JUNIPER RIDGE LANDFILL

Operated By
NEWSME Landfill Operations, LLC

April 24, 2014

Mike Parker
Division of Solid Waste Management
Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Re: Juniper Ridge Landfill 2013 Annual Report

Dear Mike:

Enclosed for your review is the above-referenced report and supporting documentation as required.

Should you require additional information or clarification, please do not hesitate to contact me at 207-862-4200 ext. 233 or Wayne Boyd at 207-862-4200 ext. 224.

Respectfully submitted,

NEWSME Landfill Operations, LLC.

Jeremy Labbe, P.E.
Engineer & Environmental Manager

Enclosure

Cc: Vicky Bryant, MEDEP
Michael Barden, BGS
William Mayo, City of Old Town

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2013 ANNUAL REPORT

JUNIPER RIDGE LANDFILL OLD TOWN, MAINE

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

April 2014

JUNIPER RIDGE LANDFILL

Operated by NEWSME Landfill Operations, LLC

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

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1.0 INTRODUCTION

Pursuant to the requirements of 38 MRSA §1310-N(6-D), this document, and associated attachments, serve as the 2013 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, as well as Condition 19 of Solid Waste Order #S-020700-WD-N-A, and Condition 4 of Solid Waste Order #S-020700-WD-W-M. 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 68 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 (now referred to as Old Town Fuel & Fiber) 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

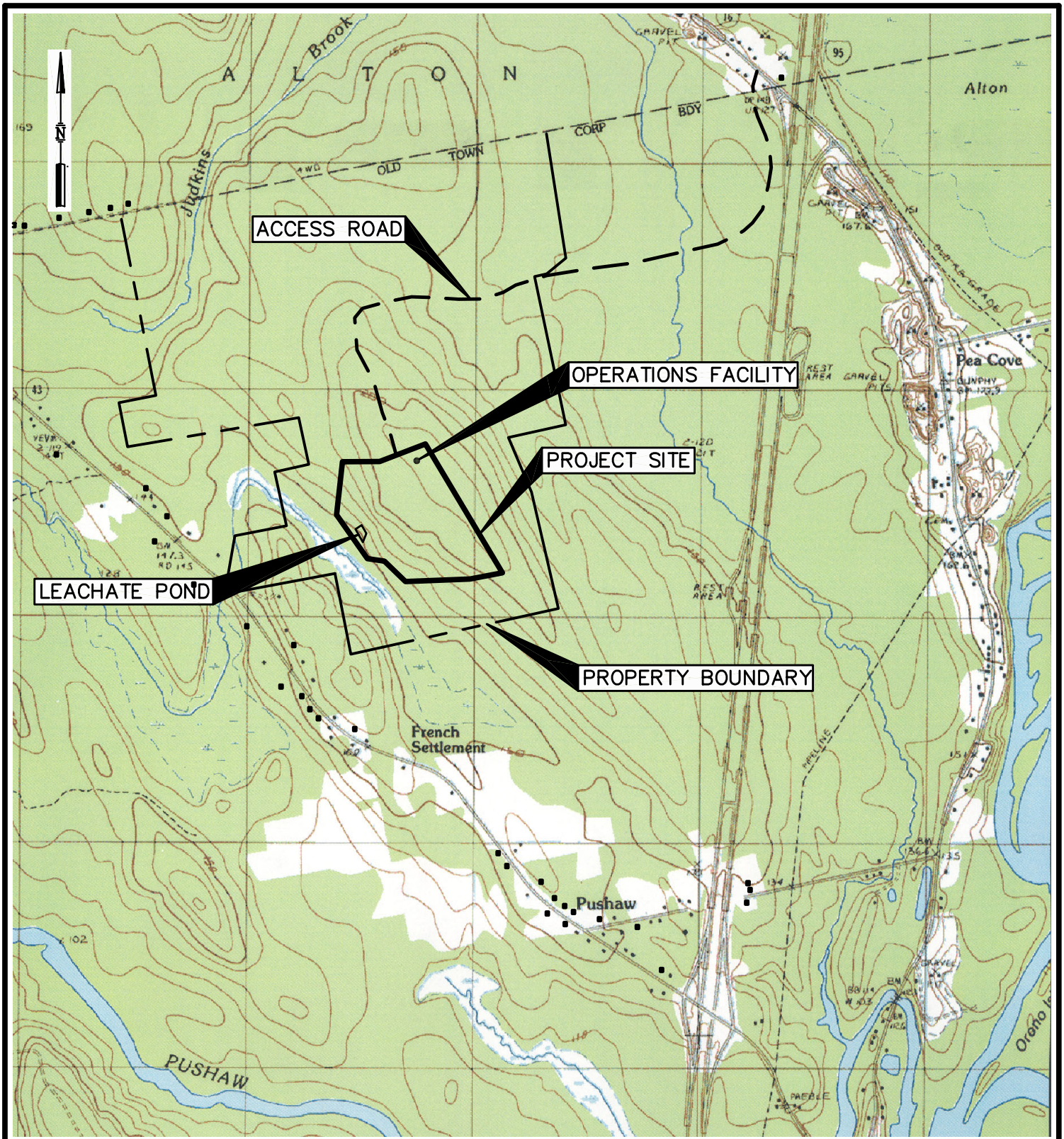
of additional waste streams at the facility. On February 5, 2004, SPO formally purchased the JRL property from Fort James and signed an Operating Services Agreement with NEWSME to operate the facility for a 30 year period. At the same time, all previously approved MEDEP operating licenses for the JRL 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 (utilizing MSE berms).

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

At the time of this annual report, Cells 1, 2, 3A, 3B, 4, 5, 6, 7, and 8 have been constructed at the facility with Cells 7 and 8 being the operational cells in 2013. An updated site plan may be found in Attachment A of this report.

1.2 Annual Report Format

This Annual Report contains the information required by Section 401.4.D of the Regulations, including a general summary of activities during 2013, a compliance evaluation performed by JRL's environmental manager, a summary of 2013 operations and operational information, a summary of facility site changes, a summary of the site monitoring performed at and around the site during 2013, and an update of the costs and documentation of changes to the closure and post-closure funding of the facility. The 2013 Annual Report fee of $3,396 was previously submitted to the MEDEP on February 6, 2014.



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

1000 0 2000 4000 FEET

FIGURE 1–1
SITE LOCATION MAP
WEST OLD TOWN LANDFILL PROJECT
OLD TOWN, MAINE

SME
Sevee & Maher Engineers, Inc.

DWG: SITELOC LMN: CTB: HPSTD REV: 8/25/03

F:\Casella\OldTownLandfill\GeneralSiteInfo\Usgs\SITELOC.dwg, 10/22/2003 2:26:02 PM, mbiskup

2.0 SUMMARY OF SITE ACTIVITIES

2.1 Site Activities

The major site activities that occurred at JRL during 2013 are as follows:

- The landfill gas flare was relocated from its temporary location on the north side of the site, to its permanent permitted location on the south side of the site adjacent to the leachate storage tank. This relocation was completed on May 20, 2013;

- The re-construction of Detention Pond #5 was completed to include a liner and phased treatment capabilities, including an initial phase sand filtration unit. Portions of the road and stormwater drainage ditches northwest of the landfill were also re-graded and paved to optimize the collection of stormwater runoff for treatment along the northwest perimeter of the landfill;

- Two Hydrogen sulfide (H_2S) treatment containers utilizing SulfaTreat® media were installed in January adjacent to the flare to assist in maintaining H_2S levels within air license required limits;

- Intermediate cover (consisting of 40-mil geomembrane) was installed on approximately 8 acres of Cells 7 and 8 sideslope to shed clean stormwater and to assist in controlling odors;

- New landfill gas collection components were installed throughout Cells 7 and 8. The components included seven new vertical LFG extraction wells, 11 gas collection trenches, 12” header piping, and lateral extraction piping in accordance with cells 7 & 8 landfill gas system expansion design previously submitted to the MEDEP with cell design documents;

- Installed an access road on the south side of Cell 8 in accordance with the Cell 8 development plans;

- Filled Cell 7 to elevation 325' and installed intermediate cover (soil) on top of the cell;

- Continued filling of Cell 8.

The following MEDEP and Federal applications were submitted and/or approved during 2013 relating to the operations at JRL.

TABLE 2-1

SUMMARY OF APPLICATIONS SUBMITTED AND/OR APPROVED AT JUNIPER RIDGE LANDFILL REPORT YEAR 2013

Application Description	Agency	Permit/License Number
City of Brewer Industrial Wastewater Discharge Permit	City of Brewer	#37-2679-07
Federal Fish & Wildlife Permit Renewal (Bird Depredation)	US Department of	#MB670894-0
#S-020700-WD-N-A Amendment (MSW acceptance)	MEDEP Bureau of Waste Management	#S-020700-WD-BC-A
Application for Part 70 Administrative Revision to Incorporate NSR License into JRL's Part 70 Air License	MEDEP Bureau of Air Quality	Application
Minor Revision Application for Amendment to the NSR License to Install a Sulfur Control System	MEDEP Bureau of Air Quality	Application

2.2 Compliance Self-Audit

As required by Section 401.4.D (1) (b) of the MEDEP Regulations, JRL performed an annual evaluation of landfill operations for calendar year 2013. A copy of the Audit is included as Attachment B.

