F6	F6			F6	
10/27/2020		D	D	D				D	D	D			D	
10/31/2020		F6	F6	F6				F6	F6	F6			F6	
11/29/2020		F6	F6	F6				F6	F6	F6			F6	
12/13/2020	l	F6	F6	F6				F6	F6	F6			F6	
LF-UD-	9													
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		F6	F6	F6				F6	F6	F6		F6	F6	
3/3/2017		F6	F6	F6				F6	F6	F6		F6	F6	
4/5/2017		F6	F6	F6				F6	F6	F6		F6	F6	
4/18/2017		292	7.6	7.1				375	10.8	0.0011		1	1.2	
5/25/2017		F6	F6	F6				F6	F6	F6		F6	F6	
6/16/2017		DE	DE	DE	1			DE	DE	DE	1	DE	DE	
10/25/2017		F6	F6	F6	1			F6	F6	F6		F6	F6	
1/19/2018		F6	F6	F6	1			F6	F6	F6		F6	F6	
2/22/2018		F6	F6	F6	1			F6	F6	F6		F6	F6	
3/24/2018		176	7.3	8	1			458	9	0.00334		50 U	44.8	
4/3/2018		F6	F6	F6	1			F6	F6	F6		F6	F6	
4/28/2018		F6	F6	F6	1			F6	F6	F6	-	F6	F6	
5/11/2018		F6	F6	F6	1			F6	F6	F6	-	F6	F6	
6/2/2018		F6	F6	F6	1			F6	F6	F6	-	F6	F6	
7/2/2018		F6	F6	F6	1			F6	F6	F6	-	F6	F6	
7/17/2018		D	D	D	1			D	D	D	-	D	D	
8/17/2018	XX LFUD9XAJB	F6	F6	F6				F6	F6	F6		F6	F6	

#### SUMMARY REPORT Field Data

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														CUMBERI	LAND CENTER	, ME 04021
(LF-UD-9)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date Type S	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
											I					Т
	ID9XB2H	F6	F6	F6				F6	F6	F6		F6	F6			
	ID9XB22	F6	F6	F6				F6	F6	F6		F6	F6			
	ID9XB3B	F6	F6	F6				F6	F6	F6		F6	F6			
	ID9XB45	135	7.3	10.7				379	7	0.0045		25	49.6			
	ID9XB84	F6	F6	F6				F6	F6			F6	F6			1
	ID9XB8I	F6	F6	F6				F6	F6			F6	F6			
	ID9XB9C	F6	F6	F6				F6	F6			F6	F6			
47-7-010 111	ID9XBA6	F6	F6	F6				F6	F6			F6	F6			
	ID9XBB0	F6	F6	F6				F6	F6			F6	F6			
4/23/2019 XX LFUI	ID9XB73	F6	F6	F6				F6	F6	F6		F6	F6			]
5/10/2019 XX LFUI	ID9XBEC	201	6.6	15.1				278	7	0.0004		30	9.6			1
6/24/2019 XX LFUI	ID9XBF6	F6	F6	F6				F6	F6	F6		F6	F6			
7/16/2019 XX LFUI	ID9XBDD	F6	F6	F6				F6	F6	F6		F6	F6			1
7/30/2019 XX LFUI	ID9XBG0	F6	F6	F6				F6	F6	F6		F6	F6			
8/20/2019 XX LFUI	ID9XBGE	F6	F6	F6				F6	F6	F6		F6	F6			
9/20/2019 XX LFUI	ID9XC07	F6	F6	F6				F6	F6	F6		F6	F6			
10/14/2019 XX LFUI	ID9XC11	F6	F6	F6				F6	F6	F6		F6	F6			
10/29/2019 XX LFUI	ID9XBJ3	F6	F6	F6				F6	F6	F6		F6	F6			
	ID9XC1F	F6	F6	F6				F6	F6	F6		F6	F6			
	ID9XC35	F6	F6	F6				F6	F6	F6		F6	F6			
	ID9XC40	F6	F6	F6				F6	F6	F6		F6	F6			
	ID9XC4F	F6	F6	F6				F6	F6	F6		F6	F6			
	ID9XCFB	F6	F6	F6				F6	F6	F6		F6	F6			<del> </del>
	ID9XCED	F6	F6	F6				F6	F6	F6		F6	F6			<del>                                     </del>
	ID9XCG5	F6	F6	F6				F6	F6	F6		F6	F6			<del>                                     </del>
	ID9XD04	F6	F6	F6				F6	F6	F6		F6	F6			1
	ID9XD0I	F6	F6	F6				F6	F6	F6		F6	F6			<del>                                     </del>
	ID9XD0I	F6	F6	F6				F6	F6	F6		F6	F6			<del> </del>
	ID9XCJ6															-
	ID9XD5A	F6	F6	F6				F6	F6	F6		F6	F6			-
0,0,000		F6	F6	F6				F6	F6	F6		F6	F6			1
*/	ID9XD66	F6	F6	F6				F6	F6	F6		F6	F6			1
	ID9XD47	D	D	D				D	D	D		D	D			
	ID9XD70	F6	F6	F6				F6	F6	F6		F6	F6			1
	ID9XD7E	F6	F6	F6				F6	F6	F6		F6	F6			1
12/13/2020 XX LFUI	ID9XD88	F6	F6	F6	<u> </u>		1	F6	F6	F6		F6	F6			<u> </u>
LF-UD-10				1		1			ı	1						T
	XXX9ID	F6	F6	F6				F6	F6	F6			F6			
	XXXA1F	F6	F6	F6				F6	F6	F6			F6			
	XXXA51	F6	F6	F6				F6	F6	F6			F6			
	XXXA5E	119	6.8	5.1				420	9	0.00056			12.9			
3/24/2018 XX LFXX	XXXA9A	175	7	8.8				455	8	0.00334		50 U	43.4			
4/3/2018 XX LFX	XXXA48	F6	F6	F6				F6	F6	F6			F6			
4/28/2018 XX LFXX	XXXAA3	F6	F6	F6				F6	F6	F6		F6	F6			
5/11/2018 XX LFXX	XXXAAG	F6	F6	F6				F6	F6	F6		F6	F6			
6/2/2018 XX LFXX	XXXAE0	F6	F6	F6				F6	F6	F6			F6			
7/2/2018 XX LFXX	XXXAJ0	F6	F6	F6				F6	F6	F6			F6			
	I10XAD6	D	D	D				D	D	D			D			
	XXXAJF	F6	F6	F6				F6	F6	F6			F6			
	XXXB31	F6	F6	F6				F6	F6	F6			F6			
							•	•		. •		•		•		

#### SUMMARY REPORT Field Data

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													CUMBERLA	ND CENTER, ME 04021
(LF-UD-10)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
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		
1/17/2020 XX LFXXXXC44	F6	F6	F6				F6	F6	F6		F6	F6		
2/4/2020 XX LFXXXXC4J	F6	F6	F6				F6	F6	F6		F6	F6		
3/27/2020 XX LFXXXXCFF	F6	F6	F6				F6	F6	F6		F6	F6		
4/28/2020 XX LFXXXXCEE	F6	F6	F6				F6	F6	F6		F6	F6		
4/29/2020 XX LFXXXXCG9	F6	F6	F6				F6	F6	F6		F6	F6		
5/27/2020 XX LFXXXXD08	F6	F6	F6				F6	F6	F6		F6	F6		
6/28/2020 XX LFXXXXD12	F6	F6	F6				F6	F6	F6		F6	F6		
7/11/2020 XX LFXXXXD1G	F6	F6	F6				F6	F6	F6		F6	F6		
7/21/2020 XX LFXXXXCJ7	F6	F6	F6				F6	F6	F6		F6	F6		
8/3/2020 XX LFXXXXD5E	F6	F6	F6				F6	F6	F6		F6	F6		
9/27/2020 XX LFXXXXD6A	F6	F6	F6				F6	F6	F6		F6	F6		
10/27/2020 XX LFXXXXD4B 10/31/2020 XX LFXXXXD74	F6	F6	F6				F6	F6	F6		F6	F6		
	F6 F6	F6 F6	F6 F6				F6 F6	F6 F6	F6		F6	F6 F6		
11/29/2020 XX LFXXXXD7I 12/13/2020 XX LFXXXXD8C	F6	F6	F6				F6	F6	F6		F6	F6		
LP-COMP	FO	го	FO				FO	F0	FO			FO		
8/1/2011 XX LPCMPX4JG	315	7.1	21.4				346	6			83	0.1		
10/8/2011 XX LPCMPX4J5	296	7.1	18.2			+	377	5			95	1.2	+	
11/30/2011 XX LPCMPX50J	296	7.2	10.2			+	372	<del>-</del> -	<u> </u>		90	0.4		
12/29/2011 XX LPCMPX507	315	7.6	8.3			+	374	10	<u> </u>		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	7.7	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		
5,2,1,2010 700	017	,	20.2	1	1		001		1	1	100	V.E		

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Part																COMBER	LAND CENTER	, IVIE 0402 I
Date   Type Sample   Date	(LP-CON	AP)			pH	Temperature				Eh		Flow Rate	Well Depth					
11/27/2015 XX   EXPANSION   312   7   15	Date	Туре	e Sample ID		STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
11/27/2015 XX   EXPANSION   312   7   15	40/04/0045	- 2/2/	I DCMDV044	004	7.4	40.0				252	0			400	0.5			
1908/2019   XX   CENTROLL   366   72   8.8   367   6.4   6.2   327   8.8   1150   0.5   5   5   5   5   5   5   5   5   5																		
1149000 X   0000000		_																
2012-01  XV   POWERS   285   72   112     340   8   145   1																		
STATES   X. PARMENS   3.95																		
ACTION   XC   POWERSON   302   7.1   11.9   335   9   17.0   13.1																		
		_												_				
BOZZORIE XX   PERMANENT   333   6.6   17.9     500   7.7   1965   0.8														_				
TYZZOPE   XI   POLIMPSINE   338																		
BOUNDAME   CONTINUENCY   CON														_				
9623070  XX   PAMPSHAP   265																		
1031201  XV   PAMPSAN   250   0.84   15.1   9.47   4   75   0.3																		
1/12/19/2019   X   PCLIPPSKIA   299   7.25   7.5													-	_				
1213/2016   XX   FORMYSSIS   143   7.5   5.8     982   9     115   0.2		_												_				
11/10/2017   XX																		
28/2017   XX														_				
33/2017   XX   FORMINGS   92   9.91   15.1		_																
45/2017   XX		_																
SCENTY   POLIFYSIT   205   6.6   13.8   359   3   90   0.6		_																
6/16/2017   XX																		
7310017   XX																		
88112017   XX		_																
9.282077 XX   PCMPSADB   324   7.3   18.3   330   7   125   0.3		_																
10/28/2017   XX		_												_				
11/30/2017   XX																		
12/27/2017   XX   PCMPXASE   304   6.2   11.4																		
11/19/2018   XX														_				
2/2/2018   XX     PCMPXASD   297   7.5   7   386   9   110   1.3   120   2.1   120		_												_				
3/24/2018   XX																		
4/28/2018   XX																		
S/11/2018   XX   PCMPXAAF   294   6.9   10.8   415   9   110   2   2   3   3   3   3   3   3   3   3																		
6/2/2018   XX   PCMPXADJ   472   6.7   13.8   373   7   120   0.4   130   0.6   130   0.																		
7/2/2018 XX LPCMPXAIJ 332 7.2 19.1 335 6.7 21.3 324 8 130 0.6 130 3.2 324 8 130 3.2 32 324 8 130 3.2 32 324 8 130 3.2 32 324 8 130 3.2 32 324 8 130 3.2 32 32 32 32 32 32 32 32 32 32 32 32 32																		
8/17/2018   XX   LPCMPXBJE   335   6.7   21.3   324   8   130   3.2   3.2   3.5   3.2   3.5   3.2   3.5   3.5   3.2   3.5		_												_				
9/1/2018 XX																		
10/13/2018   XX   LPCMPXB8E   313   6   15.3   363   6   354   8   110   2.2   354   354   8   110   2.2   355																		
11/2/2018   XX   LPCMPXB48   269   6.6   12.1   354   8   110   2.2   35   35   35   35   35   35   35   3																		
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           3/2/2019         XX         LPCMPXBA9         289         6.4         6         356         6         130         2.1         9           4/5/2019         XX         LPCMPXBB3         260         8.1         13.1         363         7         130         0.9         9         9           5/10/2019         XX         LPCMPXBEF         248         6.8         13.8         327         6         130         0.9         9         9           6/24/2019         XX         LPCMPXBEF         248         6.8         13.8         327         6         130         0.9         9         9           6/24/2019         XX         LPCMPXBEF         248         6.8         13.8         327         6         130         0.9         9 <td></td> <td>_</td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td>		_												_				
3/2/2019   XX													<u> </u>					
4/5/2019 XX       LPCMPXBB3       260       8.1       13.1       363       7       130       0.9       5/10/2019       130       0.9       5/10/2019       130       0.9       5/10/2019       130       0.9       130       130       0.9       130       0.9       130       0.9       130       130       0.9       130       0.9       130       130       130       130       0.9																		
5/10/2019       XX       LPCMPXBEF       248       6.8       13.8       327       6       130       0.9       0.9         6/24/2019       XX       LPCMPXBF9       270       7.2       15.1       366       8       125       0.5       0.5         7/30/2019       XX       LPCMPXBG3       280       7.1       20       354       8       150       0.4       0.4         8/20/2019       XX       LPCMPXBGH       273       7.4       25.1       352       8       140       0.2         9/20/2019       XX       LPCMPXCOA       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		_																
6/24/2019 XX LPCMPXBF9 270 7.2 15.1 366 8 125 0.5 1 7/30/2019 XX LPCMPXBG3 280 7.1 20 354 8 150 0.4 150 0.4 8/20/2019 XX LPCMPXBGH 273 7.4 25.1 352 8 140 0.2 9/20/2019 XX LPCMPXCOA 294 7.2 21.7 361 6 125 0.2 10/14/2019 XX LPCMPXCOA 294 7.3 18.5 347 10 140 0.3																		
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 LPCMPXCOA 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		_									1							
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		_																
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		_																
10/14/2019 XX LPCMPXC14 267 7.3 18.5 347 10 140 0.3		_																
		_																
11/27/2019  XX   LPCMPXC1		_									10							
	11/27/2019	XX	LPCMPXC1I	245	7.5	21				389	8			145	1.6			

### SUMMARY REPORT Field Data

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													CUMBERLAND CENTER, ME 040
(LP-COMP)	Specific Conductance	рН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
12/23/2019 XX LPCMPXC38	285	7.3	9.3				378				125	0.6	
1/17/2020 XX LPCMPXC43	247	7.2	7.8				415	10			135	1.8	
2/4/2020 XX LPCMPXC4I	256	7.2	10.2				361	10			100	1.1	
3/27/2020 XX LPCMPXCFE	225	7.3	10.7				418	6			135	0.5	
4/29/2020 XX LPCMPXCG8	268	7.2	14.8				352	8			140	1.6	
5/27/2020 XX LPCMPXD07	238	7.1	21.3				348	6			150	0.3	
6/28/2020 XX LPCMPXD11	275	7	22.4				322	6			150	1.8	
7/11/2020 XX LPCMPXD1F	293	6.9	22.2				352	5			175	0.2	
8/3/2020 XX LPCMPXD5D	303	7	22.4				360	6			160	0.1	
9/27/2020 XX LPCMPXD69	285	7.2	18				416	5			175	0.1	
10/31/2020 XX LPCMPXD73	288	7.4	14.5				403	8			150	1.2	
11/29/2020 XX LPCMPXD7H	286	7.3	14.9				426	6			150	0.8	
12/13/2020 XX LPCMPXD8B	274	7.1	11.9				385	6			135	2.7	
LP-UD-1						I	000		I	-			
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			<del> </del>	H9	H9	-		H9	H9	
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	<del>                                     </del>		F6	F6	
11/13/2012 XX LPUD1X5G1	F6	F6	F6			-	F6	F6	<del>                                     </del>		F6	F6	
12/31/2012 XX LPUD1X5GC	F6	F6	F6			-	F6	F6			F6	F6	
	F6	F6					F6				F6	F6	
			F6					F6					
_,	F6	F6	F6	+		+	F6	F6			F6	F6	
	F6	F6	F6			1	F6	F6			F6	F6	
4/23/2013 XX LPUD1X5I8	F6	F6	F6			1	F6	F6			F6	F6	
4/24/2013 XX LPUD1X61D	F6	F6	F6			1	F6	F6			F6	F6	
5/30/2013 XX LPUD1X625	F6	F6	F6	-		1	F6	F6	1	1	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	

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														CUMBERLAN	ND CENTER, N	VIE 04021
(LP-UD-1)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date Ty	ype Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
9/26/2013	XX LPUD1X68F	F6	Fe	F6				F6	T.G			F6	E6			
10/29/2013		F6 F6	F6 F6	F6				F6 F6	F6			F6	F6			
	XX LPUD1X6A0	F6	F6	F6				F6	F6			F6	F6			
	XX LPUD1X6D0	F6	F6	F6				F6	F6			F6	F6			
1/24/2014		F6	F6	F6				F6	F6			F6	F6			
	XX LPUD1X6H9	F6	F6	F6				F6	F6			F6	F6			
3/27/2014		F6	F6	F6				F6	F6			F6	F6			
4/22/2014		F6	F6	F6				F6	F6			F6	F6			
	XX LPUD1X6I1	F6	F6	F6				F6	F6			F6	F6			
5/23/2014		F6	F6	F6				F6	F6			F6	F6			
6/24/2014		F6	F6	F6				F6	F6			F6	F6			
	XX LPUD1X6JG	F6	F6	F6				F6	F6			F6	F6			
8/26/2014		F6	F6	F6				F6	F6			F6	F6			
	XX LPUD1X753	F6	F6	F6				F6	F6			F6	F6			
	XX LPUD1X737	F6	F6	F6				F6	F6			F6	F6			
11/28/2014		F6	F6	F6				F6	F6			F6	F6			
	XX LPUD1X768	F12	F12	F12				F12	F12			F12	F12			
2/3/2015		F12	F12	F12				F12	F12			F12	F12			
2/21/2015		F6	F6	F6				F6	F6			F6	F6			
3/28/2015		H9	H9	H9				H9	H9			H9	H9			
4/16/2015		H9	H9	H9				H9	H9			H9	H9			
4/10/2015		F6	F6	F6				F6	F6			F6	F6			
5/22/2015		F6	F6	F6				F6	F6			F6	F6			
6/22/2015		F6	F6	F6				F6	F6			F6	F6			
7/14/2015		F6	F6	F6				F6	F6			F6	F6			
7/23/2015		H9	H9	H9				H9	H9			H9	H9			
8/24/2015		H9	H9	H9				H9	H9			H9	H9			
9/26/2015		F6	F6	F6				F6	F6			F6	F6			
10/26/2015		F6	F6	F6				F6	F6			10	F6			
10/31/2015		H9	H9	H9				H9	H9	H9		H9	H9			
11/27/2015		H9	H9	H9				H9	H9	H9		H9	H9			
12/30/2015		H9	H9	H9				H9	H9	H9		H9	H9			
1/14/2016		H9	H9	H9				H9	H9	H9		H9	H9			
	XX LPUD1X884	H9	H9	H9				H9	H9	H9		H9	H9			
3/17/2016		H9	H9	H9				H9	H9	H9		H9	H9			
4/5/2016		F6	F6	F6				F6	F6	F6		F6	F6			
	XX LPUD1X898	H9	H9	H9				H9	H9	H9		H9	H9			
5/26/2016		H9	H9	H9				H9	H9	H9		H9	H9			
6/27/2016		H9	H9	H9				H9	H9	H9		H9	H9			
	XX LPUD1X8F2	F6	F6	F6				F6	F6	F6		F6	F6			
7/26/2016		F6	F6	F6				F6	F6	F6		F6	F6			
8/29/2016		F6	F6	F6				F6	F6	F6		F6	F6			
9/23/2016		F12	F12	F12				F12	F12	F12		F12	F12			
10/25/2016		F6	F6	F6				F6	F6	F6		F6	F6			
10/31/2016	•	H9	H9	H9				H9	H9	H9		H9	H9			
11/29/2016	•	H9	H9	H9	+			H9	H9	H9		H9	H9			
12/13/2016		H9	H9	H9				H9	H9	H9		H9	H9			
	XX LPUD1X99D	H9	H9	H9	+			H9	H9	H9		H9	H9			
	XX LPUD1X9A6	H9	H9	H9	+			H9	H9	H9		H9	H9			
	XX LPUD1X9AJ	H9	H9	H9	+			H9	H9	H9		H9	H9			
2. 2. 20 1. 7			. ,0		1	1	1		1		1	1				

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													CUMBERLAND CENTER, ME 040
(LP-UD-1)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
4/5/2017 XX LPUD1X990	Н9	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 10/2/2018 XX LPUD1XB11	H9 F6	H9	H9				H9	H9	H9		H9	H9 F6	
10/2/2018 XX LPUD1XB11 10/13/2018 XX LPUD1XB35	H9	F6 H9	F6 H9				F6 H9	F6 H9	F6 H9		F6 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	119		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	
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	1			H9	H9	H9			H9	
12/23/2019 XX LPUD1XC2J	H9	H9	H9	1			H9	H9	H9			H9	
1/17/2020 XX LPUD1XC3E	H9	H9	H9	-			H9	H9	H9			H9	
2/4/2020 XX LPUD1XC49	H9	H9	H9	1			H9	H9	H9			H9	
3/27/2020 XX LPUD1XCF6 4/28/2020 XX LPUD1XCDA	H9	H9	H9	1			H9	H9	H9			H9	
0-0/-0-0 111	F6	F6	F6	1		1	F6	F6	F6			F6	
U-0/-0-0 111	H9	H9	H9	1			H9	H9	H9			H9	
5/27/2020 XX LPUD1XCJJ 6/28/2020 XX LPUD1XD0D	H9 H9	H9 H9	H9 H9	1			H9 H9	H9 H9	H9 H9			H9 H9	
7/11/2020 XX LPUD1XD17	H9 H9	H9 H9	H9 H9	+			H9 H9	H9 H9	H9 H9			H9 H9	
7/11/2020 AA E 05/A5/1	пв	ПЭ	ПЭ	<u> </u>	<u> </u>	1	пэ	ПЭ	пв			ПЭ	

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													CUMBERLAND CE	.NTER, ME 04021
(LP-UD-1)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
7/22/2020 XX LPUD1XCI3	F6	F6	F6				F6	F6	F6			F6		
8/3/2020 XX LPUD1XD55	H9	H9	H9				H9	H9	H9			H9		
9/27/2020 XX LPUD1XD61	H9	H9	H9				H9	H9	H9			H9		
10/27/2020 XX LPUD1XD37	F6	F6	F6				F6	F6	F6			F6		
10/31/2020 XX LPUD1XD6F	H9	H9	H9				H9	H9	H9			H9		
12/13/2020 XX LPUD1XD83	H9	H9	H9				H9	H9	H9			H9		
LP-UD-2														
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	0.000		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		
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 11/25/2013 XX LPUD2X6A1	361	7	10.8				366	6	0.0022		125	0.6		
	315	7.4	10.9				381	8	0.0022		125	0.62		
12/11/2010 /01	288	7.6	9.2				357	10	0.0000		400	0.44		
172 172011 701	290	7.5	6.7				343	10	0.0003		130	0.51		
	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	1	170	0.48		

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(LP-UD-2)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
4/22/2014 XX	LPUD2X6FA	305	7.2	9.8				518	5	0.0033		90	1.2		
	LPUD2X6I2	298	7.4	11.4				326	11	0.0003		165	1.84		
	LPUD2X711	318	7.3	13.9				353	10	0.0006		140	0.58		
	LPUD2X71D	369	7.3	20.8				368	8	0.0003		160	0.39		
	LPUD2X6JH	300	7	18.3				437	5	0.0056		30	0.8		
	LPUD2X74D	329	7	24.9				379	7	0.0003		200	0.27		
	LPUD2X754	336	7.3	22.2				367	8	0.0011		155	0.1		
	LPUD2X738	280	7.2	13.3				360	5	0.0033		75	0.4		
	LPUD2X75G	308	7.3	13				373	7	0.0007		135	М		
	LPUD2X769	316	7.3	12.1				374	8	0.0015		135	0.14		
	LPUD2X770	310	7.6	12.6				375	5.5	0.0011		150	0.27		
	LPUD2X77B	241	7.8	17.5				352	7.5	0.0007		150	0.87		
	LPUD2X7A9	281	7.1	11.7				393	5.5	0.0017		125	1.06		
	LPUD2X7B2	294	7.6	18.8				370	9	0.0015		125	0.95		
	LPUD2X795	302	7.4	7.2				333	8.8	0.0033			1.3		
	LPUD2X7F7	174	7.2	18.8				370	8	0.0006		150	0.7		
	LPUD2X7EF	321	7.1	21.8				287	7	0.0006		160	0.34		
	LPUD2X7CH	309	7	15.5				335	7.6	0.0045			0.4		
	LPUD2X7FJ	324	7.1	19.6				363	7	0.00.0		130	0.1		
	LPUD2X7GB	329	7	19				350	7	0.0007		165	0.4		
	LPUD2X804	309	7	19.9				364	7	0.0004		155	0.1		
	LPUD2X7I6	283	7.7	12.5				336	8	0.0033			0.3		
	LPUD2X80G	H5	H5	H5				H5	H5	H5		H5	H5		
	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		
	LPUD2X82D	310	6.8	4.4				332	8	0.0006		155	0.01 U		
	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		
	LPUD2X86G	302	7.5	5.1				205	9.2	0.0033			0.6		
	LPUD2X899	305	7.2	10.9				290	9	0.0006		150	0.3		
	LPUD2X8CF	312	7.1	13.8				309	9	0.0004		145	0.2		
	LPUD2X8DJ	H9	H9	H9				H9	H9	H9		H9	H9		
	LPUD2X8F3	F6	F6	F6				F6	F6	F6		F6	F6		
	LPUD2X8B6	339	6.8	15.4				332	4.6	0.0022			0.4		
	LPUD2X90E	F12	F12	F12				F12	F12	F12			F12		
	LPUD2X93D	F12	F12	F12				F12	F12	F12			F12		
0,00,000	LPUD2X8J5	466	7.4	12.9				157	2.6	0.0017			0.8		
	LPUD2X947	H9	H9	H9				H9	H9	H9			H9		
	LPUD2X952	F12	F12	F12				F12	F12	F12			F12		
	LPUD2X95F	H9	H9	H9				H9	H9	H9			H9		
	LPUD2X99E	H5	H5	H5				H5	H5	H5		H5	H5		
2/8/2017 XX	LPUD2X9A7	H5	H5	H5				H5	H5	H5		H5	H5		
	LPUD2X9B0	H5	H5	H5				H5	H5	H5		H5	H5		
0,0,00	LPUD2X991	H5	H5	H5				H5	H5	H5		H5	H5		
	LPUD2X97B	390	6.8	6.2				405	4.5	0.0011		110	0.5		
17 10/2011 701	LPUD2X9BD	H5	H5	H5				H5	H5	H5		H5	H5		
0.0000000000000000000000000000000000000	LPUD2X9EE	327	7.4	19.8				365	7	0.0007		175	0.4		
0/10/2011 /01	LPUD2X9D9	305	7.7	15.4				413	8.3	0.0022			0.3		
.,20,20	LPUD2X9F7	341	7	18.2				372	6	0.0022		170	0.3		
	LPUD2X9IH	332	6.7	17.8				378	7	0.0006		155	0.2		
0/01/201/ //		552	0.1	17.0	1		1	570		0.0000	1	100	0.2		

### SUMMARY REPORT Field Data

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														CUMBERLAND CENTER, ME 040
(LP-UD-2	3)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
9/28/2017	XX LPUD2X9J9	330	7	16.9				347	6	0.0006		140	0.2	
10/25/2017		293	7.3	15.2				340	8	0.0006			1.2	
10/26/2017		332	6.8	16.1				401	6	0.00056		155	0.3	
11/30/2017		313	7.2	1.3				390	7	0.00111		150	0.2	
12/27/2017		306	6.5	9.7				415	9	0.0007		130	0.1	
1/19/2018		303	7	9.2				399	9	0.00111		125	0.3	
2/22/2018		456	7.6	8.9				373	9	0.00167		160	0.2	
3/24/2018		308	6.8	8.5				423	9	0.00037		125	0.5	
4/3/2018		267	7.2	8.3				463	8	0.00334			1.2	
4/28/2018		263	7.1	13.6				420	10	0.00056		120	0.5	
5/11/2018		309	6.9	13.3				415	8	0.00111		120	0.2	
6/2/2018		359	6.6	15.3				356	7	0.00111		125	0.7	
7/2/2018		364	7.3	20.1				372	7	0.0011		120	0.5	
7/17/2018		327	8.5	15.2				393	7.2	0.00056			1.1	
8/17/2018		390	6.7	23.8				344	7	0.00037		140	1.1	
9/1/2018		353	6.7	18.3				375	6	0.0004		125	0.7	
10/2/2018		314	7.7	14.4				476	6.7	0.00056			0.8	
10/13/2018		391	5.7	15.4				370	7	0.0004		150	1.9	
11/2/2018		273	6.2	12.1				370	8	0.0003		120	1.5	
12/7/2018		285	5.8	7.6				360	7	0.0007		130	1.1	
1/3/2019		324	6.9	5.1				376	8	0.0004		140	1.6	
2/2/2019		444	7.7	3.1				374	7	0.0002		125	3.8	
3/2/2019		317	5.9	6.1				352	7	0.0003		150	0.8	
4/5/2019		272	8	13.1				380	8	0.0002		125	0.8	
4/23/2019		243	7.1	6.3				359	9	0.0022		120	0.6	
5/10/2019		299	6.4	13.7				348	7	0.0004		125	1.7	
6/24/2019		272	7.2	16				367	8	0.0033		125	0.9	
7/16/2019		284	7.5	16.2				402	12	0.0011		120	0.4	
7/30/2019		300	7.3	20.3				355	8	0.0002		135	0.4	
8/20/2019		281	7.4	25.2				355	5	0.0022		130	0.2	
9/20/2019		300	7.3	21.6				362	6	0.0002		125	0.2	
10/14/2019		271	7.3	18.2				348	8	0.0017		125	0.8	
10/29/2019		273	7.3	12.7				333	7.8	0.0006		120	1.1	
11/27/2019		257	7.4	20.9				395	8	0.0022		125	0.7	
12/23/2019		267	7.2	10.4			1	378	8	0.0045		120	0.3	
1/17/2020		253	7.3	8			1	418	10	0.0013		125	0.7	
2/4/2020		256	7.3	10.4		1	1	377	10	0.0025		125	0.2	
3/27/2020		232	7.3	10.7		1	1	423	6	0.0067		125	0.1	
4/28/2020		304	7.7	7.4		1	1	336	8.5	0.0011			0.2	
4/29/2020		263	7.3	11.7		1	1	309	8	0.0017		125	0.4	
5/27/2020		245	7.1	21.1			1	320	6	0.0033		135	0.1	
6/28/2020		292	6.8	22.6			1	323	6	0.0006		150	0.1 U	
7/11/2020		310	7	21.9			1	327	6	0.0017		175	0.1	
7/21/2020		284	6.8	16.7			1	371	6.1	0.0006		110	0.6	
8/3/2020		303	7	22.1			1	352	8	0.0000		160	0.2	
9/27/2020		282	7.2	18.1			1	414	6	0.0007		175	0.2	
10/27/2020	, , ,	284	7.5	12.1			1	403	8.3	0.0000		175	0.8	
10/21/2020		291	7.3	15			†	398	6.3	0.0011	+	150	0.8	
11/29/2020		291	7.4	14.8			1	419	6	0.0011		150	0.2	
12/13/2020		292	7.3	11.8			+	385	6	0.0023		135	0.4	
12/13/2020	AA = 002A004	200	1.1	11.0	1	1	1	300	D	0.0022	<u> </u>	130	0.0	

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SEVEE & MAHER ENGINEERS, INC.

	FOR: Juniper Rid	ige Lanumi						Field Data						4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(MW04-102)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date Type	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
MW04-102														
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	
	GW102X57I	230	7.9	15.8	170.22	162.22	8	38	3			100	1.4	
	GW102X5E9	221	7.7	14.1	170.22	164.44	5.78	178	3		17.98	45	1.5	
	GW102X5J0	220	8.4	7	170.22	164.42	5.8	396	3			85	0.9	
	GW102X655	227	7.8	16.1	170.22	163.72	6.5	334	3			100	0.8	
	GW102X67F	207	8.3	12.7	170.22	163.12	7.1	306	1		18.05	100	1.2	
	GW102X6G1	226	6.2	8.5	170.22	164.62	5.6	476	5			75	1.1	
	GW102X704	226	7.6	15.8	170.22	163.92	6.3	429	3			105	0.9	
	GW102X73F	196	8.1	12.9	170.22	163.64	6.58	431	2		18.05	90	1.6	
	GW102X79C	210	8.2	6.8	170.22	164.72	5.5	380	5.1				0.8	
	GW102X7D4	237	8	17.3	170.22	163.32	6.9	349	3		40.05		0.9	
	GW102X7ID GW102X873	214 244	8.4	10.8 5.3	170.22 170.22	163.47 164.22	6.75	285 350	5.29 6.9		18.05		2.1 4.6	
	GW102X873 GW102X8BD	275	8	17.1	170.22	164.22	7.6	350	3.3				3.3	
	GW102X8JC	237	7.5	13	170.22	163.02	7.0	382	2.6		18.05		8.1	
	GW102X83C	219	8.2	6.3	170.22	163.42	6.8	324	7.5		16.03		0.6	
	GW102X9DG	222	8	15.9	170.22	162.14	8.08	297	3.6				2.1	
	GW102X9HB	240	7.9	15.6	170.22	162.02	8.2	315	3		18.05		2.4	
	GW102XA3A	320	8.2	4.5	170.22	164.02	6.2	342	7.3		10.00		2.7	
	GW102XACB	228	7.7	15.7	170.22	161.92	8.3	293	5				1.9	
	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	
4/27/2020 XX	GW102XCDH	235	7	6.1	170.22	163.12	7.1	348	4.9				1.2	
7/20/2020 XX	GW102XCIA	219	7.6	15.6	170.22	161.8	8.42	262	3.9				2.4	
10/26/2020 XX	GW102XD3E	224	7.2	12.5	170.22	162.22	8	351	5.5		18.05		2.7	
MW04-105														
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	
	GW105X5J1	249	6.8	7.1	165.59	158.04	7.55	381	1			90	3	
	GW105X68B	286	6.7	11.2	165.59	157.16	8.43	324	0.6		22.83	125	1.2	
10/22/2011 /01	GW105X747	322	6.6	10.5	165.59	158.31	7.28	447	0.4		22.83	110	0.2	
	GW105X7J7	296	6.7	10.1	165.59	157.97	7.62	295	0.4		22.83		0.9	
	GW105X909	305	6.9	10.6	165.59	157.28	8.31	346	0.4		22.83		3.7	
	GW105X9I8	332	6.9	14.3	165.59	156.39	9.2	299	0.4		22.85		0.7	
	GW105XB26	341	6.9	11.7	165.59	156.98	8.61	307	0.4		22.84		1.9	
	GW105XBJ6	218	6.8	10.3	165.59	158.39	7.2	265	0.4		22.83		1.8	
10/27/2020 XX	GW105XD4A	276	7.1	11.4	165.59	157.29	8.3	348	0.6		22.84		1.8	

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10/24/2012 XX GW204X5E2

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SUMMARY REPORT

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SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD

#### FOR: Juniper Ridge Landfill Field Data CUMBERLAND CENTER, ME 04021 Temperature Water Level Eh (MW04-109R) Specific рΗ Water Level Water Level Dissolved Flow Rate Well Depth Alkalinity Turbidity (field) Conductance Reference Point Elevation Depth Oxygen (CaCO3) (field) μmhos/cm STU Deg C Feet Feet Feet mV mg/L cfs Feet mg/L NTU Type Sample ID @25°C Date 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 XX GW109X4IB 10/25/2011 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 408 160.13 152.86 -155 6.5 19.1 7.27 0.3 140 1 10/23/2012 XX GW109X5EB 404 6.6 9.3 160.13 153.73 6.4 241 8.0 22.92 160 1.1 4/23/2013 XX GW109X5J2 390 6.8 10.2 160.13 153.45 6.68 341 165 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 8.0 200 0 7/29/2014 XX GW109X705 407 6.6 17.7 160.13 153.34 6.79 361 0.3 220 0.9 XX GW109X73G 10/21/2014 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 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 8.0 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 237 160.13 2.6 6.8 9 154.02 6.11 419 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 7.2 160.13 154.4 389 1.7 0.7 5.73 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 22.97 437 6.7 11.1 160.13 152.28 7.85 330 0.4 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 154.17 0.1 U 22.97 2.8 418 6.8 13.2 160.13 5.96 371 4/28/2020 XX GW109XCDI 385 6.9 8.7 160.13 153.68 6.45 354 4.3 1.2 7/21/2020 XX GW109XCIB 408 6.8 20.2 160.13 152.85 7.28 236 1.8 2.7 10/27/2020 XX GW109XD3F 391 6.9 9.2 160.13 153.05 7.08 327 0.6 27.98 1.5 MW06-01 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 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 4/29/2020 XX GWXXXXCF1 95 7.2 6.5 166.131 F1 394 10.9 0.3 7/22/2020 XX GWXXXXCJE 98 6.7 18.1 166.131 162.881 3.25 386 6.8 0.2 10/28/2020 XX GWXXXXD4C 83 7.9 2.67 372 0.3 9.8 166.131 163.461 10.5 22.14 MW-204 4/26/2011 XX GW204X4A9 164.75 193 7.3 9.4 156.01 8.74 328 0.8 50 0.4 7/19/2011 XX GW204X4E7 176 6.9 15.1 164.75 155.32 9.43 355 100 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 9 255 100 2.7 7/23/2012 XX GW204X57B 189 7.2 16 164.75 154.6 10.15 258 0.6 80 1.3

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### SUMMARY REPORT Field Data

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														CUMBERL	AND CENTER,	ME 04021
(MW-204)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date Type	e Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
		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			
10/26/2020 XX	GW204XD48	265	6.6	11.2	164.75	154.65	10.1	337	0.4		24.47		3.5			
MW-206																
4/25/2011 XX	GW206X48I	179	7.8	10.7	204.67	200.11	4.56	350	3			60	1.4			<u></u>
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			
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		20.10		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	<del> </del>	25.10		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			
4/27/2020 XX	GW206XCC5	149	7.4	4.7	204.67	199.57	5.1	237	8.4	+	20.10		5.1			
7/20/2020 XX	GW206XCGI	146	8.1	14.3	204.67	193.87	10.8	191	7.5				2.8			
		148	7.6	7.3	204.67	195.07	9.6	342	8.7	-	23.15		2.4			
MW-223A	- 112001320	170	7.0	7.3	204.01	190.07	5.0	U+Z	0.1	1	20.10		2.4			
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			
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													CUMBERLAND CENTER, ME 04
(MW-223A)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
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		00.00	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	
4/28/2020 XX GW223ACC7	531	7.4	6.2	176.54	174.99	1.55	336	0.8				1	
7/21/2020 XX GW223ACH0	575	7.4	13.5	176.54	173.12	3.42	212	0.8				1	
10/27/2020 XX GW223AD24	583	7.4	9.5	176.54	173.74	2.8	295	0.8		35.57		1.5	
MW-223B													
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	
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				8.0	
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	

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														CUMBERLAND C	ENTER, ME 04021
(MW-223B)	)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field	Turbidity (field)		
Date Ty	/pe Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
4/23/2019	(X GW223BB62	465	7.1	5.1	175.93	173.48	2.45	391	0.8				1.1		
	CX GW223BBCD	491	7.3	13.7	175.93	172.63	3.3	259	2				1.6		
10/29/2019		480	7.2	10.4	175.93	173.53	2.4	349	0.1 U		20.07		1.3		
4/28/2020		461	7	5.6	175.93	173.13	2.8	355	0.5		20.01		1		
7/21/2020		497	7.1	12.3	175.93	171.43	4.5	220	0.6				1.4		
10/27/2020		505	7.2	10.7	175.93	172.13	3.8	328	0.3		20.07		1.9		
MW-227	"					-				1					
4/26/2011	(X GW227X492	194	8.1	9.8	164.23	160.13	4.1	339	2			70	1.6		
7/19/2011	(X GW227X4D0	199	8.5	15.6	164.23	158.48	5.75	356	1			60	0.2		
10/25/2011	CX GW227X4GF	188	8.3	11.3	164.23	160.18	4.05	346	0.6		22.28	65	3.3		
4/24/2012	(X GW227X515	186	8.5	6.8	164.23	160.59	3.64	-455	2			120	3		
7/24/2012	(X GW227X564	191	7.8	13.9	164.23	157.78	6.45	43	1			80	1.3		
10/23/2012	CX GW227X5CF	201	7.8	11	164.23	160	4.23	213	0.3		22.3	100	1.3		
4/23/2013	(X GW227X5H6	189	8.5	5.8	164.23	159.9	4.33	281	1			85	0.2		
7/30/2013	(X GW227X63B	192	8.9	15	164.23	159.84	4.39	227	0.8			85	0.3		
10/29/2013	(X GW227X664	177	8.4	10.5	164.23	159.58	4.65	305	1		22.28	80	0.7		
4/22/2014	(X GW227X6E7	187	8.2	8.3	164.23	160.03	4.2	388	2			70	0.2		
7/29/2014	(X GW227X6IE	180	8.3	14.2	164.23	159.8	4.43	306	0.8			75	1.3		
10/21/2014	(X GW227X724	181	8.3	10.7	164.23	159.63	4.6	376	0.8		22.3	85	1.2		
4/28/2015		184	8.3	6.7	164.23	159.93	4.3	350	3.1				0.8		
7/14/2015	CX GW227X7BE	193	8.3	15.3	164.23	158.43	5.8	353	1.1				1.1		
10/27/2015	CX GW227X7H3	182	8.1	11.4	164.23	159.63	4.6	297	3.9		22.3		0.7		
4/5/2016	(X GW227X85D	205	8.1	3.1	164.23	159.73	4.5	320	3.4				2.2		
7/26/2016	(X GW227X8A3	201	8	13.9	164.23	158.68	5.55	365	1.8				5.2		
10/25/2016	(X GW227X8I2	199	7.9	10.2	164.23	159.62	4.61	353	3.5		22.3		5.3		
4/18/2017	(X GW227X968	188	8.2	5.8	164.23	159.63	4.6	356	5.4				1.4		
7/25/2017	⟨X GW227X9C6	185	8.2	12.6	164.23	158.03	6.2	314	1.5				2.4		
10/24/2017	⟨X GW227X9G1	191	8.1	13.1	164.23	158.58	5.65	354	1.2		22.3		2		
4/3/2018	CX GW227XA1J	284	8.2	4.8	164.23	160.03	4.2	326	4.9				1.3		
7/17/2018	CX GW227XAB1	189	8.2	13.5	164.23	158.38	5.85	278	2.1				2.4		
10/2/2018	⟨X GW227XAJJ	191	8.1	11.1	164.23	159.05	5.18	274	2		22.3		1.6		
4/23/2019	CX GW227XB4F	194	8.3	4.9	164.23	160.1	4.13	389	3.2				2.5		
7/16/2019	CX GW227XBB8	189	8.1	15	164.23	159.48	4.75	244	3.1				3.7		
10/29/2019	CX GW227XBH1	181	8.3	10.5	164.23	160.04	4.19	333	0.1 U		22.3		2.6		
4/28/2020	CX GW227XCC8	173	7.8	5.8	164.23	159.92	4.31	352	2.7				1.5		
7/21/2020	CX GW227XCH1	182	8	12.9	164.23	159.18	5.05	219	2.7				2.2		
10/27/2020	CX GW227XD25	184	7.9	10.9	164.23	159.78	4.45	314	5.3		22.31		2		
MW-301															
	⟨X GW301X493	210	8.2	9.3	166.36	162.05	4.31	354	1			60	3		
	(X GW301X4D1	193	8.1	15.7	166.36	161.26	5.1	267	1			60	1.1		
	CX GW301X4GG	204	7.3	9.4	166.36	162.25	4.11	265	0.6		185.1	55	5.5		
4/25/2012		194	8.1	9.5	166.36	162.43	3.93	290	0.6			100	7.6		
7/25/2012		202	7.4	13.3	166.36	161.36	5	307	0.8			120	1.5		
	CX GW301X5CG	171	7.2	15.5	166.36	161.8	4.56	448	1		179.61	55	8.5		
	(X GW301X5H7	!	!	!	166.36		!	!	!			!	!		
	(X GW301X63C	209	6.3	16.9	165.91	165.87	0.04	367	0.4		1	60	6.2		
	(X GW301X665	198	7	7.9	165.91	165.81	0.1	339	0.6		184.1	70	3.2		
4/23/2014	⟨X GW301X6E8	197	6.2	9.3	165.91	165.91	F1	438	1		1	60	3.1		

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								i icia Data						CUMBERLAND CENTER, ME	E 04021
(MW-301)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type	e Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
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		
4/27/2020 XX	GW301XCC9	228	7.8	7.1	165.91	165.6	0.31	301	0.2				2.4		
7/20/2020 XX	GW301XCH2	248	7.9	14.2	165.91	165.89	0.02	143	0.2				3.3		
10/26/2020 XX	GW301XD26	248	7.3	9.8	165.91	164.11	1.8	334	0.2		185.12		2.7		
MW-302R															
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		
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		

### SUMMARY REPORT Field Data

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									i icia bata						CUMBERL	AND CENTER,	ME 04021
(MW-3021	R)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date 1	Гуре	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
4/27/2020	XX	GW302XCDC	269	5.7	6	206.86	199.89	6.97	367	7.8				0.8			
7/20/2020		GW302XCI5	399	7.1	12.8	206.86	190.91	15.95	289	5.3				1.9			
10/26/2020		GW302XD39	562	6.6	9.7	206.86	193.06	13.8	361	2.2		32.27		1.7			
MW-303		II.										-				l.	
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	!	!	-	!		!	!	!			
MW12-3	303I	R															
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		GW303X5IG	254	6.7	9.4	208.89	183.26	25.63	311	2			110	2			
		GW303X651	253	6.6	12.4	208.89	182.91	25.98	418	1			105	0.9			
10/28/2013		GW303X67D	223	6.5	10.2	208.89	181.46	27.43	353	1		43.38	140	2.4			
4/21/2014		GW303X6FH	274	6.6	9.5	208.89	184.54	24.35	401	1			120	0.6			
7/28/2014		GW303X701	263	6.6	11.7	208.89	182.81	26.08	411	0.8			160	0.6			
10/20/2014		GW303X73D	440	6.8	10.5	208.89	178.81	30.08	447	0.8		43.38	180	1			
4/27/2015		GW303X799	874	6.1	8.7	208.89	183.49	25.4	407	5				0.5			
6/18/2015		42173-1	564	6.4	12.6	208.89	182.59	26.3	158	1				4.2			
7/13/2015		GW303X7D1	347	6.5	13.9	208.89	182.07	26.82	330	0.9				1.4			
10/26/2015		GW303X7IA	370	6.5	10.4	208.89	179.6	29.29	313	1.4		43.4		1.2			
4/4/2016		GW303X870 GW303X8BA	411	6.4	6.7	208.89	184.34	24.55	378	7.5				1.7			
7/25/2016 10/24/2016		GW303X8J9	549 681	6.3	14.3 12.2	208.89 208.89	180.39 176.39	28.5 32.5	369 389	0.9 5.5		43.4		1.3 17.2			
4/17/2017		GW303X639 GW303X97F	466	6.4	10.2	208.89	182.29	26.6	382	7.7		43.4		1.8			
7/24/2017		GW303X971	419	6.2	12.3	208.89	181.5	27.39	343	0.8				2.8			
10/23/2017		GW303X9H8	414	6.8	12.9	208.89	176.94	31.95	375	2.3		43.4		37.5			
4/2/2018		GW303XA37	1711	6	8.8	208.89	181.64	27.25	408	5.1		75.7		1.9			
7/16/2018		GW303XAC8	501	6.2	14.4	208.89	180.59	28.3	333	0.9				1.8			
10/1/2018		GW303XB16	408	6.6	11.3	208.89	176.81	32.08	272	1.4		43.4		12.5			
4/22/2019		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			
4/27/2020	XX	GW303XCDE	409	6.1	8.7	208.89	180.29	28.6	361	1.9				3.6			
7/20/2020	XX	GW303XCI7	280	6.9	14.3	208.89	177.79	31.1	227	1.1				2.4			
10/26/2020	XX	GW303XD3B	577	6.2	8.9	208.89	175.49	33.4	390	1.3		43.4		2.5			
MW-401	lA																
4/25/2011		GW401A49H	132	7.6	8.6	156.83	155.23	1.6	320	3			115	0			·
		GW401A4DF	142	7.5	11.5	156.83	150.68	6.15	403	5			140	0			
10/24/2011		GW401A4HA	128	8.2	10.2	156.83	153.21	3.62	309	6		112.02	50	0			
4/23/2012		GW401A520	123	8.3	8.6	156.83	152.41	4.42	422	5			50	2.4			
7/23/2012		GW401A56J	126	7.8	12.7	156.83	150.8	6.03	394	6			100	4.9			
10/22/2012		GW401A5DA	119	7.1	9.9	156.83	155.9	0.93	452	5		112.02	75	0.7			
		GW401A5I1	123	7.9	7.8	156.83	153.93	2.9	233	5		1	45	1.4			
		GW401A646	124	7.2	12.3	156.83	151.23	5.6	330	6		440.00	45	1.6			
		GW401A66J	140	6.8	9.3	156.83	150.73	6.1	209	5		112.04	45	0.2			
4/21/2014	XX	GW401A6F2 GW401A6J9	131	7.9	8.4	156.83	155.69	1.14	396	6		1	55	1.1			
7/28/2014	λX	GVV40 IA0J9	129	8.2	11.2	156.83	151.73	5.1	384	4	<u> </u>	<u> </u>	25	2.1			

### SUMMARY REPORT Field Data

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													CUMBERLAND CI	ENTER, ME 0402
(MW-401A)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
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		
0/28/2019 XX GW401ABHG	140	7.6	9.3	156.83	154.62	2.21	243	4.9		112.21		0.5		
4/27/2020 XX GW401ACD3	147	8.5	6.8	156.83	153.91	2.92	278	5.7		112.21		0.5		
7/20/2020 XX GW401ACHG	121	7.5	11.1	156.83	149.85	6.98	252	5.3				0.2		
10/26/2020 XX GW401AD30	122	7.6	8.9	156.83	150.56	6.27	435	5.7		112.03		0.3		
	122	7.0	0.9	130.03	130.30	0.27	433	3.7		112.03		0.5		
MW-401B														
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		
0/26/2015 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		20.1		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	149.79	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		20.1		0.2		
7/24/2017 XX GW401B9D2	305	6.8	9.5	157.32	149.72	7.66	200	0.5				0.2		
0/25/2017 XX GW401B9GH	375	6.8	12.3	157.32	149.72	8.25	119	1		23.14		6.7		
4/2/2018 XX GW401BA2G	272	7.3	6.3	157.32	151.07	6.25	401	0.2	1	23.14		0.7		
			9.7		149.83	7.49			1			0.5		<del></del>
	350	7.5		157.32			220	0.1		20.44				
10/1/2010 /01	363	7.2	10.4	157.32	149.42	7.9	417	0.1		23.14		0.2		
	216	7.7	7.5	157.32	151	6.32	186	0.3				0.3		
77 10/2010 701	267	7.2	9.2	157.32	150.56	6.76	216	3.7		00.44		0.6		
10/28/2019 XX GW401BBHH	327	6.8	10	157.32	151.12	6.2	213	1.9		23.14	_	2.2		
4/27/2020 XX GW401BCD4	246	7.7	5.9	157.32	150.64	6.68	196	0.2		1		1.2		

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4/29/2015 XX GW402B790

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SUMMARY REPORT

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SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD

#### FOR: Juniper Ridge Landfill Field Data CUMBERLAND CENTER, ME 04021 Temperature Water Level (MW-401B) Specific pН Water Level Water Level Eh Dissolved Flow Rate Well Depth Alkalinity Turbidity (field) Conductance Reference Point Elevation Depth Oxygen (CaCO3) (field) μmhos/cm STU Deg C Feet Feet Feet mV mg/L cfs Feet mg/L NTU Date Type Sample ID @25°C 7/20/2020 XX GW401BCHH 278 6.9 13.1 157.32 149.88 7.44 159 0.4 0.3 10/26/2020 XX GW401BD31 296 6.9 9.6 157.32 150.22 7.1 172 0.6 23.13 0.3 MW-402A XX GW402A49J 4/27/2011 130 7.8 152.2 F1 287 3 135 0 XX GW402A4DH 7/20/2011 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 F1 7.5 9.3 152.2 353 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 7.4 7.9 152.2 F1 405 4 108.35 60 0.8 116 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 141 152.2 F1 348 30 0.3 8.1 7.7 5 108.35 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 0.8 7/15/2015 XX GW402A7CB 124 8.6 11.2 152.2 F1 306 0.4 3 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 8.2 152.2 151.74 0.46 245 108.28 0.4 8.3 4.5 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 2.7 0.4 8.4 10.2 152.2 152.15 0.05 321 XX GW402A9GI 10/26/2017 122 8.1 11 152.2 152.15 0.05 365 2.8 108.28 0.6 4/4/2018 XX GW402AA2H 130 6.1 152.2 152.18 0.02 460 5.2 0.3 8.6 7/18/2018 XX GW402AABI 136 407 8.5 11.9 152.2 151.97 0.23 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 4/29/2020 XX GW402ACD5 134 8.3 7.5 152.2 F1 264 3.2 0.8 7/22/2020 XX GW402ACHI 111 8.5 10.6 152.2 152.16 0.04 319 3.4 0.5 10/28/2020 XX GW402AD32 112 8.5 6.7 152.2 F1 333 3.2 108.55 0.3 MW-402B 4/27/2011 XX GW402B4A0 164 8.1 7.1 152.74 150.02 2.72 226 135 0 XX GW402B4DI 11.7 152.74 7/20/2011 141 8.1 148.19 4.55 223 63 3.5 XX GW402B4HD 10/26/2011 160 7.9 8 152.74 149.79 2.95 107 25.18 100 0 4/24/2012 XX GW402B523 149 8.4 152.74 150.09 2.65 264 0.2 75 0.8 7.1 7/25/2012 XX GW402B572 157 8.5 10.8 152.74 148.12 4.62 0.3 90 2.2 279 10/24/2012 XX GW402B5DD 141 7.6 8.9 152.74 149.84 2.9 323 0.4 25.2 50 3.2 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 40 8.2 11.6 152.74 148.82 3.92 76 0.3 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 15 0.2 10/22/2014 XX GW402B733 147 8.7 9.6 152.74 148.87 3.87 321 25.13 35 0.3

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### SUMMARY REPORT Field Data

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									Fleid Data						ARD ROAD AND CENTER,	ME 04021
(MW-402)	B)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)		
Date -	Туре	e Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
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		
4/29/2020	XX	GW402BCD6	157	8.3	6.4	152.74	150.03	2.71	232	0.3				0.5		
7/22/2020	XX	GW402BCHJ	130	8	8.9	152.74	148.06	4.68	360	0.4				0.3		
10/28/2020	XX	GW402BD33	131	8.6	8.7	152.74	148.82	3.92	331	0.4		25.2		0.5		
MW-501	1															
4/5/2018		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		GW501XAFE	255	6.7	9.2	166.19		F1	327	7				3.9		
4/24/2019		GW501XB7C	297	6.7	8	166.19		F1	383	6.3				0.2		
7/17/2019		GW501XBE0	176	7.8	13.3	166.19		F1	200	13.3				0.4		
10/30/2019		GW501XBJ9	367	6.9	9	166.19		F1	208	4.7		47.6		0.1		
4/29/2020		GW501XCF0	157	7.6	8.2	166.19		F1	386	7.7				0.2		
7/22/2020		GW501XCJD	310	6	15.5	166.19		F1	331	4				0.3		
10/28/2020	XX	GW501XD4D	295	7.6	8.6	166.19		F1	367	0.9		47.6		0.2		
MW09-9					<del></del>				<del>-</del>	<del></del>				,	 	
4/26/2011		GW901X49G	254	8	9.7	165.1	156.5	8.6	355	2			50	1.6		
7/19/2011		GW901X4DE	219	7.9	19.2	165.1	154.6	10.5	329	2	1		75	0.3		
10/25/2011		GW901X4H9	192	8.2	11.7	165.1	155.75	9.35	206	1	1	22.75	70	3.1		
4/24/2012		GW901X51J	189	8.4	11.9	165.1	156.5	8.6	183	3	1		100	3.3		
7/24/2012		GW901X56I	194	7.9	17.2	165.1	154.5	10.6	20	2	1		120	1		
10/23/2012		GW901X5D9	197	7.6	12.2	165.1	156.3	8.8	215	2	1	22.73	100	1.4		
4/23/2013		GW901X5I0	178	8.4	9.8	165.1	155.68	9.42	382	4	1		65	0.1		
7/30/2013		GW901X645	197	7.7	14.3	165.1	155.16	9.94	352	4	1		80	0.4		
10/29/2013		GW901X66I	195	7.3	8.9	165.1	154.47	10.63	312	2	1	22.8	85	1.4		
4/22/2014		GW901X6F1	231	7.4	13.1	165.1	157.03	8.07	464	5	1		85	1.5		
7/29/2014		GW901X6J8	208	7.7	15.8	165.1	155.79	9.31	408	4	1		95	8.0		
10/21/2014		GW901X72J	266	7.6	12.3	165.1	155.4	9.7	401	1	1	22.8	120	0		
4/28/2015		GW901X78G	286	7.5	11	165.1	157.6	7.5	371	5.1			1	1.4		
7/14/2015		GW901X7C8	306	7.5	18.6	165.1	154.85	10.25	368	4.6				1		
10/27/2015		GW901X7HH	318	7.7	11.8	165.1	155.62	9.48	301	3.4		22.82	1	0.2		
4/5/2016		GW901X867	356	7.4	4.6	165.1	157.3	7.8	362	5.3			1	1.1		
7/26/2016	XX	GW901X8AH	366	7.6	20.4	165.1	154.38	10.72	337	4.3	1	1	1	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		

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														CUMBERLAND CENTE	R, ME 04021
(MW09-901)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity T (CaCO3) (field)	Turbidity (field)		
Date Type	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
4/18/2017 XX	GW901X972	341	7	8.5	165.1	157.65	7.45	422	5.4				0.7		1
	GW901X9D0	379	6.5	19.5	165.1	154.19	10.91	346	2.2				2.5		+
	GW901X9GF	392	6.9	16.3	165.1	153.18	11.92	388	0.8		22.8		2.6		+
	GW901XA2E	482	6.8	10.1	165.1	158.8	6.3	413	3.2				0.2		
	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		
4/28/2020 XX	GW901XCD2	339	7.1	9.7	165.1	158.41	6.69	370	2				1.4		
7/21/2020 XX	GW901XCHF	348	7.2	13.3	165.1	156.3	8.8	235	0.3				1.1		
10/27/2020 XX	GW901XD2J	341	7	10.3	165.1	156.95	8.15	359	0.4		22.81		1.5		
OW-06-03															
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	1				1		
7/19/2018 XX	GWXXXXAEI	I	1	1			1	I	1				1		
8/21/2018 XX	GWXXXXAFH	1	1	1	1	1	1	I	1				1		
4/23/2019 XX	GWXXXXB7B	409	6	6.2	206.04	185.54	20.5	358	3				8.2		
	GWXXXXBDJ	I	1	I	206.04	I	1	I	I				1		
	GWXXXXBJA	448	6.4	10.3	206.04	182.91	23.13	176	0.9		25.81		10.2		
	GWXXXXCEJ	641	6.1	8.7	206.04	180.54	25.5	140	2.3				43.8		
	GWXXXXCJC	I	I	I	206.04	I	I	I	I				I		
10/28/2020 XX	GWXXXXD4E	778	6.3	7	206.04	181.02	25.02	200	1.3		25.81		11.7		
OW-601A															
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		
	GW601ABB6	409	7.1	13.3	217.94	181.74	36.2	291	2				1.7		
	GW601ABJB	378	7	11.3	217.94	179.69	38.25	314	6.4		79.02		2		
	GW601ACC6	311	5.9	10.4	217.94	180.04	37.9	378	2.6				6.9		
	GW601ACGJ	369	6.7	11.6	217.94	177.59	40.35	290	2.6				8.9		
L	GW601AD4F	415	7.1	8.4	217.94	175.34	42.6	291	1.8		79.02		10.6		
OW-601B															
	GW601BA6A	371	6.4	8.6	217.5	181.95	35.55	361	4.4		59.2		2.5		
	GW601BA77	323	6.5	9.1	217.5	181.9	35.6	287	1.4				3		
	GW601BAE5	339	6.2	12.6	217.5	179.95	37.55	370	3.1				2.5		
	GW601BAF6	386	6.2	14.7	217.5	178.42	39.08	340	4.3				5		
	GW601BB77	358	6.5	7.7	217.5	180.92	36.58	406	2.5				1		
	GW601BBDF	351	6.2	11	217.5	181.34	36.16	259	2.1				5.7		
	GW601BBJC	369	6.7	10.4	217.5	179.2	38.3	328	3		59.19		6.3		
	GW601BCEF	312	5.9	9.9	217.5	179.65	37.85	381	2.9				7.6		
	GW601BCJ8	342	6.5	11.5	217.5	177.23	40.27	297	5.5				3.5		
10/28/2020 XX	GW601BD4G	403	6.5	8.3	217.5	174.95	42.55	341	3.2		59.2		2.4		
OW-602A															
4/11/2018 XX	GW602AA6B	144	7.3	8.1	213.17	183.25	29.92	345	9.8		240		0.5		

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								i icia bata						CUMBERLAND CENTER, ME 04021
(OW-602A)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date Type	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
6/6/2018 XX G	SW602AA78	143	7.2	7.9	213.17	181.67	31.5	335	12.9				2	
	SW602AAE6	143	8.2	8.6	213.17	179.32	33.85	467	10.3				2.2	
8/21/2018 XX G	GW602AAF7	143	6.7	17.5	213.17	177.92	35.25	301	7.5				3.7	
4/24/2019 XX G	W602AB78	93	7.1	7.2	213.17	178.72	34.45	391	10				0.9	
7/18/2019 XX G	W602ABDG	110	6.8	8.7	213.17	178.42	34.75	308	11.2				1.6	
10/29/2019 XX G	GW602ABJD	120	7.1	9.2	213.17	177.37	35.8	324	8.2		239.4		0.7	
	GW602ACEG	128	6.8	9.8	213.17	177.45	35.72	333	8.3				0.5	
	GW602ACJ9	152	7.1	9.8	213.17	175.17	38	308	8.2				1.2	
10/28/2020 XX G	GW602AD4H	171	7	6.5	213.17	173.27	39.9	306	7		239.4		2.4	
OW-603B														
4/12/2018 XX G	GW603BA6C	302	5.7	7.7	208.07	187.63	20.44	415	0.3		28.84		7.2	
6/5/2018 XX G	GW603BA79	211	5.9	8.3	208.07	185.27	22.8	393	3.7				2.2	
7/19/2018 XX G	GW603BAE7	223	7.1	19.7	208.07	183.42	24.65	402	1.2				430	
8/21/2018 XX G	SW603BAF8	136	6.1	16	208.07	182.47	25.6	315	5				11.3	
4/23/2019 XX G	SW603BB79	122	6.4	6.3	208.07	181.17	26.9	409	5.8				22.1	
	GW603BBDH	136	6.2	12.3	208.07	182.67	25.4	304	7.5				9.3	
	GW603BBJE	185	6.5	10.2	208.07	181.51	26.56	400	0.1		28.84		32.6	
	GW603BCEH	130	6.3	7.9	208.07	182.12	25.95	358	7.2				13.3	
	GW603BCJA	I	1	I	208.07	1	1	I	1				I	
10/28/2020 XX G	GW603BD4I	I	1	I	208.07	179.37	28.7	I	I		28.84		I	
OW-604A														
4/12/2018 XX G	GW604AA6D	89	6	7.1	198.8	184.5	14.3	416	1.6		33.8		3.1	
6/4/2018 XX G	GW604AA7A	78	6.3	8.1	198.8	180.3	18.5	397	7.5				1.2	
7/19/2018 XX G	GW604AAE8	89	7.8	14.5	198.8	178.25	20.55	548	6				3.2	
8/21/2018 XX G		125	6.3	16.9	198.8	175.73	23.07	334	5.4				3.7	
	SW604AB7A	119	6.4	6.2	198.8	177.81	20.99	429	5.2				2	
	SW604ABDI	124	6.1	14.1	198.8	178.95	19.85	293	3.2				5.8	
	GW604ABJF	120	6.3	11	198.8	179.06	19.74	417	0.1 U		33.8		3.7	
	GW604ACEI	155	6.1	6.9	198.8	179.03	19.77	389	6.3				1.3	
	GW604ACJB	160	6.3	16.6	198.8	175.05	23.75	310	4.2				2.3	
10/28/2020 XX G	GW604AD4J	159	7.2	7.4	198.8	172.9	25.9	369	5.6		33.71		10.9	
P-04-02							•	Ĭ	1		1			
4/27/2011 XX G		227	7.8	10.8	168.74	161.46	7.28	483	5			175	0.4	
.,,	GWXXXX4EC	201	7.4	18.8	168.74	160.93	7.81	381	3			75	0	
	GWXXXX4I7	!	!	!	168.74	450 10	!	!	!		!	!	!	
	SWXXXX52H	193	6.3	10.7	168.74	158.19	10.55	263	1			100	64.4	
	SWXXXX57G	283	7.3	4.9	168.74	157.18	11.56	346	1		20.00	85	19.1	
10/24/2012 XX G	GWXXXX5E7 GWXXXXX5II	245	6.8	13.3	168.74 168.74	162.09	6.65	340	1		39.98	60	16.2	
P-04-02R					100.74		1	1	1	1	1			
7/15/2015 XX G	WXXXX7D I	284	7.9	13.6	170.72	158.71	12.01	316	5.8				18.2	
	GWXXXX7J4	700	7.9	12.6	170.72	158.92	11.8	118	0.2		37.98	+	1.5	
	GWXXXX87I	531	8.1	8.4	170.72	159.37	11.35	272	1.9		37.80	+	2.2	
	GWXXXX8C7	772	7.8	15.4	170.72	157.92	12.8	282	1.1			+	0.8	
	GWXXXX904	629	7.8	11.1	170.72	157.92	12.81	195	1.1		37.96	+	0.8	
	GWXXXX98C	636	8.1	9.2	170.72	159.42	11.3	349	6.2		31.30	+	1.1	
7/26/2017 XX G		604	8	12.4	170.72	157.62	13.1	350	2.2				2.4	
112012011 1		004	U	12.4	110.12	101.02	10.1	550	۷.۷	1	1		4.4	

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														CUMBERLAND	CENTER, ME 04021
(P-04-02R)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field	Turbidity (field)		
Date Type	e Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU		
40/05/0047	GWXXXX9I3	404	7.7	45.4	470.70	457.00	40.5	044	2.5	1	20	1	4.7		
10/25/2017 XX		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		20		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		
4/29/2020 XX	GWXXXXCEA	419	8.1	9.8	170.72	158.75	11.97	314	4.6				0.7		
7/22/2020 XX	GWXXXXCJ3	328	7.8	12.6	170.72	156.82	13.9	335	2.4				0.5		
10/28/2020 XX	GWXXXXD46	284	8.1	10.3	170.72	157.54	13.18	356	1.8		37.88		2.1		
P-04-04															
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		1	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		02.20		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		02.01		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		02.0		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		02.01		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	<del> </del>	02.04		0.8		
7/17/2019 XX	GWXXXXBCG	190	8.1	16	169.25	159.65	9.6	304	7.7	<del> </del>	+		1.4		
10/30/2019 XX	GWXXXXBI9	187	7.9	12	169.25	160.05	9.2	247	2.4		32.34		2.2		
4/29/2020 XX	GWXXXXCDG	197	8.2	9.9	169.25	161.29	7.96	314	7.2		32.34		0.8		
7/22/2020 XX	GWXXXXCI9	170	7.8	14	169.25	157.93	11.32	329	4	1	+		0.6		
10/28/2020 XX	GWXXXXD3D	167	8.1	10.3	169.25	158.45	10.8	347	2.4	1	37.1		1.8		
P-206A		107	0.1	10.0	100.20	150.45	10.0	547	2.7		07.1	1	1.0		
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	<del> </del>	93.5	50	9.3	<del></del>	
4/21/2014 XX	GW206A6FJ	129	7.9	10.9	204.51	184.61	19.9	276	3	1	93.3	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	1	93.48	55	1.2		
4/27/2015 XX	GW206A79A	128	7.3	6.7	204.51	183.31	25.7	325 104	2.3	+	93.40	55	1.4		+
4/2//2010 AX	3200/11 J/1	122	1.3	0.7	204.01	103.31	21.2	104	2.3	1		1	1.4		

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														CUMBERLAND CENTER, ME 040
(P-206A)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
7/13/2015	XX GW206A7D2	133	7.8	14.8	204.51	182.11	22.4	111	2.1				2.1	
10/26/2015		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		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	
4/27/2020	XX GW206ACDF	244	6.9	4.6	204.51	180.41	24.1	101	3.6				1.3	
7/20/2020	XX GW206ACI8	242	7.7	19.5	204.51	177.76	26.75	133	4.2				1.9	
	XX GW206AD3C	Α	Α	А	204.51	169.81	34.7	А	Α		93.15		Α	
WS10-	1					I			1	1		- 1		1
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	
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		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		196	7.2	4.1				459	9.5				1.1	
7/16/2018		186	7.2	23.1				245	2.5				2.1	
10/1/2018		148	6.2	11.7				818	5.6				2.1	
4/22/2019		187	6.4	10				195	3.1				1	
7/15/2019		131	5.3	24.5				504	5.3				6.2	
10/28/2019		172	6.3	9.3	1			260	6.7				1.1	
4/27/2020		346	7	6.1	1			82	0.8				2.7	
7/20/2020	XX GWPWS1CH7	254	6	23.2	1			167	0.4				3.1	
	XX GWPWS1D2B	175	6	5.2	<del> </del>			454	3.9				2.1	

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	FOR: Juniper Ric	dge Landfill						Field Data						4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(PWS10-2)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date Typ	e Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
PWS10-2														
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		127	5.4	16.2				-1	1			30	3.1	
10/28/2013 XX		107	6.7	9.6				133	5			15	6.2	
4/21/2014 XX		63	7.3	9.9				52	1			40	2.2	
7/28/2014 XX		140	5.7	15.4				108	0.4			25	1.5	
10/20/2014 XX		131	5.7	10.6				233	1			15	2.2	
4/27/2015 XX		103	6.4	5.5				217	3.8				5.2	
7/13/2015 XX		133	6	20.5				197	0.2				2.2	
10/26/2015 XX		72	7.6	7.5				392	10.1				1.2	
4/4/2016 XX		117	7	1.6				227	8.3				4.1	
7/25/2016 XX		109	7.1	26.5				280	8.3				3.5	
10/24/2016 XX		91	6.7	9.5				228	3.7				1.1	
4/17/2017 XX		102	6.3	9				189	3.9				2.1	
7/24/2017 XX		140	7.5	18.6				250	5.4				2.1	
10/24/2017 XX		D	D	D				D	D				D	
4/2/2018 XX		110	7.4	1.3				474	1.2				1.1	
7/16/2018 XX		204	6.9	22.1				492	3.6				1.2	
10/1/2018 XX		170	7	12.8				460	7				1	
4/22/2019 XX		135	6.9	8.9				364	7.8				0.5	
7/15/2019 XX 10/28/2019 XX		276 101	7.2 6.8	26.3				413 263	7.2 11.3				4.1	
4/27/2020 XX		140	7.2	9.1 5.4				263	6.6				1.5 3.1	
7/20/2020 XX		140	6.2	19.1				322	3				2.1	
10/26/2020 XX		124	7.3	4.9				359	6.7				4.6	
PWS10-3	OW WOZDZO	124	7.5	4.5				339	0.7				4.0	
		1				I								
4/25/2011 XX		222	5.9	9			1	118	1			145	3.5	
7/18/2011 XX		148	5.8	23.1	-		-	203	3		1	125	18.3	
10/24/2011 XX		111	5.3	11.1	-		-	164	1		1	35	4.5	
4/23/2012 XX		63	6.5	20.7			1	307	3			50	4.2	
7/23/2012 XX		73	5.8	26.8	-		1	155	4			25	6.6	
10/22/2012 XX		59	5.4	11.9	-		+	284	0.8			15	4.3	
4/22/2013 XX		62	5	7.3	-		1	223	5		+	15	5.6	
7/29/2013 XX		180	5.5	18.9			1	-7	1			90	5.9	
10/28/2013 XX		80	6.6	7.6	1		+	152	4			20	8.1	
4/21/2014 XX		76	6.3	6.7	1		+	263	3			35	3.1	
7/28/2014 XX		116	5.6	20.4	1		+	136	2			20	4.2	
10/20/2014 XX		42	5	10.1	-		1	423	4			20	2.1	
4/27/2015 XX		57	6	7.6	-		1	264	4.1				7.1	
7/13/2015 XX		79	6.7	25	1		+	167	5.4				2.6	
10/26/2015 XX		80	6.7	15.4	-		+	331	10.2				2.2	
4/4/2016 XX	GWPWS3861	163	7.4	3.1				229	7	_1			2.2	

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														CUMBERLAND CENTER, ME 04021
(PWS10-3	3)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
7/25/2016	XX GWPWS38AB	D	D	D				D	D				D	
10/24/2016		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	
4/27/2020	XX GWPWS3CCG	54	6.8	5.5				314	5.8				2.5	
7/20/2020	XX GWPWS3CH9	144	5.3	22.3				208	0.3				3.1	
10/26/2020	XX GWPWS3D2D	197	5.9	6.1				540	7				4.1	
SW-1														
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	
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		83	7.5	9.7				350	6			20	3.1	
	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		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		211	7.1	25.2				187	2.8				10.2	
10/25/2016		98	7.6	6.5				311	7.2				2.2	
	XX SWXX1X96B	56	6.5	6.9				369	9.1				1.3	
7/25/2017		235	6.8	18.9				221	4.2				3.3	
10/25/2017		127	6.9	15.2	1			398	5.4				2.5	
	XX SWXX1XA22	160	7	5.4				468	15.1				1.1	
7/17/2018		242	7.8	19.3				316	3.2				6.7	
10/2/2018		144	6.6	9.6				514	6.1				1.4	
	XX SWXX1XB4I	125	6.9	5.4				372	8.5				1.1	
7/16/2019		109	6.7	27.5				356	4.2				3.3	
10/29/2019		228	6.6	10.6	1			240	8.3				2.5	
	XX SWXX1XCCB	241	7.3	10				395	7.7				2.1	
7/21/2020		134	6.9	24.4	1			288	1.7				1.3	
10/27/2020	XX SWXX1XD28	175	7.7	8.9				298	4				1.2	
SW-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	

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														CUMBERLAND CENTER, ME 04
(SW-2)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date T	Гуре Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
10/25/2011	XX SWXX2X4GJ	72	7.6	11.7				337	5	1.5		25	1.2	
	XX SWXX2X519	87	6.9	10.6				454	5	14		30	2.4	
	XX SWXX2X568	65	6.9	25.9				449	6	1.75		25	3.1	
	XX SWXX2X5CJ	54	7.2	12.2				472	5	2.75		15	1.7	
4/23/2013		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		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			6.7	9.2				355	9				1.1	
7/14/2015		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		87	6.7	3.6				355	7.2				0.8	
7/26/2016		81	7.3	26.9				341	3.7	0.0033			7.3	
	XX SWXX2X8I6	90	7.1	8.1				353	7.1	6			1.6	
4/18/2017		67	6.9	10.6				349	8	0.4			0.8	
7/25/2017		110	7.1	18				235	2.1	0.4			3.4	
10/25/2017		102	7.1	16.7				415	5.4	3			2.1	
4/3/2018		50	6.8	3.1				467	7.9	11.25			1.1	
	XX SWXX2XAB5	104	7.9	21.3				318	1.1	0.4			8.2	
	XX SWXX2XB03		6.7	10.2				494	4	0.25			2.1	
4/23/2019		83	6.6	4.9				360	6	0.20			0.9	
	XX SWXX2XBBC	85	6.3	28.8				397	4.2				3.2	
	XX SWXX2XBH5	66	5.9	8				281	13.7				0.8	
	XX SWXX2XCCC	76	6.8	7				369	7.7				2.1	
	XX SWXX2XCH5	68	6.9	29.2				380	5.5				1.6	
	XX SWXX2XD29	77	6.8	8.4				413	6				1.2	
SW-3	701		0.0	0										
4/26/2011	XX SWXX3X497	73	6.3	11.2				438	6	8		35	1.6	
	XX SWXX3X4D5	93	6.8	23.3				338	5	2.5		38	0	
	XX SWXX3X4H0	78	6.6	10.5				257	5	7.5		25	1.2	
4/24/2012		54	7.4	9.8				449	6	19		25	2.4	
	XX SWXX3X569	103	7.5	22.9				326	4	3.75		100	2.5	
10/23/2012		46	7.4	11.5				422	6	5		50	2.1	
	XX SWXX3X5HB	71	6.5	9.7				234	6	8		20	1.5	
	XX SWXX3X63G	81	7.9	23	+			170	6	6		25	1.2	
	XX SWXX3X669	108	7.7	6.7				365	4	6.5		15	1.2	
	XX SWXX3X6EC	71	7.3	9.9				444	6	10		30	0.8	
7/29/2014		81	7.9	20.9				328	5	8		15	0.5	
10/21/2014		78	7.7	8.4				386	5	7		15	1.2	
4/28/2015		79	7.7		-			328	11.3	9.3		10	1.2	
4/28/2015		88	7.7	6.8 10.3				328	8.6	9.3			0.8	
		93	8.1	21.5				305	5.4	5.8			1.2	
10/27/2015		81	8.8	4.6	+			293	11.4	0.016			0.6	
		76	8.3	2.3				301	12.6				1.4	
	XX SWXX3X8A8	102	7.6	21.6				344	2.3	_			2.1	
	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	

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														CUMBERLAND CENTER, ME 0402
(SW-3)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date	Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
7/25/2017	XX SWXX3X9CB	120	7.4	16.8				344	2.6	5			1.3	
	XX SWXX3X9G6	149	6.9	15.7				407	3.6	8			1.3	
	XX SWXX3XA24	84	7.7	1.8				459	4.6	2			1.1	
	XX SWXX3XAB6	134	7.6	21.4				437	1.9	4			1.9	
	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	
4/28/2020	XX SWXX3XCCD	73	7.7	8.8				359	9.9				1.4	
	XX SWXX3XCH6	94	7.2	23.1				373	3.4				0.9	
10/27/2020	XX SWXX3XD2A	78	7.6	8.4				403	8.1				0.8	
SW-DP1	[													
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		204	7.4	7.4				311	6			20	1.6	
	XX SWDP1X6EI	83	7.7	14.5				452	6			30	3.6	
7/29/2014		47	7.1	25.1				448	6			10	0.8	
10/21/2014		54	7.4	11.4				368	6			15	0.8	
	XX SWDP1X78D	109	7.3	10.2				368	11.8				2.1	
7/14/2015		112	8.3	27				255	8.8				3.6	
10/27/2015		69	8	8.6				313	10.8				0.8	
	XX SWDP1X864	100	7.1	6.4				348	12.5				0.5	
7/26/2016 10/25/2016		123 75	7.9 7.8	29.3 9.2				263 260	5.9 7.7				2.3	
	XX SWDP1X96J	74	6.9	12.5				389	10.2				1.6 1.7	
7/25/2017		142	7.4	24.9				274	7				0.8	
10/23/2017		109	7.7	16.6				263	9.1				0.8	
	XX SWDP1XA2B	34	7.3	1.9				457	9.1				2.6	
7/17/2018		91	8.2	23.1				418	6.7				2.7	
10/2/2018		78	7.2	12				486	5.4				0.9	
	XX SWDP1XB57	101	7.1	9				367	9.9				1.4	
7/16/2019		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	
4/28/2020	XX SWDP1XCCJ	439	7.8	9.5				356	12				1.7	
7/21/2020	XX SWDP1XCHC	206	7.6	27				358	8.8				2.2	
10/27/2020	XX SWDP1XD2G	148	7.7	7.5				261	8.3				0.8	
SW-DP5	5													
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		D	D	D				D	D			D	D	
4/22/2014		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	

### SUMMARY REPORT Field Data

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									i icia bata						CUMBERLAND CENTER, ME 04021
(SW-DP5)	)		Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)	
Date	Туре	Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU	
10/21/2014	XX SV	WDP5X743	113	7.6	10.7				422	5			15	1.2	
4/28/2015			208	7.9	10.8				353	11.5				1.1	
7/14/2015	XX SV	WDP5X7DF	153	7.7	27.6				218	6.4				4.3	
10/27/2015	XX SV	WDP5X7J2	D	D	D				D	D				D	
4/5/2016	XX SV	NDP5X87E	D	D	D				D	D				D	
7/26/2016	XX SV	WDP5X8C4	D	D	D				D	D				D	
10/25/2016	XX SV	WDP5X902	I	I	I				- 1	I				1	
4/18/2017	XX SV	WDP5X989	D	D	D				D	D				D	
7/25/2017	XX SV	WDP5X9E6	173	8.1	25.4				273	7.7				0.4	
10/24/2017	XX SV	WDP5X9I1	D	D	D				D	D				D	
4/3/2018	XX SV	WDP5XA41	51	6.9	8.7				459	15.2				2.1	
7/17/2018	XX SV	WDP5XAD1	D	D	D				D	D				D	
10/2/2018	XX SV	WDP5XB1J	D	D	D				D	D				D	
4/23/2019	XX SV	WDP5XB6H	133	7.3	9.7				369	7.8				0.8	
7/16/2019	XX SV	WDP5XBD8	102	8.3	28.3				307	6.8				0.8	
10/29/2019	XX SV	WDP5XBJ0	107	7	9.3				239	10				1.8	
4/28/2020	XX SV	WDP5XCE8	173	8.1	10.1				333	12.6				1.6	
7/21/2020	XX SV	WDP5XCJ1	126	7.8	30.3				328	6.8				0.6	
10/27/2020	XX SV	WDP5XD44	82	8.5	10.2				320	10.5				0.6	
SW-DP	6														
4/26/2011	XX SV	WDP6X49E	192	6.3	12.8				365	6				6.8	
7/19/2011	XX SV	WDP6X4DC	427	7.5	28.4				346	6			75	0	
10/25/2011	XX SV	NDP6X4H7	307	7.5	12.7				212	6	0.0022		80	0.5	
4/24/2012	XX SV	WDP6X51H	172	6.7	15.1				547	6			100	2.5	
7/24/2012	XX SV	WDP6X56G	97	7.2	25.1				396	5	0.0045		40	12	
10/23/2012	XX SV	WDP6X5D7	65	7.5	11.7				439	5			15	5.1	
4/23/2013	XX SV	WDP6X5HI	62	6.6	15.2				235	6			15	3.2	
7/30/2013	XX SV	WDP6X643	87	7	27.8				313	6			25	0.8	
10/29/2013	XX SV	WDP6X66G	113	7.3	8.3				333	5			25	0.6	
4/22/2014	XX SV	WDP6X6EJ	107	7.6	16.8				413	6			40	3.7	
7/29/2014	XX SV	WDP6X6J6	72	7.3	24.7				442	5			10	1.2	
10/21/2014	XX SV	WDP6X72H	75	7.7	11.5				394	6			15	2.6	
4/28/2015	XX SV	WDP6X78E	96	6.9	10				392	10.4				1.3	
7/14/2015			114	7.2	29.6				376	5.4				5.6	
10/27/2015		WDP6X7HF	68	8.4	9.8				327	10.4				1.1	
4/5/2016		WDP6X865	79	7.1	4.6				445	10				8.0	
7/26/2016		WDP6X8AF	135	7.5	28.7				254	5.4				2.7	
10/25/2016		WDP6X8IE	100	7.8	8.5				265	5.8				2.6	
4/18/2017		WDP6X970	59	6.6	11.2				364	6.7				1.1	
7/25/2017		WDP6X9CI	86	7.5	21.6				314	6.5				1.1	
10/23/2017		WDP6X9GD	101	7.2	17.2				219	7.5				1.6	
4/3/2018		WDP6XA2C	76	7.6	2.4				460	10.3				2.3	
7/17/2018		WDP6XABD	140	8	23.9				443	4.5		1		2.1	
10/2/2018		WDP6XB0B	136	7.8	11.6				478	6.2		1		8.0	
4/23/2019		WDP6XB58	78	6.7	8.1				368	11.7				1.1	
7/16/2019		WDP6XBC0	65	7.3	29.2				375	6.8				1.8	
10/29/2019		WDP6XBHD	50	6.2	10.3				246	10.3		1		2.2	
4/28/2020		WDP6XCD0	55	7.3	11.4				397	9.6		1		1.3	
7/21/2020	XX SV	WDP6XCHD	71	8.4	27.1				294	5.9		]		8.0	

REPORT I	PREPARED: 4/1/20	21 10:00					SUMM	MARY REP	ORT					Page 54 of		
	FOR: Junipe	r Ridge Landfill						Field Data						4 BLANCH	MAHER ENGIN ARD ROAD AND CENTER	·
(SW-DP6)	)	Specific Conductance	pН	Temperature	Water Level Reference Point	Water Level Elevation	Water Level Depth	Eh	Dissolved Oxygen	Flow Rate	Well Depth	Alkalinity (CaCO3) (field)	Turbidity (field)			
Date -	Type Sample I	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	NTU			
10/27/2020	XX SWDP6XD2H	91	8.2	9.4				330	10.1				0.7			
OFFICE	E WELL															
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			
	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 WE	LL														
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			

REPORT PREPARED: 4/1/2021	10:00					SUMN	MARY REP	ORT					Page 55 of 55
FOR: Juniper R	idge Landfill						Field Data						SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(SCALE HOUSE WELL)	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)	
Date Type Sample ID	μmhos/cm @25°C	STU	Deg C	Feet	Feet	Feet	mV	mg/L	cfs	Feet	mg/L	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.