3.0 SUMMARY OF OPERATIONS

3.1 Types of Wastes Received At JRL During 2013

During 2013, the waste stream at JRL included construction and demolition debris, FEPR, CDD processing residue wood fines, OBW, MSW incinerator ash, municipal wastewater sludge, lime mud, wood ash, contaminated soils, pulp/paper sludge, MSW bypass, and other approved special wastes.

Between January 1, 2013 and December 31, 2013, JRL received a total of 606,254 tons of material as compared to 637,303 tons received during 2012. Non-waste-related deliveries to the landfill during 2013 consisted of 1,670 tons of tire chips and shreds (utilized for landfill gas collection trenches and leachate drainage systems).

Table 3-1 lists the specific waste types accepted at the landfill during report year 2013 and the corresponding tonnages.

The MEDEP report form “2013 Annual Solid Waste Management Report for Municipalities and DEP-licensed Transfer Stations and Landfills” is contained in Attachment C.

TABLE 3-1

SUMMARY OF WASTES ACCEPTED AT JUNIPER RIDGE LANDFILL
REPORT YEAR 2013

Type of Waste	Quantity (tons)	Origin
Burn pile ash and/or hot loads area ash	1,208*	Maine
Catch basin grit & street sweepings	686	Maine
CDD processing residue - bulky waste	54,203	Maine
CDD processing residue – fines	152,915*	Maine
Coal, oil & multifuel boiler ash	7,507 *	Maine
Contaminated soil & debris	1,462	Maine
Dredged spoils	-	Maine
FEPR	53,654	Maine
Industrial WWTP sludge	18,206	Maine
Leather scraps	172	Maine
Lime mud and grit	7,321	Maine
Miscellaneous special wastes	21	Maine
Mixed CDD	167,418	Maine
MSW Bypass	7,326	Maine
MSW incinerator ash[1]	57,435*	Maine
Municipal WWTP/POTW sludge	40,243	Maine
Non friable asbestos	3,410	Maine
Non-hazardous chemical related	377	Maine
Oil spill debris	6,002	Maine
Oversized bulky waste (MSW procsng.)	150	Maine
Pulp mill waste	8,022	Maine
Rock and soil drill cuttings	-	Maine
Sandblast grit	143	Maine
Short-paper fiber	6,110*	Maine
Spoiled foods	296	Maine
Stumps[2]	34	Maine
Sulfur Scrubbing Residues	1	
Sulfur slurry & sulfur filter media	-	Maine
Treated biomedical waste	1,096	Maine
Urban fill soil & debris	9,555	Maine
Wood from CDD[2]	891	Maine
WWTP grit screenings	389	Maine
TOTAL TONS[3]	**606,254**	

1. Only approximately 50% of the MSW incinerator ash is used as ADC, the other 50% is mixed with sludge as a stabilizer.
2. Stumps and Wood from CDD were received at the Juniper Ridge Landfill wood storage facility.
3. Total does not include purchased materials: tire chips (1,670 tons). Monthly reports include this purchased material. Total derived from sum of higher significant digit numbers, not rounded whole numbers as provided in the above table.
** Denotes materials used as alternative daily cover.*

As seen in Table 3-1, the six predominant waste types received at the JRL facility during 2013 included construction and demolition debris, CDD processing residue wood fines, CDD processing residue bulky waste, MSW incinerator ash, front-end process residue, and municipal WWTP/POTW sludge. In compliance with JRL's permit condition, wastes going to the landfill were screened in advance in order to assure that no out-of-state wastes were accepted at the facility.

3.2 Estimates of Capacity Utilized During 2013 and Remaining Capacity

During 2013, wastes were primarily disposed of in Cells 7 & 8. The estimated net disposal capacity utilized during the calendar year (using aerial surveys of the entire landfill footprint which take settlement and consolidation over this entire footprint into account) was approximately 643,000 cubic yards. The estimated remaining permitted capacity at JRL as of December 31, 2013 was approximately 4,637,000 cubic yards. This remaining capacity is based upon the original permitted capacity (with MSE berms) minus total cubic yards consumed through 12/31/13. Note that this remaining capacity utilizes aerial photography through 10/30/13 and an estimated compaction rate of 0.89 for the remainder of November, and December 2013 waste totals. Since aerial photography is utilized, the capacity remaining does take into account capacity that has been gained due to settlement, compaction, and/or decomposition of the waste within the landfill up until the date of the October survey. Future settlement and compaction rates will vary.

3.3 Estimates of the Amount of Cover Material Placed

During calendar year 2013, approximately 8 acres of Cells 7 & 8 (predominantly sideslopes) were covered with a 40-mil geomembrane as an intermediate cover. Operational areas throughout the year received alternate daily cover (ADC). ADC is also used as a bedding layer on the waste sideslopes prior to placement of the intermediate cover. Materials approved as ADC include CDD processing residue wood fines, coal, oil & multi fuel boiler ash, contaminated soil & debris, lime mud and grit, MSW incinerator ash, and short-paper fiber. Total ADC usage amounted to 196,458 tons. Utilization of waste-related materials for daily cover and bedding for the intermediate cover obviated the use of a comparable amount of virgin soil material.

3.4 Summary of Changes to the Facility's Operations Manual

With the construction of Cell 8 in 2012, the facility operations manual was updated to include the new infrastructure and cell development plans. Additional sections were previously revised with the last published copy (May 2010) of the manual to address stormwater management, gas management, odor control, environmental and geotechnical monitoring, and leachate management. Changes were made to the environmental monitoring program as discussed in Section 5.0. These changes have been incorporated into an updated Environmental Monitoring Plan. This updated plan will be part of the revised operations manual to be issued in June of 2014. There were no changes made during 2013 other than the standard updates.

3.5 Proposed Changes to the Operations Manual or Other Aspects of the Landfill Operations

No cell construction took place during 2013. During 2014, operations at JRL will continue in cell 8 and also begin waste filling on the top of Cells 1 through 8 in order to complete the second elevation filling of the currently permitted and constructed cells. JRL staff previously submitted second elevation development plans to the MEDEP in March 2014. These plans will be added to the operations manual. There were stormwater improvements made during 2013. An updated site plan will be included in the revised operations manual which will be issued in June 2014.

During 2014, a permanent landfill gas hydrogen sulfide treatment system will be constructed at the site. A separate operations manual will be developed for this facility. A description of the system, site plans and specifications for the treatment building and pump station, 2014 Stormwater Management, Erosion and Sedimentation Control Plan, Landfill Gas Header Plans and Specifications, and Proposed Monitoring for Operation of the Thiopaq System were submitted to the MEDEP under a minor revision application submitted in February, 2014.

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

During 2013, the JRL facility did not experience any incidents relative to petroleum-related spills, fire, or leachate. There were three intermediate cover (SICM) incidents and one solid waste incident that occurred and are detailed chronologically below.

- 1/31/13 – *Intermediate Cover (SICM) Loss:* JRL had two significant wind events within two weeks of each other. Both events lead to intermediate cover (SICM) damage and subsequent damage to external gas collection infrastructure in the immediate area (wellheads). During this first event, SICM was lost on the north side of Cells 1 and 2.
- 2/9/13 - *Intermediate Cover (SICM) Loss:* During this second event, SICM was lost on the west side of Cell 1 and torn on the top of Cell 6. Repairs were made to restore the geomembrane and the affected landfill gas wells.
- 2/10/13 – *Intermediate Cover (SICM) Apparent Melting:* During a storm event over the weekend of 2/9 and 2/10, a section of the geomembrane (10 ft x 20 ft) on Cell 7, appeared to have melted. There was no indication that a waste related fire had occurred, and waste (wood fines) under this section of geomembrane were unaffected and remained frozen. There was no soot, charring, or other evidence that combustion had occurred. JRL staff hypothesized that static electricity caused by movement of the geomembrane against the landfill surface during high winds, the dry air, and potentially, the landfill gas under the liner caused a heating (flash) event that melted the liner section. The MEDEP was notified of the issue and the affected geomembrane section was repaired.
    - NEWSME removed discolored soils exposed during the road and stormwater drainage ditch regrading in 2013. Soils were removed along the northwest perimeter of the landfill both in the access road sub-base gravels and in an area between the access road and the northern boundary of Cell 2. The discolored soils were likely remnants of waste materials that had been deposited on the access road during use of Cells 1 and 2 by the prior owner, likely by truck tire tracking. This material may have contributed to the water quality changes observed at the monitoring locations on the northwest side of the landfill. These materials were removed and placed in the landfill during the summer of 2013. NEWSME exposed the anchor trench on the northern side of Cell 2 to evaluate if leachate had overtopped the landfill liner in this area. No indication of overtopping was observed.
- 6/24/13 – *Contaminated Soil:* JRL received three loads of material as CDD from the Pine Tree Waste Westbrook Transfer Station. All three loads contained

apparent soil material, with the second and third loads containing significant quantities and minimal CDD material. The environmental manager notified PTW to cease deliveries of this material until proper identification, characterization, and approval could be accomplished. Two additional trailers were subsequently delivered to JRL and were parked on-site and not unloaded until a determination of material source and type was made. The material was found to have originated from a third party contractor hauling CDD to the Transfer Station. It was determined that the contractor was excavating soil material and transporting it to the transfer station as CDD. Transport of the material to the Transfer Station was immediately ceased. A composite sample of both the material at JRL and the Transfer Station was taken. JRL and PTW MEDEP project managers were informed of the situation. A waste characterization protocol was followed and Gorham Sand & Gravel was issued a profile number. The material was characterized as Urban Fill Soil & Debris and was tracked through JRL's special waste program. The loads that were originally delivered to JRL were re-classified from CDD material to Urban Fill Soil & Debris.

3.7 Updated Cell Development Plans

No cell construction will occur in 2014. Cell development plans provided with the 2011 annual report pertaining to Cell 8 development will be utilized in 2014. Additionally, JRL staff plan to begin filling on the top of Cells 1 through 8 in order to complete the second elevation filling of the currently permitted and constructed cells. JRL staff previously submitted second elevation development plans to the MEDEP in March 2014. These plans will be added to the operations manual and may be found in Attachment D.

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

During 2013, JRL submitted monthly special waste activity reports to the MEDEP, to the Bureau of General Services, to the Landfill Advisory Committee, and to the City of Old Town. No non-permitted special wastes or hazardous wastes were received at JRL during 2013.

Consequently, no reports were required to be submitted pursuant to JRL's Hazardous and Special Waste Handling and Exclusion Plan.

3.9 Inspections and Testing

During calendar year 2013, JRL personnel performed routine inspections of the landfill and infrastructure as outlined in the facility's Operations Manual. Copies of weekly inspection reports may be found on file in the Environmental Manager's Office with summary quarterly inspection reports located in Attachment E of this Annual Report.

3.10 Description of System Failures and/or Repairs

During report year 2013, the following routine maintenance and/or repair functions were performed at the facility:

- Sections of the leachate collection piping within the landfill were high pressure cleaned to maintain proper drainage.

- One leachate pump was removed and replaced with a new unit. An actuator was also replaced on the leachate loadout system.

- Two of the blowers on the flare were replaced, one with a new unit and one with a rebuilt unit.

- 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 40-mil intermediate cover systems due to developing tears, rips, and holes from movement, settlement, or wind.

- Several landfill gas (LFG) wellheads were repaired throughout the year due to normal wear and tear.

4.0 FACILITY SITE CHANGES

During report year 2013, the following minor facility site changes not requiring Department approval occurred:

- Re-graded, mulched, and grassed portions of the embankment along the landfill paved access road to enable seasonal mowing, increase safety, and avoid overturning along the road should traffic inadvertently leave the roadway.
- Re-graded, mulched, and grassed the stockpile storage area behind the office building to include a vehicle parking area.
- Mowing, brush cutting, and other site maintenance and upkeep activities.

During 2014, the following minor facility site changes not requiring Department approval are proposed:

- Continued safety and visual improvement of the landfill paved access road.
- Installation of bin blocking for the JRL transfer station site to allow for cleaner placement of accepted material.

5.0 MONITORING

An annual water quality summary report is included as Attachment F of this report. Included with the summary report is the evaluation of the environmental monitoring data for the JRL site for report year 2013. During 2013, water quality samples were collected at the Juniper Ridge Landfill (JRL) in accordance with the Environmental Monitoring Program (EMP) during April, July, and October. Changes were made to the EMP as a result of Sevee & Maher Engineers, Inc. (SME) recommendations, as contained in the 2012 Annual Water Quality Report, to modify the EMP to align it with current site conditions and subsequent discussions with Maine Department of Environmental Protection (MEDEP). The changes included the addition and removal of monitoring locations and parameters of analysis. The majority of these changes were implemented beginning with the July sampling round. Based on the results of these data collection activities, the water quality at the Juniper Ridge Landfill site can be summarized as follows:

- In 2013, groundwater monitoring wells do not show adverse impacts from the landfill or leachate transport and storage systems. Three of the monitoring wells (i.e., MW-302R, MW-223A, and MW-223B) located along the northwest perimeter of the landfill continued to show influence of site activities. As noted in the 2012 Annual Water Quality Report for the JRL, the water quality from those wells warranted further investigation, and it was interpreted that the location of site infrastructure relative to these wells (e.g., storm water runoff and detention) was contributing to the water quality changes at these locations. 2013 construction activities at the JRL included improvements to storm water runoff collection and treatment along the northwest perimeter of the landfill. The improvements included re-construction of Detention Pond #5 with a liner. Detention Pond #5 was also designed and constructed with phased treatment capabilities, including an initial phase sand filtration unit. Portions of the road and stormwater drainage ditches northwest of the landfill were re-graded and paved to optimize the collection of stormwater runoff for treatment along the northwest perimeter of the landfill.

During 2013 construction activities, an area was exposed along the northwest perimeter of the landfill that contained discolored soil outside of the lined portion of the landfill. This area was cleared of this material during the summer of 2013. The discolored soils were likely remnants of waste materials that had been deposited on the access road during use of Cells 1 and 2 by the prior owner, likely by truck tire tracking. SME believes that this may have been contributing to water quality changes observed at monitoring locations along the northwest perimeter of the landfill over the past several years. Also during the excavation of this soil, the Cell 2 anchor trench was exposed and there were no signs that leachate had overflowed the Cell 2 containment berm.

The corrective actions implemented along the northwest perimeter of the landfill and at stormwater Detention Pond #5 during 2013 were completed in the summer/fall of 2013. While water quality at MW-223A, MW-223B, and MW-302R during the October 2013 sampling event did not yet reflect any changes related to the corrective actions, improvements to water quality at these locations are anticipated and will be watched for during future sampling events.

During 2013, the remainder of the soil overburden and bedrock monitoring wells and the pore-water sampling locations either: (1) had water quality consistent with groundwater quality monitoring wells located upgradient from the landfill and outside of the area of influence from landfill construction activities; or (2) recorded parameter concentrations and trends that suggest that water quality at these locations is consistent with water quality at a site with various construction related activities associated with landfill cell construction. The latter are not interpreted to be indications of landfill leachate impacts to groundwater.

- Samples from the landfill underdrains generally have low overall parameter concentrations, indicating they are not influenced by landfill leachate and verifying that the landfill liner systems are performing as designed. Similar to monitoring wells located along the northwest perimeter of the landfill, the landfill underdrains for landfill cells located along the northwest perimeter of the landfill (i.e., LF-UD-1 and LF-UD-2) have exhibited water quality changes, including

increased chloride concentrations during 2013. These water quality changes are believed to have been influenced by the above mentioned stormwater runoff and detention infrastructure located northwest of the landfill, and the discolored soil exposed during 2013 construction activities in an area along the northwest perimeter of the landfill outside of the lined portion of the landfill. Improvements to water quality at these locations are anticipated and will be watched for during future sampling events following the (1) clearing of the discolored soil, (2) the improvements made by re-grading and paving the roads and stormwater drainage ditches along the northwest perimeter of the landfill, and (3) re-construction of Detention Pond #5 with a liner and sand filter unit.

At LF-UD-6, parameter values are generally higher than at other landfill underdrain monitoring locations. Sample collection from LF-UD-6 is unique from other sampling locations in that it is sampled from a stilling well in the underdrain line. It is suspected that recent higher parameter values, including chloride and specific conductance, may be due to constituents in the stilling well water becoming more concentrated over time due to settling and due to evaporation of water from the stilling well. This premise is supported by the lack of evidence of influence from LF-UD-6 on underdrain water quality at LF-UD-5 and 6, which is a combination of underdrain water from Cell 5 and Cell 6. Attempts will be made during 2014 to purge the stilling well with clean water, from which samples for LF-UD-6 are collected. The sampling results will be closely watched during 2014.

- Bromide was added to the monitoring program during 2013, beginning with the April 2013 monitoring event. Bromide concentrations were low site-wide during 2013, ranging from non-detect to low concentrations (i.e., up to 0.42 mg/L at MW12-303R) near to the laboratory detection limit of 0.1 mg/L.