Page 1 of 29 REPORT PREPARED: 4/1/2021 10:06 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD Inorganics CUMBERLAND CENTER, ME 04021 Chloride Total Dissolved (DP-4) Total Kjeldahl Nitrite/Nitrate -Biochemical Bicarbonate Total Sulfate Bromide Organic Carbon Total Nitrogen (N) Oxygen Alkalinity Phosphorus Solids Suspended Demand (CaCO3) Solids Type Sample ID mg/L mg/L mg/L mg/Lmg/L mg/Lmg/L mg/L mg/L mg/L mg/L Date DP-4 4/25/2011 XX GWXXXX4AD 0.3 U 102 7.6 166 0.9 J 114 8.5 XX GWXXXX4EB 7/18/2011 0.3 U 106 8.3 10.1 172 1.4 J 46 XX GWXXXX4I6 10/24/2011 0.3 U 104 9.9 9.7 166 1.4 5 4/25/2012 XX GWXXXX52G 0.3 93 25.4 13 198 2 U 21 7/25/2012 XX GWXXXX57F 0.4 77 26.9 14.4 182 2 U 22 10/24/2012 XX GWXXXX5E6 0.31 78 31.6 15.3 2 U 34 196 4/24/2013 XX GWXXXX5IH 0.349 80 30.8 19.3 195 0.12 2 U 75 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 4/26/2011 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 0.05 2 U 3 4.1 208 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 XX LFUD1X64B 156 22.5 0.04 U 9.9 232 0.14 2 U 4 U 7/30/2013 10/29/2013 XX LFUD1X674 F6 F6 F6 F6 F6 F6 F6 F6 4/22/2014 XX LFUD1X6F7 2 U 177 19.1 0.04 10.4 235 0.1 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 2 U 260 0.2 49 7/14/2015 XX LFUD1X7CE 2 U 179 0.04 U 2 U 4 U 16.7 6.6 257 0.1 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 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 4/28/2020 XX LFUD1XCD8 F6 F6 F6 F6 F6 F6 F6 F6 F6 7/21/2020 XX LFUD1XCI1 F6 F6 F6 F6 F6 F6 F6 F6 F6 10/27/2020 XX LFUD1XD35 F6 F6 F6 F6 F6 F6 F6 F6 F6 LF-UD-2

3.1

4.4

3.3

H2

172

191

173

H2

0.7 U

0.7 U

0.7 J

H2

4 U

4 U

36

H2

0.02 J

0.02 J

0.02 J

H2

117

135

133

H2

6.6

5.7

7.1

H2

4/26/2011 XX LFUD2X4A3

7/19/2011 XX LFUD2X4E1

10/25/2011 XX LFUD2X4HG

4/24/2012 XX LFUD2X526

# SUMMARY REPORT Inorganics

Page 2 of 29 SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD

									Inorganics						IARD ROAD .AND CENTER	, ME 04021
(LF-UD-	2)		Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date	Туре	e Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
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		LFUD2X5I7				134	18.5	0.04 U	4.6	207	0.19	2 U	4 U			
7/30/2013		LFUD2X64C				127	35.2	0.04 U	4.8	208	0.12	2 U	4 U			
10/29/2013		LFUD2X675				162	15.3	0.04 U	9.9	228	0.18	2 U	12			ļ
4/22/2014		LFUD2X6F8				147	33.6	0.04 U	4.8	218	0.11	2 U	4 U			<b> </b>
7/29/2014		LFUD2X6JF				152	21.6	0.04 U	2	220	0.17	2 U	45			-
10/21/2014	_	LFUD2X736		0.511		220	7.7	0.04 U	7.2	279	0.1 U	2 U	25			<del> </del>
4/28/2015		LFUD2X793 LFUD2X7CF		0.5 U		139	24.4	0.04 U	26	257	0.2	2 U	4			<del>                                     </del>
7/14/2015	_	LFUD2X7CF		2 U 0.5 U		177	19.7	0.04 U	6.1	254 264	0.17	2 U	4 U			
10/27/2015 4/5/2016		LFUD2X714 LFUD2X86E		0.5 0		193 134	20.3 41.2	0.04 U 0.04 U	7.5 11.4	264	0.1 U 0.1 U	2 U 2 U	4 U 4 U			
7/26/2016		LFUD2X8B4		0.05 U		170	22.7	0.04 0	22.1	283	0.10	2 U	24			
10/25/2016		LFUD2X8J3		0.03 0		203	12.8	0.04 0.04 U	21.6	294	0.2 U	2 U	4 U			
4/18/2017		LFUD2X979		0.22		160	29	0.05	18	262	0.2 U	2 U	15			
7/25/2017		LFUD2X9D7		0.13		170	32	0.04 U	4.6	273	0.2 U	2 U	8			
10/25/2017		LFUD2X9H2		0.22		200	13	0.07	9	291	0.14	2 U	29			
4/3/2018		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			
4/28/2020		LFUD2XCD9		0.32		200	10	0.04 U	11	243	0.11	2 U	16			
7/21/2020		LFUD2XCI2		0.23		230	6.9	0.2	13	307	0.1	2 U	370			ļ
10/27/2020	1	LFUD2XD36		0.2		230	3	0.04 U	14	276	0.1 U	43 M10	2.5 U			<u> </u>
LF-UD-	3A,	В														
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		LFXXXX534				H2	H2	H2	H2	H2		H2	H2			
7/24/2012	XX	LFXXXX581				F6	F6	F6	F6	F6		F6	F6			
10/23/2012	_	LFXXXX5EC				F6	F6	F6	F6	F6		F6	F6			
4/23/2013	_	LFXXXX5J5				F6	F6	F6	F6	F6	F6	F6	F6			
7/30/2013		LFXXXX65A				F6	F6	F6	F6	F6	F6	F6	F6			
10/29/2013		LFXXXX67J				F6	F6	F6	F6	F6	F6	F6	F6			
4/22/2014		LFXXXX6G6				F6	F6	F6	F6	F6	F6	F6	F6			
7/29/2014		LFXXXX708				F6	F6	F6	F6	F6	F6	F6	F6			
10/21/2014		LFXXXX73H		F2		F6	F6	F6	F6	F6	F6	F6	F6			
4/28/2015		LFXXXX79G LFXXXX7D8		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/14/2015		LFXXXX7D8 LFXXXX7IF		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/27/2015 4/5/2016		LFXXXX7IF LFXXXX877	-	F6 F6		F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6			
7/26/2016		LFXXXX8BH		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/25/2016		LFXXXX8JF		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/18/2017	_	LFXXXX982		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/25/2017		LFXXXX9DJ		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/25/2017		LFXXXX9HE		F6		F6	F6	F6	F6	F6	F6	F6	F6			
		LFXXXXA3E		F6	1	F6	F6	F6	F6	F6	F6	F6	F6			
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# SUMMARY REPORT Inorganics

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								inorganics	•				4 BLANCHARD CUMBERLAND	CENTER, ME 04021
(LF-UD-3A	,	Total Kjeldal Nitrogen e ID mg/L	(N)	Biochemical Oxygen Demand mg/L	Bicarbonate Alkalinity (CaCO3) mg/L	Chloride mg/L	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide mg/I	Organic Carbon	Total Suspended Solids		
Date T	ype Samp	e ID mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
7/17/2018	XX LFXXXXAC		F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/2/2018	XX LFXXXXB10		F6		F6	F6	F6	F6	F6	F6	F6	F6		
4/23/2019			F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/16/2019			F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/29/2019			F6		F6	F6	F6	F6	F6	F6	F6	F6		
4/28/2020			F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/21/2020			F6		F6	F6	F6	F6	F6	F6	F6	F6		
	XX LFXXXXD3F		F6		F6	F6	F6	F6	F6	F6	F6	F6		
LF-UD-4	ļ													
4/26/2011	XX LFXXXX4B3				F12	F12	F12	F12	F12		F12	F12		
7/19/2011	XX LFXXXXHG				H2	H2	H2	H2	H2		H2	H2		
10/25/2011	XX LFXXXX4G/				F6	F6	F6	F6	F6		F6	F6		
4/24/2012					H2	H2	H2	H2	H2		H2	H2		
7/24/2012					207	3.1	0.04 U	2 U	263		2 U	4 U		
10/23/2012					180	8.1	0.04 U	7.9	252		2 U	4 U		
4/23/2013					166	11.8	0.04 U	8.8	235	0.14	2 U	4 U		
	XX LFXXXX65E				F6	F6	F6	F6	F6	F6	F6	F6		
10/29/2013					168	13.2	0.04 U	11.1	234	0.1 U	2 U	4 U		
4/22/2014					206	8.9	0.04 U	14.2	252	0.1	2 U	4 U		
7/29/2014					F6	F6	F6	F6	F6	F6	F6	F6		
10/21/2014					F6	F6	F6	F6	F6	F6	F6	F6		
4/28/2015			F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/14/2015			F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/27/2015			F6		F6	F6	F6	F6	F6	F6	F6	F6		
4/5/2016			F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/26/2016			0.13		177	20.9	0.04	20.9	281	0.2	2 U	36		
10/25/2016	XX LFXXXX83G		0.25 0.14		202 170	12.5	0.04 U	24.9	298	0.2 U 0.2 U	2 U	4 U 110		
	XX LFXXXX9E0		0.14		170	2.4	0.04 U 0.04 U	8.9 24	247 279	0.2 U	2.6 2 U	10		
10/25/2017			0.16 F6		F6	F6	0.04 U	F6	F6	F6	F6	F6		
	XX LFXXXXA3F		F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/17/2018			0.23		210	23	0.04 U	8.6	291	0.18	2 U	5.3		
10/2/2018			F6		F6	F6	F6	F6	F6	F6	F6	F6		
	XX LFXXXXB6E		F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/16/2019			F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/29/2019			0.22		180	12	0.18	11	235	0.13	2 U	210		
4/28/2020			F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/21/2020			F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/27/2020			F6		F6	F6	F6	F6	F6	F6	F6	F6		
LF-UD-5	Sand6	·			*		•					- '		
	XX LFXXXX4B4				224	2.7	0.01 J	15.9	287		1.5 J	4 U		
	XX LFXXXX4F2				238	2.5	0.02 J	15.3	293		1.9 J	14		
10/25/2011					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					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		
4/23/2013	XX LFXXXX5J7				157	3.6	0.04 U	11.5	200	0.11	2 U	8		
7/30/2013	XX LFXXXX650				163	3.4	0.04 U	10.8	202	0.1 U	2 U	4 U		

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SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD

	TOX. Suriper Nage Landilli								Inorganics						HARD ROAD LAND CENTER	R. ME 04021
(LF-UD-	Sand6	5)	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			,
Date	Туре	e Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
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		1	_	1	I	1	ı	1	1			
10/27/2015		LFXXXX7IH		0.5 U		184	3.8	0.04 U	11.1	235	0.1 U	2	6			
4/5/2016		LFXXXX879		0.05		191	2.9	0.04 U	12.5	247	0.1 U	2 U	4 U			
7/26/2016		LFXXXX8BJ		0.05 U		186	2.7	0.04 U	26.9	230	0.2 U	2 U	4 U			
10/25/2016		LFXXXX8JH		0.2		167	2.1	0.04 U	9.8	215	0.2 U	2 U	4 U			
4/18/2017		LFXXXX984		0.07		160	2.2	0.04 U	18	201	0.2 U	2 U	2.5 U	1		
7/25/2017		LFXXXX9E1		0.21		200	2.8	0.04	11	243	0.2 U	2 U	4.7			
10/25/2017		LFXXXX9HG		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/3/2018		LFXXXXA3G		0.14		150	1.7	0.04 U	39	192	0.13	2 U	2.5 U			
7/17/2018		LFXXXXACG		0.14		180	2.7	0.04 U	10	220	0.12	2 U	2.5 U			
10/2/2018		LFXXXXB1E		0.21		180	2.4	0.04 U	14	228	0.1 U	2 U	5			
4/23/2019		LFXXXXB6C		0.14		150	1.5	0.04 U	9.7	192	0.1	2 U	2.5 U			
7/16/2019		LFXXXXBD3		0.12		170	2	0.04 U	9.2	211	0.1 U	2 U	2.5 U			
10/29/2019		LFXXXXBIF LFXXXXCE3		0.14		160	2.1	0.08	9.9	199	0.15	2 U	69			
4/28/2020		LFXXXXCE3 LFXXXXCIG		0.2		150	2.3	0.04 U	11	185	0.17	2 U	2.5 U			
7/21/2020 10/27/2020		LFXXXXD3J		0.23 F6		180 F6	2.5 F6	0.04 U F6	11 F6	214 F6	0.18 F6	2 U F6	2.5 U F6			
		LFXXXXD33		FO		FO	FO	FO	FO	FO	FO	FO	FO			
LF-UD-	6															
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		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		LFUD6X65E				338	18.2	0.04 U	143	554	0.1 U	3.3	4 U			
10/29/2013		LFUD6X683				343	14.1	0.04 U	116	552	0.12	3.1	4 U			
4/22/2014		LFUD6X6GA				275	15	0.11	128	464	0.1 U	2.9	4 U			
7/29/2014		LFUD6X70C				332	11.5	0.04	52.6	522	0.11	2.9	4 U			
10/21/2014		LFUD6X740				343	9.4	0.06	88.7	536	0.11	3	4 U			
4/28/2015		LFUD6X7A0		5.6		315	11.2	0.14	96.5	530	0.1 U	2.8	4 U			
7/14/2015		LFUD6X7DC		2 U		344	11.1	0.06	99.9	523	0.1 U	2.8	4 U			
10/27/2015		LFUD6X7IJ		1.5		337	12.8	0.09	96.3	544	0.1 U	2.7	4 U			
4/5/2016		LFUD6X87B LFUD6X8C1		12		293	12.7	0.27	92.8	562	0.1 U	2.5	4 U			
7/26/2016		LFUD6X8U1		D		D	D	D	D	D	D	D	D	+		1
10/25/2016		LFUD6X833 LFUD6X986				•	· ·	·	7.5	1 200	1 0 0 11	•	-			
4/18/2017		LFUD6X986 LFUD6X9E3		2.5		230	7.5	0.12	7.5	289	0.2 U	2.4	41			
7/25/2017 10/25/2017		LFUD6X9E3		5.8		180	1 U	0.16	7.3	280	0.1 U	2	2.5 U			<del>                                     </del>
4/3/2018		LFUD6X43I		5.6		130	1 U	0.16	42	193	0.1 U	2.7	2.5 U			
7/17/2018		LFUD6XACI		1.4		160	5 U	0.12	10 U	193	0.1 U	2.7 2 U	2.5 U			
10/2/2018		LFUD6XB1G		3.5		120	1 U	0.09	2 U	172	0.5 U	2 U	2.5 U			
4/23/2019		LFUD6XB6E		27		84	1.2	0.12	6.5	309	0.1 U	2 U	2.5 U			
7/16/2019		LFUD6XBD5		9.1		49	1.2 1 U	0.09	3.3	149	0.1 U	2 U	8.7			
1/10/2019	^^	000,000	1	ð. I	l .	49	10	0.13	3.3	149	0.10	2 0	0.7	1		1

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SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD

		FOR: Juniper Ri	luge Lanumi						Inorganics	5					HARD ROAD LAND CENTER	R, ME 04021
(LF-UD-0	6)		Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date	Туре	Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
10/29/2019	XX	LFUD6XBIH		20		4.9	1.9	0.65	4.6	186	0.1 U	2.8	150			
4/28/2020	XX	LFUD6XCE5		60		1.5 U	2 U	0.2	12	438	0.2 U	2 U	2.5 U			
7/21/2020		LFUD6XCII		D		D	D	D	D	D	D	D	D			
10/27/2020	XX	LFUD6XD41		F6		F6	F6	F6	F6	F6	F6	F6	F6			
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		LFUD7X684				F6	F6	F6	F6	F6	F6	F6	F6			
4/22/2014		LFUD7X6GB				F6	F6	F6	F6	F6	F6	F6	F6			
7/29/2014		LFUD7X70D				F6	F6	F6	F6	F6	F6	F6	F6			
10/21/2014		LFUD7X741				F6	F6	F6	F6	F6	F6	F6	F6			
4/28/2015		LFUD7X7A1		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/14/2015		LFUD7X7DD		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/27/2015		LFUD7X7J0		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/5/2016		LFUD7X87C		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/26/2016		LFUD7X8C2		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/25/2016		LFUD7X900		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/18/2017		LFUD7X987		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/25/2017		LFUD7X9E4		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/25/2017		LFUD7X9HJ LFUD7XA3J		F6		F6	F6	F6	F6 F6	F6	F6	F6	F6			
4/3/2018 7/17/2018		LFUD7XA3J LFUD7XACJ		F6 F6		F6 F6	F6 F6	F6 F6	F6	F6 F6	F6 F6	F6 F6	F6 F6			
10/2/2018		LFUD7XACJ LFUD7XB1H		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/23/2019		LFUD7XB1H LFUD7XB6F		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/16/2019		LFUD7XBD6		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/29/2019		LFUD7XBII		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/28/2020		LFUD7XCE6		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/21/2020		LFUD7XCIJ		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/27/2020		LFUD7XD42		F6		F6	F6	F6	F6	F6	F6	F6	F6			
LF-UD-																
4/23/2013		LFUD8X5JD				152	3.5	0.04 U	7.3	195	0.1 U	2 U	4 U			
7/30/2013		LFUD8X65G				172	4	0.04 U	9.6	216	0.1 U	2 U	4 U			
10/29/2013		LFUD8X685	1		<u> </u>	180	3.5	0.04 U	8.2	222	0.1 U	2 U	4 U			
4/22/2014		LFUD8X6GC				F12	F12	F12	F12	F12	F12	F12	F12			
7/29/2014		LFUD8X70E	1			38	3.3	0.05	4.6	74	0.1 U	5.7	4 U			
10/21/2014		LFUD8X742				12.4	3.7	0.04 U	12.9	69	0.1 U	5.4	4			
4/28/2015		LFUD8X7A2		0.5 U		21	7.3	0.08	17	74	0.1 U	3.6	9			
7/14/2015	XX	LFUD8X7DE		I		1	1	I	I	I	I	1	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		LFUD8X901		F6		F6	F6	F6	F6	F6	F6	F6	F6	·		
4/18/2017		LFUD8X988		0.05 U		9.4	14	0.04	49	55	0.2 U	3.7	6			
7/25/2017		LFUD8X9E5		D		D	D	D	D	D	D	D	D			
10/25/2017	XX	LFUD8X9I0		F6		F6	F6	F6	F6	F6	F6	F6	F6			

# SUMMARY REPORT Inorganics

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	. Ota bampo tagge Latiani								Inorganics						HARD ROAD LAND CENTER	, ME 04021
(LF-UD-	,		Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids		Organic Carbon	Total Suspended Solids			
Date	Type	Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
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		LFUD8XB1I		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/23/2019		LFUD8XB6G		0.058		14	7.1	0.1	14	70	0.1 U	4.7	11			
7/16/2019		LFUD8XBD7		0.05 U		14	4.7	0.04 U	8.7	53	0.1 U	6.3	5.5			
10/29/2019		LFUD8XBIJ		0.062		6	2	0.04	13	42	0.1 U	4.8	6.7			
4/28/2020		LFUD8XCE7		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/21/2020		LFUD8XCJ0		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/27/2020		LFUD8XD43		F6		F6	F6	F6	F6	F6	F6	F6	F6			L
LF-UD-	.9															
4/5/2016		LFUD9X881		F6		F6	F6	F6	F6	F6	F6	F6	F6		 	
7/26/2016		LFUD9X8CA		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/25/2016		LFUD9X905		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/18/2017		LFUD9X98F		0.88		90	5.1	0.08	11	224	0.2 U	2.7	57			
10/25/2017	_	LFUD9X9I4		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/3/2018	_	LFUD9XA47		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/17/2018	_	LFUD9XAD4		D		D	D	D	D	D	D	D	D			
10/2/2018 4/23/2019		LFUD9XB22 LFUD9XB73		F6 F6		F6	F6 F6	F6 F6	F6 F6	F6 F6	F6	F6 F6	F6 F6			
7/16/2019	_	LFUD9XB73		F6		F6 F6	F6	F6	F6	F6	F6 F6	F6	F6			
10/29/2019		LFUD9XBJ3		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/28/2020		LFUD9XCED		F6		F6	F6	F6	F6	F6	F6	F6	F6			-
7/21/2020		LFUD9XCJ6		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/27/2020	_	LFUD9XD47		F6		F6	F6	F6	F6	F6	F6	F6	F6			
LF-UD-		I	1		1			1						1		1
10/25/2017		LFXXXX9ID		F6		F6	F6	F6	F6	F6	F6	F6	Ee			
4/3/2018		LFXXXXA48		F6		F6	F6	F6	F6	F6	F6	F6	F6 F6			
7/17/2018		LFU10XAD6		D		D	D	D	D	D	D	D	D			-
10/3/2018		LFXXXXB27		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/23/2019		LFXXXXB74		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/16/2019		LFXXXXBDE		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/29/2019	_	LFXXXXBJ7		F6		F6	F6	F6	F6	F6	F6	F6	F6			
4/28/2020		LFXXXXCEE		F6		F6	F6	F6	F6	F6	F6	F6	F6			
7/21/2020		LFXXXXCJ7		F6		F6	F6	F6	F6	F6	F6	F6	F6			
10/27/2020	XX	LFXXXXD4B		F6		F6	F6	F6	F6	F6	F6	F6	F6			
LP-UD-	-1															
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		LPUD1X527				F6	F6	F6	F6	F6		F6	F6			
7/24/2012	_	LPUD1X576				F6	F6	F6	F6	F6	•	F6	F6			
10/23/2012		LPUD1X5DH				F6	F6	F6	F6	F6		F6	F6			
4/23/2013		LPUD1X5I8				F6	F6	F6	F6	F6	F6	F6	F6			
7/30/2013	_	LPUD1X64D				F6	F6	F6	F6	F6	F6	F6	F6			1
10/29/2013	_	LPUD1X676		1		F6	F6	F6	F6	F6	F6	F6	F6			
4/22/2014		LPUD1X6F9				F6	F6	F6	F6	F6	F6	F6	F6			1
7/29/2014		LPUD1X6JG				F6	F6	F6	F6	F6	F6	F6	F6			
10/21/2014	XX	LPUD1X737	<u> </u>	<u> </u>	<u> </u>	F6	F6	F6	F6	F6	F6	F6	F6			

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(LP-UD-	1)	Total Kjeldal Nitrogen	nl Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids		,
Date	Type Samp	le ID mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
4/28/2015	XX LPUD1X79		F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/14/201	XX LPUD1X7C	G	F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/26/201			F6		F6	F6	F6	F6	F6	F6	F6	F6		
4/5/2016			F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/26/2016			F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/25/2010			F6		F6	F6	F6	F6	F6	F6	F6	F6		
4/18/2017			F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/25/2017			F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/25/2017			F6		F6	F6	F6	F6	F6	F6	F6	F6		
4/3/2018			F6		F6	F6	F6	F6	F6	F6	F6	F6		
7/17/2018			F6		F6	F6	F6	F6	F6	F6	F6	F6		-
10/2/2018			F6		F6	F6	F6	F6	F6	F6	F6	F6		
4/23/2019			0.31		120	3.1	0.04 U	23	163	0.1 U	2 U	2.5 U		
7/16/2019			F6		F6	F6	F6	F6	F6	F6	F6	F6		-
10/29/2019			F6		F6	F6	F6	F6	F6	F6	F6	F6		
4/28/2020			F6		F6	F6	F6	F6	F6	F6	F6	F6		-
7/22/2020			F6		F6	F6	F6	F6	F6	F6	F6	F6		
10/27/2020	<u> </u>	/	F6		F6	F6	F6	F6	F6	F6	F6	F6		
LP-UD	-2													
4/26/201	1 XX LPUD2X4A	5			133	6.7	0.01 U	8.5	187		0.7 U	4 U		
7/19/201	XX LPUD2X4E	3			135	6.3	0.06	8.6	193		0.8 J	73		
10/25/201	1 XX LPUD2X4H				135	5.3	0.11	9.7	181		0.9 J	11		
4/24/2012	2 XX LPUD2X52	3			123	5.2	0.04 U	9.9	165		2 U	4 U		
7/24/2012	XX LPUD2X57	'			143	5.1	0.04 U	8.5	192		2 U	4 U		
10/23/2012	2 XX LPUD2X5D				128	5.6	0.04 U	8.6	287		2 U	4 U		
4/23/2013	3 XX LPUD2X5IS				137	6.7	0.04 U	12.2	185	0.11	2 U	4 U		
7/30/2013					136	7.2	0.04 U	12.1	182	0.1 U	2 U	4 U		
10/29/2013					153	6.2	0.04 U	10.4	194	0.11	2 U	4 U		
4/22/2014					140	8.3	0.04 U	13.9	183	0.1 U	2 U	4 U		
7/29/2014					139	3.9	0.04 U	4.7	193	0.1 U	2 U	4 U		
10/21/2014					137	3.9	0.04 U	8.1	189	0.1 U	2 U	4 U		
4/28/201			0.5 U		137	5.9	0.04 U	9.2	182	0.1 U	2 U	4 U		
7/14/201			2 U		145	4.9	0.04 U	10.4	202	0.1 U	2 U	4 U		
10/27/201			0.5 U		142	6.8	0.04 U	8.9	184	0.1 U	2 U	4 U		
4/5/2016			0.1		137	5.7	0.04 U	9.9	177	0.1 U	2 U	4 U		+
7/26/2016			0.13		163	5	0.04 U	8.6	218	0.2 U	2 U	4 U		+
10/25/2010			0.14		229	5.4	0.04 U	10.7	294	0.2 U	2 U	4		-
4/18/2017 7/25/2017			0.14		220 150	9.1 4.7	0.04 U 0.04 U	2 U	248 199	0.2 U 0.2 U	2 U	2.5 U 2.5 U		+
10/25/2017			0.2		130	4.7	0.04 U	9.3 8.8	199	0.2 U 0.1 U	2 U	2.5 U		+
4/3/2018			0.23		120	3.6	0.04 U	2.1	156	0.1 U	2 U	2.5 U		
7/17/2018			0.3		140	4.3	0.04 U	8.8	184	0.1 U	2 U	2.5 U		+
10/2/2018			0.27		140	3.7	0.04 U	8.8	191	0.1 U	2 U	2.5 U		+
4/23/2019			0.21		120	3.1	0.04 U	8.9	154	0.1 U	2 U	2.5 U		+
7/16/2019	, , , ,		0.22		130	4	0.04 U	9.5	159	0.1 U	2 U	2.5 U		+
10/29/2019			0.23		130	3	0.04 U	9.3	165	0.1 U	2 U	2.5 U		+
4/28/2020	, , , ,		0.38		140	3.4	0.04 U	9.6	170	0.1 U	2 U	2.5 U		+
7/21/2020			0.085		150	4.2	0.04 U	9.8	204	0.13	2 U	41		+
10/27/2020			0.24		150	8.4	0.04 0	8.1	199	0.13	27 M10	36		+
10/21/2020	/ //  - 002/00		0.24	1	130	J. <del>4</del>	0.17	0.1	100	0.12	ZI WITU	50		

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								morganics					CUMBERLAND CENTER, ME 04021
(MW04-1	02)	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date	Type Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MW04-	102												
4/25/2011	XX GW102X4AG	0.3 U			102	1.1		8.5	136		0.7 U	4 U	
7/19/2011		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		0.646			102	1.2		9.1	134	0.1 U	2 U	4 U	
10/28/2013		0.5 U			101	2.5		9.1	137	0.1 U	2 U	4 U	
4/23/2014		0.5 U			103	1.8		11.2	127	0.1 U	2 U	4 U	
7/30/2014		0.5 U			99	1.4		8.7	132	0.1 U	2 U	4 U	
10/21/2014		0.5 U			103	1.5		10.2	143	0.1 U	2 U	4 U	
4/29/2015		0.5 U	0.5 U		100	2.1		12.7	127	0.1 U	2 U	4 U	
7/14/2015		0.5 U	2 U		98	2.5		13.8	135	0.1 U	2 U	4 U	
10/28/2015		0.5 U	0.5 U		99	2.2		10.8	138	0.1 U	2 U	4 U	
4/5/2016		0.5 U	0.05 U		100	1.6		14.1	133	0.1 U	2 U	4 U	
7/26/2016		0.5 U	0.05 U		99	2.2		14.5	136	0.2 U	2 U	4 U	
10/25/2016		0.5 U	0.05		99	1.7		12.2	151	0.2 U	2 U	5	
4/19/2017		0.5 U	0.07		100	1.5		10	130	0.2 U	2 U	2.5 U	
7/26/2017		0.5 U 0.25 U	0.06		99 94	1.7		12 12	123 150	0.2 U 0.1 U	2 U 2 U	2.5 U 2.5 U	
10/25/2017 4/4/2018		0.25 U	0.05 0.12		100	1.4		5.7	140	0.1 U	2 U	3	
7/18/2018		0.5 U	0.12		100	1.7		12	133	0.1 U	2 U	2.5 U	
10/3/2018		0.25 U	0.074		100	1.7		13	143	0.1 U	2 U	2.5 U	
4/24/2019		0.25 U	0.11		98	1.2		13	131	0.1 U	2 U	2.5 U	
7/17/2019		0.25 U	0.065		99	1.1		13	132	0.1 U	2 U	2.5 U	
10/28/2019		0.25 U	0.091		100	1.9		13	131	0.1 U	2 U	2.5 U	
4/27/2020		0.25 U	0.15		100	2 U		13	138	0.2 U	2 U	2.5 U	
7/20/2020		0.25 U	0.089		100	1.6		13	133	0.1 U	2 U	2.5 U	
	XX GW102XD3E	0.28	0.085		110	1.1		11	136	0.1 U	5.2 M10	2.5 U	
MW04-	· · · · · · · · · · · · · · · · · · ·												
4/26/2011	XX GW105X4AH	0.3 U			125	8.3		5.2	178		0.8 J	4 U	
4/26/2011		0.3 U	+		124	8.3	+	5.2	175		0.7 J	4 U	
7/18/2011		0.3 U	1		144	7.1	1	5.9	184		1.1 J	4 U	
10/25/2011		0.3 U	1		100	5	1	4.5	141		1.2 J	4 U	
10/25/2011		0.3 U	1		102	5.8	1	5.1	148		1.1 J	4 U	
4/23/2012		0.3 U	1		105	5.6	1	6.4	164		2 U	4 U	
4/23/2012		0.3 U			102	5.7		6.4	154		2 U	4 U	
7/24/2012		1			125	2.9		7.7	156		2 U	4 U	
10/22/2012	XX GW105X5EA	1			117	3		4.2	160		2 U	4 U	
10/22/2012	XD GWDP1X5CH	0.71			108	3.3		4.6	150		2 U	4 U	
4/24/2013	XX GW105X5J1	0.3 U			111	7.7		5.5	162	0.1 U	2 U	4 U	
4/24/2013	l	0.3 U			110	7.3		5.6	154	0.1 U	2 U	4 U	
MW04-	109R												
4/26/2011	XX GW109X4AI	0.3 U			220	4.6		5.3	267		1.2 J	4 U	
7/19/2011		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	
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													CUMBERLAND CENTER, ME 04021
(MW04-10	09R)	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date	Гуре Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
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		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		0.5 U	0.5 U		201	7.2		9.6	256	0.2	2 U	4 U	
7/14/2015		0.5 U	2 U		193	6		9.1	247	0.17	2 U	4 U	
10/27/2015		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	
4/28/2020	XX GW109XCDI	0.25 U	0.11		210	4.2		10	251	0.16	2 U	2.5 U	
7/21/2020	XX GW109XCIB	0.29	0.073		200	3.6		8	252	0.23	2 U	2.5 U	
10/27/2020	XX GW109XD3F	0.27	0.058		190	2.8		6.8	224	0.14	54 M10	2.5 U	
MW06-0		0.27	0.000			2.0		0.0		0	010	2.00	
4/10/2018		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		0.25 U	0.14	1 U		4.8	0.04 U	2.3	50	0.1 U	2 U	2.5 U	
6/4/2018		0.25 U	0.13	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	0.11	1 U		8.1	0.04 0	3	72	0.1 U	2 U	2.5 U	
8/20/2018	XD GWDP1XAF4	0.25 U	0.13	10		7.3		2.7	68	0.1 U	2 U	2.5 U	
8/20/2018	XX GWXXXXAFG	0.25 U	0.037			7.3		2.6	78	0.1 U	2 U	2.5 U	
4/24/2019	XX GWXXXXB7D	0.25 U	0.078		30	4.4		2.0	60	0.1 U	2 U	2.5 U	
7/18/2019	XX GWXXXXBE1	0.25 U	0.091		34	7.5		2.9	77	0.1 U	2 U	2.5 U	
10/30/2019		0.25 U	0.13		23	1.3		9.2	50	0.1 U	2 U	2.5 U	
4/29/2020	XX GWXXXXCF1	0.25 U	0.11		31	7.8		3.3	60	0.1 U	2 U	2.5 U	
7/22/2020	XX GWXXXXCJE	0.25 U	0.15 0.05 U		31	6.7		3.3	64	0.1 U	2 U	2.5 U	
10/28/2020	XX GWXXXXD4C	0.25 U	0.05 0		33	7.7		2.7	53	0.1 U	4.9 M10	2.5 U	
MW-204		0.23 0	0.10		33	1.1		2.1	ບວ	0.10	4.9 WITU	2.0 0	
	XX GW204X4A9	0.3 U			73	5.1		4.5	130		0.7 U	4 U	
7/19/2011	XX GW204X4E7	0.3 U			80	4.7		4.5	121		0.7 U	4 U	
10/26/2011	XX GW204X4E7 XX GW204X4I2	0.3 U		+	78	4.7		6.4	121		0.7 U 0.8 J	4 U	
4/24/2012	XX GW204X412 XX GW204X52C	0.3 U			70	3.8		7.7	112		2 U	4 U	
7/23/2012	XX GW204X57B	0.3 U		+	80	3.8		8.1	130		2 U	4 U	
10/24/2012	XX GW204X5F2				82	4.8		7.5			2 U	4 U	
		0.3							136	0.4.11			
4/24/2013	XX GW204X5ID	0.381	1		77	5.5		6.2	134	0.1 U	2 U	5	

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SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD

CUMBERLAND CENTER, ME 04021 (MW-206) Total Kjeldahl Nitrite/Nitrate -Biochemical Bicarbonate Chloride Total Sulfate Total Dissolved Bromide Organic Carbon Total Nitrogen (N) Oxygen Alkalinity Phosphorus Solids Suspended Demand (CaCO3) Solids Type Sample ID mg/L mg/Lmg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/LDate **MW-206** 4/25/2011 XX GW206X48I 1 J 0.3 U 65 97 0.7 U 1.1 7/18/2011 XX GW206X4CG 1.2 73 1.8 0.8 J 92 2.2 12 XX GW206X4GB 10/24/2011 0.3 U 69 1.8 1.1 J 91 1.1 J 5 XX GW206X511 4/23/2012 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 2 U 6 1.4 2.1 86 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 XX GW206X637 7/29/2013 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 4 U 0.5 U 70 2.4 2.3 95 0.1 U 2 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 XD GWDP1X6IG 7/28/2014 0.8 67 1.1 2 U 87 0.1 U 2 U 4 U 10/20/2014 XX GW206X721 2 U 4 U 0.5 U 74 1.6 2 U 91 0.1 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 2 U 95 0.2 U 2 U 4 U 1.4 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 69 1.6 2 U 4 U 0.18 2 U 97 0.2 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 XX GW206X9C3 7/24/2017 0.5 U 69 2.1 68 0.2 U 2 U 0.13 2.3 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 71 0.25 U 0.23 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 71 0.25 U 0.18 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 4/27/2020 XX GW206XCC5 0.25 U 0.11 74 2.4 2.4 101 0.1 U 2 U 3 7/20/2020 XX GW206XCGI 0.25 U 0.26 70 2.8 2.6 89 0.1 U 2 U 2.5 U 10/26/2020 XX GW206XD23 0.25 U 0.16 72 2 1.7 89 0.1 U 6.6 M10 2.5 U MW-223A 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 6.3 0.7 U 4 U 0.3 U 143 21.8 231 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 2 U 4 U 229 10/23/2012 XX GW223A5CE 2 U 4 U 0.31 153 25.4 4 262

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													CUMBERLAND CENTER, ME 040
(MW-223	<b>A</b> )	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date	Type Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
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		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	
4/28/2020	XX GW223ACC7	0.25 U	0.74		230	32		22	360	0.15	2 U	2.5 U	
7/21/2020	XX GW223ACH0	0.25 U	0.17		240	31		20	376	0.23	2 U	2.5 U	
10/27/2020	XX GW223AD24	0.25 U	0.55		250	31		19	337	0.13	44 M10	2.5 U	
MW-223	BB												
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		0.79			115	24.4		4.6	205		2 U	4 U	
7/24/2012		0.45			117	23.7		4.6	191		2 U	4 U	
10/23/2012		0.3 U			121	24.1		5	216		2 U	4 U	
4/23/2013		0.597			124	32.6		5.6	201	0.16	2 U	4 U	
7/30/2013		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		0.5 U			135	55.7		7.6	225	4.13	2 U	4 U	
7/29/2014		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		0.5 U	0.5 U		138	34.4		7	234	0.2	2 U	4 U	
7/14/2015		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	

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												CUMBERLAND CENTER, ME 0403
(MW-223B)	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date Type Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
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	
4/28/2020 XX GW223BCDD	0.35	0.75		180	38		16	288	0.15	2 U	2.5 U	
7/21/2020 XX GW223BCI6	0.25	0.21		180	38		14	326	0.22	2 U	2.5 U	
10/27/2020 XX GW223BD3A	0.25 U	0.65		190	38		14	283	0.15	47 M10	2.5 U	
MW-227	5.25											
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	
0/25/2011 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	
0/23/2012 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	
0/27/2015 XX GW227X7H3	0.5 U	0.5 U		79	2.1		12	115	0.1 U	2 U	4 U	
0/27/2015 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	0.1 U	2 U	4 U	
7/26/2016 XX GW227X8A3	0.5 U	0.05 U	+	80	2.1	+	12.4	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	
0/25/2016 XX GW227X8I2	0.7 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	
4/18/2017 XX GW227X968	0.5 U	0.05 U	1	84	1.4		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	
.,, .,_	0.5 U	0.05 U		80	1.9		13		0.2 U	2 U	2.5 U	
								113				
10/24/2017 XD GWDP3X9GE 10/24/2017 XX GW227X9G1	0.25 U	0.05 U	+	75 76	1.8	+	12 12	110 122	0.1 U 0.1 U	2 U 2 U	2.5 U 2.5 U	
111/2/1/2011/1 X X   U3VVZZ/AMU31	0.25 U	0.05 U	1	76	2	1	177	177	0.11	1 211		

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													CUMBERLAND CENTER, ME 0402
(MW-227)	)	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date	Гуре Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
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	
4/28/2020	XD GWDP3XCD1	0.25 U	0.13		82	1.2		17	105	0.1 U	2 U	2.5 U	
4/28/2020	XX GW227XCC8	0.25 U	0.11		81	1.4		15	115	0.1 U	2 U	2.5 U	
7/21/2020	XD GWDP3XCHE	0.25 U	0.05 U		77	1.3		13	118	0.1 U	2 U	2.5 U	
7/21/2020	XX GW227XCH1	0.25 U	0.05 U		80	1.5		13	117	0.1	2 U	2.5 U	
10/27/2020	XD GWDP3XD2I	0.25 U	0.065		82	1.2		12	103	0.1 U	16 M10	2.5 U	
	XX GW227XD25	0.25 U	0.056		84	1.1		11	104	0.1 U	14 M10	2.5 U	
1W-30					-								
	XX GW301X493	0.34	1		76	4.2		10.2	106		0.7 U	4 U	
	XX GW301X4D1				76 73	1.3		10.3	126				
7/20/2011		0.41				1.4		11.7	118		0.7 U	4 U	
10/26/2011		0.3 U			72	1.9		11.3	127		0.7 U	6	
4/25/2012		0.3 U			76	2.3		15	123		2 U	13	
7/25/2012	XX GW301X565 XX GW301X5CG	0.3 U			74 77	2.3		14.3	118 130		2 U	4 U	
10/24/2012 10/24/2012		0.3 U				2.3		15.1				20	
4/22/2013	XX GW301X5H7	0.31			75	2.3		15.2	118	1	2 U	15	
					76	!		!	!		!	!	
7/31/2013	XX GW301X63C XX GW301X665	0.543				2.3		14.6	136	0.1 U	2 U	11	
10/30/2013		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		0.5 U			78	3.7		13.4	129	0.1 U	2 U	4	
10/22/2014	XX GW301X725	0.5 U			79 79	3.6		14.2	118	0.1 U	2 U	4 U 4 U	
10/22/2014	XD GWDP1X726	0.5 U	0.511			3.5		14.2	120	0.1 U	2 U		
4/29/2015		0.5 U	0.5 U		78	5.7		17.2	117	0.1 U	2 U	4 U	
7/15/2015		0.5 U	2 U		80	6.4	1	17	128	0.1 U	2 U	4 U	
10/27/2015	XX GW301X7H4	0.5 U	0.5 U		73	8	1	16.9	129	0.1 U	2 U	4 U	+ + + + + + + + + + + + + + + + + + + +
10/27/2015		0.5 U	0.5 U		76	8.3	1	16.6	131	0.1 U	2 U	4 U	
4/27/2016	XX GW301X85E	0.5 U	0.06		77	8.8	1	17.5	133	0.1 U	2 U	20	+ + + + + + + + + + + + + + + + + + + +
7/27/2016	XX GW301X8A4	0.5 U	0.06		75	8.2	1	14.9	139	0.2 U	2 U	14	+ + + + + + + + + + + + + + + + + + + +
10/26/2016		0.5 U	0.05 U		75	8.9	1	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		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	
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	

# SUMMARY REPORT Inorganics

(MW-301)		Total Kjeldahl	Nitrite/Nitrate -	Biochemical	Bicarbonate	Chloride	Total	Sulfate	Total Dissolved	Bromide	Organic Carbon	Total	
W1 W -3U1)		Nitrogen	(N)	Oxygen Demand	Alkalinity (CaCO3)	Cinoriae	Phosphorus	Sunate	Solids	Dromae	organic caron	Suspended Solids	
Date 1	Гуре Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
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	
0/28/2019	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	
4/27/2020	XX GW301XCC9	0.25 U	0.083		77	20		19	148	0.1 U	2 U	2.5 U	
7/20/2020	XX GW301XCH2	0.25 U	0.05 U		76	25		18	153	0.11	2 U	2.5 U	
10/26/2020	XD GWDP4XD34	0.25 U	0.05 U		76	21		16	151	0.1 U	8.5 M10	2.5 U	
10/26/2020	XX GW301XD26	0.25 U	0.05 U		76	20		17	147	0.1 U	6.8 M10	2.5 U	
1W-302	2R												
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	
	XX GW302XBCC	0.3	0.39		50	51		26	212	0.1 U	2 U	2.5 U	
	XX GW302XBI5	0.25 U	0.5		61	44		31	199	0.16	2 U	2.5 U	
	XX GW302XCDC	0.25 U	0.22		43	44		27	196	0.1 U	2 U	2.5 U	
	XX GW302XCI5	0.25 U	0.1		62	47		25	205	0.2 U	2 U	2.5 U	
10/26/2020	XX GW302XD39	0.29	0.49		120	44		29	254	0.1 U	24 M10	2.5 U	
AW-303	}												
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	
4/23/2012	XX GW303X52F	0.3 U			113	7.5		2.1	162		2 U	5	
7/24/2012	XX GW303X57E										1 .		

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														COMBLI	LAND CENTER	1, IVIL 0402 I
(MW12-3	03R)		Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date	Туре	e Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
10/23/2012	XX	GW303X5EG	0.3 U			92	4.9		4.2	143		2 U	4 U			T
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			1
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			1
4/22/2019		GW303XB63	2	1		120	27		56	353	2.4	16	12			
7/17/2019		GW303XBCE	0.71	0.72		130	40		33	297	0.62	7.8	2.5 U			
10/28/2019		GW303XBI7	0.9	1.7		120	15		45	268	0.27	11	2.5 U			
4/27/2020		GW303XCDE	0.25 U	0.58		77	42		22	297	0.1 U	4.4	4.7			1
7/20/2020		GW303XCI7	0.25 U	0.17		90	29		5.1	176	0.2 U	2 U	2.5 U			+
10/26/2020		GW303XD3B	0.8	12		72	77		29	372	0.1 U	34 M10	2.5 U			
MW-40									-	-						
4/25/2011	XX	GW401A49H	0.3 U			58	1.1		2.1	83		0.7 U	4 U			T
7/18/2011		GW401A4DF	0.3 U			56	1.3		2.4	89		0.7 U	4 U			1
10/24/2011	XX	GW401A4HA	0.3 U			58	2		2.7	76		0.7 U	4 U			1
4/23/2012	XX	GW401A520	0.3 U			56	1.9		4.4	89		2 U	4 U			1
7/23/2012		GW401A56J	0.36			57	1.2		4.2	97		2 U	4 U			1
10/22/2012		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			1
7/29/2013		GW401A646	0.572			57	2.2		4.3	86	0.1 U	2 U	4 U			1
10/28/2013		GW401A66J	0.5 U			57	2.8		4.3	87	0.1 U	2 U	4 U			1
4/21/2014		GW401A6F2	0.5 U			62	2.9		4.8	81	0.1 U	2 U	4 U			1
7/28/2014	_	GW401A6J9	0.5 U			61	1.5		2	89	0.1 U	2 U	4 U			1
10/20/2014		GW401A730	0.5 U			62	1.8		3.3	83	0.1 U	2 U	4 U			1
4/27/2015		GW401A78H	0.6	0.5 U		60	3.8		4.1	89	0.1 U	2 U	4 U			1
7/13/2015	_	GW401A7C9	0.5 U	1 U		59	4.1		3.7	99	0.1 U	2 U	4 U			1
10/26/2015		GW401A7HI	0.5 U	0.5 U		59	2.7		4.1	87	0.1 U	2 U	4 U			1
4/27/2016	_	GW401A868	0.5 U	0.1		59	2.4		4.2	91	0.1 U	2 U	4 U			1
7/25/2016		GW401A8AI	0.5 U	0.05 U		63	2.2		3.8	90	0.2 U	2 U	4 U			1
10/24/2016		GW401A8IH	0.5 U	0.1		58	2.2		4	98	0.2 U	2 U	4 U			1
4/17/2017	_	GW401A973	0.5 U	0.05		62	2.3		3.7	95	0.2 U	2 U	2.5 U			1
7/24/2017	_	GW401A9D1	0.5 U	0.1		63	2.7		4.7	89	0.2 U	2 U	7			1
10/25/2017		GW401A9GG	0.25 U	0.11		57	2.2		4.4	112	0.1 U	2 U	2.5 U			1
4/2/2018	_	GW401AA2F	0.25 U	0.14		58	2.1		2.8	85	0.1 U	2 U	2.5 U			+
4/2/2010	~~		0.23 0	0.14		50	4.1	1	2.0	UJ	0.10	20	2.5 0		l	1

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													CUN	BERLAND CENT	ER, IVIE U4UZ I
(MW-401	<b>A</b> )	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date	Type Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
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		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			
4/27/2020	XX GW401ACD3	0.25 U	0.16		63	4.8		5	106	0.1 U	2 U	2.5 U			
7/20/2020	XX GW401ACHG	0.25 U	0.05 U		61	5.3		4.9	97	0.1 U	2 U	2.5 U			
10/26/2020	XX GW401AD30	0.25 U	0.084		62	4.6		4	92	0.1 U	5 M10	2.5 U			
MW-40	1B		1	•	1	•		1			-			•	
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		0.3 U			117	9.4		11	173		2 U	4 U			
4/23/2012		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		0.5 U	1 U		146	13		10.7	205	0.16	2 U	4 U			
7/13/2015		0.5 U	2 U		144	11.7		10.3	208	0.25	2 U	4 U			
10/26/2015		0.5 U	0.5 U		158	13.6		11.9	211	0.1 U	2 U	4 U			
10/26/2015		0.5 U	0.5 U		155	13.7		11.8	219	0.1 U	2 U	4 U			
4/6/2016		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		0.5 U	0.05 U	1	157	13.1		10.4	225	0.2	2 U	4 U			
10/24/2016		0.5 U	0.05 U		163	8.5		12.2	214	0.2	2 U	4 U			
10/24/2016		1	0.05 U	<u> </u>	158	8.9	1	12.5	213	0.2	2 U	4 U			
4/17/2017	XD GWDP4X977	0.5 U	0.05 U	<u> </u>	130	9.5	1	11	183	0.2 U	2 U	7			
4/17/2017	XX GW401B974	0.5 U	0.05 U	<u> </u>	140	9.4	1	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			

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(MW-4011 Date	<b>B</b> )		Nitrite/Nitrate -	Biochemical	Bicarbonate	Chlorida	m . 1	0.10					
Date -		Nitrogen	(N)	Oxygen Demand	Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
	Type Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
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	
		0.25 U	0.05 U		120	6.9		12	156	0.16	2 U	2.5 U	
		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	
		0.25 U	0.21		130	9.1		11	167	0.15	2 U	2.5 U	
		0.25 U	0.06		150	10		13	208	0.2	2 U	2.5	
		0.25 U	0.067		150	10		14	208	0.23	2 U	2.5 U	
		0.25 U	0.05 U		110	9		13	162	0.14	2 U	2.5 U	
		0.25 U	0.091		120	9.4		13	166	0.15	2 U	2.5 U	
		0.25 U	0.05 U		160	8.5		12	188	0.24	2 U	2.5 U	
		0.25 U	0.05 U		160	8.4		13	196	0.21	2 U	2.5 U	
		0.25 U	0.05 U		160	6.9		11	208	0.19	32 M10	2.5 U	
10/26/2020		0.25 U	0.051		160	7.2		11	211	0.19	23 M10	2.5 U	
MW-402	•	0.20 0	0.001		100	1.2		11	211	0.10	23 10110	2.5 0	
		0.011			50	4.0		4.4	70		0.711	411	
		0.3 U			52	1.2		4.1	78		0.7 U	4 U	
		0.54			51	1.6		4.2	80		0.7 U	4 U	
		0.3 U			54	0.8 J		4.4	86		0.7 U	4 U	
		0.3 U			52	2		7	70		2 U	4 U	
		0.3 U			52	1.6		6.4	80		2 U	4 U	
		0.31			51	2.3		7.3	83		2 U	4 U	
		0.3 U			51	2.5		9.3	99	0.1 U	2 U	4 U	
		0.3 U			53	1.3		7	81	0.1 U	2 U	4 U	
		0.5 U			51	1.8		7.2	89	0.1 U	2 U	4 U	
		0.5 U			56	1.7		8.1	76	0.1 U	2 U	4 U	
		0.5 U			52	1.5		6.9	87	0.1 U	2 U	4 U	
		0.5 U			58	1.4		7	76	0.1 U	2 U	4 U	
		0.5 U	0.5 U		57	2.1		9.1	79	0.1 U	2 U	4 U	
		0.5 U	2 U		56	1.5		8.4	91	0.1 U	2 U	4 U	
10/28/2015		0.5 U	0.5 U		54	2.2		8.8	91	0.1 U	2 U	4 U	
		0.5 U	0.06		57	2.1		8.8	86	0.1 U	2 U	4 U	
		0.5 U	0.05		55	1.6		7.8	86	0.2 U	2 U	4 U	
		0.5 U	0.05		53	1.8		8.8	95	0.2 U	2 U	4 U	
		0.5 U	0.05 U		56	1.4		6.3	94	0.2 U	2 U	2.5 U	
		0.5 U	0.05 U		54	1.9		9.6	78	0.2 U	2 U	2.5 U	
		0.25 U	0.1	1	51	1.6		9.5	100	0.1 U	2 U	2.5 U	
		0.5 U	0.11	1	59	1.6		6.1	90	0.1 U	2 U	2.5 U	
		0.27	0.065	<u> </u>	54	1.4		8.4	81	0.1 U	2 U	2.5 U	
		0.25 U	0.059	<u> </u>	54	1.7		8.8	95	0.1 U	2 U	2.5 U	
		0.25 U	0.06	ļ	55	1.5		9.2	87	0.1 U	2 U	2.5 U	
		0.25 U	0.064	<u> </u>	55	1.4		8.8	90	0.1 U	2 U	2.5 U	
		0.25 U	0.062	ļ	57	1.7		11	83	0.1 U	2 U	2.5 U	
		0.25 U	0.085		56	1.7		9.6	76	0.1 U	2 U	2.5 U	
		0.25 U	0.051		57	1.8		9.3	80	0.1 U	2 U	2.5 U	
1		0.25 U	0.057		55	1.4		8.3	75	0.1 U	4.8 M10	2.5 U	
MW-402	2B												
4/27/2011	XX GW402B4A0	0.3 U			68	1.1		6.6	92		0.7 U	4 U	

#### SUMMARY REPORT Inorganics

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CUMBERLAND CENTER, ME 04021

Chloride Sulfate Total Dissolved (MW-402B) Total Kjeldahl Nitrite/Nitrate -Biochemical Bicarbonate Total Bromide Organic Carbon Total Nitrogen (N) Oxygen Alkalinity Phosphorus Solids Suspended Demand (CaCO3) Solids Type Sample ID mg/L Date 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 65 2.5 2 U 4 U 0.3 U 9.5 97 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 4 U 0.5 U 66 1.6 8.1 100 0.1 U 2 U 10/22/2014 XX GW402B733 4 U 0.5 U 71 1.6 8.2 89 0.1 U 2 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 88 0.2 U 2 U 2.5 U 2 11 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 69 1.8 9.3 91 0.1 U 2 U 9.3 0.36 0.05 U 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 2 U 0.05 U 65 1.5 9.8 88 0.1 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 4/29/2020 XX GW402BCD6 0.25 U 0.059 68 1.4 2 U 2.5 U 11 79 0.1 U 7/22/2020 XX GW402BCHJ 67 1.5 10 0.39 0.071 81 0.1 U 2 U 3.3 10/28/2020 XX GW402BD33 0.25 U 0.05 U 72 1.2 9.3 85 0.1 U 6.1 M10 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 0.04 U 2 U 0.18 1 U 10 2.9 131 0.1 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 4/29/2020 XX GW501XCF0 0.25 U 0.21 72 12 3 105 0.1 U 2 U 2.5 U 7/22/2020 XX GW501XCJD 0.25 U 0.077 130 24 3 214 0.1 2 U 2.5 U 10/28/2020 XX GW501XD4D 0.25 U 0.29 150 23 2.9 208 0.1 U 22 M10 2.5 U MW09-901 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 8.3 0.7 U 4 U 1.3 125 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 77 0.3 U 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 2 U 4 U 81 2.5 10.8 116 0.1 U

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													CUMBERLAND CENTER, N	
(MW09-90	01)	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids		
Date 7	Гуре Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
7/30/2013	XX GW901X645	0.52			80	2		10.7	110	0.1 U	2 U	4 U		
	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		
	XX GW901X6J8	0.5 U			96	1.8		4.6	128	0.1 U	2 U	4 U		
10/21/2014		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		
		0.5	2 U		141	4.4		11.2	178	0.1 U	2 U	4 U		
10/27/2015		0.6	0.5 U		154	5.8		10.9	198	0.1 U	2 U	4 U		
	XD GWDP1X85F	0.5 U	0.13		154	5.2		12.4	194	0.1 U	2 U	4 U		
	XX GW901X867	0.5 U	0.06		155	5.4		12.3	188	0.1 U	2 U	4 U		-
	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		-
	XX GW901X8IG	0.5 U	0.11		159	5.9		9.9	224	0.2	2 U	4 U		-
4/18/2017		0.5 U	0.29		170	6		10	197	0.2 U	2 U	2.5 U		
	XX GW901X972	0.5 U	0.29		170	6.1		11	206	0.2 U	2 U	2.5 U		
	XD GWDP1X9C8	0.5 U	0.35		170	6.8		14	224	0.2 U	2 U	2.5 U		
	XX GW901X9D0	0.5 U	0.4		160	6.8		14	230	0.2 U	2 U	2.5 U		
	XX GW901X9GF	0.25 U	0.23		170	9.5		13	234	0.1 U	2 U	2.5 U		
	XD GWDP1XA21	0.25 U	0.61		170	7.4		45	220	0.16	2 U	2.5 U		
	XX GW901XA2E	0.34	0.6		170	7.4		47	235	0.15	2 U	2.5 U		
	XD GWDP1XAB3	0.25 U	0.76		170	13		13	234	0.12	2 U	2.5 U		
	XX GW901XABF	0.36	0.75		180	14		14	231	0.13	2 U	2.5 U*		
	XX GW901XB0D	0.25 U	0.37		170	10		13	234	0.17	2 U	2.5 U		
	XD GWDP1XB4H	0.3	0.18		170	4.7		11	217	0.32	2 U	2.5 U		
	XX GW901XB5A	0.25 U	0.10		170	4.8		11	217	0.26	2 U	2.5 U		
	XD GWDP1XBBA	0.25 U	0.24		180	8.7		12	236	0.22	2 U	2.5 U		
	XX GW901XBC2	0.25 U	0.22		180	8.6		12	227	0.23	2 U	2.5 U		
	XX GW901XBHF	0.25 U	0.05 U		160	5.1		13	209	0.27	2 U	2.5 U		
	XD GWDP1XCCA	0.25 U	0.03 0		170	5.9		14	220	0.27	2 U	2.5 U		
	XX GW901XCD2	0.25 U	0.11		170	6		14	216	0.32	2 U	2.5 U		
	XD GWDP1XCH3	0.25 U	0.073		170	4.2		12	216	0.32	2 U	2.5 U		
	XX GW901XCHF	0.25 U	0.073		170	4.4		13	219	0.32	2 U	2.5 U		
10/27/2020		0.25 U	0.05 U		160	3.3		12	194	0.29	39 M10	2.5 U		
OW-06-0		0.23 0	0.03 0		100	3.3		12	194	0.13	39 10110	2.5 0		
4/10/2018		0.25 U	0.1	4		1.6	0.04 U	2.1	84	0.58	2	2.5 U		
	XX GWXXXXA80	I	I	1		ı	ı	- 1	ı	I	I	I		-
	XX GWXXXXAEI	ı	I	I	1	ı	1	ı	I	Ī	ı	I		
		I	I	1	1	ı	1	I	I	Ī	ı	I		
		I	I		I	I		I	ı	1	I	I		
7/20/2020		I	1		I	I		I	I	I	ı	I		
OW-601	A	•					1	1			•			
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		0.25 U	0.18	1 U	1	24	0.1	6.1	198	0.13	2 U	230		
	XX GW601AAE4	0.3	0.3	1 U	1	18	1	6.8	209	1.1	2 U	13		
	XX GW601AAF5	0.25 U	0.19	1	1	27	1	7	212	0.15	2 U	2.5 U		
7/18/2019		0.86	0.33	1	140	26	1	11	234	0.18	2 U	2.5 U		
7/22/2020		0.25 U	0.45	1	150	20	1	25	225	0.13	2 U	57		
		0.200	0.70	1						0.10				

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													CUMBERLAND CENTER, ME 04021
(OW-6011	B)	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date	Type Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
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	
7/22/2020	XX GW601BCJ8	0.25 U	0.23		92	44		4 U	263	0.24	2 U	2.5 U	
OW-602	2A												
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	
7/22/2020	XX GW602ACJ9	0.25 U	0.064		56	11		2.9	108	0.1 U	2 U	2.5 U	
OW-603	BB												
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	
7/22/2020	XX GW603BCJA	I	I		I	I		1	I	I	I	1	
OW-604	A												
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	
7/21/2020	XX GW604ACJB	0.25 U	0.78		69	4.7		3.3	116	0.1	2 U	2.5 U	
P-04-02													
4/27/2011	XX GWXXXX4AE	0.3 U			90	1.1		8.9	129		0.7 U	4 U	
7/20/2011		0.38			93	1.1		12.2	138		0.7 U	4 U	
10/26/2011		!	1		!	!		!	!		!	!	
4/25/2012	XX GWXXXX52H	0.6			63	8.8		11.3	211		11.9	11	
7/25/2012		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	
4/22/2013	XX GWXXXX5II	!			!	!		!	!	!	!	!	
P-04-02	R								<u>"</u>				
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	

# SUMMARY REPORT Inorganics

													CUMBERL	AND CENTER	, ME 04021
(P-04-02R)		Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date T	ype Sample II	) mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
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			
4/29/2020	XX GWXXXXCEA	0.25 U	0.092		170	2.8		45	236	0.1 U	2 U	2.5 U			
7/22/2020	XX GWXXXXCJ3	0.25 U	0.05 U		150	2.1		39	213	0.1 U	2 U	2.5 U			
10/28/2020	XX GWXXXXD46	0.25 U	0.05 U		140	1.7		34	195	0.1 U	15 M10	2.5 U			
P-04-04															
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		0.7			78	1.8		6.8	122		0.8 J	4 U			
4/25/2012		0.3 U			75	1.8		8.5	114		2 U	4 U			
7/25/2012		0.3 U			76	1.8		28.8	95		2 U	4 U			
10/24/2012		0.3 U			78	2		8.1	111		2 U	4 U			
4/24/2013		0.479			80	1.3		9.2	115	0.1 U	2 U	4 U			
7/31/2013		0.613			76	1.4		7.8	100	0.1 U	2 U	4 U			
10/30/2013		0.5 U			76	1.8		7.7	115	0.1 U	2 U	4 U			
4/23/2014		0.5 U			79	1.8		8.2	112	0.1 U	2 U	4 U			
7/30/2014		0.5 U			78	1.5		7.2	113	0.1 U	2 U	4 U			
10/22/2014		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		0.5 U	2 U		78	2.1		8.9	108	0.1 U	2 U	4 U			
10/28/2015		0.5 U	0.5 U		76	2.6		8.9	111	0.1 U	2 U	4 U			
4/6/2016		0.5 U	0.05 U		80	2.2		9.4	115	0.1 U	2 U	4 U			
7/27/2016		0.9	0.05 U		77	2.2		8.1	113	0.2 U	2 U	4 U			
10/26/2016		0.5 U	0.1		78	2.7		8.8	119	0.2 U	2 U	4 U			
4/19/2017		0.5 U	0.05		81	2.8		5.3	112	0.2 U	2 U	2.5 U			
7/26/2017		0.5 U	0.09		77	3.4		9.4	109	0.2 U	2 U	2.5 U			1
10/25/2017		0.25 U	0.11		73	3.1		8.7	125	0.1 U	2 U	2.5 U			1
4/4/2018		0.25 U	0.16		80	3.3		4.1	111	0.1 U	2 U	2.5 U			1
7/18/2018		0.28	0.13		77	4		7.8	112	0.1 U	2 U	2.5 U			1
10/3/2018		0.25 U	0.11		78	4.5		8.5	118	0.1 U	2 U	2.5 U			-
4/22/2019		0.27	0.13		76	4.3		9.7	118	0.1 U	2 U	2.5 U			ļ
7/17/2019		0.25 U	0.13		81	5.6	1	9.1	115	0.1 U	2 U	2.5 U			<b> </b>
10/30/2019		0.25 U	0.14		78	5.9	1	8.8	114	0.1 U	2 U	2.5 U			<b> </b>
	XX GWXXXXCDG	0.41	0.14		81	7.2	1	9.4	105	0.1 U	2 U	2.5 U			<b> </b>
7/22/2020		0.25 U	0.05 U		77	7.4	1	8.8	115	0.1 U	2 U	2.5 U			<b> </b>
10/28/2020 I	XX GWXXXXD3D	0.25 U	0.092		77	7.5		7.8	109	0.1 U	3.7 M10	2.5 U			
P-206A	XX GW206A64I				1	1		1	1	1	ı	1			
10/28/2013		· ·				4.3	1	2 U	1 1	· ·	† · ·				
4/21/2014						6.2	1	2 U			1				
7/28/2014						3.3	1	2 U			1				
10/20/2014						3.6	1	2 U	1		1	1			
	XX GW206A79A		0.5 U			5.5	1	4.8			1				
	XX GW206A7D2		0.5 U			7.9	1	2 U			1				
1,13/2013			0.00	1	I .	7.0	1				1	1			

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								inorganics					CUMBERLAND CENTER, ME 04021
(P-206A)		Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date	Type Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
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		0.5 U	0.05 U		70	21		2.2	120	0.2 U	2 U	5 U	
10/23/2017		0.25 U	0.05 U		65	20		2.7	120	0.1 U	2 U	6	
4/2/2018		0.25 U	0.063		71	19		2 U	123	0.1 U	2 U	2.5 U	
7/16/2018		0.31	0.064		74	24		2.8	130	0.1 U	2 U	2.5 U	
10/1/2018		0.29	0.05 U		75	21		2.2	131	0.1 U	2 U	4.7	
4/22/2019		0.25 U	0.05 U		74	19		2 U	124	0.1 U	2 U	4.3	
7/17/2019		0.3	0.05 U		79	22		2.4	136	0.1 U	2 U	7.7	
10/28/2019		0.25 U	0.067		78	21		3.1	135	0.1	2 U	18	
4/27/2020		0.25 U	0.088		78	20		2.1	135	0.1 U	2 U	15	
7/20/2020		0.25 U	0.05 U		83	22		3.4	134	0.1 U	2 U	2.5 U	
	XX GW206AD3C	А	Α		Α	Α		Α	Α	A	Α	Α	
PWS10-													
	XX GWPWS1498				73	14.2	0.03 J	1.3 J	154		7.5	4 U	
7/18/2011					110	7.3	0.14	2.9	171		8.4	42	
10/24/2011					70	10.8	0.08	1.6 J	134		19.7	16	
4/23/2012					63	8.4	0.04 U	6.3	132		10.5	8	
7/23/2012					41	3.5	0.16	2 U	104		13.7	32	
10/22/2012					48	8.2	0.09	2.7	130		13.3	25	
4/22/2013					113	16.4	0.06	3.1	177	0.1	4.5	4 U	
7/29/2013					82	8.9	0.32	2 U	148	0.1 U	12.6	95	
10/28/2013 4/21/2014					45 130	7 22.9	0.06 0.16	2.5 2.2	90 197	0.1 U 0.1 U	9.8 8.4	25 34	
7/28/2014					106	7.5	0.16	2.2 2 U	171	0.10	13.8	4 U	
10/20/2014					21	8.8	0.37 0.04 U	3.3	87	0.12 0.1 U	17.4	4 U	+ + + + + + + + + + + + + + + + + + + +
4/27/2015			0.5 U		109	19.4	0.04 U	4.3	182	0.1 U	5.5	4 U	+ + + + + + + + + + + + + + + + + + + +
7/13/2015			2 U		76	8.4	0.52	2 U	156	0.1 U	12.5	156	
10/26/2015		1	0.5 U	<u> </u>	31	8.7	0.06	2.4	89	0.1 U	10.3	8	
4/4/2016			0.05 U		102	14.7	0.04	2.5	166	0.1 U	5.6	166	
7/25/2016			0.05 U		50	3.1	0.19	2 U	122	0.2 U	13.8	21	
10/24/2016		1	0.05 U		125	7.9	0.07	3.3	195	0.2 U	7.5	19	
4/17/2017		1	0.05 U		35	11	0.04 U	4	97	0.2 U	7.6	2.5 U	
7/24/2017			0.05 U		130	7.3	0.04	3.4	150	0.2 U	5	110	
10/25/2017			0.05 U		72	5.4	0.14	8.5	156	0.1 U	5.4	17	
4/2/2018			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	
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	
4/27/2020	XX GWPWS1CCE		0.073		99	13	0.04 U	8.9	180	0.1 U	8.6	11	
7/20/2020			0.05 U		81	12	0.09	2 U	191	0.1 U	30	14	
10/26/2020	XX GWPWS1D2B		0.05 U		95	9.6	0.04	9	172	0.1 U	28 M10	21	

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SEVEE & MAHER ENGINEERS, INC.
4 BLANCHARD ROAD

		FOR: Juniper Ri	age Landilli					I	norganics	3				4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(PWS10-	2)		Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date	Туре	Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
PWS10	-2													
4/25/2011	XX	GWPWS2499				12.1	5.8	0.02 J	1.7 J	60		7.3	4 U	
7/18/2011		GWPWS24D7				62	4.1	0.03 J	1.6 J	107		9.9	4 U	
10/24/2011		GWPWS24H2				36	3.8	0.03 J	2.9	76		10.2	78	
4/23/2012	2 XX	GWPWS251C				10.6	8.3	0.04 U	7.7	79		11.5	4 U	
7/23/2012	2 XX	GWPWS256B				35	3.2	0.05	2 U	90		13	4 U	
10/22/2012	2 XX	GWPWS25D2				9.3	4.4	0.04 U	8.4	75		10.2	4	
4/22/2013	3 XX	GWPWS25HD				30	8.4	0.04 U	3.8	82	0.1 U	6.4	5	
7/29/2013	3 XX	GWPWS263I				28	19.8	0.05	2 U	111	0.1 U	11.8	62	
10/28/2013		GWPWS266B				28	5.1	0.1	4.3	78	0.1 U	5.5	43	
4/21/2014		GWPWS26EE				36	8.4	0.05	2.5	38	0.1 U	4.7	34	
7/28/2014		GWPWS26J1				55	8.3	0.04	2 U	119	0.1 U	10.4	7	
10/20/2014		GWPWS272B				38	9.8	0.05	8.8	113	0.1 U	13.6	4 U	
4/27/2015		GWPWS2789		0.5 U		39	5.8	0.05	2.5	91	0.1 U	9.9	6	
7/13/2015		GWPWS27C1		2 U		31	6.4	0.09	2.2	94	0.1 U	11.9	327	
10/26/2015		GWPWS27HA		0.5 U		27	5	0.04 U	5.2	62	0.1 U	2.6	4 U	
4/4/2016	_	GWPWS2860		0.08		38	8.5	0.08	6.3	81	0.1 U	4	12	
7/25/2016		GWPWS28AA		0.05 U		47	3	0.06	2 U	103	0.2 U	12.6	4 U	
10/24/2016		GWPWS28I9		0.05		35	5.4	0.22	7.4	89	0.2 U	9	82	
4/17/2017		GWPWS296F		0.08		37	4.9	0.04 U	3.1	81	0.2 U	7	7	
7/24/2017		GWPWS29CD		0.05 U		64	5.4	0.04 U	4	87	0.2 U	7.4	5	
10/24/2017		GWPWS29G8		D		D	D	D	D	D	D	D	D	
4/2/2018		GWPWS2A26		0.17		24	3.2	0.06	2.6	56	0.1 U	2.8	44	
7/16/2018		GWPWS2AB8 GWPWS2B06		0.05		53	3.9	0.04	3	98	0.1 U	11	2.5 U	
10/1/2018		GWPWS2B06 GWPWS2B52		0.087		38	4.2	0.04	9.7	86 79	0.1 U	8.3	3.7	
4/22/2019 7/15/2019		GWPWS2BBF		0.05 U		13 34	8.3	0.04 U	12 2 U	106	0.1 U 0.1 U	7.5 24	2.5 U 4	
10/28/2019		GWPWS2BH8		0.11		14	8.5 6.8	0.06	15	76	0.1 U	6.4	19	
4/27/2020		GWPWS2CCF		0.004		21	17	0.04	19	107	0.1 U	6.2	44	
7/20/2020		GWPWS2CH8		0.099 0.05 U	+	42	13	0.04	8.6	99	0.1 U	13	2.5 U	
		GWPWS2D2C		0.05 U		29	8.6	0.05	12	101	0.1 U	19 M10	20	
PWS10				0.000		20	0.0	0.00	12	101	0.10	10 1010	20	
4/25/2011		GWPWS349A				64	2.3	0.03 J	0.6 U	105		4	4 U	
7/18/2011		GWPWS349A GWPWS34D8				56	3.2	0.03 J 0.15	1.2 J	112		14.9	101	
10/24/2011		GWPWS34H3		1	+	37	3.4	0.15	0.6 U	95		13.4	101	
4/23/2012		GWPWS351D				16.4	4.5	0.07	6.3	66		7.5	60	
7/23/2012		GWPWS356C				26	3	0.00	2 U	89		13.8	18	
10/22/2012	_	GWPWS35D3				11.8	2.6	0.06	2 U	83		19	15	
4/22/2013		GWPWS35HE				21	4.1	0.08	2	72	0.1 U	11	8	
7/29/2013		GWPWS363J			1	56	5.4	0.5	2 U	141	0.1 U	21.6	39	
10/28/2013		GWPWS366C			1	22	6.2	0.08	2 U	73	0.1 U	11.9	29	
4/21/2014	, ,,,,	GWPWS36EF			1	35	6.3	0.2	5	107	0.1 U	17	489	
7/28/2014		GWPWS36J2			1	32	5.2	0.27	2 U	92	0.1 U	14.8	57	
10/20/2014		GWPWS372D			1	24	8.9	0.06	2.5	89	0.1 U	18.4	19	
4/27/2015		GWPWS378A		0.5 U		10.4	5.3	0.09	7.4	68	0.1 U	8.7	58	
7/13/2015		GWPWS37C2		2 U		26	6.6	0.11	2 U	87	0.1 U	11.9	14	
10/26/2015		GWPWS37HB		0.5 U		25	2.4	0.05	10.2	91	0.1 U	12.3	9	
4/4/2016		GWPWS3861		0.05 U	+	68	3.2	0.04	4.6	98	0.1 U	2 U	14	

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									inorganics						4 BLANCHARD RC CUMBERLAND CE	
(PWS10-		0 1 15	Nitrogen	Nitrite/Nitrate - (N)	Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date	Туре	e Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
7/25/2016		GWPWS38AB		D		D	D	D	D	D	D	D	D			
10/24/2016	_	GWPWS38IA		1.5		7.9	4	0.04 U	47.3	135	0.2 U	13.3	4 U			
4/17/2017		GWPWS396G		0.05 U		21	3.3	0.06	4.6	91	0.2 U	16	17			
7/24/2017		GWPWS39CE		0.05 U		62	4.6	0.11	2 U	120	0.2 U	20	17			
10/24/2017		GWPWS39G9		D		D	D	D	D	D	D	D	D			
4/2/2018		GWPWS3A27		0.23		5.8	4.5	0.04 U	4.1	48	0.1 U	6.6	4			
7/16/2018	_	GWPWS3AB9		D		D	D	D	D	D	D	D	D			
10/1/2018	_	GWPWS3B07 GWPWS3B53		0.062		11	8.6	0.04	20	98	0.1 U	12	11			
4/22/2019 7/15/2019		GWPWS3B53 GWPWS3BBG		0.05 U 0.062		12 26	15 8.9	0.04 U 0.14	2.3 2 U	82 82	0.1 U 0.1 U	13 27	3.3 18			
10/28/2019		GWPWS3BH9		0.062		11	1 U	0.14 0.04 U	2 U	29	0.1 U	2 U	11			
4/27/2020		GWPWS3CCG		0.15		22	1	0.04 U	2 0	61	0.1 U	11	2.5 U			
7/20/2020		GWPWS3CH9		0.092		51	1.8	0.04 0	2 U	129	0.1 U	30	11			
10/26/2020		GWPWS3D2D		0.052		25	7.8	0.13	3.9	106	0.1 U	34 M10	53			<del></del>
SW-1	701			0.001			1.0	0.1	0.0	100	0.1.0	010				
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		SWXX1X4GI			4 U	19	5.8	0.02 J	2.4	64		13.4	11			
4/24/2012	_	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		SWXX1X667			1 U	30	6.2	0.04 U	2.2	73	0.1 U	10.1	4 U			
4/22/2014		SWXX1X6EA			2 U	41	27.6	0.04	6.2	98	0.1 U	5.7	4 U			
7/29/2014	_	SWXX1X6IH			3 U	27	5.1	0.04 U	2 U	80	0.1 U	14.6	4 U			
10/21/2014		SWXX1X727			2 U	20	8.4	0.04 U	2.8	97	0.1 U	16.5	15			
4/28/2015		SWXX1X785		0.5 U	3 U	21	18	0.04 U	3.1	79	0.1 U	7.3	4 U			
7/14/2015	_	SWXX1X7BH		2 U	3 U	37	5.7	0.06	1.6 J	80	0.1 U	11.1	9			
10/27/2015		SWXX1X7H6 SWXX1X85G		0.5 U	3 U	28	9	0.04 U	2.6	76	0.1 U	10.4	4 U			
4/5/2016		SWXX1X83G SWXX1X8A6		0.05 U 0.05 U	3 U	21 83	16.3	0.04 U 0.95	3.4	69	0.1 U 0.2 U	6.1	4 U 377			
7/26/2016		SWXX1X8A6 SWXX1X8I5		0.05 0	4 3 U	15.5	4.1	0.95	2.2 6.6	135 126	0.2 U	12.9 17.3	4			
4/18/2017		SWXX1X96B		0.05	3 U	13.5	9.8	0.04 0.04 U	2 U	60	0.2 U	8.9	2.5 U			
7/25/2017	_	SWXX1X9C9		0.06	4	110	6.4	0.04 0	6.8	169	0.2 U	6.7	35			<del></del>
10/25/2017		SWXX1X9G4		0.12	5	27	13	0.09	13	139	0.1 U	16	14			
4/3/2018		SWXX1XA22		0.25	2	45	11	0.04 U	3.5	92	0.1 U	4.5	2.5 U			
7/17/2018	_	SWXX1XAB4		0.063	6	100	5	0.17	2.2	151	0.1 U	10	640			
10/2/2018	_	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			
4/28/2020		SWXX1XCCB		0.18	3	90	13	0.04	11	144	0.1 U	5.4	2.5 U			
7/21/2020		SWXX1XCH4		0.05 U	4	55	12	0.09	2 U	138	0.13	18	13			
10/27/2020	XX	SWXX1XD28		0.064	9	85	17	0.11	15	196	0.1 U	49 M10	46			
SW-2		launa anu	1		T	T .			T				T .	T		
4/26/2011		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			

# SUMMARY REPORT Inorganics

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														OOMBE	LAND CENTER	t, IVIL 0-02 I
(SW-2)			Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date	Туре	e Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
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		SWXX2X5CJ			2 U	13	4.2	0.04 U	3	72		10.7	4 U			
10/23/2012		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		SWXX2X668			1 U	22	6.6	0.04 U	2 U	65	0.1 U	11.8	4 U			1
10/29/2013		SWDP2X66D			1 U	21	6.6	0.04	2 U	68	0.1 U	11.9	6			1
4/22/2014		SWXX2X6EB			2 U	13.6	16.1	0.04 U	2.6	56	0.1 U	6.6	4 U			1
4/22/2014		SWDP2X6EG			2 U	13.4	16.4	0.04 U	2.7	58	0.1 U	6.5	4 U			
7/29/2014		SWXX2X6II			5	26	5.3	0.1	2 U	76	0.1 U	15.1	42			
10/21/2014		SWXX2X728			2 U	13.7	9	0.04 U	2.2	95	0.1 U	17.6	4 U			
10/21/2014		SWDP2X72E			2 U	14.1	9	0.04 U	2.4	95	0.1 U	17.9	4 U			
4/28/2015		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		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		SWXX2X7BI		2 U	3	27	6	0.04	2 U	73	0.1 U	12.4	19			
10/27/2015		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		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		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		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		SWXX2X8A7		0.05 U	3	34	2.1	0.05	2 U	92	0.2 U	17.7	15			+
10/25/2016		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		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		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		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		SWXX2X9CA		0.06	2 U	46	3.4	0.09	3.2	93	0.2 U	8.9	9			
10/25/2017		SWDP2X9GA		0.11	5	22	13	0.11	3.8	107	0.1 U	14	10			
10/25/2017		SWXX2X9G5		0.16	4	21	13	0.1	3.5	114	0.1 U	14	4.7			<del>                                     </del>
4/3/2018		SWDP2XA28		0.076	1 U	7.9	6.4	0.04 U	2 U	54	0.1 U	6.9	2.5 U	1		+
4/3/2018		SWXX2XA23		0.084	1 U	8.6	6.8	0.04 U	2 U	67	0.1 U	7.2	2.5 U	1		+
7/17/2018		SWXX2XAB5		0.05 U	42	40	4.6	0.43	2.3	103	0.1 U	18	76	1		†
10/2/2018		SWDP2XB08		0.05 U	8	21	10	0.11	9.8	96	0.1 U	16	42	1		<del>                                     </del>
10/2/2018		SWXX2XB03		0.065	7	25	9.8	0.09	9.2	94	0.1 U	16	16	1		<u> </u>
4/23/2019		SWDP2XB54		0.05 U	1 U	13	16	0.04 U	2.1	77	0.1 U	13	2.5 U	1		<u> </u>
4/23/2019		SWXX2XB4J		0.05 U	1 U	13	16	0.04 U	2 U	73	0.1 U	13	2.5 U			+
7/16/2019		SWDP2XBBH		0.05 U	3	23	12	0.06	2 U	107	0.1 U	24	19			+
7/16/2019		SWXX2XBBC		0.05 U	3	23	12	0.05	2 U	93	0.1 U	30	22			+
10/29/2019		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		SWXX2XBH5		0.05 U	1 U	13	9.3	0.04 U	2 U	66	0.1 U	13	2.5 U			+
4/28/2020		SWDP2XCCH		0.03 0	2 U	15	12	0.04 U	3.1	62	0.1 U	7.1	2.5 U			+
4/28/2020		SWXX2XCCC		0.084	2 U	14	12	0.04 U	2.8	61	0.1 U	7.1	2.5 U			+
7/21/2020		SWDP2XCHA		0.064 0.05 U	2	33	4.5	0.04 0	2.0 2 U	100	0.1 U	21	3.7			+
7/21/2020		SWXX2XCH5		0.05 U	2	33	4.3	0.12	2 U	113	0.1 U	21	2.5 U			+
10/27/2020		SWDP2XD2E		0.05 U	1	13	9.8	0.04 0.04 U	4.4	84	0.1 U	28 M10	2.5 U	1		+
10/2//2020	ΧD	OTT DE ZADZE		U.U5 U	1	13	9.0	U.U4 U	4.4	04	0.10	20 IVI I U	2.5 U			<u> </u>

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									norganics	; 				4 BLANCH CUMBERL	AND CENTER,	ME 04021
(SW-2)			Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date	Type Sa	ample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
10/27/2020	XX SWXX	X2XD29		0.05 U	1 U	13	9.8	0.04 U	4.3	87	0.1 U	28 M10	2.5 U			
SW-3	1			"						1		"	1		<u>I</u> I	
	104 014004	V0V407		T	0.11	10.0		0.04.1	441			7.0	411			
4/26/2011		X3X497			3 U	12.3	5.8	0.01 J	1.4 J	57		7.3	4 U			
7/19/2011 10/25/2011		X3X4D5 X3X4H0			4 U	36 18.5	5	0.04	0.6 J	85 72		11.8	4 U			
10/25/2011		X3XHBB			4 U	10.5	5.6	0.02 J	1.9 J	12		12.9	4 0			
4/24/2012		X3X51A			5 U	10.9	4.6	0.04 U	3.5	58		11.3	4 U			
7/24/2012		X3X569			4 U	33	2	0.05	2 U	79		11.1	4		<del></del>	
7/24/2012		P2X56D			4 U	33	1.9	0.05	2 U	76		11	4 U			
10/23/2012		X3X5D0			2 U	13.6	3.8	0.04 U	2.3	74		12.1	4 U		-	
4/23/2013		X3X5HB		1	4 U	14.8	9.8	0.04 U	3.1	56	0.1 U	7	4 U			
7/30/2013		X3X63G		1	3 U	28	5.2	0.04 U	2.4	67	0.1 U	13.7	5			
7/30/2013		P2X640		1	3 U	28	5.1	0.04 U	2.3	72	0.1 U	13.7	4 U			
10/29/2013	XX SWXX	X3X669			1 U	29	7.7	0.04 U	2.7	74	0.1 U	7.8	4 U			
4/22/2014	XX SWXX	X3X6EC			2 U	12	13.8	0.04 U	3.3	53	0.1 U	6.4	4 U			
7/29/2014	XX SWXX	X3X6IJ			3 U	27	5.3	0.04 U	2 U	75	0.1 U	10	4 U			
7/29/2014	XD SWDP	P2X6J3			3 U	25	5.1	0.04 U	2 U	76	0.1 U	10.1	4 U			
10/21/2014	XX SWXX	X3X729			2 U	15.1	7	0.04 U	5.7	90	0.1 U	15.4	4 U			
4/28/2015	XX SWXX	X3X787		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 SWXX	X3X7BJ		2 U	3 U	29	6.1	0.04 U	2.3	69	0.1 U	9.7	4 U			
7/14/2015	XD SWDP	P2X7C3		2 U	3 U	28	6.1	0.04 U	2.2	69	0.1 U	9.7	4 U			
10/27/2015		X3X7H8		0.5 U	3 U	23	9.1	0.04 U	3	85	0.1 U	9.1	4 U			
4/5/2016		X3X85I		0.06	3 U	16.8	12.3	0.04 U	3.6	60	0.1 U	6.4	4 U			
7/26/2016		P2X8AC		0.05 U	3 U	37	4.9	0.05	2.1	85	0.2 U	12.8	4 U			
7/26/2016		X3X8A8		0.05 U	3 U	36	4.9	0.05	2.1	85	0.2 U	12.9	4 U			
10/25/2016		X3X8I7		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		X3X96D		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		P2X9CF		0.06	2 U	43	11	0.04	2.6	101	0.2 U	8.5	4.3			
7/25/2017		X3X9CB		0.05	2 U	43	11	0.04	2.6	100	0.2 U	9.6	2.5 U			
10/25/2017		X3X9G6		0.22	7	22	20	0.06	11	139	0.1 U	15	2.5 U			
4/3/2018		X3XA24		0.26	1 U	11	14	0.04 U	2 U	79	0.1 U	6.8	2.5 U			
7/17/2018		P2XABA		0.07	3	41	11	0.09	2.5	85	0.1 U	13	25			
7/17/2018		X3XAB6		0.074	3	40	10	0.09	2.6	91	0.1 U	12	17			
10/2/2018		X3XB04		0.05 U	1 U	23	5.2	0.04 U	14	69	0.1 U	9	2.5 U			
4/23/2019		X3XB50		0.05 U	1 U	11	10	0.04 U	2.7	63	0.1 U	11	2.5 U			
7/16/2019		X3XBBD X3XBH6		0.05 U	2 U	31	7.3	0.05	2 U	93	0.1 U	19	2.5 U			
10/29/2019		X3XBH6		0.05 U 0.1	1 U 2 U	11	5.9	0.04 U	2.5	66 56	0.1 U 0.1 U	14 8.1	2.5 U			
4/28/2020 7/21/2020		X3XCCD X3XCH6		0.1 0.05 U	1	13 31	9.9 12	0.04 U 0.04 U	3 2 U	108	0.1 U	8.1 12	2.5 U 2.5 U			
10/27/2020		X3XCH6 X3XD2A		0.05 0	1 U	26	18	0.04 U	6.4	73	0.10	12 17 M10	2.5 U			
SW-DP	1	NONDEN		0.005	10		10	0.04 U	0.4	13	0.11	I / IVIIU	2.0 U			
4/26/2011		P1X49D				46	4.1	0.03 J	4	85		2.3	6			
7/19/2011	701	P1X4DB		1		69	2.4	0.02 J	4.5	92		4.1	4 U			
10/25/2011		P1X4H6		1		43	3.4	0.03 J	6.1	51		3	5			
4/24/2012	1	P1X51G		1		28	4.1	0.1	11.2	90		2.4	65			
7/24/2012		P1X56F		1		63	4.1	0.14	8.1	97		3.3	6			
10/23/2012		P1X5D6		1		23	3	0.08	5.5	90		2.2	46			
	XX SWDP			+		57	15.2	0.06	27.4	118	0.13	2 U	12			

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

							•	inorganics					CUMBERLAND	CENTER, ME 04021
(SW-DP1)		Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids		
Date Ty	ype Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
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		
4/28/2020	XX SWDP1XCCJ		0.55		59	79	0.04	22	251	1.1	5.4	8		
7/21/2020	XX SWDP1XCHC		0.05 U		83	12	0.12	22	164	0.22	5.8	31		
10/27/2020	XX SWDP1XD2G		0.051		52	6.3	0.12	23	114	0.1 U	12 M10	25		
SW-DP5														
4/23/2013	XX SWDP5X60I				37	10.7	0.06	32.1	110	0.1 U	2 U	7		
	XX SWDP5X65H			1	9	2.3	0.05	12.3	71	0.1 U	4.8	5	-	
10/29/2013	XX SWDP5X686			1	D	D	D	D	D	D	D	D	-	
4/22/2014	XX SWDP5X6GD			1	29	20.9	0.07	38	110	0.1 U	3.1	15	-	
7/29/2014				1	26	3.9	0.1	7.5	81	0.1 U	2.9	29	-	
10/21/2014	XX SWDP5X743			1	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			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			D		D	D	D	D	D	D	D	D		
10/25/2016			I		I	I	I	I	I	I	- 1	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		
4/28/2020	XX SWDP5XCE8		0.14		33	6.8	0.04	36	101	0.1 U	2.5	14		
7/21/2020			0.05 U		47	2.3	0.05	22	126	0.1 U	3.6	5		
40/07/0000	XX SWDP5XD44		0.089	1	30	4.0	0.00		00	0.4.11	0.7.1440	4.4		
10/27/2020	XX SWDF 3XD44		0.009		30	1.9	0.08	14	69	0.1 U	6.7 M10	14		

# SUMMARY REPORT Inorganics

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									morganio					CUMBI	ERLAND CENTER	, ME 04021
(SW-DPC	6)		Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids			
Date	Type Sa	mple ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
4/26/2011	XX SWDP	6X49E				23	17.7	0.04	22.2	127		4.5	7			
7/19/2011	XX SWDP	6X4DC				75	8.7	0.05	155	323		4.6	5			
10/25/2011	XX SWDP	P6X4H7				59	16.3	0.03 J	42.2	168		3.1	4 U			
4/24/2012	XX SWDP	6X51H				16.8	10.3	0.04 U	21.3	91		4.4	5			
7/24/2012	XX SWDP	6X56G				30	1.1	0.14	5.5	81		8.7	16			
10/23/2012	XX SWDP	6X5D7				22	3.5	0.07	3.9	89		4.6	11			
4/23/2013	XX SWDP	6X5HI				7.8	7	0.07	10.7	60	0.1 U	4.4	35			
7/30/2013	XX SWDP	P6X643				13.1	4.6	0.04 U	20.4	73	0.1 U	4.9	4			
10/29/2013	XX SWDP	26X66G				12.6	4.9	0.04	23.2	71	0.1 U	3.8	4 U			
4/22/2014	XX SWDP	6X6EJ				13.1	17.8	0.1	21.8	70	0.1 U	4.3	6			
7/29/2014	XX SWDP	P6X6J6				18.3	4.7	0.04 U	4.5	65	0.1 U	6.9	4 U			
10/21/2014	XX SWDP	P6X72H				13.7	3.6	0.04 U	12.9	62	0.1 U	4.7	4 U			
4/28/2015	XX SWDP	6X78E		0.5 U		21	7.2	0.05	17.4	81	0.1 U	3.4	4			
7/14/2015	XX SWDP	6X7C6		2 U		28	5.6	0.12	13.5	131	0.1 U	5.7	43			
10/27/2015	XX SWDP	6X7HF		0.5 U		22	2.7	0.04 U	10.3	58	0.1 U	4	4 U			
4/5/2016	XX SWDP	6X865		0.05 U		12.7	6.9	0.04 U	15	61	0.1 U	3.2	4 U			
7/26/2016	XX SWDP	6X8AF		0.05 U		28	2.8	0.04 U	29.8	92	0.2 U	5.7	4 U			
10/25/2016	XX SWDP	6X8IE		0.1		22	2	0.07	18.8	104	0.2 U	3.8	29			
4/18/2017	XX SWDP	6X970		0.05 U		9.6	9.7	0.04 U	2 U	46	0.2 U	3.5	4			
7/25/2017	XX SWDP	6X9CI		0.06		16	9.1	0.05	10	87	0.2 U	6.7	6			
10/23/2017	XX SWDP	6X9GD		0.05 U		10	9.2	0.04 U	21	88	0.1 U	4.5	3.3			
4/3/2018	XX SWDP	6XA2C		0.12		11	3.6	0.04	9.7	44	0.1 U	2.1	31			
7/17/2018	XX SWDP	6XABD		0.05 U		18	7.9	0.05	32	94	0.1 U	6.6	9.7			
10/2/2018	XX SWDP	6XB0B		0.05 U		6	4.6	0.04 U	40	58	0.1 U	4.7	2.5 U			
4/23/2019	XX SWDP	P6XB58		0.05 U		12	6.7	0.06	12	57	0.1 U	4.2	9.3			
7/16/2019	XX SWDP	6XBC0		0.056		14	4.6	0.04 U	8.7	59	0.1 U	6.5	3.7			
10/29/2019	XX SWDP	6XBHD		0.05 U		6.3	1.7	0.04 U	12	43	0.1 U	4.6	5			
4/28/2020	XX SWDP	6XCD0		0.056		8.4	4.3	0.05	10	38	0.1 U	3.3	6.7			
7/21/2020	XX SWDP	6XCHD		0.05 U		13	2.3	0.04	16	83	0.1 U	6.1	8			
10/27/2020	XX SWDP	6XD2H		0.058		14	1.8	0.06	24	65	0.1 U	5.8 M10	13			
OFFIC	E WELI	_								<u> </u>						
4/6/2016	XX DWOF	FX87J	0.5 U	0.2		93	19.5		16.4	174	0.5 U	2 U	4 U			
4/19/2017	XX DWOF	FX98D	0.5 U	0.43		110	23		14	197	0.5 U	2 U	2.5 U	·		
4/4/2018		FXA45	0.25 U	0.57		120	23		43	221	0.1 U	2 U	2.7	·		
4/22/2019	XX DWOF	FXB71	0.25 U	0.42		110	29		19	230	0.1 U	2 U	2.5 U	·		
7/15/2019	XX DWOF	FXBDB	0.25 U	0.65		120	30		18	218	0.1 U	2 U	2.5 U			
SCALE	HOUSI	E WELL														
4/6/2016	XX DWSC	CLX880	0.7	0.2		133	75.6		15.2	345	0.5 U	2 U	4			
4/19/2017	XX DWSC	CLX98E	0.5 U	0.65		140	74		15	360	0.5 U	2 U	2.5 U			
4/4/2018	XX DWSC	CLXA46	0.25 U	0.59		130	58		7.6	309	0.3 U	2 U	2.5 U			
4/22/2019	XX DWSC	CLXB72	0.25 U	0.47		130	60		24	310	0.2 U	2 U	2.5 U			
7/15/2019	XX DWSC	CLXBDC	0.25 U	0.62		130	75		21	329	0.2 U	2 U	2.5 U			

REPORT PR	PREPARED: 4/1/2021	10:06					SUMN	ARY REF	PORT				Page 29 of 29
	FOR: Juniper R	idge Landfill					1	Inorganics					SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(SCALE HOWELL)	IOUSE	Total Kjeldahl Nitrogen	Nitrite/Nitrate - (N)	Biochemical Oxygen Demand	Bicarbonate Alkalinity (CaCO3)	Chloride	Total Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	
Date T	ype Sample ID	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.
- A- The sampling location was Inaccessible
- 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.
- M10- Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated-the laboratory has fixed the issue.
  - U- Not Detected above the laboratory reporting limit.