- A supplementary addition to the 2013 monitoring program included sampling and analyses for dissolved methane at MW12-303R, MW-223A, MW-223B, MW-302R, and MW-304A in July 2013 and at MW-223B in October 2013. Dissolved methane was not detected at MW12-303R, MW-223A, MW-302R, and

MW-304A during July 2013. Dissolved methane sampling at monitoring well MW-223B during 2013 resulted in detections at low concentrations during the July (40.6 µg/L) and October 2013 (9.2 µg/L) sampling events. Given the location of this well adjacent to the large bog area associated with the unnamed tributary to Pushaw Stream, these low concentrations are interpreted to be related to natural sources.

- Surface water downstream of the site along the unnamed tributary to Pushaw Stream appears to be unaffected by the landfill operations, with SW-1 and SW-3 having similar parameter concentrations as upstream location SW-2. Additionally, the 2013 samples from the SW-DP1, SW-DP5, and SW-DP6 do not show adverse impacts from the landfill.

A summary of landfill gas monitoring is provided in Attachment G. This routine landfill gas (LFG) monitoring took place at various on-site gas management locations with results being submitted via electronic deliverable document to the MEDEP as required. Based on the results of these data collection activities, the landfill gas monitoring at the Juniper Ridge Landfill site can be summarized as follows:

- The 2013 monitoring data associated with the landfill gas collection and treatment system indicates that the system is operating in accordance with the facility's operating manual. During the course of the year, 18 new wells and trenches were installed. These included 11 gas collection trenches and 7 vertical wells. Also, 2 gas collection trenches, 1 vertical well, and 1 condensate trap were discontinued during 2013.

- Overall, average monthly CH_4 concentrations slightly decreased from 2012, remaining within the target range of 40-45% five out of the twelve months and averaging 39.0% for 2013, a decrease of 1.6% from 2012. O_2 concentrations remained low from May to November in 2013, with January, February, March, April and December averaging above 1%. The annual average O_2 concentration in 2013 was 1.3% at the landfill gas combustion flare, a slight increase from the 2012 average of 0.7%.

- The total flow of landfill gas at the JRL flare remained largely unchanged from 2012, with a slight decrease in total flow of 3.79%. When comparing the last two years, 2013 month-to-month flow rates from January to the start of August were less than the flow rates recorded in 2012 until mid-August, where the 2013 flow rates surpassed the flow rates in 2012. The total flow during 2013 of 963 million standard cubic feet (MMSCF), less than 2012's total flow of 1001 MMSCF. The total energy generated by CH_4 combustion at the JRL flare in 2013 was 7.98% less than 2012 levels with a total heat content of 374,139 MMBTUs in 2013.

During 2013, JRL continued monitoring odor on-site and off-site. In accordance with the JRL operations manual, two types of air monitoring activities occurred on site during 2013; (1) hydrogen sulfide H_2S monitoring with stationary continuous monitors and, (2) quarterly methane (CH_4) emission surface scans on the landfill intermediate cover. Additionally, odor complaints from the 24-hour JRL odor complaint hotline provide an opportunity to evaluate the effectiveness of odor control measures at the JRL. Stationary H_2S monitors are currently positioned at four locations surrounding the JRL. Data obtained from monitors located on the Access Road, at West Coiley Road, at Fort James House, and on the Stagecoach Road continue to be submitted to the MEDEP on a routine basis. A summary of air monitoring completed with the use of stationary H_2S monitors is provided in Attachment H. Based on the results of these data collection activities, the odor monitoring at the Juniper Ridge Landfill site can be summarized as follows:

- Overall, average monthly and annual H_2S concentrations remained low at the SPM's located around the landfill. A decrease in quantifiable readings (4 ppb or above) from 2012 to 2013 of 10% was observed, while an increase of 15% in detectable readings (2 ppb or above) occurred. Both the Stage Coach Road and the West Coiley Road SPMs show an increase in quantifiable readings, while the Access Road and Fort James SPMs show a decrease in quantifiable readings in 2013. The Access Road, Fort James, and West Coiley Road SPMs all show an increase in detectable readings, while the Stage Coach Road SPM showed a small decrease in detectable readings in 2013. Overall, quantifiable readings slightly decreased, and detectable readings slightly increased during 2013.

- Odor-related complaints in 2013 increased from the previous year with a total of eleven odor related complaints occurring during 2013 compared to seven in 2012. Of these complaints, three complaints during 2013 were confirmed as likely coming from the landfill as opposed to only one confirmed in 2012.

- Surface scan CH_4 emission results increased from 2012 to 2013 with a total of sixteen readings above 500 ppm found during 2013 during four surface scans, compared with six above that level detected in 2012 during three surface scans. The average concentration of these readings increased from 999 ppm in 2012 to 1393 ppm in 2013. Readings above 500 ppm are infrequent and continue to occur primarily around penetrations in the intermediate cover system for the gas extraction piping and are fixed upon identification. Damage to cover boots for the gas extraction piping due to landfill consolidation and settlement continue are the primary cause of readings above 500 ppm. These damages are repaired as soon as practical.

During 2013, JRL continued to monitor site settlement and stability as in the past with the assistance of Dr. Richard Wardwell. Geotechnical monitoring of the JRL was performed to verify that the field behavior of the facility is consistent with design analyses. This program was modified in 2008 and 2010 to emphasize field observations of landfill activities in assuring consistency with the Operations Manual, and that there were no indications of potential slope instabilities or excessive settlements that might impact the performance of the facility. These modifications were made to address logistic conflicts with cell development and in recognition that the need for electronic waste settlement measurements and surveys of slope movements diminished as the waste elevation of the instrumented area approached its final grade without any discernible deformations. The 2013 Geotechnical Monitoring Inspection may be found in Attachment I of this report.

In accordance with the current GMP (REW 2007b), the routine observations made during landfill operations were supplemented with the annual geotechnical inspection performed on October 14, 2013 and an aerial topographic survey of the facility made on October 30, 2013. The resulting checklist and photographic record from the site visit, included in the Appendices, documents observations that the landfill is performing as anticipated with no excessive deformations, slope movements, unexplained ponded water, or leachate breakouts. Specific site

observations made of the northern slope of Cells 1 & 2 (an area of the landfill underlain with waste-stabilized sludge) indicate that this critical portion of the landfill is performing as anticipated during design.

6.0 FINANCIAL ASSURANCE

The closure and post-closure costs have been recalculated to reflect those cells, as of the end of calendar year 2013, that have 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 separate cover.

ATTACHMENT A

Updated Site Plan

WETLAND BOUNDARY (TYP)
SEE NOTE 5
DETENTION POND 9
MAINTENANCE BUILDINGS
PERMITTED WOOD
WASTE STORAGE AREA
BORROW
STORAGE AREA
PERMITTED TILL
BORROW PIT
OVERHEAD
ELECTRIC
LFG FLARE PAD
PROPERTY LINE
EXISTING SOIL STOCKPILES
TEMPORARY STORMWATER
DETENTION PONDS 7A
LEACHATE STORAGE TANK
CONTAINMENT AREA
LEACHATE
STORAGE
TANK
TEMPORARY STORMWATER
DETENTION PONDS 8A
CELL 7
(ACTIVE)
LEACHATE
FORCE MAIN
CELL 8
(ACTIVE)
CELL 8 LEACHATE
PUMP STATION
WETLAND BOUNDARY (TYP)
SEE NOTE 4
PLUG 2
ADMINISTRATION BUILDING
LEACHATE LOADING STATION
EXISTING TRUCK SCALE
AND SCALE HOUSE
CELLS 1-3B
(INACTIVE)
CELL 4
(INACTIVE)
CELL 5
(INACTIVE)
CELL 6
(INACTIVE)
DETENTION POND 6
LFG HEADER
DETENTION POND 5
CELL 4
PUMP STATION
DETENTION
POND 2
CELL 5
PUMP STATION
PLUG 1
LEACHATE POND
DETENTION POND 1

NOTES:

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO INC., NORRIDGEWOCK, MAINE. PHOTO DATE 10/30/13. VERTICAL DATUM: BRASS PLUG AT PUMP STATION. HORIZONTAL DATUM: MAINE STATE COORDINATES EAST ZONE NAD 83. GROUND CONTROL BY PLISGA & DAY LAND SURVEYORS, BANGOR, MAINE. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. LOCATIONS OF EXISTING UNDERGROUND UTILITIES INCLUDING ELECTRICAL AND PIPING BASED ON FIELD SURVEY DURING CONSTRUCTION OF PREVIOUS CELLS AND LEACHATE POND. CONTRACTOR SHOULD FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
3. EXISTING TOPOGRAPHY SHOWN AT 2-FOOT INTERVALS. EXISTING TOPOGRAPHY SHOWN ON THE DRAWINGS REPRESENT GRADES AT THE TIME OF THE SURVEY. CONTRACTOR SHOULD FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
4. WETLAND BOUNDARIES AS INDICATED IN WETLAND DELINEATION AND CHARACTERIZATION REPORT FOR NEWSME LANDFILL OPERATIONS, LLC, JUNIPER RIDGE LANDFILL PROJECT SITE IN OLD TOWN, MAINE BY STANTEC (WOODLOT ALTERNATIVES, INC) IN NOVEMBER 2004.
5. WETLAND BOUNDARY DELINEATED BY STANTEC CONSULTING SERVICES, INC IN JANUARY, 2012.
6. BORINGS & TEST PIT LOCATIONS FIELD SURVEYED BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE.