REPORT PREPARED: 4/1/2021 1	0:15					SUMI	MARY REPO	ORT		Page 1 of 29 SEVEE & MAHER ENG	INCEDS INC
FOR: Juniper Ri	dge Landfill						Metals			4 BLANCHARD ROAD CUMBERLAND CENTE	
(DP-4)	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	'		
(D1-4)	-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
Date Type Sample ID			·		-						
DP-4											
4/25/2011 XX GWXXXX4AD		0.012	26.3	0.28	7.2	1.48	1.1	8.3			
7/18/2011 XX GWXXXX4EB		0.016	25.5	0.22	7.4	1.38	1.1	8.8			
10/24/2011 XX GWXXXX4I6		0.002 U	29.2	0.24	8	1.68	1.3	10.3			
4/25/2012 XX GWXXXX52G		0.011	29.2	0.55	7.7	1.85	1.1	10.2			
7/25/2012 XX GWXXXX57F		0.011	25.8	0.46	7.6	1.59	1.3	10.5			
10/24/2012 XX GWXXXX5E6		0.006	25.2	0.52	7.9	1.92	1.2	11.8			
4/24/2013 XX GWXXXX5IH		0.011	29.5	0.89	8.2	1.81	1.3	10.8			
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		800.0	41.4	0.1	9.2	0.05 U	3.4	6.9			
LF-UD-1											
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 10/23/2012 XX LFUD1X5DF		0.007	44.3	0.13 F6	12.2	0.05 U F6	3.5 F6	8.7			
4/23/2013 XX LFUD1X5I6		F6 0.012	F6 44.4	0.05 U	F6 10.5	0.05 U	3.7	F6 7.9			
7/30/2013 XX LFUD1X64B		0.012	49.7	0.05 U	10.3	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 0.05 U	F6	F6			
4/5/2016 XX LFUD1X86D 7/26/2016 XX LFUD1X8B3		0.015	48.9	0.05 U	10.2	0.05 U	3.2 I	8.1 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			1
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			1
10/2/2018 XX LFUD1XB0J	LIE.	F6	F6	F6	F6	F6	F6	F6			
4/23/2019 XX LFUD1XB5G 7/16/2019 XX LFUD1XBC8	UF	0.005 U F6	58 F6	0.05 F6	10 F6	0.05 U F6	3.3 F6	7.8 F6			+
10/29/2019 XX LFUD1XBI1		F6	F6	F6	F6	F6	F6	F6			
4/28/2020 XX LFUD1XCD8		F6	F6	F6	F6	F6	F6	F6			+
7/21/2020 XX LFUD1XCI1		F6	F6	F6	F6	F6	F6	F6			1
10/27/2020 XX LFUD1XD35		F6	F6	F6	F6	F6	F6	F6			
LF-UD-2											
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			
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			

Page 2 of 29 REPORT PREPARED: 4/1/2021 10:15 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD Metals CUMBERLAND CENTER, ME 04021 (LF-UD-2) Filtration Arsenic Calcium Iron Magnesium Manganese Potassium Sodium mg/L mg/L mg/L mg/L mg/L mg/L mg/L Type Sample ID Date 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 0.05 U 9.9 0.05 U 2.7 6.3 35.6 4/23/2013 XX LFUD2X5I7 0.011 36.3 0.05 U 9.6 0.05 U 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 7 3 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 13.5 0.05 U 4.2 9.6 0.12 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 4/28/2020 XX LFUD2XCD9 UF 0.005 U 60 0.1 11 0.05 U 3.6 9 7/21/2020 XX LFUD2XCI2 UF 0.005 65 2.5 15 0.13 5.4 14 10/27/2020 XX LFUD2XD36 UF 0.005 U 61 0.05 U 13 0.05 U 4.3 14 LF-UD-3A,B 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 XX LFXXXX5J5 4/23/2013 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 10/25/2017 XX LFXXXX9HE F6 F6 F6 F6 F6 F6 F6 4/3/2018 XX LFXXXXA3E F6 F6 F6 F6 F6 F6 F6

REPORT PREPARED: 4/1/2021	10.15					CI IN A	MADY DESC	NDT.	Page 3 of 29	
FOR: Juniper R						SUMI	MARY REPO	JKI	SEVEE & MAHER ENGIN 4 BLANCHARD ROAD	EERS, INC.
							Metais		CUMBERLAND CENTER,	ME 04021
(LF-UD-3A,B)	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium		
	-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
Date Type Sample ID										
Date Type Cample 12										
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 10/29/2019 XX LFXXXXBID		F6 F6	F6 F6	F6 F6	F6	F6 F6	F6 F6	F6 F6		
4/28/2020 XX LFXXXXCE1		F6	F6	F6	F6	F6	F6	F6		
7/21/2020 XX LFXXXXCIE		F6	F6	F6	F6	F6	F6	F6		
10/27/2020 XX LFXXXXD3H		F6	F6	F6	F6	F6	F6	F6		
LF-UD-4	-1		1			1		Į.	1	
4/26/2011 XX LFXXXX4B3		F12	F12	F12	F12	F12	F12	F12		
7/19/2011 XX LFXXXX4B3		H2	F12 H2	H2	F12 H2	H2	H2	F12 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 10/27/2015 XX LFXXXX7IG		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		
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 10/29/2019 XX LFXXXXBIE	UF	F6	F6 51	F6	F6	F6	F6 3.4	F6		
4/28/2020 XX LFXXXXCE2	UF	0.005 F6	51 F6	1.4 F6	9.9 F6	0.16 F6	3.4 F6	8.5 F6		
7/21/2020 XX LFXXXXCIF		F6	F6	F6	F6	F6	F6	F6		
10/27/2020 XX LFXXXXD3I		F6	F6	F6	F6	F6	F6	F6		
LF-UD-5and6	1	1	I	1	1	1	1	1	L	
<u> </u>		0.047	64.0	0.0011	40.0	0.0011	<i>-</i> 7	0.0		
4/26/2011 XX LFXXXX4B4 7/19/2011 XX LFXXXX4F2		0.017 0.012	64.6 59.1	0.02 U 0.15	13.3 13.6	0.02 U 0.02 U	5.7 5.5	8.8 10.2		
10/25/2011 XX LFXXXX4G7		0.012	71.3	11.3	15.4	0.02 0	7	10.2		
4/24/2012 XX LFXXXX537		0.008	65.9	0.05	12.9	0.25 0.05 U	5.3	9.8		
7/24/2012 XX LFXXXX584		0.00	68.3	0.05 U	14.1	0.05 U	5.5	9.8		
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		

Page 4 of 29 REPORT PREPARED: 4/1/2021 10:15 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD Metals CUMBERLAND CENTER, ME 04021 Filtration Arsenic Calcium Iron Magnesium Manganese Potassium Sodium (LF-UD-5and6) mg/L mg/L mg/L mg/L mg/L mg/L mg/L Date Type Sample ID 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 0.05 U 4/28/2015 XX LFXXXX79I 0.015 55.8 0.05 U 3.4 11.2 8.3 7/14/2015 XX LFXXXX7DA 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 R 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 40 0.005 U 0.88 9.1 0.05 2.5 7.4 4/28/2020 XX LFXXXXCE3 UF 0.005 U 43 0.05 U 9.5 0.05 U 2.4 7.7 7/21/2020 XX LFXXXXCIG UF 0.005 U 50 0.05 U 11 0.05 U 3.1 9 10/27/2020 XX LFXXXXD3J F6 F6 F6 F6 F6 F6 F6 LF-UD-6 4/26/2011 XX LFUD6X4B6 0.02 U 0.02 U 0.02 81.2 16.7 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 0.05 U 75.7 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 0.05 U 23.7 0.05 U 64.1 83.7 5.1 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 4/18/2017 XX LFUD6X986 0.005 58 0.23 15 0.05 U 4.8 14 7/25/2017 XX LFUD6X9E3 10/25/2017 XX LFUD6X9HI 0.005 80 0.05 6.8 0.05 U 2.6 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 0.05 U 1.9 6.6 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

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		FOR: Juniper Rid	lge Landfill						Metals				SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021
(LF-UD-8	8)		Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium			
(22 02 (	,		-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
Date	Туре	e Sample ID											
		-					T	Т	1				
4/3/2018			UF	0.005 U	8.3	0.48	1.1	0.15	0.8	2.2			
7/17/2018 10/2/2018				D F6	D F6	D F6	D F6	D F6	D F6	D F6			
4/23/2019			UF	0.005 U	8.7	1.1	1.3	0.1	1.6	3.5			
7/16/2019		LFUD8XBD7	UF	0.005 U	6.4	1.5	1.5	0.05 U	1.4	2.6			
10/29/2019			UF	0.005 U	4.8	0.35	0.8	0.05 U	0.9	1.3			
4/28/2020	XX	LFUD8XCE7		F6	F6	F6	F6	F6	F6	F6			
7/21/2020	XX	LFUD8XCJ0		F6	F6	F6	F6	F6	F6	F6			
10/27/2020	XX	LFUD8XD43		F6	F6	F6	F6	F6	F6	F6			
LF-UD-	9												
4/5/2016	XX	LFUD9X881		F6	F6	F6	F6	F6	F6	F6			
7/26/2016				F6	F6	F6	F6	F6	F6	F6			
10/25/2016				F6	F6	F6	F6	F6	F6	F6			
4/18/2017				0.007	55	1.4	6.8	0.06	4.3	6.5			
10/25/2017		LFUD9X9I4		F6	F6	F6	F6	F6	F6	F6			
4/3/2018 7/17/2018		LFUD9XA47 LFUD9XAD4		F6 D	F6 D	F6 D	F6	F6 D	F6 D	F6 D			
10/2/2018				F6	F6	F6	F6	F6	F6	F6			
4/23/2019				F6	F6	F6	F6	F6	F6	F6			
7/16/2019				F6	F6	F6	F6	F6	F6	F6			
10/29/2019				F6	F6	F6	F6	F6	F6	F6			
4/28/2020	XX	LFUD9XCED		F6	F6	F6	F6	F6	F6	F6			
7/21/2020	XX	LFUD9XCJ6		F6	F6	F6	F6	F6	F6	F6			
10/27/2020	XX	LFUD9XD47		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				D	D	D	D	D	D	D			
10/3/2018				F6	F6	F6	F6	F6	F6	F6			
4/23/2019				F6	F6	F6	F6	F6	F6	F6			
7/16/2019				F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6			
4/28/2020		LFXXXXCEE		F6	F6	F6	F6	F6	F6	F6			
7/21/2020				F6	F6	F6	F6	F6	F6	F6			
10/27/2020				F6	F6	F6	F6	F6	F6	F6			
LP-UD-											1		
4/26/2011	XX	LPUD1X4A4		F6	F6	F6	F6	F6	F6	F6			
7/19/2011				F6	F6	F6	F6	F6	F6	F6			
10/25/2011				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			F6	F6	F6	F6	F6	F6	F6		<u>-</u>	
4/23/2013				F6	F6	F6	F6	F6	F6	F6			
7/30/2013				F6	F6	F6	F6	F6	F6	F6			
10/29/2013				F6	F6	F6	F6	F6	F6	F6			
4/22/2014				F6	F6	F6	F6	F6	F6	F6			
7/29/2014				F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6			
10/21/2014	XX	בו טטואוטו		Fΰ	го	го	Fΰ	го	Fΰ	го			

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Page 15 of 29 REPORT PREPARED: 4/1/2021 10:15 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD Metals CUMBERLAND CENTER, ME 04021 Filtration Arsenic Calcium Iron Magnesium Manganese Potassium Sodium (MW12-303R) mg/L mg/L mg/L mg/L mg/L mg/L mg/L Date Type Sample ID 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 0.05 U 26.5 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 8.3 5.7 25 0.35 0.76 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 4/27/2020 XX GW303XCDE UF 0.005 U 52 0.13 7.4 0.2 3.2 18 7/20/2020 XX GW303XCI7 UF 0.005 U 30 0.05 U 6.1 0.06 2.5 11 10/26/2020 XX GW303XD3B UF 0.005 U 57 0.05 U 9.5 0.07 3.1 24 MW-401A 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 3.7 0.7 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 XX GW401A5I1 4/22/2013 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 3.6 0.6 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 0.05 U 0.6 3.8 4.1 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 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 0.05 U 0.007 15 4.4 0.05 U 0.8 3.7 7/24/2017 XX GW401A9D1 15 0.05 U 4.2 3.8 0.005 0.05 U 0.6 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 0.005 16 0.05 U 4.7 0.05 U 4.5

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Page 25 of 29 REPORT PREPARED: 4/1/2021 10:15 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD Metals CUMBERLAND CENTER, ME 04021 Filtration Arsenic Calcium Iron Magnesium Manganese Potassium Sodium (SW-1) mg/L mg/L mg/L mg/L mg/L mg/L mg/L Date Type Sample ID 10/27/2020 XX SWXX1XD28 UF 0.005 U 27 2.3 9.4 1.8 3.8 9.8 SW-2 4/26/2011 XX SWXX2X496 0.006 3.8 0.17 1.4 0.02 U 0.4 5.7 XD SWDP2X49B 4/26/2011 0.006 3.6 0.17 1.3 0.02 U 0.3 5.4 XX SWXX2X4D4 7/19/2011 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 XX SWXX2X4GJ 0.002 U 0.02 U 10/25/2011 5.3 0.32 1.7 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 2.5 0.05 U 1.2 11.1 6.1 0.26 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 XD SWDP2X5HF 4/23/2013 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 0.32 2.1 0.05 U 3.8 5 0.3 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 0.5 0.05 U 6.3 2.2 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 4.4 0.005 U 0.17 1.7 0.05 U 8.1 0.6 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 4.8 0.05 U 0.3 U 0.005 U 0.21 1.8 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 6.7 0.4 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 XD SWDP2X96H 4/18/2017 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 0.05 U 0.4 3.5 1 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 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 0.33 0.3 U 7.5 2.3 10/29/2019 XD SWDP2XBHA UF 0.005 U 4.8 0.28 0.05 U 4.5 1.9 0.3 U 10/29/2019 XX SWXX2XBH5 UF 0.005 U 4.9 0.29 1.9 0.05 U 0.3 U 4.6

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FOR: Juniper Ri	dge Landfill						Metals		SEVEE & MAHER ENGI 4 BLANCHARD ROAD CUMBERLAND CENTER	
(SW-2)	Filtration	Arsenic	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium		
(8 11 2)	-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
Date Type Sample ID										
Date Type Sample ID										
4/28/2020 XD SWDP2XCCH	UF	0.005 U	4.7	0.14	2	0.05 U	0.3	5.4		
4/28/2020 XX SWXX2XCCC	UF	0.005 U	4.7	0.11	1.9	0.05 U	0.3	5.2		
7/21/2020 XD SWDP2XCHA	UF	0.005 U	6.8	1.1	2.6	0.05	0.5	5.5		
7/21/2020 XX SWXX2XCH5	UF	0.005 U	7.3	1.2	2.7	0.08	0.5	5.4		
10/27/2020 XD SWDP2XD2E 10/27/2020 XX SWXX2XD29	UF UF	0.005 U 0.005 U	6.5 6.6	0.56 0.54	2.5	0.05 U 0.05 U	0.5 0.4	5.3 5.4		
	UF	0.005 0	0.0	0.54	2.0	0.05 0	0.4	5.4		
SW-3										
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 7/24/2012 XD SWDP2X56D		0.005 0.005 U	10.1 7.5	1.34	3	0.46 0.42	0.5	5.4 5.2		
10/23/2012 XX SWXX3X5D0		0.005 U	4.3	0.36	1.2	0.42 0.05 U	0.3	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 7/14/2015 XD SWDP2X7C3		0.005 U	8.1	0.84	2.2	0.43	0.5	4.3		
7/14/2015 XD SWDP2X7C3 10/27/2015 XX SWXX3X7H8		0.005 U 0.005 U	8.2 6.2	0.91	1.9	0.45 0.05 U	0.4	4.3		
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 10/2/2018 XX SWXX3XB04	UF UF	0.005 0.005 U	12 11	2.7 0.28	2.6	1 0.05 U	0.4	6.2		+
4/23/2019 XX SWXX3XB50	UF	0.005 U	4.4	0.26	1.2	0.05 U	0.8	6.1		
7/16/2019 XX SWXX3XBBD	UF	0.005 U	8.3	2.1	2.2	0.05 0	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		
4/28/2020 XX SWXX3XCCD	UF	0.005 U	4.3	0.3	1.2	0.06	0.5	6.4		1
7/21/2020 XX SWXX3XCH6	UF	0.005 U	8.6	1.4	2.6	0.48	1	7.2		
10/27/2020 XX SWXX3XD2A	UF	0.005 U	7.4	0.53	2.1	0.06	1.2	5		
SW-DP1				-				-	 · · · · · · · · · · · · · · · · · · ·	
4/26/2011 XX SWDP1X49D		0.005	15.5	0.16	2.5	0.03 J	1.4	3.1		1
7/19/2011 XX SWDP1X4DB		0.003	21.8	0.16	2.8	0.03 3	1.7	3.1		+
10/25/2011 XX SWDP1X4H6		0.003 0.002 U	15.5	0.25	1.9	0.03 J	1.5	1.9		1
	1				1					i .

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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.
- A- The sampling location was Inaccessible
- 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

## SUMMARY REPORT

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	FOR	R: Juniper Ri	dge Landfill						OA Part 1 of						4 BLAN	& MAHER ENGI ICHARD ROAD ERLAND CENTER	
(DP-4)			Chloromethane	Bromomethane	Vinyl Chloride	Chloroethane	Methylene Chloride	Acetone	Carbon Disulfide		1,1- Dichloroethane	trans-1,2- Dichloroethene	Chloroform	1,2- Dichloroethane	Methyl Ethyl Ketone	1,1,1- Trichloroethane	Carbon Tetrachloride
Date	Type Sa	ample ID	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
DP-4																	
4/25/20	011 XX GWXX	XXX4AD	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
4/25/20	12 XX GWXX	XXX52G	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
4/24/20	13 XX GWXX	XXX5IH	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-C	OMP																
4/24/20	12 XX LFXXX	XX53B	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-U	D-1								<u>'</u>						-		
4/26/20	11 XX LFUD	1X4A2	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
	12 XX LFUD		H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
	13 XX LFUD	1X5I6	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
4/22/20	)14 XX LFUD	1X6F7	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
	15 XX LFUD		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
	016 XX LFUD		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
	017 XX LFUD		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
4/3/20			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
		1XB5G	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
	)20 XX LFUD	1XCD8	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-U																	
4/26/20			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
	012 XX LFUD		H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/20			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
	)14 XX LFUD2 )15 XX LFUD2		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
	015 XX LFUD2		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
	017 XX LFUD2		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
	018 XX LFUD2		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
		2XB5H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
		2XCD9	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
LF-U	D-3A,B								<u>'</u>						-		
4/26/20	11 XX LFXXX	XX4B1	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
4/24/20	12 XX LFXXX	XX534	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/20	13 XX LFXXX	XX5J5	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/20	)14 XX LFXXX	XX6G6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
	15 XX LFXXX		F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
	016 XX LFXXX		F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
	17 XX LFXXX		F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/20		XXA3E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/20	)19 XX LFXX>		F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
		AACET	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-U					T							1	1				
	)11 XX LFXXX		F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
	12 XX LFXXX		H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
	13 XX LFXXX		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
	14 XX LFXXX		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
		XX79H XX878	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/5/20	)16 XX LFXXX		F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6

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		FOR: Juniper R	idge Landfill						OA Part 1 of	4					4 BLAN	& MAHER ENGII CHARD ROAD RLAND CENTER	•
(LF-UD-4)	)		Chloromethane	Bromomethane	Vinyl Chloride	Chloroethane	Methylene Chloride	Acetone	Carbon Disulfide		1,1- Dichloroethane	trans-1,2- Dichloroethene	Chloroform	1,2- Dichloroethane	Methyl Ethyl Ketone	1,1,1- Trichloroethane	Carbon Tetrachloride
Date 7	Гуре	Sample ID	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
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			F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2020 <b>LF-UD-</b>			F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
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		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		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		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		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		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		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
4/28/2020 <b>LF-UD-</b>		LFXXXCE3	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/26/2011		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		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		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		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		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		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		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
4/28/2020 <b>LF-UD-</b>		LFUD6XCE5	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/24/2012		LFUD7X53A	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2012		LFUD7X5JA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014		LFUD7X6GB	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015		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		LFUD7XA3J	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019		LFUD7XB6F	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2020		LFUD7XCE6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8		. =															
4/23/2013		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 4/28/2015		LFUD8X6GC LFUD8X7A2	F12	F12	F12 2 U	F12 5 U	F12	F12 10 U	F12	F12	F12 2 U	F12 2 U	F12 2 U	F12	F12	F12 2 U	F12 2 U
4/28/2015	,,,,	LFUD8X7A2 LFUD8X87D	F6	F6	F6	5 U F6	5 U	10 U	F6	F6	F6	F6	F6	F6	10 U	F6	F6
4/18/2017	,,,,	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		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		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
4/28/2020	XX	LFUD8XCE7	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-9	•																

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	FOR: Juniper Ridge Landfill  Chloromethane Bromomethane Vinyl Chloride								OA Part 1 of						4 BLAN	& MAHER ENGI ICHARD ROAD ERLAND CENTER	,
(LF-UD-9)			Chloromethane	Bromomethane	Vinyl Chloride	Chloroethane	Methylene Chloride	Acetone	Carbon Disulfide		1,1- Dichloroethane	trans-1,2- Dichloroethene	Chloroform	1,2- Dichloroethane	Methyl Ethyl Ketone	1,1,1- Trichloroethane	Carbon Tetrachloride
Date T	уре	Sample ID	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
4/5/2016	XX	LFUD9X881	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/18/2017		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		LFUD9XA47	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019 4/28/2020		LFUD9XB73 LFUD9XCED	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6
		LFOD9ACED	FO	FO	FO	FO	FO	FO	FO	FO	FO	FO	FO	FO	FO	FO	Fo
LF-UD-1	.U																
		LFXXXXA48	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019		LFXXXXB74	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2020		LFXXXXCEE	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-1																	
4/26/2011		LPUD1X4A4	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012		LPUD1X527	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013		LPUD1X5I8	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/22/2014		LPUD1X6F9	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/28/2015 4/5/2016		LPUD1X794 LPUD1X86F	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6 F6	F6
4/5/2016		LPUD1X97A	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/3/2018		LPUD1XA32	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2019		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
4/28/2020	XX	LPUD1XCDA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-2																	
4/26/2011		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		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		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		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		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 4/23/2019		LPUD2XA33 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
4/28/2020		LPUD2XCDB	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
MW06-0				2.0	1.0	2.0	1.0	100	20	0.00	1.0	1.0		1.0	100	1.0	1 10
4/10/2018	XD	GWDP1XA68	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	GWXXXXA70	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 MW-204	XX	GWXXXXA7H	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
	,			T		T	T	1		T		1	T				т
4/26/2011		GW204X4A9	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 4/24/2013			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
MW12-3			10	20	10	10	50	100	10	10	10	10	10	10	100	10	10
6/18/2015			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
MW-401			1				1		1	1							
4/25/2011			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

FOR: Juniper Ridge Landfill

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

							V	OA Part 1 of	4						CHARD ROAD RLAND CENTER	₹, ME 04021
(MW-401)	<b>B</b> )	Chloromethane	Bromomethane	Vinyl Chloride	Chloroethane	Methylene Chloride	Acetone	Carbon Disulfide		1,1- Dichloroethane	trans-1,2- Dichloroethene	Chloroform	1,2- Dichloroethane	Methyl Ethyl Ketone	1,1,1- Trichloroethane	Carbon Tetrachloride
Date -	Type Sample ID	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
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		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		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		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		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		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		2 U	2 U	2 U	5 U	5 U	10 U	5 U 2 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
4/17/2017 4/17/2017		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		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		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		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		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
4/27/2020	XD GWDP4XCD7	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/27/2020	XX GW401BCD4	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
MW-50	1															
4/5/2018	XX GW501XA6I	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 GW501XA7F	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		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		I	I	I	I	I	I	I	I	I	1	Į.	I	I	I	Į.
7/19/2018	XX GWXXXXAEI	I	I	1	1	1	I	I	I	1	1	1	I	1	I	1
OW-601																
	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		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-601	B															
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-602	2A															
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-603	3B															
	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-604						·	_									_
	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
P-04-02						_								<del>,</del>		
4/27/2011		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
4/25/2012	XX GWXXXX52H	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

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SEVEE & MAHER ENGINEERS, INC.

FC	OR: Juniper Ri	dge Landfill					٧	OA Part 1 of	4					4 BLAN	& MAHER ENGIN ICHARD ROAD ERLAND CENTER	
(P-04-02)			Bromomethane		Chloroethane	Methylene Chloride	Acetone	Carbon Disulfide		1,1- Dichloroethane		Chloroform	1,2- Dichloroethane	Methyl Ethyl Ketone	1,1,1- Trichloroethane	
Date Type S	Sample ID	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
4/22/2013 XX GW	VXXXX5II	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
QCBT																
4/25/2011 XX BTX	XXXX4AJ	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
	XXXX4B0	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
	XXXX4B5	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 BTX	XXXX4F3	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 BTX	XXXX4G8	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 BTX	XXXX532	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 BTX	XXXX533	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
	XXXX538	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
	XXXX585	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
	XXXX5C8	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
	XXXX5J3	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
	XXXX5J4	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
	XXXX5J8	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
.,	XXXX65D	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
	XXXX68C XXXX6G4	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
	XXXX6G4 XXXX6G5	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
	XXXX70B	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U 2 U	2 U 2 U	10 U	2 U	2 U
	XXXX748	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
	XXXX79E	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
	XXXX79F	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
	XXXX79J	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
	XXXX7DB	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
	XXXX7II	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
	XXXX87GX	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 BTX	XXXX876	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 BTX	XXXX875	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 BTX	XXXX8BF	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 BTX	XXXX8JE	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 BTX	XXXX985	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
	XXXX980	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
	XXXX981	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
	XXXX9DI	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
	XXXX9HD	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
	XXXXA3C	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
	XXXXA3H	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
	XXXXHHD	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
	XXXXHG3 XXXXA5F	2 U	2 U	2 U	5 U	5 U	10 U	2 U 2 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
	XXXXA5F XXXXA71	2 U	2 U			5 U	10 U			1 U		1 U		10 U	1 U	1 U
17072010 701	XXXXA71 XXXXA72	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
	XXXXHHB	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
1, 1 1, 2010 701	XXXXHHC	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
	XXXXA74	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
0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	XXXXA7I	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
0,0,2010 701																
6/6/2018 XX BTX	XXXXA7J	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

REPORT PR	REPARED: 4/1/2021	10:22					SUM	MARY REP	ORT					Page 6	of 6	
	FOR: Juniper R	idge Landfill					-	OA Part 1 of						4 BLAN	& MAHER ENGII CHARD ROAD RLAND CENTER	·
(QCBT)		Chloromethane	Bromomethane	Vinyl Chloride	Chloroethane	Methylene Chloride	Acetone	Carbon Disulfide		1,1- Dichloroethane	trans-1,2- Dichloroethene	Chloroform	1,2- Dichloroethane	Methyl Ethyl Ketone	1,1,1- Trichloroethane	Carbon Tetrachloride
Date Ty	pe Sample ID	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
7/19/2018 X	(X 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 X	(X 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 X	(X 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 X	(X 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 X	(X 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 X	(X 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 X	(X 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 X	(X 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
2/25/2020 X	(X BTXXXXC86	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
2/26/2020 X	(X BTXXXXC5G	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/27/2020 X	(X BTXXXXCDJ	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/28/2020 X	(X BTXXXXCE4	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/28/2020 X	(X BTXXXXCE0	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/30/2020 X		2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/23/2020 X		2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/21/2020 X		2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
	(X BTXXXXCIC	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
8/20/2020 X		2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/27/2020 X	(X BTXXXXD3G	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 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:**

- !- The sampling location was damaged or destroyed.
- 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.

Page 1 of 6 REPORT PREPARED: 4/1/2021 10:22 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD VOA Part 2 of 4 CUMBERLAND CENTER, ME 04021 Tetrachloro Bromoform (DP-4) Vinyl Acetate Bromo dichloro 1,2-Dichloro cis-1,3-Dichloro Trichloroethene Dibromo 1,1,2-Benzene trans-1,3-4-Methyl-2-2-Hexanone 1,1,2,2-Toluene methane propane chloromethane Trichloroethane Dichloro Pentanone ethene Tetrachloro propene propene ethane ug/L Date Type Sample ID DP-4 4/25/2011 XX GWXXXX4AD 0.5 U 5 U 0.5 U 0.5 U 0.5 U 5 U 4/25/2012 XX GWXXXX52G 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 4/24/2013 XX GWXXXX5IH 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-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 4/26/2011 XX LFUD1X4A2 0.5 U 5 U 5 U 0.5 U 0.5 U 0.5 U 4/24/2012 XX LFUD1X525 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 4/28/2020 XX LFUD1XCD8 F6 LF-UD-2 4/26/2011 XX LFUD2X4A3 0.5 U 5 U 0.5 U 0.5 U 0.5 U 5 U 4/24/2012 XX LFUD2X526 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 2 U 1 U 10 U 0.5 U 2 U 2 U 2 U 2 U 2 U 1 U 2 U 2 U 10 U 2 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 2 U 2 U 2 U 2 U 2 U 2 U 2 U 10 U 10 U 2 U 2 U 1 U 0.5 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 4/28/2020 XX LFUD2XCD9 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-3A,B 4/26/2011 XX LFXXXX4B1 0.5 U 5 U 5 U 0.5 U 0.5 U 0.5 U 4/24/2012 XX LFXXXX534 H2 4/23/2013 XX LFXXXX5J5 F6 4/22/2014 XX LFXXXX6G6 F6 4/28/2015 XX LFXXXX79G F6 4/5/2016 XX LFXXXX877 F6 4/18/2017 XX LFXXXX982 F6 4/3/2018 XX LFXXXXA3E F6 4/23/2019 XX LFXXXXB6A F6 4/28/2020 XX LFXXXXCE1 F6 LF-UD-4 4/26/2011 XX LFXXXX4B3 F12 4/24/2012 XX LFXXXX536 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 2 U 2 U 10 U 10 U 2 U 2 U 1 U 1 U 4/28/2015 XX LFXXXX79H F6 4/5/2016 XX LFXXXX878 F6 F6

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FOR: Juniper Ridge Landfill

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

	FOR: Juniper Ri	dge Landilli					VC	DA Part 2 of 4	1						CHARD ROAD RLAND CENTER	R, ME 04021
(MW-401	<b>B</b> )	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
Date	Type Sample ID	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
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		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		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		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		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 4/27/2015		10 U	0.5 U	2 U	2 U	2 U	2 U	2 U 2 U	1 U	2 U	2 U 2 U	10 U	10 U	2 U 2 U	2 U	1 U
4/6/2016		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		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		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		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		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
4/27/2020		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
4/27/2020		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-50	1															
	XX GW501XA6I	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 GW501XA7F	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															
	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
	XX GWXXXXA80	1	I	I	I	I	I	I	I	I	1	I	1	I	I	1
	XX GWXXXXAEI	I	I	I	I	I	1	I	1	1	I	I	I	I	I	1
OW-60	lA															
	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		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-60	lB															
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-602	2A															
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
	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-60	ВВ															
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
	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-604	IA															
	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
P-04-02																
	XX GWXXXX4AE	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
4/25/2012	XX GWXXXX52H	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

Page 5 of 6 REPORT PREPARED: 4/1/2021 10:22 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill VOA Part 2 of 4 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021 (P-04-02) Vinyl Acetate Bromo dichloro 1,2-Dichloro cis-1,3-Dichloro Trichloroethene Dibromo 1,1,2-Benzene trans-1,3-Bromoform 4-Methyl-2-2-Hexanone Tetrachloro 1,1,2,2-Toluene Trichloroethane methane chloromethane Dichloro Pentanone ethene Tetrachloro propane propene ethane propene ug/L Type Sample ID Date 4/22/2013 XX GWXXXX5II OCBT 4/25/2011 XX BTXXXX4AJ 0.5 U 5 U 5 U 0.5 U 0.5 U 0.5 U XX BTXXXX4B0 4/26/2011 0.5 U 5 U 5 U 0.5 U 0.5 U 0.5 U XX BTXXXX4B5 4/27/2011 0.5 U 5 U 5 U 0.5 U 0.5 U 0.5 U 7/19/2011 XX BTXXXX4F3 0.5 U 5 U 5 U 0.5 U 0.5 U 0.5 U XX BTXXXX4G8 0.5 U 0.5 U 5 U 0.5 U 10/26/2011 0.5 U 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 10 U 10 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 10 U 10 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 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 XX BTXXXX65D 7/30/2013 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 2 U 2 U 10 U 10 U 2 U 2 U 1 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 2 U 2 U 2 U 2 U 2 U 2 U 2 U 10 U 10 U 2 U 2 U 0.5 U 1 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 2 U 1 U 10 U 0.5 U 2 U 2 U 2 U 2 U 2 U 1 U 2 U 2 U 10 U 2 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 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 0.5 U 4/5/2016 XX BTXXXX87GX 10 U 2 U 10 U 0.5 U 2 U 2 U 2 U 2 U 2 U 1 U 2 U 2 U 10 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 1 U 2 U 2 U 10 U 10 U 2 U 2 U 1 U 2 U 2 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 XX BTXXXX981 4/18/2017 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 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 0.5 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 XX BTXXXXHHB 4/11/2018 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 1 U 1 U 1 U 2 U 1 U 10 U 0.5 U 1 U 0.5 U 1 U 0.5 U 10 U 10 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 0.5 U 2 U 10 U 10 U 1 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

REPORT	PREPARED: 4/1/2021	10:22					SUM	MARY REPO	RT					Page 6 d	of 6	
	FOR: Juniper R	idge Landfill					V	DA Part 2 of 4	1					4 BLANC	& MAHER ENGII CHARD ROAD RLAND CENTER	·
(QCBT)		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
Date	Type Sample ID	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
7/19/2018	3 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		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
2/25/2020		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
2/26/2020		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
4/27/2020		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
4/28/2020		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
4/28/2020		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
4/30/2020		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
6/23/2020		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
7/21/2020		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
7/21/2020		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
8/20/2020		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
10/27/2020	XX BTXXXXD3G	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:**

- !- The sampling location was damaged or destroyed.
- 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.

Page 1 of 6 REPORT PREPARED: 4/1/2021 10:22 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD VOA Part 3 of 4 CUMBERLAND CENTER, ME 04021 Bromochloro 1,2-(DP-4) Chlorobenzene Ethylbenzene Styrene o-Xylene m,p-Xylene Tetra hydrofuran Trichloro cis-1,2-Dibromo 1,1,1,2-1,2,3-Trichloro 1,2-Dibromo-3- 1,4-Dichloro fluoromethane Dichloroethene methane methane Dibromoethane Tetrachloro Chloropropane propane benzene ethane ug/L Date Type Sample ID DP-4 4/25/2011 XX GWXXXX4AD 0.5 U 4/25/2012 XX GWXXXX52G 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 GWXXXX5IH 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-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 4/26/2011 XX LFUD1X4A2 0.5 U 4/24/2012 XX LFUD1X525 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 4/28/2020 XX LFUD1XCD8 F6 LF-UD-2 4/26/2011 XX LFUD2X4A3 0.5 U 4/24/2012 XX LFUD2X526 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 2 U 1 U 2 U 1 U 1 U 1 U 1 U 5 U 2 U 2 U 2 U 2 U 2 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 4/28/2020 XX LFUD2XCD9 1 U 1 U 1 U 1 U 1 U 10 U 2 U 1 U 1 U 1 U 0.5 U 1 U 0.5 U 2 U 1 U LF-UD-3A,B 4/26/2011 XX LFXXXX4B1 0.5 U 4/24/2012 XX LFXXXX534 H2 4/23/2013 XX LFXXXX5J5 F6 4/22/2014 XX LFXXXX6G6 F6 4/28/2015 XX LFXXXX79G F6 4/5/2016 XX LFXXXX877 F6 4/18/2017 XX LFXXXX982 F6 4/3/2018 XX LFXXXXA3E F6 4/23/2019 XX LFXXXXB6A F6 4/28/2020 XX LFXXXXCE1 F6 LF-UD-4 4/26/2011 XX LFXXXX4B3 F12 4/24/2012 XX LFXXXX536 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 4/5/2016 XX LFXXXX878 F6 F6

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SEVEE & MAHER ENGINEERS, INC.

	FOR: Juniper R	idge Landfill					VO	A Part 3 of	4					4 BLAN	& MAHER ENGIN CHARD ROAD RLAND CENTER	
(MW-401B	3)	Chlorobenzene	Ethylbenzene	Styrene	o-Xylene	m,p-Xylene	Tetra hydrofuran		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
Date T	ype Sample ID	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
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
	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		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		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
	XX GW401B78I 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
4/27/2015 4/6/2016		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	2 U	2 U	1 U
	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		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
	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
	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		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
	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
	XD GWDP4XCD7	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/27/2020	XX GW401BCD4	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
MW-501																
4/5/2018	XX GW501XA6I	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 GW501XA7F	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-06-0	3		1		1	<u>'</u>			<u>'</u>	1					<u>'</u>	
4/10/2018	•	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
	XX GWXXXXA80	I	I	I	ı	I	I	I	I	I	I	I	- 1	1	I	I
7/19/2018	XX GWXXXXAEI	I	I	I	I	ı	1	I	1	I	I	I	I	I	I	ı
OW-601	4															
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-6011	В															
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-602	4														•	
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-6031	В															
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-604	4															
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
P-04-02																
4/27/2011	XX GWXXXX4AE	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
	XX GWXXXX52H	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
		-1		t												

Page 5 of 6 REPORT PREPARED: 4/1/2021 10:22 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill VOA Part 3 of 4 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021 Chlorobenzene Ethylbenzene 1,2-(P-04-02) Styrene o-Xylene m,p-Xylene Tetra hydrofuran Trichloro cis-1,2-Bromochloro Dibromo 1,1,1,2-1,2,3-Trichloro 1,2-Dibromo-3- 1,4-Dichloro fluoromethane Dichloroethene methane methane Dibromoethane Tetrachloro Chloropropane propane benzene ethane ug/L Type Sample ID Date 4/22/2013 XX GWXXXX5II OCBT 4/25/2011 XX BTXXXX4AJ 0.5 U XX BTXXXX4B0 4/26/2011 0.5 U XX BTXXXX4B5 4/27/2011 0.5 U 7/19/2011 XX BTXXXX4F3 0.5 U XX BTXXXX4G8 0.5 U 0.5 U 10/26/2011 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 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 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 XX BTXXXX65D 7/30/2013 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 5 U 2 U 2 U 2 U 2 U 2 U 2 U 1 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 1 U 2 U 2 U 2 U 1 U 2 U 1 U 1 U 1 U 5 U 2 U 2 U 2 U 2 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 4/5/2016 XX BTXXXX87GX 2 U 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 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 2 U 2 U 2 U 2 U 2 U 2 U 1 U 5 U 2 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 XX BTXXXX981 4/18/2017 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 1 U 10 U 5 U 1 U 1 U 1 U 2 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 2 U 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 1 U 6/5/2018 XX BTXXXXA7I 1 U 1 U 1 U 1 U 2 U 1 U 2 U 1 U 1 U 10 U 5 U 1 U 1 U 0.5 U 1 U 6/6/2018 XX BTXXXXA7J 1 U 1 U 1 U 1 U 1 U 10 U 5 U 2 U 1 U 0.5 U 2 U 1 U 1 U 1 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

REPOR <sup>-</sup>	F PREPARED: 4/1/202	1 10:22					SUMN	ARY REP	ORT					Page 6 d	of 6	
	FOR: Juniper	Ridge Landfill						A Part 3 of						4 BLANC	& MAHER ENGIN CHARD ROAD RLAND CENTER	-,
(QCBT)		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
Date	Type Sample ID	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
7/19/2018	B 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	3 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	3 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	9 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	9 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	9 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
10/29/201	9 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
2/25/202	XX BTXXXXC86	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
2/26/202		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/27/202		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/28/202		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/28/2020		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/30/2020		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
6/23/202		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
7/21/202		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
7/21/202		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
8/20/2020		1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
10/27/202	XX BTXXXXD3G	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U

Notes:

 $TYPE \hbox{ - Sample Type Qualifier where } D = Duplicate \hbox{ Sample}.$ 

Blank Cells appear when a parameter was not analyzed.

### **Concentration Qualifier Notes:**

- !- The sampling location was damaged or destroyed.
- 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.

REPOR	T PREPARED: 4/1/2021 1	0:22					SUMMARY REPORT	Page 1 of	6	
	FOR: Juniper Ri	dge Landfill					VOA Part 4 of 4	4 BLANCH	MAHER ENGIN IARD ROAD LAND CENTER	·
(DP-4)		1,2-Dichloro benzene	Acrylonitrile	Diethyl ether	trans-1,4- Dichloro-2- butene	Iodomethane				
Date	Type Sample ID	ug/L	ug/L	ug/L	ug/L	ug/L				
DP-4										
4/25/201	1 XX GWXXXX4AD	0.5 U	0.5 U		0.5 U	0.5 U				
	2 XX GWXXXX52G	1 U	1 U		1 U	1 U				
	3 XX GWXXXX5IH	1 U	1 U		1 U	1 U				
LF-CO	OMP				I.					
4/24/201	2 XX LFXXXX53B	1 U	1 U		1 U	1 U				
LF-UD										
4/26/201	1 XX LFUD1X4A2	0.5 U	0.5 U		0.5 U	0.5 U				
	2 XX LFUD1X525	H2	H2		H2	H2				
4/23/201	3 XX LFUD1X5I6	1 U	1 U		1 U	1 U				
4/22/201	4 XX LFUD1X6F7	1 U	20 U		5 U	5 U				
4/28/201	5 XX LFUD1X792	1 U	20 U		5 U	5 U				
4/5/201		1 U	20 U	5 U	5 U	5 U				
4/18/201		1 U	20 U	5 U	5 U	5 U				
4/3/201		1 U	20 U	5 U	5 U	5 U				
	9 XX LFUD1XB5G	1 U	20 U	5 U	5 U	5 U				
	20 XX LFUD1XCD8	F6	F6	F6	F6	F6				
LF-UD	<b>)-2</b>									
4/26/201	1 XX LFUD2X4A3	0.5 U	0.5 U		0.5 U	0.5 U				
4/24/201	2 XX LFUD2X526	H2	H2		H2	H2				
4/23/201	3 XX LFUD2X5I7	1 U	1 U		1 U	1 U				
4/22/201		1 U	20 U		5 U	5 U				
4/28/201		1 U	20 U		5 U	5 U				
4/5/201		1 U	20 U	5 U	5 U	5 U				
4/18/201		1 U	20 U	5 U	5 U	5 U				
4/3/201 4/23/201		1 U F6	20 U F6	5 U F6	5 U F6	5 U F6				
	20 XX LFUD2XCD9	1 U	20 U	2 U	5 U	5 U				
LF-UD			200	2.0	0.0	0.0				
	1 XX LFXXXX4B1	0.5 U	0.5 U		0.5 U	0.5 U				
	2 XX LFXXXX534	H2	H2		H2	H2				
4/23/201		F6	F6		F6	F6				
4/22/201		F6	F6		F6	F6				
	5 XX LFXXXX79G	F6	F6		F6	F6				
4/5/201		F6	F6	F6	F6	F6				
4/18/201	7 XX LFXXXX982	F6	F6	F6	F6	F6				
	8 XX LFXXXXA3E	F6	F6	F6	F6	F6				
	9 XX LFXXXXB6A	F6	F6	F6	F6	F6				
	20 XX LFXXXXCE1	F6	F6	F6	F6	F6				
LF-UD					1					
	1 XX LFXXXX4B3	F12	F12		F12	F12				
	2 XX LFXXXX536	H2	H2		H2	H2				
	3 XX LFXXXX5J6	1 U	1 U		1 U	1 U				
	4 XX LFXXXX6G7	1 U	20 U		5 U	5 U				
	5 XX LFXXXX79H	F6	F6	FC	F6	F6				
4/5/201	6 XX LFXXXX878	F6	F6	F6	F6	F6				

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FOR: Juniper Ridge Landfill					VOA Part 4 of 4					SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021				
(LF-UD-4)	1,2-Dichloro benzene	Acrylonitrile	Diethyl ether	trans-1,4- Dichloro-2- butene	Iodomethane				·					
Date Type Sample ID	ug/L	ug/L	ug/L	ug/L	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									
4/28/2020 XX LFXXXXCE2	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									
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 4/5/2016 XX LFXXXX879	1 U	20 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									
4/28/2020 XX LFXXXXCE3	1 U	20 U	2 U	5 U	5 U									
LF-UD-6														
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 4/28/2015 XX LFUD6X7A0	1 U	20 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									
4/28/2020 XX LFUD6XCE5	1 U	20 U	2 U	5 U	5 U									
LF-UD-7														
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 4/5/2016 XX LFUD7X87C	F6 F6	F6 F6	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									
4/28/2020 XX LFUD7XCE6	F6	F6	F6	F6	F6									
LF-UD-8														
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 4/23/2019 XX LFUD8XB6G	1 U	20 U 20 U	5 U	5 U	5 U									
4/28/2020 XX LFUD8XCE7	F6	F6	F6	F6	F6									
LF-UD-9	10	10	1 10	10	10	<u> </u>					I	I .	<u> </u>	
Lr-UD-9														

### FOR Juniper Regist Law FEET   12 Challenge   12	REPORT PREPARED: 4/1/2021 10:22						SUMMARY REPORT					Page 3 of 6		
Date   Type   Sample   D	FOR: Juniper Ridge Landfill						VOA Part 4 of 4							
Date   Type   Sample   D	(LF-UD-	.9)		Acrylonitrile	Diethyl ether	Dichloro-2-	Iodomethane			·				
### APPARTY XX PURDONAY FR	Date	Type Sample ID	ug/L	ug/L	ug/L		ug/L							
APPROPERTY   XX   PURDOMERY   10   20   50   50   50   50	4/5/201	6 XX LFUD9X881	F6	F6	F6	F6	F6							
### SPACES NO.   PROVINCE   FG   FG   FG   FG   FG   FG   FG   F														
### FIGURE   FIG.   FIG	4/3/201	8 XX LFUD9XA47	F6	F6	F6	F6	F6							
LF-UD-10	4/23/201	9 XX LFUD9XB73	F6	F6	F6	F6	F6							
### ### ##############################	4/28/202	0 XX LFUD9XCED	F6	F6	F6	F6	F6							
## APPLICATION NOT A PROPOSATION FOR THE FIG. FIG. FIG. FIG. FIG. FIG. FIG. FIG.	LF-UD	-10												
## APPLICATION NOT A PROPOSATION FOR THE FIG. FIG. FIG. FIG. FIG. FIG. FIG. FIG.	4/3/201	8 XX LFXXXXA48	F6	F6	F6	F6	F6							
Marked   M														
T.P-UD-1														
492001   XX   IPUDIWAH				1										
44732017 XX PURUNSET F6			F6	F6		F6	F6							
4/23/2016   XX   PUDINSR6   F6   F6   F6   F6   F6   F6   F6														
4/22/2014   XX   PUDINFFF   F6   F6   F6   F6   F6   F6   F6														
4/28/2015   XX														
4/18/2017 X IPUDINGE F6														
4722018   XX	4/5/201	6 XX LPUD1X86F	F6	F6	F6	F6								
4/28/2016   XX	4/18/201	7 XX LPUD1X97A	F6	F6	F6	F6	F6							
ACRICADO   XX   EPUDINCOA   F6   F6   F6   F6   F6   F6   F6   F	4/3/201	8 XX LPUD1XA32	F6	F6	F6	F6	F6							
LP-UD-2	4/23/201	9 XX LPUD1XB5I	1 U	20 U	5 U	5 U	5 U							
4/26/2011   XX   PUD2XAAS   0.5 U	4/28/202	0 XX LPUD1XCDA	F6	F6	F6	F6	F6							
4/2/2012   XX   PUD2XS88	LP-UD	-2												
A22/2014   XX	4/26/201	1 XX LPUD2X4A5	0.5 U	0.5 U		0.5 U	0.5 U							
4/22/2014   XX			1 U	1 U		1 U	1 U							
4/8/2016   XX   PUD2X/986	4/23/201		1 U	1 U		1 U	1 U							
### ### ### ### ### ### ### ### ### ##	4/22/201	4 XX LPUD2X6FA	1 U	20 U			5 U							
4/18/2017   XX	4/28/201													
4/3/2018   XX   LPUD2XA33														
4/23/2019   XX														
A/28/2020   XX														
MW06-01														
4/10/2018   XD   GWDP1X468   1 U   20 U   5 U			10	20 0	20	50	50							
4/10/2018   XX   SWXXXXA70   1 U   20 U   5 U														
6/4/2018   XX   GWXXXXA7H														
MW-204														
4/26/2011     XX     GW204X4A9     0.5 U     0.5 U     0.5 U       4/24/2012     XX     GW204X52C     1 U     1 U     1 U     1 U     1 U       4/24/2013     XX     GW204X5ID     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     1 U     2 U     5 U </td <td></td> <td></td> <td>1 U</td> <td>20 U</td> <td>5 U</td> <td>5 U</td> <td>5 U</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			1 U	20 U	5 U	5 U	5 U							
4/24/2012 XX GW204X52C 1U	MW-20	04												
4/24/2013     XX     GW204X5ID     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     1 U     1 U     1 U     1 U     2 U			0.5 U	0.5 U		0.5 U	0.5 U							
MW12-303R  6/18/2015 XX   42173-1														
6/18/2015 XX   42173-1			1 U	1 U		1 U	1 U							
MW-401B  4/25/2011 XX GW401B49I 0.5 U 0.5 U 0.5 U 0.5 U	MW12	-303R												
4/25/2011 XX GW401B49I 0.5 U 0.5 U 0.5 U 0.5 U	6/18/201	5 XX 42173-1	1 U	20 U		5 U	5 U							
4/25/2011 XX GW401B49I 0.5 U 0.5 U 0.5 U 0.5 U		* * * * * * * * * * * * * * * * * * * *												
			0.511	0511		0511	0511				1			
4/23/2012 XX GW401B521 1U 1U 1U 1U					1									

REPORT PREPARED: 4/1/2021 10:22								Page 4 of 6			
FOR: Juniper Ridge Landfill							SUMMARY REPORT  VOA Part 4 of 4		SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021		
(MW-401	<b>B</b> )	1,2-Dichloro benzene	Acrylonitrile	Diethyl ether	trans-1,4- Dichloro-2- butene	Iodomethane	,				
Date	Type Sample ID	ug/L	ug/L	ug/L	ug/L	ug/L					
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		1 U	1 U		1 U	1 U					
4/21/2014		1 U	20 U		5 U	5 U					
4/21/2014		1 U	20 U		5 U	5 U					
4/27/2015 4/27/2015		1 U	20 U 20 U		5 U	5 U					
4/6/2016		1 U	20 U	5 U	5 U	5 U					
4/6/2016		1 U	20 U	5 U	5 U	5 U					
4/17/2017		1 U	20 U	5 U	5 U	5 U					
4/17/2017		1 U	20 U	5 U	5 U	5 U					
4/2/2018		1 U	20 U	5 U	5 U	5 U					
4/2/2018		1 U	20 U	5 U	5 U	5 U					
4/22/2019 4/22/2019		1 U	20 U 20 U	5 U	5 U	5 U					
4/22/2019		1 U	20 U	2 U	5 U	5 U					
4/27/2020		1 U	20 U	2 U	5 U	5 U					
MW-50		1									
4/5/2018	XX GW501XA6I	1 U	20 U	5 U	5 U	5 U					
6/4/2018	XX GW501XA7F	1 U	20 U	5 U	5 U	5 U					
OW-06-			_								
	XX GWXXXXA73	1 U	20 U	5 U	5 U	5 U					
	XX GWXXXXA80	1	l l	1	!	1					
0W-601	XX GWXXXXAEI	I	I	I	I	1					
	XX GW601AA69	1 U	20.11	511	5 U	511					
	XX GW601AA69 XX GW601AA76	1 U	20 U 20 U	5 U	5 U	5 U					
	XX GW601AAE4	1 U	20 U	5 U	5 U	5 U					
OW-601											
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-602	2A										
	XX GW602AA6B	1 U	20 U	5 U	5 U	5 U					
	XD GWDP1XA75	1 U	20 U	5 U	5 U	5 U					
6/6/2018	L	1 U	20 U	5 U	5 U	5 U					
OW-603											
	XX GW603BA6C	1 U	20 U	5 U	5 U	5 U					
	XX GW603BA79	1 U	20 U	5 U	5 U	5 U					
OW-604		T			T	T			ı	1	
4/12/2018	XX GW604AA6D	1 U	20 U	5 U	5 U	5 U					
	XX GW604AA7A	1 U	20 U	5 U	5 U	5 U					
P-04-02											
	XX GWXXXX4AE	0.5 U	0.5 U		0.5 U	0.5 U					
4/25/2012	XX GWXXXX52H	1 U	1 U		1 U	1 U					

REPOR	T PREP	ARED: 4/1/2021 1	0:22					SUMMARY	REPOR	RT.			Page 5 o		
		FOR: Juniper Ric	dge Landfill					VOA Par	rt 4 of 4				4 BLANC	MAHER ENGI HARD ROAD LAND CENTEI	,
(P-04-02	)		1,2-Dichloro benzene	Acrylonitrile	Diethyl ether	trans-1,4- Dichloro-2- butene	Iodomethane								
Date	Туре	Sample ID	ug/L	ug/L	ug/L	ug/L	ug/L								
4/22/201	3 XX	GWXXXX5II	!	!		!	!								
QCBT			1	1 .	II.		1	II				l	1	Į.	1
_	4 VV	BTXXXX4AJ	0.5 U	0.5.11		0.5.11	0.5.11								
4/25/201 4/26/201	_	BTXXXX4B0	0.5 U	0.5 U 0.5 U		0.5 U 0.5 U	0.5 U 0.5 U								+
4/27/201		BTXXXX4B5	0.5 U	0.5 U		0.5 U	0.5 U								+
7/19/201		BTXXXX4F3	0.5 U	0.5 U		0.5 U	0.5 U								+
10/26/201	1 XX	BTXXXX4G8	0.5 U	0.5 U		0.5 U	0.5 U								
4/23/201	2 XX	BTXXXX532	1 U	1 U		1 U	1 U								
4/24/201		BTXXXX533	1 U	1 U		1 U	1 U								
4/25/201		BTXXXX538	1 U	1 U		1 U	1 U								
7/24/201		BTXXXX585	1 U	1 U		1 U	1.5								
4/22/201		BTXXXX5C8 BTXXXX5J3	1 U	1 U		1 U	1 U								
4/23/201		BTXXXX5J4	1 U	1 U		1 U	1 U								+
4/24/201		BTXXXX5J8	1 U	1 U		1 U	1 U								
7/30/201		BTXXXX65D	2.5 U	5 U		2.5 U	5 U								+
10/29/201	3 XX	BTXXXX68C	1 U	20 U		5 U	5 U								
4/21/201	4 XX	BTXXXX6G4	1 U	20 U		5 U	5 U								
4/22/201	4 XX	BTXXXX6G5	1 U	20 U		5 U	5 U								
7/30/201		BTXXXX70B	1 U	20 U		5 U	5 U								
10/21/201	_	BTXXXX748	1 U	20 U		5 U	5 U								
		BTXXXX79E BTXXXX79F	1 U	20 U		5 U	5 U								
4/27/201		BTXXXX79J	1 U	20 U 20 U		5 U	5 U								+
7/15/201		BTXXXX7DB	1 U	20 U		5 U	5 U								+
		BTXXXX7II	1 U	20 U		5 U	5 U								+
4/5/201		BTXXXX87GX	1 U	20 U	5 U	5 U	5 U								
4/5/201	6 XX	BTXXXX876	1 U	20 U	5 U	5 U	5 U								
4/6/201	6 XX	BTXXXX875	1 U	20 U	5 U	5 U	5 U								
		BTXXXX8BF	1 U	20 U	5 U	5 U	5 U								
		BTXXXX8JE	1 U	20 U	5 U	5 U	5 U								
4/17/201		BTXXXX985	1 U	20 U	5 U	5 U	5 U								
4/18/201 4/18/201		BTXXXX980 BTXXXX981	1 U	20 U 20 U	5 U	5 U	5 U								+
7/25/201	_	BTXXXX9DI	1 U	20 U	5 U	5 U	5 U								+
10/24/201		BTXXXX9HD	1 U	20 U	5 U	5 U	5 U								+
4/2/201		BTXXXXA3C	1 U	20 U	5 U	5 U	5 U								+
4/3/201		ВТХХХХАЗН	1 U	20 U	5 U	5 U	5 U								
4/3/201	8 XX	BTXXXXHHD	1 U	20 U	5 U	5 U	5 U								
		BTXXXXHG3	1 U	20 U	5 U	5 U	5 U			-					
4/4/201	8 XX	BTXXXXA5F	1 U	20 U	5 U	5 U	5 U								
4/5/201	8 XX	BTXXXXA71	1 U	20 U	5 U	5 U	5 U								1
		BTXXXXA72	1 U	20 U	5 U	5 U	5 U								+
		BTXXXXHHB BTXXXXHHC	1 U	20 U 20 U	5 U	5 U	5 U								+
		BTXXXXA74	1 U	20 U	5 U	5 U	5 U								+
		BTXXXXA7I	1 U	20 U	5 U	5 U	5 U								+
		BTXXXXA7J	1 U	20 U	5 U	5 U	5 U								+
7/17/201	8 XX	BTXXXXACD	1 U	20 U	5 U	5 U	5 U								1

REPORT	PREPARED: 4/1/2021 FOR: Juniper R						SUMMARY REPORT VOA Part 4 of 4		4 BLANC	6 MAHER ENGIN HARD ROAD LAND CENTER	-, -
(QCBT)		1,2-Dichloro benzene	Acrylonitrile	Diethyl ether	trans-1,4- Dichloro-2- butene	Iodomethane					
Date	Type Sample ID	ug/L	ug/L	ug/L	ug/L	ug/L					
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					
2/25/2020	XX BTXXXXC86	1 U	20 U	2 U	5 U	5 U					
2/26/2020		1 U	20 U	2 U	5 U	5 U					
4/27/2020		1 U	20 U	2 U	5 U	5 U					
4/28/2020		1 U	20 U	2 U	5 U	5 U					
4/28/2020		1 U	20 U	2 U	5 U	5 U					
4/30/2020		1 U	20 U	2 U	5 U	5 U					
6/23/2020		1 U	20 U	2 U	5 U	5 U					
7/21/2020		1 U	20 U	2 U	5 U	5 U					
7/21/2020		1 U	20 U	2 U	5 U	5 U					
8/20/2020		1 U	20 U	2 U	5 U	5 U					
10/27/2020	XX BTXXXXD3G	1 U	20 U	2 U	5 U	5 U					ĺ

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#### **Concentration Qualifier Notes:**

- !- The sampling location was damaged or destroyed.
- 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: 4/1/2021	0:18	SU	JMMARY REPOR	RT				Page 1 of	
FOR: Juniper Ri	dge Landfill		Methane					4 BLANCI	MAHER ENGINEERS, INC. HARD ROAD LAND CENTER, ME 04021
(MW-223A)	Methane								
	ug/L								
Date Type Sample ID									
MW-223A									
7/30/2013 XX GW223A63A	6.6 U								
MW-223B				-	-				<u> </u>
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								
4/28/2020 XX GW223BCDD 7/21/2020 XX GW223BCI6	20 U 20 U								
10/27/2020 XX GW223BD3A	20 U								
MW-302R	20 0								
7/29/2013 XX GW302X64H	6.6 U								
MW12-303R	0.00								
7/29/2013 XX GW303X651	6.611								
	6.6 U								
MW-304A						1	,		
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						-		
4/27/2020 XX GWPWS1CCE 7/21/2020 XX GWXXXXIOB	270 45						<del> </del>		
10/26/2020 XX GWPWS1D2B	20 U								
PWS10-2	200					1			
4/27/2015 XX GWPWS2789	50			1					
7/13/2015 XX GWPWS2769 7/13/2015 XX GWPWS27C1	690								
10/26/2015 XX GWPWS27HA	20 U								
4/4/2016 XX GWPWS2860	140						<del> </del>		
4/17/2017 XX GWPWS296F	220					<del>                                     </del>	-		

REPORT PREP	ARED: 4/1/2021 10:1			SUMM	MARY REPORT  Methane		4 BLANC	f 2 MAHER ENGIN HARD ROAD LLAND CENTER	
(PWS10-2)		Methane							
		ug/L							
Date Type	e Sample ID								
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							
4/27/2020 XX	GWPWS2CCF	20 U							
7/20/2020 XX	GWPWS2CH8	38							
10/26/2020 XX	GWPWS2D2C	300							
PWS10-3									
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							
	GWPWS3CCG	20 U	_						
	GWPWS3CH9	4000							
10/26/2020 XX	GWPWS3D2D	44							

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#### **Concentration Qualifier Notes:**

## **Leachate Locations**



REPORT		RED: 3/17/2021 FOR: Juniper Ri							MARY REPORT nate - Field Data		4 BLANC	f 1 . MAHER ENGIN HARD ROAD :LAND CENTER	
(LT-C4L	& LT-	-C4LR)	Specific Conductance	pН	Temperature	Eh	Dissolved Oxygen	Alkalinity (CaCO3) (field)	Turbidity (field)				
Date	Туре	Sample ID	μmhos/cm @25°C	STU	Deg C	mV	mg/L	mg/L	NTU				
LT-C41	L & L	T-C4LR											
4/27/201	1 XX L	TC4LX49C	18420	6.9	17.4	109		1563	8.4				
7/19/201	1 XX L	TC4LX4DA	30700	7	28.3	115	2	1688	44				
10/26/201	1 XX L	TC4LX4H5	15850	7.1	18.3	100	1	750	6.1				
4/24/2012	2 XX L	TC4LX51F	11470	6.7	15.7	-27	2	688	14.9				
7/24/2012	2 XX L	TC4LX56E	25300	6.8	24.8	-93	3	D3	D3				
10/23/2012	2 XX L	TC4LX5D5	19800	6.9	17.3	-33	D2	D3	D3				
4/23/2013	3 XX L	TC4LX5HG	18590	7.1	17.1	92	1	1500	18.9				
7/30/2013	3 XX L	TC4LX641	23400	6.7	23.6	44	D2	D3	D3				
10/29/2013	3 XX L	TC4LX66E	24100	6.8	11.3	92	D2	D3	D3				
4/22/2014	4 XX L	TC4LX6EH	15370	7.2	13.3	134	D2	D3	D3				
7/30/2014	4 XX L	TC4LX6J4	23800	7.2	22.3	-30	D2	D3	D3				
10/21/2014	4 XX L	TC4LX72F	21300	7.2	15.8	238	D2	D3	D3				
4/28/2015	5 XX L	TC4LX78C	22600	7.5	12.1	-151	D2		D3				
7/15/201	5 XX L	TC4LX7C4	21500	6.9	22.7	-178	D2		D3				
10/27/201	5 XX L	TC4LX7HD	29100	7.6	9.4	-133	D2		D3				
4/5/2016	6 XX L	TC4LX863	19950	5.5	10.9	100	D2		D3				
7/26/2016	6 XX L	TC4LX8AD	29200	6.3	27.1	-6	D2		D3				
10/25/2010	6 XX L	TC4LX8IC	25800	6.3	14.7	113	D2		1416				
4/18/2017	7 XX L	TC4LX96I	26400	6.3	12.7	-102	D2		1009				
7/25/2017	7 XX L	TC4LX9CG	25900	7.3	20.8	-141	D2		156				
10/24/2017	7 XX L	TC4LX9GB	29800	7.6	22.2	-12	D2		126				
4/3/2018	8 XX L	TC4LXA2A	11520	7	12.7	-41	D2		198				
7/17/2018	8 XX L	TC4LXABB	26000	7.2	23.1	-127	D2		190				
10/2/2018	8 XX L	TC4LXB09	23000	7.5	15.4	-76	D2		7.84				
4/23/2019	9 XX L	TC4LXB56	13730	7	9.6	-6	7.5		1733				
7/16/2019	9 XX L	TC4LXBBI	21908	7.1	26.1	7	D2		609				
10/29/2019	9 XX L	TC4LXBHB	18730	7.1	15.2	-59	D2		1407				
4/28/2020	0 XX L	TC4LXCCI	17490	6.6	12.6	-20	2.8		D3				
7/21/2020	0 XX L	TC4LXCHB	25800	5.9	29	-311	1.1		D3				
10/27/2020	0 XX L	TC4LXD2F	21900	7.5	12.8	-299	D2		741				

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#### **Concentration Qualifier Notes:**

D2- Sample too dark to read D.O. reading.

D3- Sample too dark to take reading.

REPOR'	T PREP	ARED: 3/17/2021	07:39					SUM	MARY REPO	ORT					Page 1 o	of 1	
		FOR: Juniper R	idge Landfill					Leac	hate - Inorga	nics					4 BLANC	& MAHER ENGIN CHARD ROAD RLAND CENTER	, -
(LT-C4I	. & LT	Γ-C4LR)	Total Kjeldahl Nitrogen	Total Phosphorus	Total Dissolved Solids	Total Suspended Solids	Sulfate	Ca-mg Hardness (CaCO3)	Bicarbonate Alkalinity (CaCO3)	Alkalinity (CaCO3)	Organic Carbon	Biochemical Oxygen Demand	Nitrite/Nitrate - (N)	Chloride	Bromide	Cyanide	
Date	Туре	Sample ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	
LT-C4	L & I	LT-C4LR															
4/27/201	1 XX	LTC4LX49C	500		10570	5	72 J	1831	2280	2280	184	39		5910	23.3	0.006	
7/19/201	1 XX	LTC4LX4DA	810	0.92	14820	44	60 U		2800		270	45		10300			
10/26/201	1 XX	LTC4LX4H5	510	0.59	8250	11	64.6 J		1400		182	47		4300			
4/24/201	2 XX	LTC4LX51F	290		6080	108	133	1941	1370	1370	935	1120 G		2560	32.7	5 U	
7/24/201	2 XX	LTC4LX56E	710	0.77	15210	106	50.2		3630		2120	3090		6350			
10/23/201	2 XX	LTC4LX5D5	490	0.46	14570	36	213		2740		1740	3190		9880			
4/23/201	3 XX	LTC4LX5HG	697		10700	34	200 U	2424	2950	2950	935	1750		5610	73.3	5	
7/30/201	3 XX	LTC4LX641	742	1.39	15050	625	400 U		3700		2560	4850		24300	38.8		
10/29/201	3 XX	LTC4LX66E	880	0.79	17400	140	10.4		3980		2450	855		5970	95		
4/22/201	4 XX	LTC4LX6EH	520		8600	28	300 U	1889	2010	2010	364	434		7650	63.6	5 U	
7/30/201	4 XX	LTC4LX6J4	850		12040	64	2250		3200		761			13950	39		
10/21/201	4 XX	LTC4LX72F	820	0.83	13280	44	200 U		2740		460	448		7070	100		
4/28/201	5 XX	LTC4LX78C	800		10080	38	320 U	1738	3560	3560	580	1284		5420	57	5 U	
7/15/201	5 XX	LTC4LX7C4		2.93	17940	40	800		4710		373		10 U	11600	10 U		
10/27/201	5 XX	LTC4LX7HD		2.99	15800	17	2670		3850		363		3 U	16100	30 U		
4/5/201	6 XX	LTC4LX863	680		11850	119	205	2910	2800	2800	1426	2700		5910	84.1	5 U	
7/26/201	6 XX	LTC4LX8AD	550		16460	125	970		3850		1900		0.3 U	11100	72.7		
10/25/201	6 XX	LTC4LX8IC	990		14380	60	1780		3490		1150		0.05 U	16100	120		
4/18/201	7 XX	LTC4LX96I	1100		12732	30	640	2000	3700	3700	1200	890		12000	75	74	
7/25/201	7 XX	LTC4LX9CG	1300		15448	34	1500		4100		680		0.1 U	12000	72		
10/24/201	7 XX	LTC4LX9GB	1000		15836	13	2700		3400		480		0.1 U	14000	20 U		
4/3/201	-	LTC4LXA2A	610		7956	25	1100	1400	2200	2200	360	320		9300	52	43	
7/17/201	8 XX	LTC4LXABB	1400		13	42	600 U		3600		450		0.5 U	8100	83		
10/2/201	-	LTC4LXB09	1000		12960	29	2900		2900		430		0.05 U	15000	63		
4/23/201	9 XX	LTC4LXB56	470		8744	40	2200	2300	1900	1900	110	760		12000	83	17	
7/16/201		LTC4LXBBI	780		12152	180	2000		3000		480		0.5 U	14000	40 U		
10/29/201		LTC4LXBHB	660		9832	48	1900		2600		570		0.073	11000	47		
4/28/202	0 XX	LTC4LXCCI	730		10160	48	1300	1700	2400	2400	880	200		8300	52	5 U	
7/21/202	0 XX	LTC4LXCHB	780		14610	8	2000		3100		500		0.2	13000	120		
10/27/202	0 XX	LTC4LXD2F	660		10940	29	120		2700		1100 M10		0.05 U	7400	77		

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#### **Concentration Qualifier Notes:**

- G- Greater than specified amount.
- J- Analyte was positively identified/Associated value is an estimate.
- M10- Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated-the laboratory has fixed the issue.
  - U- Not Detected above the laboratory reporting limit.

REPORT PREPARED: 3/17/202	1 07:40					SUM	MARY REPO	ORT					Page 1 of 1	
FOR: Juniper R	Ridge Landfill					Leachate	e - Metal (par	t 1 of 2)					4 BLANCHARD R	ENGINEERS, INC. OAD ENTER, ME 04021
(LT-C4L & LT-C4LR)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Calcium	Chromium	Cobalt	Iron	Lead	Magnesium	Manganese		
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
Date Type Sample ID														
LT-C4L & LT-C4LR														
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		
4/28/2020 XX LTC4LXCCI	0.54	0.005 U	0.25	0.94	0.0006 U	300	0.1	0.01 U	6	0.003 U	220	1.7		
7/21/2020 XX LTC4LXCHB			0.33			310			3.5		340	1.3		
10/27/2020 XX LTC4LXD2F			0.24			310			7.5		250	14		

Blank Cells appear when a parameter was not analyzed.

#### **Concentration Qualifier Notes:**

J- Analyte was positively identified/Associated value is an estimate.

REPORT PREF	PARED: 3/17/202	1 07:41					SUMI	MARY REPO	RT		Page 1 of 1	
	FOR: Juniper F	Ridge Landfill					Leachate	- Metal (par	2 of 2)		4 BLANCHARD R	R ENGINEERS, INC. COAD ENTER, ME 04021
(LT-C4L & L	T-C4LR)	Mercury	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Tin		
	,	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
Date Type	e Sample ID											
LT-C4L &	LT-C4LR											
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						
4/28/2020 XX	LTC4LXCCI	0.0005 U	790	0.022	0.001 U	1700	0.004 U	0.039	0.046	0.016		
7/21/2020 XX	LTC4LXCHB		1400			2800						
10/27/2020 XX	LTC4LXD2F		900			2000						

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.

Page 1 of 3 REPORT PREPARED: 3/17/2021 07:41 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill Leachate - VOAs Part 1 of 4 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021 Chloroethane Carbon Disulfide 1,1trans-1,2-1,2-Methyl Ethyl Chloromethane Bromomethane Vinyl Chloride Methylene Acetone 1,1-Chloroform 1,1,1-Carbon (LT-C4L & LT-C4LR) Trichloroethane Chloride Dichloroethene Dichloroethane Dichloroethene Dichloroethane Ketone Tetrachloride ug/L Date Type Sample ID LT-C4L & LT-C4LR 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 XX LTC4LX4DA 7/19/2011 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 XX LTC4LX4H5 5 U 10/26/2011 0.5 U 1 U 0.7 J 0.5 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 125 U 2710 25 U 25 U 25 U 25 U 7490 25 U 25 U 25 U 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 2 U 2 U 2 U 2 U 200 2 U 5 U 5 U 60 1 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 2800 20 U 10 U 10 U 10 U 10 U 10 U 8000 10 U 10 U 50 U 10/25/2016 XX LTC4LX8IC 2 U 4800 2 U 2 U 2 U 5 U 5 U 2500 5 U 1 U 2 U 2 U 5 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 800 1 U 2 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 1 U 1 U 1 U 210 1 U 1 U 2 U 2 U 2 U 5 U 5 U 230 2 U 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 10 U 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 10/29/2019 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 4/28/2020 XX LTC4LXCCI 20 U 20 U 10 U 10 U 1200 20 U 10 U 10 U 10 U 10 U 1000 10 U 10 U 20 U 5 U 7/21/2020 XX LTC4LXCHB 2 U 2 U 1 U 2 U 1.2 560 2 U 0.5 U 1 U 1 U 1 U 1.8 300 1 U 1 U 10/27/2020 XX LTC4LXD2F 20 U 20 U 10 U 20 U 30 1700 20 U 5 U 10 U 10 U 10 U 10 U 2100 10 U 10 U OCRT

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

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FOR: Juniper Ridge Landfill

## SUMMARY REPORT Leachate - VOAs Part 1 of 4

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

															CUIVIDE	RLAND CENTER	K, IVIE 0402 I
(QCBT)		C	Chloromethane	Bromomethane	Vinyl Chloride	Chloroethane	Methylene Chloride	Acetone	Carbon Disulfide		1,1- Dichloroethane	trans-1,2- Dichloroethene	Chloroform	1,2- Dichloroethane	Methyl Ethyl Ketone	1,1,1- Trichloroethane	Carbon Tetrachloride
Date 7	Гуре Ѕат	ple ID	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
4/22/2014	XX BTXXXX6	6G5	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		70B	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 BTXXXX7	748	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 BTXXXX7	79E	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 BTXXXX7	79F	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 BTXXXX7	79J	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			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			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 BTXXXX8		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			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			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 BTXXXX8		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			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			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 BTXXXX9		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			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			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
	XX BTXXXXX		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			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			2 U 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 4/3/2018	XX BTXXXXH		2 U	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 BTXXXXA		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			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 BTXXXXA		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 BTXXXXI		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 BTXXXXI		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 BTXXXXA		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 BTXXXXA		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 BTXXXXA		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 BTXXXXA		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			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 BTXXXXA		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 BTXXXXE		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 BTXXXXE	B6D	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		B69	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 BTXXXXE	B68	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 BTXXXXE	BCJ	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 BTXXXXE	BIC	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
2/25/2020	XX BTXXXXX	C86	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
2/26/2020	XX BTXXXXX	C5G	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/27/2020	XX BTXXXXX	CDJ	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/28/2020	XX BTXXXXX	CE0	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/28/2020	XX BTXXXXX	CE4	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/30/2020	XX BTXXXXX		2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
6/23/2020	XX BTXXXXX		2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/21/2020			2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/21/2020	XX BTXXXXX		2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
8/20/2020	XX BTXXXX		2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/27/2020	XX BTXXXXX	D3G	2 U	2 U	1 U	2 U	1 U	10 U	2 U	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U

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FOR: Juniper F	Ridge Landfill						te - VOAs Pa						4 BLAN	& MAHER ENGII CHARD ROAD RLAND CENTER	-,
(QCBT)	Chloromethane	Bromomethane	Vinyl Chloride	Chloroethane	Methylene Chloride	Acetone	Carbon Disulfide	,	1,1- Dichloroethane	trans-1,2- Dichloroethene	Chloroform	1,2- Dichloroethane	Methyl Ethyl Ketone	1,1,1- Trichloroethane	Carbon Tetrachloride
Date Type Sample ID	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

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.