SITE BENCHMARK INFORMATION

DESCRIPTION	NORTHING	EASTING	ELEVATION
PLUG 1 PERMANENT BENCHMARK BRASS PLUG ON PUMP STATION	478242.05	925376.35	167.93
PLUG 2 BRASS PLUG AT MAINTENANCE BLDG	479497.17	926131.46	215.12

100 0 200 400 FEET

DWG: SITEPLAN-2013 LMN: SITEPLAN-2013 CTB: SITEPLAN REV: 1/13/2013

JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

SITE PLAN
CALENDAR YEAR 2013

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

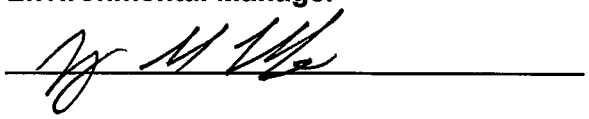
\\Server\e\Clients\Old Town\Landfill\Drawings\Sitework\SITEPLAN-2012.dwg 1/13/2014 4:10:32 PM, sjm

ATTACHMENT B

Compliance Self Audit

JUNIPER RIDGE LANDFILL
COMPLIANCE SELF-AUDIT EVALUATION
REPORT YEAR 2013

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

Facility Name.....	**Juniper Ridge Landfill**
Location.....	**Old Town, Maine**
Audit for Calendar Year.....	**2013**
Compliance Auditor.....	**Jeremy M Labbe**
Title.....	**Environmental Manager**
Signature of Auditor.....	

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 the various permits held by the facility. MEDEP licensed conditions are entered onto 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.

- MEDEP approval of JRL's Operations Manual
- Amendment Application to Accept Municipal Solid Waste from Maine Sources
- JRL Landfill Gas Treatment Minor Revision

4. Date of payment of MEDEP Annual License Fee.

The 2013 annual license fee in the amount of $12,805 was paid on July 9, 2013.

5. Date of submittal of previous MEDEP Annual Report & Fee.

- MEDEP 2012 annual report was submitted on April 24, 2013.
- MEDEP 2012 annual report fee of $3,296 was submitted on February 28, 2013.

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.

The Operations Manual was last formally updated in May 2010. New cell development plans are placed in the manual each year as the landfill adds new infrastructure and cells. The Operations Manual is currently under revision and will be issued by July 2014.

10. MEDEP approval date of last updated Operations Manual.

The facility has not received formal MEDEP approval of its Operations Manual.

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 Bangor & Augusta Offices of the MDEP
- 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 DECD

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

During 2013, 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 in the Hampden, Maine company office.

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 locked 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, updated cell development plans through cell #8, constructed in 2012, have been submitted as required. Second elevation development plans for cells 1-8 have also been submitted in February 2014. No cell construction will occur in 2014.

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

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

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

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

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

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

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

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

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

Yes, the landfill maintains an active gas collection system consisting of horizontal gas collection piping, vertical wells, and a flare. The LFG Operations & Maintenance Manual was updated in March 2010. The Landfill Gas Management Plan for future Cell 8 was submitted with the Cell 8 construction documentation submitted on March 8, 2012. The Landfill Gas Management Plan for second elevation filling over cells 1-8 was submitted with the Second Elevation development plan in February 2014.

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. No elevated levels of methane were detected in 2013 in non-LFG collection infrastructure in 2013.

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 predetermined 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. The EMP was revised in April 2010.

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 C

Annual Solid Waste Management Report

Submit Form

INSTRUCTIONS for completing the ANNUAL SOLID WASTE MANAGEMENT REPORT for Licensed Transfer Stations and Landfills

Licensed transfer stations and landfills must complete and submit this reporting form to Maine DEP to meet the annual reporting requirement in accordance with 38 MRSA §1310-N.6.D. Facilities may also use this form to meet the municipal solid waste management/recycling reporting requirement (38 MRSA §2133.7) of the municipalities served by the facility. The form is available on line at: **http://www.maine.gov/dep/waste/solidwaste/documents/comb_ann_rprt.pdf**. You can complete the form either on a computer or by hand. The completed form must be copied and mailed to the DEP.

This form has 5 sections:

Section 1 - Summary of Waste Handling: This section must be completed by all transfer stations and landfills.

Section 2 – Municipal Solid Waste Program Information and **Section 3 – Municipal Solid Waste Recycling Rate:** These sections must be completed by facilities that are also completing the annual solid waste management/ recycling reporting requirement on behalf of municipalities.

Section 4 – Additional Reporting Requirements for Licensed Transfer Stations: This section must be completed by all transfer stations.

Section 5 – Additional Reporting Requirements for Licensed Landfills – Landfills must complete the "Landfill Capacity Summary" table in this section, and attach information to address all other listed reporting requirements.

General instructions for completing the form:

To use a computer to complete the form, save a copy of the form from the internet onto your computer. Also download Adobe Acrobat Reader from http://get.adobe.com/reader if you don't already have it. On your saved copy you can then place your cursor in, or tab to, the space after each item to activate the fill-in field. You can save, close and re-open the form so you do not need to complete it at one sitting. If you have questions on how to download and complete this form electronically, please call Sue Alderson at 207-287-2806.

To ensure accurate and complete reporting, please be sure your facility manager is involved in preparing and/or reviewing this report.

All data should be for calendar year 2013 (January 1 - December 31). Report all data in tons unless otherwise indicated. If weight data is not available to you, please use Appendix A to convert volumes to tons. If you cannot report in tons, tell us the volume or number and the unit of measure, e.g., cubic yards, pieces.

After completing the form, please print and make enough copies to save one for your records and to submit the appropriate number to DEP (noted below).

[1] Please refer to 38 MRSA Chapter 24, Section 2133, paragraph 7 for the annual reporting requirement for municipalities, and 38 MRSA, Section 1310-N, sub-§6-D for the annual reporting requirement for licensed solid waste facilities.

INSTRUCTIONS for completing the ANNUAL SOLID WASTE MANAGEMENT REPORT for Licensed Transfer Stations and Landfills

Assistance with Report

For assistance please contact your DEP project manager at:

Southern Maine Regional Office – 207-822-6300 or 888-769-1036
Eric Hamlin (eric.p.hamlin@maine.gov) , Randy McMullin (randy.l.mcmullin@maine.gov)

Central Maine Regional Office - 207-287-7688 or 800-452-1942
Mike Parker (michael.t.parker@maine.gov), Linda Butler (linda.j.butler@maine.gov), Bill Butler (william.w.butler@maine.gov),

Eastern Maine Regional Office – 207-941-4570 or 888-769-1137
Cyndi Darling (cyndi.w.darling@maine.gov), Karen Knuuti (karen.knuuti@maine.gov)

Northern Maine Regional Office – 207-941-4563 or 207-540-6467
Lou Pizzuti (lou.s.pizzuti@maine.gov)

Submit your report and fee (if any) by April 30, 2014

Owners/operators of transfer stations, please submit two (2) copies, landfills submit three (3) copies, of your completed report to:

Vicky Bryant,
Maine Dept. of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Please send your annual report fee payment (if applicable) with the payment stub from the invoice mailed to you to:

Natural Resources Service Center
155 State House Station
Augusta, ME 04333

If you have questions on your annual report fee invoice or payment, please contact Vicky Bryant at 207-287-7865 or vicky.bryant@maine.gov.

Appendix A – Conversion factors for the ANNUAL SOLID WASTE MANAGEMENT REPORT for Municipalities and DEP-licensed Transfer Stations and Landfills

FACTORS FOR CONVERTING VOLUME TO WEIGHT OF VARIOUS MATERIALS, TO BE USED FOR ESTIMATING MUNICIPAL SOLID WASTE TONNAGES

Use these numbers to calculate and report the tonnage of recycled material if actual weight data is not available.