Page 1 of 3 REPORT PREPARED: 3/17/2021 07:41 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill Leachate - VOAs Part 2 of 4 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021 Tetrachloro Vinyl Acetate Bromo dichloro 1,2-Dichloro cis-1,3-Dichloro Trichloroethene Dibromo 1,1,2-Benzene trans-1,3-Bromoform 4-Methyl-2-2-Hexanone 1,1,2,2-Toluene (LT-C4L & LT-C4LR) methane chloromethane Trichloroethane Dichloro Pentanone ethene Tetrachloro propane propene propene ethane ug/L Date Type Sample ID LT-C4L & LT-C4LR 4/27/2011 XX LTC4LX49C 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 5 U 11 7/19/2011 XX LTC4LX4DA 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 4.6 0.5 U 0.5 U 7.8 J 5 U 0.5 U 13 0.5 U 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 250 U 250 U 25 U 25 U 25 U 4/23/2013 XX LTC4LX5HG 25 U 250 U 250 U 25 U 25 U 25 U 7/30/2013 XX LTC4LX641 500 U 180 U 75 U 50 U 200 U 500 U 500 U 50 U 75 U XX LTC4LX66E 10/29/2013 2000 U 100 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 40 U 200 U 200 U 20 U 20 U 20 U 7/30/2014 XX LTC4LX6J4 2 U 2 U 2 U 2 U 10 U 2 U 10 U 0.5 U 2 U 2 U 2 U 1 U 10 U 2 U 1 U 10/21/2014 XX LTC4LX72F 100 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 5 U 10 U 4/28/2015 XX LTC4LX78C 100 U 5 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 20 U 100 U 100 U 10 U 10 U 10 10/27/2015 XX LTC4LX7HD 100 U 5 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 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 20 U 100 U 100 U 10 U 10 U 20 10 U 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 0.5 U 2 U 30 10 U 1 U 1 U 19 5 10/24/2017 XX LTC4LX9GB 1 U 1 U 1 U 2 U 10 U 10 U 0.5 U 1 U 0.5 U 2 0.5 U 20 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 1 U 1 U 1 U 4.4 10 U 0.5 U 1 U 0.5 U 1 U 1 U 0.5 U 2 U 10 U 10 U 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 20 U 20 U 20 U 20 U 20 U 10 U 40 U 200 U 200 U 20 U 20 U 25 10 U 10 U 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 4/28/2020 XX LTC4LXCCI 100 U 5 U 10 U 10 U 10 U 10 U 5 U 20 U 100 U 100 U 10 U 10 U 26 5 U 10 U 7/21/2020 XX LTC4LXCHB 10 U 0.5 U 1 U 0.5 U 1 U 1 U 1 U 5 0.5 U 2 U 20 10 U 1 U 1 U 16 10/27/2020 XX LTC4LXD2F 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 24 OCBT 4/25/2011 XX BTXXXX4AJ 0.5 U 5 U 5 U 0.5 U 0.5 U 0.5 U XX BTXXXX4B0 4/26/2011 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 4/27/2011 XX BTXXXX4B5 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 7/19/2011 XX BTXXXX4F3 0.5 U 5 U 5 U 0.5 U 0.5 U 0.5 U XX BTXXXX4G8 10/26/2011 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 1 U 1 U 1 U 10 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 2 U 2 U 2 U 2 U 2 U 2 U 2 U 10 U 10 U 2 U 2 U 0.5 U 1 U 1 U

2 U

2 U

1 U

2 U

10 U

2 U

2 U

1 U

10 U

2 U

2 U

2 U

2 U

4/21/2014 XX BTXXXX6G4

10 U

0.5 U

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## SUMMARY REPORT Leachate - VOAs Part 2 of 4

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SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD

								Leachaid	e - VOAs Pan	2014						HARD ROAD RLAND CENTER	R, ME 04021
(QCBT)			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
Date	Туре	e Sample ID	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
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
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		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		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		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		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		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		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
2/25/2020		BTXXXXC86	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
2/26/2020		BTXXXXC5G	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
4/27/2020		BTXXXXCDJ	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
4/28/2020		BTXXXXCE0	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
4/28/2020	XX	BTXXXXCE4	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
4/30/2020	XX	BTXXXXCC3	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
6/23/2020		BTXXXXCGE	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
7/21/2020		BTXXXXCIC	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
7/21/2020	XX	BTXXXXCGH	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
8/20/2020		BTXXXXD21	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
10/27/2020	XX	BTXXXXD3G	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

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FOR: Juniper	FOR: Juniper Ridge Landfill  Winyl Acetate Bromo dichloro 1,2-Dichloro						e - VOAs Part						4 BLAN	& MAHER ENGIN CHARD ROAD RLAND CENTER	-, -
(QCBT)	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
Date Type Sample ID	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

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.

Page 1 of 3 REPORT PREPARED: 3/17/2021 07:41 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill Leachate - VOAs Part 3 of 4 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021 Bromochloro 1,2-Chlorobenzene Ethylbenzene Styrene o-Xylene m,p-Xylene Tetra hydrofuran Trichloro cis-1,2-Dibromo 1,1,1,2-1,2,3-Trichloro 1,2-Dibromo-3- 1,4-Dichloro (LT-C4L & LT-C4LR) fluoromethane Dichloroethene methane methane Dibromoethane Tetrachloro propane Chloropropane benzene ethane Date Type Sample ID ug/L LT-C4L & LT-C4LR 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 0.69 J XX LTC4LX4H5 10/26/2011 0.5 U 1 4.2 0.5 U 0.7 J 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U 1.1 6.7 9.5 0.5 U 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 4/23/2013 XX LTC4LX5HG 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 XX LTC4LX66E 10/29/2013 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 5 U 2 U 2 U 2 U 2 U 2 U 1 U 1 U 1 U 1 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 50 U 10 U 10 U 10 U 20 U 10 U 10 U 20 U 10 U 400 7/26/2016 XX LTC4LX8AD 10 U 20 U 10 U 10 U 20 U 10 U 600 50 U 10 U 10/25/2016 XX LTC4LX8IC 1 U 2 U 13 1 U 3 6 400 5 U 2 U 2 U 2 U 2 U 2 U 2 U 2 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 500 5 U 1 U 1 U 2 U 1 U 0.5 U 2 U 1 U 5 9 10/24/2017 XX LTC4LX9GB 1 U 400 5 U 1 U 1 U 1 U 2 U 1 U 0.5 U 2 U 3 1 U 2 3 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 U 2 U 1 U 1.5 1 U 1.7 110 5 U 1 U 1 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 20 U 10 U 10 U 10 U 10 U 10 390 50 U 10 U 10 U 10 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 4/28/2020 XX LTC4LXCCI 10 U 10 U 10 U 10 U 10 U 420 20 U 10 U 10 U 10 U 5 U 10 U 5 U 20 U 10 U 7/21/2020 XX LTC4LXCHB 1 U 7.8 1 U 5.3 9.1 490 2 U 1.5 1 U 1 U 0.5 U 1 U 0.5 U 2 U 1 10/27/2020 XX LTC4LXD2F 10 U 10 U 10 U 10 U 12 350 20 U 10 U 10 U 10 U 5 U 10 U 5 U 20 U 10 U **OCBT** 4/25/2011 XX BTXXXX4AJ 0.5 U 4/26/2011 XX BTXXXX4B0 0.5 U 4/27/2011 XX BTXXXX4B5 0.5 U 7/19/2011 XX BTXXXX4F3 0.5 U XX BTXXXX4G8 10/26/2011 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 2 U 2 U 2 U 2 U 2 U 2 U 1 U 1 U 5 U 2 U 1 U

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FOR: Juniper Ridge Landfill

## SUMMARY REPORT Leachate - VOAs Part 3 of 4

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

								Loadilato	VOASTA						CUMBE	RLAND CENTER	R, ME 04021
(QCBT)			Chlorobenzene	Ethylbenzene	Styrene	o-Xylene	m,p-Xylene	Tetra hydrofuran		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
Date	Гуре	Sample ID	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
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		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
4/5/2016		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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
2/25/2020		BTXXXXC86	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
2/26/2020		BTXXXXC5G	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/27/2020		BTXXXXCDJ	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/28/2020		BTXXXXCE0	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/28/2020	,,,,	BTXXXXCE4	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
4/30/2020	,,,,	BTXXXXCC3	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
6/23/2020		BTXXXXCGE	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
7/21/2020		BTXXXXCIC	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
7/21/2020		BTXXXXCGH	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
8/20/2020	XX	BTXXXXD21	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U
10/27/2020	XX	BTXXXXD3G	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	2 U	1 U

REPORT PREPARED: 3/17/202	1 07:41					SUMM	ARY REP	ORT					Page 3 c	of 3	
FOR: Juniper F	Ridge Landfill				- VOAs Pa						4 BLANC	& MAHER ENGIN CHARD ROAD RLAND CENTER	-,		
(QCBT)	Chlorobenzene	Ethylbenzene	Styrene	o-Xylene	m,p-Xylene	Tetra hydrofuran		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
Date Type Sample ID	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

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.

Page 1 of 3 REPORT PREPARED: 3/17/2021 07:41 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill Leachate - VOAs Part 4 of 4 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021 Iodomethane (LT-C4L & LT-C4LR) 1,2-Dichloro Acrylonitrile Diethyl ether trans-1,4benzene Dichloro-2butene Date Type Sample ID ug/L ug/L ug/L ug/L ug/L LT-C4L & LT-C4LR 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 XX LTC4LX4H5 10/26/2011 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 4/28/2020 XX LTC4LXCCI 10 U 200 U 20 U 50 U 50 U 7/21/2020 XX LTC4LXCHB 1 U 20 U 6.5 5 U 5 U 10/27/2020 XX LTC4LXD2F 10 U 200 U 20 U 50 U 50 U **QCBT** 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 XX BTXXXX4B5 4/27/2011 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 XX BTXXXX4G8 10/26/2011 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 5 U 20 U 5 U

Page 2 of 3 REPORT PREPARED: 3/17/2021 07:41 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill Leachate - VOAs Part 4 of 4 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021 Iodomethane (QCBT) 1,2-Dichloro Acrylonitrile Diethyl ether trans-1,4benzene Dichloro-2butene Type Sample ID ug/L ug/L ug/L ug/L ug/L Date 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 5 U 20 U 5 U 10/27/2015 XX BTXXXX7II 1 U 20 U 5 U 5 U 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 5 U 20 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 5 U 1 U 20 U 5 U 5 U 4/3/2018 XX BTXXXXHG3 1 U 5 U 20 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 2/25/2020 XX BTXXXXC86 1 U 20 U 2 U 5 U 5 U 2/26/2020 XX BTXXXXC5G 1 U 2 U 5 U 5 U 20 U 4/27/2020 XX BTXXXXCDJ 1 U 20 U 2 U 5 U 5 U 4/28/2020 XX BTXXXXCE0 1 U 20 U 2 U 5 U 5 U 4/28/2020 XX BTXXXXCE4 1 U 20 U 2 U 5 U 5 U 4/30/2020 XX BTXXXXCC3 5 U 1 U 20 U 2 U 5 U 6/23/2020 XX BTXXXXCGE 1 U 2 U 5 U 5 U 20 U 7/21/2020 XX BTXXXXCIC 1 U 2 U 5 U 5 U 20 U 7/21/2020 XX BTXXXXCGH 1 U 20 U 2 U 5 U 5 U 8/20/2020 XX BTXXXXD21 1 U 20 U 2 U 5 U 5 U 10/27/2020 XX BTXXXXD3G 1 U 2 U 20 U 5 U 5 U

REPORT PREPARED: 3/17/202	1 07:41					SUMMARY REPORT	Page 3	
FOR: Juniper R	tidge Landfill					Leachate - VOAs Part 4 of 4	4 BLAN	& MAHER ENGINEERS, INC. CHARD ROAD RLAND CENTER, ME 04021
(QCBT)	1,2-Dichloro benzene	Acrylonitrile	Diethyl ether	trans-1,4- Dichloro-2- butene	Iodomethane			
Date Type Sample ID	ug/L	ug/L	ug/L	ug/L	ug/L			

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#### **Concentration Qualifier Notes:**

REPOR1	F PREPARED: 3/17/2021	1 07:42					SUMI	MARY REPO	ORT					Page 1	of 1	
	FOR: Juniper R	tidge Landfill						VOA Part 1						4 BLAN	& MAHER ENGI CHARD ROAD RLAND CENTEI	·
(LT-C4L	& LT-C4LR)	Phenol	Bis (2- Chloroethyl) ether	2-Chlorophenol		1,4-Dichloro E) benzene (SVOC)	Benzyl Alcohol	1,2-Dichloro benzene (SVOC)		Bis(2-Chloroiso propyl) ether	N-Nitroso-di-n- propylamine	Hexachloro ethane	Nitrobenzene	Isophorone	2-Nitrophenol	2,4-Dimethyl phenol
Date	Type Sample ID	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-C4I	L & LT-C4LR															
4/27/2011	1 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	2 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	3 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	4 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	6 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	7 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	3 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
4/28/2020	XX LTC4LXCCIDL	190														
4/28/2020	XX LTC4LXCCI		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	9.5 U

Blank Cells appear when a parameter was not analyzed.

#### **Concentration Qualifier Notes:**

REPOR	T PREPARED: 3/17/20	21 07:42					SUM	MARY REPO	ORT					Page 1 of	f 1	
	FOR: Juniper	Ridge Landfill					Semi	-VOA Part 2	of 7					4 BLANC	HARD ROAD	SINEERS, INC. ER, ME 04021
(LT-C4I	& LT-C4LR)	Bis(2- Chloroethoxy)r ethane	2,4- m Dichloropheno	1,2,4-Trichloro benzene (SVOC)	Naphthalene (SVOC)	4-Chloroaniline	Hexachloro butadiene (SVOC)	4-Chloro-3- Methylphenol	2-Methyl naphthalene	Hexachloro cyclo pentadiene	2,4,6- Trichloropheno	2,4,5- ol Trichlorophenol	2-Chloro naphthalene	2-Nitroaniline	Dimethyl pthalate	Acenaphthylene
Date	Type Sample ID	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-C4	L & LT-C4LR															
4/27/201	1 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
4/24/201	2 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
4/23/201	3 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
4/22/201	4 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
4/28/201	5 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
4/5/201	6 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
4/18/201	7 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
4/3/201	8 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
4/23/201	9 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
4/28/202	0 XX LTC4LXCCI	9.5 U	9.5 U	9.5 U	20	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

Notes:

 $TYPE \hbox{ - Sample Type Qualifier where } D = Duplicate \hbox{ Sample}.$ 

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.

REPORT PR	EPARED: 3/17/2021	1 07:42					SUMI	MARY REP	ORT					Page 1	of 1	
	FOR: Juniper R	Ridge Landfill					Semi-	VOA Part 3	3 of 7					4 BLAN	& MAHER ENGIN CHARD ROAD RLAND CENTER	,
(LT-C4L &	LT-C4LR)	2,6- Dinitrotoluene	3-Nitroaniline	Acenaphthene	2,4- Dinitrophenol	4-Nitrophenol	Dibenzofuran	2,4- Dinitrotoluene	Diethyl phthalate	e 4-Chlorophenyl- phenylether	Fluorene	4-Nitroaniline	4,6-Dinitro-2- methylphenol	N-Nitroso diphenylamine	4-Bromophenyl- phenylether	Hexachloro benzene
Date Ty	pe Sample ID	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 8	LT-C4LR															
4/27/2011 X	X 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 X	X 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 X	X 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 X	X 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 X	X 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 X	X 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 X	X 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 X	X 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 X	X 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
4/28/2020 X	X LTC4LXCCI	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

Blank Cells appear when a parameter was not analyzed.

#### **Concentration Qualifier Notes:**

J - Analyte was positively identified/Associated value is an estimate.

REPOR	T PREPARED: 3/17/20	21 07:42					SUM	MARY REP	ORT					Page 1	of 1	
	FOR: Juniper	Ridge Landfill						-VOA Part 4						4 BLAN	& MAHER ENG CHARD ROAD RLAND CENTE	,
(LT-C4I	& LT-C4LR)	Pentachlorophen ol	Phenanthrene	Anthracene	Di-n- butylphthalate	Fluoranthene	Pyrene	Butylbenzyl phthalate	3,3-Dichloro benzidine	Benzo(a) Anthracene	Chrysene	Bis(2- Ethylhexyl) phthalate	Di-n- octylphthalate	Benzo(b) Fluoranthene	Benzo(k) Fluoranthene	Benzo(a) Pyrene
Date	Type Sample ID	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-C4	L & LT-C4LR															
4/27/201	1 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
4/24/201	2 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
4/23/201	3 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
4/22/201	4 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
4/28/201	5 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
4/5/201	6 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
4/18/201	7 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
4/3/201	8 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
4/23/201	9 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
4/28/202	0 XX LTC4LXCCI	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

Blank Cells appear when a parameter was not analyzed.

#### **Concentration Qualifier Notes:**

REPOR	RT PREPARED: 3/17	/2021 07:42					SUM	IMARY REPO	)RT					Page 1 c	of 1	
	FOR: Juni	oer Ridge Landfill						i-VOA Part 5						4 BLANC	& MAHER ENGI CHARD ROAD RLAND CENTE	-,
(LT-C4	L & LT-C4LR)	Indeno(1,2,3-c,d) Pyrene	Dibenz(a,h) Anthracene	Benzo(g,h,i) perylene	N-Nitroso dimethylamine	Carbazole	2,3,4,6- Tetrachloro phenol	2,6- Dichlorophenol	3&4- Methylphenol	2-Acetyl aminofluorene	4- Aminobiphenyl	2-sec-Butyl-4-6- dinitrophenol (Dinoseb)	3,3`-Dimethyl benzidine	1,3-Dinitro benzene (m- Dinitrobenzene)	Ethyl methanesulfonat e	Hexa chloropropene
Date	Type Sample	$ID \qquad ug/L$	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-C4	L & LT-C4L	R														
4/27/20	11 XX LTC4LX49C	2 U	2 U	1 U		2 U			23			0.21 U				
4/24/20	12 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
4/23/20	13 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
4/22/20	14 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
4/28/20	15 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
4/5/20	16 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
4/18/20	17 XX LTC4LX96IDL								480							
4/18/20	17 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
4/3/20	18 XX LTC4LXA2ADI	-							350							
4/3/20	18 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
4/23/20	19 XX LTC4LXB56RA	A										4.8 U				
4/23/20		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
4/28/20	20 XX LTC4LXCCIRE											4.4 U				
4/28/20	-								540							
4/28/20	20 XX LTC4LXCCI	9.5 U	9.5 U	9.5 U	9.5 U		9.5 U	9.5 U	1	9.5 U	9.5 U	4.4 U	24 U	9.5 U	9.5 U	9.5 U

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#### **Concentration Qualifier Notes:**

U- Not Detected above the laboratory reporting limit.

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REPOR	T PREPARED:	3/17/2021 07:42					SUMN	ARY REP	ORT					Page 1	of 1	
	FOR:	Juniper Ridge Landfill					Semi-	VOA Part 6	of 7					4 BLAN	& MAHER ENG CHARD ROAD RLAND CENTE	,
(LT-C4	L & LT-C4L1	R) Isosafrole	Methapyrilene	3-Methyl cholanthrene	Methyl methane sulfonate	amine (1-	2-Naphthalene amine (2- Naphthyl amine)	1,4-Naphtho quinone	5-Nitro-o- toluidine	N-Nitroso diethylamine	N-Nitrosodi-n- butylamine	N- Nitrosomethyl ethylamine	N-Nitroso piperidine	N-Nitroso pyrrolidine	Pentachloro benzene	Pentachloro nitrobenzene
Date	Type Sam	ple ID 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-C4	L & LT-C	4LR														
4/24/201	12 XX LTC4LX5	1F 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
4/23/201	13 XX LTC4LX5	HG 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
4/22/201	14 XX LTC4LX6	EH 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
4/28/201	15 XX LTC4LX7	8C 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
4/5/201	16 XX LTC4LX8	63 200 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
4/18/201	17 XX LTC4LX9	6l 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
4/3/201	18 XX LTC4LXA	2A 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
4/23/201	19 XX LTC4LXB	356	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
4/28/202	20 XX LTC4LXC	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

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REPOF	RT PREPARED: 3/17/202	1 07:42					SUM	MARY REP	ORT			Page 1 of 1	
	FOR: Juniper F	Ridge Landfill					Semi	-VOA Part 7	of 7			SEVEE & MAHER EN 4 BLANCHARD ROAI CUMBERLAND CEN	D
(LT-C4	L & LT-C4LR)	Phenacetin	p-Phenylene diamine	Pronamide	1,2,4,5- Tetrachloro benzene	1,3,5-Trinitro benzene (sym- Trinitrobenzene)	Safrole	O-Toluidine	p-(Dimethyl amino) azobenzene	7,12- Dimethylbenz (a)anthracene	Acetophenone		
Date	Type Sample ID	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		
LT-C4	L & LT-C4LR												
4/24/20	12 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		
4/23/20	13 XX LTC4LX5HG	110 U	280 U	110 U	110 U	110 U	110 U	280 U	110 U	110 U	110 U		
4/22/20	14 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		
4/28/20	15 XX LTC4LX78C	47 U	120 U	47 U	47 U	47 U	47 U	120 U	47 U	47 U	47 U		
4/5/20	16 XX LTC4LX863	200 U	500 U	200 U	200 U	200 U	200 U	500 U	200 U	200 U	200 U		
4/18/20	17 XX LTC4LX96I	14 U	36 U	14 U	14 U	14 U	14 U	36 U	14 U	14 U	14 U		
4/3/20	18 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		
4/23/20	19 XX LTC4LXB56	10 UH	26 UH	10 UH	10 UH	10 UH	10 UH	26 UH	10 UH	10 UH	100 U		
4/28/20	20 XX LTC4LXCCI	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	14		

Blank Cells appear when a parameter was not analyzed.

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REPORT I	PREPARED: 3/17/2021	07:42					SUMN	MARY REP	ORT					Page 1 o	of 1	
	FOR: Juniper Ri	dge Landfill				Pestio	-		CBs Part 1 c	of 4				4 BLANC	& MAHER ENGII CHARD ROAD RLAND CENTER	-,
(LT-C4L	& LT-C4LR)	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Heptachlor	Aldrin	Heptachlor Epoxide	Endosulfan I	Dieldrin	4,4'-DDE	Endrin	Endosulfan II	4,4'-DDD	Endosulfan Sulfate	4,4'-DDT
Date 1	Type Sample ID	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															
4/27/2011	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
4/28/2020	XX LTC4LXCCI	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U

Blank Cells appear when a parameter was not analyzed.

#### **Concentration Qualifier Notes:**

REPOR'	REPORT PREPARED: 3/17/2021 07:42					SUMMARY REPORT								Page 1 of 1			
FOR: Juniper Ridge Landfill						Pesticides, Herbicides and PCBs Part 2 of 4									SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021		
(LT-C4I	& LT-C4	ILR)	Methoxychlor	Endrin Ketone	alpha-Chlordane	gamma- Chlordane	Toxaphene	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Endrin Aldehyde	Chlordane (technical)	2,4-Dichloro phenoxyacetic Acid
Date	Type Sa	ample ID	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-C4	L & LT-0	C4LR															
4/27/201	1 XX LTC4L	LX49C	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
4/24/201	2 XX LTC4L	LX51F	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
4/23/201	3 XX LTC4L	LX5HG	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
4/22/201	4 XX LTC4L	LX6EH	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
4/28/201	5 XX LTC4L	LX78C	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
4/5/201	6 XX LTC4L	LX863	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
4/18/201	7 XX LTC4L	LX96IRE	0.52 U				1 U	0.52 U	0.1 U	0.52 U							
4/18/201	7 XX LTC4L	LX96I															2.8 U
4/3/201	8 XX LTC4L	LXA2A	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
4/23/201	9 XX LTC4L	LXB56RA															2.8 U
4/23/201	9 XX LTC4L	LXB56	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	
4/28/202	0 XX LTC4L	LXCCIRE															2.7 U
4/28/202	0 XX LTC4L	LXCCI	0.47 U				0.93 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.093 U	0.47 U	2.6 U

Blank Cells appear when a parameter was not analyzed.

#### **Concentration Qualifier Notes:**

REPORT PREPARED: 3/17/2021 07:42  FOR: Juniper Ridge Landfill						SUMMARY REPORT									Page 1 of 1			
						Pesticides, Herbicides and PCBs Part 3 of 4								SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021				
(LT-C4)	L & LT-C4LR)	2,4,5-Trichloro phenoxypro pionic Acid	2,4,5-Trichloro phenoxyacetic acid	Diallate	Isodrin	Kepone	Dimethoate	Chlorobenzilate	Disulfoton	Famphur	Methyl Parathion	Parathion	Phorate	Thionazin	o,o,o-Triethyl phosphoro thioate	Dalapon		
Date	Type Sample II	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-C4	L & LT-C4LR							T										
4/27/201		0.19 U	0.5 U													0.31 U		
4/24/201	2 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			
4/23/201	3 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			
4/22/201	4 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			
4/28/201	5 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			
4/5/201	6 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			
4/18/201	7 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			
4/3/201	8 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			
4/23/201	9 XX LTC4LXB56RA	2.9 U	2.9 U															
4/23/201	9 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			
4/28/202	20 XX LTC4LXCCIRE	2.7 U	2.7 U															
4/28/202	20 XX LTC4LXCCI	2.7 U	2.6 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	19 U	9.5 U			

Blank Cells appear when a parameter was not analyzed.

#### **Concentration Qualifier Notes:**

U- Not Detected above the laboratory reporting limit.

UH- Not Detected above the laboratory reporting limit. Analyzed outside U.S.EPA's recommended hold time

REPOR <sup>*</sup>	Γ PREPARED: 3/17/2021	07:42					SUMM	IARY REPORT		Page 1 of 1	
	FOR: Juniper Ridge Landfill							ides and PCBs Part 4 of 4	SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021		
(LT-C4I	& LT-C4LR)	Dicamba	Dichloroprop	MCPA	МСРР	2,4-DB	2-sec-Butyl-4-6- dinitrophenol (Dinoseb)				
Date	Type Sample ID	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L				
LT-C4	L & LT-C4LR										
4/27/201	1 XX LTC4LX49C	0.14 U	0.26 U	32 U	48 U	0.51 U	0.21 U				
4/24/201	2 XX LTC4LX51F						4.8 U				
4/23/201	3 XX LTC4LX5HG						4.8 U				
4/22/201	4 XX LTC4LX6EH						5.2 U				
4/28/201	5 XX LTC4LX78C						4.7 U				
4/5/201	6 XX LTC4LX863						5.1 U				
4/18/201	7 XX LTC4LX96I						4.7 U				
4/3/201	B XX LTC4LXA2A						4.4 U				
4/23/201	9 XX LTC4LXB56RA						4.8 U				
4/28/202	0 XX LTC4LXCCIRE						4.4 U				
4/28/202	0 XX LTC4LXCCI						4.4 U				

Blank Cells appear when a parameter was not analyzed.

#### **Concentration Qualifier Notes:**

## **APPENDIX E**

# 2020 WATER QUALITY SUMMARY REPORTS AND BOX & WHISKER PLOTS



DP-4 DP-4

Juniper Ridge Landfill annual stats 2020 G1

#### **Well Description**

DP-4 is located downgradient of the landfill and former leachate pond and monitors groundwater quality within the overburden.

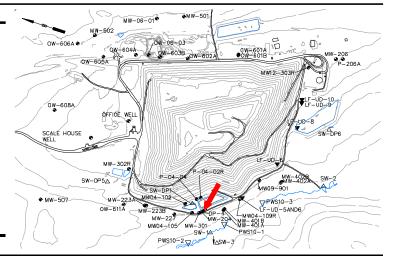
Screen Interval: 18.5 ft. to 24.5 ft.

Sampled: 1 Time Annually(field parameters only)

Sampled Since: 01/30/04

Material Screened: Overburden

Well Condition: Good
Sampling Method: Low Flow



#### **Chemical Summary**

		20	)20		Historical (1/1/1980 - 12/31/2020)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n		
Specific Conductance (µmhos/cm @25°C)				249	100 to 965	340 ± 23	36		
pH (STU)				6.4	5.6 to 7.3	$6.5 \pm 0.061$	36		
Temperature (Deg C)				11.8	6 to 23.9	$13 \pm 0.66$	36		
Water Level Elevation (Feet)				154.27	152.18 to 156.12	150 ± 0.15	36		
Eh (mV)				315	-51 to 352	240 ± 15	35		
Dissolved Oxygen (mg/L)				0.6	0.4 to 6	$1.8 \pm 0.27$	36		
Turbidity (field) (NTU)				12.5	0.6 to 36.2	8.6 ± 1.4	36		

<u>underlined/bold</u> - 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.

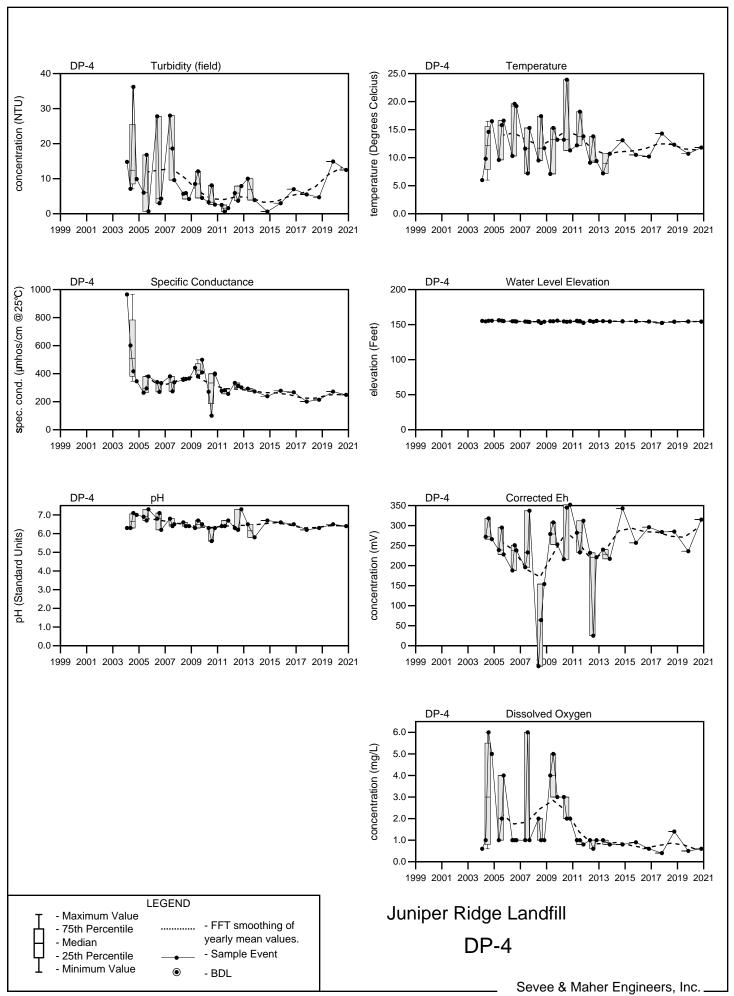
#### Comments

Q4= 10 - 2020

Data Group: 530

Printed: 3/22/2021 07:23





MW04-102 MW04-102

Juniper Ridge Landfill annual stats 2020 G2

#### **Well Description**

MW04-102 monitors groundwater in the overburden downgradient of the landfill and upgradient of Stormwater Detention Pond-1.

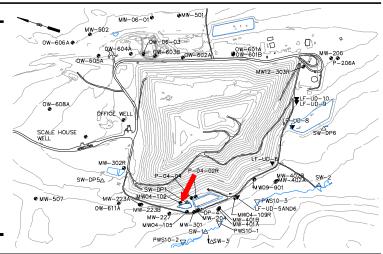
Screen Interval: 10 ft. to 15 ft.
Sampled: 3 Times Annually

Sampled Since: 01/18/2005

Material Screened: Overburden

Well Condition: Good
Sampling Method: Low Flow

## **Chemical Summary**



		2	020		Historical (1/1/1980 - 12/31/2020)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n		
Specific Conductance (µmhos/cm @25°C)		235	219	224	193 to 320	230 ± 3.1	46		
pH (STU)		7	7.6	7.2	6.2 to 8.4	7.9 ± 0.056	46		
Temperature (Deg C)		6.1	15.6	12.5	4 to 20.1	12 ± 0.63	46		
Water Level Elevation (Feet)		163.12	<b>↓</b> 161.8	162.22	161.92 to 167.62	160 ± 0.16	46		
Eh (mV)		348	262	351	-8 to 476	310 ± 13	46		
Dissolved Oxygen (mg/L)		4.9	3.9	5.5	1 to 7.5	$3.6 \pm 0.22$	46		
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U to 0.017	$0.0054 \pm 0.000$	46		
Calcium (mg/L)		28	25	26	23.5 to 31.2	26 ± 0.25	46		
Iron (mg/L)		0.05 U	0.06	0.05 U	0.02 U to 0.19	0.054 ± 0.005	46		
Magnesium (mg/L)		7.5	6.9	6.9	6.3 to 8.1	7 ± 0.058	46		
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.09	$0.039 \pm 0.003$	46		
Potassium (mg/L)		1.5	2	1.4	1.2 to 3.2	1.8 ± 0.055	46		
Sodium (mg/L)		7.2	8	8	6.4 to 11	7.7 ± 0.15	46		
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.28	0.25 U to 3.8	$0.52 \pm 0.08$	46		
Nitrite/Nitrate - (N) (mg/L)		0.15	0.089	0.085	0.05 U to 2 U	0.26 ± 0.13	15		
Total Dissolved Solids (mg/L)		138	133	136	116 to 151	130 ± 1.3	46		
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 5	$3.8 \pm 0.094$	46		
Sulfate (mg/L)		13	13	11	5.7 to 14.5	10 ± 0.33	46		
Bicarbonate Alkalinity (CaCO3) (mg/L)		100	100	<b>↑</b> 110	73 to 109	100 ± 0.75	46		
Organic Carbon (mg/L)		2 U	2 U	5.2 M10	0.5 to 5.3	1.8 ± 0.12	46		
Chloride (mg/L)		2 U	1.6	1.1	1 U to 3.5	1.8 ± 0.086	46		
Bromide (mg/L)		0.2 U	0.1 U	0.1 U	0.03 U to 0.2 U	0.1 ± 0.01	25		
Turbidity (field) (NTU)		1.2	2.4	2.7	0 to 8.1	1.4 ± 0.22	46		

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 - 2020 U = Not Detected above the laboratory reporting limit.

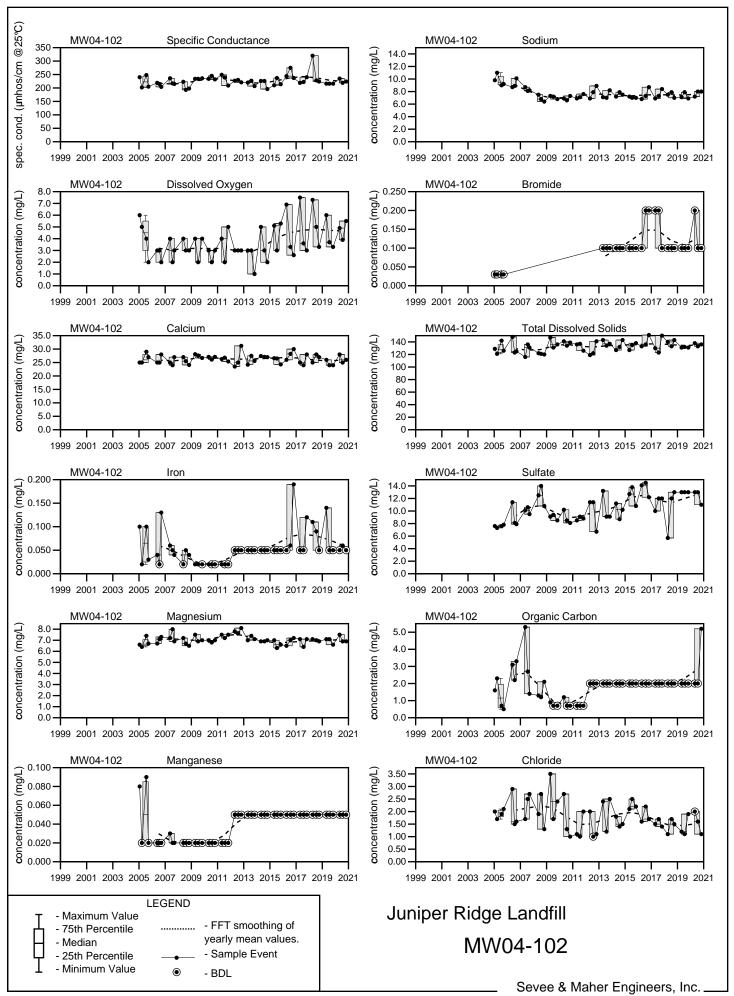
Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533

Printed: 3/22/2021 07:46





MW04-105 MW04-105

Juniper Ridge Landfill annual stats 2020 G1

### **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

# 0W−608A 0 0W−608A 0 0W−602A 0W−602A 0W−601A 0 0W−601A 0 0W−608A 0 0W−608A

### **Chemical Summary**

_		20	)20		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)				276	217 to 703	360 ± 19	33	
pH (STU)				7.1	6.1 to 7.7	$6.9 \pm 0.062$	33	
Temperature (Deg C)				11.4	6.7 to 23.8	12 ± 0.61	33	
Water Level Elevation (Feet)				157.29	156.39 to 159.79	160 ± 0.13	33	
Eh (mV)				348	-7 to 447	$300 \pm 14$	33	
Dissolved Oxygen (mg/L)				0.6	0.4 to 4	$1.3 \pm 0.18$	33	
Turbidity (field) (NTU)				1.8	0 to 3.7	$0.89 \pm 0.16$	33	

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

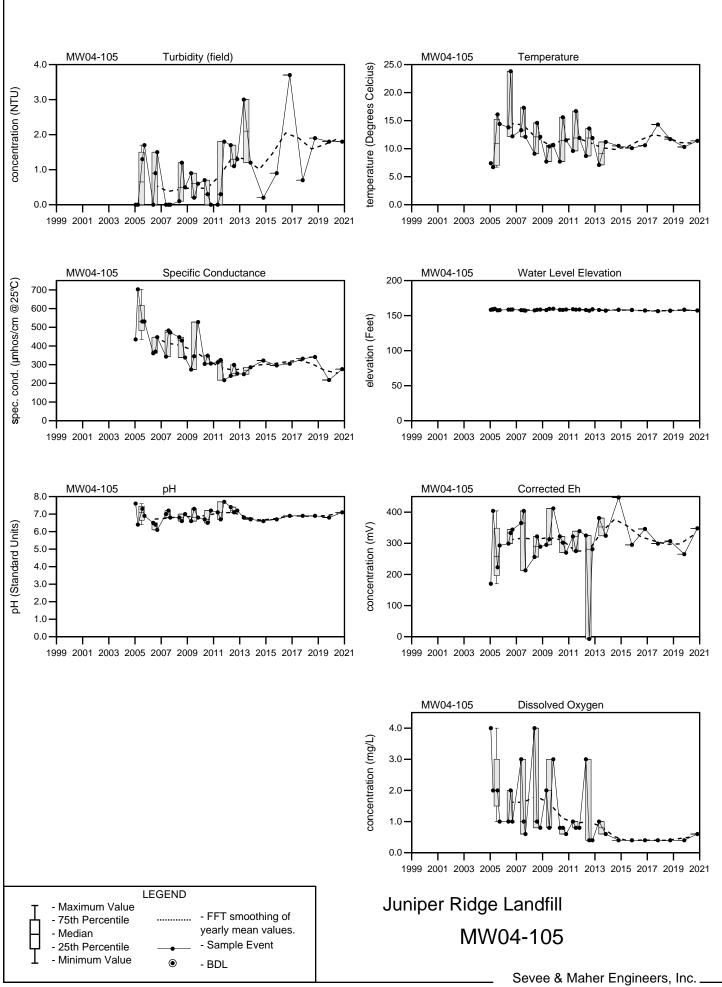
### Comments

Q4= 10 - 2020

Data Group: 530



<sup>↑</sup> indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.



MW04-109R MW04-109R

Juniper Ridge Landfill annual stats 2020 G2

### **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

# MW-502 OW-606A OW-

# **Chemical Summary**

		20	)20		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		385	408	391	237 to 556	420 ± 9.7	31	
pH (STU)		6.9	6.8	6.9	6.3 to 7.9	$6.7 \pm 0.049$	31	
Temperature (Deg C)		8.7	20.2	9.2	5.9 to 21.9	13 ± 0.87	31	
Water Level Elevation (Feet)		153.68	152.85	153.05	151.51 to 154.46	150 ± 0.12	31	
Eh (mV)		354	236	327	-478 to 419	290 ± 32	31	
Dissolved Oxygen (mg/L)		<b>1</b> 4.3	1.8	0.6	0.1 U to 2.6	$0.86 \pm 0.1$	31	
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U to 0.033	$0.013 \pm 0.001$	31	
Calcium (mg/L)		59	58	53	50.3 to 77.2	62 ± 1.1	31	
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.05 U	$0.044 \pm 0.002$	31	
Magnesium (mg/L)		12	13	11	9.4 to 14.3	11 ± 0.22	31	
Manganese (mg/L)		<u>0.37</u>	<u>0.96</u>	<u>1.3</u>	0.02 to 1.4	$0.48 \pm 0.086$	31	
Potassium (mg/L)		1.8	2.3	1.7	1.7 to 2.5	$2 \pm 0.034$	31	
Sodium (mg/L)		6.5	7.6	7	6.1 to 10.6	8 ± 0.22	31	
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.29	0.27	0.25 U to 0.92	$0.4 \pm 0.026$	31	
Nitrite/Nitrate - (N) (mg/L)		0.11	0.073	0.058	0.05 U to 2 U	$0.26 \pm 0.13$	15	
Total Dissolved Solids (mg/L)		251	252	<b>↓</b> 224	227 to 310	$260 \pm 3$	31	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 4 U	$3.6 \pm 0.12$	31	
Sulfate (mg/L)		10	8	6.8	2.6 to 55	9.9 ± 1.6	31	
Bicarbonate Alkalinity (CaCO3) (mg/L)		210	200	190	184 to 233	$200 \pm 2.4$	31	
Organic Carbon (mg/L)		2 U	2 U	↑54 M10	1.2 to 2.9	1.9 ± 0.055	31	
Chloride (mg/L)		4.2	3.6	2.8	1 U to 15.9	$6.8 \pm 0.5$	31	
Bromide (mg/L)		0.16	0.23	0.14	0.1 U to 0.25	$0.17 \pm 0.009$	21	
Turbidity (field) (NTU)		1.2	2.7	1.5	0 to 2.9	$0.87 \pm 0.17$	31	

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**

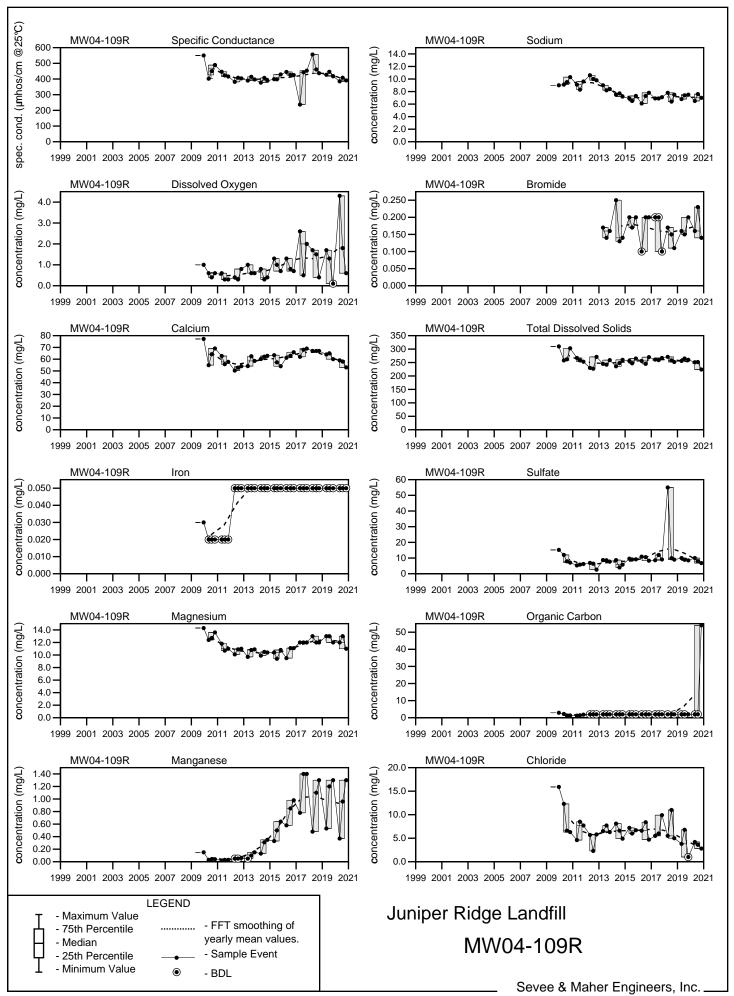
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





MW06-01 MW06-01

Juniper Ridge Landfill annual stats 2020 G13

### **Well Description**

MW06-01 monitors overburden groundwater downgradient of Cell 11 of the landfill expansion.

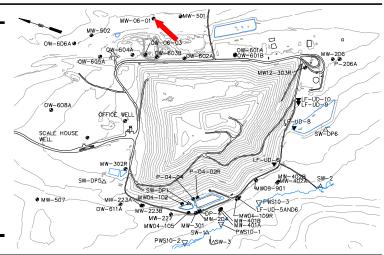
Screen Interval: 10 ft. to 20 ft. Sampled: 3 Times Annually

Sampled Since: Apr-18

Material Screened: Overburden

Well Condition: Good Sampling Method: Low Flow

# **Chemical Summary**



		2020		Historical (1/1/1980 - 12/31/2020)				
Indicator Parameters	Q1 Q2	Q3	Q4	Min Max	Mean SE	n		
Specific Conductance (µmhos/cm @25°C)	95	98	83	67 to 102	87 ± 4.1	7		
pH (STU)	7.2	6.7	7.9	6.1 to 8.1	$7.1 \pm 0.3$	7		
Temperature (Deg C)	6.5	<b>1</b> 8.1	9.8	6.4 to 12.2	9.2 ± 0.82	7		
Water Level Elevation (Feet)		<b>162.881</b>	<b>↓</b> 163.461	164.431 to 165.951	170 ± 0.35	4		
Eh (mV)	394	386	372	219 to 508	$350 \pm 34$	7		
Dissolved Oxygen (mg/L)	10.9	<b>↓</b> 6.8	10.5	7.9 to 13	10 ± 0.63	7		
Arsenic (mg/L)	0.005 ป	J 0.005 U	0.005 U	0.005 U to 0.005 U	$0.005 \pm 0$	7		
Calcium (mg/L)	9.5	8.9	9.3	8.4 to 11	9.2 ± 0.36	7		
Iron (mg/L)	0.05 U	0.05 U	0.05 U	0.05 U to 0.66	$0.14 \pm 0.087$	7		
Magnesium (mg/L)	2.7	2.9	2.9	2.4 to 3.2	2.7 ± 0.11	7		
Manganese (mg/L)	0.05 U	0.05 U	0.05 U	0.05 U to 0.05 U	0.05 ± 3E-10	7		
Potassium (mg/L)	0.6	<b>1</b> 0.9	0.5	0.4 to 0.6	$0.47 \pm 0.036$	7		
Sodium (mg/L)	2.9	<b>↑</b> 3.5	3.4	2.5 to 3.4	2.8 ± 0.11	7		
Total Kjeldahl Nitrogen (mg/L)	0.25 U	0.25 U	0.25 U	0.25 U to 0.25 U	$0.25 \pm 0$	7		
Nitrite/Nitrate - (N) (mg/L)	<b>↑</b> 0.15	↓0.05 U	<b>1</b> 0.16	0.078 to 0.13	0.11 ± 0.008	7		
Total Dissolved Solids (mg/L)	60	64	53	50 to 78	66 ± 4.7	7		
Total Suspended Solids (mg/L)	2.5 U	2.5 U	2.5 U	2.5 U to 2.5 U	$2.5 \pm 0$	7		
Sulfate (mg/L)	3.3	3.3	2.7	2.3 to 9.2	$3.6 \pm 0.93$	7		
Bicarbonate Alkalinity (CaCO3) (mg/L)	31	31	33	23 to 34	29 ± 3.2	3		
Organic Carbon (mg/L)	2 U	2 U	↑4.9 M10	2 U to 2 U	2 ± 0	7		
Chloride (mg/L)	7.8	6.7	7.7	1.3 to 8.9	6 ± 1	7		
Bromide (mg/L)	0.1 U	0.1 U	0.1 U	0.1 U to 0.1 U	0.1 ± 6E-10	7		
Turbidity (field) (NTU)	0.3	0.2	0.3	0.1 to 3.5	1.5 ± 0.55	7		

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 - 2020 U = Not Detected above the laboratory reporting limit.

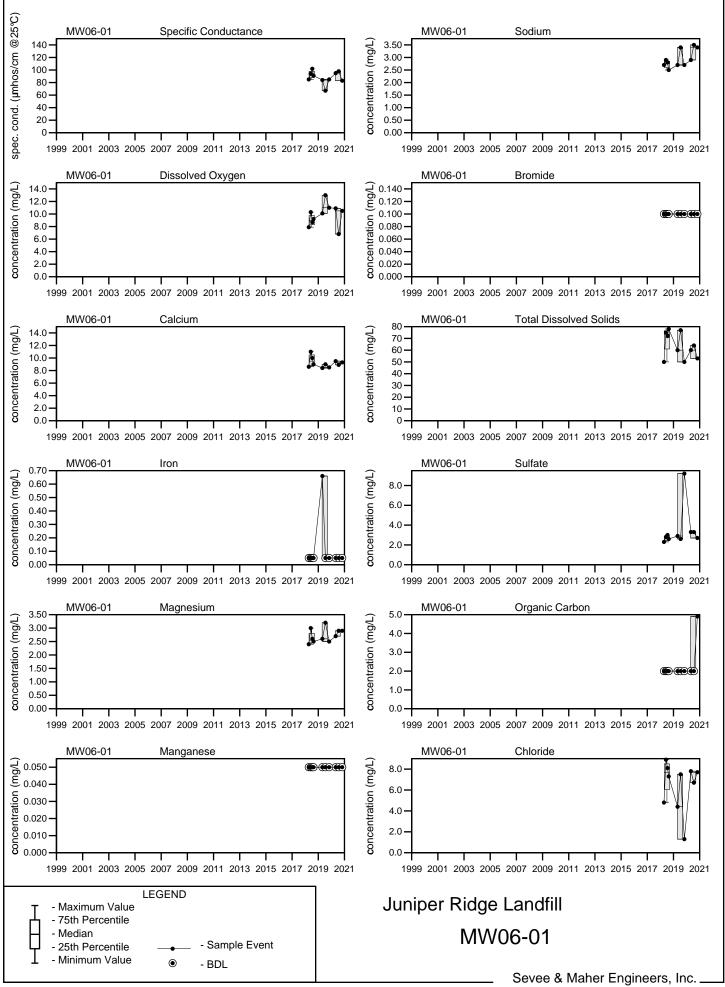
Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is Q4= 10 - 2020 likely elevated-the laboratory has fixed the issue.

Data Group: 606

Printed: 3/22/2021 14:16





MW-204 MW-204

Juniper Ridge Landfill annual stats 2020 G1

### **Well Description**

 $\,$  MW-204 monitors the overburden water quality downgradient from the landfill.

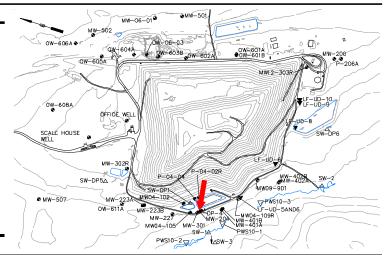
Screen Interval: 13.8 ft. to 18.8 ft.

Sampled: 1 Time Annually(field parameters only)

Sampled Since: 11/13/90

Material Screened: Overburden

Well Condition: Good
Sampling Method: Low Flow



### **Chemical Summary**

		20	)20		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)				265	100 to 340	190 ± 5.8	84	
pH (STU)				6.6	5.7 to 9.2	$6.8 \pm 0.061$	84	
Temperature (Deg C)				11.2	-1 to 18	$9.9 \pm 0.38$	84	
Water Level Elevation (Feet)				154.65	150.53 to 161.5	160 ± 0.22	81	
Eh (mV)				337	35.2 to 491	290 ± 15	46	
Dissolved Oxygen (mg/L)				0.4	0.3 to 5.2	1.5 ± 0.13	62	
Turbidity (field) (NTU)				3.5	0 to 31	$2.7 \pm 0.72$	61	

<u>underlined/bold</u> - values exceed a regulatory standard listed below.

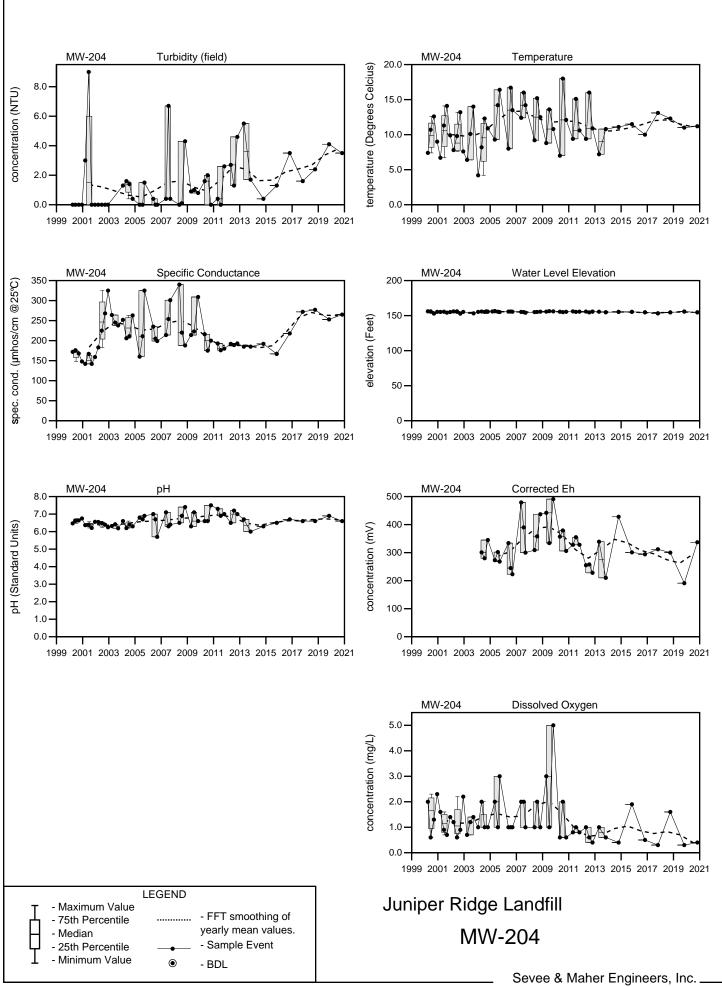
### Comments

Q4= 10 - 2020

Data Group: 530



<sup>↑</sup> indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.



MW-206 MW-206

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

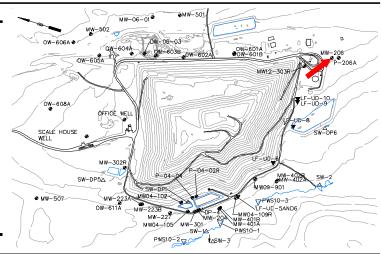
MW-206 monitors overburden water quality upgradient of the landfill.

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**



_		2	020		Historical (1/1/1980 - 12/31/2020)				
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n		
Specific Conductance (µmhos/cm @25°C)		142	146	148	89 to 269	140 ± 2.4	88		
pH (STU)		7.4	8.1	7.6	6.2 to 8.6	7.9 ± 0.05	88		
Temperature (Deg C)		4.7	14.3	7.3	2.9 to 17.5	9.7 ± 0.35	88		
Water Level Elevation (Feet)		199.57	193.87	195.07	186.1 to 201.59	200 ± 0.38	85		
Eh (mV)		237	191	342	-334 to 464	260 ± 17	59		
Dissolved Oxygen (mg/L)		8.4	7.5	8.7	2 to 10.9	$6.9 \pm 0.23$	74		
Arsenic (mg/L)		0.006	0.005	0.005	0.001 to 0.022	$0.0074 \pm 0.000$	48		
Calcium (mg/L)		18	16	16	13 to 27.2	16 ± 0.22	75		
Iron (mg/L)		0.09	0.05 U	0.2	0.012 to 1.2	0.14 ± 0.023	81		
Magnesium (mg/L)		5.2	4.9	4.8	2.7 to 6.9	$4.6 \pm 0.063$	75		
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.003 to 0.32	$0.035 \pm 0.004$	81		
Potassium (mg/L)		0.7	8.0	0.4	0.3 to 2.5	$0.84 \pm 0.047$	48		
Sodium (mg/L)		4.6	4.7	4.3	3.7 to 25	5.5 ± 0.26	81		
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U to 2.4	0.58 ± 0.075	53		
Nitrite/Nitrate - (N) (mg/L)		0.11	0.26	0.16	0.05 U to 2 U	$0.33 \pm 0.12$	15		
Total Dissolved Solids (mg/L)		101	89	89	30 to 190	90 ± 2.5	81		
Total Suspended Solids (mg/L)		3	2.5 U	2.5 U	2.5 U to 37	5.1 ± 0.73	48		
Sulfate (mg/L)		2.4	2.6	1.7	0.2 to 5 U	2 ± 0.13	81		
Bicarbonate Alkalinity (CaCO3) (mg/L)		74	70	72	58 to 80	69 ± 0.47	48		
Organic Carbon (mg/L)		2 U	2 U	6.6 M10	0.5 U to 9	1.7 ± 0.14	81		
Chloride (mg/L)		2.4	2.8	2	0.8 to 10 U	2.6 ± 0.31	81		
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 1.2	0.17 ± 0.052	21		
Turbidity (field) (NTU)		5.1	2.8	2.4	0 to 40	$2.3 \pm 0.63$	73		

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

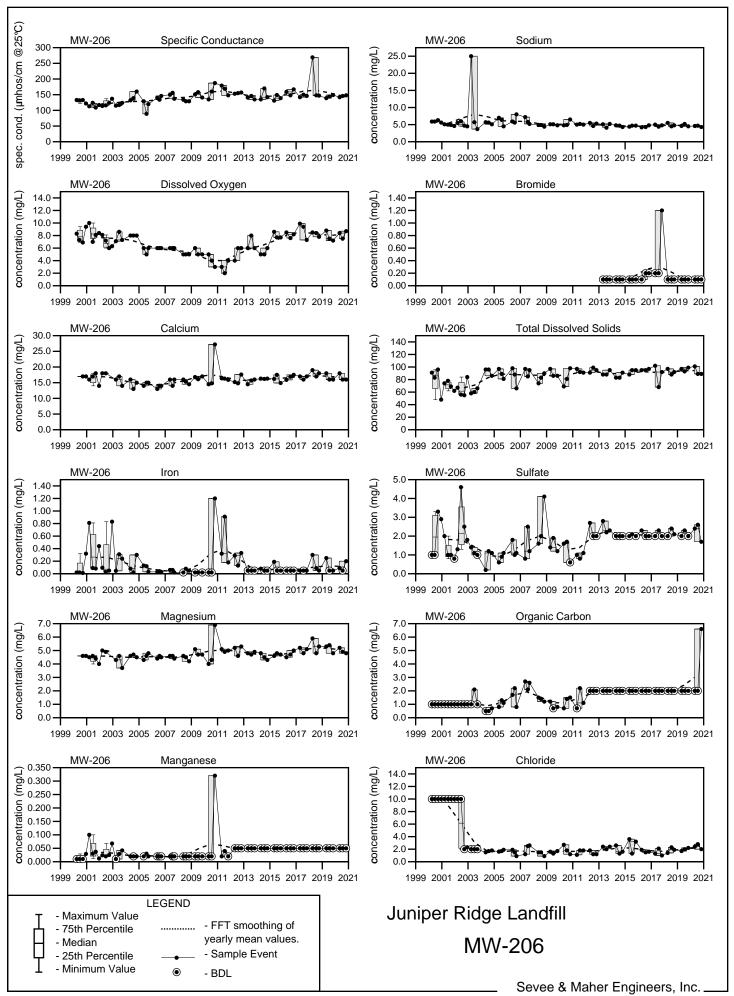
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely Q4= 10 - 2020 elevated-the laboratory has fixed the issue.

Data Group: 533





MW-223A MW-223A

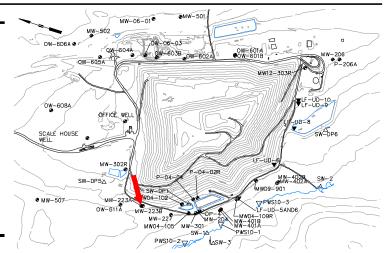
Juniper Ridge Landfill annual stats 2020 G2

### **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**

		2	020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		531	575	583	79 to 651	270 ± 16	90	
pH (STU)		7.4	7.4	7.4	6.1 to 8.4	$7.4 \pm 0.036$	90	
Temperature (Deg C)		6.2	13.5	9.5	4.5 to 16.2	$9.4 \pm 0.28$	90	
Water Level Elevation (Feet)		174.99	173.12	173.74	169.83 to 176.4	170 ± 0.13	87	
Eh (mV)		336	212	295	-345 to 445	280 ± 16	59	
Dissolved Oxygen (mg/L)		0.8	8.0	8.0	0.1 U to 9.4	$3.2 \pm 0.27$	73	
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U to 0.034	$0.0065 \pm 0.000$	48	
Calcium (mg/L)		<b>1</b> 00	94	<b>1</b> 00	23 to 98	47 ± 2.8	78	
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.005 to 120	1.5 ± 1.5	82	
Magnesium (mg/L)		11	11	11	2.3 to 11	$5.2 \pm 0.3$	78	
Manganese (mg/L)		0.05	0.05 U	0.05 U	0.001 to 4	0.076 ± 0.048	82	
Potassium (mg/L)		1	1.2	0.9	0.4 to 1.3	0.76 ± 0.025	48	
Sodium (mg/L)		5.6	6.2	6.2	1.8 to 9.8	3.8 ± 0.12	82	
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U to 0.8	0.38 ± 0.018	57	
Nitrite/Nitrate - (N) (mg/L)		0.74	<b>↓</b> 0.17	0.55	0.36 to 2 U	0.67 ± 0.098	15	
Total Dissolved Solids (mg/L)		<b>↑</b> 360	<b>↑</b> 376	337	36 to 356	180 ± 10	82	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 4 U	3.7 ± 0.085	48	
Sulfate (mg/L)		22	20	19	2.9 to 59	7.5 ± 0.77	82	
Bicarbonate Alkalinity (CaCO3) (mg/L)		230	<b>1</b> 240	<b>1</b> 250	86 to 230	150 ± 6.5	48	
Organic Carbon (mg/L)		2 U	2 U	↑44 M10	0.5 U to 3.4	1.4 ± 0.071	82	
Chloride (mg/L)		32	31	31	1 U to 57.6	15 ± 1.8	82	
Bromide (mg/L)		0.15	<b>↑</b> 0.23	0.13	0.1 U to 0.22	0.14 ± 0.01	21	
Turbidity (field) (NTU)		1	1	1.5	0 to 999	18 ± 14	71	

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

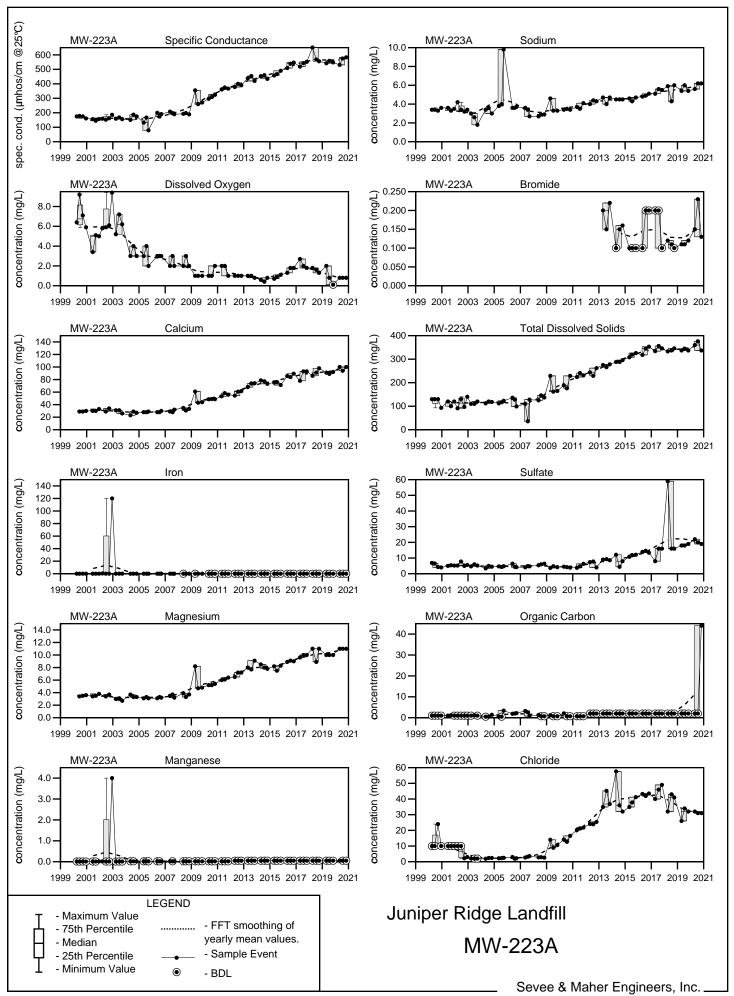
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely Q4= 10 - 2020 elevated-the laboratory has fixed the issue.

Data Group: 533





MW-223B MW-223B

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

MW-223B monitors the overburden water quality downgradient of the land

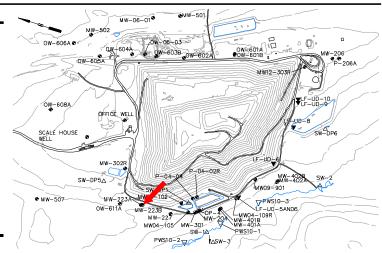
Screen Interval: 12.6 ft. to 17.6 ft.
Sampled: 3 Times Annually

Sampled Since: 11/12/90

Material Screened: Overburden

Well Condition: Good
Sampling Method: Low Flow

# **Chemical Summary**



_		20	20		Historical (1	/1/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		461	497	505	100 to 596	250 ± 13	89
pH (STU)		7	7.1	7.2	6.3 to 8.2	$7.2 \pm 0.033$	89
Temperature (Deg C)		5.6	12.3	10.7	3.8 to 17.7	$9.7 \pm 0.33$	89
Water Level Elevation (Feet)		173.13	171.43	172.13	169.03 to 175.24	170 ± 0.12	86
Eh (mV)		355	220	328	-402 to 446	270 ± 19	58
Dissolved Oxygen (mg/L)		0.5	0.6	0.3	0.1 U to 7.6	1.7 ± 0.17	72
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U to 0.017	$0.0058 \pm 0.000$	48
Calcium (mg/L)		65	64	67	16 to 68	34 ± 1.7	78
Iron (mg/L)		0.05	0.06	0.15	0.009 to 0.58	0.11 ± 0.014	82
Magnesium (mg/L)		15	17	17	3.7 to 17	$8.3 \pm 0.43$	78
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.001 U to 0.16	$0.035 \pm 0.003$	82
Potassium (mg/L)		8.0	0.9	0.9	0.3 to 2	$0.79 \pm 0.039$	48
Sodium (mg/L)		5	6.1	6.1	2.1 to 6.4	$4.3 \pm 0.089$	82
Total Kjeldahl Nitrogen (mg/L)		0.35	0.25	0.25 U	0.15 U to 2.5 U	$0.48 \pm 0.05$	57
Nitrite/Nitrate - (N) (mg/L)		0.75	0.21	0.65	0.15 to 2 U	0.59 ± 0.11	15
Total Dissolved Solids (mg/L)		288	326	283	67 to 330	160 ± 7.4	82
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 12	$3.9 \pm 0.19$	48
Sulfate (mg/L)		16	14	14	2.2 to 53	$5.9 \pm 0.65$	82
Bicarbonate Alkalinity (CaCO3) (mg/L)		180	180	<b>1</b> 90	92 to 180	130 ± 3.5	48
Organic Carbon (mg/L)		2 U	2 U	↑47 M10	0.5 U to 8	1.7 ± 0.12	82
Chloride (mg/L)		38	38	38	1 U to 55.7	14 ± 1.7	82
Bromide (mg/L)		0.15	0.22	0.15	0.03 to 4.13	0.31 ± 0.17	23
Turbidity (field) (NTU)		1	1.4	1.9	0 to 83	2.3 ± 1.2	70
Methane (ug/L)		20 U	20 U	20 U	9.2 to 40.6	21 ± 1.8	14

<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

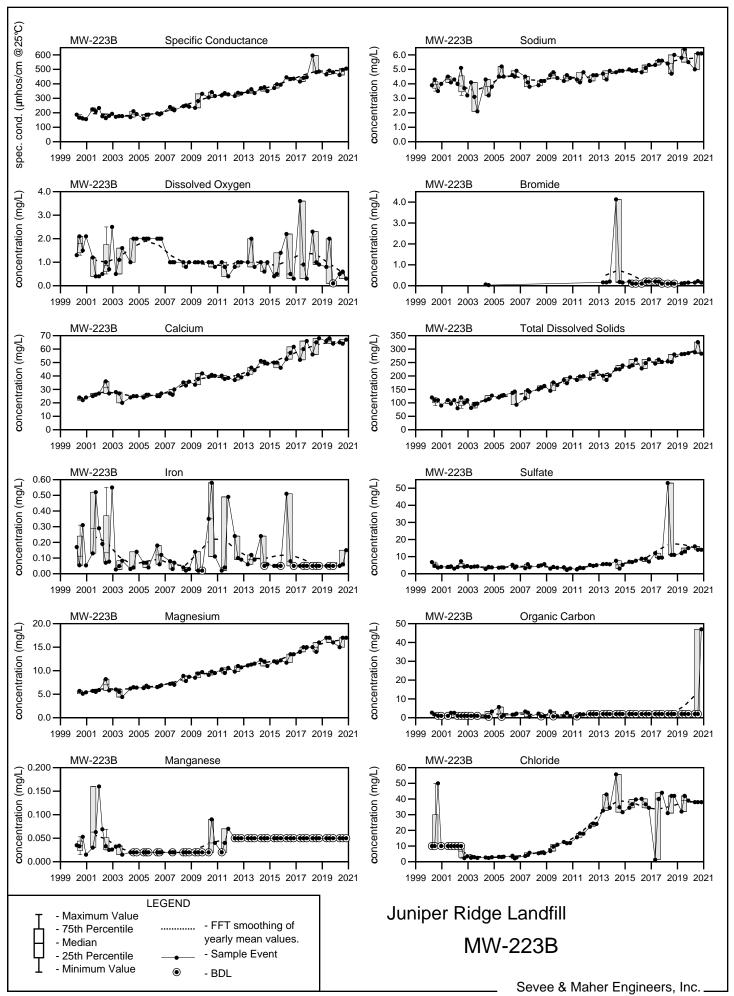
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





MW-227

Juniper Ridge Landfill annual stats 2020 G2

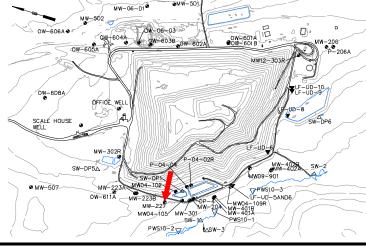
### **Well Description**

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**

		2	020		Historical (1/1/	1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		173	182	184	90 to 310	180 ± 2.9	91
pH (STU)		7.8	8	7.9	6.2 to 8.9	$8 \pm 0.046$	91
Temperature (Deg C)		5.8	12.9	10.9	1 to 16.8	$9.8 \pm 0.36$	91
Water Level Elevation (Feet)		159.92	159.18	159.78	149.5 to 161.09	160 ± 0.22	88
Eh (mV)		352	219	314	-455 to 411	260 ± 17	59
Dissolved Oxygen (mg/L)		2.7	2.7	5.3	0.1 U to 8.7	$2.3 \pm 0.19$	74
Arsenic (mg/L)		<u>0.016</u>	0.013	<u>0.012</u>	0.007 to 0.024	$0.014 \pm 0.000$	48
Calcium (mg/L)		23	21	22	16 to 26	$22 \pm 0.2$	79
Iron (mg/L)		0.05	0.05 U	0.05 U	0.008 to 0.65	$0.073 \pm 0.01$	85
Magnesium (mg/L)		5.4	5.8	5.7	3.6 to 6	$5.2 \pm 0.049$	79
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.004 to 0.17	$0.033 \pm 0.003$	85
Potassium (mg/L)		1	1.5	1	0.6 to 1.6	1 ± 0.022	48
Sodium (mg/L)		4.8	5.9	5.6	3.1 to 11	$6.4 \pm 0.14$	85
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U to 1	$0.37 \pm 0.019$	58
Nitrite/Nitrate - (N) (mg/L)		0.11	0.05 U	0.056	0.05 U to 2 U	0.25 ± 0.13	15
Total Dissolved Solids (mg/L)		115	117	104	59 to 222	110 ± 2.6	85
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 10	4 ± 0.14	48
Sulfate (mg/L)		15	13	11	1.3 to 17.3	11 ± 0.29	85
Bicarbonate Alkalinity (CaCO3) (mg/L)		81	80	84	75 to 89	$80 \pm 0.39$	48
Organic Carbon (mg/L)		2 U	2 U	14 M10	0.5 U to 42	$2.3 \pm 0.51$	85
Chloride (mg/L)		1.4	1.5	1.1	1 U to 22.9	$2.9 \pm 0.38$	85
Bromide (mg/L)		0.1 U	0.1	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	21
Turbidity (field) (NTU)		1.5	2.2	2	0 to 962	15 ± 13	72

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

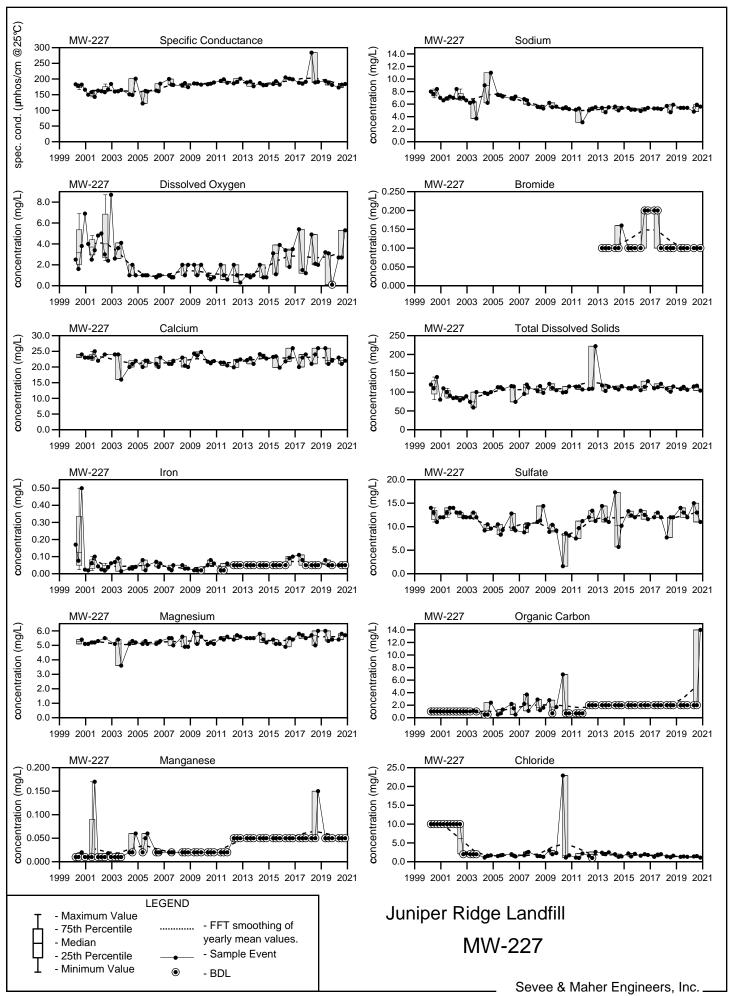
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely Q4= 10 - 2020 elevated-the laboratory has fixed the issue.

Data Group: 533





MW-301 MW-301

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

MW-301 monitors the water quality within the bedrock downgradient of the landfill.

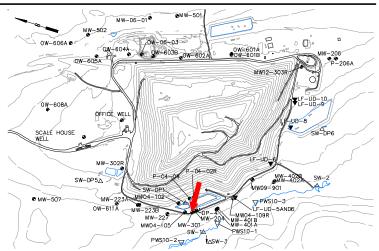
Screen Interval: 162.7 ft. to 182.7 ft. Sampled: 3 Times Annually

Sampled Since: 11/25/96

Material Screened: Bedrock

Well Condition: Good

Sampling Method: Low Flow



### **Chemical Summary**

		2	020		Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		228	248	248	82 to 340	190 ± 5.2	71
pH (STU)		7.8	7.9	7.3	6.2 to 8.4	7.8 ± 0.057	71
Temperature (Deg C)		7.1	14.2	9.8	3.2 to 19.1	11 ± 0.43	71
Water Level Elevation (Feet)		165.6	165.89	164.11	161.16 to 166.36	160 ± 0.24	65
Eh (mV)		301	143	334	25 to 471	270 ± 14	58
Dissolved Oxygen (mg/L)		0.2	0.2	0.2	0.1 to 5.5	2.1 ± 0.21	69
Arsenic (mg/L)		0.006	0.005 U	0.005 U	0.001 to 0.018	$0.0058 \pm 0.000$	47
Calcium (mg/L)		26	24	22	14.9 to 31.4	19 ± 0.36	67
Iron (mg/L)		0.06	0.18	0.06	0.011 to 1.59	0.16 ± 0.027	71
Magnesium (mg/L)		6.6	6.2	5.8	2.5 to 6.6	$4.6 \pm 0.089$	67
Manganese (mg/L)		0.05 U	0.16	0.06	0.001 to 0.18	$0.033 \pm 0.003$	71
Potassium (mg/L)		0.8	8.0	<b>↓</b> 0.4	0.5 to 1.2	0.76 ± 0.018	47
Sodium (mg/L)		14	13	12	6.8 to 14.2	11 ± 0.24	71
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U to 0.6	0.39 ± 0.017	47
Nitrite/Nitrate - (N) (mg/L)		0.083	0.05 U	0.05 U	0.05 U to 2 U	0.25 ± 0.13	15
Total Dissolved Solids (mg/L)		148	153	147	66 to 161	120 ± 2.6	71
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 21	6.1 ± 0.71	47
Sulfate (mg/L)		19	18	17	4.9 to 19	12 ± 0.41	71
Bicarbonate Alkalinity (CaCO3) (mg/L)		77	76	76	70 to 91	76 ± 0.52	47
Organic Carbon (mg/L)		2 U	2 U	↑6.8 M10	0.5 U to 5.7	1.5 ± 0.096	71
Chloride (mg/L)		20	25	20	1 U to 26	$5.4 \pm 0.7$	71
Bromide (mg/L)		0.1 U	0.11	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	20
Turbidity (field) (NTU)		2.4	3.3	2.7	0 to 18	$2.1 \pm 0.4$	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**

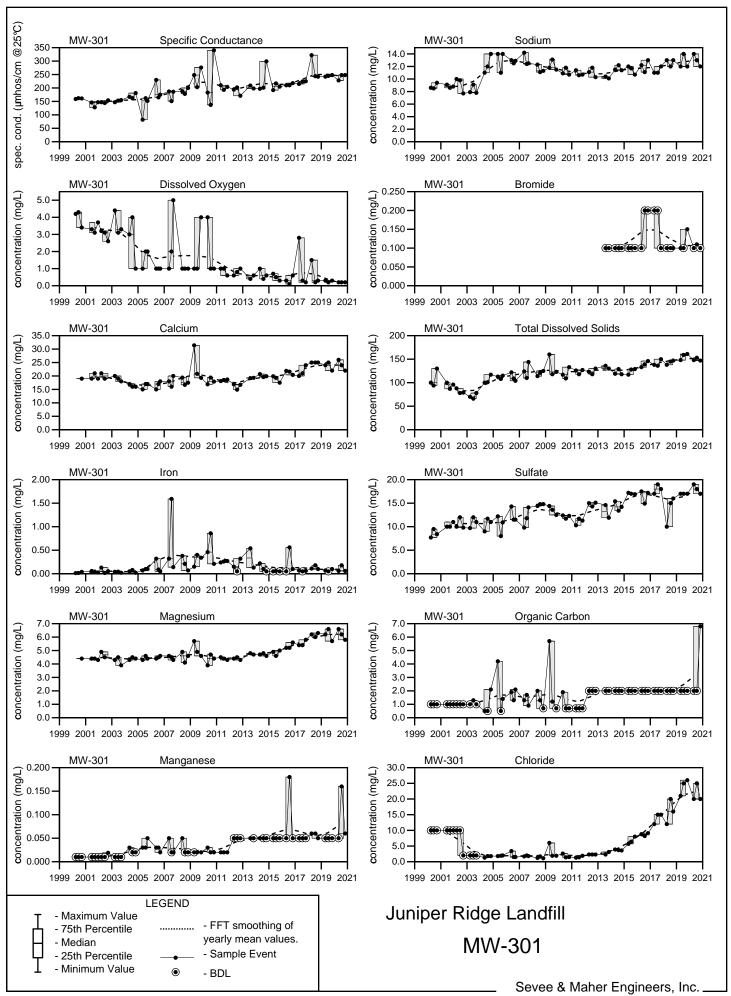
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





MW-302R MW-302R

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

MW-302R monitors the water quality in the shallow bedrock beside the landfill, but not directly downgradient of the landfill.

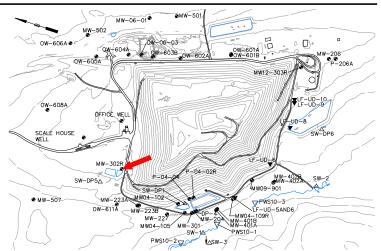
Screen Interval: 19.5 ft. to 29.5 ft.
Sampled: 3 Times Annually

Sampled Since: 05/20/2008

Material Screened: Bedrock

Well Condition: Good

Sampling Method: Low Flow



### **Chemical Summary**

_		2	020		Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		269	399	562	167 to 851	380 ± 27	36
pH (STU)		<b>↓</b> 5.7	<b>↑</b> 7.1	6.6	6 to 6.9	$6.6 \pm 0.037$	36
Temperature (Deg C)		6	12.8	9.7	6 to 13.6	10 ± 0.38	36
Water Level Elevation (Feet)		199.89	190.91	193.06	187.26 to 202.74	200 ± 0.77	36
Eh (mV)		367	289	361	223 to 546	350 ± 12	36
Dissolved Oxygen (mg/L)		7.8	5.3	2.2	1 to 9	$3.7 \pm 0.36$	36
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U to 0.015	$0.0065 \pm 0.000$	36
Calcium (mg/L)		31	32	54	17.6 to 140	42 ± 3.9	36
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.19	$0.048 \pm 0.005$	36
Magnesium (mg/L)		2.5	3	4.6	1.4 to 8.6	$3.3 \pm 0.27$	36
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.1	$0.043 \pm 0.003$	36
Potassium (mg/L)		0.7	0.9	1	0.5 to 2.4	1 ± 0.065	36
Sodium (mg/L)		18	<u>22</u>	<u>27</u>	6 to 35	18 ± 1.2	36
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.29	0.25 U to 1.2	$0.43 \pm 0.031$	36
Nitrite/Nitrate - (N) (mg/L)		0.22	0.1	0.49	0.05 U to 2 U	0.44 ± 0.12	15
Total Dissolved Solids (mg/L)		196	205	254	78 to 506	230 ± 14	36
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 5 U	3.7 ± 0.11	36
Sulfate (mg/L)		27	25	29	5.6 to 38	17 ± 1.4	36
Bicarbonate Alkalinity (CaCO3) (mg/L)		<b>↓</b> 43	62	120	44 to 330	80 ± 9.5	36
Organic Carbon (mg/L)		2 U	2 U	↑24 M10	0.7 U to 3.1	1.8 ± 0.088	36
Chloride (mg/L)		44	47	44	12.8 to 91.3	47 ± 3.5	36
Bromide (mg/L)		0.1 U	0.2 U	0.1 U	0.1 U to 0.2 U	0.14 ± 0.01	21
Turbidity (field) (NTU)		0.8	1.9	1.7	0 to 5.5	1.5 ± 0.19	36

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

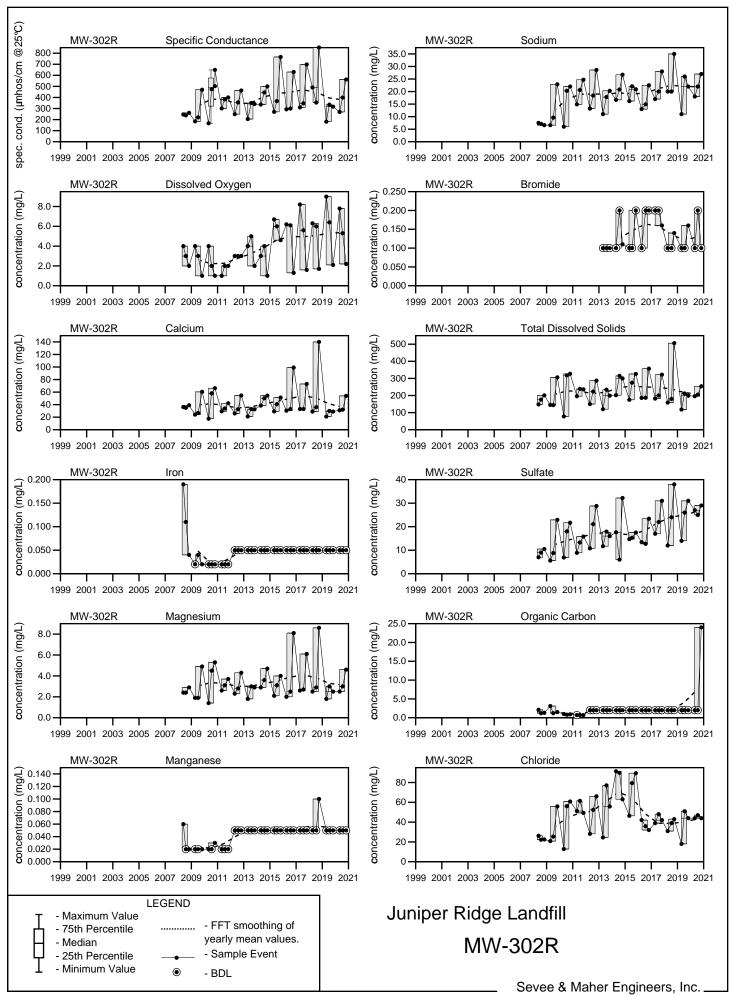
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





MW12-303R MW12-303R

Juniper Ridge Landfill annual stats 2020 G3

### **Well Description**

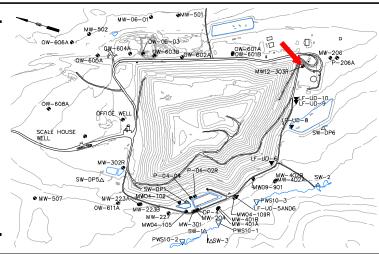
MW12-303R was installed in September 2012 to replace MW-303. MW12-303R monitors the background water quality at the site upgradient of the landfill.