PAPER

Uncompacted office paper
1 cubic yard = 0.20 tons.
Uncompacted mixed paper
1 cubic yard = 0.15 tons

CORRUGATED CARDBOARD (OCC)

Uncompacted, flattened
1 cubic yard = 0.10 tons Baled
- 1 cubic yard = 0.5 tons

METALS and CANS

Aluminum cans - whole:
1 cubic yard = 0.035 tons
Aluminum cans – manually flattened:
1 cubic yard = 0.125 tons
Ferrous cans - whole
1 cubic yard = 0.075 tons
Ferrous cans - Flattened
1 cubic yard = 0.425 tons.
Scrap metal
1 cubic yard = 0.113 tons

NEWSPAPER

Loose (no strings or bags)
1 cubic yard = 0.30 tons

GLASS

Loose (whole bottles)
1 cubic yard = 0.30 tons
55 gallon drum = 0.088 tons
Semi-crushed (manually broken)
1 cubic yard = 0.50 tons
55 gallon drum = 0.15 tons
Crushed, maximum size, 1 1/2" (mechanically broken)
1 cubic yard = 0.90 tons
55 gallon drum = 0.275 tons

MAJOR APPLIANCES:

1 unit = 0.075 tons (average weight)

PLASTIC

Mixed plastics - #3 - #7
1 cubic yard = 0.025 tons
PETE/PET (#1) (whole, uncrushed)
1 cubic yard = 0.02 tons.
HDPE (#2) (whole, uncrushed)
1 cubic yard = 0.015 tons
LDPE (#4) – Plastic film
Baled 30"x42"x48" = 0.55 tons

ORGANIC MATERIALS

Leaves (uncomposted & *uncompacted*)
1 cubic yards = 0.075 tons
Leaves (uncomposted & *compacted*)
1 cubic yard = 0.225 tons
Leaves (uncomposted & *vacuumed*)
1 cubic yard = 0.175 tons
Leaves (*composted*)
1 cubic yard = 0.250 tons
Wood Chips
1 cubic yard = 0.313 tons
Grass Clippings
1 cubic yard = 0.20 tons
Trees & Brush
1 cubic yard = 0.15 tons
Food Scraps (mixed)
1 cubic yard = 0.535 tons

OTHER MATERIALS

Demolition Debris
1 cubic yard = 0.625 tons
Mattress
1 mattress = 0.0275 tons
Mixed Bulky Waste
1 cubic yard = 0.20 tons
Wood Pallets
1 pallet = 0.020 tons
Wood Waste
1 cubic yard = 0.175 tons

ANNUAL SOLID WASTE MANAGEMENT REPORT for Licensed TRANSFER STATIONS AND LANDFILLS

FACILITY NAME: Juniper Ridge Landfill (Operated by NEWSME, Landfill Operations, LLC) Report Year: 2013

DEP LICENSE NUMBER S-020700-WD-N-A

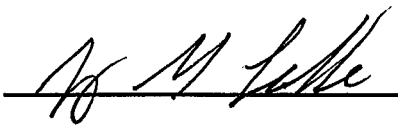
This report includes information on **MSW** handling and disposal for the following municipalities:
N/A

This report includes information on **RECYCLING** for the following municipalities:
N/A

CONTACT PERSON: Jeremy Labbe Title: Environmental Manager
Mailing Address: 358 Emerson Mill Road
City/Town: Hampden Zip Code: 04444
Phone: 207-862-4200 x. 233 E-mail: jeremy.labbe@casella.com
Facility web site address: casella.com

TRANSFER STATION or LANDFILL MANAGER: Wayne Boyd
Mailing Address: 358 Emerson Mill Road
City/Town: Hampden Zip Code: 04444
Phone: 207-862-4200 x. 224 E-mail: wayne.boyd@casella.com

RECYCLING COORDINATOR (if different): N/A
Mailing Address:
City/Town: Zip Code:
Phone: E-mail:

Signature of person completing this form 

Printed name of person completing this form Jeremy Labbe

Please return two (2) copies of your completed form (3 copies for landfill reports) with the required annual report fee (if any) by April 30, 2014 to:

Vicky Bryant
Maine Dept. of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

SECTION 1 SUMMARY OF WASTE HANDLING

A. Summary of waste disposed – In this table, enter only waste materials sent for **disposal** to a landfill or municipal waste-to-energy incinerator. Include materials approved as alternative daily cover. If you receive a waste type from multiple states, enter the amount from each state on a separate line.

TABLE 1 – MATERIALS DISPOSED

Waste Type	Origin by state or province	TONS shipped for disposal/disposed of	Disposal facility name (Landfill or WTE incinerator)
MSW			
Mixed CDD (unprocessed) (may include building materials, furniture & carpet, asphalt, wallboard, pipes, metal conduit, etc.)	Please reference last page attachment.		
CDD processing residue			
FEPR			
MSW bypass			
MSW incinerator ash			
Leaf & yard waste			
Land clearing debris			
Burn pile ash and/or hot loads area ash			
Aggregate (includes concrete, bricks, porcelain & incidental rocks/soil/sand)			
Coal, oil, & multi-fuel boiler ash			
Municipal WWTP/POTW sludge			
Industrial WWTP sludge			
Catch basin grit & street sweepings			
Oil-contaminated soil			
Alternate daily cover -list material type:			
Alternate daily cover -list material type:			
Other (list)			
Total disposed			

Comments:

B. Summary of waste recycled. In this table, enter only those materials sent for **recycling**. Use the waste type that best describes the material stream. Leave blank or enter "0" for any waste types you do not ship. **Do not include data twice** (for example, enter either single stream or the separate recyclable types unless residents and businesses used both single stream and source-separated collection systems to manage recyclables).

TABLE 2 – MATERIALS RECYCLED

Waste Type	Origin by state or province	TONS shipped	Destination(s) (may list broker)
Single Stream /Zero-sort®/Single sort			
Dual sort co-mingled containers			
Dual sort co-mingled paper & Corrugated cardboard (OCC)			
Paper (office & mixed)			
Corrugated cardboard (OCC)			
Newspapers and magazines			
Glass			
Metals (include aluminum cans/foil, steel cans)			
Plastics (Include #1 - #7, rigid plastics and plastic films)			
Clothing/textiles			
Appliances & other scrap metal			
Construction/demolition debris (include asphalt shingles, sheetrock/ wallboard, furniture, mattresses, carpet)			
Tires			
Vehicle batteries			
Other (describe):			
Total Recycled			

Comments:

C. Summary of wastes sent for processing or processed on site ☑ Check if not applicable

TABLE 3 – MATERIALS PROCESSED

Waste Type	Origin by state or province	TONS shipped	Processing facility/destination
Mixed CDD (unprocessed) (may include building materials, furniture & carpet, asphalt, wallboard, pipes, metal conduit, etc.)			
Wood from CDD			
Land clearing debris			
Aggregate (includes concrete, bricks, porcelain & incidental rocks/soil/sand)			
Oil-contaminated soil			
Other:			
Total processed			

D. Summary of waste composted ☑ Check if not applicable

☐ Check this box if you have submitted a separate annual report for composting, and enter your facility license number: **Amounts are:** ☐ **actual -or-** ☐ **estimated.**

List participating municipalities:

Compost site location:

TABLE 4 – MATERIALS COMPOSTED

Waste Type	Volume received (cubic yards)	Weight* received (tons)	Broker/End-Users
Vegetative (leaf & yard)			
Food Waste			
Other Organics (describe):			
Total composted			

*To calculate the weight of vegetative waste, multiply volume by 0.225. To calculate weight of food scraps, multiply volume by 0.85. Contact Sue Alderson (susan.a.alderson@maine.gov, 207-287-2806) for conversion factors for other waste types.

E. Universal waste handling - Note "Y" or "N" to indicate whether you accept each of the Universal Waste types listed, and record the consolidator or other destination (e.g., Veolia, TRC, Call2Recycle).

This facility accepts Universal Wastes from: (check all that apply)

☐ Households ☐ Businesses ☐ Municipal buildings/schools ☑ N/A (Direct elsewhere)

If you do not accept Universal Wastes at your facility, where do you direct your residents and businesses to deliver these products?

Waste Type	Do you collect this waste type? (Y/N)	Consolidator(s) or other destination
Electronics		
Mercury-added lamps, including CFLs		
Mercury thermostats		
Other mercury devices		
Rechargeable batteries and cell phones		
Intact Ballasts		
Other: _____		
Other: _____		

F. Waste Oil Management: ☑ Check if not applicable

Gallons removed by licensed transporter	
Gallons burned on site	
Gallons burned off-site	

Name of transporter:

E. Household Hazardous Waste Collection

List municipalities that provide for Household Hazardous Waste collection

N/A

Facility or hosting organization

Frequency of collection

F. Reuse: ☑ Check if not applicable

Please describe any reuse opportunities for 'items salvaged' that you provide through a 'Swap shop/bargain barn' or 'casual program'.

SECTION 2 - MUNICIPAL SOLID WASTE PROGRAM INFORMATION

A. Municipal Solid Waste (MSW) Collection Practices

1. Complete all that apply to municipalities served by this facility:

   List the municipalities that provide curbside trash pickup by municipal employees:

   List the municipalities that contract with private haulers for curbside trash pickup:

   List the municipalities in which residents contract for curbside trash pick up by private haulers:

2. List the names of haulers utilizing your facility and the municipalities served by them:

B. How are trash disposal costs paid? – Complete all that apply to municipalities served by this facility:

List the municipalities that pay for disposal of residential trash with tax monies or other general revenue:

List the municipalities in which residents pay for trash disposal through a "Pay as You Throw" program:
The price per bag is

List the municipalities in which residents pay for disposal of trash through private contracts with haulers or through a tipping fee at the receiving facility:

List the municipalities that pay for disposal of residential construction/demolition debris with tax monies or other general revenues:

List the municipalities in which residents pay for disposal of construction/demolition debris through private contracts with haulers or through a tipping fee at the receiving facility:

List the municipalities that pay for disposal of commercial trash with tax monies or other general revenue

List the municipalities in which businesses pay for commercial trash disposal:
through a "Pay as You Throw" program

through private contracts

List the municipalities that pay for disposal of commercial construction/demolition debris with tax monies or other general revenue:

List the municipalities in which businesses pay for disposal of construction/demolition debris through private contracts with haulers or through a tipping fee at the receiving facility:

C. Recycling Collection Practices

1. Complete all that apply to municipalities served by this facility:

List the municipalities that provide curbside collection of recyclables by municipal employees:

List the municipalities that contract for curbside collection of recyclables by private hauler(s):

List the municipalities in which residents contract with private haulers to provide curbside collection of recyclables:

2. List the names of haulers and the municipalities in which they collect recyclables:

D. Solid Waste and Recycling Ordinances/Requirements – Complete all that apply to municipalities served by this facility:

List the municipalities that have mandatory recycling:

List the municipalities that require trash haulers to register with the municipality or your facility:

List the municipalities that require recyclables to be taken to a specific transfer station, recycling center, or processing facility and the facility names:

List municipalities that ban specific items from disposal by municipal ordinance and the items that are banned:

List the municipalities that have any additional solid waste and recycling ordinances, and a brief description of these other ordinances, such as "Pay as You Throw / Pay-per-bag":

SECTION 3. MUNICIPAL SOLID WASTE RECYCLING RATE

Maine law sets a goal of recycling 50% of municipal solid waste generated each year. Municipalities are directed to demonstrate reasonable progress toward that goal. This section provides a formula for calculating a municipal recycling rate in accordance with the provisions of 38 MRS § 2132 and §2133. Consistent use of this formula provides a basis for tracking municipal progress on recycling over time. If this licensed facility serves multiple municipalities, you may calculate either a recycling rate by municipality or an overall recycling rate for your entire service area.

Calculating recycling rates

To calculate a base recycling rate, use the following steps. Be sure all amounts in your calculations are measured in **tons**.

Step 1. Divide (tons recycled + tons composted) by (tons disposed + tons recycled + tons processed + tons composted). Use the totals from Tables 1, 2, 3 and 4 in this calculation. Show calculation here:

Step 2. Add 0.07 to the result of Step 1. (This factor is added to account for the recycling of tires, vehicle batteries, rechargeable batteries, electronics, and beverage containers handled by Maine's bottle bill program.) Show calculation here:

Step 3. Multiply the result of Step 2 by 100. The result is the percentage of municipal solid waste recycled.

Adjusted municipal recycling rate:

Wastes sent to processing facilities may be used to create materials that are recycled or utilized as fuel. To calculate an adjusted municipal recycling rate, the municipality may contact the Maine DEP to obtain factors by processor (as available) to apply to the amounts of materials noted in Table 3 as sent for processing to determine the amount of the municipality's materials recycled. These amounts then can be added to the numerator of the initial recycling rate calculation to calculate a more robust municipal recycling rate.

For waste processing adjustment factors, contact Sue Alderson at 207-287-2806 or susan.a.alderson@maine.gov.

RECYCLING RATES: If this report includes data for more than one municipality, list a recycling rate for the entire region or recycling rates by municipality: The rates reported here are ☐ **base** - or- ☐ **adjusted** (check one).

Municipality or All	Recycling Rate	Municipality	Recycling Rate

If reporting adjusted recycling rates, submit calculations with report to Maine DEP.

Section 4 - Additional Reporting Requirements for Licensed Transfer Stations

1. **Provide a summary of factors which affected the operation, design, and/or environmental monitoring program.**

2. **Operations**

   A. Submit copies of reports prepared in accordance with the transfer station or storage facility's Hazardous and Special Waste Handling and Exclusion Plan.

   B. Report on deviations from approved operations manual and proposed changes in operations and/or operations manual.

Past Year Deviations

Proposed Changes

3. **Summary of staff training provided on operation or maintenance of the transfer station.**

4. **Summary of all spills, fires and/or accidents on-site.**

Spills:

Fires:

Accidents:

5. **Provide verification of 2 feet till soil between waste, and seasonal high water and bedrock if one or more base pads for storage of non-containerized waste is used.**

6. Design

If any aspect of design was changed, please submit as-built plans and a narrative on these changes (proposed design changes for current year may be described).

7. Monitoring (if facility has a monitoring plan).
Evaluation of past year's monitoring results, monitoring program and equipment; recommended changes may be submitted. Attach additional sheets or provide a separate attachment if additional space is needed.

Monitoring Results

Monitoring Program

Equipment

8. Recommended Changes for transfer station (if any). Attach additional sheets or provide a separate attachment if additional space is needed.

9. Comments: Please describe any recent improvements in your solid waste and recycling program. Include future plans or concerns for your program.

SECTION 5. Additional Reporting Requirements for Licensed Landfills

Landfill Capacity Summary. Enter capacity measurements in cubic yards.

Item	Amount	Unit
Landfill capacity used by daily cover – this year	197,348	tons
Landfill Capacity used by waste - this year	408,906	tons
Total landfill capacity used – this year	643,000	cy
Total landfill capacity used	5,643,000	cy
Constructed landfill capacity remaining	883,330	cy
Total licensed landfill capacity remaining, including to-be-constructed	4,637,000	cy

NOTE: If reporting in tons, please provide the latest 'in place weight/volume' calculation so that the remaining airspace in cubic yards may be determined.

Pursuant to 38 MRSA §1310-N(6-D), an annual report and fee shall be submitted by the landfill operator to the Department for review and approval. The annual reporting requirements for landfills are as follows (as listed in Chapter 401, section 4.D of the *Solid Waste Management Regulations*:

(1) General. The annual report must include:

(a) A summary of activity at the landfill during the past year. This shall include a narrative describing any factors, either at the landfill, or elsewhere, that affected the operation, design or monitoring programs of the landfill.
See 2013 Juniper Ridge Landfill Annual Report, Section 2.1

(b) An evaluation of the landfill's operations to verify compliance with the approved operations manual, licenses, and regulatory requirements. This evaluation shall be performed either by qualified facility personnel or a qualified consultant.
See 2013 Juniper Ridge Landfill Annual Report, Section 2.2

(2) Operations. As part of the annual report, the following operational information is required.

(a) A summary of the type, quantity, and origin of waste received *(reference tables in Section 1)*;
See 2013 Juniper Ridge Landfill Annual Report, Section 3.1 & Table 3-1

(b) Estimates of the capacity of the landfill used during the past year and of the landfill's remaining capacity *(reference tables in Section 1;*
See 2013 Juniper Ridge Landfill Annual Report, Section 3.2

(c) A description and estimate of the amount of cover material used in the past year *(reference tables in Section 1)*;
See 2013 Juniper Ridge Landfill Annual Report, Section 3.3

(d) A summary of changes in the operations manual during the past year as submitted pursuant to section 4.A(2);
See 2013 Juniper Ridge Landfill Annual Report, Section 3.4

(e) Proposed changes to the operations manual or other aspect of the landfill's operations;
See 2013 Juniper Ridge Landfill Annual Report, Section 3.5

(f) A summary of responses to spills, fires, accidents, and unusual events that occurred at the landfill in the past year;
See 2013 Juniper Ridge Landfill Annual Report, Section 3.6

(g) Updated cell development plans, highlighting any changes to the approved plans and including detailed plans for the subsequent two year period. Approved plans need to be updated whenever variabilities in waste disposal rates and other operational factors cause development to vary more than 6 months from projected timelines. Detailed plans must include a narrative and drawings that address: layout of the cells, projected grades, location and timing of intermediate and/or final

cover, location and construction of cell access, any relevant aspects of leachate and stormwater management measures, any relevant aspects of erosion and sedimentation control measures, and other pertinent facility-specific features.