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



		20	20		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		409	280	577	189 to 1711	480 ± 65	23	
pH (STU)		6.1	6.9	6.2	5.9 to 7	6.4 ± 0.058	23	
Temperature (Deg C)		8.7	14.3	8.9	6.7 to 14.4	11 ± 0.4	23	
Water Level Elevation (Feet)		180.29	177.79	<b>↓</b> 175.49	176.39 to 184.54	180 ± 0.47	23	
Eh (mV)		361	227	390	158 to 447	350 ± 14	23	
Dissolved Oxygen (mg/L)		1.9	1.1	1.3	0.2 to 7.7	$2.5 \pm 0.48$	23	
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U to 0.036	$0.0095 \pm 0.001$	23	
Calcium (mg/L)		52	30	57	16.6 to 160	46 ± 6	23	
Iron (mg/L)		0.13	0.05 U	0.05 U	0.05 U to 2.29	$0.2 \pm 0.099$	23	
Magnesium (mg/L)		7.4	6.1	9.5	2.5 to 22	9.2 ± 0.81	23	
Manganese (mg/L)		0.2	0.06	0.07	0.05 U to 3.13	$0.33 \pm 0.14$	23	
Potassium (mg/L)		3.2	2.5	3.1	1.4 to 5.7	2.7 ± 0.28	23	
Sodium (mg/L)		18	11	<u>24</u>	8.8 to 110	32 ± 5.3	23	
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	8.0	0.25 U to 2	$0.62 \pm 0.074$	23	
Nitrite/Nitrate - (N) (mg/L)		0.58	0.17	<b>↑</b> 12	0.05 U to 5.9	1.2 ± 0.37	16	
Total Dissolved Solids (mg/L)		297	176	372	143 to 1016	290 ± 38	23	
Total Suspended Solids (mg/L)		4.7	2.5 U	2.5 U	2.5 U to 130	13 ± 5.7	23	
Sulfate (mg/L)		22	5.1	29	2 U to 430	32 ± 18	23	
Bicarbonate Alkalinity (CaCO3) (mg/L)		77	90	72	42 to 162	120 ± 5	23	
Organic Carbon (mg/L)		4.4	2 U	↑34 M10	2 U to 16	4.5 ± 0.79	23	
Chloride (mg/L)		42	29	77	4.9 to 220	45 ± 9.1	23	
Bromide (mg/L)		0.1 U	0.2 U	0.1 U	0.1 U to 2.4	$0.34 \pm 0.11$	21	
Turbidity (field) (NTU)		3.6	2.4	2.5	0.5 to 37.5	5 ± 1.7	23	

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**

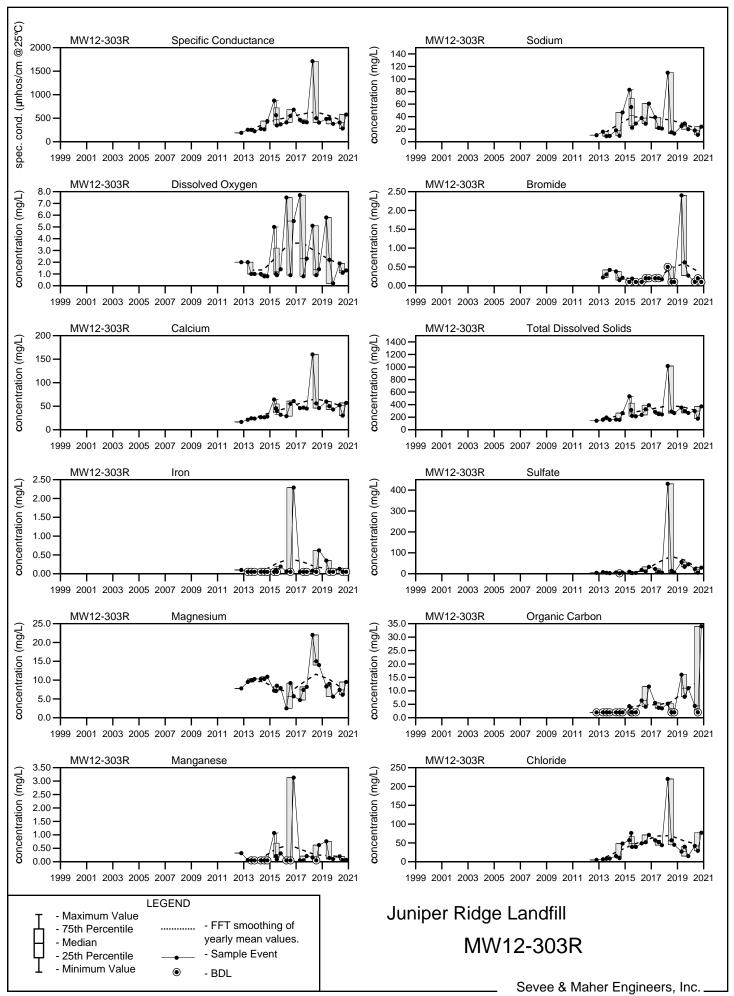
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 534





MW-401A MW-401A

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

MW-401A monitors bedrock water quality downgradient of the landfill and former leachate pond.

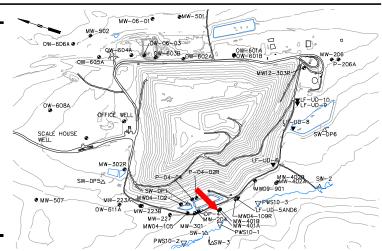
Screen Interval: 98.8 ft. to 108.8 ft.
Sampled: 3 Times Annually

Sampled Since: 07/29/04

Material Screened: Bedrock

Well Condition: Good

Sampling Method: Low Flow



### **Chemical Summary**

		2	020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		147	121	122	73 to 303	130 ± 4.5	47	
pH (STU)		8.5	7.5	7.6	6.6 to 8.6	7.9 ± 0.067	47	
Temperature (Deg C)		6.8	11.1	8.9	6.6 to 17.8	$9.7 \pm 0.3$	47	
Water Level Elevation (Feet)		153.91	149.85	150.56	148.11 to 155.96	150 ± 0.34	47	
Eh (mV)		278	252	435	152 to 516	330 ± 13	47	
Dissolved Oxygen (mg/L)		5.7	5.3	5.7	1.2 to 11.1	$5.3 \pm 0.22$	47	
Arsenic (mg/L)		0.007	0.005 U	0.007	0.001 U to 0.018	$0.0059 \pm 0.000$	47	
Calcium (mg/L)		<b>1</b> 18	16	17	11 to 17	15 ± 0.2	47	
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.07	$0.04 \pm 0.002$	47	
Magnesium (mg/L)		4.8	4.6	4.7	3.7 to 4.8	$4.2 \pm 0.042$	47	
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.05 U	$0.036 \pm 0.002$	47	
Potassium (mg/L)		0.7	0.8	0.6	0.3 to 1.4	0.72 ± 0.026	47	
Sodium (mg/L)		4	4.1	3.7	3.2 to 5.2	4 ± 0.066	47	
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U to 1.1	$0.42 \pm 0.025$	47	
Nitrite/Nitrate - (N) (mg/L)		0.16	0.05 U	0.084	0.05 U to 1 U	0.21 ± 0.067	15	
Total Dissolved Solids (mg/L)		106	97	92	68 to 116	89 ± 1.3	47	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 7	3.8 ± 0.11	47	
Sulfate (mg/L)		5	4.9	4	2 U to 5	$3.5 \pm 0.13$	47	
Bicarbonate Alkalinity (CaCO3) (mg/L)		63	61	62	51 to 64	58 ± 0.45	47	
Organic Carbon (mg/L)		2 U	2 U	5 M10	0.5 U to 6.3	1.9 ± 0.17	47	
Chloride (mg/L)		4.8	<b>↑</b> 5.3	4.6	1 to 4.9	2.2 ± 0.12	47	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	0.12 ± 0.009	21	
Turbidity (field) (NTU)		0.5	0.2	0.3	0 to 4.9	$0.6 \pm 0.13$	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

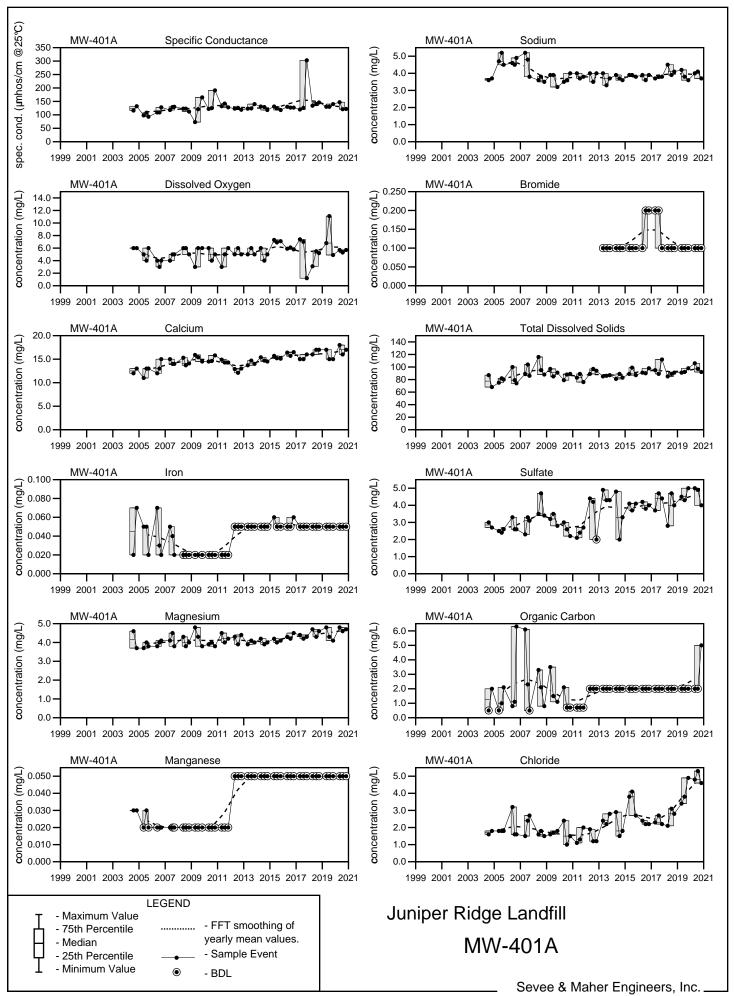
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





MW-401B MW-401B

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

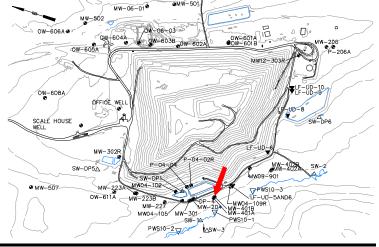
MW-401B is located downgradient of the landfill and former leachate pond and monitors groundwater quality in the overburden.

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**

		2	020		Historical (1/1/	1980 - 12/31/2020)	(20)
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		246	278	296	180 to 699	360 ± 17	47
pH (STU)		7.7	6.9	6.9	5.9 to 7.7	$6.8 \pm 0.056$	47
Temperature (Deg C)		5.9	13.1	9.6	5.9 to 16.1	$9.4 \pm 0.3$	47
Water Level Elevation (Feet)		150.64	149.88	150.22	148.47 to 151.12	150 ± 0.084	47
Eh (mV)		196	159	172	-33 to 417	180 ± 15	47
Dissolved Oxygen (mg/L)		0.2	0.4	0.6	0.1 to 5	$0.88 \pm 0.13$	47
Arsenic (mg/L)		0.023	0.028	<u>0.016</u>	0.002 to 0.058	0.016 ± 0.002	47
Calcium (mg/L)		30	39	42	25.3 to 100	41 ± 2.2	47
Iron (mg/L)		0.67	2.5	2.1	0.19 to 19	$2.7 \pm 0.48$	47
Magnesium (mg/L)		8.5	11	12	8 to 36	12 ± 0.74	47
Manganese (mg/L)		0.09	0.21	0.22	0.05 to 2.9	$0.35 \pm 0.083$	47
Potassium (mg/L)		0.9	1.5	1.2	0.9 to 3.2	1.4 ± 0.073	47
Sodium (mg/L)		9.7	11	12	9.7 to 33	16 ± 0.86	47
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.24 to 3.2	$0.49 \pm 0.064$	47
Nitrite/Nitrate - (N) (mg/L)		0.091	0.05 U	0.051	0.05 U to 1 U	0.19 ± 0.071	15
Total Dissolved Solids (mg/L)		166	196	211	142 to 488	230 ± 10	47
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 36	5.1 ± 0.75	47
Sulfate (mg/L)		13	13	11	5.3 to 69.2	18 ± 1.9	47
Bicarbonate Alkalinity (CaCO3) (mg/L)		120	160	160	108 to 245	150 ± 4.8	47
Organic Carbon (mg/L)		2 U	2 U	↑23 M10	0.7 U to 8.9	$2.5 \pm 0.2$	47
Chloride (mg/L)		9.4	8.4	7.2	6.3 to 40.5	15 ± 1.2	47
Bromide (mg/L)		0.15	0.21	0.19	0.1 U to 0.23	$0.17 \pm 0.01$	21
Turbidity (field) (NTU)		1.2	0.3	0.3	0 to 6.7	$1.2 \pm 0.2$	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

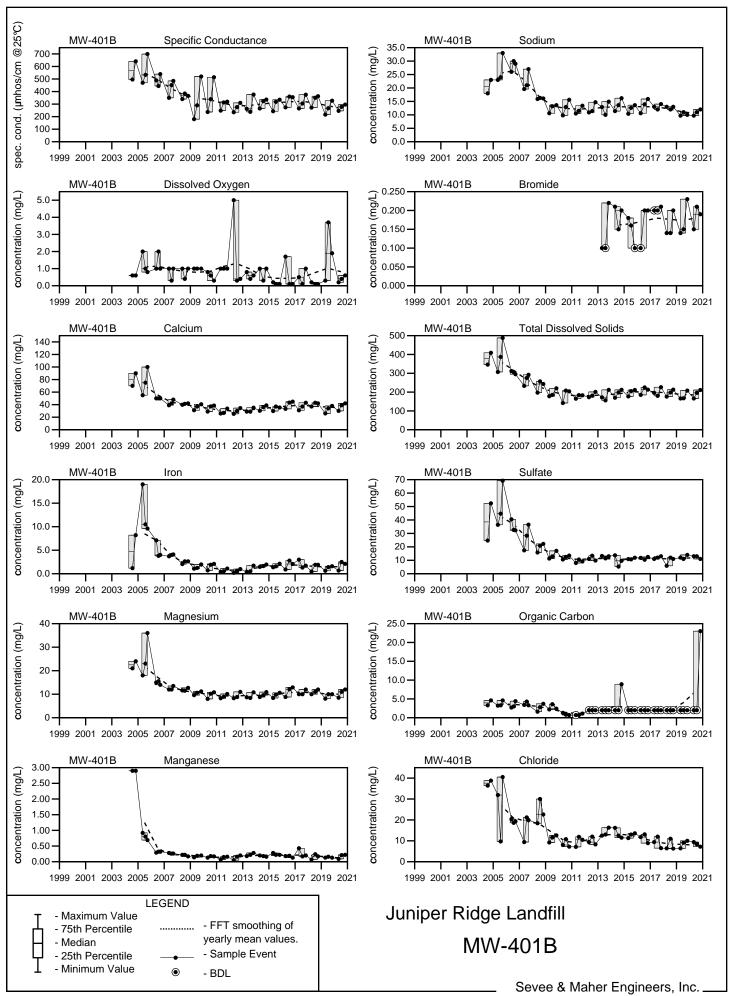
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





MW-402A MW-402A

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

 $\ensuremath{\mathsf{MW}}\xspace\text{-}402\ensuremath{\mathsf{A}}$  monitors water quality within the bedrock downgradient of the landfill.

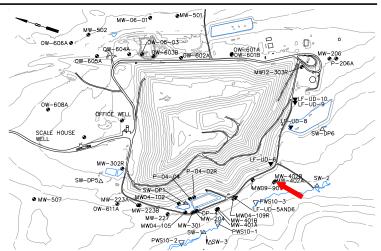
Screen Interval: 95.5 ft. to 105.5 ft.
Sampled: 3 Times Annually

Sampled Since: 07/29/04

Material Screened: Bedrock

Well Condition: Good

Sampling Method: Low Flow



### **Chemical Summary**

	2020				Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		134	111	112	58 to 197	130 ± 2.8	47	
pH (STU)		8.3	8.5	8.5	7.3 to 9.5	$8.3 \pm 0.073$	47	
Temperature (Deg C)		7.5	10.6	6.7	5.2 to 14.7	$10 \pm 0.38$	47	
Water Level Elevation (Feet)			152.16		151.74 to 152.2	150 ± 0.031	20	
Eh (mV)		264	319	333	106 to 460	310 ± 13	47	
Dissolved Oxygen (mg/L)		3.2	3.4	3.2	2 to 6.1	4.1 ± 0.16	47	
Arsenic (mg/L)		0.02	<u>0.018</u>	<u>0.015</u>	0.012 to 0.028	$0.019 \pm 0.000$	47	
Calcium (mg/L)		12	12	12	7.7 to 14	11 ± 0.18	47	
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.26	$0.042 \pm 0.005$	47	
Magnesium (mg/L)		3.2	3.3	3.4	2.6 to 3.4	$3 \pm 0.028$	47	
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.05 U	$0.036 \pm 0.002$	47	
Potassium (mg/L)		0.8	1	0.6	0.3 to 1.3	$0.64 \pm 0.02$	47	
Sodium (mg/L)		8.5	9.5	10	7.4 to 11	8.7 ± 0.12	47	
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.15 U to 1	$0.4 \pm 0.023$	47	
Nitrite/Nitrate - (N) (mg/L)		0.085	0.051	0.057	0.05 U to 2 U	0.25 ± 0.13	15	
Total Dissolved Solids (mg/L)		76	80	75	58 to 100	83 ± 1.3	47	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 4 U	$3.7 \pm 0.087$	47	
Sulfate (mg/L)		9.6	9.3	8.3	3 to 11	$6.5 \pm 0.3$	47	
Bicarbonate Alkalinity (CaCO3) (mg/L)		56	57	55	46 to 59	$53 \pm 0.39$	47	
Organic Carbon (mg/L)		2 U	2 U	4.8 M10	0.5 U to 8.1	1.8 ± 0.17	47	
Chloride (mg/L)		1.7	1.8	1.4	0.8 to 3.1	$1.8 \pm 0.064$	47	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	21	
Turbidity (field) (NTU)		8.0	0.5	0.3	0 to 3.7	$0.46 \pm 0.1$	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**

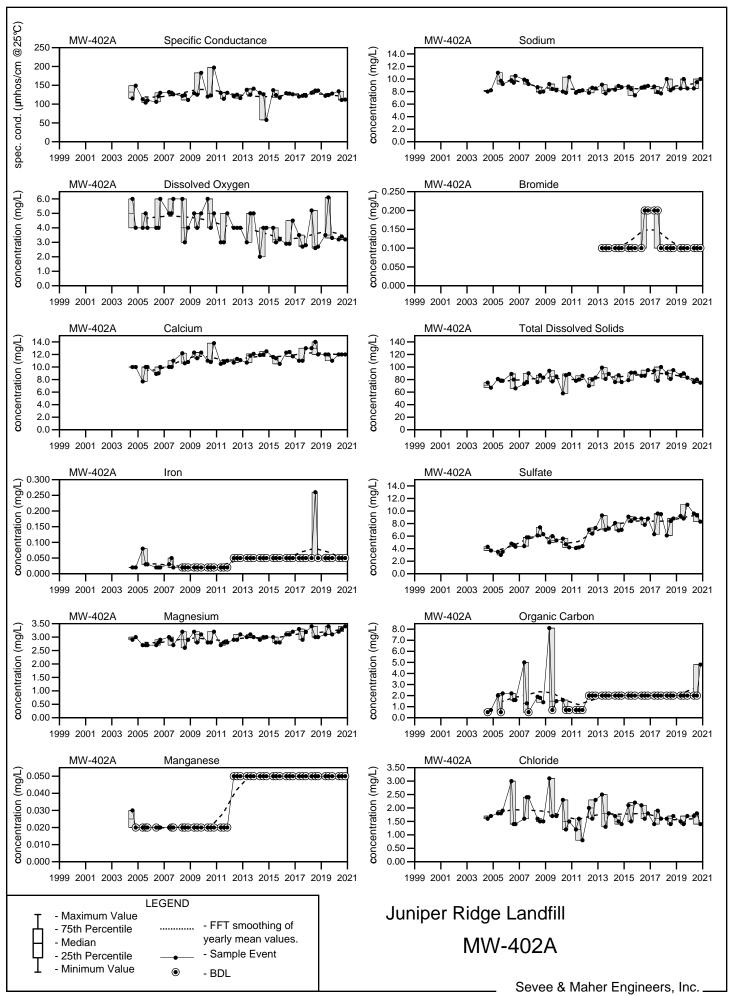
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





MW-402B MW-402B

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

MW-402B monitors water quality within the overburden downgradient of th landfill.

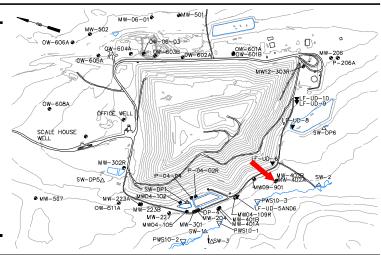
Screen Interval: 12 ft. to 22 ft.
Sampled: 3 Times Annually

Sampled Since: 07/29/04

Material Screened: Overburden

Well Condition: Good
Sampling Method: Low Flow

### **Chemical Summary**



 Indicator Parameters		2	020	Historical (1/1/	storical (1/1/1980 - 12/31/2020)		
	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		157	130	131	96 to 246	150 ± 3	47
pH (STU)		8.3	8	8.6	7 to 9.2	$8.4 \pm 0.068$	47
Temperature (Deg C)		6.4	8.9	8.7	5.2 to 13.8	$9.3 \pm 0.3$	47
Water Level Elevation (Feet)		150.03	148.06	148.82	146.92 to 150.56	$150 \pm 0.13$	47
Eh (mV)		232	360	331	11 to 467	250 ± 15	47
Dissolved Oxygen (mg/L)		0.3	0.4	0.4	0.1 to 6.8	$0.83 \pm 0.16$	47
Arsenic (mg/L)		0.017	<u>0.018</u>	<u>0.016</u>	0.01 to 0.031	$0.018 \pm 0.000$	47
Calcium (mg/L)		15	14	15	13 to 17.2	15 ± 0.15	47
Iron (mg/L)		0.05 U	0.06	0.05 U	0.02 U to 0.18	$0.041 \pm 0.004$	47
Magnesium (mg/L)		4.9	5.1	5.3	4.5 to 5.5	$4.9 \pm 0.036$	47
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.05	$0.036 \pm 0.002$	47
Potassium (mg/L)		0.7	0.7	0.6	0.4 to 2.2	$0.7 \pm 0.039$	47
Sodium (mg/L)		8.2	9.2	9.4	7.6 to 12	$8.6 \pm 0.13$	47
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.39	0.25 U	0.21 to 0.61	$0.38 \pm 0.016$	47
Nitrite/Nitrate - (N) (mg/L)		0.059	0.071	0.05 U	0.05 U to 2 U	$0.24 \pm 0.13$	15
Total Dissolved Solids (mg/L)		79	81	85	64 to 124	95 ± 1.4	47
Total Suspended Solids (mg/L)		2.5 U	3.3	2.5 U	2.5 U to 9.3	4.1 ± 0.19	47
Sulfate (mg/L)		11	10	9.3	2.3 to 44.9	9 ± 0.82	47
Bicarbonate Alkalinity (CaCO3) (mg/L)		68	67	72	34 to 79	$66 \pm 0.83$	47
Organic Carbon (mg/L)		2 U	2 U	↑6.1 M10	0.5 U to 5.2	$1.8 \pm 0.14$	47
Chloride (mg/L)		1.4	1.5	1.2	1 to 26.5	2.7 ± 0.62	47
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	21
Turbidity (field) (NTU)		0.5	0.3	0.5	0 to 3.5	0.51 ± 0.13	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**

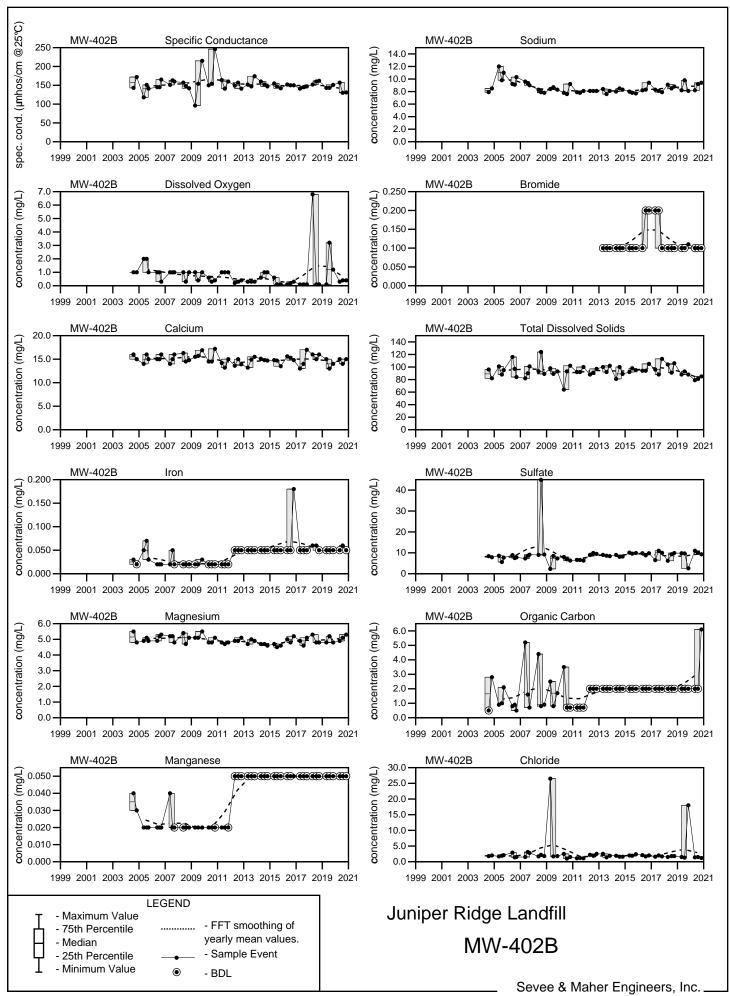
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





MW-501 MW-501

Juniper Ridge Landfill annual stats 2020 G13

### **Well Description**

MW-501 monitors bedrock groundwater downgradient of Cell 11 of the landfill expansion.

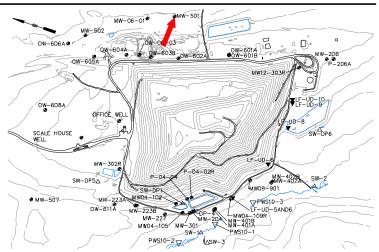
Screen Interval: 57 ft. to 67 ft.
Sampled: 3 Times Annually

Sampled Since: Apr-18

Material Screened: Bedrock

Well Condition: Good

Sampling Method: Low Flow



# **Chemical Summary**

		2020			Historical (1/1	Historical (1/1/1980 - 12/31/2020)		
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		↓157	310	295	176 to 367	250 ± 25	7	
pH (STU)		7.6	<b>↓</b> 6	7.6	6.7 to 8.8	$7.5 \pm 0.3$	7	
Temperature (Deg C)		8.2	<b>1</b> 5.5	8.6	6.5 to 13.3	9 ± 0.79	7	
Eh (mV)		386	331	367	200 to 553	$360 \pm 49$	7	
Dissolved Oxygen (mg/L)		7.7	<b>↓</b> 4	<b>↓</b> 0.9	4.1 to 13.3	7.2 ± 1.1	7	
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U to 0.009	$0.0067 \pm 0.000$	7	
Calcium (mg/L)		21	44	50	21 to 60	36 ± 5	7	
Iron (mg/L)		0.05 U	0.05	0.05 U	0.05 U to 0.17	$0.067 \pm 0.017$	7	
Magnesium (mg/L)		<b>↓</b> 4.7	<b>1</b> 9.2	<b>↑</b> 8.2	4.9 to 7.8	$5.9 \pm 0.39$	7	
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.05 U to 0.21	$0.079 \pm 0.022$	7	
Potassium (mg/L)		0.7	<b>↑</b> 1.1	0.9	0.7 to 1	$0.79 \pm 0.04$	7	
Sodium (mg/L)		<b>↓</b> 3.5	<b>^</b> 6.4	<b>↑</b> 6.1	3.9 to 5.4	$4.5 \pm 0.22$	7	
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U to 0.33	0.26 ± 0.011	7	
Nitrite/Nitrate - (N) (mg/L)		0.21	↓0.077	0.29	0.18 to 0.57	$0.3 \pm 0.054$	7	
Total Dissolved Solids (mg/L)		<b>↓</b> 105	214	208	117 to 247	160 ± 17	7	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 2.5 U	$2.5 \pm 0$	7	
Sulfate (mg/L)		3	3	2.9	2.5 to 47	10 ± 6.2	7	
Bicarbonate Alkalinity (CaCO3) (mg/L)		<b>↓</b> 72	130	150	75 to 170	130 ± 28	3	
Organic Carbon (mg/L)		2 U	2 U	↑22 M10	2 U to 6.4	$2.6 \pm 0.63$	7	
Chloride (mg/L)		<b>1</b> 2	<b>^</b> 24	<b>†</b> 23	2.4 to 11	8.7 ± 1.1	7	
Bromide (mg/L)		0.1 U	0.1	0.1 U	0.1 U to 0.12	$0.1 \pm 0.003$	7	
Turbidity (field) (NTU)		0.2	0.3	0.2	0.1 to 3.9	$1.3 \pm 0.59$	7	

<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

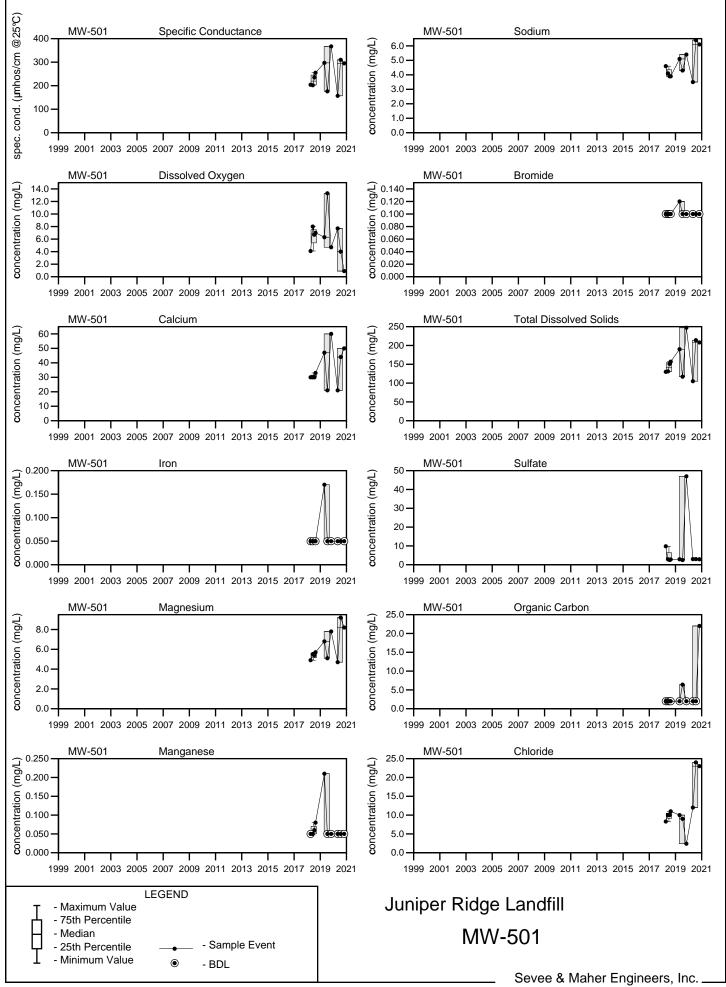
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020 Q4= 10 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 606





MW09-901 MW09-901

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

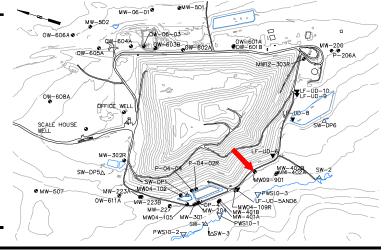
MW09-901 is located to the south of Cell #5 and detention pond #2 of the landfill. This well monitors water quality within the overburden downgradier of the landfill.

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**

		2	:020		Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		339	348	341	178 to 482	290 ± 15	31
pH (STU)		7.1	7.2	7	6.5 to 8.4	$7.4 \pm 0.097$	31
Temperature (Deg C)		9.7	13.3	10.3	4.6 to 20.4	13 ± 0.75	31
Water Level Elevation (Feet)		158.41	156.3	156.95	153.18 to 159.21	160 ± 0.28	31
Eh (mV)		370	235	359	20 to 464	330 ± 16	31
Dissolved Oxygen (mg/L)		2	0.3	0.4	0.1 U to 5.4	$2.5 \pm 0.29$	31
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U to 0.019	$0.0078 \pm 0.000$	31
Calcium (mg/L)		46	45	43	18.8 to 58	$34 \pm 2.2$	31
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.18	0.05 ± 0.005	31
Magnesium (mg/L)		12	13	12	5.4 to 14	9.2 ± 0.55	31
Manganese (mg/L)		0.05 U	0.05 U	0.12	0.02 U to 0.39	0.061 ± 0.011	31
Potassium (mg/L)		1.7	2	1.6	1.5 to 2.6	2.1 ± 0.06	31
Sodium (mg/L)		8.9	9.9	10	4.9 to 17.4	9.4 ± 0.57	31
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U to 1.5	$0.42 \pm 0.041$	31
Nitrite/Nitrate - (N) (mg/L)		0.11	0.05 U	0.05 U	0.05 U to 2 U	$0.42 \pm 0.13$	15
Total Dissolved Solids (mg/L)		216	219	194	103 to 235	170 ± 8.7	31
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 4	3.6 ± 0.12	31
Sulfate (mg/L)		14	13	12	4.6 to 47	13 ± 1.3	31
Bicarbonate Alkalinity (CaCO3) (mg/L)		170	170	160	75 to 180	130 ± 6.8	31
Organic Carbon (mg/L)		2 U	2 U	↑39 M10	0.7 U to 2 U	1.8 ± 0.079	31
Chloride (mg/L)		6	4.4	3.3	1 U to 14	$4.6 \pm 0.54$	31
Bromide (mg/L)		<b>↑</b> 0.32	<b>↑</b> 0.29	0.15	0.1 U to 0.27	0.15 ± 0.013	21
Turbidity (field) (NTU)		1.4	1.1	1.5	0 to 10.1	$1.9 \pm 0.34$	31

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**

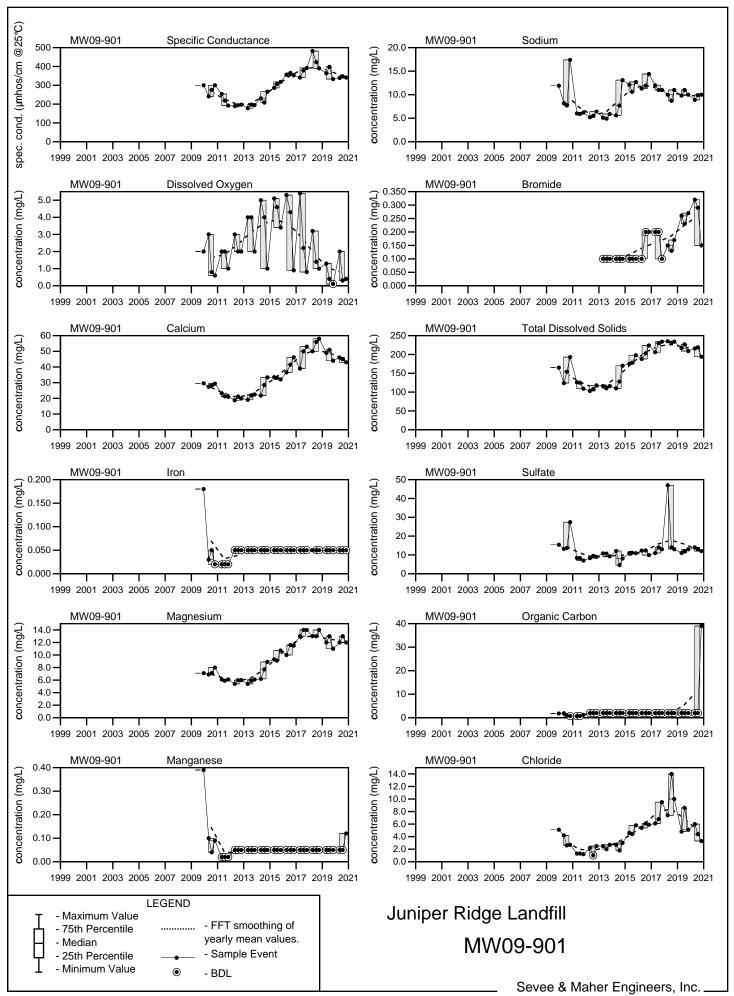
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533





OW-06-03 OW-06-03

Juniper Ridge Landfill annual stats 2020 G13

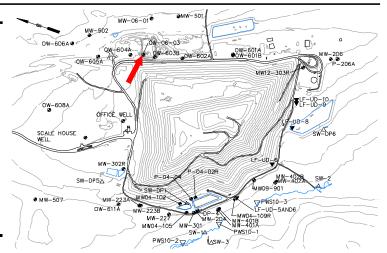
### **Well Description**

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**



		20	)20		Historical (1/1/1	980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		<b>↑</b> 641	I	<b>↑</b> 778	193 to 448	350 ± 79	3
pH (STU)		6.1	I	6.3	5.6 to 6.4	$6 \pm 0.23$	3
Temperature (Deg C)		8.7	I	7	6.2 to 10.3	$8.4 \pm 1.2$	3
Water Level Elevation (Feet)		<b>↓</b> 180.54	I	<b>↓</b> 181.02	181.72 to 185.54	180 ± 1.1	3
Eh (mV)		<b>↓</b> 140	1	200	176 to 401	310 ± 69	3
Dissolved Oxygen (mg/L)		2.3	1	1.3	0.9 to 6	$3.3 \pm 1.5$	3
Arsenic (mg/L)			I		0.005 U to 0.005 U	$0.005 \pm 0$	1
Calcium (mg/L)			I		17 to 17	17 ± 0	1
Iron (mg/L)			I		0.32 to 0.32	$0.32 \pm 0$	1
Magnesium (mg/L)			I		4.4 to 4.4	$4.4 \pm 0$	1
Manganese (mg/L)			1		0.65 to 0.65	$0.65 \pm 0$	1
Potassium (mg/L)			I		1.1 to 1.1	1.1 ± 0	1
Sodium (mg/L)			I		6.6 to 6.6	$6.6 \pm 0$	1
Total Kjeldahl Nitrogen (mg/L)			1		0.25 U to 0.25 U	$0.25 \pm 0$	1
Nitrite/Nitrate - (N) (mg/L)			I		0.1 to 0.1	$0.1 \pm 0$	1
Total Dissolved Solids (mg/L)			I		84 to 84	$84 \pm 0$	1
Total Suspended Solids (mg/L)			I		2.5 U to 2.5 U	$2.5 \pm 0$	1
Sulfate (mg/L)			I		2.1 to 2.1	$2.1 \pm 0$	1
Bicarbonate Alkalinity (CaCO3) (mg/L)			I		No historical data for Bica	arbonate Alkalinity (Ca	CO3).
Organic Carbon (mg/L)			1		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	$0.58 \pm 0$	1
Turbidity (field) (NTU)		<b>^</b> 43.8	I	<b>↑</b> 11.7	2.7 to 10.2	7 ± 2.2	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 - 2020 I = The sampling location yielded insufficient quantity to collect a sample.

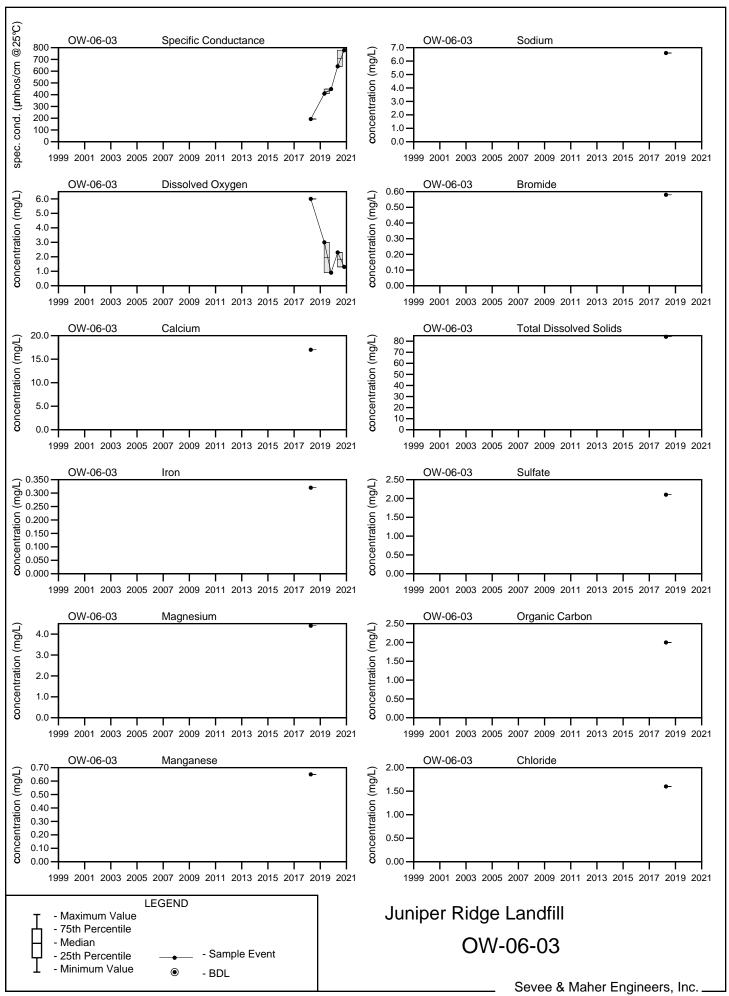
Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 606

Printed: 3/22/2021 14:16





OW-601A **OW-601A** 

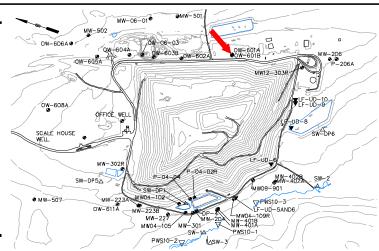
Juniper Ridge Landfill annual stats 2020 G13

### **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**

		2	2020		Historical (1/1/	1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		<b>↓</b> 311	369	<b>↑</b> 415	324 to 410	370 ± 12	7
pH (STU)		<b>↓</b> 5.9	<b>↓</b> 6.7	7.1	7 to 7.4	$7.2 \pm 0.047$	7
Temperature (Deg C)		10.4	11.6	8.4	6.4 to 14.2	11 ± 1.2	7
Water Level Elevation (Feet)		180.04	↓177.59	<b>↓</b> 175.34	178.84 to 182.34	180 ± 0.51	7
Eh (mV)		378	290	291	187 to 402	$280 \pm 26$	7
Dissolved Oxygen (mg/L)		2.6	2.6	1.8	0.9 to 7.9	$3.7 \pm 1$	7
Arsenic (mg/L)			0.005 U		0.005 U to 0.005 U	0.005 ± 3E-11	6
Calcium (mg/L)			37		36 to 43	41 ± 1.1	6
Iron (mg/L)			0.87		0.05 U to 0.97	$0.29 \pm 0.15$	6
Magnesium (mg/L)			10		8.8 to 12	10 ± 0.45	6
Manganese (mg/L)			↓0.05		0.07 to 0.29	$0.2 \pm 0.029$	6
Potassium (mg/L)			2.4		1.8 to 2.5	2.1 ± 0.12	6
Sodium (mg/L)			<u>↑25</u>		6.6 to 16	10 ± 1.5	6
Total Kjeldahl Nitrogen (mg/L)			0.25 U		0.25 U to 0.86	$0.38 \pm 0.12$	5
Nitrite/Nitrate - (N) (mg/L)			<b>1</b> 0.45		0.18 to 0.33	$0.26 \pm 0.031$	5
Total Dissolved Solids (mg/L)			225		180 to 234	210 ± 8.9	5
Total Suspended Solids (mg/L)			57		2.5 U to 7100	1500 ± 1400	5
Sulfate (mg/L)			<b>1</b> 25		2.1 to 11	$6.6 \pm 1.4$	5
Bicarbonate Alkalinity (CaCO3) (mg/L)			<b>1</b> 50		140 to 140	$140 \pm 0$	1
Organic Carbon (mg/L)			2 U		2 U to 2 U	2 ± 0	5
Chloride (mg/L)			20		16 to 27	22 ± 2.2	5
Bromide (mg/L)			0.13		0.13 to 1.1	$0.35 \pm 0.19$	5
Turbidity (field) (NTU)		6.9	8.9	10.6	1.7 to 1355	200 ± 190	7

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

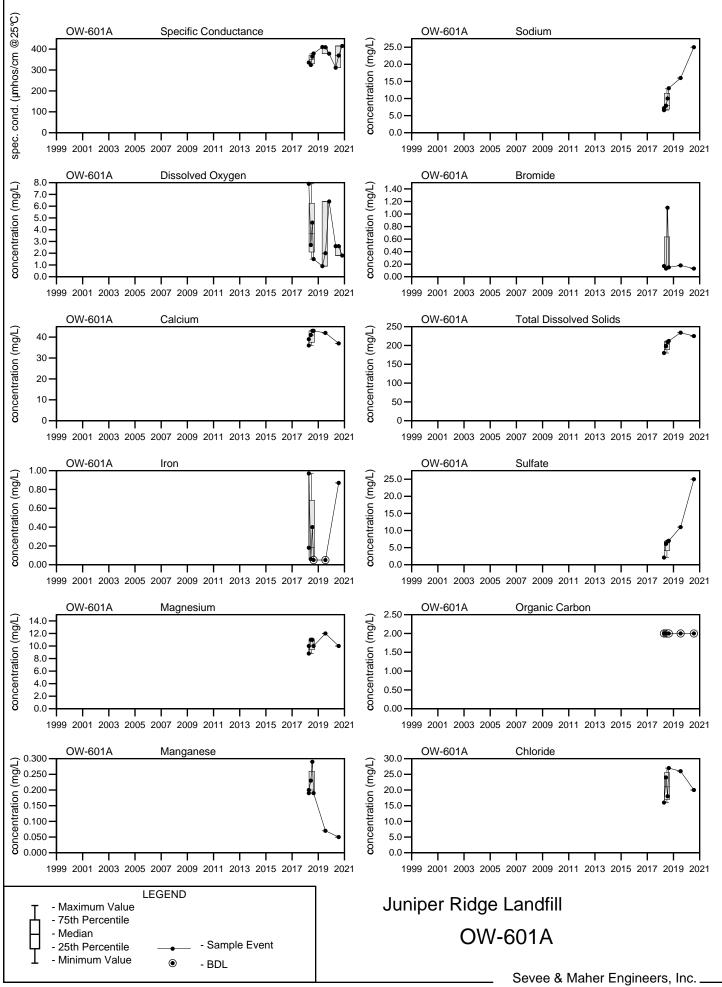
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 606





OW-601B OW-601B

Juniper Ridge Landfill annual stats 2020 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

Good

Sampled Since: Apr-18

Material Screened: Overburden

Sampling Method: Low Flow

# MW-06-01® MW-502 OW-6D6A ● 0 030 0W-608A OFFICE WELL SCALE HOUSE SW-DP5 ₱ MW-507 ▼PWS10-3 LF-UD-5AND6 -1098 PWS10-2 1\_sw-3

## **Chemical Summary**

Well Condition:

		2	2020		Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		<b>↓</b> 312	342	<b>↑</b> 403	323 to 386	360 ± 8	7
pH (STU)		<b>↓</b> 5.9	6.5	6.5	6.2 to 6.7	$6.4 \pm 0.074$	7
Temperature (Deg C)		9.9	11.5	8.3	7.7 to 14.7	11 ± 0.92	7
Water Level Elevation (Feet)		179.65	<b>↓</b> 177.23	<b>↓</b> 174.95	178.42 to 181.95	180 ± 0.52	7
Eh (mV)		381	297	341	259 to 406	$340 \pm 19$	7
Dissolved Oxygen (mg/L)		2.9	<b>↑</b> 5.5	3.2	1.4 to 4.4	$3 \pm 0.42$	7
Arsenic (mg/L)			0.005 U		0.005 U to 0.007	$0.0054 \pm 0.000$	5
Calcium (mg/L)			35		34 to 40	38 ± 1.2	5
Iron (mg/L)			0.31		0.05 U to 0.74	$0.29 \pm 0.12$	5
Magnesium (mg/L)			13		11 to 13	12 ± 0.37	5
Manganese (mg/L)			0.05 U		0.05 U to 1	$0.38 \pm 0.19$	5
Potassium (mg/L)			1.4		1.4 to 1.9	1.7 ± 0.1	5
Sodium (mg/L)			8.3		6.8 to 8.7	$7.7 \pm 0.36$	5
Total Kjeldahl Nitrogen (mg/L)			0.25 U		0.25 U to 0.25 U	$0.25 \pm 0$	5
Nitrite/Nitrate - (N) (mg/L)			↓0.23		0.25 to 0.58	$0.45 \pm 0.056$	5
Total Dissolved Solids (mg/L)			263		184 to 277	220 ± 16	5
Total Suspended Solids (mg/L)			2.5 U		2.5 U to 16	$6.8 \pm 2.4$	5
Sulfate (mg/L)			4 U		2 U to 10 U	4.1 ± 1.5	5
Bicarbonate Alkalinity (CaCO3) (mg/L)			<b>↓</b> 92		120 to 120	$120 \pm 0$	1
Organic Carbon (mg/L)			2 U		2 U to 2 U	2 ± 0	5
Chloride (mg/L)			44		22 to 61	36 ± 7	5
Bromide (mg/L)			0.24		0.16 to 0.5 U	$0.26 \pm 0.062$	5
Turbidity (field) (NTU)		<b>↑</b> 7.6	3.5	2.4	1 to 6.3	$3.7 \pm 0.74$	7

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

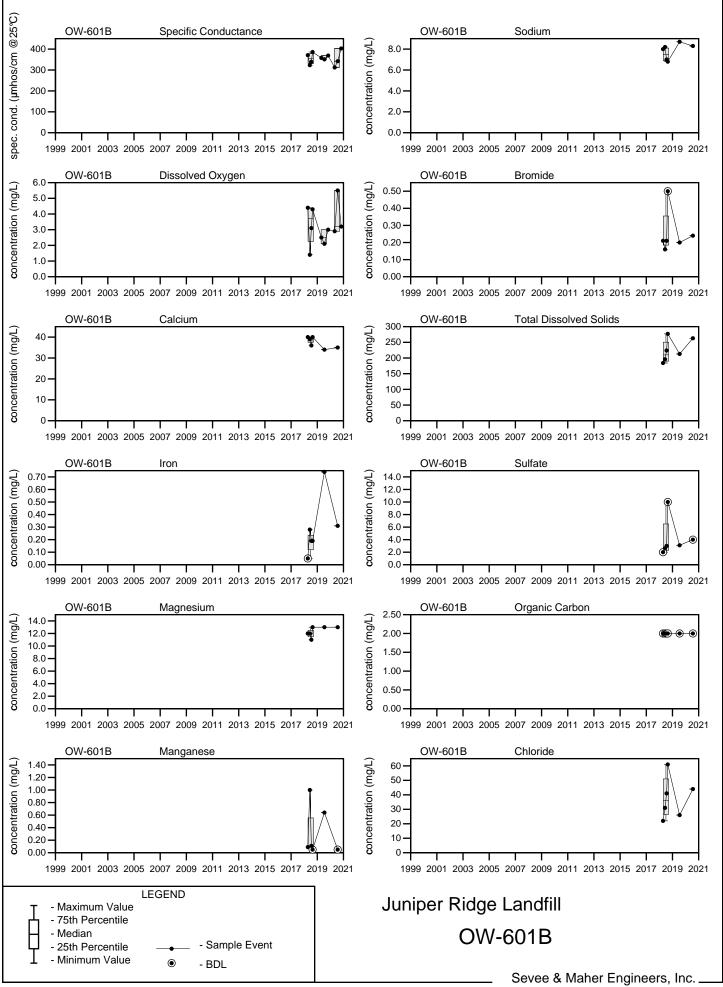
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 606





**OW-602A** OW-602A

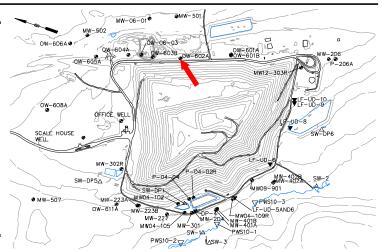
Juniper Ridge Landfill annual stats 2020 G13

### **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**

	2020					Historical (1/1/	/1980 - 12/31/2	(020)	
Indicator Parameters	Q1	Q2	Q3	Q4	N	lin Max	Mean	SE	n
Specific Conductance (µmhos/cm @25°C)		128	<b>1</b> 52	<b>↑</b> 171	9	3 to 144	130 ±	7.8	7
pH (STU)		6.8	7.1	7	6.	.7 to 8.2	7.2 ±	0.19	7
Temperature (Deg C)		9.8	9.8	<b>↓</b> 6.5	7.	.2 to 17.5	9.6 ±	1.3	7
Water Level Elevation (Feet)		177.45	<b>↓</b> 175.17	<b>↓</b> 173.27	177.3	7 to 183.25	180 ±	0.81	7
Eh (mV)		333	308	306	30	11 to 467	350 ±	22	7
Dissolved Oxygen (mg/L)		8.3	8.2	<b>↓</b> 7	7.	.5 to 12.9	10 ±	0.68	7
Arsenic (mg/L)			0.005 U		0.005	U to 0.008	0.0056 ±	0.000	5
Calcium (mg/L)			17		1	3 to 18	16 ±	1	5
Iron (mg/L)			0.05 U		0.05	U to 0.1	0.06 ±	0.01	5
Magnesium (mg/L)			4.1		2.	.8 to 4.1	3.4 ±	0.23	5
Manganese (mg/L)			0.05 U		0.05	U to 0.05 U	0.05 ±	4E-10	5
Potassium (mg/L)			0.5		0.	.4 to 0.6	0.46 ±	0.04	5
Sodium (mg/L)			<b>↑</b> 3.3		2.	.5 to 3	2.7 ±	0.095	5
Total Kjeldahl Nitrogen (mg/L)			0.25 U		0.25	U to 0.72	0.35 ±	0.092	5
Nitrite/Nitrate - (N) (mg/L)			0.064		0.05	U to 0.26	0.14 ±	0.035	5
Total Dissolved Solids (mg/L)			<b>1</b> 108		5	9 to 100	85 ±	7.7	5
Total Suspended Solids (mg/L)			2.5 U		2.5	U to 2.5 U	2.5 ±	0	5
Sulfate (mg/L)			2.9		2.	.8 to 4.6	4.1 ±	0.34	5
Bicarbonate Alkalinity (CaCO3) (mg/L)			<b>↑</b> 56		4	3 to 43	43 ±	0	1
Organic Carbon (mg/L)			2 U		2	U to 2 U	2 ±	0	5
Chloride (mg/L)			11		2.	.3 to 13	9 ±	2.1	5
Bromide (mg/L)			0.1 U		0.1	U to 0.1 U	0.1 ±	8E-10	5
Turbidity (field) (NTU)		0.5	1.2	2.4	0.	.5 to 3.7	1.7 ±	0.42	7

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

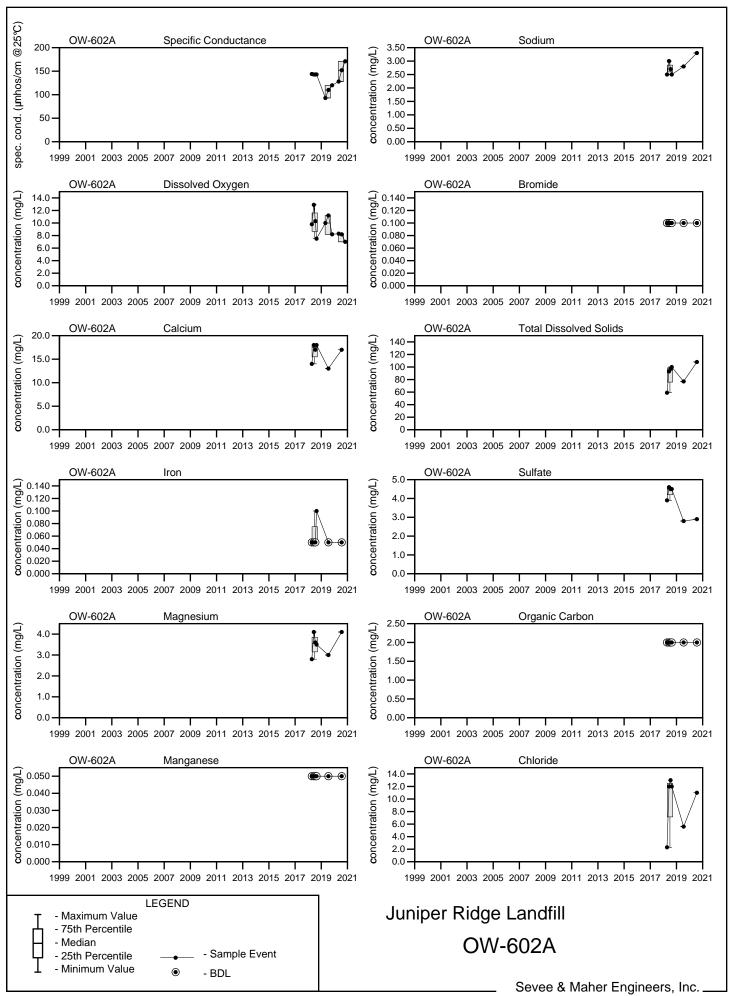
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 606





Juniper Ridge Landfill annual stats 2020 G13

### **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

Good

Sampled Since: Apr-18

Material Screened: Overburden

Sampling Method: Low Flow

# MW-06-01® MW-502 OW-6D6A € 0 030 0W-608A OFFICE WELL SCALE HOUSE SW-DP5 ₱ MW-507 ▼PWS10-3 LF-UD-5AND6 -1098 PWS10-2

### **Chemical Summary**

Well Condition:

		20	)20		Historical (1/1/	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		130	I	I	122 to 302	190 ± 24	7
pH (STU)		6.3	1	1	5.7 to 7.1	$6.3 \pm 0.17$	7
Temperature (Deg C)		7.9	1	1	6.3 to 19.7	12 ± 1.8	7
Water Level Elevation (Feet)		182.12	1	↓179.37	181.17 to 187.63	$180 \pm 0.86$	7
Eh (mV)		358	1	1	304 to 415	380 ± 18	7
Dissolved Oxygen (mg/L)		7.2	1	1	0.1 to 7.5	3.4 ± 1.1	7
Arsenic (mg/L)			1		0.005 U to 0.017	$0.0075 \pm 0.002$	6
Calcium (mg/L)			1		12 to 34	$20 \pm 3.7$	6
Iron (mg/L)			1		0.05 to 19	$3.5 \pm 3.1$	6
Magnesium (mg/L)			1		4.5 to 11	6.9 ± 1.1	6
Manganese (mg/L)			1		0.11 to 0.93	$0.42 \pm 0.14$	6
Potassium (mg/L)			1		1 to 3.7	$1.7 \pm 0.4$	6
Sodium (mg/L)			1		3.9 to 8.5	$5.5 \pm 0.68$	6
Total Kjeldahl Nitrogen (mg/L)			1		0.25 U to 11	$2.6 \pm 2.1$	5
Nitrite/Nitrate - (N) (mg/L)			1		0.054 to 0.28	$0.12 \pm 0.04$	5
Total Dissolved Solids (mg/L)			1		99 to 161	120 ± 12	5
Total Suspended Solids (mg/L)			1		2.5 U to 1500	$310 \pm 300$	5
Sulfate (mg/L)			1		2.1 to 2.9	$2.4 \pm 0.14$	5
Bicarbonate Alkalinity (CaCO3) (mg/L)			1		60 to 60	$60 \pm 0$	1
Organic Carbon (mg/L)			1		2 U to 4	$2.4 \pm 0.4$	5
Chloride (mg/L)			1		1.2 to 2.5	$1.9 \pm 0.22$	5
Bromide (mg/L)			1		0.1 U to 1.1	$0.33 \pm 0.19$	5
Turbidity (field) (NTU)		13.3	1	1	2.2 to 430	$74 \pm 60$	7

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

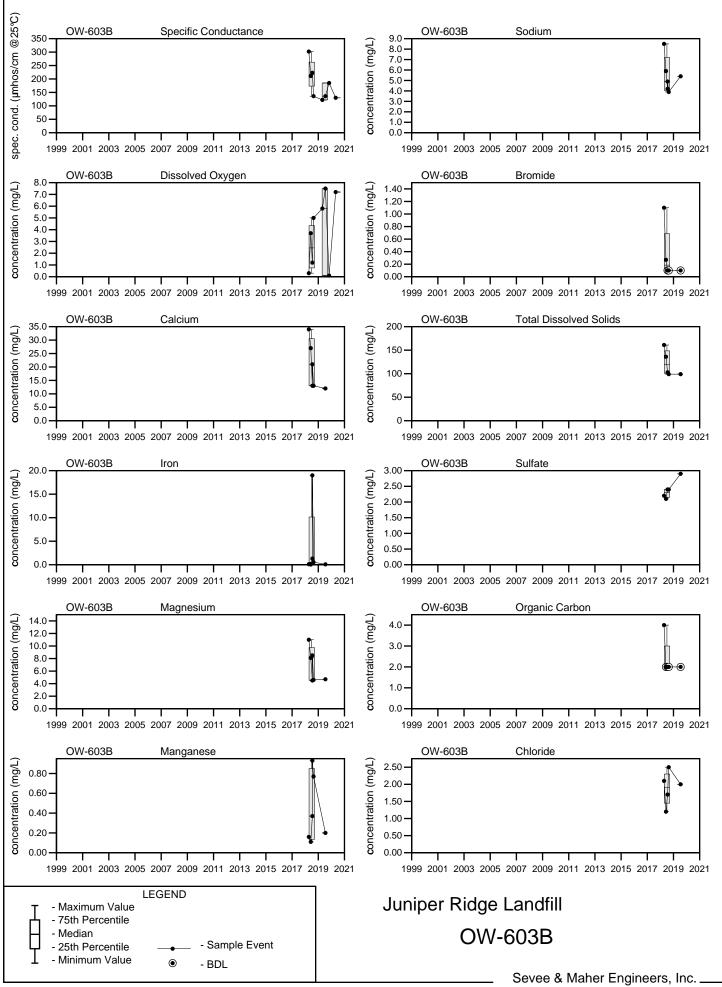
Q2= 4 - 2020 I = The sampling location yielded insufficient quantity to collect a sample.

Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 606





OW-604A OW-604A

Juniper Ridge Landfill annual stats 2020 G13

### **Well Description**

OW-604A monitors bedrock groundwater downgradient of Cell 11 of the landfill expansion.

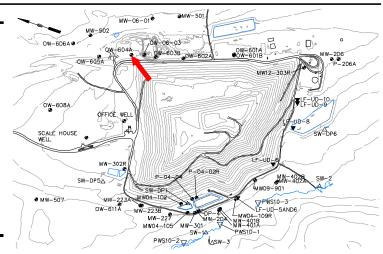
Screen Interval: 39 ft. to 49 ft.
Sampled: 3 Times Annually

Sampled Since: Apr-18

Material Screened: Bedrock

Well Condition: Good

Sampling Method: Low Flow



### **Chemical Summary**

		2	2020		Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		<b>↑</b> 155	<b>160</b>	<b>1</b> 59	78 to 125	110 ± 7.6	7
pH (STU)		6.1	6.3	7.2	6 to 7.8	$6.5 \pm 0.23$	7
Temperature (Deg C)		6.9	16.6	7.4	6.2 to 16.9	11 ± 1.6	7
Water Level Elevation (Feet)		179.03	<b>↓</b> 175.05	<b>↓</b> 172.9	175.73 to 184.5	180 ± 1	7
Eh (mV)		389	310	369	293 to 548	400 ± 30	7
Dissolved Oxygen (mg/L)		6.3	4.2	5.6	0.1 U to 7.5	4.1 ± 0.99	7
Arsenic (mg/L)			0.005 U		0.005 U to 0.007	$0.0054 \pm 0.000$	5
Calcium (mg/L)			<b>1</b> 18		8.9 to 15	11 ± 1.2	5
Iron (mg/L)			0.05 U		0.05 U to 0.05 U	$0.05 \pm 4E-10$	5
Magnesium (mg/L)			<b>↑</b> 5		2.3 to 4.2	$3 \pm 0.36$	5
Manganese (mg/L)			0.05 U		0.05 U to 0.05 U	$0.05 \pm 4E-10$	5
Potassium (mg/L)			<b>1</b> 0.7		0.5 to 0.6	$0.56 \pm 0.024$	5
Sodium (mg/L)			<b>1</b> 4.7		2.7 to 4.4	$3.4 \pm 0.29$	5
Total Kjeldahl Nitrogen (mg/L)			0.25 U		0.25 U to 0.62	$0.33 \pm 0.073$	5
Nitrite/Nitrate - (N) (mg/L)			<b>1</b> 0.78		0.16 to 0.57	$0.32 \pm 0.082$	5
Total Dissolved Solids (mg/L)			<b>1</b> 116		62 to 101	77 ± 7.4	5
Total Suspended Solids (mg/L)			2.5 U		2.5 U to 2.5 U	$2.5 \pm 0$	5
Sulfate (mg/L)			3.3		2.5 to 3.5	$2.8 \pm 0.18$	5
Bicarbonate Alkalinity (CaCO3) (mg/L)			<b>↑</b> 69		53 to 53	$53 \pm 0$	1
Organic Carbon (mg/L)			2 U		2 U to 2 U	2 ± 0	5
Chloride (mg/L)			<b>1</b> 4.7		1.1 to 1.9	1.6 ± 0.14	5
Bromide (mg/L)			0.1		0.1 U to 0.1 U	0.1 ± 8E-10	5
Turbidity (field) (NTU)		1.3	2.3	<b>1</b> 0.9	1.2 to 5.8	$3.2 \pm 0.55$	7

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

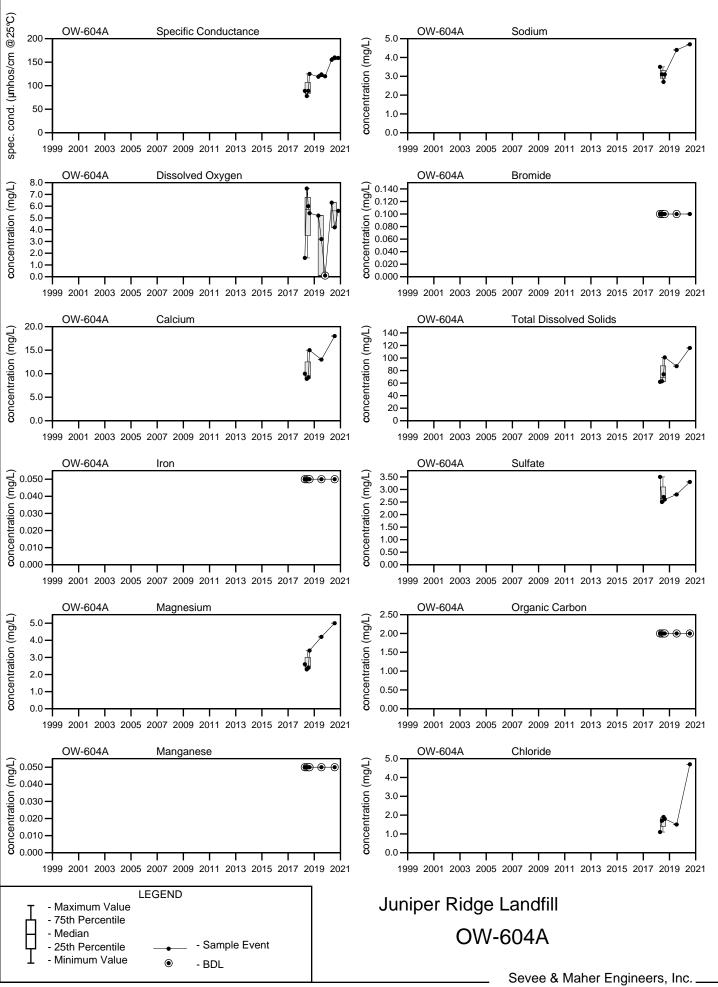
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 606





P-04-02R P-04-02R

Juniper Ridge Landfill annual stats 2020 G2

### **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

# MW-06-01<sup>♠</sup> 0 0 OW-606A ₽ SCALE HOUSE SW-DP5A PWS10-3 **⊕** MW-507 MW-22 OW-611A F-UD-5AND6 109R MW-4018 PWS10-2

€MW-501

## **Chemical Summary**

		2	2020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		419	328	284	284 to 772	510 ± 39	14	
pH (STU)		8.1	7.8	8.1	7.7 to 8.3	$8 \pm 0.048$	14	
Temperature (Deg C)		9.8	12.6	10.3	8.4 to 15.4	12 ± 0.61	14	
Water Level Elevation (Feet)		158.75	<b>↓</b> 156.82	157.54	157.22 to 159.92	160 ± 0.25	14	
Eh (mV)		314	335	356	118 to 470	320 ± 26	14	
Dissolved Oxygen (mg/L)		4.6	2.4	1.8	0.2 to 7.1	$3 \pm 0.61$	14	
Arsenic (mg/L)		0.006	0.006	0.008	0.005 U to 0.016	$0.0081 \pm 0.000$	18	
Calcium (mg/L)		22	22	23	17.5 to 37	28 ± 1.1	18	
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.05 U to 1.52	0.15 ± 0.081	18	
Magnesium (mg/L)		6	6.8	7.2	4.3 to 10.2	7.9 ± 0.31	18	
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.05 U to 0.21	0.061 ± 0.009	18	
Potassium (mg/L)		1.6	1.7	1.6	1.6 to 2.5	2 ± 0.067	18	
Sodium (mg/L)		<u>49</u>	<u>47</u>	<u>43</u>	32.7 to 112	69 ± 5	18	
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	0.25 U	0.25 U to 0.5	$0.38 \pm 0.035$	14	
Nitrite/Nitrate - (N) (mg/L)		0.092	0.05 U	0.05 U	0.05 U to 2 U	0.25 ± 0.14	14	
Total Dissolved Solids (mg/L)		236	213	195	188 to 456	320 ± 23	14	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 26	5.3 ± 1.7	14	
Sulfate (mg/L)		45	39	34	9 to 158	90 ± 13	14	
Bicarbonate Alkalinity (CaCO3) (mg/L)		<b>170</b>	150	140	82 to 150	130 ± 5	14	
Organic Carbon (mg/L)		2 U	2 U	15 M10	2 U to 32.5	4.2 ± 2.2	14	
Chloride (mg/L)		2.8	2.1	<b>↓</b> 1.7	1.9 to 42.5	10 ± 2.8	14	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.4 U	0.16 ± 0.029	14	
Turbidity (field) (NTU)		<b>↓</b> 0.7	<b>↓</b> 0.5	2.1	0.8 to 18.2	3.2 ± 1.2	14	

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

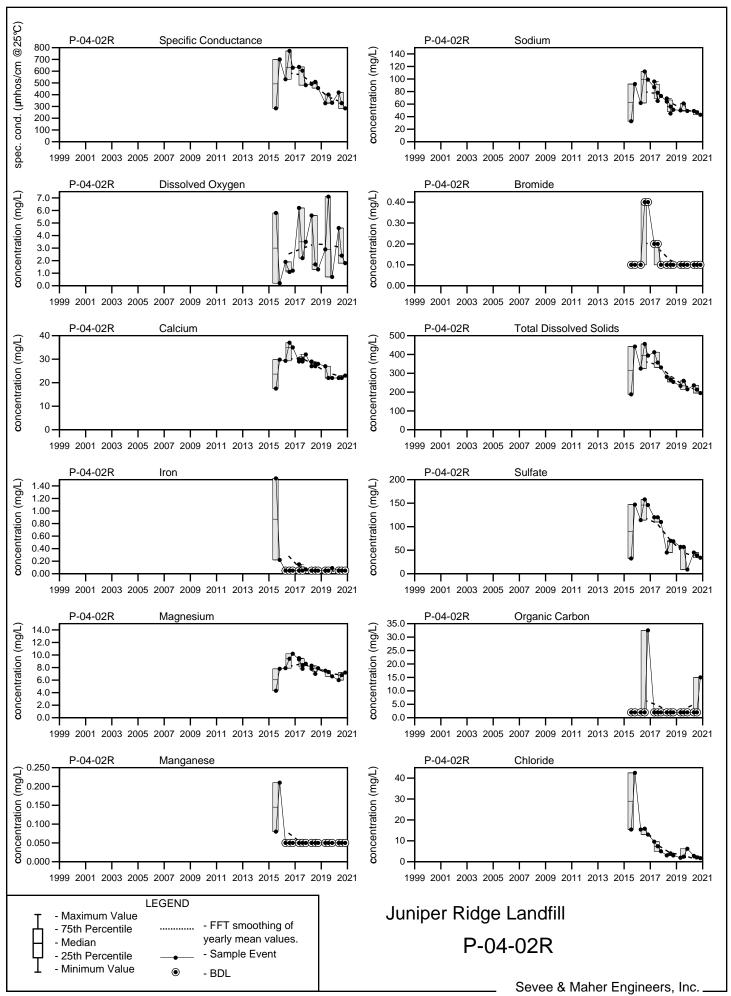
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely Q4= 10 - 2020 elevated-the laboratory has fixed the issue.

Data Group: 533





P-04-04 P-04-04

Juniper Ridge Landfill annual stats 2020 G2

### **Well Description**

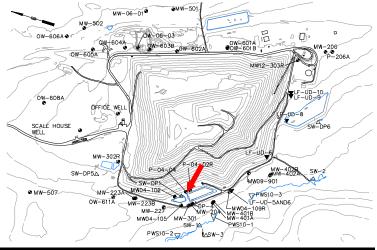
P-04-04 monitors the water quality in the overburden downgradient of the landfill, between the former leachate pond and landfill toe.

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**

		2	020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		197	170	167	148 to 405	190 ± 5.5	50	
pH (STU)		8.2	7.8	8.1	6.2 to 8.4	$7.8 \pm 0.061$	50	
Temperature (Deg C)		9.9	14	10.3	3.4 to 19.5	12 ± 0.48	50	
Water Level Elevation (Feet)		161.29	157.93	158.45	140.18 to 161.85	160 ± 0.5	50	
Eh (mV)		314	329	347	151 to 520	320 ± 12	48	
Dissolved Oxygen (mg/L)		7.2	4	2.4	1 to 7.7	$3.8 \pm 0.24$	50	
Arsenic (mg/L)		0.008	0.005	0.007	0.001 to 0.014	$0.007 \pm 0.000$	50	
Calcium (mg/L)		23	21	24	11 to 58.1	$23 \pm 0.79$	50	
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.93	$0.059 \pm 0.018$	50	
Magnesium (mg/L)		5.6	6	6	4.8 to 6.1	$5.4 \pm 0.046$	50	
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U to 0.12	$0.039 \pm 0.003$	50	
Potassium (mg/L)		1.4	1.3	1.3	0.9 to 4.6	1.5 ± 0.072	50	
Sodium (mg/L)		4.5	4.6	4.6	3.6 to 73	6.8 ± 1.4	50	
Total Kjeldahl Nitrogen (mg/L)		0.41	0.25 U	0.25 U	0.17 to 0.9	$0.42 \pm 0.021$	48	
Nitrite/Nitrate - (N) (mg/L)		0.14	0.05 U	0.092	0.05 U to 2 U	$0.28 \pm 0.13$	15	
Total Dissolved Solids (mg/L)		105	115	109	92 to 287	120 ± 3.7	50	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 21	4.1 ± 0.36	50	
Sulfate (mg/L)		9.4	8.8	7.8	4.1 to 28.8	9.2 ± 0.62	50	
Bicarbonate Alkalinity (CaCO3) (mg/L)		81	77	77	72 to 153	82 ± 1.7	50	
Organic Carbon (mg/L)		2 U	2 U	3.7 M10	0.5 U to 3.8	1.6 ± 0.094	50	
Chloride (mg/L)		7.2	<b>↑</b> 7.4	<b>↑</b> 7.5	0.9 to 7.2	2.3 ± 0.18	50	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	0.12 ± 0.009	21	
Turbidity (field) (NTU)		8.0	0.6	1.8	0 to 162	$4.4 \pm 3.2$	50	

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 - 2020 U = Not Detected above the laboratory reporting limit.

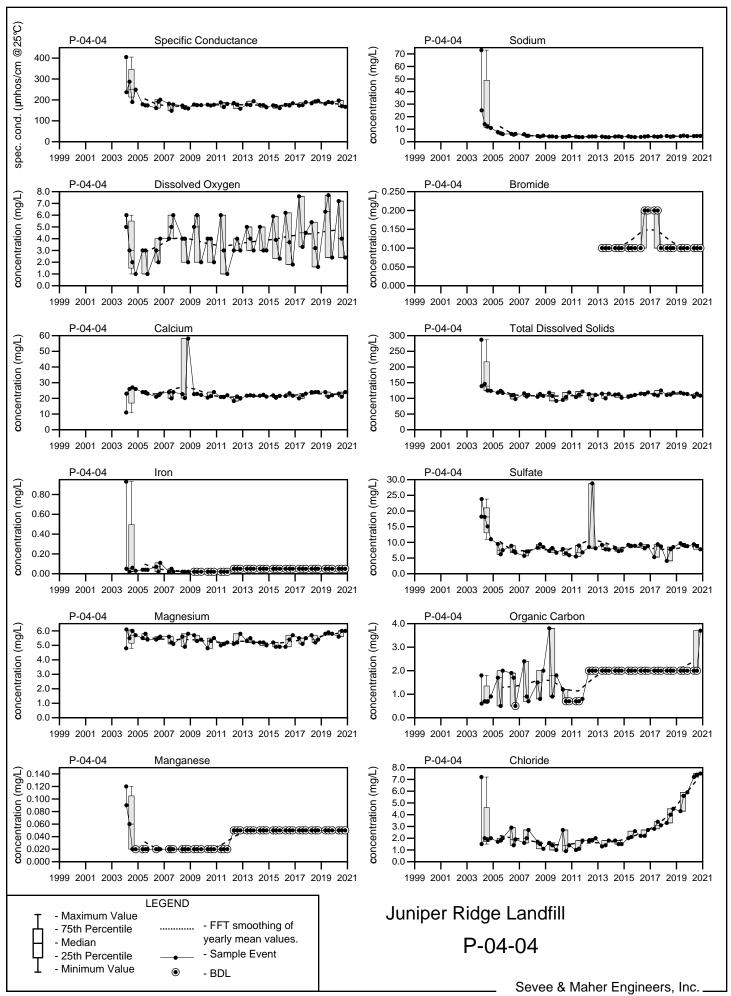
Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 533

Printed: 3/22/2021 07:46





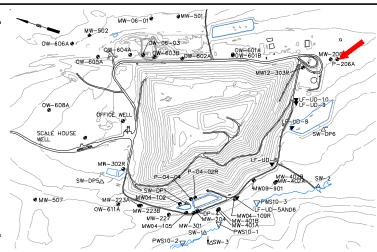
Juniper Ridge Landfill annual stats 2020 G8

### **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**

		2	2020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		244	242	А	120 to 317	180 ± 11	21	
pH (STU)		<b>↓</b> 6.9	7.7	Α	7.3 to 11.8	$7.9 \pm 0.2$	21	
Temperature (Deg C)		<b>↓</b> 4.6	<b>1</b> 9.5	Α	5.3 to 17	11 ± 0.74	21	
Water Level Elevation (Feet)		180.41	177.76	<b>↓</b> 169.81	176.11 to 184.61	180 ± 0.57	21	
Eh (mV)		101	133	Α	63 to 352	200 ± 20	21	
Dissolved Oxygen (mg/L)		3.6	4.2	Α	0.6 to 6.8	$3.1 \pm 0.31$	21	
Arsenic (mg/L)		0.006	0.005 U	Α	0.005 to 0.022	$0.0092 \pm 0.000$	19	
Calcium (mg/L)		24	23	Α	11.1 to 24	17 ± 1	19	
Iron (mg/L)		0.62	0.24	Α	0.21 to 16.8	$2.7 \pm 0.99$	19	
Magnesium (mg/L)		<b>↑</b> 6.5	<b>^</b> 6.5	Α	3.1 to 6.2	$4.7 \pm 0.26$	19	
Manganese (mg/L)		0.08	0.08	Α	0.07 to 0.31	0.12 ± 0.015	19	
Potassium (mg/L)		1.2	1.3	Α	0.9 to 1.6	1.1 ± 0.041	19	
Sodium (mg/L)		9.1	9.3	Α	7.2 to 11	8.6 ± 0.25	19	
Total Kjeldahl Nitrogen (mg/L)		0.25 U	0.25 U	Α	0.25 U to 0.6	$0.38 \pm 0.038$	12	
Nitrite/Nitrate - (N) (mg/L)		0.088	0.05 U	Α	0.05 U to 0.7	0.16 ± 0.056	15	
Total Dissolved Solids (mg/L)		135	134	Α	95 to 136	120 ± 3.7	12	
Total Suspended Solids (mg/L)		15	2.5 U	Α	2.5 U to 57	14 ± 4.7	12	
Sulfate (mg/L)		2.1	3.4	Α	2 U to 4.8	$2.3 \pm 0.16$	19	
Bicarbonate Alkalinity (CaCO3) (mg/L)		78	<b>↑</b> 83	Α	61 to 79	70 ± 1.8	12	
Organic Carbon (mg/L)		2 U	2 U	Α	2 U to 2 U	2 ± 0	12	
Chloride (mg/L)		20	22	Α	3.3 to 24	14 ± 1.7	19	
Bromide (mg/L)		0.1 U	0.1 U	Α	0.1 U to 0.2 U	$0.13 \pm 0.014$	12	
Turbidity (field) (NTU)		1.3	1.9	Α	0.8 to 9.3	$3.9 \pm 0.62$	21	

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 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

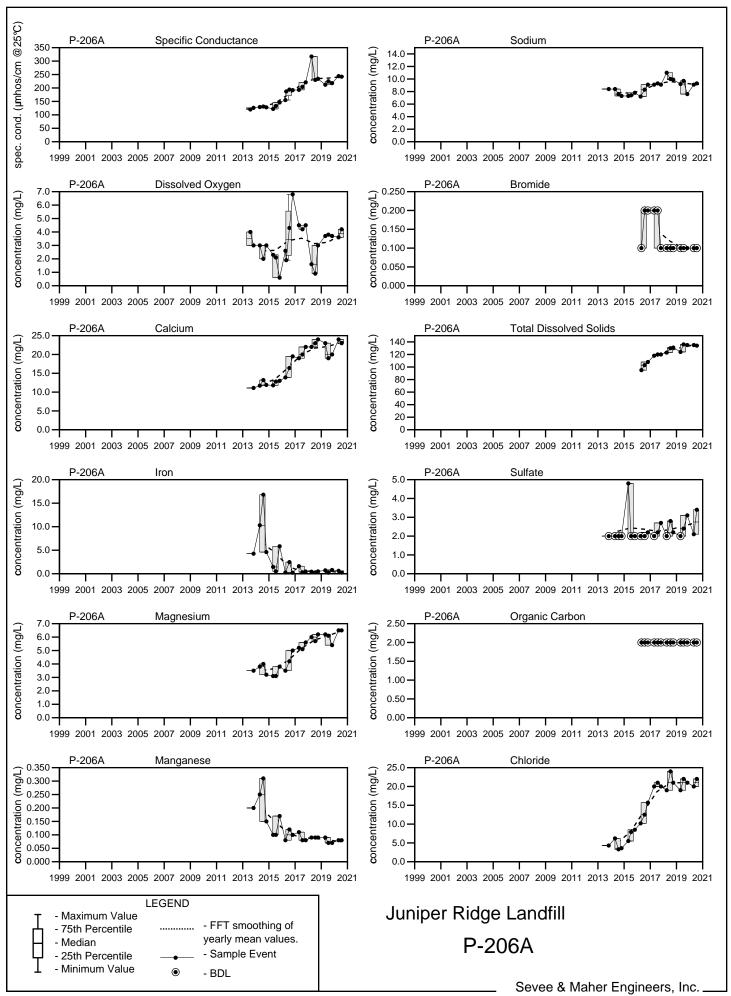
A = The sampling location was Inaccessible Q4= 10 - 2020

Data Group: 539

Printed: 3/22/2021 11:13



P-206A



PWS10-1 PWS10-1

Juniper Ridge Landfill annual stats 2020 G4

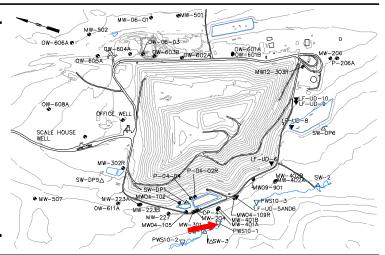
### **Well Description**

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**

		2	2020		Historical (1/1	Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n		
Specific Conductance (µmhos/cm @25°C)		346	254	175	76 to 438	200 ± 16	30		
pH (STU)		7	6	6	5.3 to 7.2	$6.3 \pm 0.084$	30		
Temperature (Deg C)		6.1	23.2	5.2	2.7 to 25	13 ± 1.2	30		
Eh (mV)		82	167	454	-38 to 818	220 ± 29	30		
Dissolved Oxygen (mg/L)		0.8	0.4	3.9	0 to 9.5	$2.5 \pm 0.43$	30		
Arsenic (mg/L)		0.005 U	0.005	0.005 U	0.002 U to 0.019	$0.008 \pm 0.000$	30		
Calcium (mg/L)		31	24	29	6.8 to 38.1	21 ± 1.6	30		
Iron (mg/L)		<u>8.1</u>	<u>13</u>	0.76	0.07 to 30.3	$3.9 \pm 0.99$	30		
Magnesium (mg/L)		8.4	6.7	8.9	2.3 to 12.7	$6.3 \pm 0.5$	30		
Manganese (mg/L)		<u>↑2.3</u>	<u>↑2.6</u>	<u>0.41</u>	0.05 U to 0.92	$0.28 \pm 0.043$	30		
Potassium (mg/L)		1.2	2.2	1.6	0.4 to 2.8	1 ± 0.1	30		
Sodium (mg/L)		9.2	8	7.5	4.3 to 10	7.1 ± 0.27	30		
Nitrite/Nitrate - (N) (mg/L)		0.073	0.05 U	0.05 U	0.05 U to 2 U	0.27 ± 0.13	15		
Total Phosphorus Mixed Forms (PO4 and C		0.04 U	0.09	0.04	0.03 to 0.52	0.12 ± 0.021	30		
Total Dissolved Solids (mg/L)		180	191	172	87 to 197	140 ± 5.9	30		
Total Suspended Solids (mg/L)		11	14	21	2.5 U to 786	56 ± 26	30		
Sulfate (mg/L)		8.9	2 U	9	1 to 15	$3.9 \pm 0.58$	30		
Bicarbonate Alkalinity (CaCO3) (mg/L)		99	81	95	21 to 130	76 ± 5.9	30		
Organic Carbon (mg/L)		8.6	<b>↑</b> 30	↑28 M10	3.8 to 21	10 ± 0.78	30		
Chloride (mg/L)		13	12	9.6	3.1 to 22.9	$9.7 \pm 0.8$	30		
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	21		
Turbidity (field) (NTU)		2.7	3.1	2.1	1 to 20	$4.3 \pm 0.79$	30		
Methane (ug/L)		270	45	20 U	20 U to 4600	770 ± 490	9		

<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, Arsenic MEGPW16=0.01 mg/L, MCL-pw=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 - 2020 U = Not Detected above the laboratory reporting limit.

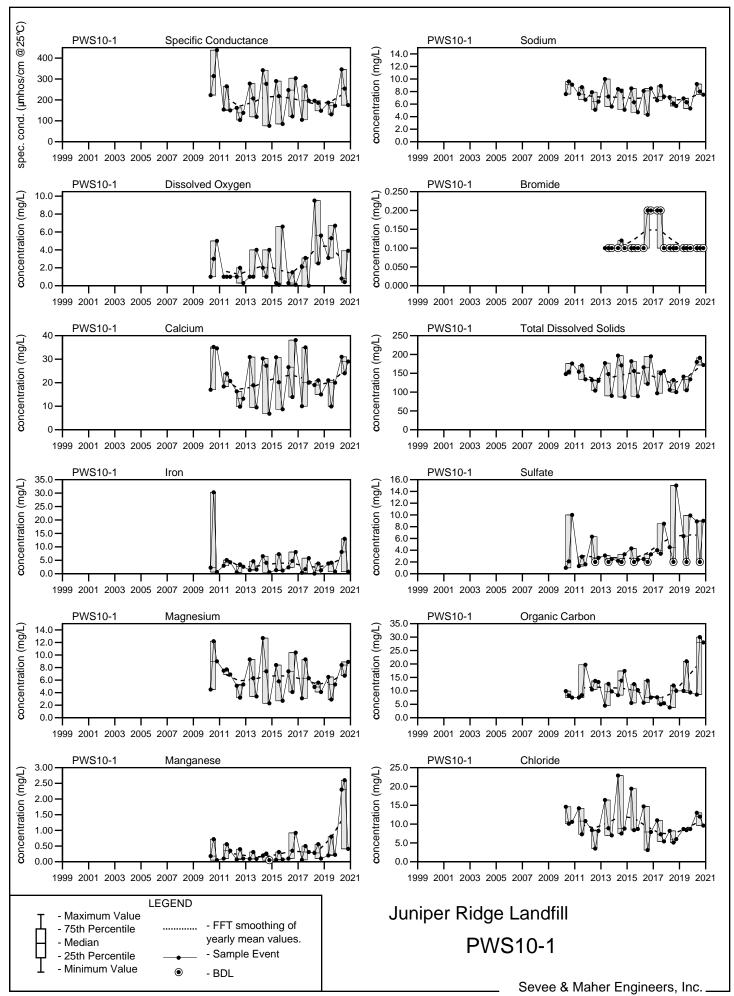
Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 535

Printed: 3/22/2021 08:33





PWS10-2 PWS10-2

Juniper Ridge Landfill annual stats 2020 G4

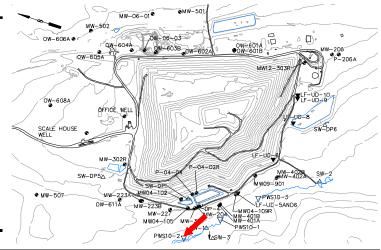
### **Well Description**

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**

			2020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		140	142	124	63 to 276	120 ± 8.3	29	
pH (STU)		7.2	6.2	7.3	5.4 to 7.6	$6.4 \pm 0.13$	29	
Temperature (Deg C)		5.4	19.1	4.9	1.3 to 26.7	13 ± 1.4	29	
Eh (mV)		289	322	359	-5 to 492	230 ± 25	29	
Dissolved Oxygen (mg/L)		6.6	3	6.7	0.2 to 11.3	$4.2 \pm 0.59$	29	
Arsenic (mg/L)		0.005	0.005 U	0.005 U	0.002 U to 0.015	$0.0061 \pm 0.000$	29	
Calcium (mg/L)		<b>^</b> 29	13	15	5.7 to 16	11 ± 0.55	29	
Iron (mg/L)		2	0.95	1.6	0.05 U to 13.8	2.3 ± 0.51	29	
Magnesium (mg/L)		3.9	2.9	2.6	1.2 to 4.7	$2.8 \pm 0.19$	29	
Manganese (mg/L)		<u>0.61</u>	0.09	0.28	0.02 U to 0.94	$0.16 \pm 0.037$	29	
Potassium (mg/L)		<b>1</b> .9	<b>1.7</b>	<b>1</b> .8	0.3 U to 1.6	$0.74 \pm 0.068$	29	
Sodium (mg/L)		7.6	7.5	4.6	1.6 to 7.8	$4.1 \pm 0.23$	29	
Nitrite/Nitrate - (N) (mg/L)		0.099	0.05 U	0.05 U	0.05 U to 2 U	$0.27 \pm 0.14$	14	
Total Phosphorus Mixed Forms (PO4 and C		0.04	0.06	0.05	0.02 to $0.22$	$0.054 \pm 0.007$	29	
Total Dissolved Solids (mg/L)		107	99	101	38 to 119	$84 \pm 3.4$	29	
Total Suspended Solids (mg/L)		44	2.5 U	20	2.5 U to 327	33 ± 13	29	
Sulfate (mg/L)		<b>1</b> 9	8.6	12	1.6 to 15	$4.8 \pm 0.63$	29	
Bicarbonate Alkalinity (CaCO3) (mg/L)		21	42	29	9.3 to 64	$32 \pm 2.7$	29	
Organic Carbon (mg/L)		6.2	13	19 M10	2.6 to 24	$9.3 \pm 0.78$	29	
Chloride (mg/L)		17	13	8.6	3 to 19.8	$6.8 \pm 0.64$	29	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	20	
Turbidity (field) (NTU)		3.1	2.1	4.6	0.5 to 6.5	$2.8 \pm 0.3$	29	
Methane (ug/L)		20 U	38	300	20 U to 690	140 ± 72	9	

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, Arsenic MEGPW16=0.01 mg/L, MCL-pw=0.01 mg/L, M

↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

### Comments

Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

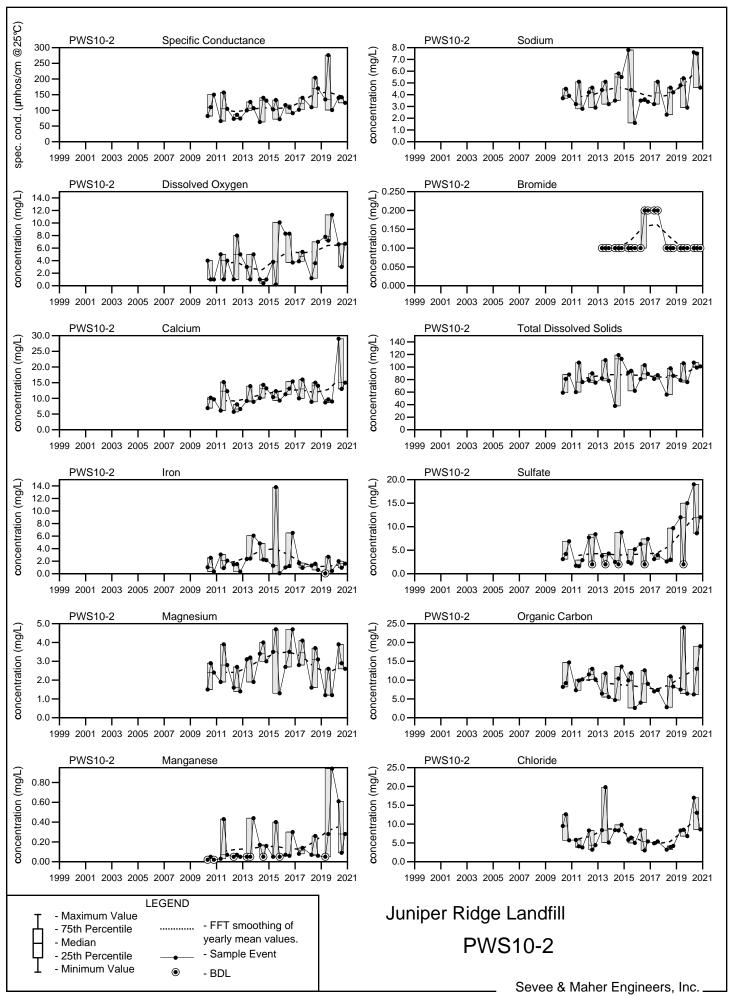
M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely Q4= 10 - 2020 elevated-the laboratory has fixed the issue.

Data Group: 535

Printed: 3/22/2021 08:33



PWS10-2



PWS10-3 PWS10-3

Juniper Ridge Landfill annual stats 2020 G4

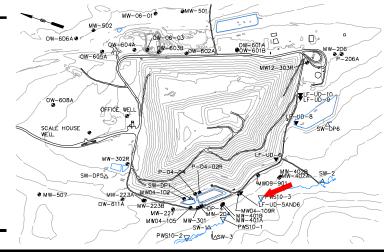
### **Well Description**

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**

		2	:020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		54	144	197	42 to 222	110 ± 9.8	27	
pH (STU)		6.8	5.3	5.9	5 to 7.4	$6.2 \pm 0.13$	27	
Temperature (Deg C)		5.5	22.3	6.1	2.7 to 26.8	13 ± 1.3	27	
Eh (mV)		314	208	<b>↑</b> 540	-7 to 463	250 ± 25	27	
Dissolved Oxygen (mg/L)		5.8	<b>↓</b> 0.3	7	0.8 to 10.3	$4.5 \pm 0.59$	27	
Arsenic (mg/L)		0.005 U	0.007	0.005 U	0.002 U to 0.011	$0.0056 \pm 0.000$	27	
Calcium (mg/L)		6	13	9.3	3 to 25	9.7 ± 1.1	27	
Iron (mg/L)		0.3	<u>13</u>	2.8	0.17 to 20.8	$3.3 \pm 0.86$	27	
Magnesium (mg/L)		1.7	3.5	3.1	0.7 to 5	2.7 ± 0.21	27	
Manganese (mg/L)		0.05 U	<u>↑2.8</u>	<u>1</u>	0.02 to 1.48	$0.22 \pm 0.058$	27	
Potassium (mg/L)		0.7	0.4	0.7	0.1 to 2.6	$0.66 \pm 0.099$	27	
Sodium (mg/L)		1.9	3	4.1	0.5 to 8.6	$4.5 \pm 0.3$	27	
Nitrite/Nitrate - (N) (mg/L)		0.14	0.092	0.054	0.05 U to 2 U	$0.43 \pm 0.19$	12	
Total Phosphorus Mixed Forms (PO4 and C		0.04 U	0.15	0.1	0.03 to 0.5	$0.12 \pm 0.024$	27	
Total Dissolved Solids (mg/L)		61	129	106	29 to 141	92 ± 4.7	27	
Total Suspended Solids (mg/L)		↓2.5 U	11	53	3.3 to 489	41 ± 18	27	
Sulfate (mg/L)		2	2 U	3.9	0.6 U to 47.3	5.4 ± 1.8	27	
Bicarbonate Alkalinity (CaCO3) (mg/L)		22	51	25	5.8 to 87	$32 \pm 4.4$	27	
Organic Carbon (mg/L)		11	<b>↑</b> 30	↑34 M10	2 U to 27	13 ± 1.2	27	
Chloride (mg/L)		1	1.8	7.8	1 U to 15	5 ± 0.57	27	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	18	
Turbidity (field) (NTU)		2.5	3.1	4.1	0.8 to 18.3	$4.3 \pm 0.68$	27	
Methane (ug/L)		20 U	<b>1</b> 4000	44	20 U to 280	91 ± 37	9	

<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, Arsenic MEGPW16=0.01 mg/L, MCL-pw=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 - 2020 U = Not Detected above the laboratory reporting limit.

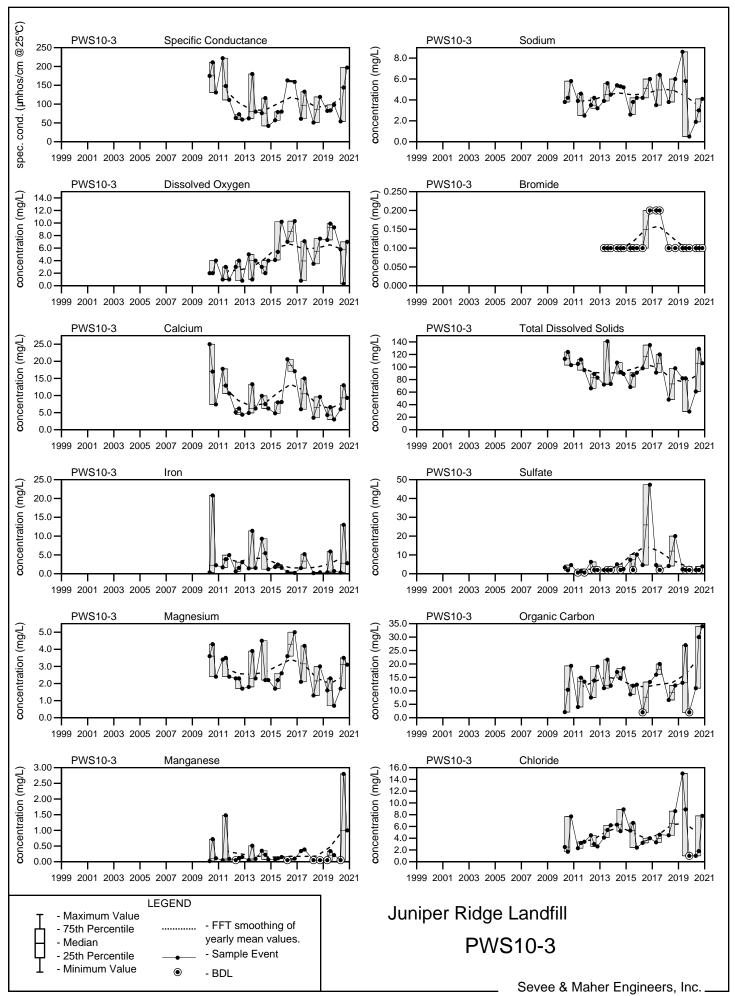
Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 535

Printed: 3/22/2021 08:33





**SW-1 SW-1** 

Juniper Ridge Landfill annual stats 2020 G5

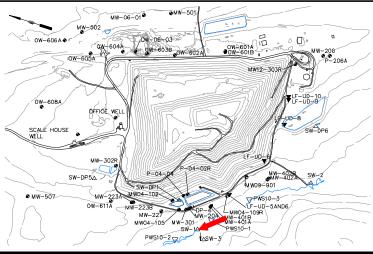
### **Well Description**

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**

_		20	20		Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		241	134	175	10 to 345	100 ± 6.2	89
pH (STU)		7.3	6.9	7.7	5.8 to 8.2	$6.9 \pm 0.06$	89
Temperature (Deg C)		10	24.4	8.9	0 to 27.5	12 ± 0.79	89
Eh (mV)		395	288	298	52.7 to 549	300 ± 15	58
Dissolved Oxygen (mg/L)		7.7	1.7	4	0.6 to 15.1	$5.2 \pm 0.3$	87
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 to 0.012	$0.0048 \pm 0.000$	47
Calcium (mg/L)		24	14	27	3.1 to 48	11 ± 0.88	77
Iron (mg/L)		<b>↓</b> 0.07	<u>4.3</u>	<u>2.3</u>	0.08 to 19.4	2 ± 0.34	82
Magnesium (mg/L)		6.5	4.8	9.4	0.21 to 10.7	3 ± 0.21	77
Manganese (mg/L)		0.05 U	1.1	1.8	0.001 to 4.8	$0.22 \pm 0.062$	82
Potassium (mg/L)		1.4	2.8	3.8	0.1 to 5	1 ± 0.14	47
Sodium (mg/L)		7.1	8.1	9.8	2.9 to 12	5.7 ± 0.19	82
Nitrite/Nitrate - (N) (mg/L)		0.18	0.05 U	0.064	0.05 U to 2 U	0.27 ± 0.13	15
Total Phosphorus Mixed Forms (PO4 and C		0.04	0.09	0.11	0.01 U to 0.95	$0.094 \pm 0.021$	59
Total Dissolved Solids (mg/L)		144	138	196	30 to 230	89 ± 3.9	82
Total Suspended Solids (mg/L)		2.5 U	13	46	2.5 U to 1490	68 ± 35	47
Sulfate (mg/L)		11	2 U	15	0.2 to 17	$3.6 \pm 0.35$	82
Bicarbonate Alkalinity (CaCO3) (mg/L)		90	55	85	10.6 to 148	$40 \pm 4.8$	47
Organic Carbon (mg/L)		5.4	18	↑49 M10	4.5 to 34	12 ± 0.49	82
Biochemical Oxygen Demand (mg/L)		3	4	9	1 U to 12	4.1 ± 0.26	59
Chloride (mg/L)		13	12	17	1 U to 27.6	7.9 ± 0.51	82
Bromide (mg/L)		0.1 U	0.13	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	21
Turbidity (field) (NTU)		2.1	1.3	1.2	0 to 175	$5.5 \pm 2.6$	68

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

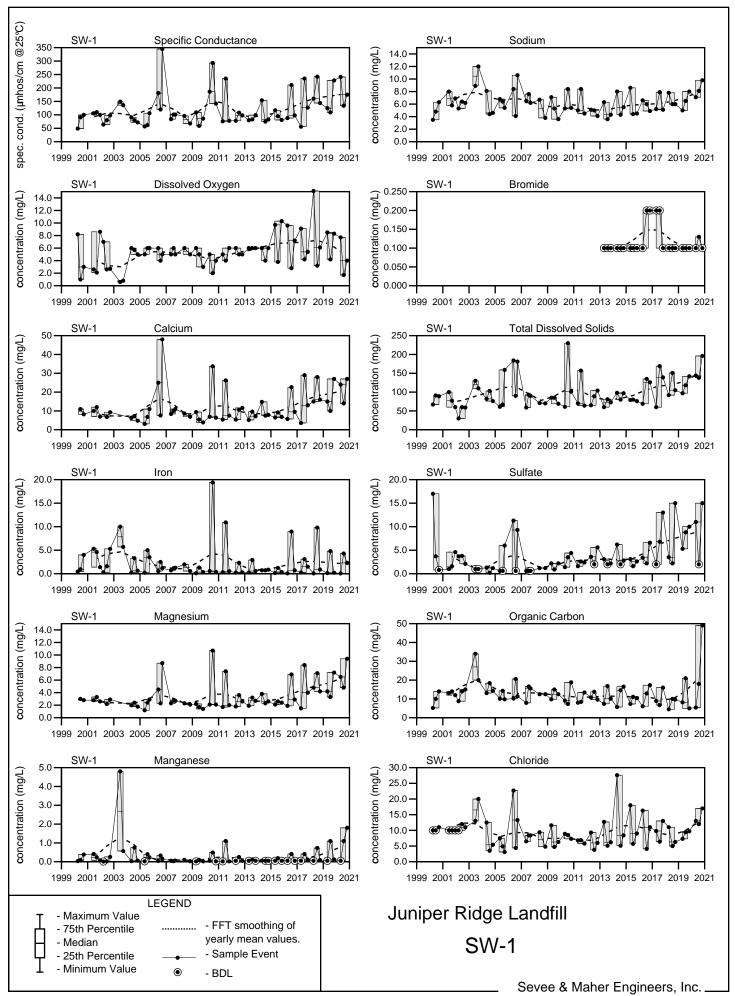
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely Q4= 10 - 2020 elevated-the laboratory has fixed the issue.

Data Group: 536





SW-2

Juniper Ridge Landfill annual stats 2020 G5

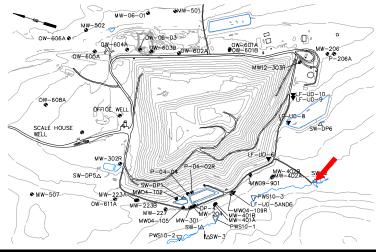
### **Well Description**

SW-2 is located upgradient of the landfill and monitors surface water quali in an unnamed tributary to Pushaw Stream.

Sampled: 3 Times Annually

Sampled Since: 11/13/90

Sampling Method: Grab



## Chemical Summary

		20	2020 Historical (1/1/1980 - 12/3			/1980 - 12/31/2020)	1/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		76	68	77	10 to 150	75 ± 2.5	95	
pH (STU)		6.8	6.9	6.8	5.42 to 8.5	$6.7 \pm 0.066$	97	
Temperature (Deg C)		7	29.2	8.4	0 to 29.6	13 ± 0.87	96	
Eh (mV)		369	380	413	69.2 to 516	$320 \pm 14$	59	
Dissolved Oxygen (mg/L)		7.7	5.5	6	0.4 to 13.7	$4.6 \pm 0.28$	95	
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U to 0.011	$0.004 \pm 0.000$	48	
Calcium (mg/L)		4.7	7.3	6.6	0.1 U to 11	$5.9 \pm 0.23$	83	
Iron (mg/L)		0.11	<u>1.2</u>	0.54	0.03 U to 8.8	1.1 ± 0.12	89	
Magnesium (mg/L)		1.9	2.7	2.6	0.1 U to 3.7	2.1 ± 0.069	83	
Manganese (mg/L)		0.05 U	0.08	0.05 U	0.003 to 0.43	$0.092 \pm 0.008$	89	
Potassium (mg/L)		0.3	0.5	0.4	0.1 U to 1.7	$0.55 \pm 0.05$	48	
Sodium (mg/L)		5.2	5.4	5.4	1 U to 14	$5.4 \pm 0.23$	89	
Nitrite/Nitrate - (N) (mg/L)		0.084	0.05 U	0.05 U	0.05 U to 2 U	0.25 ± 0.13	15	
Total Phosphorus Mixed Forms (PO4 and C		0.04 U	0.04	0.04 U	0.01 to 0.43	$0.055 \pm 0.009$	62	
Total Dissolved Solids (mg/L)		61	113	87	2 to 131	71 ± 2.2	89	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 89	11 ± 2.5	48	
Sulfate (mg/L)		2.8	2 U	4.3	0.1 U to 9.2	2.2 ± 0.18	89	
Bicarbonate Alkalinity (CaCO3) (mg/L)		14	33	13	8.5 to 46	19 ± 1.2	48	
Organic Carbon (mg/L)		7.2	21	28 M10	1 U to 30	14 ± 0.52	89	
Biochemical Oxygen Demand (mg/L)		2 U	2	1 U	1 U to 42	$4.9 \pm 0.68$	61	
Chloride (mg/L)		12	4.3	9.8	2 U to 23	8.1 ± 0.48	89	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	21	
Turbidity (field) (NTU)		2.1	1.6	1.2	0 to 10	1.8 ± 0.23	71	

<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 - 2020 U = Not Detected above the laboratory reporting limit.

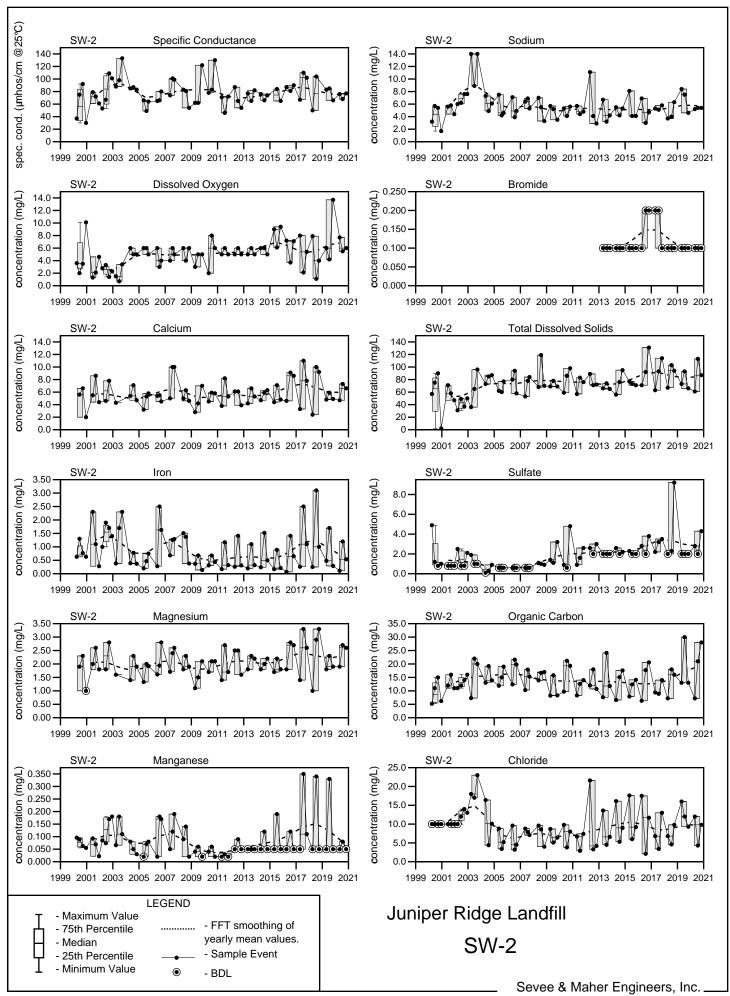
Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 536

Printed: 3/22/2021 08:52





**SW-3** 

Juniper Ridge Landfill annual stats 2020 G5

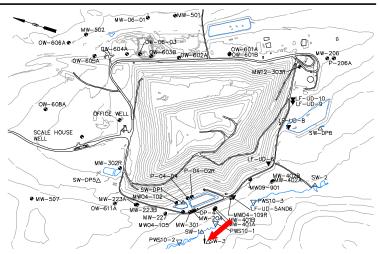
### **Well Description**

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**

		20	)20		Historical (1/1	I/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		73	94	78	20 to 151	83 ± 2.9	82
pH (STU)		7.7	7.2	7.6	5.4 to 8.8	$6.9 \pm 0.079$	82
Temperature (Deg C)		8.8	23.1	8.4	0 to 27.4	12 ± 0.82	82
Eh (mV)		359	373	403	23.8 to 507	$310 \pm 14$	60
Dissolved Oxygen (mg/L)		9.9	3.4	8.1	1 to 12.6	$5.9 \pm 0.3$	81
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U to 0.008	$0.0037 \pm 0.000$	48
Calcium (mg/L)		4.3	8.6	7.4	2.8 to 12	7 ± 0.27	74
Iron (mg/L)		0.3	<u>1.4</u>	0.53	0.17 to 3.5	$0.87 \pm 0.077$	81
Magnesium (mg/L)		1.2	2.6	2.1	0.47 to 3.1	1.9 ± 0.066	74
Manganese (mg/L)		0.06	0.48	0.06	0.004 to 1.3	0.16 ± 0.025	81
Potassium (mg/L)		0.5	1	1.2	0.2 to 2.4	$0.66 \pm 0.059$	48
Sodium (mg/L)		6.4	7.2	5	2.4 to 11	$4.8 \pm 0.16$	81
Nitrite/Nitrate - (N) (mg/L)		0.1	0.05 U	0.065	0.05 U to 2 U	0.27 ± 0.13	15
Total Phosphorus Mixed Forms (PO4 and C		0.04 U	0.04 U	0.04 U	0.01 U to 0.4	$0.044 \pm 0.007$	57
Total Dissolved Solids (mg/L)		56	108	73	31 to 210	74 ± 2.7	81
Total Suspended Solids (mg/L)		2.5 U	2.5 U	2.5 U	2.5 U to 17	$4.5 \pm 0.4$	48
Sulfate (mg/L)		3	2 U	6.4	0.4 to 35	$3.9 \pm 0.52$	81
Bicarbonate Alkalinity (CaCO3) (mg/L)		13	31	26	10 to 43	22 ± 1.3	48
Organic Carbon (mg/L)		8.1	12	17 M10	5.7 to 40	12 ± 0.49	81
Biochemical Oxygen Demand (mg/L)		2 U	1	1 U	1 U to 7	$4.2 \pm 0.23$	57
Chloride (mg/L)		9.9	12	18	1 U to 20	$6.8 \pm 0.39$	81
Bromide (mg/L)		0.1 U	0.1 U	0.11	0.1 U to 0.2 U	$0.12 \pm 0.009$	21
Turbidity (field) (NTU)		1.4	0.9	8.0	0 to 16	1.6 ± 0.28	70

<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

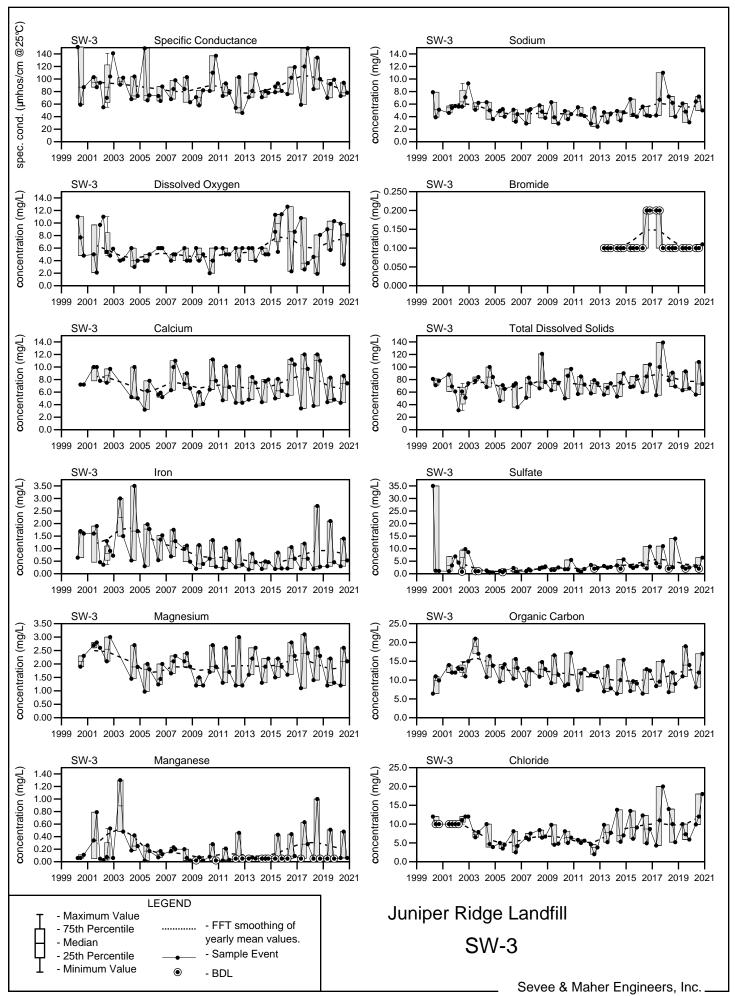
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely Q4= 10 - 2020 elevated-the laboratory has fixed the issue.

Data Group: 536





SW-DP1 SW-DP1

Juniper Ridge Landfill annual stats 2020 G9

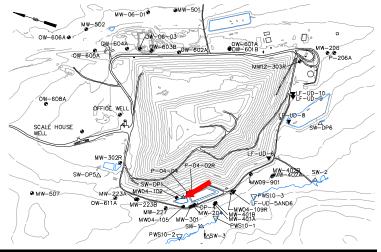
### **Well Description**

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

		2	020		Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)		<b>↑</b> 439	206	148	34 to 400	140 ± 10	48
pH (STU)		7.8	7.6	7.7	6.3 to 9.4	7.5 ± 0.1	48
Temperature (Deg C)		9.5	27	7.5	1.9 to 31.1	17 ± 1.1	48
Eh (mV)		356	358	261	200 to 486	330 ± 11	48
Dissolved Oxygen (mg/L)		12	8.8	8.3	0.8 to 12.5	$6.7 \pm 0.3$	48
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U to 0.013	$0.0044 \pm 0.000$	48
Calcium (mg/L)		24	31	23	3.8 to 40	18 ± 1.1	48
Iron (mg/L)		0.39	0.78	<u>1.5</u>	0.05 to 2.94	$0.48 \pm 0.078$	48
Magnesium (mg/L)		4	3.4	2.2	0.4 to 7.6	$2.6 \pm 0.23$	48
Manganese (mg/L)		0.11	0.69	0.32	0.02 to 0.88	0.091 ± 0.018	48
Potassium (mg/L)		12	2.9	5.3	0.3 U to 25	2.5 ± 0.61	48
Sodium (mg/L)		<b>1</b> 27	8.8	3.2	0.8 to 25	$3.9 \pm 0.6$	48
Nitrite/Nitrate - (N) (mg/L)		0.55	0.05 U	0.051	0.05 U to 2 U	$0.27 \pm 0.13$	15
Total Phosphorus Mixed Forms (PO4 and		0.04	0.12	0.12	0.01 U to 0.15	$0.046 \pm 0.004$	48
Total Dissolved Solids (mg/L)		251	164	114	44 to 262	94 ± 6.2	48
Total Suspended Solids (mg/L)		8	31	25	2.5 U to 115	11 ± 2.7	48
Sulfate (mg/L)		22	22	23	0.2 to 30	9.1 ± 0.85	48
Bicarbonate Alkalinity (CaCO3) (mg/L)		59	83	52	7.2 to 170	48 ± 4.4	48
Organic Carbon (mg/L)		5.4	5.8	12 M10	2 U to 13.3	$3.8 \pm 0.38$	48
Chloride (mg/L)		<b>↑</b> 79	12	6.3	1.4 to 15.2	$5.3 \pm 0.46$	48
Bromide (mg/L)		<b>1.1</b>	<b>1</b> 0.22	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	21
Turbidity (field) (NTU)		1.7	2.2	8.0	0 to 28.1	$3.6 \pm 0.78$	48

<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

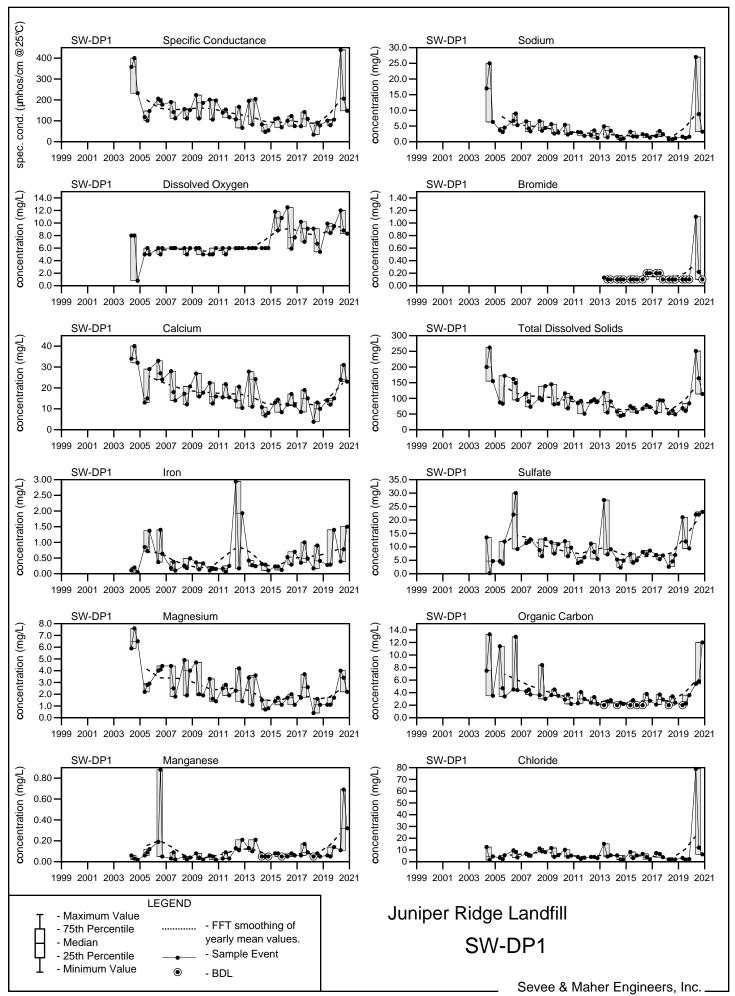
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020 Q4= 10 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 540





SW-DP5 SW-DP5

Juniper Ridge Landfill annual stats 2020 G9

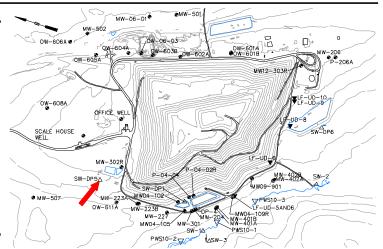
### **Well Description**

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			(		PWS10-2	<b>3</b> 777/		
	2020				Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		173	126	82	51 to 208	140 ± 13	12	
pH (STU)		8.1	7.8	<b>↑</b> 8.5	6.9 to 8.3	$7.6 \pm 0.14$	12	
Temperature (Deg C)		10.1	30.3	10.2	8.7 to 30.7	$18 \pm 2.6$	12	
Eh (mV)		333	328	320	218 to 459	$330 \pm 24$	12	
Dissolved Oxygen (mg/L)		12.6	6.8	10.5	5 to 15.2	$7.9 \pm 0.86$	12	
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U to 0.01	$0.0058 \pm 0.000$	12	
Calcium (mg/L)		22	22	13	5.3 to 29	18 ± 1.8	12	
Iron (mg/L)		0.49	0.62	<u>1.2</u>	0.23 to 1.7	$0.57 \pm 0.15$	12	
Magnesium (mg/L)		1.2	1.4	1	0.5 to 1.8	$1.2 \pm 0.12$	12	
Manganese (mg/L)		0.17	<b>1</b> 0.27	0.19	0.05 U to 0.25	$0.12 \pm 0.02$	12	
Potassium (mg/L)		1.4	1.8	1.5	0.7 to 2.6	$1.6 \pm 0.16$	12	
Sodium (mg/L)		3.7	2.2	1.5	1.2 to 8.6	$3 \pm 0.64$	12	
Nitrite/Nitrate - (N) (mg/L)		0.14	0.05 U	0.089	0.05 to 2 U	$0.46 \pm 0.26$	7	
Total Phosphorus Mixed Forms (PO4 and		0.04	0.05	0.08	0.04 U to 0.1	$0.058 \pm 0.005$	12	
Total Dissolved Solids (mg/L)		101	126	69	47 to 137	95 ± 7.4	12	
Total Suspended Solids (mg/L)		14	5	14	2.5 U to 50	14 ± 3.9	12	
Sulfate (mg/L)		36	22	14	2.5 to 38.1	$22 \pm 3.4$	12	
Bicarbonate Alkalinity (CaCO3) (mg/L)		33	47	30	9 to 57	$30 \pm 3.9$	12	
Organic Carbon (mg/L)		2.5	3.6	↑6.7 M10	2 U to 5.6	$2.9 \pm 0.35$	12	
Chloride (mg/L)		6.8	2.3	1.9	1.6 to 20.9	$7.1 \pm 2$	12	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	$0.11 \pm 0.008$	12	
Turbidity (field) (NTU)		1.6	0.6	0.6	0.4 to 9.8	$2.4 \pm 0.74$	12	

<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

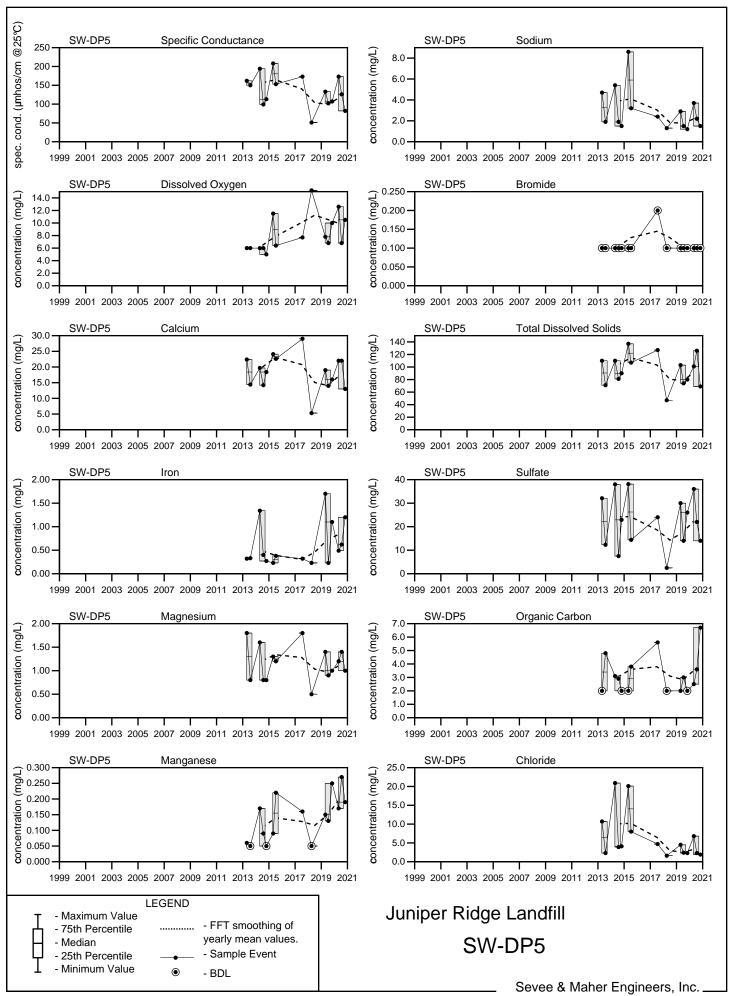
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020 Q4= 10 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 540





SW-DP6 SW-DP6

Juniper Ridge Landfill annual stats 2020 G9

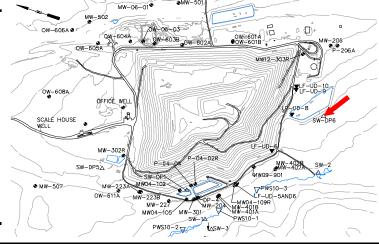
### **Well Description**

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**

		20	20	Historical (1/1/1980 - 12/31			1/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)		55	71	91	50 to 427	130 ± 16	31	
pH (STU)		7.3	8.4	8.2	6.2 to 8.4	$7.2 \pm 0.095$	31	
Temperature (Deg C)		11.4	27.1	9.4	2.4 to 29.6	16 ± 1.5	31	
Eh (mV)		397	294	330	212 to 547	360 ± 15	31	
Dissolved Oxygen (mg/L)		9.6	5.9	10.1	4.5 to 11.7	$6.7 \pm 0.36$	31	
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U to 0.011	$0.0052 \pm 0.000$	31	
Calcium (mg/L)		4.6	7.8	10	4.6 to 63.3	15 ± 2.2	31	
Iron (mg/L)		0.4	0.73	0.9	0.1 to 3.05	0.91 ± 0.14	31	
Magnesium (mg/L)		0.7	1.1	1.4	0.7 to 7.3	1.9 ± 0.23	31	
Manganese (mg/L)		0.05 U	0.2	0.09	0.05 U to 0.96	$0.15 \pm 0.039$	31	
Potassium (mg/L)		0.8	1.4	1.9	0.7 to 3.4	1.6 ± 0.12	31	
Sodium (mg/L)		2.6	2.4	1.6	1.3 to 7.5	$3.4 \pm 0.31$	31	
Nitrite/Nitrate - (N) (mg/L)		0.056	0.05 U	0.058	0.05 U to 2 U	$0.25 \pm 0.13$	15	
Total Phosphorus Mixed Forms (PO4 and		0.05	0.04	0.06	0.03 to 0.14	$0.058 \pm 0.005$	31	
Total Dissolved Solids (mg/L)		<b>↓</b> 38	83	65	43 to 323	97 ± 10	31	
Total Suspended Solids (mg/L)		6.7	8	13	2.5 U to 54	12 ± 2.4	31	
Sulfate (mg/L)		10	16	24	2 U to 155	21 ± 4.8	31	
Bicarbonate Alkalinity (CaCO3) (mg/L)		8.4	13	14	6 to 75	$24 \pm 3.4$	31	
Organic Carbon (mg/L)		3.3	6.1	5.8 M10	2.1 to 11.9	$5.2 \pm 0.4$	31	
Chloride (mg/L)		4.3	2.3	1.8	1.1 to 22.3	7.9 ± 1	31	
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	0.1 U to 0.2 U	$0.12 \pm 0.009$	21	
Turbidity (field) (NTU)		1.3	8.0	0.7	0 to 12	$2.8 \pm 0.46$	31	

<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

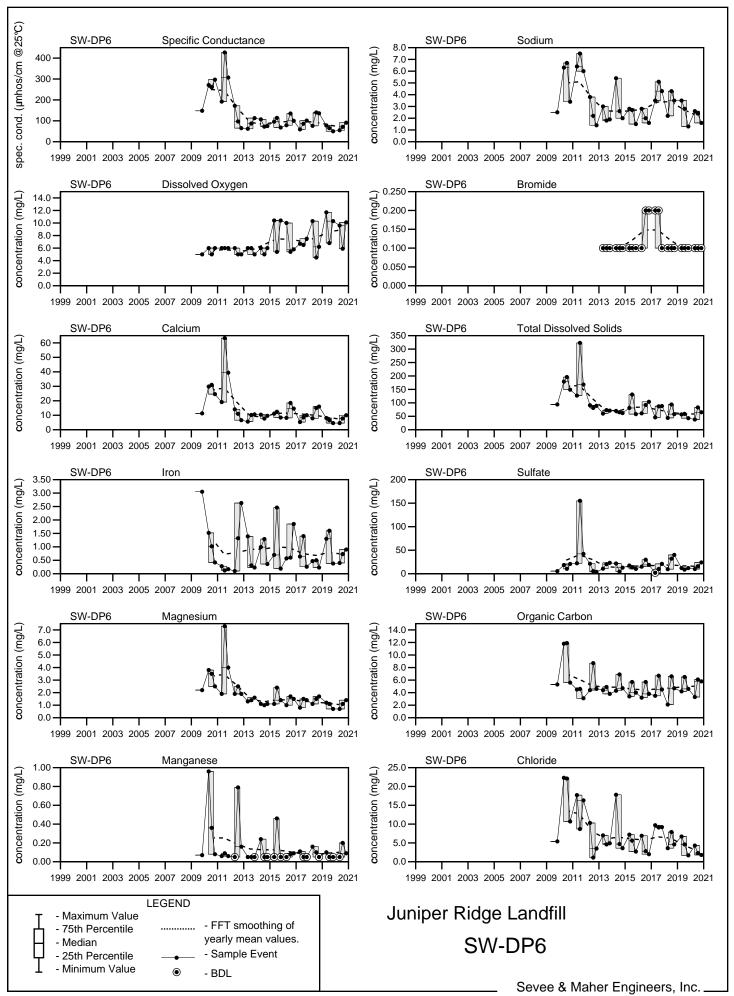
Q2= 4 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020 Q4= 10 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Data Group: 540





LF-COMP LF-COMP

Juniper Ridge Landfill annual stats 2020 G6

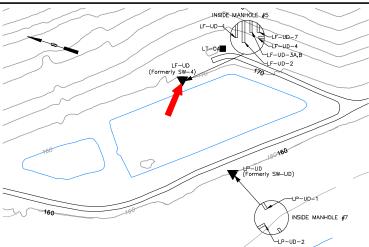
### **Well Description**

Manhole #5 composite sample

Sampled:

Sampled Since: See comments below

Sampling Method: Grab



# **Chemical Summary**

	2020				Historical (1/1/	1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)	378	438	485	417	194 to 498	370 ± 8.7	72
pH (STU)	8.3	8.2	7.2	8.2	6.7 to 8.4	$7.4 \pm 0.049$	72
Temperature (Deg C)	12.4	21.9	21.5	15.3	3.2 to 29.7	17 ± 0.65	72
Eh (mV)	415	346	409	410	304 to 446	$370 \pm 3.5$	72
Dissolved Oxygen (mg/L)	6	6	6	8	4 to 10	7 ± 0.15	70
Alkalinity (CaCO3) (field) (mg/L)	200	210	250	250	80 to 250	$160 \pm 4.3$	72
Turbidity (field) (NTU)	2.4	2.8	14.2	67.9	0 to 129.3	$3.9 \pm 1.8$	71

<u>underlined/bold</u> - 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 - 2020

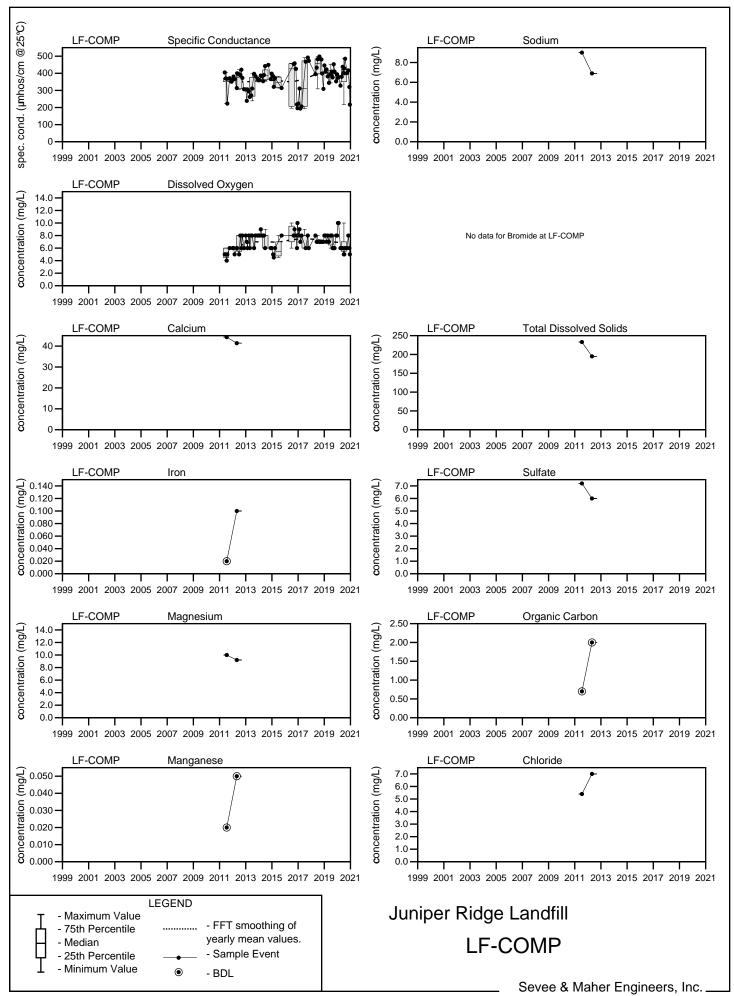
Q2= 4 - 2020

Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 537





Juniper Ridge Landfill annual stats 2020 G6

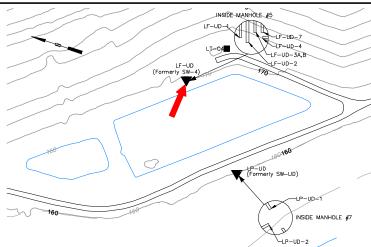
#### Well Description

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** 2020 Historical (1/1/1980 - 12/31/2020) **Indicator Parameters** Q1 Q2 Q3 Q4 Min Max Mean n Specific Conductance (µmhos/cm @25°C) Н8 Н8 Н8 Н8 102 to 611 $330 \pm 6$ 139 pH (STU) Н8 Н8 6.3 to 8.4H8 H8 $7.3 \pm 0.042$ 139 Temperature (Deg C) H8 **H8** Н8 H8 0.6 to 25.9 $14 \pm 0.44$ 139 Eh (mV) H8 **H8** H8 H8 173 to 524 $340 \pm 5.3$ 139 Dissolved Oxygen (mg/L) H8 **H8** H8 H8 2 to 11 $6.6 \pm 0.14$ 138 Flow Rate (cfs) H8 **H8** Н8 H8 0.00002 to 0.0067 $0.0012 \pm 0.000$ 119 F6 F6 F6 Arsenic (mg/L) 0.001 to 0.015 $0.0058 \pm 0.000$ 30 25 to 58 Calcium (mg/L) F6 F6 F6 43 ± 1.7 30 F6 F6 F6 0.02 U to 4.57 $0.22 \pm 0.15$ Iron (mg/L) 30 Magnesium (mg/L) F6 F6 F6 7.4 to 14 $10 \pm 0.29$ 30 F6 F6 F6 Manganese (mg/L) 0.02 U to 0.1 $0.034 \pm 0.004$ 30 Potassium (mg/L) F6 F6 F6 1.8 to 4.1 $3 \pm 0.14$ 30 F6 F6 Sodium (mg/L) F6 5.8 to 10 $8 \pm 0.19$ 30 Nitrite/Nitrate - (N) (mg/L) F6 F6 F6 0.07 to 2 U $0.52 \pm 0.25$ 7 F6 F6 0.01 U to 0.33 Total Phosphorus Mixed Forms (PO4 and C F6 $0.039 \pm 0.011$ 30 Total Dissolved Solids (mg/L) F6 F6 F6 130 to 290 $200 \pm 7.1$ 30 F6 F6 2.5 U to 394 Total Suspended Solids (mg/L) F6 23 ± 13 30 F6 F6 F6 4.1 to 35 9.6 ± 1.2 Sulfate (mg/L) 30 Bicarbonate Alkalinity (CaCO3) (mg/L) F6 F6 F6 110 to 179 150 ± 4.2 30 Alkalinity (CaCO3) (field) (mg/L) Н8 Н8 Н8 Н8 40 to 485 140 ± 4.2 132

F6

F6

F6

Н8

F6

F6

F6

Н8

0.5 U to 6.4

1.9 to 26

0.1 U to 0.21

0 to 8.1

<u>underlined/bold</u> - 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.

F6

F6

F6

H8

#### Comments

Organic Carbon (mg/L)

Turbidity (field) (NTU)

Chloride (mg/L)

Bromide (mg/L)

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Н8

Q1= 1 - 2020 H8 = No flow from pipe. See LF-COMP for readings

Q2= 4 - 2020

F6 = No flow. Sample not taken.

Q4= 10 - 2020

Data Group: 537

Printed: 3/22/2021 10:52



 $1.9 \pm 0.19$ 

9.1 ± 1.5

0.15 ± 0.014

1.1 ± 0.11

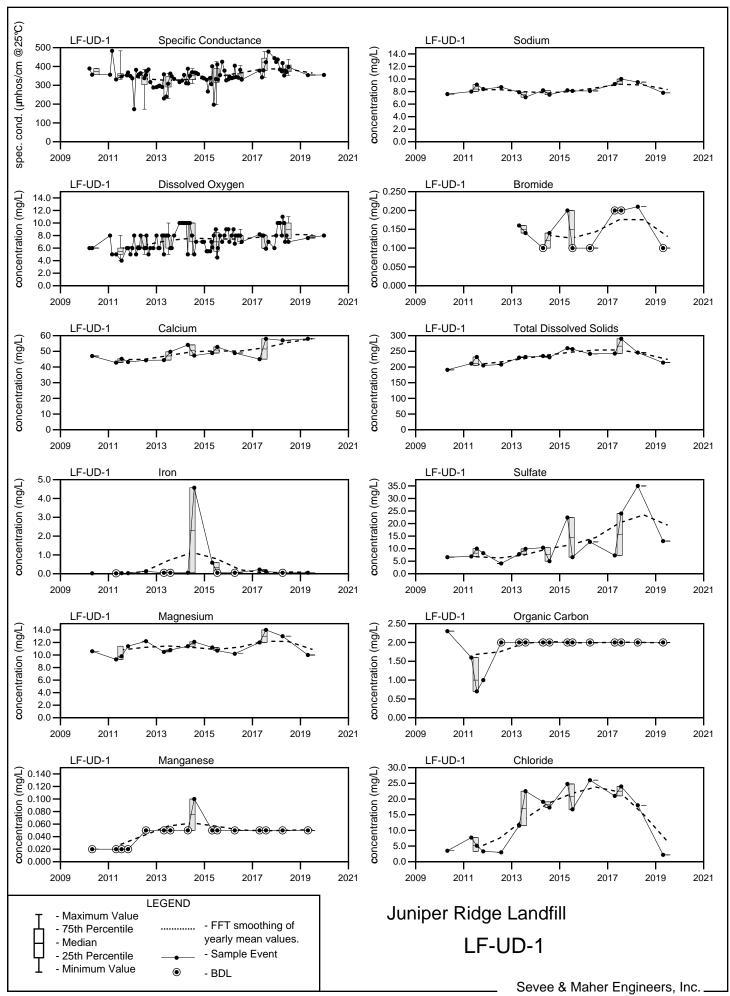
30

30

11

138

LF-UD-1



LF-UD-2 LF-UD-2

Juniper Ridge Landfill annual stats 2020 G6

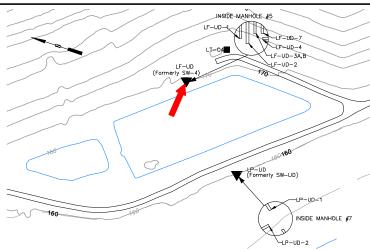
#### **Well Description**

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 2020 Historical (1/1/1980 - 12/31/2020) **Indicator Parameters** Q1 Q2 Q3 Q4 Min Max Mean n Specific Conductance (µmhos/cm @25°C) 369 439 429 403 134 to 709 330 ± 6.5 190 pH (STU) 6 to 8.4 **1**8.5 8.1 8 7.3 $7.5 \pm 0.038$ 190 Temperature (Deg C) 13.2 7.3 22.3 12 2.2 to 28.4 $16 \pm 0.37$ 190 401 Eh (mV) 349 406 389 168 to 554 $340 \pm 5$ 190 Dissolved Oxygen (mg/L) 6 7.9 8.2 7 7 2 to 10.2 $6.3 \pm 0.096$ 188 Flow Rate (cfs) 0.0009 0.0006 0.0006 0.0001 to 0.0223 $0.0023 \pm 0.000$ 173 Arsenic (mg/L) 0.005 U 0.005 0.005 U 0.001 U to 0.024 $0.0072 \pm 0.000$ 43 Calcium (mg/L) 60 65 61 20 to 71.5 44 ± 2.2 43 12.5 0.05 U 0.02 U to 0.71 $0.088 \pm 0.023$ Iron (mg/L) 0.1 43 Magnesium (mg/L) $10 \pm 0.35$ 11 15 13 6.1 to 15 43 0.05 U 10.13 0.05 U 0.02 U to 0.05 U $0.035 \pm 0.002$ Manganese (mg/L) 43 Potassium (mg/L) 3.6 **1**5.4 4.3 1.9 to 5 $3.1 \pm 0.12$ 43 9 Sodium (mg/L) 14 14 5.2 to 18.1 $7.6 \pm 0.37$ 43 Nitrite/Nitrate - (N) (mg/L) 0.32 0.23 0.2 0.05 U to 2 U $0.37 \pm 0.13$ 14 0.04 U Total Phosphorus Mixed Forms (PO4 and C 0.2 0.04 U 0.01 U to 0.66 $0.046 \pm 0.015$ 43 Total Dissolved Solids (mg/L) 243 **1**307 276 132 to 294 210 ± 8.2 43 2.5 U 2.5 U to 83Total Suspended Solids (mg/L) 16 **1**370 11 ± 2.4 43 2 U to 56 8.6 ± 1.5 Sulfate (mg/L) 11 13 14 43 Bicarbonate Alkalinity (CaCO3) (mg/L) 200 **1**230 **1230** 92 to 220 150 ± 5.4 43 Alkalinity (CaCO3) (field) (mg/L) 175 175 250 35 to 350 140 ± 3.2 174 Organic Carbon (mg/L) 2 U 2 U ↑43 M10 0.6 to 12 $1.9 \pm 0.28$ 43 Chloride (mg/L) 10 69 3 1.7 to 41.2 12 ± 1.6 43 Bromide (mg/L) 0.11 0.1 0.1 U 0.1 U to 0.2 0.15 ± 0.009 20 Turbidity (field) (NTU) 2.3 0.5 1 1 0.4 0 to 8.7 $0.99 \pm 0.11$ 189

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 - 2020 U = Not Detected above the laboratory reporting limit.

Q2= 4 - 2020 Q3= 7 - 2020

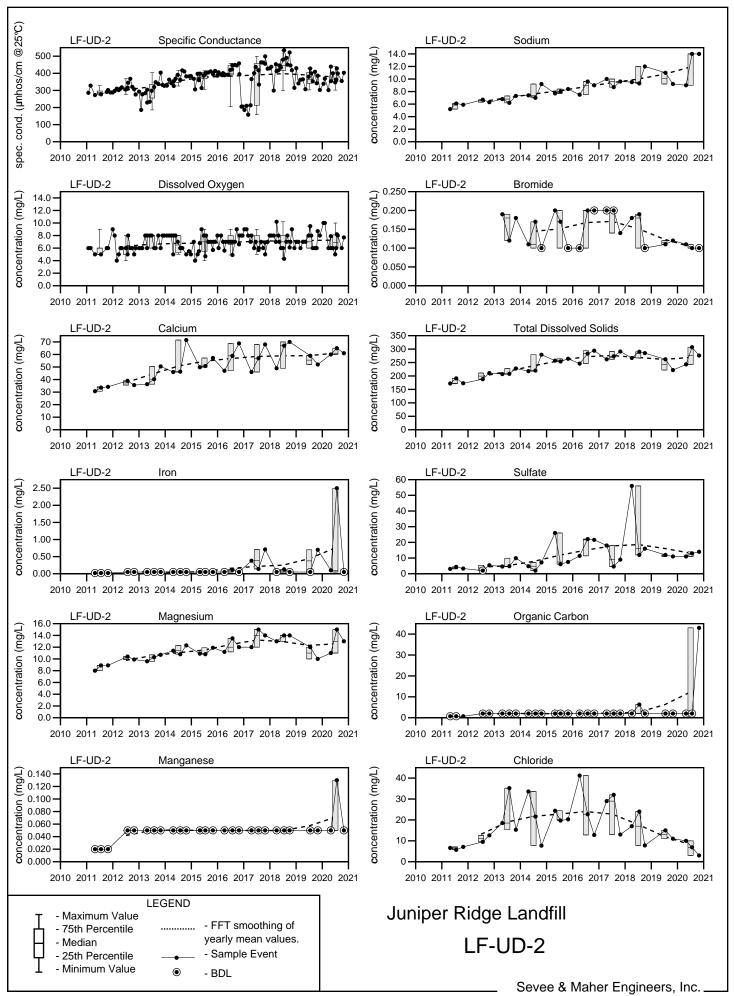
M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely

elevated-the laboratory has fixed the issue.

Q4= 10 - 2020 H8 = No flow from pipe. See LF-COMP for readings

Data Group: 537





LF-UD-3A,B annual stats 2020 G6 Juniper Ridge Landfill

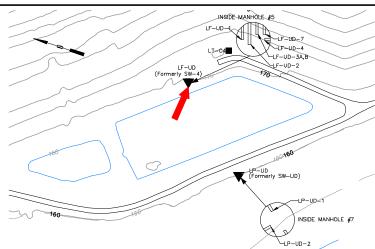
#### **Well Description**

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**

	2020				Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	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	$7.6 \pm 0.12$	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	$5.6 \pm 0.14$	27
Flow Rate (cfs)	H8	H8	H8	H8	0.0003 to 0.0067	$0.0033 \pm 0.000$	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	$56 \pm 4.4$	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	$0.048 \pm 0.02$	5
Potassium (mg/L)		F6	F6	F6	1.8 to 3.3	$2.4 \pm 0.31$	5
Sodium (mg/L)		F6	F6	F6	6 to 9.5	$8 \pm 0.63$	5
Nitrite/Nitrate - (N) (mg/L)		F6	F6	F6	No historical data	for Nitrite/Nitrate - (N).	-
Total Phosphorus Mixed Forms (PO4 and C		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 Alkalinity (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	$3.4 \pm 0.66$	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	$0.9 \pm 0.2$	27

<u>underlined/bold</u> - 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 - 2020 H8 = No flow from pipe. See LF-COMP for readings

Q2= 4 - 2020

F6 = No flow. Sample not taken. Q3= 7 - 2020

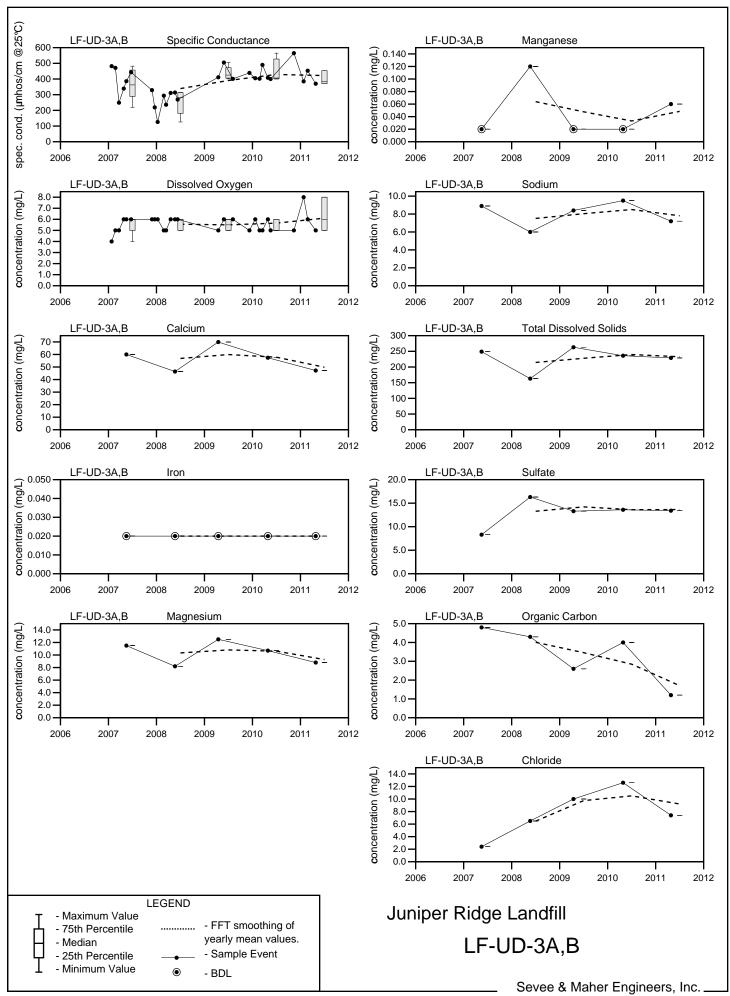
Q4= 10 - 2020

Data Group: 537

Printed: 3/22/2021 10:52



LF-UD-3A,B



LF-UD-4 LF-UD-4

Juniper Ridge Landfill annual stats 2020 G6

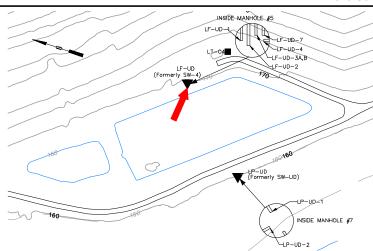
#### Well Description

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 2020 Historical (1/1/1980 - 12/31/2020) **Indicator Parameters** Q1 Q2 Q3 Q4 Min Max Mean n Specific Conductance (µmhos/cm @25°C) Н8 Н8 Н8 Н8 327 to 562 420 ± 7.7 39 pH (STU) Н8 Н8 H8 H8 6.9 to 8.3 $7.5 \pm 0.072$ 39 Temperature (Deg C) H8 H8 Н8 H8 4.5 to 30.7 $17 \pm 0.78$ 39 Eh (mV) H8 **H8 H8** H8 212 to 571 $360 \pm 13$ 39 Dissolved Oxygen (mg/L) H8 **H8** H8 H8 4 to 10.3 $6.4 \pm 0.27$ 39 Flow Rate (cfs) H8 H8 Н8 H8 0.0001 to 0.0078 $0.0017 \pm 0.000$ 36 F6 F6 Arsenic (mg/L) F6 0.002 to 0.014 $0.0073 \pm 0.001$ 12 57 ± 2.7 Calcium (mg/L) F6 F6 F6 44.8 to 75.7 12 F6 F6 F6 0.02 U to 1.4 Iron (mg/L) $0.19 \pm 0.11$ 12 Magnesium (mg/L) F6 F6 9.9 to 14 F6 12 ± 0.42 12 F6 F6 F6 Manganese (mg/L) 0.02 U to 0.16 $0.057 \pm 0.01$ 12 Potassium (mg/L) F6 F6 F6 3.4 to 5.84.1 ± 0.21 12 F6 F6 Sodium (mg/L) F6 7.4 to 11 $9.4 \pm 0.31$ 12 F6 Nitrite/Nitrate - (N) (mg/L) F6 F6 0.13 to 0.25 $0.19 \pm 0.02$ 6 F6 F6 0.01 U to 0.18 Total Phosphorus Mixed Forms (PO4 and C F6 $0.049 \pm 0.012$ 12 Total Dissolved Solids (mg/L) F6 F6 F6 206 to 298 $260 \pm 7.9$ 12 F6 F6 Total Suspended Solids (mg/L) F6 4 U to 210 $33 \pm 18$ 12 F6 F6 F6 2 U to 24.9 Sulfate (mg/L) $13 \pm 2$ 12 Bicarbonate Alkalinity (CaCO3) (mg/L) F6 F6 F6 136 to 210 $180 \pm 6.3$ 12 Alkalinity (CaCO3) (field) (mg/L) Н8 Н8 Н8 Н8 92 to 300 180 ± 8.4 33 Organic Carbon (mg/L) F6 F6 F6 2 U to 5.1 $2.3 \pm 0.26$ 12 Chloride (mg/L) F6 F6 F6 2.4 to 24 12 ± 2 12 Bromide (mg/L) F6 F6 F6 0.1 U to 0.2 0.16 ± 0.015 9 Turbidity (field) (NTU) Н8 H8 Н8 Н8 0 to 9.1 $0.97 \pm 0.24$ 39

<u>underlined/bold</u> - 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 - 2020 H8 = No flow from pipe. See LF-COMP for readings

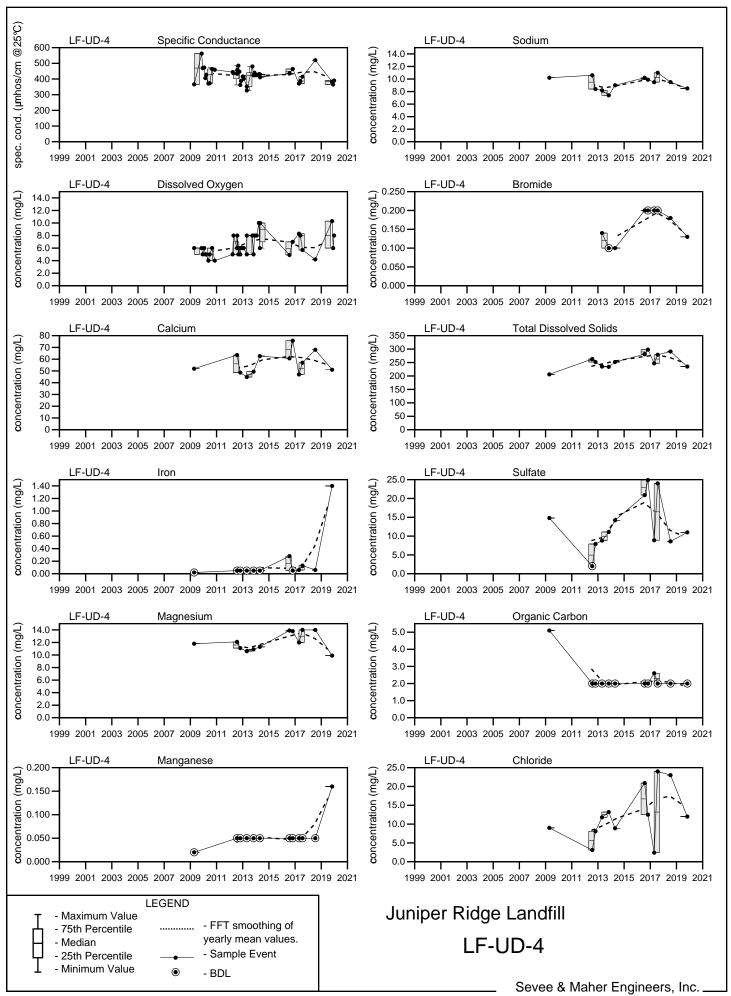
Q2= 4 - 2020

H2 = Waterlevel higher than pipes. See LF-COMP for readings
Q3= 7 - 2020

Q4= 10 - 2020 F6 = No flow. Sample not taken.

Data Group: 537





Juniper Ridge Landfill annual stats 2020 G6

#### **Well Description**

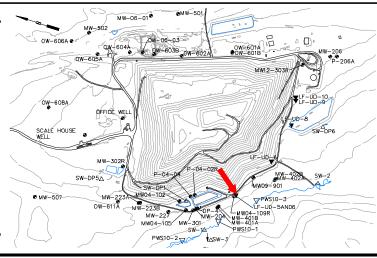
LF-UD-5and6 monitors the landfill underdrain from Cell #5 and Cell #6(composite). This underdrain pipe is located southeast of MW04-109R.

Sampled: 3 Times Annually and Monthly

Sampled Since: July 2011

Sampling Method: Grab

#### **Chemical Summary**



		20	20		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)	305	322	325	326	117 to 652	380 ± 7.8	121	
pH (STU)	<b>↑</b> 8.4	8.3	8.1	<b>↑</b> 8.5	6.7 to 8.32	7.7 ± 0.035	121	
Temperature (Deg C)	7.6	8.9	21.2	15.6	4.2 to 26.5	16 ± 0.43	121	
Eh (mV)	392	403	401	404	70 to 515	$350 \pm 5.3$	120	
Dissolved Oxygen (mg/L)	6	9.3	7.5	8	4 to 12.8	7.4 ± 0.15	119	
Flow Rate (cfs)	0.0014	0.0006	0.0002	0.0001	0.00003 to 0.0045	0.00067 ± 9E-05	99	
Arsenic (mg/L)		0.005 U	0.005 U	F6	0.005 U to 0.024	$0.0099 \pm 0.001$	26	
Calcium (mg/L)		43	50	F6	38 to 71.3	54 ± 1.8	26	
Iron (mg/L)		0.05 U	0.05 U	F6	0.02 U to 11.3	$0.56 \pm 0.43$	26	
Magnesium (mg/L)		9.5	11	F6	8.4 to 15.4	11 ± 0.33	26	
Manganese (mg/L)		0.05 U	0.05 U	F6	0.02 U to 0.25	$0.054 \pm 0.008$	26	
Potassium (mg/L)		2.4	3.1	F6	2.4 to 7	4 ± 0.23	26	
Sodium (mg/L)		7.7	9	F6	6.2 to 10.2	$8.3 \pm 0.21$	26	
Nitrite/Nitrate - (N) (mg/L)		0.2	0.23	F6	0.05 U to 0.5 U	$0.19 \pm 0.041$	13	
Total Phosphorus Mixed Forms (PO4 and C		0.04 U	0.04 U	F6	0.01 to 0.16	$0.046 \pm 0.005$	26	
Total Dissolved Solids (mg/L)		<b>↓</b> 185	214	F6	192 to 332	$240 \pm 7.2$	26	
Total Suspended Solids (mg/L)		2.5 U	2.5 U	F6	2.5 U to 154	21 ± 7.6	26	
Sulfate (mg/L)		11	11	F6	8.7 to 39	15 ± 1.3	26	
Bicarbonate Alkalinity (CaCO3) (mg/L)		150	180	F6	150 to 238	190 ± 5.1	26	
Alkalinity (CaCO3) (field) (mg/L)	150	175	200	200	35 to 435	180 ± 5.6	105	
Organic Carbon (mg/L)		2 U	2 U	F6	1.5 to 2.5	2 ± 0.038	26	
Chloride (mg/L)		2.3	2.5	F6	1.5 to 6.2	$2.9 \pm 0.19$	26	
Bromide (mg/L)		0.17	0.18	F6	0.1 U to 0.2 U	$0.13 \pm 0.01$	18	
Turbidity (field) (NTU)	0.6	1.6	11.1	<b>↑</b> 51.3	0 to 30.88	2.2 ± 0.41	120	

<u>underlined/bold</u> - 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 - 2020 U = Not Detected above the laboratory reporting limit.

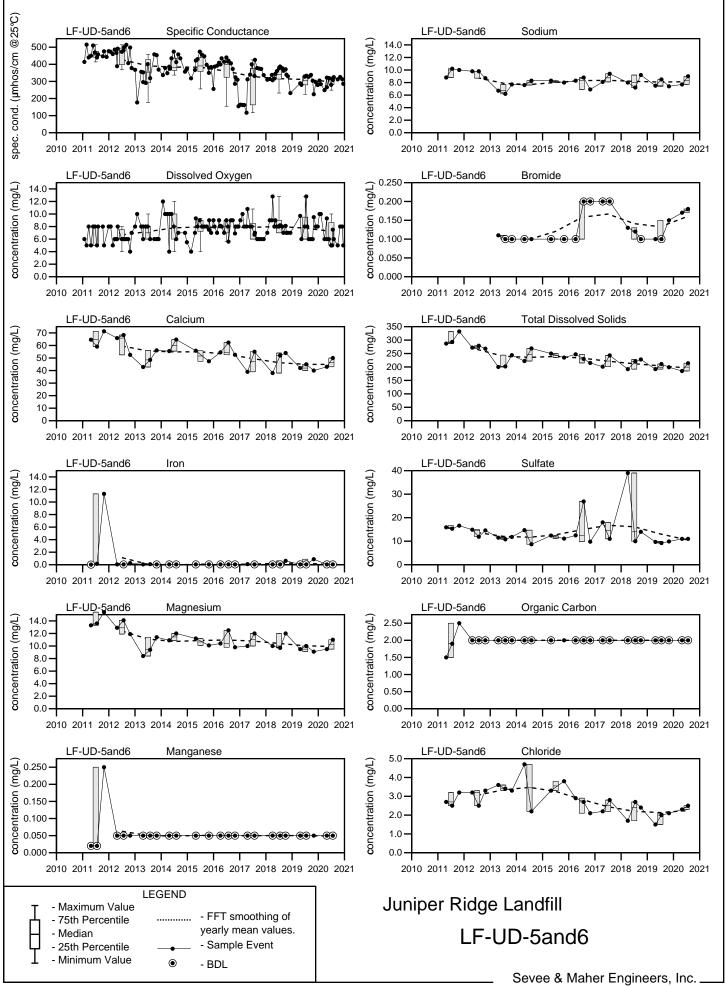
Q2= 4 - 2020

F6 = No flow. Sample not taken.

Q4= 10 - 2020 D = The sampling location was dry.

Data Group: 537





LF-UD-6 LF-UD-6

Juniper Ridge Landfill annual stats 2020 G6

#### **Well Description**

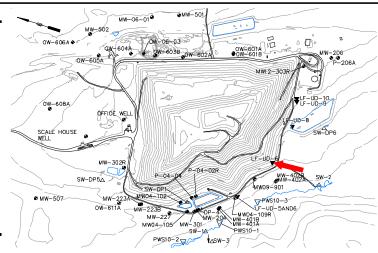
LF-UD-6 monitors the landfill underdrain from Cell #6. This underdrain piper is located along the south perimeter of the landfill.

Sampled: Monthly and 3 Times Annually

Sampled Since: 02/03/2011

Sampling Method: Grab

## Chemical Summary



		20	20		Historical (1/1/	1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)	515	579	F6	F6	70 to 919	560 ± 23	105
pH (STU)	<b>↓</b> 4.4	<b>↓</b> 4.2	F6	F6	5.2 to 8.5	$7.4 \pm 0.039$	104
Temperature (Deg C)	18.6	14.1	F6	F6	7.6 to 24.8	17 ± 0.37	105
Eh (mV)	<b>↑</b> 520	<b>↑</b> 605	F6	F6	140 to 490	$370 \pm 5.3$	104
Dissolved Oxygen (mg/L)	8	7	F6	F6	3.6 to 10	$6.4 \pm 0.13$	103
Flow Rate (cfs)		0.0006	F6	F6	0.00056 to 0.0045	$0.002 \pm 0.000$	23
Arsenic (mg/L)		0.005 U	D	F6	0.003 to 0.026	$0.013 \pm 0.002$	24
Calcium (mg/L)		52	D	F6	24 to 96.4	71 ± 4.1	24
Iron (mg/L)		0.05 U	D	F6	0.02 U to 6.28	$0.32 \pm 0.26$	24
Magnesium (mg/L)		6	D	F6	2.9 to 25.4	16 ± 1.5	24
Manganese (mg/L)		<b>↑</b> 3.3	D	F6	0.02 U to 0.68	0.079 ± 0.027	24
Potassium (mg/L)		5.7	D	F6	1.7 to 5.9	4 ± 0.25	24
Sodium (mg/L)		1.9	D	F6	0.5 to 74.3	$33 \pm 6.3$	24
Nitrite/Nitrate - (N) (mg/L)		<b>↑</b> 60	D	F6	1.4 to 27	8 ± 2.3	12
Total Phosphorus Mixed Forms (PO4 and C		0.2	D	F6	0.01 to 0.65	0.11 ± 0.026	24
Total Dissolved Solids (mg/L)		438	D	F6	149 to 563	390 ± 30	24
Total Suspended Solids (mg/L)		2.5 U	D	F6	2.5 U to 150	16 ± 7.3	24
Sulfate (mg/L)		12	D	F6	2 U to 143	53 ± 9.8	24
Bicarbonate Alkalinity (CaCO3) (mg/L)		↓1.5 U	D	F6	4.9 to 359	250 ± 21	24
Alkalinity (CaCO3) (field) (mg/L)	FK	H8	F6	F6	35 to 490	210 ± 11	92
Organic Carbon (mg/L)		2 U	D	F6	2 U to 3.6	$2.7 \pm 0.11$	24
Chloride (mg/L)		2 U	D	F6	1 U to 18.2	7 ± 1.1	24
Bromide (mg/L)		0.2 U	D	F6	0.1 U to 0.5 U	$0.13 \pm 0.022$	18
Turbidity (field) (NTU)	19.4	0.6	F6	F6	0.1 to 126.9	5.5 ± 1.4	104

<u>underlined/bold</u> - 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 - 2020 U = Not Detected above the laboratory reporting limit.

Q2= 4 - 2020 H8 = No flow from pipe. See LF-COMP for readings FK = Outside range of available field kits.

Q3= 7 - 2020 F6 = No flow. Sample not taken.

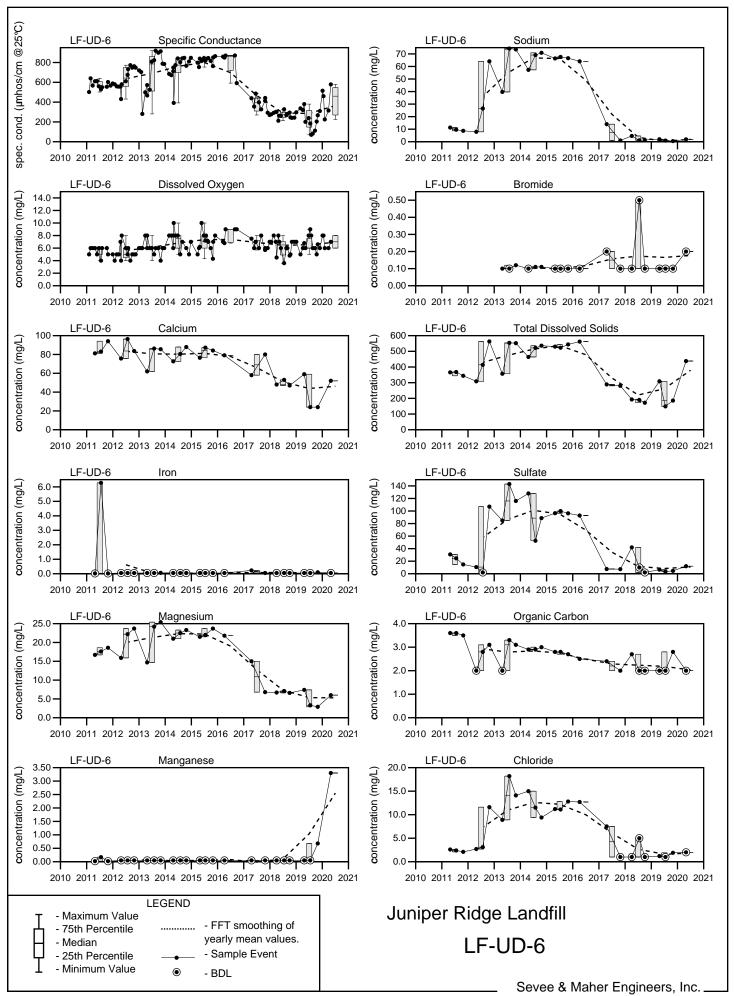
Q4= 10 - 2020 D = The sampling location was dry.

Data Group: 537

Printed: 3/22/2021 10:52



LF-UD-6



LF-UD-7 LF-UD-7

Juniper Ridge Landfill annual stats 2020 G6

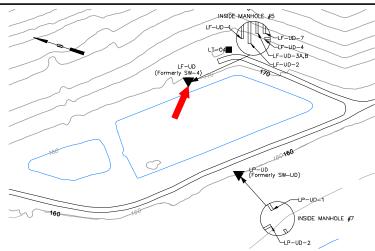
#### **Well Description**

LF-UD-7 monitors the landfill underdrain from Cell #7 and Manhole #5.

Sampled: Monthly and 3 Times Annually

Sampled Since: 11/30/2011

Sampling Method: Grab



# **Chemical Summary**

		2	020		Historical ( - )	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max Mean SE n	
Specific Conductance (µmhos/cm @25°C)	H8	H8	H8	H8	No historical data for Specific Conductance.	
pH (STU)	H8	H8	H8	H8	No historical data for pH.	
Temperature (Deg C)	H8	H8	H8	H8	No historical data for Temperature.	
Eh (mV)	H8	H8	H8	H8	No historical data for Eh.	
Dissolved Oxygen (mg/L)	H8	H8	H8	H8	No historical data for Dissolved Oxygen.	
Flow Rate (cfs)	H8	H8	H8	H8	No historical data for Flow Rate.	
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 C		F6	F6	F6	data 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 Alkalinity (CaCO3) (mg/L)		F6	F6	F6	No historical data for Bicarbonate Alkalinity (CaCO3).	
Alkalinity (CaCO3) (field) (mg/L)	H8	H8	H8	H8	No historical data for Alkalinity (CaCO3) (field).	
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)	H8	H8	H8	H8	No historical data for Turbidity (field).	

<u>underlined/bold</u> - 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 - 2020 H8 = No flow from pipe. See LF-COMP for readings

Q2= 4 - 2020

F6 = No flow. Sample not taken. Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 537



LF-UD-8 LF-UD-8

Juniper Ridge Landfill annual stats 2020 G6

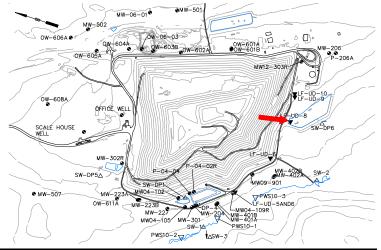
#### **Well Description**

LF-UD-8 monitors the landfill underdrain from Cell #8. This underdrain piper is located along the southern perimeter of the landfill.

Sampled: 3 Times Annually

Sampled Since: 4/23/2013

Sampling Method: Grab



#### **Chemical Summary**

		2	020		Historical (1/1	/1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Specific Conductance (µmhos/cm @25°C)	F6	F6	F6	F6	64 to 407	200 ± 32	17
pH (STU)	F6	F6	F6	F6	6.8 to 8.5	7.5 ± 0.13	17
Temperature (Deg C)	F6	F6	F6	F6	2.8 to 26.9	12 ± 1.5	17
Eh (mV)	F6	F6	F6	F6	235 to 568	370 ± 21	17
Dissolved Oxygen (mg/L)	F6	F6	F6	F6	5 to 10.9	$7.6 \pm 0.52$	17
Flow Rate (cfs)	F6	F6	F6	F6	0.00003 to 0.0045	$0.0014 \pm 0.000$	14
Arsenic (mg/L)		F6	F6	F6	0.005 U to 0.014	$0.0069 \pm 0.001$	11
Calcium (mg/L)		F6	F6	F6	4.8 to 50.1	19 ± 5.4	11
Iron (mg/L)		F6	F6	F6	0.05 U to 1.5	0.57 ± 0.14	11
Magnesium (mg/L)		F6	F6	F6	0.8 to 11.1	$3.6 \pm 1.3$	11
Manganese (mg/L)		F6	F6	F6	0.05 U to 0.15	$0.069 \pm 0.01$	11
Potassium (mg/L)		F6	F6	F6	0.8 to 3.7	1.9 ± 0.36	11
Sodium (mg/L)		F6	F6	F6	1.3 to 7.3	$3.8 \pm 0.67$	11
Nitrite/Nitrate - (N) (mg/L)		F6	F6	F6	0.05 U to 0.5 U	$0.14 \pm 0.073$	6
Total Phosphorus Mixed Forms (PO4 and C		F6	F6	F6	0.04 U to 0.1	$0.05 \pm 0.006$	11
Total Dissolved Solids (mg/L)		F6	F6	F6	42 to 222	100 ± 21	11
Total Suspended Solids (mg/L)		F6	F6	F6	4 U to 43	$9.2 \pm 3.5$	11
Sulfate (mg/L)		F6	F6	F6	4.6 to 49	14 ± 3.6	11
Bicarbonate Alkalinity (CaCO3) (mg/L)		F6	F6	F6	6 to 180	58 ± 22	11
Organic Carbon (mg/L)		F6	F6	F6	2 U to 6.3	$3.9 \pm 0.48$	11
Chloride (mg/L)		F6	F6	F6	2 to 14	5.2 ± 1	11
Bromide (mg/L)		F6	F6	F6	0.1 U to 0.2 U	0.11 ± 0.009	11
Turbidity (field) (NTU)	F6	F6	F6	F6	0.04 to 24.35	$2.6 \pm 1.4$	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

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

Q1= 1 - 2020 F6 = No flow. Sample not taken.

Q2= 4 - 2020

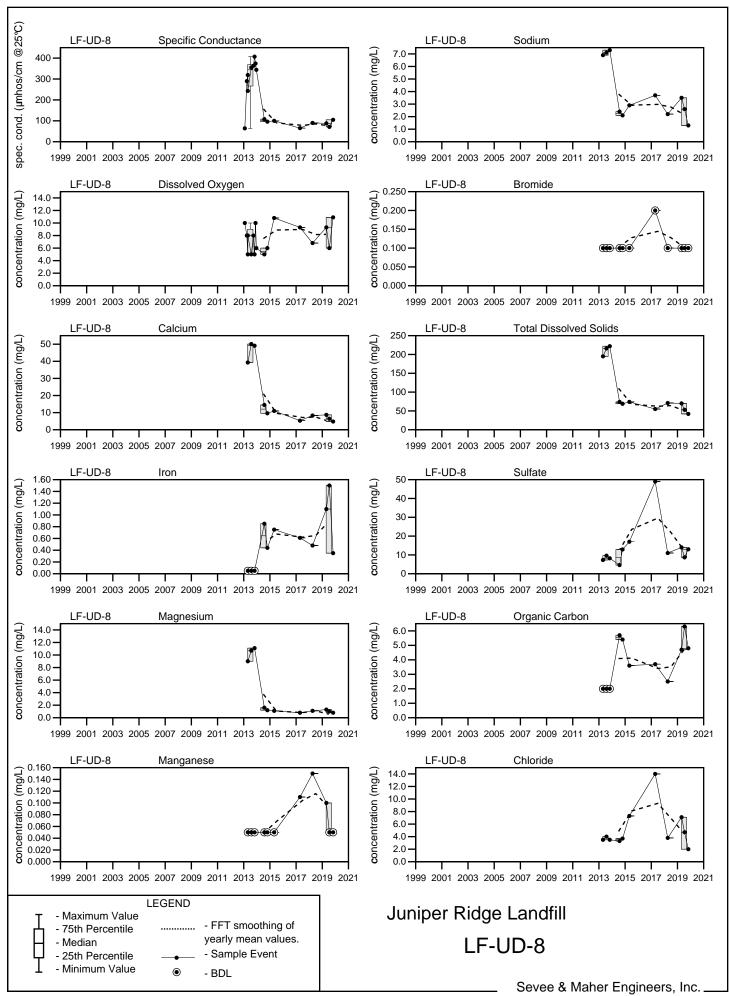
F = The sampling location was frozen.

Q3= 7 - 2020 Q4= 10 - 2020

D = The sampling location was dry.

Data Group: 537





Juniper Ridge Landfill annual stats 2020 G11

#### **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

# MW-D6-01 € MW-502 品 **₽**}\* OW-608A OFFICE WEL SCALE HOUSE ₱ MW-507 -UD-5AND6

#### **Chemical Summary**

		2	020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)	F6	F6	F6	F6	135 to 292	200 ± 33	4	
pH (STU)	F6	F6	F6	F6	6.6 to 7.6	$7.2 \pm 0.21$	4	
Temperature (Deg C)	F6	F6	F6	F6	7.1 to 15.1	10 ± 1.8	4	
Eh (mV)	F6	F6	F6	F6	278 to 458	$370 \pm 37$	4	
Dissolved Oxygen (mg/L)	F6	F6	F6	F6	7 to 10.8	8.5 ± 0.91	4	
Flow Rate (cfs)	F6	F6	F6	F6	0.0004 to 0.0045	$0.0023 \pm 0.001$	4	
Arsenic (mg/L)		F6	F6	F6	0.007 to 0.007	$0.007 \pm 0$	1	
Calcium (mg/L)		F6	F6	F6	55 to 55	55 ± 0	1	
Iron (mg/L)		F6	F6	F6	1.4 to 1.4	$1.4 \pm 0$	1	
Magnesium (mg/L)		F6	F6	F6	6.8 to 6.8	$6.8 \pm 0$	1	
Manganese (mg/L)		F6	F6	F6	0.06 to 0.06	$0.06 \pm 0$	1	
Potassium (mg/L)		F6	F6	F6	4.3 to 4.3	$4.3 \pm 0$	1	
Sodium (mg/L)		F6	F6	F6	6.5 to 6.5	$6.5 \pm 0$	1	
Nitrite/Nitrate - (N) (mg/L)		F6	F6	F6	0.88 to 0.88	$0.88 \pm 0$	1	
Total Phosphorus Mixed Forms (PO4 and		F6	F6	F6	0.08 to 0.08	$0.08 \pm 0$	1	
Total Dissolved Solids (mg/L)		F6	F6	F6	224 to 224	$220 \pm 0$	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 Alkalinity (CaCO3) (mg/L)		F6	F6	F6	90 to 90	$90 \pm 0$	1	
Alkalinity (CaCO3) (field) (mg/L)	F6	F6	F6	F6	25 to 50 U	$35 \pm 7.6$	3	
Organic Carbon (mg/L)		F6	F6	F6	2.7 to 2.7	$2.7 \pm 0$	1	
Chloride (mg/L)		F6	F6	F6	5.1 to 5.1	$5.1 \pm 0$	1	
Bromide (mg/L)		F6	F6	F6	0.2 U to 0.2 U	$0.2 \pm 0$	1	
Turbidity (field) (NTU)	F6	F6	F6	F6	1.2 to 49.6	26 ± 12	4	

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 - 2020 F6 = No flow. Sample not taken.

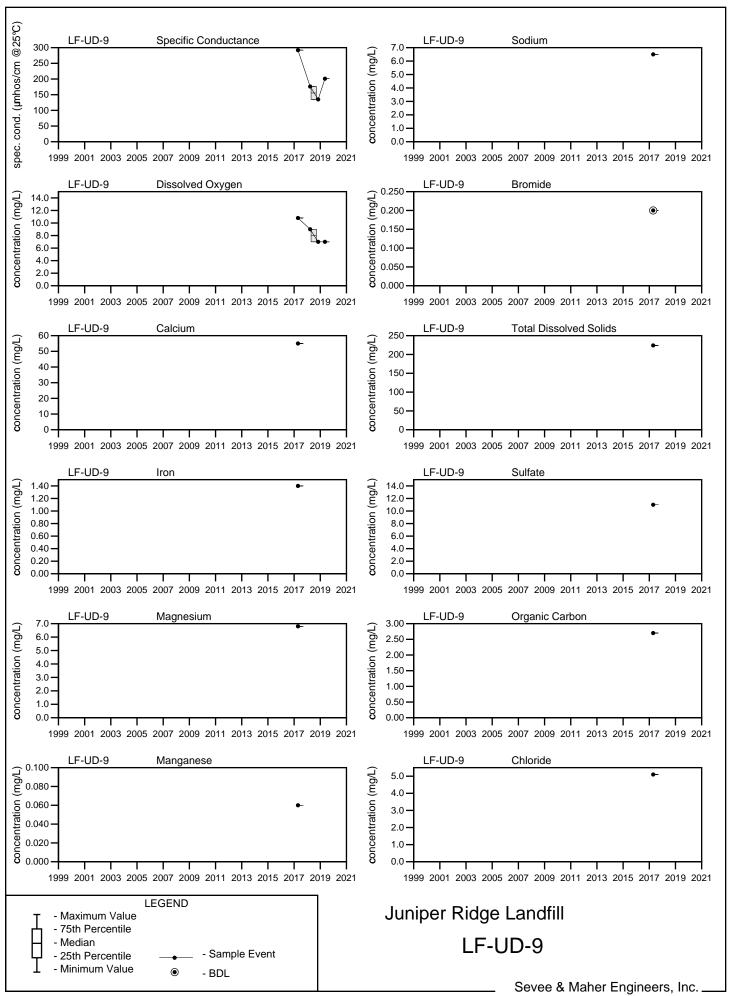
Q2= 4 - 2020

D = The sampling location was dry. Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 548





LF-UD-10 LF-UD-10

Juniper Ridge Landfill annual stats 2020 G11

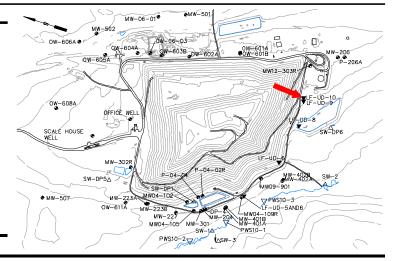
#### **Well Description**

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



	2020				Historical (1/1/	Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n		
Specific Conductance (µmhos/cm @25°C)	F6	F6	F6	F6	111 to 175	130 ± 14	4		
pH (STU)	F6	F6	F6	F6	6.8 to 7.3	7.1 ± 0.12	4		
Temperature (Deg C)	F6	F6	F6	F6	5.1 to 14.9	$9.9 \pm 2$	4		
Eh (mV)	F6	F6	F6	F6	295 to 455	$390 \pm 34$	4		
Dissolved Oxygen (mg/L)	F6	F6	F6	F6	7 to 9	$7.8 \pm 0.48$	4		
Flow Rate (cfs)	F6	F6	F6	F6	0.00056 to 0.0178	$0.0066 \pm 0.004$	4		
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 historica	al data for Iron.			
Magnesium (mg/L)		F6	F6	F6	No historical da	ata for Magnesium.			
Manganese (mg/L)		F6	F6	F6	No historical data for Manganese.				
Potassium (mg/L)		F6	F6	F6	No historical d	ata 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	ita for Total Phosphorus Mix	ced Forms (PO4 and C	ر (rganic)		
Total Dissolved Solids (mg/L)		F6	F6	F6	No historical data for	r Total Dissolved Solid	S.		
Total Suspended Solids (mg/L)		F6	F6	F6	No historical data for	Total Suspended Solid	ds.		
Sulfate (mg/L)		F6	F6	F6	No historical	data for Sulfate.			
Bicarbonate Alkalinity (CaCO3) (mg/L)		F6	F6	F6	No historical data for Bicarbonate Alkalinity (CaCO3).		CO3).		
Alkalinity (CaCO3) (field) (mg/L)	F6	F6	F6	F6	0 to 50 U	25 ± 14	3		
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	F6	F6	F6	12.9 to 49.6	$39 \pm 8.8$	4		

<u>underlined/bold</u> - 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 - 2020 F6 = No flow. Sample not taken.

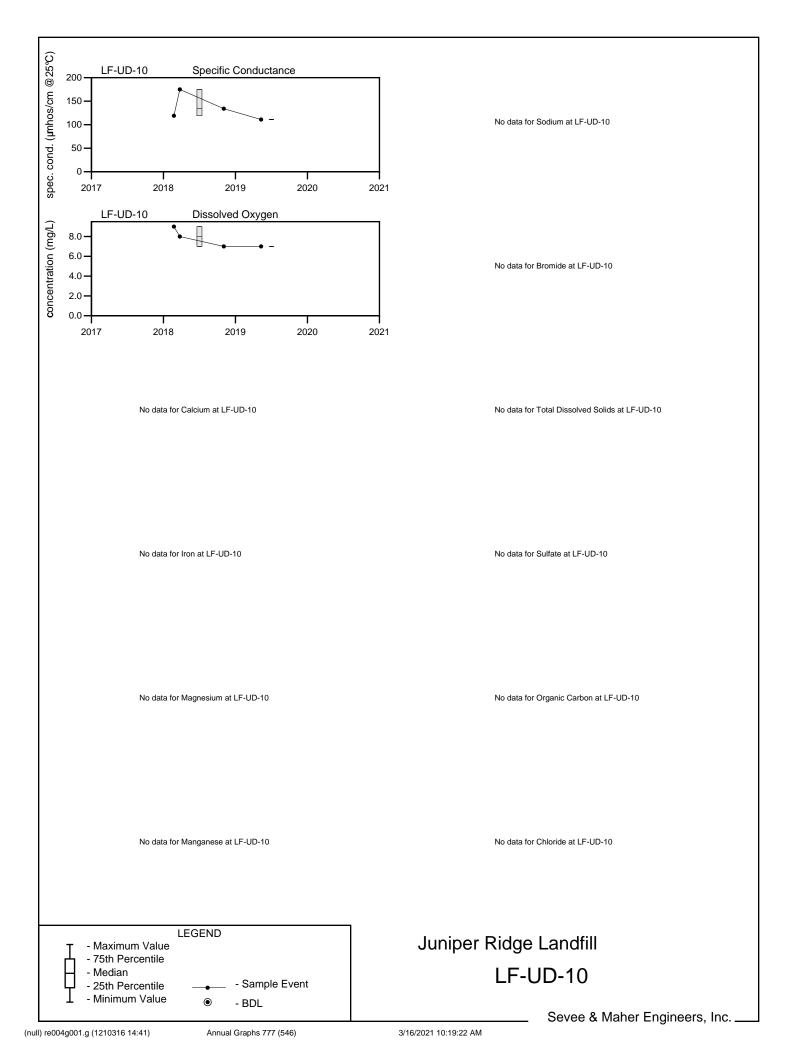
Q2= 4 - 2020

Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 548





LP-COMP

Juniper Ridge Landfill annual stats 2020 G6

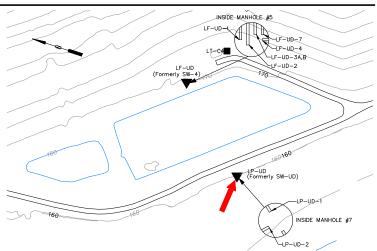
#### **Well Description**

Manhole #7 composite sample

Sampled: See comments below

Sampled Since: 10/27/04

Sampling Method: Grab



#### **Chemical Summary**

	2020				Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)	256	275	303	288	92 to 665	300 ± 9.6	73	
pH (STU)	7.3	7.2	7.2	7.4	6 to 8.4	7.1 ± 0.05	73	
Temperature (Deg C)	7.8	22.4	22.4	14.9	3.4 to 25.1	$14 \pm 0.6$	73	
Eh (mV)	418	352	416	426	191 to 520	$360 \pm 4.8$	73	
Dissolved Oxygen (mg/L)	6	8	6	8	3 to 10	7 ± 0.2	71	
Alkalinity (CaCO3) (field) (mg/L)	135	150	175	150	75 to 260	130 ± 3.3	73	
Turbidity (field) (NTU)	1.8	1.8	0.2	2.7	0 to 7.4	1.1 ± 0.14	73	

<u>underlined/bold</u> - 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 - 2020

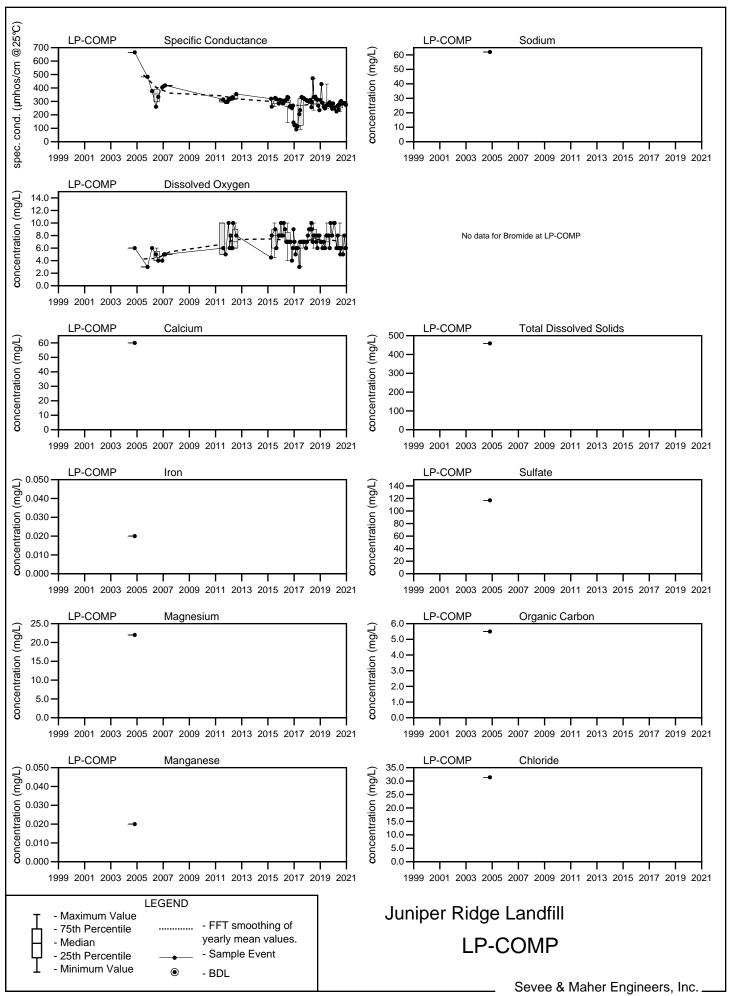
Q2= 4 - 2020

Q3= 7 - 2020

Q4= 10 - 2020

Data Group: 537





Juniper Ridge Landfill annual stats 2020 G6

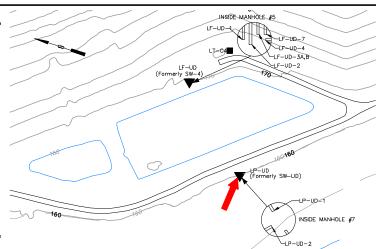
#### **Well Description**

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

		2	020		Historical (1/1/1980 - 12/31/2020)			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n	
Specific Conductance (µmhos/cm @25°C)	H9	H9	H9	H9	241 to 517	380 ± 140	2	
pH (STU)	H9	H9	H9	H9	6.8 to 7.1	7 ± 0.15	2	
Temperature (Deg C)	H9	H9	H9	H9	6.2 to 8.3	7.3 ± 1.1	2	
Eh (mV)	H9	H9	H9	H9	368 to 370	370 ± 1	2	
Dissolved Oxygen (mg/L)	H9	H9	H9	H9	2.5 to 5	$3.8 \pm 1.3$	2	
Flow Rate (cfs)	H9	H9	H9	H9	0.0011 to 0.0011	0.0011 ± 0	1	
Arsenic (mg/L)		F6	F6	F6	0.005 U to 0.005 U	$0.005 \pm 0$	1	
Calcium (mg/L)		F6	F6	F6	32 to 32	$32 \pm 0$	1	
Iron (mg/L)		F6	F6	F6	0.05 to 0.05	$0.05 \pm 0$	1	
Magnesium (mg/L)		F6	F6	F6	8.7 to 8.7	$8.7 \pm 0$	1	
Manganese (mg/L)		F6	F6	F6	0.05 U to 0.05 U	$0.05 \pm 0$	1	
Potassium (mg/L)		F6	F6	F6	1.7 to 1.7	$1.7 \pm 0$	1	
Sodium (mg/L)		F6	F6	F6	5.5 to 5.5	$5.5 \pm 0$	1	
Nitrite/Nitrate - (N) (mg/L)		F6	F6	F6	0.31 to 0.31	$0.31 \pm 0$	1	
Total Phosphorus Mixed Forms (PO4 and C		F6	F6	F6	0.04 U to 0.04 U	$0.04 \pm 0$	1	
Total Dissolved Solids (mg/L)		F6	F6	F6	163 to 163	160 ± 0	1	
Total Suspended Solids (mg/L)		F6	F6	F6	2.5 U to 2.5 U	$2.5 \pm 0$	1	
Sulfate (mg/L)		F6	F6	F6	23 to 23	$23 \pm 0$	1	
Bicarbonate Alkalinity (CaCO3) (mg/L)		F6	F6	F6	120 to 120	120 ± 0	1	
Organic Carbon (mg/L)		F6	F6	F6	2 U to 2 U	2 ± 0	1	
Chloride (mg/L)		F6	F6	F6	3.1 to 3.1	$3.1 \pm 0$	1	
Bromide (mg/L)		F6	F6	F6	0.1 U to 0.1 U	$0.1 \pm 0$	1	
Turbidity (field) (NTU)	H9	H9	H9	H9	0 to 0.4	$0.2 \pm 0.2$	2	

<u>underlined/bold</u> - 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 - 2020 H9 = No flow from pipe. See LP-COMP for readings

Q2= 4 - 2020 Q3= 7 - 2020

F6 = No flow. Sample not taken.

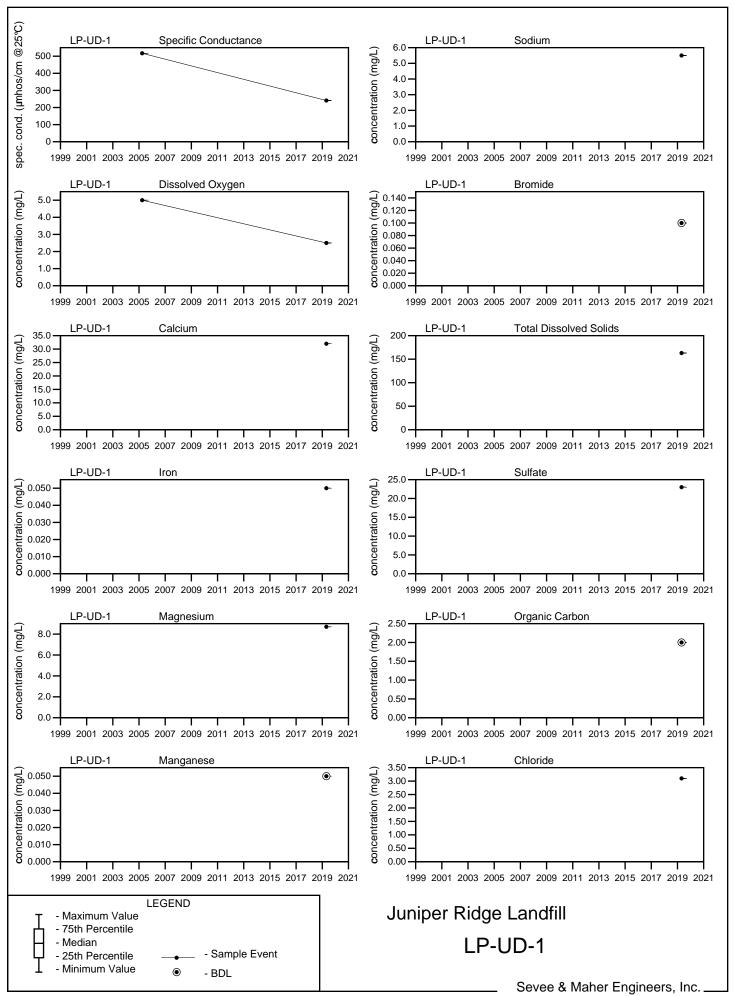
Q4= 10 - 2020

Data Group: 537

Printed: 3/22/2021 10:53



LP-UD-1



LP-UD-2 LP-UD-2

Juniper Ridge Landfill annual stats 2020 G6

#### Well Description

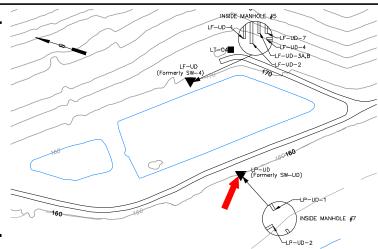
LP-UD-2 is located in Manhole #7 and monitors the water quality of the leachate underdrain on the north end of the former leachate pond.

Sampled: Monthly and 3 Times Annually

Sampled Since: 07/28/04

Sampling Method: Grab

Chemical Summary



#### 2020 Historical (1/1/1980 - 12/31/2020) **Indicator Parameters** Q1 Q2 Q3 Q4 Min Max Mean n Specific Conductance (µmhos/cm @25°C) 256 304 310 292 110 to 834 330 ± 6.1 177 pH (STU) 7.3 7.7 7.2 7.5 5.7 to 8.5 $7.1 \pm 0.031$ 177 Temperature (Deg C) 8 7.4 22.1 15 1.3 to 25.2 $13 \pm 0.38$ 177 Eh (mV) 423 336 414 419 157 to 520 $340 \pm 4.8$ 176 Dissolved Oxygen (mg/L) 6 8.5 8 8.3 1 to 12 $6.7 \pm 0.13$ 177 Flow Rate (cfs) 0.0067 0.0033 0.0017 0.0023 0.0002 to 0.0089 $0.0019 \pm 0.000$ 136 0.005 U 0.005 U 0.005 U 0.001 U to 0.024 $0.0062 \pm 0.000$ 47 Arsenic (mg/L) Calcium (mg/L) 36 38 40 28.8 to 68.2 $38 \pm 1.1$ 47 0.05 U 0.17 0.61 0.02 U to 2.86 $0.18 \pm 0.078$ 47 Iron (mg/L) Magnesium (mg/L) $11 \pm 0.33$ 10 12 12 7.7 to 21 47 0.05 U 0.05 U 0.05 U 0.02~U~to~0.8 $0.064 \pm 0.018$ Manganese (mg/L) 47 Potassium (mg/L) 1.7 2.8 2.1 1.7 to 25 $3.4 \pm 0.51$ 47 Sodium (mg/L) 6 1 7.9 7 4 5.6 to 5811 ± 1.2 47 Nitrite/Nitrate - (N) (mg/L) 0.38 ↓0.085 0.24 0.1 to 2 U $0.36 \pm 0.12$ 15 Total Phosphorus Mixed Forms (PO4 and C 0.04 U 0.04 U 10.17 0.01 U to 0.11 $0.03 \pm 0.003$ 47 Total Dissolved Solids (mg/L) 170 204 199 151 to 455 $210 \pm 7.4$ 47 2.5 U Total Suspended Solids (mg/L) 41 36 2.5 U to 73 $5.3 \pm 1.5$ 47 Sulfate (mg/L) 9.6 98 8 1 2 U to 116 14 ± 2.6 47 Bicarbonate Alkalinity (CaCO3) (mg/L) 140 150 150 90 to 229 140 ± 3.9 47 125 150 175 150 30 to 350 140 ± 3.2 160 Alkalinity (CaCO3) (field) (mg/L)

2 U

4.2

0.13

0.6

↑27 M10

8 4

0.12

8.0

0.7 U to 6.3

2.3 to 31.1

0.1 U to 0.2 U

0 to 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.

2 U

3.4

0.4

0.1 U

#### Comments

Organic Carbon (mg/L)

Turbidity (field) (NTU)

Chloride (mg/L)

Bromide (mg/L)

This location is monitored triannually for field and lab parameters and monthly for field parameters only.

0.7

Q1= 1 - 2020 U = Not Detected above the laboratory reporting limit.

Q2= 4 - 2020

M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

Q4= 10 - 2020

Data Group: 537

Printed: 3/22/2021 10:53



 $2 \pm 0.13$ 

 $7.6 \pm 0.69$ 

 $0.12 \pm 0.009$ 

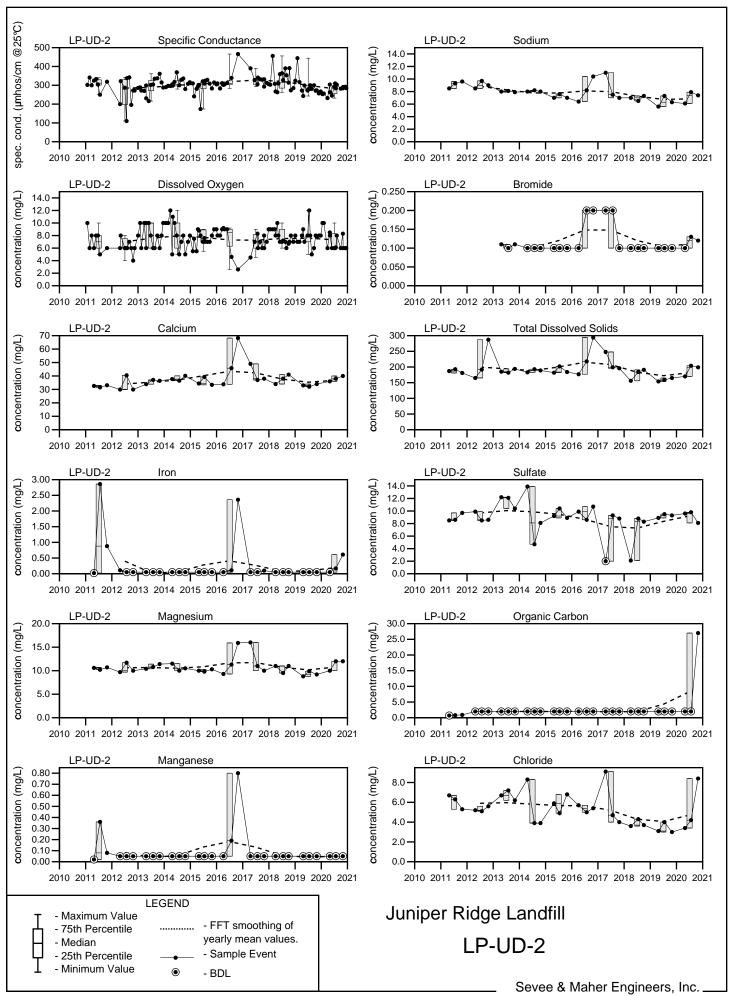
 $1.3 \pm 0.35$ 

47

47

21

176



LT-C4L & LT-C4LR

Juniper Ridge Landfill annual stats 2020 G7

#### **Well Description**

Leachate collection location at leachate storage tank.

Sampled: 3 Times Annually

Sampled Since: 07/30/2013

Sampling Method: Grab

# OW-606A OW-604 OW-604 OW-601A OW-601A OW-601B OW-601B

#### **Chemical Summary**

		2	:020		Historical (1/1/	1980 - 12/31/2020)	
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Nitrate (N) (mg/L)		210			5 U to 1210	110 ± 54	23
Specific Conductance (µmhos/cm @25°C)		17490	25800	21900	11470 to 30700	22000 ± 900	33
pH (STU)		6.6	5.9	7.5	5.5 to 7.6	7 ± 0.076	33
Temperature (Deg C)		12.6	<b>^</b> 29	12.8	9.4 to 28.3	18 ± 0.89	33
Eh (mV)		-20	-311	-299	-178 to 238	19 ± 19	33
Dissolved Oxygen (mg/L)		2.8	1.1	D2	1 to 8	$3.2 \pm 0.89$	9
Aluminum (mg/L)		0.54			0.201 to 0.72	$0.41 \pm 0.059$	11
Antimony (mg/L)		0.005 U			0.005 U to 0.065	$0.019 \pm 0.005$	11
Arsenic (mg/L)		0.25	0.33	0.24	0.059 to 0.6	$0.21 \pm 0.024$	33
Barium (mg/L)		0.94			0.77 to 1.873	$1.3 \pm 0.096$	11
Beryllium (mg/L)		0.0006 U	l		0.0002 U to 0.003 U	$0.0013 \pm 0.000$	11
Cadmium (mg/L)		0.0053			0.0006 U to 0.0161	$0.005 \pm 0.000$	23
Calcium (mg/L)		300	310	310	259 to 1759	560 ± 58	33
Chromium (mg/L)		0.1			0.024 to 0.105	$0.06 \pm 0.009$	11
Cobalt (mg/L)		0.01 U			0.01 U to 0.05 U	$0.026 \pm 0.005$	11
Copper (mg/L)		0.003 U			0.003 U to 0.065	$0.02 \pm 0.004$	23
Iron (mg/L)		6	<b>↓</b> 3.5	7.5	5.1 to 179	31 ± 6.1	33
Lead (mg/L)		0.003 U			0.002 to 0.095	$0.026 \pm 0.009$	11
Magnesium (mg/L)		220	340	250	179 to 532	340 ± 16	33
Manganese (mg/L)		1.7	<b>↓</b> 1.3	14	1.5 to 26	6.6 ± 1.2	33
Mercury (mg/L)		0.0005 U			0.0002 U to 0.0005 U	0.00042 ± 4E-05	11
Nickel (mg/L)		0.035			0.022 to 0.304	$0.1 \pm 0.014$	23
Potassium (mg/L)		790	1400	900	580 to 1982	1300 ± 64	33
Selenium (mg/L)		0.022			0.005 U to 0.098	$0.03 \pm 0.008$	11
Silver (mg/L)		0.001 U			0.0003 to 0.2	$0.025 \pm 0.018$	11
Sodium (mg/L)		1700	2800	2000	1024 to 8135	2500 ± 220	33
Thallium (mg/L)		0.004 U			0.001 U to 0.02 U	$0.0093 \pm 0.002$	11
Vanadium (mg/L)		0.039			0.01 to 0.1	$0.037 \pm 0.008$	11
Zinc (mg/L)		0.046			0.011 to 0.604	$0.14 \pm 0.052$	11
Tin (mg/L)		0.016			0.005 U to 0.157	$0.053 \pm 0.015$	11
Total Kjeldahl Nitrogen (mg/L)		730	780	660	290 to 1400	770 ± 43	31
Ammonia (N) (mg/L)		590			74 to 840	$570 \pm 40$	23
Nitrite/Nitrate - (N) (mg/L)			0.2	0.05 U	0.05 U to 10 U	$1.5 \pm 0.99$	10
Total Dissolved Solids (mg/L)		10160	14610	10940	13 to 19816	13000 ± 720	33
Total Suspended Solids (mg/L)		48	8	29	5 to 625	80 ± 19	33
Sulfate (mg/L)		1300	2000	120	10.4 to 2900	820 ± 160	33
Sulfide (mg/L)		16			0.18 to 78	12 ± 3.9	22

Data Group: 538



LT-C4L & LT-C4LR LT-C4LR

Juniper Ridge Landfill					annual stats	2020 G7
Ca-mg Hardness (CaCO3) (mg/L)	1700			1400 to 6212	2500 ± 400	11
Bicarbonate Alkalinity (CaCO3) (mg/L)	2400	3100	2700	1370 to 4710	3000 ± 130	33
Alkalinity (CaCO3) (mg/L)	2400			1370 to 3700	2700 ± 230	11
Organic Carbon (mg/L)	880	500	1100 M10	110 to 2560	870 ± 120	33
Biochemical Oxygen Demand (mg/L)	200			39 to 4850	1400 ± 300	22
Chemical Oxygen Demand (mg/L)	1700			959 to 8110	3500 ± 450	23
Chloride (mg/L)	8300	13000	7400	2560 to 24300	12000 ± 930	33
Bromide (mg/L)	52	120	77	10 U to 188	66 ± 7.5	25
Cyanide (ug/L)	5 U			0.006 to 74	14 ± 7	11
Turbidity (field) (NTU)	D3	D3	741	6.1 to 1733	440 ± 130	20

<u>underlined/bold</u> - 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 - 2020 U = Not Detected above the laboratory reporting limit.

Q3= 7 - 2020

Q4= 10 - 2020

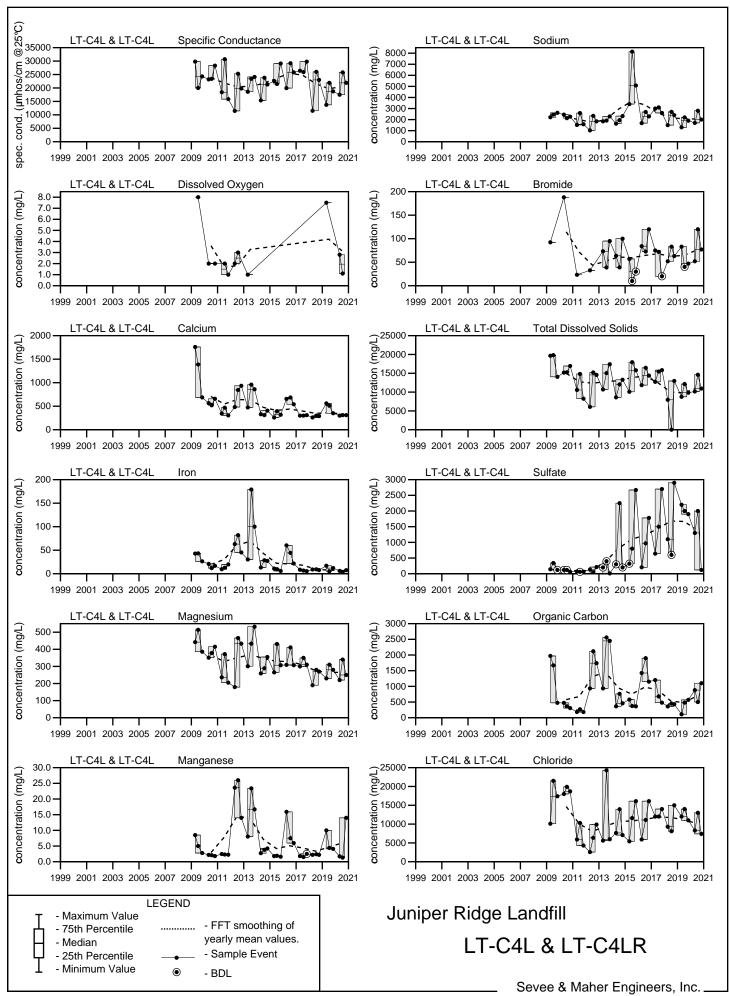
M10 = Due to a identified laboratory instrumentation malfunction, this analytical result is likely elevated—the laboratory has fixed the issue.

D3 = Sample too dark to take reading.

D2 = Sample too dark to read D.O. reading.

Data Group: 538





#### **APPENDIX F**

#### **MANN-KENDALL TREND ANALYSIS RESULTS**



#### Summary of Mann-Kendall Trend Analysis 95% Confidence (alpha=0.05) Juniper Ridge Landfill 2020

3-yr trend: 1/1/2018 to 12/31/2020 5-yr trend: 1/1/2016 to 12/31/2020

	Increasi	ng Trends	Decreasi	ng Trends	NoTi	rends
LOCATION	3 Year	5 Year	3 Year	5 Year	3 Year	5 Year
LF-COMP	ALK (fld)	ALK (fld)	Spec Cond, DO	DO	pH, Temp, Eh, TURB (fld)	Spec Cond, pH, Temp, Eh, TURB (fld)
LF-UD-2	ALK (fld)	Spec Cond, Eh, Na, HCO3	Spec Cond, Eh, Flow Rate, Cl	Cl	pH, Temp, DO, As, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N	pH, Temp, DO, Flow Rate, As, Ca, Fe, Mg, Mn, K, TDS, TSS, SO4, ALK (fld), OC, Bromide, TURB (fld), NO2/NO3 - N
LF-UD-5and6	pH, Temp, ALK (fld), TURB (fld)	Eh, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, Eh, DO, Flow Rate	K, TDS	As, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, NO2/NO3 - N	Spec Cond, pH, Temp, DO, Flow Rate, As, Ca, Fe, Mg, Mn, Na, TSS, SO4, HCO3, ALK (fld), OC, Cl
LF-UD-6	NO2/NO3 - N		рН, НСОЗ	Spec Cond, pH, As, Ca, Mg, Na, HCO3	Spec Cond, Temp, Eh, DO, Flow Rate, As, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld)	Temp, Eh, DO, Flow Rate, Fe, Mn, K, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N
LP-COMP	pH, Temp, ALK (fld)	Eh, TURB (fld)	Spec Cond, DO		Eh, TURB (fld)	Spec Cond, pH, Temp, DO, ALK (fld)
LP-UD-2	Temp, SO4, HCO3, ALK (fld)	TURB (fld), NO2/NO3 - N	Spec Cond, Eh, TURB (fld)	Flow Rate, As, ALK (fld), Cl	pH, DO, Flow Rate, As, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, OC, Cl, Bromide, NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, HCO3, OC, Bromide
LT-C4LR	ос			Fe, HCO3, BOD5	Spec Cond, pH, Temp, Eh, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Sn, TKN, NH3 - N, NO3 - N, TDS, TSS, SO4, S=, Hard(CaMg), ALK, OC, COD, Cl, Bromide, CN, TURB (fld), NO2/NO3 - N
MW04-102		NO2/NO3 - N	pH	Spec Cond, As, (TSS), Cl	Spec Cond, Temp, MP Elev, WLE NGVD29ft, Water 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	pH, Temp, Water Elev., MP Elev, WLE NGVD29ft, Water Depth, Eh, DO, Well Depth, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, SO4, HCO3, OC, Bromide, TURB (fld)
MW04-109R		pH, Mg, TURB (fld)	Spec Cond, Ca, TDS, SO4, Cl	As, Ca, (TSS), SO4, Cl	pH, Temp, WLE NGVD29ft, Water Elev., Water Depth, MP Elev, Eh, DO, As, Fe, Mg, Mn, K, Na, TKN, TSS, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, Temp, Water Elev., MP Elev, WLE NGVD29ft, Water Depth, Eh, DO, Well Depth, Fe, Mn, K, Na, TKN, TDS, HCO3, OC, Bromide, NO2/NO3 - N
MW06-01	K				Spec Cond, pH, Temp, WLE NGVD29ft, MP Elev, Water Elev., Water Depth, Eh, DO, As, Ca, Fe, Mg, Mn, Na, TKN, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	
MW09-901		Bromide	Spec Cond, Ca, K, TDS, Cl, NO2/NO3 - N	DO, As, K, Na, TKN, (TSS)	pH, Temp, MP Elev, Water Elev., WLE NGVD29ft, Water Depth, Eh, DO, As, Fe, Mg, Mn, Na, TKN, TSS, SO4, HCO3, OC, Bromide, TURB (fld)	Spec Cond, pH, Temp, Water Elev., MP Elev, Water Depth, WLE NGVD29ft, Eh, Well Depth, Ca, Fe, Mg, Mn, TDS, SO4, HCO3, OC, Cl, TURB (fld), NO2/NO3 - N
MW12-303R			Mg	Na	Spec Cond, pH, Temp, Water Elev., WLE NGVD29ft, MP Elev, Water Depth, Eh, DO, As, Ca, Fe, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Water Depth, WLE NGVD29ft, Water Elev., MP Elev, Eh, DO, Well Depth, As, Ca, Fe, Mg, Mn, K, TKN, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N
MW-206		CI	Eh, As	Eh, As, TKN, (Bromide)	Spec Cond, pH, Temp, Water Elev., WLE NGVD29ft, Water Depth, MP Elev, DO, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, WLE NGVD29ft, Water Elev., Water Depth, MP Elev, DO, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, HCO3, OC, TURB (fld), NO2/NO3 - N

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MW-223A	Ca, HCO3, Bromide	Spec Cond, Ca, Mg, K, Na, SO4, HCO3, Bromide, NO2/NO3 - N	DO	pH, DO, As, (TSS), Cl	Spec Cond, pH, Temp, Water Elev., WLE NGVD29ft, MP Elev, Water Depth, Eh, As, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, OC, Cl, TURB (fld), NO2/NO3 - N	Temp, Water Depth, WLE NGVD29ft, Water Elev., MP Elev, Eh, Well Depth, Fe, Mn, TKN, TDS, OC, TURB
MW-223B	Fe, TDS, HCO3, Bromide	Spec Cond, Ca, Mg, K, Na, TDS, SO4, HCO3, Bromide, NO2/NO3 - N	DO	(TSS)	Spec Cond, pH, Temp, WLE NGVD29ft, Water Elev., Water Depth, MP Elev, Eh, As, Ca, Mg, Mn, K, Na, TKN, TSS, SO4, OC, CI, TURB (fld), Methane, NO2/NO3 - N	pH, Temp, MP Elev, Water Elev., WLE NGVD29ft, Water Depth, Eh, DO, Well Depth, As, Fe, Mn, TKN, OC, Cl, TURB (fld), Methane
MW-227			Spec Cond	Spec Cond, (TKN), Cl	pH, Temp, WLE NGVD29ft, MP Elev, Water 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	pH, Temp, Water Depth, MP Elev, WLE NGVD29ft, Water Elev., Eh, DO, Well Depth, As, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
MW-301	SO4	Spec Cond, Ca, Mg, TDS, Cl	NO2/NO3 - N	pH, As, TKN, TSS	Spec Cond, pH, Temp, MP Elev, Water Depth, WLE NGVD29ft, Water Elev., Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, HCO3, OC, Cl, Bromide, TURB (fld)	Temp, Water Depth, WLE NGVD29ft, MP Elev, Water Elev., Eh, DO, Well Depth, Fe, Mn, K, Na, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N
MW-302R		SO4, NO2/NO3 - N		(TSS)	Spec Cond, pH, Temp, WLE NGVD29ft, 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, pH, Temp, WLE NGVD29ft, MP Elev, Water Elev., Water Depth, Eh, DO, Well Depth, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, HCO3, OC, Cl, Bromide, TURB (fld)
MW-401A	TDS, HCO3, CI	CI		(TKN), (TSS), (Bromide)	Spec Cond, pH, Temp, MP Elev, Water Depth, Water Elev., WLE NGVD29ft, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TSS, SO4, OC, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, MP Elev, Water Depth, WLE NGVD29ft, Water Elev., Eh, DO, Well Depth, As, Ca, Fe, Mg, Mn, K, Na, TDS, SO4, HCO3, OC, TURB (fld), NO2/NO3 - N
MW-401B			Eh	Na, (TKN), (TSS)	Spec Cond, pH, Temp, MP Elev, Water Elev., WLE NGVD29ft, Water Depth, 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 Elev., MP Elev, WLE NGVD29ft, Water Depth, Eh, DO, Well Depth, As, Ca, Fe, Mg, Mn, K, TDS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N
MW-402A		Well Depth	Eh, TDS	(TKN), TDS, (TSS), (Bromide)	Spec Cond, pH, Temp, WLE NGVD29ft, Water Depth, Water Elev., MP Elev, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Water Elev., MP Elev, Water Depth, WLE NGVD29ft, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, SO4, HCO3, OC, Cl, TURB (fld), NO2/NO3 - N
MW-402B		TURB (fld)	TDS	As, TDS, Cl	Spec Cond, pH, Temp, Water Elev., Water Depth, WLE NGVD29ft, MP Elev, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TSS, SO4, HCO3, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Water Elev., MP Elev, WLE NGVD29ft, Water Depth, Eh, DO, Well Depth, Ca, Fe, Mg, Mn, K, Na, TKN, TSS, SO4, HCO3, OC, Bromide, NO2/NO3 - N
MW-501					Spec Cond, pH, Temp, MP Elev, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	
OW-06-03	Spec Cond, TURB (fld)				pH, Temp, Water Depth, WLE NGVD29ft, Water Elev., MP Elev, Eh, DO	
OW-601A	Water Depth, K, Na, TDS, SO4		pH, WLE NGVD29ft, Water Elev.		Spec Cond, Temp, MP Elev, Eh, DO, As, Ca, Fe, Mg, Mn, TKN, TSS, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	
OW-601B	Water Depth		Water Elev., WLE NGVD29ft		Spec Cond, pH, Temp, MP Elev, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	
OW-602A	Water Depth		Water Elev., WLE NGVD29ft, DO		Spec Cond, pH, Temp, MP Elev, Eh, As, Ca, Fe, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	
OW-603B	Water Depth		Spec Cond, WLE NGVD29ft, Water Elev.		pH, Temp, MP Elev, Eh, DO, TURB (fld)	

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OW-604A	Spec Cond, Water Depth, Mg, TDS		WLE NGVD29ft, Water Elev.		pH, Temp, MP Elev, Eh, DO, As, Ca, Fe, Mn, K, Na, TKN, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	
P-04-02R		HCO3	Spec Cond, Eh, Ca, Mg, Na, TDS, SO4, NO2/NO3 - N	Spec Cond, Ca, Mg, K, Na, (TKN), TDS, (TSS), SO4, Cl, (Bromide)	pH, Temp, Water Elev., Water Depth, MP Elev, WLE NGVD29ft, DO, As, Fe, Mn, K, TKN, TSS, HCO3, OC, Cl, Bromide, TURB (fld)	pH, Temp, MP Elev, Water Elev., WLE NGVD29ft, Water Depth, Eh, DO, Well Depth, As, Fe, Mn, OC, TURB (fld), NO2/NO3 - N
P-04-04	Mg, Cl	Mg, Na, Cl, NO2/NO3 - N		As, TSS, Bromide	Spec Cond, pH, Temp, Water Elev., WLE NGVD29ft, MP Elev, Water Depth, Eh, DO, As, Ca, Fe, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, OC, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, WLE NGVD29ft, Water Elev., Water Depth, MP Elev, Eh, DO, Well Depth, Ca, Fe, Mn, K, TKN, TDS, SO4, HCO3, OC, TURB (fld)
P-206A	DO, HCO3	Spec Cond, Water Depth, Ca, Mg, K, TDS, SO4, HCO3, Cl	As, Na	Water Elev., WLE NGVD29ft, As, Mn, TKN	Spec Cond, pH, Temp, MP Elev, Water Elev., Water Depth, WLE NGVD29ft, Eh, Ca, Fe, Mg, Mn, K, TKN, TDS, TSS, SO4, OC, Cl, Bromide, TURB (fld), NO2/NO3 - N	pH, Temp, MP Elev, Eh, DO, Well Depth, Fe, Na, TSS, OC, Bromide, TURB (fld), NO2/NO3 - N
PWS10-1	Mg, TDS, Cl	K, OC	NO2/NO3 - N	(Bromide)	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mn, K, Na, TSS, SO4, HCO3, OC, Bromide, TURB (fld), Methane	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, Na, TDS, TSS, SO4, HCO3, Cl, TURB (fld), Methane, NO2/NO3 - N
PWS10-2	K, Cl, TURB (fld)	K, Na, SO4, Cl	Eh	As, (Bromide)	Spec Cond, pH, Temp, DO, As, Ca, Fe, Mg, Mn, Na, TDS, TSS, SO4, HCO3, OC, Bromide, Methane, NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, Ca, Fe, Mg, Mn, TDS, TSS, HCO3, OC, TURB (fld), Methane, NO2/NO3 - N
PWS10-3	HCO3, TURB (fld)			SO4	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, SO4, OC, Cl, Bromide, Methane, NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, TDS, TSS, HCO3, OC, Cl, Bromide, TURB (fld), Methane, NO2/NO3 - N
SW-1	Na, TDS, Cl	Mg, K, Na, TDS			Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, TSS, SO4, HCO3, OC, BOD5, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mn, TSS, SO4, HCO3, OC, BOD5, Cl, Bromide, TURB (fld), NO2/NO3 - N
SW-2				(Bromide)	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, K, Na, 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, TDS, TSS, SO4, HCO3, OC, BOD5, Cl, TURB (fld), NO2/NO3 - N
SW-3	К	K		BOD5, TURB (fld)	Spee Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, Na, TDS, TSS, SO4, HCO3, OC, BOD5, Cl, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, Na, TDS, TSS, SO4, HCO3, OC, Cl, Bromide, NO2/NO3 - N
SW-DP1	Spec Cond, Ca, Mg, Mn, K, Na, TDS, SO4, HCO3, OC, Cl	Ca, SO4, OC	Eh		pH, Temp, DO, As, Fe, TSS, Bromide, TURB (fld), NO2/NO3 - N	Spec Cond, pH, Temp, Eh, DO, As, Fe, Mg, Mn, K, Na, TDS, TSS, HCO3, Cl, Bromide, TURB (fld), NO2/NO3 - N
SW-DP5	Mn, K, OC				Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Na, TDS, TSS, SO4, HCO3, Cl, Bromide, TURB (fld), NO2/NO3 - N	
SW-DP6			Eh	Cl, (Bromide)	Spec Cond, pH, Temp, DO, As, Ca, Fe, Mg, Mn, K, Na, 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, TDS, TSS, SO4, HCO3, OC, TURB (fld), NO2/NO3 - N
DP-4						Spec Cond, pH, Temp, Water Depth, WLE NGVD29ft, Water Elev., MP Elev, Eh, DO, Well Depth, TURB (fld)
MW04-105						Spec Cond, pH, Temp, Water Depth, WLE NGVD29ft, Water Elev., MP Elev, Eh, DO, Well Depth, TURB (fld)
MW-204						Spec Cond, pH, Temp, Water Depth, WLE NGVD29ft, Water Elev., MP Elev, Eh, DO, Well Depth, TURB (fld)

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#### Key

Ag = Silver Al = Aluminum ALK (fld) = Alkalinity (CaCO3) (field)

 $ALK = Alkalinity (CaCO3) \qquad As = Arsenic \qquad Ba = Barium \\ Be = Beryllium \qquad BOD5 = Biochemical Oxygen Demand \qquad Bromide = Bromide \\ Ca = Calcium \qquad Cd = Cadmium \qquad Cl = Chloride$ 

CN = Cyanide Co = Cobalt COD = Chemical Oxygen Demand

 $Cr = Chromium \qquad \qquad Cu = Copper \qquad \qquad DO = Dissolved Oxygen \\ Eh = Eh \qquad \qquad Fe = Iron \qquad \qquad Flow Rate = Flow Rate$ 

NH3 - N = Ammonia (N) Ni = Nickel NO2/NO3 - N = Nitrite/Nitrate - (N)
NO3 - N = Nitrate (N) OC = Organic Carbon P = Total Phosphorus Mixed Forms (PO4 an

 $Pb = Lead \\ pH = pH \\ S = Sulfide$ 

 $Sb = Antimony \hspace{1cm} Se = Selenium \hspace{1cm} Sn = Tin \\$ 

SO4 = Sulfate Spec Cond = Specific Conductance TANNIC = Tannin & Lignins (Tannic Acid)

TDS = Total Dissolved SolidsTemp = TemperatureTKN = Total Kjeldahl NitrogenTl = ThalliumTSS = Total Suspended SolidsTURB (fld) = Turbidity (field)V = VanadiumWater Depth = Water Level DepthWater 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.

#### REFERENCES:

State of Wisconsin, Department of Natural Resources, Remediation and Redevelopment Program Mann-Kendall Statistical Test, Form 4400-215 (2/2001)

Gilbert, R.O., Statistical Methods for Environmental Pollution Monitoring, Van Nostrand Reinhold, 1987, pp. 204 - 240 and 272.

Hollander, M. and Wolfe, A.M Nonparameteric Statistical Methods, John Wiley Sons, 1999

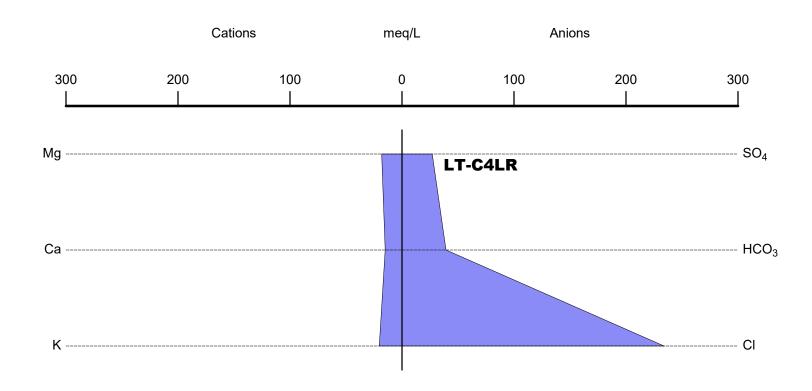
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#### **APPENDIX G**

STIFF AND PIPER DIAGRAMS FOR MW-206, MW-223A, MW-223B, MW-302R, AND LT-C4LR



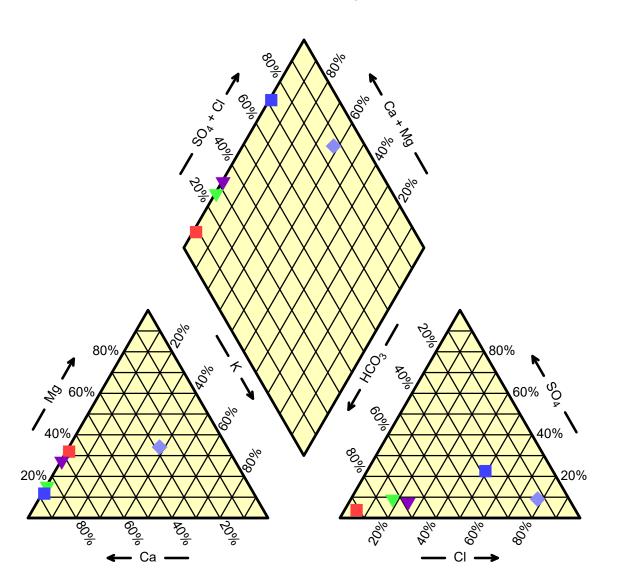
# Stiff Diagram - April 2020



## Stiff Diagram - April 2020



Piper Diagram - April 2020



#### Legend

- MW-206
- ▼ MW-223A
- ▼ MW-223B
- MW-302R
- LT-C4LR

#### **APPENDIX H**

#### **2020 AND HISTORICAL GAS MEASUREMENT DATA**



Page 1 of 20 REPORT PREPARED: 4/1/2021 10:21 SUMMARY REPORT SEVEE & MAHER ENGINEERS, INC. FOR: Juniper Ridge Landfill 4 BLANCHARD ROAD Methane - H2S - Oxygen - CO2 - Report CUMBERLAND CENTER, ME 04021 Oxygen Methane Methane Hydrogen Hydrogen Carbon Dioxide (DP-4) Equivalent Equivalent Sulfide Sulfide (Ambient) (Ambient) Date % Vol. % Vol. ppm % Vol. % Vol. DP-4 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 20.8 0 0 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 20.5 0 0 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 20.2 0 10/21/2014 0.1 US 0.1 US 20.9 0 0 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 20.7 0 0 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 20.9 0 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 20.5 0 0 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 0 20.9 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 4/27/2020 0.1 US 0.1 US 0 0 20.9 0 7/20/2020 0.1 US 0.1 US 0 0 20.9 0 10/26/2020 0.1 US 0.1 US 20.9 0 LT-C4L & LT-C4LR 4/27/2010 0.1 US 0 20.5 0 7/21/2010 0.1 US 20.1 0 0 10/19/2010 0.1 US 0.1 US 0 0 21.4 0 4/27/2011 0.1 US 0.1 US 0 0 20.8 0 7/19/2011 0.1 US 0.1 US 0 0 20.3 0 10/25/2011 0.1 US 0.1 US 0 0 20.2 0 4/24/2012 0.1 US 0.1 US 0 0 20.3 0 7/25/2012 0.1 US 0.1 US 0 20.7 0 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 20.6 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

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0

0

10/2/2018

4/23/2019

0.1 US

0.1 US

0.1 US

0.1 US

0

0

0

0

20.9

20.9

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FOR: Juniper Ridge Landfill

## SUMMARY REPORT Methane - H2S - Oxygen - CO2 - Report

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SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD

FOR: Juniper Riage Landiiii						Methane - H2S - Oxygen - CO2 - Report			4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021					
(MW04-109R)		Methane Equivalent	Methane Equivalent (Ambient)	Hydrogen Sulfide	Hydrogen Sulfide (Ambient)	Oxygen	Carbon Dioxide							
Date		% Vol.	% Vol.	ppm	ppm	% Vol.	% Vol.							
	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 7/16/2018	0.1 US 0.1 US	0.1 US 0.1 US	0	0	21.1	0							
	10/2/2018	0.1 US	0.1 US 0.1 US	0	0	20.4	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							
	4/27/2020	0.1 US	0.1 US	0	0	20.9	0							
	7/20/2020	0.1 US	0.1 US	0	0	20.9	0							
	10/26/2020	0.1 US	0.1 US	0	0	20.9	0							
MW06-01	10/20/2020	0.1.00	000			20.0								
	4/22/2019	0.1 US												
	4/23/2019	000	0.1 US	0	0	20.9	0							
MW-204	1720/2010	1	000			20.0								1
	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							

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0

0

7/25/2017

10/24/2017

0.1 US

0.1 US

0.1 US

0.1 US

0

0

0

0

20.9

20.6

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i Oix. Juliipei	Tridge Landilli				V	/lethane - H2S	- Oxygen -	CO2 - Repo	ort	4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04
(MW-302R)	Methane Equivalent	Methane Equivalent (Ambient)	Hydrogen Sulfide	Hydrogen Sulfide (Ambient)	Oxygen	Carbon Dioxide				
Date	% Vol.	% Vol.	ppm	ppm	% Vol.	% Vol.				
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				
4/27/2020	0.1 US	0.1 US	0	0	20.9	0				
7/20/2020	0.1 US	0.1 US	0	0	20.9	0				
10/26/2020	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				
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				
.5, .72010			1 -					1	1	

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FOR: Juniper Ridge Landfill				1	Methane - H2S - Oxygen - CO2 - Report	SEVEE & MAHER ENGINEERS, INC. 4 BLANCHARD ROAD CUMBERLAND CENTER, ME 04021	
(W Property Line B)	Methane Equivalent	Methane Equivalent (Ambient)	Hydrogen Sulfide	Hydrogen Sulfide (Ambient)	Oxygen	Carbon Dioxide	
Date	% Vol.	% Vol.	ppm	ppm	% Vol.	% Vol.	

Notes:

TYPE - Sample Type Qualifier where D = Duplicate Sample.

#### **Concentration Qualifier Notes:**

- !- The sampling location was damaged or destroyed.
- M- Results are missing or not reliable due to a meter malfunction.
- US- Not Detected above the reported reporting limit determined by interpreted instrument specification.

# ATTACHMENT G Landfill Gas Monitoring Evaluation

### JUNIPER RIDGE LANDFILL

## 2020 ANNUAL GAS MONITORING EVALUATION



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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 2020, 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.

On March 26, 2020, NESHAP Subpart AAAA was updated with some changes not required to take effect until September 2021. However, JRL was required to begin operating pursuant to NSPS Subpart XXX no later than January 31, 2021. Therefore, JRL agreed to begin complying with both changes in applicable requirements as of the issuance date of air emission license A-921-70-H-A (1/6/2021).

#### 2.0 WELL FIELD ACTIVITY

During 2020, well field activities consisted of the addition of new infrastructure, as well as discontinuing older infrastructure due to malfunction, insufficient methane production or redundancy. 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 2020, the JRL well field consisted of 195 active collection devices. During 2020 a total of 29 gas collection trenches, 11 vertical wells, and 4 other collectors 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, 3) inadequate flow, and 4) redundancy due to subsequently installed collectors. Table 2-1 shows all well heads that were monitored during 2020, as well as their status as of the

end of the year. By the end of 2020, 173 gas collection devices were active.

Table 2-1 Well Heads Monitored at JRL, 2020

ID	Туре	Status	ID	Туре	Status
JR-GWA	Gas Well	Active	JR-GW-56	Gas Well	Active
JR-GWI	Gas Well	Active	JR-GW-58	Gas Well	Active
JR-GWL	Gas Well	Active	JR-GW-62	Gas Well	Active
JR-GWS	Gas Well	Active	JR-GW-64	Gas Well	Active
JR-GWU	Gas Well	Active	JR-GW-65	Gas Well	Active
JR-GWV	Gas Well	Active	JR-GW-66	Gas Well	Active
JR-GWW	Gas Well	Active	JR-GW-68	Gas Well	Active
JR-GW-03	Gas Well	Active	JR-GW-70	Gas Well	Active
JR-GW-04	Gas Well	Active	JR-GW-71	Gas Well	Active
JR-GW-05	Gas Well	Active	JR-GW-72	Gas Well	Active
JR-GW-06	Gas Well	Active	JR-GW-74	Gas Well	Active
JR-GW-09	Gas Well	Active	JR-GW-75	Gas Well	Active
JR-GW-10	Gas Well	Active	JR-GW-76	Gas Well	Active
JR-GW-11	Gas Well	Active	JR-GW-78	Gas Well	Active
JR-GW-12	Gas Well	Active	JR-GW-79	Gas Well	Active
JR-GW-13	Gas Well	Active	JR-GW-80	Gas Well	Active
JR-GW-14	Gas Well	Active	JR-GW-81	Gas Well	Active
JR-GW-15	Gas Well	Active	JR-GW-82	Gas Well	Active
JR-GW-16	Gas Well	Active	JR-GW-83	Gas Well	Active
JR-GW-18	Gas Well	Active	JR-GW-84	Gas Well	Active
JR-GW-24	Gas Well	Active	JR-GW-85	Gas Well	Active
JR-GW-25	Gas Well	Active	JR-GW-86	Gas Well	Active
JR-GW-28	Gas Well	Active	JR-GW-87	Gas Well	Active
JR-GW-29	Gas Well	Active	JR-GW-88	Gas Well	Active
JR-GW-35	Gas Well	Active	JR-GW-89	Gas Well	Active
JR-GW-37	Gas Well	Active	JR-GW-90	Gas Well	Active
JR-GW-38	Gas Well	Active	JR-GW-91	Gas Well	Active
JR-GW-39	Gas Well	Active	JR-GW-92	Gas Well	Active
JR-GW-40	Gas Well	Active	JR-GW-93	Gas Well	Active
JR-GW-41	Gas Well	Active	JR-GW-94	Gas Well	Active
JR-GW-42	Gas Well	Active	JR-GW-95	Gas Well	Active
JR-GW-44	Gas Well	Active	JR-GW-96	Gas Well	Active
JR-GW-46	Gas Well	Active	JR-GW-97	Gas Well	Active
JR-GW-47	Gas Well	Active	JR-GW-98	Gas Well	Active
JR-GW-48	Gas Well	Active	JR-GW-99	Gas Well	Active
JR-GW-49	Gas Well	Active	JR-GW-H2	Gas Well	Active
JR-GW-51	Gas Well	Active	JR-GW100	Gas Well	Active
JR-GW-53	Gas Well	Active	JR-GW101	Gas Well	Active
JR-GW-55	Gas Well	Active	JR-GW102	Gas Well	Active

Table 2-1 Well Heads Monitored at JRL, 2020 Cont.

ID	Туре	Status	ID	Туре	Status
JR-GW103	Gas Well	Active	JRCT1010	Horizontal	Active
JR-GW104	Gas Well	Active	JRCT1011	Horizontal	Active
JR-GW105	Gas Well	Active	JRCT1012	Horizontal	Active
JR-GW106	Gas Well	Active	JRCT1101	Horizontal	Active
JR-GW19R	Gas Well	Active	JRCT1102	Horizontal	Active
JR-GW20R	Gas Well	Active	JRCT1103	Horizontal	Active
JR-GW23R	Gas Well	Active	JRCT1104	Horizontal	Active
JR-GW30R	Gas Well	Active	JRCT1105	Horizontal	Active
JR-GW31R	Gas Well	Active	JRCT1106	Horizontal	Active
JR-GW32R	Gas Well	Active	JRCT1107	Horizontal	Active
JR-GW33R	Gas Well	Active	JRCT1108	Horizontal	Active
JR-GW42B	Gas Well	Active	JRCT1109	Horizontal	Active
JR-GW50B	Gas Well	Active	JRCT1110	Horizontal	Active
JR-GW50R	Gas Well	Active	JRCT1111	Horizontal	Active
JR-GW51B	Gas Well	Active	JRCT1112	Horizontal	Active
JR-GW56R	Gas Well	Active	JRCT1113	Horizontal	Active
JR-GW58B	Gas Well	Active	JRCT1114	Horizontal	Active
JR-GW59B	Gas Well	Active	JRCT1115	Horizontal	Active
JR-GW59R	Gas Well	Active	JRCT1116	Horizontal	Active
JR-GW60B	Gas Well	Active	JRCT1119	Horizontal	Active
JR-GW68B	Gas Well	Active	JRCT1120	Horizontal	Active
JR-GW69B	Gas Well	Active	JRCT1121	Horizontal	Active
JR-GW69R	Gas Well	Active	JRCT1122	Horizontal	Active
JR-GW76B	Gas Well	Active	JRCT1123	Horizontal	Active
JR-GW77R	Gas Well	Active	JRCT1124	Horizontal	Active
JR-GW78B	Gas Well	Active	JRCT1202	Horizontal	Active
JR-GW79B	Gas Well	Active	JRCT1204	Horizontal	Active
JR-GW86B	Gas Well	Active	JRGCT2A1	Horizontal	Active
JR-LC-SE	Horizontal	Active	JRGCT3A4	Horizontal	Active
JR-OP-SE	Other	Active	JRGCT3B1	Horizontal	Active
JR-OP101	Gas Well	Active	JRGCT3B2	Horizontal	Active
JR-OP12A	Other	Active	JRGCT502	Horizontal	Active
JR-OP901	Other	Active	JRGCT503	Horizontal	Active
JRCT1001	Horizontal	Active	JRGCT505	Horizontal	Active
JRCT1002	Horizontal	Active	JRGCT508	Horizontal	Active
JRCT1003	Horizontal	Active	JRGCT511	Horizontal	Active
JRCT1004	Horizontal	Active	JRGCT601	Horizontal	Active
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	JRGCT703	Horizontal	Active

Table 2-1 Well Heads Monitored at JRL, 2020 Cont.

ID	Туре	Status	ID	Туре	Status
JRGCT704	Horizontal	Active	JRGCT830	Horizontal	Discontinued
JRGCT705	Horizontal	Active	JRGCT831	Horizontal	Discontinued
JRGCT706	Horizontal	Active	JRGCT910	Horizontal	Discontinued
JRGCT708	Horizontal	Active	JRGCT911	Horizontal	Discontinued
JRGCT709	Horizontal	Active	JRGCT912	Horizontal	Discontinued
JRGCT711	Horizontal	Active	JRGCT913	Horizontal	Discontinued
JRGCT924	Horizontal	Active	JRGCT914	Horizontal	Discontinued
JRGCT927	Horizontal	Active	JRGCT915	Horizontal	Discontinued
JRLGV401	Other	Active	JRGCT916	Horizontal	Discontinued
JROP11NE	Other	Active	JRGCT918	Horizontal	Discontinued
JR-GW-60	Gas Well	Active	JRGCT919	Horizontal	Discontinued
JR-GW7	Gas Well	Discontinued	JRGCT920	Horizontal	Discontinued
JR-GW-59	Gas Well	Discontinued	JRGCT921	Horizontal	Discontinued
JR-GW-67	Gas Well	Discontinued	JRGCT922	Horizontal	Discontinued
JR-GW-69	Gas Well	Discontinued	JRGCT923	Horizontal	Discontinued
JR-GWX	Gas Well	Discontinued	JRGCT925	Horizontal	Discontinued
JR-GWY	Gas Well	Discontinued	JRGCT926	Horizontal	Discontinued
JR-GWZ	Gas Well	Discontinued	JRGCT928	Horizontal	Discontinued
JR-GW22R	Gas Well	Discontinued	JRGCT929	Horizontal	Discontinued
JR-GW57R	Gas Well	Discontinued	JRGCT930	Horizontal	Discontinued
JR-GW68C	Gas Well	Discontinued	JRCT1013	Horizontal	Discontinued
JR-GW78C	Gas Well	Discontinued	JRCT1014	Horizontal	Discontinued
JR-OP-69	Other	Discontinued	JRCT1015	Horizontal	Discontinued
JRGCT702	Horizontal	Discontinued	JRGC401A	Horizontal	Discontinued
JRGCT707	Horizontal	Discontinued	JRLGV402	Other	Discontinued
JRGCT712	Horizontal	Discontinued	JROP11NB	Other	Discontinued
JRGCT810	Horizontal	Discontinued	JROP11PH	Other	Discontinued
JRGCT829	Horizontal	Discontinued			

#### 2.2 <u>Changes and Anomalies in the Well Field</u>

The facility was operated in accordance with NSPS requirements during the entirety of 2020. As discussed in Section 2.1, numerous collection trenches and wells were added and discontinued throughout 2020 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.

#### 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<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub> respectively), and balance gas were recorded. During 2020, 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<sub>4</sub> remained slightly below the target range of 40%-45% for the first 4 months of the year and was within the target range from May through December. Overall, the methane concentration was higher than it had been in prior years. The lowest monthly average CH<sub>4</sub> concentration of 38.1% occurred in

January. The highest monthly average concentration of 44.8% occurred in September. The average CH<sub>4</sub> concentration for 2020 was 42.1%, an increase from the 2019 average concentration of 37.6%. This is likely attributable to having a full time well tuner, who began in March. It is also likely affected by increased efforts to improve gas quality and the occurrence of favorable weather patterns. Monthly average oxygen concentrations were below 1.0% for the entirety of 2020. The lowest monthly average oxygen concentrations were in the months of May through September when the average oxygen concentration was between 0.0% and 0.2%. The average oxygen concentration during 2020 was 0.35%, lower than the 2019 average of 0.7%.

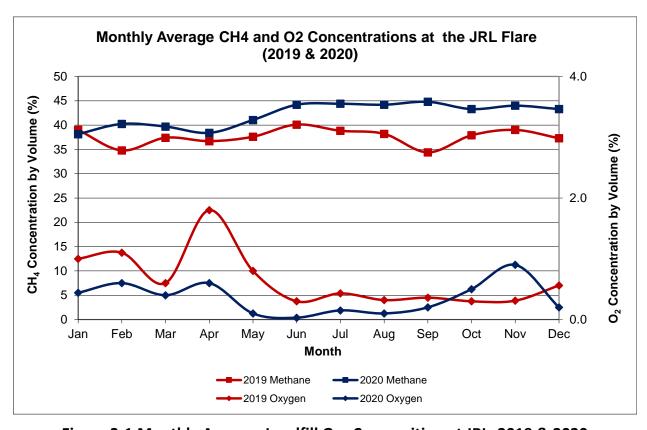


Figure 3-1 Monthly Average Landfill Gas Composition at JRL, 2019 & 2020

#### 4.0 LANDFILL GAS FLOW

The flow 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 was then compiled for 2020 (and 2019 for comparison) and is summarized as total monthly flow and average flow in Table 4-1 and Figure 4-1. The average flow rate was calculated by taking the total monthly flow (in units of MMSCF)/(number of days in the month\*1440 minutes/ 1 day). The result is an average flow rate (in units of SCFM) for any given month.

The total flow during 2020 was 921 million standard cubic feet (MMSCF), an increase of approximately 3.8% from total flow recorded in 2019.

Table 4-1 Volumetric Flow of Landfill Gas at JRL, 2019 & 2020

	Total Mor (MM:	thly Flow SCF)	Average Flow Rate (SCFM)		
Month	2020	2019	2020	2019	
Jan	97.3	80.9	2,180	1,813	
Feb	84.5	76.7	2,024	1,902	
Mar	89.0	72.6	1,995	1,627	
Apr	92.3	64.5	2,137	1,494	
Мау	76.5	61.9	1,713	1,388	
Jun	61.0	55.2	1,413	1,277	
Jul	71.8	66.3	1,609	1,486	
Aug	66.6	88.9	1,491	1,992	
Sep	60.8	90.0	1,408	2,083	
Oct	67.9	73.8	1,520	1,653	
Nov	72.3	60.9	1,674	1,409	
Dec	80.9	95.5	1,812	2,140	
Totals	921	887			
Average			1,748	1,689	

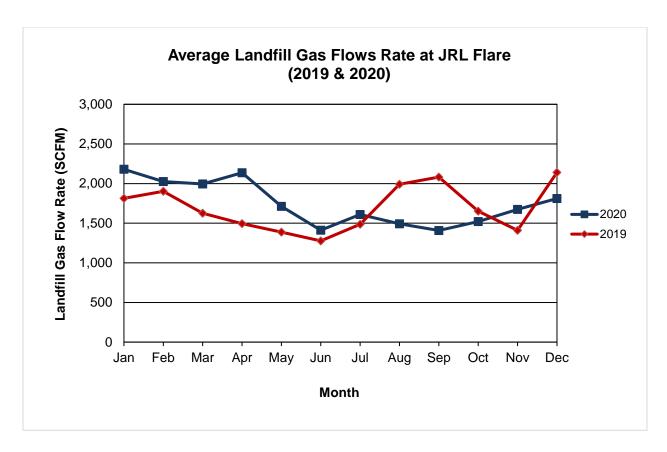


Figure 4-1 Monthly Average Landfill Gas Flow Rate at JRL, 2019 & 2020

#### 5.0 ENERGY GENERATED BY METHANE COMBUSTION

JRL has a candlestick type flare which burns the methane (CH<sub>4</sub>) 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 CH₄ combustion, along with the average daily combustion energy for 2020 and 2019. 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 2020 was 411,648 MMBTUs, compared to 355,455 MMBTUs in 2019, an increase of 15.8%.

Table 5-1 Energy Generated by CH<sub>4</sub> Combustion at JRL, 2019 & 2020

		ly Total BTUs)	Daily Average (MMBTUs/day)		
Month	2020	2019	2020	2019	
January	39,672	33,746	1,280	1,089	
February	36,365	28,530	1,254	1,019	
March	37,786	29,029	1,219	936	
April	37,892	25,315	1,263	844	
May	33,563	24,897	1,083	803	
June	28,833	23,645	961	788	
July	34,085	27,535	1,100	888	
August	31,458	36,312	1,015	1,171	
September	29,131	33,083	971	1,103	
October	31,415	29,892	1,013	964	
November	34,008	25,372	1,134	846	
December	37,440	38,098	1,208	1,229	
Totals	411,648	355,455			
Average			1,125	973	

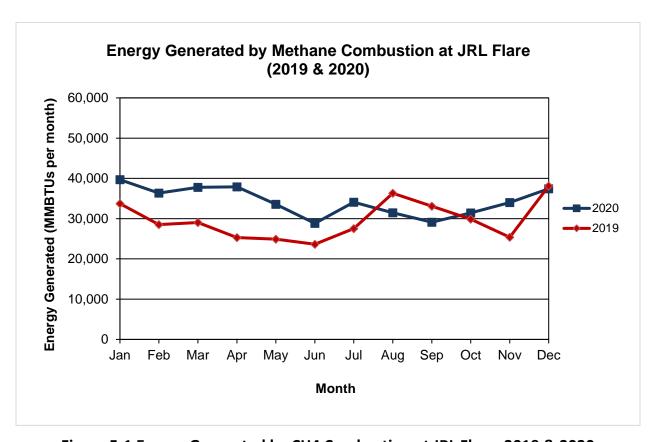


Figure 5-1 Energy Generated by CH4 Combustion at JRL Flare, 2019 & 2020

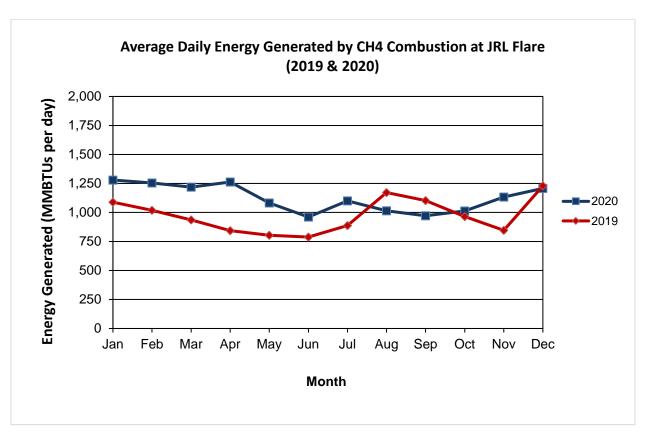


Figure 5-2 Avg. Daily Energy Generated by CH<sub>4</sub> Combustion at JRL Flare, 2019 & 2020

#### 6.0 **SUMMARY**

Throughout 2020, 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 2020, the JRL well field consisted of 195 active well heads. At the end of 2020, 173 well heads remained active.

The average  $CH_4$  concentration for 2020 was 42.1%, a substantial increase from the 2019 average concentration of 37.6%. The average oxygen concentration during 2020 was 0.35%, lower than the 2019 average of 0.7%.

The total measured flow in 2020 was 921 million standard cubic feet (MMSCF), an increase of approximately 3.8% from the total flow recorded in 2019. The calculated total energy converted to heat by combustion at JRL during 2020 was 411,648 MMBTUs, compared to 355,455 MMBTUs in 2019, an increase of 15.8%.

# ATTACHMENT H Landfill Air Monitoring Evaluation

# JUNIPER RIDGE LANDFILL 2020 ANNUAL AIR MONITORING EVALUATION



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 2020 air monitoring results, including a comparison of the 2020 results to the previous year's results. Two types of air monitoring activities occurred at the Juniper Ridge Landfill (JRL) during 2020; (1) hydrogen sulfide ( $H_2S$ ) monitoring at stationary continuous monitors; and (2) quarterly methane ( $CH_4$ ) 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.

H<sub>2</sub>S monitors are Honeywell<sup>®</sup> Analytics MDA Single Point Monitors (SPM) utilizing EP hydrides Chemcassettes<sup>®</sup> also provided by Honeywell<sup>®</sup>. 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<sub>2</sub>S Single Point Monitoring Locations

Methane scans were completed using a MicroFID® (flame ionizing detector) or similar mobile device (QED SEM-5000) 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 2020 were summarized and compared to 2019 results.

#### 2.0 STATIONARY H<sub>2</sub>S MONITORING RESULTS

Using the four Honeywell Analytics SPMs located off-site (on the access road, West Coiley Road, 552 West 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 2020, 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<sub>2</sub>S calculated values at the Access Road, 552 West Old Town Road, the Old Stagecoach Road, and the West 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<sub>2</sub>S values for all four meters were below the detection limit of 2 ppb for both 2019 and 2020.

Table 2-1 Annual SPM H₂S Averages, 2019 & 2020

Juniper Ridge Landfill								
		Annual SPM H						
Location	% <sup>1</sup> plus 50% calm <sup>2</sup> Readings = 0 ppb) = 1 ppb <sup>3</sup> )							
Access Road	12.6%	20.6%	33,772	0.006	0.131			
552 West Old Town Road	3.5%	11.5%	32,722	0.086	0.120			
Old Stagecoach Road	7.1%	15.1%	32,705	0.074	0.143			
West Coiley Road	14.5%	22.5%	32,490	0.101	0.249			
	Total Nu	mber of Readings	in 2020: 33,814					
		Juniper Ridge L	andfill					
	2019	Annual SPM H	S Averages					
Bangor Wind Rose Wind Rose % plus 50% calm²  Bangor Wind Rose % plus 50% calm²  Won-Detect Readings Physical Average in ppb (Non-Detect and Popph)  Average in ppb (Non-Detect and Popph)  Average in ppb (Non-Detect and Popph)  Average in ppb (Non-Detect and Popph)								
Access Road	5.3%	9.8%	33,412	0.001	0.053			
552 West Old Town Road	4.6%	9.1%	32,513	0.078	0.121			
Old Stagecoach Road	8.8%	13.3%	30,260	0.225	0.305			
West Coiley Road	14.7%	19.2%	31,888	0.124	0.271			
Total Number of Readings in 2019: 33,426								

<sup>&</sup>lt;sup>1</sup> Bangor Wind Rose percentage of time wind in direction of SPM.

In addition, the annual average H<sub>2</sub>S 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 and shown in Figure 2-2.

When comparing the 2020 and 2019 Annual SPM H<sub>2</sub>S averages of the four SPMs located around JRL, two SPMs saw a decrease, and two saw an increase in 2020. The average off-site H<sub>2</sub>S levels remained very low during both 2020 and 2019. Monthly average H<sub>2</sub>S 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.

<sup>&</sup>lt;sup>2</sup> Bangor Wind Rose percentage of time wind in direction of SPM plus 50% of Calm.

<sup>&</sup>lt;sup>3</sup> 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.

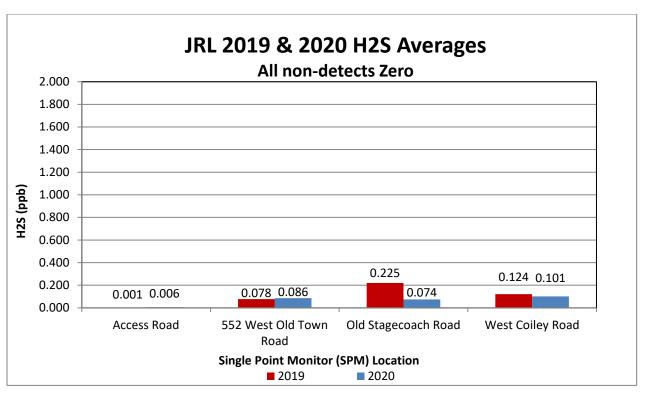


Figure 2-1 Annual Avg. H₂S readings at all four SPM locations, 2019 & 2020

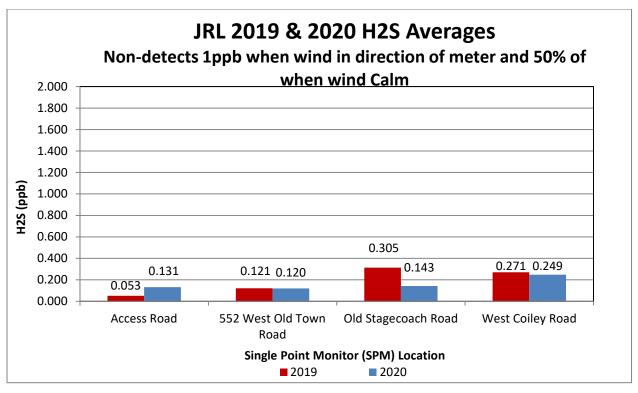


Figure 2-2 Annual Avg. H<sub>2</sub>S readings at all four SPM locations with percentages of nondetects at 1 ppb based on wind rose data, 2019 & 2020

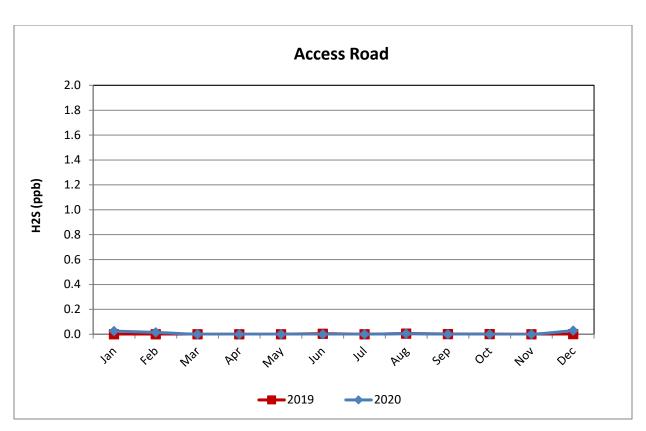


Figure 2-3 Monthly Avg. H<sub>2</sub>S readings at the Access Road SPM, 2019 & 2020

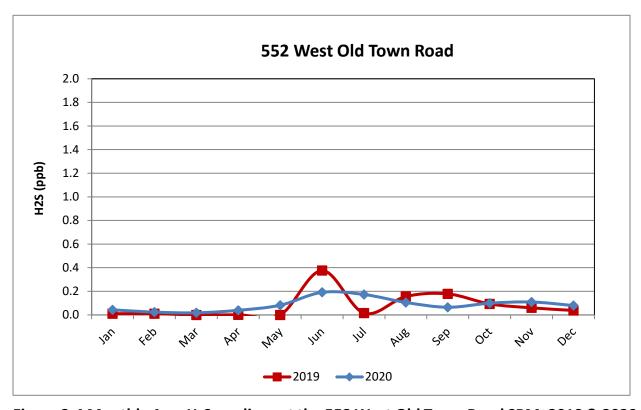


Figure 2-4 Monthly Avg. H₂S readings at the 552 West Old Town Road SPM, 2019 & 2020

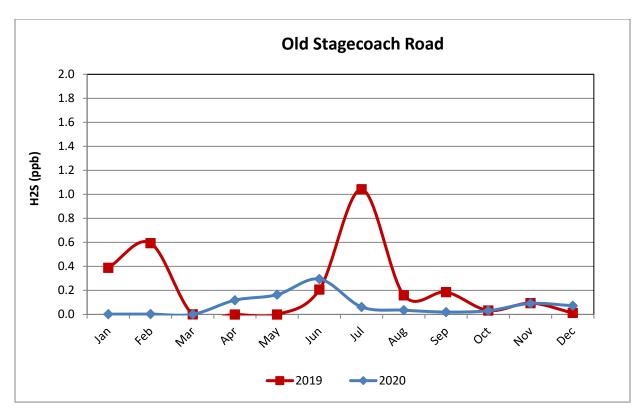


Figure 2-5 Monthly Avg. H₂S readings at the Old Stagecoach Road SPM, 2019 & 2020

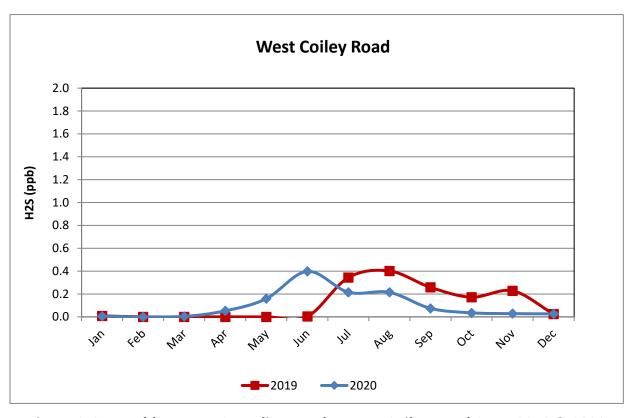


Figure 2-6 Monthly Avg. H₂S readings at the West Coiley Road SPM, 2019 & 2020

Instantaneous peak readings were identified during 2019 and 2020, to determine if any short duration H<sub>2</sub>S episodes occurred. They are provided below in Table 2-2.

Table 2-2 Annual highest two readings at each SPM, 2019 & 2020

		Juniper Ridge Lar	ndfill					
	Hydr	ogen Sulfide Single P	oint Monite	or				
	Highest Two Annual Readings							
Year Location Date Highest Reading (ppb)  Highest Reading (ppb)								
2020	Access Road	12/19/2020 20:46	11.57	12/19/2020 21:01	8.90			
2020	552 West Old Town Road	7/28/2020 17:39	11.68	12/6/2020 10:23	10.35			
2020	Old Stagecoach Road	12/6/2020 12:38	23.03	9/30/2020 16:59	7.12			
2020	West Coiley Road	8/4/2020 12:07	15.91	1/6/2020 8:41	9.46			
2019	Access Road	12/10/2019 8:27	4.89	6/12/2019 17:50	4.34			
2019	552 West Old Town Road	11/3/2019 13:58	18.80	11/3/2019 13:43	11.68			
2019	Old Stagecoach Road	7/26/2019 20:27	12.79	9/20/2019 22:15	11.01			
2019	West Coiley Road	11/8/2019 13:33	7.34	11/8/2019 13:48	5.23			

Throughout 2020, there were two  $H_2S$  readings above 15 ppb, at the four off-site SPM's. This compares to one reading above 15 ppb during 2019. The MEDEP was notified of the occurrences, which were also noted as required in the JRL Monthly Status Report. On site landfill gas management systems continue to function well in preventing off-site migration of  $H_2S$ .

The first elevated  $H_2S$  reading was 15.9 ppb on August  $4^{th}$ , 2020 at 12:07 am. This occurred at the West Coiley Road SPM. Facility personnel were not able to identify any operational problems in the landfill that could have contributed to this high reading and no unusual odors were detected at the time. No apparent problems were identified with the meter itself. No other high  $H_2S$  readings were observed from any of the other meters during this period. It appeared to be an anomaly, either a problem with the meter, or a pocket of  $H_2S$ .

The second elevated  $H_2S$  reading was 23.0 ppb on December 6<sup>th</sup>, 2020 at 12:38 pm. This occurred at the Old Stagecoach Road SPM. It appeared the meter was reading accurately, but only stayed at that concentration for a moment, then several lower concentration readings of 3-4 ppb followed. The  $H_2S$  was likely related to multiple instances of utility power loss throughout the day.

#### 3.0 ODOR COMPLAINTS

Complaints recorded via the 24-hour JRL complaint hotline are provided for 2019 and 2020 in Table 3-1 below. Detailed complaint logs were submitted as part of the facility's monthly reports to the MEDEP during 2020. During the year, the JRL complaint hotline received a total of 19 landfill related complaints. 15 complaints were odor related, 3 were noise related and one was dust related. This is an increase from the 15 landfill related complaints for 2019, all of which were odor related. All 19 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.

In 2020, nine individuals called in a total of 15 odor complaints. This is an increase from 4 individuals who called in 15 complaints during 2019.

Table 3-1 Summary of Complaints at Juniper Ridge Landfill, 2019 & 2020

2020			-OBJECT (				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.	1	1	0	0	0	0	2
APR.	1	0	0	0	0	0	1
MAY	0	1	0	0	0	0	1
JUN.	0	0	0	0	0	0	0
JUL.	0	1	0	1	0	0	2
AUG.	3	0	0	0	0	0	3
SEP.	1	0	0	0	0	0	1
OCT.	1	0	0	0	0	0	1
NOV.	2	0	0	0	0	0	2
DEC.	5	0	0	0	0	0	5
TOTALS	15	3	0	1	0	0	19

2019		-OBJECT OF COMPLAINT-					
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

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#### 4.0 CH<sub>4</sub> SURFACE SCANS

Landfill methane (CH<sub>4</sub>) 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 2020 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 2020 surface scans are kept on file and uploaded to Sanborn Head and Associates' 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) or similar device (QED SEM-5000 portable methane detector, which NEWSME purchased 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 QED SEM-5000 portable methane detector has the same detection limit but has a concentration range of 0.5 ppm to 100% methane. During 2020, a total of 9 readings above 500 ppm were detected during initial quarterly surface scans, compared to 17 which were detected during 2019. A quarterly breakdown is provided in Table 4-1. These readings and their locations have been documented, copies have been provided to the site supervisor, and necessary corrective actions have been taken. Follow-up was 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<sub>4</sub> Surface Scans, 2019 & 2020

Surface Scan Readings above 500 ppm								
	Q1 Q2 Q3 Q4 TOTAL							
2020	0	1	5	3	9			
2019	13	1	3	0	17			

Overall, annual readings above 500 ppm were lower in 2020 than in 2019. All of these were resolved on the first initial rescan and follow-up, with the exception of two readings which required further corrective action and were resolved in subsequent rescans. These results demonstrate 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  $H_2S$  monitoring with stationary continuous monitors and, (2) quarterly methane emission surface scans on the landfill intermediate cover.

When comparing the 2020 and 2019 Annual SPM H<sub>2</sub>S averages of the four SPMs located around JRL, two SPMs saw a decrease, and two saw an increase in 2020. The average offsite H<sub>2</sub>S levels remained very low during both 2020 and 2019.

Throughout 2020, there were two  $H_2S$  readings above 15 ppb, at the four off-site SPM's. This compares to one reading above 15 ppb during 2019. The MEDEP was notified of the occurrences, which were also noted as required in the JRL Monthly Status Report. On site landfill gas management systems continue to function well in preventing off-site migration of  $H_2S$ 

During 2020, the JRL complaint hotline received a total of 19 landfill related complaints. 15 complaints were odor related, 3 were noise related and one was dust related. This is an increase from the 15 landfill related complaints for 2019, all of which were odor related. All 19 were confirmed as likely coming from the landfill. In 2020, nine individuals called in a total of 15 odor complaints. This is an increase from 4 individuals who called in 15 complaints during 2019.

During 2020, a total of 9 readings above 500 ppm were detected during methane surface scans. This is compared to 17 which were detected during 2019. Most of these readings occurred around landfill intermediate cover penetrations and were promptly corrected. Follow-up readings confirmed the issues were resolved.

# ATTACHMENT I Geotechnical Monitoring Report

#### 2020 Annual Geotechnical Landfill Inspection Report Juniper Ridge Landfill Old Town, Maine

#### March 2021

Report to:

BGS/NEWSME Landfill Operations, LLC Hampden, Maine

Casella Waste Systems, Inc. Saco, Maine



Richard E. Wardwell, P.E., Ph.D. Lake George, NY 12845

#### **EXECUTIVE SUMMARY**

This 2020 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 2015a) 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 2020 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, 2020. Other specific monitoring activities in 2020 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 ten years (REW 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, and 2020). 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 2021.

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#### 2020 Annual Landfill Geotechnical Monitoring Report Juniper Ridge Landfill Facility Old Town, Maine

#### 1. INTRODUCTION

This 2020 Annual Landfill Geotechnical Monitoring Report has been prepared for the State of Maine's Juniper Ridge Landfill (JRL), a facility 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 performed on June 26, 2020.

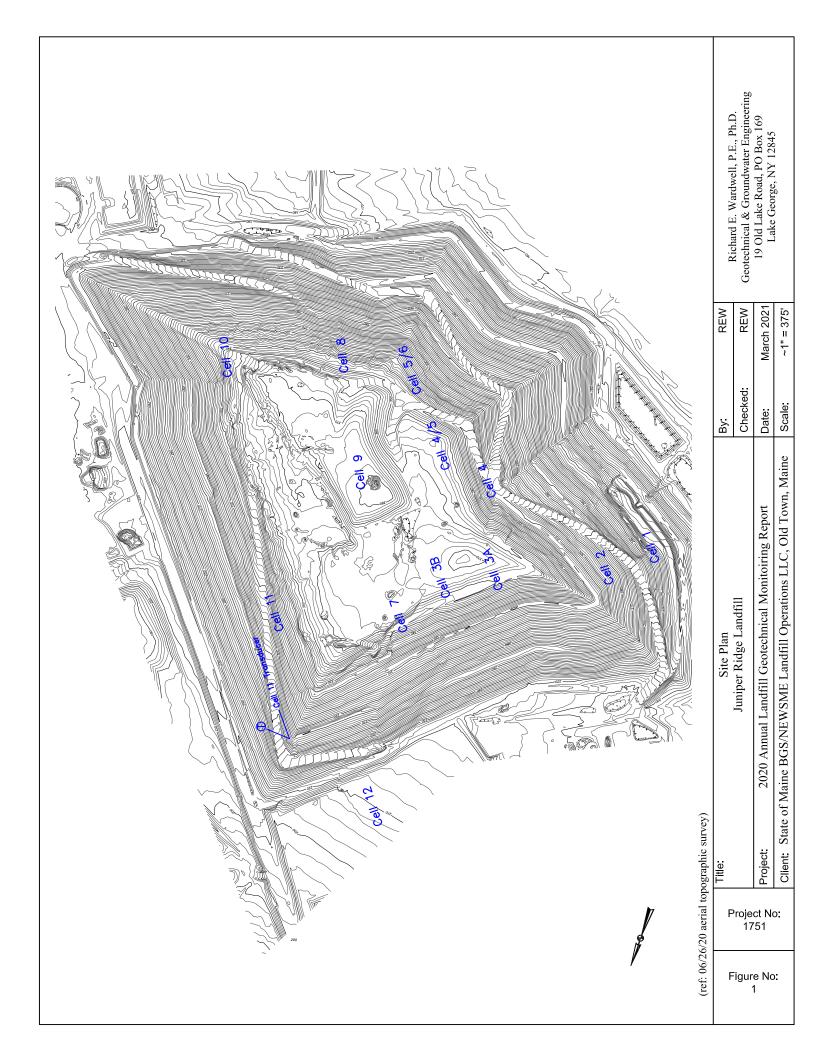
This report describes the geotechnical activities performed in accordance with the current Geotechnical Monitoring Plan (Appendix N of the Operations Manual) and Stability and Settlement Monitoring Plan (Section 3.1.5 of the Design Report), prepared and included as part of the JRL Expansion Application (SME 2015a,b) 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).



#### 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 2015a,b) 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. While the mixture from these waste streams are still highly compressible and subject to gas generation, , the in-state waste mixture is more stable and less compressible than the waste-stabilized sludge based on more than 13 years of operational experience.

#### 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 presented in that year's inspection report, (see Fig. 3, REW 2020). This borrow waste material was placed as a 5 ft. thick layer of protective material in Cell 11 (also see REW 2020: Appendix A, & Appendix F site photos ##29-32).

#### 3.2 2020 Waste Placement and Operation

As portions of the protective layer were completed, mixed waste placement during 2020 continued in the active portions of Cell 11 (see Appendix F herein, photos ##2,19,27,29) and on the upper portions of Cells 7/9/10 to bring this latter area to interim grades in preparation for intermediate cover (see Appendix F herein, photos ##19-20). Also the soft waste protection layer was placed in the southern end of Cell 12 that is located north of Cell 11 (see Appendix F herein, photos ##2, 27-30). Due to capital restraints in 2020, the size of the constructed Cell 12 was reduced from the previously approved 12.6 acres to 9.6 acres. This reduction in acreage will be compensated for at a later time by adding an additional cell within the approved expansion area.

As summarized in Appendix A herein, 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 350 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 390 ft. msl.

The remaining landfill capacity in Cells 1-12 at the end of 2020 is summarized in Appendix B. Moving forward, the expansion area will be referenced as Cells 11-17. As the capacity of Cell 12 is exhausted, expansion will continue in five additional landfill cells (i.e. Cells 13 to 17) 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 and 12.

#### 4. 2020 GEOTECHNICAL LANDFILL MONITORING

During 2020, 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 2020, 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 2015b) 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, 2020) 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). An observation report, using the checklist presented in the current GMP, was filled out and is included in Appendix D of this report.

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).

During the annual site inspection, ponded stormwater (in what appears to be an intercepting drainage ditch) was observed on the SICM in the northwest inactive portion of the landfill at an elevation of approximately 317 msl (see Appendix F Photos ##5-6). To mitigate this condition, the local topography was subsequently modified to re-establish passive drainage of stormwater runoff in this area.

#### **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 2020 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. For this same purpose, another transducer was also installed in Cell 12. Due to the limited amount of waste placed in Cell 12 during 2020, there was insufficient data to date to evaluate the fluid pressure measurements for this area.

#### 4.4 Surveys

A topographic survey of the landfill surface was completed on June 26, 2020 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 excessive differential settlements or instabilities. Exclusive of the excavation area in Cells 1 & 2, comparisons with the aerial survey made in June 2020 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 2015a), 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 17). 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, confirmed 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.

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 were made during normal operations in 2020. In addition, an aerial topographic survey of the facility was conducted on June 26, 2020, and an annual geotechnical inspection was performed on October 16, 2020. This monitoring documented 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 inplace transducer) indicates that the head on the liner system is minimal and is performing in accordance with design.

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## **APPENDIX A**

# Summary of Wastes Accepted at Juniper Ridge Landfill Report 2020

Summary of Wastes Accepted at Juniper Ridge Landfill						
Waste Type #	Report Year 2020 Waste Types	Total (tons)	Origin	% Total Waste		
1	Bypass MSW <sup>6</sup>	110,866	Maine	13.3		
	CDD/MSW Processing Residue - OBW					
2	(Disposed of in the Original 2004 Permitted Footprint)	1,685	Maine	0.2		
	CDD/MSW Processing Residue - OBW	21.25				
3	(Disposed of in the Expansion Permitted Footprint) <sup>5</sup>	84,350	Maine	10.1		
4	CDD Processing Residue - Fines <sup>1</sup>	100,134	Maine	12.0		
5	FEPR	-	Maine	0.0		
6	Mixed CDD	322,636	Maine	38.6		
7	MSW <sup>4</sup>	55,470	Maine	6.6		
8	Wood from CDD <sup>2</sup>	2,107	Maine	0.3		
9	Residue/Trash from Single Stream	6,800	Maine	0.8		
	Special Wastes Types					
10	Burn Pile Ash and/or Hot Loads Area Ash	614	Maine	0.1		
11	Catch Basin Grit & Street Sweeping	692	Maine	0.1		
12	Coal, Oil & Multi-fuel Boiler Ash	6,253	Maine	0.7		
13	Contaminated Soil & Debris	7,432	Maine	0.9		
14	Dredged Spoils	129	Maine	0.0		
15	Graphite/Carbon Dust	4	Maine	0.0		
16	Industrial WWTP Sludge	17,964	Maine	2.2		
17	Leather Scraps	29	Maine	0.0		
18	Lime Mud/Grit	1,039	Maine	0.1		
19	MSW Incinerator Ash	31,265	Maine	3.7		
20	Municipal WWTP/POTW Sludge	64,443	Maine	7.7		
21	Non-Friable Asbestos	840	Maine	0.1		
22	Non-Hazardous Chemical Related	2,239	Maine	0.3		
23	Oil Spill Debris	5,130	Maine	0.6		
24	Polyethylene & Cellulose Trimmings	9,616	Maine	1.2		
25	Pulp Mill Waste	946	Maine	0.1		
26	Sandblast Grit	487	Maine	0.1		
27	Spoiled Foods	526	Maine	0.1		
28	Sulfur Scrubbing Residues	792	Maine	0.1		
29	Water/Air Filtration Media	41	Maine	0.0		
30	WWTP Grit Screenings	734	Maine	0.1		
SUBTOTAL WA		684,048	Maine	81.9		
	STE TYPES 10-30	151,213	Maine	18.1		
	WASTE RECEIVED <sup>3</sup> tive daily cover (ADC).	835,261	Maine			

<sup>1.</sup> Used as alternative daily cover (ADC).

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

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

<sup>4.</sup> Non-bypass MSW was limited to 81,800 tons in the Original 2004 Permitted Footprint from 04/01/19 - 03/31/20. During this time frame 80,366 tons were disposed of. An additional six month was also granted for the same area, allowing an additional 40,900 tons between 04/01/20 - 09/30/20. During this time frame 40,886 tons were disposed of. Numbers reported above are for calendar year 2020.

<sup>5.</sup> 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 to 85,000 tons for calendar year 2020.

<sup>6.</sup> CRM/MRC 8,357.94 tons, ecomaine 8,258.87 tons, PERC 94,249.25 tons

## **APPENDIX B**

## JRL Estimate of Landfill Capacity December 31, 2020

# Juniper Ridge Landfill Estimate of Remaining Capacity as of December 31, 2020

	Values Units	ts Source	
Landfill Capacity Remaining in Cells 1-10 as of December 31, 2019 Landfill Capacity Remaining in Cells 11-17 as of December 31, 2019	724,268 cy 7,849,531 cy	Calculated 2019 capacity evaluation Calculated 2019 capacity evaluation	MSE Berm used for final waste surface for Cells 1-10 as permitted
Remaining Site Capacity as of June 26, 2020 in landfill Cells 1-10 Remaining Site Capacity as of June 26, 2020 in Expansion Cells 11 thru 17	924,900 cy 7,043,800 cy	/ June 26, 2020 Site Survey / June 26, 2020 Site Survey	MSEBerm used for final waste surface for Cells 1-10
Tons Placed in Landfill Cells 1-10 (tons) between June 27, 2020 and December 31, 2020.	27,538.05 tons	s JRL Records	Wendy Plissey 02-09-2020
Tons Placed in Expansion Landfill Cells 11-17 (tons) between June 27, 2020 and December 31, 2020.	446,670.13 tons	is JRL Records	Wendy Plissey 02-09-2021
Compaction Factor Three Year Running Average through June 2020 Calculated Canacity Used in Calls 1-10 between, June 27, 2020 and December	0.93 ton	0.93 ton/cy JRL Records	For Cells 1-11 (Cell 12 was not constructed until 9-31-2020). Note the previous (2019) compaction rate used for this calculation was 0.81nns/cv.
31, 2020 (CY)	29,611 cy	Calculation Compaction factor change	
Calculated Capacity Used in Cells 1-10 in 2020	-171,021 cy	from 0.81 to 0.93.	Apparent Gain in Capacity from Settlement
Calculated Capacity Used in Cells 11-17 between June 27, 2020 and December 31, 2020 (CY) Calculated Capacity Used in Cells 11-17 in 2020	480,290 cy 1,286,021 cy	Calculation Calculation	Based on 0.93 compaction factor. Based on Airspace Capacity Report 06-26-2020 analysis update (04Sept2020)
Estimated Remaining Cell 1 thru Cell 10 Capacity as of December 31, 2020	895,289 cy	/ Calculation	
Estimated Remaining Cell 1 thru Cell 12 Capacity as of December 31, 2020 = Estimated Remaining Site Capacity in Cells 11-17 as of December 31, 2020 =	1,540,599 cy 6,563,510 cy	/ Calculation	Cell 1 thru 12 Capacity Remaining reported as of 6-26-2020 of 2,050,500 cys minus capacity consumed to end of 2020.
Tons Disposed of in Landfill Cells 1 thru 10	61,519.57 Tons	s Provided by JRL	
Tons Disposed of in Landfill Cell 11 &12	773,741.08 Tons	s Provided by JRL	Wendy Plissey 02-10-2020
Total Reported Tons Disposed of in Entire Landfill Cells 1 thru 12	835,260.65 Tons	s Provided by JRL	

## **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	6/12/2020
Inspector Name/Signature	Andrew Benett 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

mapeetion 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	2 laborers are picking						

Table 2
Inspection of Stabilized Areas at the Facility

	Inspection of Stabilized Areas at the	racinty	
	Stabilized Active Areas at the Fa	cility	
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	2 labores dre	pider	ghtter

Table 3
Inspection of Stormwater BMPs, Conveyances and Outfalls

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

Table 3
Inspection of Stormwater BMPs, Conveyances and Outfalls

Inspection of Stormwater BMPs, Conveyances and Outfalls			
ВМР	Describe where any of the following were observed:  • Any evidence that the BMP is not functioning properly.		
Lechate Storage Tank Containment Area			
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 None None None None None None None		
Detention Pond 5	None		
Outfall No. 1	Nove		
Outfall No. 2	Nove		
Outfall No. 3	None		
Outfall No. 4	None		
Outfall No. 5	None		

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

Reference	Description	Schedule

Certifi	ication
Site is in compliance with SWPPP and MSG	GP.
☐ Site is not in compliance with SWPPP and	
maintenance, additional controls, or mod	
direction or supervision in accordance with a sproperly gather and evaluate the information subwho manage the system, or those persons direction information submitted is, to the best of my know	ent and all attachments were prepared under my system designed to assure that qualified personnel mitted. Based on my inquiry of the person or persons ctly responsible for gathering the information, the eledge and belief, true, accurate, and complete. I am mitting false information, including the possibility of
Name: Awben Benet	Telephone: 249-3536
Signature: Bound	Date: 6/12/2020

## Appendix D

**Checklist: Annual Geotechnical Landfill Inspection** 

## Table D-1 Checklist: Annual Geotechnical Inspection 2020 Annual Geotechnical Landfill Monitoring Report, Juniper Ridge Landfill, Old Town, Maine

Observation Date: 10/16/2020

Monitor Name: Richard E. Wardwell

Weather: cloudy, temperatures in mid- 50's

Observation			Description	
Area	Sat.	Unsat	(location, direction, appearance, etc.)	Proposed Action
Active Area				
location description	-	-	top of Cells 9/10/11 (#18,19,23,24,25,26,27 ), base of Cell 12 (see Photos 2,26 to 29 )	n/a
slope stability	X			
waste lift thickness	X			
active slope angle	X		~2½:1 to 3:1 (see Photos #18,19)	
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 slope stability	- X	-	except lower west slope isolated surface bulge associated with SICM anchor	n/a none needed
cracking	X		N/O	
erosion	X		N/O	
leachate breakout	X		N/O	
ponded water	X		ponding on the northwest corned of landfill (see Photos #4, 5)	regrading to establish drainag
toe heaving	X		N/O	
overall condition	X		stable SICM slope appearance (see Photos 1-3, 8,11-17,2029)	
Interim Soil Cover				
location description	-	-	lower westerly slopes	n/a
overall surface condition	X		good grass/soil cover except in excavation (see Photo #6)	
cracking	X		N/O	
erosion of cover materia	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 1,6,7,25-28)	

# Appendix E

### **Cell 11 Fluid Pressure Data**

#### 2020 Leachate Cell Floor Transducer (Cell 11)\*

Date		1st Qtr** 2nd Qtr 3rd Qtr						O+*
01/01/20         0.05         04/01/20         0.05         01/02/20         0.05         01/02/20         0.05         04/02/20         0.05         01/12/20         0.05         01/12/2								
01/02/20         0.05         04/02/20         0.05         07/02/20         0.05         10/02/20         0.05           01/03/20         0.05         04/03/20         0.05         07/03/20         0.05         10/03/20         0.05           01/05/20         0.05         04/05/20         0.05         07/05/20         0.05         10/06/20         0.05           01/06/20         0.05         04/05/20         0.05         07/05/20         0.05         10/06/20         0.05           01/08/20         0.05         04/08/20         0.05         07/06/20         0.04         10/06/20         0.05           01/08/20         0.05         04/08/20         0.05         07/09/20         0.00         10/07/20         0.05            01/10/20         0.05         04/10/20         0.05         07/09/20         0.05         10/09/20         0.05           01/11/20         0.05         04/11/20         0.05         04/11/20         0.05         10/10/20         0.05           01/11/20         0.05         04/11/20         0.05         04/11/20         0.05         10/11/20         0.05           01/14/20         0.05         04/16/20         0.05         07/13/20         0					$\vdash$			
01/03/20         0.05         04/03/20         0.05         07/03/20         0.05         01/04/20         0.05           01/06/20         0.05         04/05/20         0.05         07/06/20         0.05         01/06/20         0.05         01/06/20         0.05         01/06/20         0.05         01/07/20         0.05         04/06/20         0.05         07/06/20         0.04         110/06/20         0.05           01/08/20         0.05         04/08/20         0.05         07/06/20         0.04         110/06/20         0.05           01/10/20         0.05         04/09/20         0.05         07/09/20         0.05         01/10/20         0.05           01/11/20         0.05         04/10/20         0.05         07/10/20         0.05         10/10/20         0.05           01/11/20         0.05         04/11/20         0.05         07/11/20         0.05         10/11/20         0.05           01/11/20         0.05         04/11/20         0.05         07/11/20         0.05         10/11/20         0.05           01/14/20         0.05         04/13/20         0.05         07/11/20         0.06         10/11/20         0.05           01/15/20         0.05         <								
01/04/20         0.05         04/04/20         0.05         07/04/20         0.05         10/05/20         0.05           01/05/20         0.05         04/05/20         0.05         07/05/20         0.05         10/05/20         0.05           01/07/20         0.05         04/07/20         0.05         07/07/20         0.00         10/05/20         0.05           01/08/20         0.05         04/07/20         0.05         07/07/20         0.00         10/07/20         0.05           01/08/20         0.05         04/10/20         0.05         07/07/20         0.00         10/08/20         0.05           01/10/20         0.05         04/10/20         0.05         07/09/20         0.05         10/10/20         0.05           01/11/20         0.05         04/11/20         0.05         07/11/20         0.05         10/10/20         0.05           01/13/20         0.05         04/13/20         0.05         07/11/20         0.06         10/12/20         0.05           01/15/20         0.05         04/15/20         0.05         07/15/20         0.06         10/14/20         0.05           01/15/20         0.05         04/15/20         0.05         07/15/20         0.								
01/05/20         0.05         04/05/20         0.05         01/06/20         0.05         01/06/20         0.05         01/06/20         0.05         01/06/20         0.05         01/06/20         0.05         01/07/20         0.05         01/07/20         0.05         01/07/20         0.05         01/07/20         0.05         01/07/20         0.05         01/07/20         0.05         01/09/20         0.05         01/09/20         0.05         01/10/20         0.05         01/10/20         0.05         01/10/20         0.05         01/10/20         0.05         01/10/20         0.05         01/11/2								
01/06/20         0.05         04/06/20         0.05         01/07/20         0.05         01/07/20         0.05         04/07/20         0.05         01/07/20         0.05         01/08/20         0.05         04/08/20         0.05         07/07/20         0.00         10/08/20         0.05               01/09/20             0.05             04/09/20             0.05             07/09/20             0.05             10/09/20             0.05               01/10/20             0.05             04/10/20             0.05             07/10/20             0.05               01/11/20             0.05             04/11/20             0.05             07/11/20             0.05               01/13/20             0.05             04/13/20             0.05             07/13/20             0.05               01/14/20             0.05             04/13/20             0.05             07/14/20             0.05               01/14/20             0.05             04/15/20             0.05             07/15/20             0.05               01/15/20             0.05             04/18/20             0.05             07/15/20             0.05               01/16/20             0.05             04/21/20             0.05								
01/07/20         0.05         04/07/20         0.05         07/07/20         0.00         10/07/20         0.05           01/08/20         0.05         04/08/20         0.05         07/08/20         0.05         10/09/20         0.05           01/10/20         0.05         04/09/20         0.05         07/10/20         0.05         10/09/20         0.05           01/11/20         0.05         04/11/20         0.05         07/11/20         0.05         10/10/20         0.05           01/13/20         0.05         04/12/20         0.05         07/11/20         0.06         10/11/20         0.05           01/13/20         0.05         04/14/20         0.05         07/11/20         0.06         10/11/20         0.05            01/14/20         0.05         04/14/20         0.05         07/15/20         0.05         10/14/20         0.05           01/15/20         0.05         04/16/20         0.05         07/15/20         0.04         10/15/20         0.05           01/14/20         0.05         04/18/20         0.05         07/18/20         0.00         10/16/20         0.05           01/21/20         0.05         04/18/20         0.05         07/18/20         0								
01/08/20         0.05         04/08/20         0.05         07/08/20         0.04         10/08/20         0.05           01/09/20         0.05         04/09/20         0.05         07/09/20         0.05         10/09/20         0.05           01/10/20         0.05         04/10/20         0.05         07/10/20         0.05         10/10/20         0.05           01/12/20         0.05         04/11/20         0.05         07/11/20         0.06         10/11/20         0.05           01/13/20         0.05         04/13/20         0.05         07/12/20         0.06         10/11/20         0.05           01/14/20         0.05         04/13/20         0.05         07/13/20         0.05         10/14/20         0.05            01/16/20         0.05         04/16/20         0.05         07/15/20         0.04         10/15/20         0.05           01/17/20         0.05         04/16/20         0.05         07/15/20         0.04         10/16/20         0.05           01/19/20         0.05         04/18/20         0.05         07/18/20         0.00         10/16/20         0.05           01/19/20         0.05         04/21/20         0.05         07/20/20         0								
01/09/20         0.05         04/09/20         0.05         07/09/20         0.05         10/10/20         0.05           01/10/20         0.05         04/10/20         0.02         07/10/20         0.05         10/10/20         0.05           01/12/20         0.05         04/12/20         0.05         07/11/20         0.06         10/11/20         0.05           01/13/20         0.05         04/13/20         0.05         07/13/20         0.05         10/13/20         0.05           01/14/20         0.05         04/14/20         0.05         07/13/20         0.05         10/13/20         0.05           01/15/20         0.05         04/14/20         0.05         07/14/20         0.05         10/14/20         0.05           01/16/20         0.05         04/16/20         0.05         07/15/20         0.04         10/15/20         0.05           01/18/20         0.05         04/18/20         0.05         07/16/20         0.00         10/16/20         0.05           01/20/20         0.05         04/18/20         0.05         07/19/20         0.00         10/18/20         0.05           01/20/20         0.05         04/21/20         0.05         07/21/20         0.								
01/10/20         0.05         04/10/20         0.02         07/10/20         0.05         10/10/20         0.05           01/11/20         0.05         04/12/20         0.05         07/11/20         0.06         10/11/20         0.05           01/12/20         0.05         04/12/20         0.05         07/12/20         0.06         10/12/20         0.05           01/13/20         0.05         04/13/20         0.05         07/13/20         0.05         10/13/20         0.05           01/15/20         0.05         04/15/20         0.05         07/14/20         0.05         10/14/20         0.05           01/16/20         0.05         04/16/20         0.05         07/15/20         0.04         10/15/20         0.05           01/18/20         0.05         04/16/20         0.05         07/18/20         0.00         10/16/20         0.05           01/18/20         0.05         04/18/20         0.05         07/18/20         0.00         10/18/20         0.05           01/21/20         0.05         04/21/20         0.05         07/19/20         0.00         10/18/20         0.05           01/22/20         0.05         04/21/20         0.05         07/21/20         0.								
01/11/20         0.05         04/12/20         0.05         07/11/20         0.06         10/11/20         0.05           01/13/20         0.05         04/13/20         0.05         07/12/20         0.06         10/12/20         0.05           01/13/20         0.05         04/13/20         0.05         07/13/20         0.05         10/13/20         0.05           01/15/20         0.05         04/15/20         0.05         07/14/20         0.05         10/14/20         0.05           01/15/20         0.05         04/15/20         0.05         07/15/20         0.04         10/15/20         0.05           01/16/20         0.05         04/16/20         0.05         07/16/20         0.00         10/16/20         0.05           01/19/20         0.05         04/19/20         0.05         07/18/20         0.00         10/18/20         0.05           01/20/20         0.05         04/20/20         0.05         07/19/20         0.00         10/19/20         0.05           01/20/20         0.05         04/21/20         0.05         07/21/20         0.00         10/19/20         0.05           01/23/20         0.05         04/23/20         0.05         07/23/20         0.				-	-			
01/12/20         0.05         04/12/20         0.05         07/12/20         0.06         10/12/20         0.05           01/13/20         0.05         04/13/20         0.05         07/13/20         0.05         10/13/20         0.05           01/14/20         0.05         04/15/20         0.05         07/15/20         0.05         10/14/20         0.05           01/16/20         0.05         04/16/20         0.05         07/15/20         0.04         10/15/20         0.05           01/16/20         0.05         04/16/20         0.05         07/15/20         0.00         10/16/20         0.05           01/18/20         0.05         04/19/20         0.05         07/17/20         0.00         10/17/20         0.05           01/19/20         0.05         04/19/20         0.05         07/19/20         0.00         10/19/20         0.05           01/21/20         0.05         04/21/20         0.05         07/21/20         0.00         10/19/20         0.05           01/22/20         0.05         04/22/20         0.05         07/22/20         0.05         10/22/20         0.05           01/23/20         0.05         04/23/20         0.05         07/24/20         0.								
01/13/20         0.05         04/13/20         0.05         07/13/20         0.05         01/14/20         0.05         04/14/20         0.05         07/14/20         0.05         01/14/20         0.05         01/15/20         0.05         04/15/20         0.05         07/15/20         0.04         10/15/20         0.05           01/16/20         0.05         04/16/20         0.05         07/15/20         0.00         10/15/20         0.05           01/17/20         0.05         04/18/20         0.05         07/17/20         0.00         10/17/20         0.05           01/18/20         0.05         04/18/20         0.05         07/18/20         0.00         10/18/20         0.05           01/19/20         0.05         04/19/20         0.05         07/18/20         0.00         10/18/20         0.05           01/20/20         0.05         04/20/20         0.05         07/20/20         0.04         10/20/20         0.05           01/21/20         0.05         04/21/20         0.05         07/21/20         0.05         10/21/20         0.05           01/23/20         0.05         04/22/20         0.05         07/22/20         0.05         10/22/20         0.05 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
01/14/20         0.05         04/14/20         0.05         07/14/20         0.05         01/14/20         0.05         01/15/20         0.05         04/15/20         0.05         07/15/20         0.04         10/15/20         0.05         01/16/20         0.05         04/16/20         0.05         07/15/20         0.04         10/15/20         0.05         0.05         01/16/20         0.05         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/16/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20         0.05         01/18/20 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
01/15/20         0.05         04/15/20         0.05         07/15/20         0.04         10/15/20         0.05           01/16/20         0.05         04/16/20         0.05         07/16/20         0.00         10/16/20         0.05           01/17/20         0.05         04/17/20         0.05         07/17/20         0.00         10/17/20         0.05           01/19/20         0.05         04/19/20         0.05         07/18/20         0.00         10/18/20         0.05           01/20/20         0.05         04/20/20         0.05         07/20/20         0.04         10/19/20         0.05           01/21/20         0.05         04/21/20         0.05         07/21/20         0.05         10/19/20         0.05            01/22/20         0.05         04/22/20         0.05         07/22/20         0.05         10/21/20         0.05           01/23/20         0.05         04/22/20         0.05         07/22/20         0.05         10/21/20         0.05           01/24/20         0.05         04/23/20         0.05         07/22/20         0.05         10/22/20         0.05           01/24/20         0.05         04/25/20         0.05         07/25/20         0								
01/16/20         0.05         04/16/20         0.05         07/16/20         0.00         10/16/20         0.05           01/17/20         0.05         04/17/20         0.05         07/17/20         0.00         10/17/20         0.05           01/19/20         0.05         04/19/20         0.05         07/19/20         0.00         10/19/20         0.05           01/20/20         0.05         04/20/20         0.05         07/19/20         0.00         10/19/20         0.05           01/20/20         0.05         04/20/20         0.05         07/20/20         0.04         10/20/20         0.05           01/21/20         0.05         04/21/20         0.05         07/21/20         0.05         10/22/20         0.05            01/22/20         0.05         04/22/20         0.05         07/22/20         0.05         10/22/20         0.05           01/24/20         0.05         04/23/20         0.05         07/23/20         0.05         10/24/20         0.05           01/25/20         0.05         04/26/20         0.05         07/25/20         0.06         10/25/20         0.05           01/27/20         0.05         04/28/20         0.05         07/27/20         0					<del> </del>			
01/17/20         0.05         04/17/20         0.05         07/17/20         0.00         10/17/20         0.05           01/18/20         0.05         04/18/20         0.05         07/18/20         0.00         10/18/20         0.05           01/19/20         0.05         04/19/20         0.05         07/19/20         0.00         10/19/20         0.05           01/20/20         0.05         04/20/20         0.05         07/20/20         0.04         10/20/20         0.05           01/21/20         0.05         04/21/20         0.05         07/21/20         0.05         10/21/20         0.05           01/23/20         0.05         04/22/20         0.05         07/22/20         0.05         10/22/20         0.05           01/24/20         0.05         04/23/20         0.05         07/22/20         0.05         10/22/20         0.05           01/24/20         0.05         04/24/20         0.05         07/22/20         0.05         10/24/20         0.05           01/26/20         0.05         04/25/20         0.05         07/25/20         0.06         10/26/20         0.05           01/28/20         0.05         04/26/20         0.05         07/27/20         0.								
01/18/20         0.05         04/18/20         0.05         07/18/20         0.00         10/18/20         0.05           01/19/20         0.05         04/19/20         0.05         07/19/20         0.00         10/19/20         0.05           01/20/20         0.05         04/20/20         0.05         07/20/20         0.04         10/20/20         0.05           01/21/20         0.05         04/21/20         0.05         07/21/20         0.05         10/21/20         0.05           01/22/20         0.05         04/22/20         0.05         07/22/20         0.05         10/21/20         0.05           01/23/20         0.05         04/23/20         0.05         07/22/20         0.05         10/22/20         0.05            01/24/20         0.05         04/23/20         0.05         07/22/20         0.05         10/23/20         0.05           01/24/20         0.05         04/24/20         0.05         07/24/20         0.05         10/24/20         0.05           01/25/20         0.05         04/26/20         0.05         07/26/20         0.06         10/25/20         0.05           01/29/20         0.05         04/27/20         0.05         07/27/20         0						0.00		0.05
01/19/20         0.05         04/19/20         0.05         07/19/20         0.00         10/19/20         0.05           01/20/20         0.05         04/20/20         0.05         07/20/20         0.04         10/20/20         0.05           01/21/20         0.05         04/21/20         0.05         07/21/20         0.05         10/21/20         0.05           01/23/20         0.05         04/23/20         0.05         07/23/20         0.05         10/23/20         0.05           01/24/20         0.05         04/24/20         0.05         07/24/20         0.05         10/23/20         0.05           01/24/20         0.05         04/24/20         0.05         07/24/20         0.05         10/24/20         0.05            01/25/20         0.05         04/25/20         0.05         07/25/20         0.06         10/25/20         0.05           01/26/20         0.05         04/26/20         0.05         07/22/20         0.06         10/26/20         0.05           01/28/20         0.05         04/29/20         0.05         07/29/20         0.05         10/27/20         0.05           01/29/20         0.05         04/29/20         0.05         07/30/20         0								0.05
01/20/20         0.05         04/20/20         0.05         07/20/20         0.04         10/20/20         0.05           01/21/20         0.05         04/21/20         0.05         07/21/20         0.05         10/21/20         0.05           01/23/20         0.05         04/23/20         0.05         07/22/20         0.05         10/23/20         0.05           01/24/20         0.05         04/24/20         0.05         07/24/20         0.05         10/23/20         0.05           01/25/20         0.05         04/25/20         0.05         07/25/20         0.05         10/24/20         0.05           01/26/20         0.05         04/26/20         0.05         07/25/20         0.06         10/25/20         0.05            01/27/20         0.05         04/26/20         0.05         07/27/20         0.06         10/26/20         0.05           01/28/20         0.05         04/28/20         0.05         07/27/20         0.05         10/27/20         0.05           01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/29/20         0.05           01/30/20         0.05         04/30/20         0.05         07/30/20         0								
01/21/20         0.05         04/21/20         0.05         07/21/20         0.05         10/21/20         0.05           01/22/20         0.05         04/22/20         0.05         07/22/20         0.05         10/22/20         0.05           01/23/20         0.05         04/23/20         0.05         07/23/20         0.05         10/23/20         0.05           01/24/20         0.05         04/24/20         0.05         07/24/20         0.05         10/24/20         0.05           01/25/20         0.05         04/25/20         0.05         07/25/20         0.06         10/25/20         0.05           01/26/20         0.05         04/26/20         0.05         07/26/20         0.06         10/26/20         0.05            01/28/20         0.05         04/27/20         0.05         07/27/20         0.05         10/27/20         0.05           01/29/20         0.05         04/28/20         0.05         07/28/20         0.05         10/28/20         0.05           01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/29/20         0.05           01/31/20         0.05         05/01/20         0.05         08/01/20         0								
01/22/20         0.05         04/22/20         0.05         07/22/20         0.05         10/22/20         0.05           01/23/20         0.05         04/23/20         0.05         07/23/20         0.05         10/23/20         0.05           01/24/20         0.05         04/24/20         0.05         07/24/20         0.05         10/24/20         0.05           01/25/20         0.05         04/25/20         0.05         07/25/20         0.06         10/25/20         0.05           01/26/20         0.05         04/26/20         0.05         07/26/20         0.06         10/26/20         0.05           01/27/20         0.05         04/27/20         0.05         07/27/20         0.05         10/27/20         0.05            01/28/20         0.05         04/28/20         0.05         07/28/20         0.05         10/28/20         0.05           01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/28/20         0.05           01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/29/20         0.05           01/31/20         0.05         0.05/01/20         0.05         07/31/20 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>0.04</td><td></td><td></td></td<>						0.04		
01/23/20         0.05         04/23/20         0.05         07/23/20         0.05         10/23/20         0.05           01/24/20         0.05         04/24/20         0.05         07/24/20         0.05         10/24/20         0.05           01/25/20         0.05         04/25/20         0.05         07/25/20         0.06         10/25/20         0.05           01/26/20         0.05         04/26/20         0.05         07/26/20         0.06         10/26/20         0.05           01/27/20         0.05         04/27/20         0.05         07/27/20         0.05         10/27/20         0.05           01/28/20         0.05         04/28/20         0.05         07/28/20         0.05         10/28/20         0.05            01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/28/20         0.05           01/30/20         0.05         04/30/20         0.05         07/29/20         0.05         10/29/20         0.05           01/31/20         0.05         04/30/20         0.05         07/30/20         0.05         10/29/20         0.05           01/31/20         0.05         05/01/20         0.05         07/31/20         0	01/21/20	0.05	04/21/20	0.05	07/21/20	0.05	10/21/20	0.05
01/24/20         0.05         04/24/20         0.05         07/24/20         0.05         10/24/20         0.05           01/25/20         0.05         04/25/20         0.05         07/25/20         0.06         10/25/20         0.05           01/26/20         0.05         04/26/20         0.05         07/26/20         0.06         10/26/20         0.05           01/27/20         0.05         04/27/20         0.05         07/27/20         0.05         10/26/20         0.05           01/28/20         0.05         04/28/20         0.05         07/28/20         0.05         10/27/20         0.05           01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/28/20         0.05            01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/30/20         0.05           01/31/20         0.05         05/01/20         0.05         07/31/20         0.00         10/31/20         0.05           02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/01/20         0.06           02/03/20         0.05         05/04/20         0.05         08/03/20         0	01/22/20	0.05	04/22/20	0.05	07/22/20	0.05	10/22/20	0.05
01/25/20         0.05         04/25/20         0.05         07/25/20         0.06         10/25/20         0.05           01/26/20         0.05         04/26/20         0.05         07/26/20         0.06         10/26/20         0.05           01/27/20         0.05         04/27/20         0.05         07/27/20         0.05         10/27/20         0.05           01/28/20         0.05         04/28/20         0.05         07/28/20         0.05         10/28/20         0.05           01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/28/20         0.05           01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/30/20         0.05            01/31/20         0.05         05/01/20         0.05         07/31/20         0.05         10/31/20         0.05           02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/01/20         0.06           02/03/20         0.05         05/03/20         0.05         08/02/20         0.05         11/02/20         0.06           02/04/20         0.05         05/04/20         0.05         08/03/20         0		0.05	04/23/20	0.05	07/23/20	0.05	10/23/20	0.05
01/26/20         0.05         04/26/20         0.05         07/26/20         0.06         10/26/20         0.05           01/27/20         0.05         04/27/20         0.05         07/27/20         0.05         10/27/20         0.05           01/28/20         0.05         04/28/20         0.05         07/28/20         0.05         10/28/20         0.05           01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/29/20         0.05           01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/30/20         0.05           01/31/20         0.05         05/01/20         0.05         07/31/20         0.00         10/31/20         0.05            02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/03/20         0.05           02/01/20         0.05         05/03/20         0.05         08/02/20         0.05         11/02/20         0.06           02/03/20         0.05         05/04/20         0.05         08/04/20         0.05         11/03/20         0.05           02/05/20         0.05         05/06/20         0.05         08/04/20         0	01/24/20	0.05	04/24/20	0.05	07/24/20	0.05	10/24/20	0.05
01/27/20         0.05         04/27/20         0.05         07/27/20         0.05         10/27/20         0.05           01/28/20         0.05         04/28/20         0.05         07/28/20         0.05         10/28/20         0.05           01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/28/20         0.05           01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/30/20         0.05           01/31/20         0.05         05/01/20         0.05         07/31/20         0.00         10/31/20         0.05           02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/01/20         0.05            02/02/20         0.05         05/03/20         0.05         08/02/20         0.05         11/02/20         0.06           02/03/20         0.05         05/03/20         0.05         08/03/20         0.05         11/03/20         0.05           02/04/20         0.05         05/05/20         0.05         08/04/20         0.05         11/04/20         0.05           02/05/20         0.05         05/06/20         0.05         08/05/20         0	01/25/20	0.05	04/25/20	0.05	07/25/20	0.06	10/25/20	0.05
01/28/20         0.05         04/28/20         0.05         07/28/20         0.05         10/28/20         0.05           01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/29/20         0.05           01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/30/20         0.05           01/31/20         0.05         05/01/20         0.05         07/31/20         0.00         10/31/20         0.05           02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/01/20         0.06           02/02/20         0.05         05/03/20         0.05         08/01/20         0.05         11/01/20         0.06            02/03/20         0.05         05/03/20         0.05         08/03/20         0.05         11/03/20         0.06           02/03/20         0.05         05/04/20         0.05         08/03/20         0.05         11/03/20         0.05           02/05/20         0.05         05/05/20         0.05         08/04/20         0.05         11/04/20         0.05           02/05/20         0.05         05/07/20         0.05         08/05/20         0	01/26/20	0.05	04/26/20	0.05	07/26/20	0.06	10/26/20	0.05
01/29/20         0.05         04/29/20         0.05         07/29/20         0.05         10/29/20         0.05           01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/30/20         0.05           01/31/20         0.05         05/01/20         0.05         07/31/20         0.00         10/31/20         0.05           02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/01/20         0.06           02/02/20         0.05         05/03/20         0.05         08/02/20         0.05         11/02/20         0.06           02/03/20         0.05         05/04/20         0.05         08/03/20         0.05         11/02/20         0.06            02/03/20         0.05         05/04/20         0.05         08/03/20         0.05         11/03/20         0.05           02/04/20         0.05         05/05/20         0.05         08/03/20         0.05         11/04/20         0.05           02/05/20         0.05         05/06/20         0.05         08/06/20         0.05         11/06/20         0.05           02/06/20         0.05         05/08/20         0.05         08/06/20         0	01/27/20	0.05	04/27/20	0.05	07/27/20	0.05	10/27/20	0.05
01/30/20         0.05         04/30/20         0.05         07/30/20         0.05         10/30/20         0.05           01/31/20         0.05         05/01/20         0.05         07/31/20         0.00         10/31/20         0.05           02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/01/20         0.06           02/02/20         0.05         05/03/20         0.05         08/02/20         0.05         11/02/20         0.06           02/03/20         0.05         05/04/20         0.05         08/03/20         0.05         11/03/20         0.06           02/03/20         0.05         05/04/20         0.05         08/03/20         0.05         11/03/20         0.05            02/04/20         0.05         05/05/20         0.05         08/04/20         0.05         11/04/20         0.05           02/05/20         0.05         05/06/20         0.05         08/05/20         0.05         11/06/20         0.05           02/07/20         0.05         05/07/20         0.05         08/06/20         0.05         11/06/20         0.05           02/09/20         0.04         05/09/20         0.05         08/08/20         0	01/28/20	0.05	04/28/20	0.05	07/28/20	0.05	10/28/20	0.05
01/31/20         0.05         05/01/20         0.05         07/31/20         0.00         10/31/20         0.05           02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/01/20         0.06           02/02/20         0.05         05/03/20         0.05         08/02/20         0.05         11/02/20         0.06           02/03/20         0.05         05/04/20         0.05         08/03/20         0.05         11/03/20         0.05           02/04/20         0.05         05/05/20         0.05         08/04/20         0.05         11/03/20         0.05           02/05/20         0.05         05/05/20         0.05         08/04/20         0.05         11/04/20         0.05            02/05/20         0.05         05/06/20         0.05         08/05/20         0.05         11/05/20         0.05           02/07/20         0.05         05/07/20         0.05         08/06/20         0.05         11/06/20         0.05           02/07/20         0.05         05/08/20         0.05         08/08/20         0.04         11/07/20         0.03           02/08/20         0.04         05/10/20         0.05         08/08/20         0	01/29/20	0.05	04/29/20	0.05	07/29/20	0.05	10/29/20	0.05
02/01/20         0.05         05/02/20         0.05         08/01/20         0.05         11/01/20         0.06           02/02/20         0.05         05/03/20         0.05         08/02/20         0.05         11/02/20         0.06           02/03/20         0.05         05/04/20         0.05         08/03/20         0.05         11/03/20         0.05           02/04/20         0.05         05/05/20         0.05         08/03/20         0.05         11/04/20         0.05           02/05/20         0.05         05/06/20         0.05         08/05/20         0.05         11/05/20         0.05           02/05/20         0.05         05/06/20         0.05         08/05/20         0.05         11/05/20         0.05           02/06/20         0.05         05/07/20         0.05         08/06/20         0.05         11/06/20         0.05           02/07/20         0.05         05/08/20         0.05         08/07/20         0.06         11/07/20         0.03           02/09/20         0.04         05/09/20         0.05         08/09/20         0.04         11/09/20         0.05           02/10/20         0.05         05/11/20         0.05         08/10/20         0.	01/30/20	0.05	04/30/20	0.05	07/30/20	0.05	10/30/20	0.05
02/02/20         0.05         05/03/20         0.05         08/02/20         0.05         11/02/20         0.06           02/03/20         0.05         05/04/20         0.05         08/03/20         0.05         11/03/20         0.05           02/04/20         0.05         05/05/20         0.05         08/04/20         0.05         11/04/20         0.05           02/05/20         0.05         05/06/20         0.05         08/05/20         0.05         11/05/20         0.05           02/06/20         0.05         05/07/20         0.05         08/05/20         0.05         11/06/20         0.05           02/07/20         0.05         05/08/20         0.05         08/06/20         0.05         11/06/20         0.05           02/07/20         0.05         05/08/20         0.05         08/07/20         0.06         11/07/20         0.03           02/08/20         0.04         05/09/20         0.05         08/08/20         0.04         11/08/20         0.05           02/09/20         0.04         05/10/20         0.05         08/09/20         0.00         11/10/20         0.05           02/10/20         0.05         05/11/20         0.05         08/11/20         0.								0.05
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02/04/20         0.05         05/05/20         0.05         08/04/20         0.05         11/04/20         0.05           02/05/20         0.05         05/06/20         0.05         08/05/20         0.05         11/05/20         0.05           02/06/20         0.05         05/07/20         0.05         08/06/20         0.05         11/06/20         0.05           02/07/20         0.05         05/08/20         0.05         08/07/20         0.06         11/07/20         0.03           02/08/20         0.04         05/09/20         0.05         08/08/20         0.04         11/08/20         0.05           02/09/20         0.04         05/10/20         0.05         08/09/20         0.00         11/09/20         0.05           02/10/20         0.05         05/11/20         0.05         08/10/20         0.00         11/10/20         0.05           02/11/20         0.05         05/12/20         0.05         08/11/20         0.00         11/11/20         0.05           02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.	02/02/20	0.05	05/03/20	0.05	08/02/20	0.05	11/02/20	0.06
02/05/20         0.05         05/06/20         0.05         08/05/20         0.05         11/05/20         0.05           02/06/20         0.05         05/07/20         0.05         08/06/20         0.05         11/06/20         0.05           02/07/20         0.05         05/08/20         0.05         08/07/20         0.06         11/07/20         0.03           02/08/20         0.04         05/09/20         0.05         08/08/20         0.04         11/08/20         0.03           02/09/20         0.04         05/10/20         0.05         08/09/20         0.00         11/09/20         0.05           02/10/20         0.05         05/11/20         0.05         08/10/20         0.00         11/10/20         0.05           02/11/20         0.05         05/12/20         0.05         08/11/20         0.00         11/11/20         0.05           02/12/20         0.05         05/13/20         0.05         08/12/20         0.00         11/12/20         0.05           02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.	02/03/20	0.05	05/04/20	0.05	08/03/20	0.05	11/03/20	0.05
02/06/20         0.05         05/07/20         0.05         08/06/20         0.05         11/06/20         0.05           02/07/20         0.05         05/08/20         0.05         08/07/20         0.06         11/07/20         0.03           02/08/20         0.04         05/09/20         0.05         08/08/20         0.04         11/08/20         0.05           02/09/20         0.04         05/10/20         0.05         08/09/20         0.00         11/09/20         0.05           02/10/20         0.05         05/11/20         0.05         08/10/20         0.00         11/10/20         0.05           02/11/20         0.05         05/12/20         0.05         08/11/20         0.00         11/11/20         0.05           02/12/20         0.05         05/13/20         0.05         08/12/20         0.00         11/12/20         0.05           02/13/20         0.04         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05	02/04/20	0.05	05/05/20	0.05	08/04/20	0.05	11/04/20	0.05
02/07/20         0.05         05/08/20         0.05         08/07/20         0.06         11/07/20         0.03           02/08/20         0.04         05/09/20         0.05         08/08/20         0.04         11/08/20         0.05           02/09/20         0.04         05/10/20         0.05         08/09/20         0.00         11/09/20         0.05           02/10/20         0.05         05/11/20         0.05         08/10/20         0.00         11/10/20         0.05           02/11/20         0.05         05/12/20         0.05         08/11/20         0.00         11/11/20         0.05           02/12/20         0.05         05/13/20         0.05         08/12/20         0.00         11/12/20         0.05           02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05	02/05/20	0.05	05/06/20	0.05	08/05/20	0.05	11/05/20	0.05
02/08/20         0.04         05/09/20         0.05         08/08/20         0.04         11/08/20         0.05           02/09/20         0.04         05/10/20         0.05         08/09/20         0.00         11/09/20         0.05           02/10/20         0.05         05/11/20         0.05         08/10/20         0.00         11/10/20         0.05           02/11/20         0.05         05/12/20         0.05         08/11/20         0.00         11/11/20         0.05           02/12/20         0.05         05/13/20         0.05         08/12/20         0.00         11/12/20         0.05           02/13/20         0.04         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05	02/06/20	0.05	05/07/20	0.05	08/06/20	0.05	11/06/20	0.05
02/09/20         0.04         05/10/20         0.05         08/09/20         0.00         11/09/20         0.05           02/10/20         0.05         05/11/20         0.05         08/10/20         0.00         11/09/20         0.05           02/11/20         0.05         05/12/20         0.05         08/11/20         0.00         11/10/20         0.05           02/12/20         0.05         05/13/20         0.05         08/11/20         0.00         11/11/20         0.05           02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05	02/07/20	0.05	05/08/20	0.05	08/07/20	0.06	11/07/20	0.03
02/10/20         0.05         05/11/20         0.05         08/10/20         0.00         11/10/20         0.05           02/11/20         0.05         05/12/20         0.05         08/11/20         0.00         11/10/20         0.05           02/12/20         0.05         05/13/20         0.05         08/12/20         0.00         11/12/20         0.05           02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05	02/08/20	0.04	05/09/20	0.05	08/08/20	0.04	11/08/20	0.05
02/11/20         0.05         05/12/20         0.05         08/11/20         0.00         11/11/20         0.05           02/12/20         0.05         05/13/20         0.05         08/12/20         0.00         11/12/20         0.05           02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05	02/09/20	0.04	05/10/20	0.05	08/09/20	0.00	11/09/20	0.05
02/12/20         0.05         05/13/20         0.05         08/12/20         0.00         11/12/20         0.05           02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05	02/10/20	0.05	05/11/20	0.05	08/10/20	0.00	11/10/20	0.05
02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05	02/11/20	0.05	05/12/20	0.05	08/11/20	0.00	11/11/20	0.05
02/13/20         0.05         05/14/20         0.05         08/13/20         0.00         11/13/20         0.05           02/14/20         0.04         05/15/20         0.05         08/14/20         0.00         11/14/20         0.05								0.05
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								0.05
0.05   0.05   0.05   0.05   0.05   0.05   0.06   0.00   11/15/20     0.05	02/15/20	0.05	05/16/20	0.05	08/15/20	0.00	11/15/20	0.05
								0.05
								0.05

00/40/00							
02/18/20	0.05	05/19/20	0.05	08/18/20	0.00	11/18/20	0.05
02/19/20	0.05	05/20/20	0.05	08/19/20	0.00	11/19/20	0.05
02/20/20	0.05	05/21/20	0.05	08/20/20	0.00	11/20/20	0.05
02/21/20	0.05	05/22/20	0.06	08/21/20	0.00	11/21/20	0.05
02/22/20	0.05	05/23/20	0.05	08/22/20	0.00	11/22/20	0.05
02/23/20	0.05	05/24/20	0.05	08/23/20	0.00	11/23/20	0.06
02/24/20	0.05	05/25/20	0.05	08/24/20	0.00	11/24/20	0.05
02/25/20	0.05	05/26/20	0.05	08/25/20	0.00	11/25/20	0.05
02/26/20	0.05	05/27/20	0.05	08/26/20	0.00	11/26/20	0.05
02/27/20	0.05	05/28/20	0.05	08/27/20	0.00	11/27/20	0.05
02/28/20	0.05	05/29/20	0.05	08/28/20	0.00	11/28/20	0.05
02/29/20	0.05	05/30/20	0.05	08/29/20	0.00	11/29/20	0.05
03/01/20	0.05	05/31/20	0.05	08/30/20	0.00	11/30/20	0.05
03/02/20	0.05	06/01/20	0.05	08/31/20	0.00	12/01/20	0.05
03/03/20	0.05	06/02/20	0.06	09/01/20	0.00	12/02/20	0.05
03/04/20	0.05	06/03/20	0.05	09/02/20	0.00	12/03/20	0.05
03/05/20	0.05	06/04/20	0.05	09/03/20	0.00	12/04/20	0.05
03/06/20	0.05	06/05/20	0.05	09/04/20	0.00	12/05/20	0.06
03/07/20	0.05	06/06/20	0.05	09/05/20	0.00	12/06/20	0.05
03/08/20	0.05	06/07/20	0.05	09/06/20	0.00	12/07/20	0.05
03/09/20	0.05	06/08/20	0.05	09/07/20	0.00	12/08/20	0.05
03/10/20	0.05	06/09/20	0.05	09/08/20	0.00	12/09/20	0.05
03/11/20	0.05	06/10/20	0.05	09/09/20	0.00	12/10/20	0.05
03/12/20	0.05	06/11/20	0.05	09/10/20	0.00	12/11/20	0.05
03/13/20	0.05	06/12/20	0.05	09/11/20	0.00	12/12/20	0.05
03/14/20	0.05	06/13/20	0.05	09/12/20	0.00	12/13/20	0.05
03/15/20	0.05	06/14/20	0.05	09/13/20	0.00	12/14/20	0.05
03/16/20	0.05	06/15/20	0.05	09/14/20	0.00	12/15/20	0.05
03/17/20	0.05	06/16/20	0.05	09/15/20	0.00	12/16/20	0.05
03/18/20	0.05	06/17/20	0.05	09/16/20	0.00	12/17/20	0.05
03/19/20	0.05	06/18/20	0.05	09/17/20	0.00	12/18/20	0.05
03/20/20	0.05	06/19/20	0.05	09/18/20	0.00	12/19/20	0.05
03/21/20	0.05	06/20/20	0.05	09/19/20	0.00	12/20/20	0.05
03/22/20	0.05	06/21/20	0.05	09/20/20	0.00	12/21/20	0.06
03/23/20	0.05	06/22/20	0.05	09/21/20	0.00	12/22/20	0.05
03/24/20	0.05	06/23/20	0.05	09/22/20	0.00	12/23/20	0.05
03/25/20	0.05	06/24/20	0.05	09/23/20	0.00	12/24/20	0.05
03/26/20	0.05	06/25/20	0.05	09/24/20	0.02	12/25/20	0.06
03/27/20	0.05	06/26/20	0.05	09/25/20	0.05	12/26/20	0.05
03/28/20	0.05	06/27/20	0.05	09/26/20	0.05	12/27/20	0.05
03/29/20	0.05	06/28/20	0.05	09/27/20	0.05	12/28/20	0.05
03/30/20	0.05	06/29/20	0.05	09/28/20	0.05	12/29/20	0.05
03/31/20	0.05	06/30/20	0.05	09/29/20	0.05	12/30/20	0.05
03/31/201							

# Appendix F Site Photographs



1. looking southeasterly along eastern portion of northern slope



2. looking easterly across middle portion of northern slope



3. looking northwesterly along western portion of the northern slope in the transition between Cell 3 & Cell 1 & 2



4. looking northerly across northwest corner of Cells 1 & 2



5. looking north along the western slope of Cells 1 & 2



6. at landfill toe looking east up the western slope of Cells 1 & 2 (the location of the previous excavation area)



7. at western detention pond looking north towards bottom slope of Cell 1 & 2 (and northern portion of the excavation area)



8. looking southeasterly at western detention pond towards the western slope of Cell 4/5



9. on the western slope of Cell 1/2/3 looking southerly towards northwestern slope of Cell 4



10. looking northerly down west slope of Cell 4/5 towards western detention ponds and western slope of Cell 1



11. on the western slope of Cell 4 looking southerly to the western slope of Cell 4/5



12. looking northerly along west slope of Cells 4/5 to southeast slope of Cells 4, and 1/2



13. looking southeasterly along south face of Cell 4/5 towards southwest face of Cell 5/6



14. looking southwest along southerly slopes of Cells 4/5/6



15. looking southeast to southwestern face of Cell 5/6 and Cell 8



16. looking southwesterly along the bottom slope of Cell 8/10



17. at the southern toe of the landfill looking southwesterly along the south face of Cell 10



18. looking westerly aloong the southern top of active Cell 10



19. top of Cell 10 looking northerly to the active face of waste placement



20. looking south down south slope of Cell 10



21. looking south down the south slope of Cell 10



22. detail of anchor pockets on south slope of Cell 10



23. looking northwesterly up south ridge line of Cell 10 towards the eastern slopes of Cell 10 and 11



24. looking northwesterly along the easterly slope of Cells 10/11

#### 10/16/20 Site Visit



25. top of the northwest corner looking down north slope of Cell 3/2/1



26. top of landfill looking northerly down north slope towards the soft material placement into Cell 12



27. looking easterly along eastern north face of Cell 7/11 (with Cell 12 to the left)



28. looking southerly towards the northeast corner of Cell 10/11 and southeast corner of Cell 12 (with the active placement of soft material in the foreground)

#### 10/16/20 Site Visit



29. looking westernly at the northeast landfill corner towards soft waste placement in Cell 12

# Updated Closure and Post-Closure Cost Estimates



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April 23, 2021

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 2021 Juniper Ridge Landfill Old Town, Maine

#### Dear Jeffrey:

As requested by NEWSME Landfill Operations LLC (NEWSME), Sevee & Maher Engineers, Inc. (SME) has updated our opinion of capital closure and post-closure costs for the Juniper Ridge Landfill (JRL) in Old Town, Maine for calendar year 2021. The capital closure cost is for those cells that, as of the end of the calendar year 2021, 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, 12 and 13. In total, these landfill cells have approximately 94.2 acres of closure area. Our opinion of the capital closure cost to close the 94.2 acres is \$24,176,000. 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 post-closure monitoring and maintenance cost for the site (as of April 2021) is \$12,800,100 for the items presented in Table 2. The post-closure costs assume a 30-year post-closure period and are based on 2021 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 is 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. SME's opinion of closure costs is based on our current understanding of site conditions and unit costs from NEWSME's Cell 13 project (excluding the drainage terraces and



- engineering/construction monitoring costs). The unit cost of vegetative cover factors in an estimate from Casella Organics to purchase and transport compost. The unit costs have been adjusted to reflect cover construction on 3H to 1V side slopes.
- 3. The unit costs for most items increased from 2020 to 2021. There was a significant increase in the cost of 40-mil geomembrane based on both industrywide price increases following disruptions in resin production and discussions with installers that indicated prices would not decline in the future. There was also a significant price increase for sand based on recent bid prices that have been observed at JRL for Cell 13 construction. 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.
- 4. 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 Forreter

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 2021

Table 2 Opinion of Post-Closure Monitoring and Maintenance Costs for Juniper Ridge

Landfill Developed Landfill Area as of December 2021

cc: Toni King, NEWSME

Wayne Boyd, NEWSME

#### TABLE 1

## OPINION OF FINAL COVER COSTS FOR JUNIPER RIDGE LANDFILL DEVELOPED LANDFILL AREA AS OF DECEMBER 2021

JUNIPER RIDGE LANDFILL PER-ACRE FINAL COVER COSTS (GAS COLLECTION NEEDED) (Update 4/2021)								
ITEM	ITEM UNIT QUANTITY UNIT COST <sup>(1)</sup> TOTAL							
Mobilization	L.S.	1	\$26,300	\$26,300				
Erosion Control	L.S.	1	\$5,900	\$5,900				
Active Gas System	L.S.	1	\$22,700	\$22,700				
Site Grading	L.S.	1	\$3,600	\$3,600				
Drainage Terraces	L.S.	1	\$21,200	\$21,200				
24" Compacted Clay	C.Y.	3,230	\$21.00	\$67,830				
40-mil Textured Geomembrane	SQ.FT.	43,600	\$0.49	\$21,364				
12" Drainage Sand	C.Y.	1,620	\$28.00	\$45,360				
12" Vegetative Cover	C.Y.	1,620	\$22	\$35,640				
Seed & Mulch	L.S.	1	\$2,400	\$2,400				
Engineer/Const. Monitoring	L.S.	1	\$25,300	\$25,300				
			Total	\$277,594				

JUNIPER RIDGE LANDFILL PER-ACRE FINAL COVER COSTS (EXISTING GAS COLLECTION) (Update 4/2021)								
ITEM UNIT QUANTITY UNIT COST <sup>(1)</sup> TOTAL								
Mobilization	L.S.	1	\$26,300	\$26,300				
Erosion Control	L.S.	1	\$5,900	\$5,900				
Site Grading	L.S.	1	\$3,600	\$3,600				
Drainage Terraces	L.S.	1	\$21,200	\$21,200				
24" Compacted Clay	C.Y.	3,230	\$21.00					
40-mil Textured Geomembrane	SQ.FT.	43,600	\$0.49					
12" Drainage Sand	C.Y.	1,620	\$28.00	\$45,360				
12" Vegetative Cover	C.Y.	1,620	\$22	\$35,640				
Seed & Mulch	L.S.	1	\$2,400	\$2,400				
Engineer/Const. Monitoring	L.S.	1	\$25,300	\$25,300				
			Total	\$254,894				

#### Notes:

1. Unit costs (not including drainage terraces and engineer/const. monitoring) based upon Third Party Construction Cost (JRL Cell 13 bid dated March 2021). Unit cost of vegetative cover is based on the JRL Cell 13 bid and a compost unit cost estimate from Casella Organics. These costs have been adjusted to reflect the cover construction on 3H to 1V side slopes.

	Acres	Closure Cost
Area with Existing Gas Collection (Cells 1 - 12)	86.9	\$22,150,000
Area without Gas Collection (Cell 13)	7.3	\$2,026,000
	Total	\$24,176,000

### OPINION OF POST-CLOSURE MONITORING AND MAINTENANCE COSTS FOR JUNIPER RIDGE LANDFILL DEVELOPED LANDFILL AREA AS OF DECEMBER 2021

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	\$ 1,500	\$45,000	
B. Disposal Costs for Leachate Years 1-30	\$ 98,600	\$2,958,000	Leachate generation is estimated for a 30 year period beginning with 18.0 M gallons at year 1 and decreasing to 0.31 M gallons at year 30.  Transportation cost of \$0.02184/gal.
C. Annual Leachate Testing	\$ 5,000		Annual cost for pretreatment testing.
	Subtotal Total	¢2.452.000	
Post Closure Water Quality Monitoring	Subtotal Total	\$3,153,000	
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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	\$ 42,900	\$214,500	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			Assumes one round detection monitor parameters,
A.3 Collect Samples From 24 Wells, 11 Underdrains,2 Leachate, 1	\$ 28,600	\$143,000	one round extended parameters for years 6-10.
leak Detection, 7 Surface Waters & 3 Pore Waters for 1 Round/Year & Methane Measurements From Wells 1 Time per Year	\$ 14,300	\$286,000	Assumes one round extended parameters for years 11-30.
B.1 Analyses of 52 Samples 3 Times per Year	\$ 52,800		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	\$ 35,200	\$176,000	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	\$ 17,600	\$352,000	Assumes 24 wells,11 underdrains,2 leachate, 1 leak detection, 7 surface,3 pore water & 4 QA/QC. Assumes Report prepared and submitted to MEDEP
C. Compile Data and Submit to MDEP  Subtotal Yearly Cost Years 1-5	\$ 4,600 \$ 100,300	\$138,000	after each sampling round.
Subtotal Yearly Cost Years 6-10	\$ 68,400		
Subtotal Yearly Cost Years 11-30	\$ 36,500		
	Subtotal Total	\$1,573,500	
Landfill Inspection	ф 0.400	¢275.400	Assumes 9 hr. per month @ \$85/hr.
A. Monthly Site Walk Over & Report Generation Subtotal	\$ 9,180 <b>\$ 9,180</b>	\$275,400 <b>\$275,400</b>	Assumes 9 nr. per month @ \$85/nr.
Active Landfill Gas Extraction System			
A. Gas Collection Equipment Replacement	\$ 11,200	\$336,000	General equipment replacement including well heads, condensate pumps etc. Replacement of flare parts such as flame arrestor
B. Flare Maintenance	\$ 6,100	\$183,000	media etc.  Routine inspection and maintenance of blower &
C. Blower Maintenance	\$ 6,100	\$183,000	control system.
D. System Operation and Inspection	\$ 5,800		General system operation & maintenance.
E. Well Tuning  F. Compliance Monitoring and Reporting	\$ 11,200 \$ 18,400		Well tuning once per month.  Includes Compliance Air Monitoring and Reporting.
G. Electrical Costs to Operate Blowers, Heat & Control Panel Years 1-	\$ 18,400	\$352,000	Electricity for blowers assumes varying horsepower
30	\$ 62,000	\$1,860,000	
H. Landfill Gas Treatment Costs Years 1-30	\$ 80,500 Subtotal Total	\$2,415,000 <b>\$6,039,000</b>	ppm using Thiopaq system at a cost of \$2,050 per ton.
Landfill Maintenance			
A. Cover Maintenance Including Annual Mowing & Erosion Repair     B.1 Pump Stations Inspections	\$ 9,000 \$ 11,700		Assumes 2 man crew 10 days/ year. Assumes 4.5 hr./ week @ \$50 per hour.
B.2 Pump Replacement Every Five Years (Not Annual Cost)	\$ 39,200	\$235,200	Assumes replacing 14 on-site pumps every 5 years at \$2,800 a piece.
C. General Site Maintenance	\$ 8,000	\$240,000	Assumes leachate line cleaning once per year for
D. Leachate Line Cleaning Subtotal	\$ 27,000 <b>\$ 94,900</b>	\$540,000 <b>\$1,636,200</b>	years 1-10, then every other year, for years 11-30 @ \$27,000 per cleaning.
Professional Services			
A. Engineering Services Subtotal	\$ 4,100 <b>\$ 4,100</b>	\$123,000 <b>\$123,000</b>	General Services
	,	, ==,,530	
TOTAL		\$12,800,100	

## ATTACHMENT K MSW Diversion

#### JRL 2020 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's Zero-Sort program delivering MSW recyclables collected in Maine to the Casella processing facility in Lewiston.
- 2. Casella's 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 encourage participation 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 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.

#### 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, Fairfield, 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 / Presque Isle (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's Zero-Sort program in calendar year 2020: 44
- Number of Maine businesses participating in Casella's Zero-Sort program in calendar year 2020: approx. 3,602
- Tons of Maine MSW recyclables processed in Casella's Zero-Sort program in calendar year 2020: 28,302 tons

#### Casella cardboard recycling

Fiber brokered and baled directly from Maine municipalities or Maine businesses in calendar year 2020:

Brokered: 46,442 tonsBaled: 13,807 tons

#### Maine MSW Delivered to Maine Incinerators and Processing Facilities in 2020

#### ecomaine:

• Single-stream recyclables: 12,694 tons

• MSW: 55,030 tons

#### MMWAC:

• MSW: 37,171 tons

#### PERC:

• MSW: 116,209 tons

#### CRM:

• MSW: 7,155 tons

#### Maine MSW Delivered to Landfills Other than Juniper Ridge in 2020

#### Bath Landfill:

• MSW: 1,199 tons

#### **Brunswick Landfill:**

• MSW: 8,474 tons

Fort Fairfield / Presque Isle Landfill (RWS):

• MSW: 12,468 tons

#### Norridgewock Landfill:

• MSW: 7,503 tons

#### Berlin, NH Landfill:

• MSW: 11,830 tons

#### Total Maine MSW diverted from disposal at JRL in 2020 through efforts described above

• 358,284 tons

#### Total Maine, non-bypass MSW disposed at JRL in 2020

• 55,470 tons

MSW DIVERSION FROM JUNIPER RIDGE LANDFILL	2014	2015	2016	2017	2018	2019	202
MOW DIVERSION I ROW JUNIFER RIDGE EMBLIEE	2014	2013	2010	2017	2010	2019	202
N . NOW							
Maine MSW Recyclables Delivered to Casella Zero-Sort Facilities:			0.4			- 40	
Number of Maine municipalities participating in Casella Zero-Sort program:  Number of Maine businesses participating in Casella Zero-Sort program:	52	62	64	63	59		2.000
	3,200		3,381	3,343	3,375	3,305	3,602
Tons of Maine MSW recyclables processed in Casella Zero-Sort program	25,026	28,688	35,851	30,263	30,376	28,876	28,302
Cardboard recycling: Fiber from Maine municipalities, businesses, or transfer stations (ton-	s):						
Brokered:	37,385	53,244	55,903	47,613	53,445	54,126	46,442
Collected / Baled:	12,840	29,071	27,288	25,953	21,945	22,450	13,807
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:	40.500	11,430	11,934	11,697	11,127	10,149	12,694
iii. MSW:	42,506	41,130	45,837	48,295	48,047	49,073	55,030
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	37,171
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	116,209
d. CRM <sup>1</sup>						8,037	7,155
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	1,199
i. Lewiston Zero-Sort processing residue:	-	-	-	-	603	-	-
b. Brunswick Landfill:	10,144	528	3,474	6,715	9,303	14,661	8,474
c. Fort Fairfield Landfill:	7,249	10,500	11,204	10,828	13,682	16,069	12,468
d. Norridgewock Landfill:	2,495	2,720	2,549	2,264	16,865	40,562	7,503
Maine MSW delivered by Casella to New Hampshire Landfills (tons):							
a. Berlin Landfill						11,804	11,830
	200 4=2	222 747	047.00:	222.02=	040.00-	404.505	050.65
Total Maine MSW diverted from disposal at JRL through efforts described above (tons):	-	306,745	-		346,305		358,284
Total Non-Bypass Maine MSW disposed at JRL (tons):	36,878	57,521	69,934	77,673	82,805	79,910	55,470
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							