See 2013 Juniper Ridge Landfill Annual Report, Section 3.7

(h) Copies of reports prepared in accordance with the landfill's Hazardous and Special Waste Handling and Exclusion Plan;

See 2013 Juniper Ridge Landfill Annual Report, Section 3.8

(i) A report on the results from the inspections and testing required by section 4.C(12), including a report stating the date and findings associated with the annual inspection and cleaning, if necessary, of the leachate collection, detection, and transport systems; and

See 2013 Juniper Ridge Landfill Annual Report, Section 3.9

(j) A description of system failures and documentation of repair measures to those systems.

See 2013 Juniper Ridge Landfill Annual Report, Section 3.10

(3) Facility Site Changes. The annual report must document minor changes to the facility site not requiring departmental approval that have occurred during the reporting year. Also, minor aspects of the facility site proposed to be changed in the current year may be described in the annual report. Changes handled in this manner are those that do not require licensing under minor revision or amendment provisions of Chapter 400.

See 2013 Juniper Ridge Landfill Annual Report, Section 4.0

(4) Monitoring. The following monitoring information must be included in the annual report. If any of this information is submitted with the facility's periodic monitoring reports, only a summary of that information is required in the annual report. Evaluations must be done in accordance with all approved monitoring plans for the landfill.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0

(a) An evaluation of data gathered for each surface water and ground water monitoring point for the landfill, including a statistical analysis of the data where appropriate.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0 (and attachments)

(b) An evaluation of the quantity and quality of leachate generated by the landfill during the past year, including a comparison of the past year's leachate monitoring results to previous years' results.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0 (and attachments)

(c) An evaluation of the quantity and quality of liquid found in the leak detection and removal system during the past year, including a comparison of the past year's results to the previous years' results.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0 (and attachments)

(d) An evaluation of the gas monitoring results for the past year, including a comparison of the past year's results to the previous years' results.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0 (and attachments)

(e) An evaluation of the air monitoring results for the past year, including a comparison of the past year's results to the previous years' results.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0 (and attachments)

(f) An evaluation of the condition of each monitoring well.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0 (and attachments)

(g) Any changes to any aspect of the approved monitoring programs proposed in response to the changes in operation or design of the landfill, or environmental effects attributable to the landfill or its ancillary structures.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0 (and attachments)

(h) An evaluation of the stability and settlement monitoring data collected at each monitoring point.

See 2013 Juniper Ridge Landfill Annual Report, Section 5.0 (and attachments)

(5) Financial Assurance. The landfill owner or operator must submit an annual update on cost and documentation of any changes made to the financial assurance instrument in accordance with Chapter 400, section 11.

See 2013 Juniper Ridge Landfill Annual Report, Section 6.0 (and attachments)

ATTACHMENT D

Updated Cell Development Plans

JUNIPER RIDGE LANDFILL
THE SECOND ELEVATION DEVELOPMENT

1.0 THE SECOND ELEVATION FILLING OVERVIEW

The placement of waste in the currently constructed landfill cells above elevation 325 will be accomplished in a sequential manner over three development areas. These areas, herein referred to as the second elevation filling of underlying cells, in total is approximately 15 acres in size and is area above the final operational waste grades for the existing based landfill cells, 1, 2, 3A, 3B, 4, 5, 6, 7 and 8. The current cell development plans for these cells are to an operational waste grade at elevation 325. Therefore the second elevation filling includes the permitted landfill capacity above this elevation to an operational waste grade of 380. The capacity of this second elevation filling from the existing landfill grades as of October 30, 2013, to the final waste grades for the second elevation areas is 828,000 cubic yards[1]. The development of the second elevation filling will require a progressive removal of the existing intermediate cover placed on top areas of the existing cells, construction of intermediate terrace berms at some of the perimeters of the cells, reestablishing the leachate collection inlets at the landfill perimeter and constructing access roads and perimeter ditches. The intermediate terrace berms will initially contain runoff from the waste mass within the operation cell, and ultimately provide a diversion berm to direct runoff from the intermediate cover to the facility's stormwater management system.

2.0 SECOND ELEVATION FILLING DEVELOPMENT

The second elevation filling will be subdivided into three areas. The first area to be filled will be over Cells 1-4, the second fill area will be over Cell 7 and the third fill area will be over Cells 5, 6, & 8. Initial conditions prior to waste placement into the first fill area is shown on Figure 1. After the initial removal of the existing intermediate cover previously placed on Cells 1, 2, 3A, 3b and 4 as shown on Figure 1, and constructing of the intermediate terrace berm, and extending

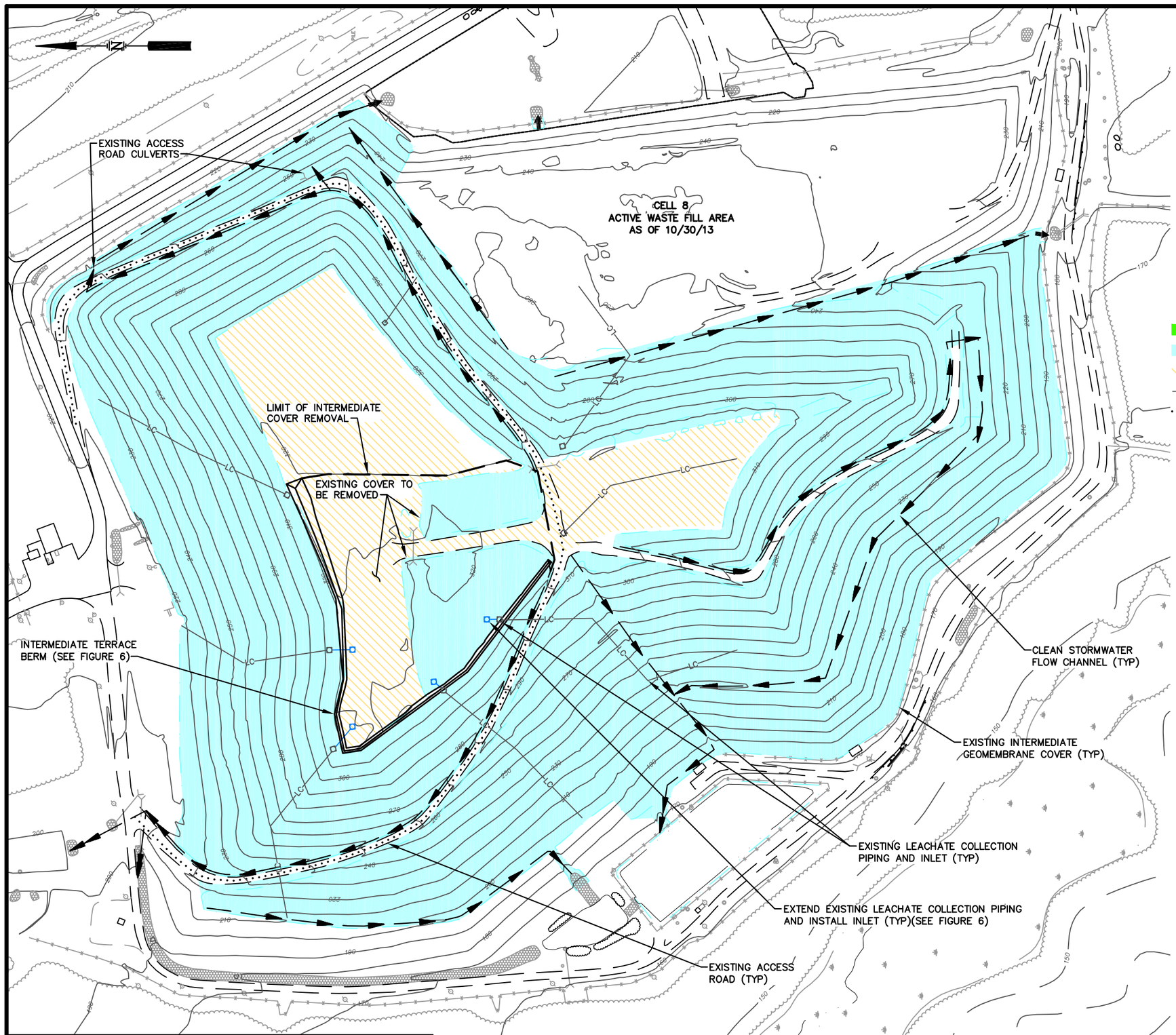
[1] The top wasted grade for several of the existing landfill cells as of the October 30, 2013 site survey were not at 325 due to settlement and/or a suspension of waste filling, and application of intermediate cover placement in these cells prior to achieving the 325 elevation.

the leachate collection inlets as shown on Figure 6, waste placement and operations in Area 1 will be performed in the same manner as previous cells (i.e., lift height, compaction effort, etc.). The various phases of waste placement in these three areas are shown on Figures 2 through 5 and associated operational details such as the temporary intermediate terrace berm and leachate collection inlet are shown on Figure 6. Access to the areas will be initially from the existing west side access road and a new internal access road shown on Figure 2 will be constructed with waste. Prior to filling over these existing cells, temporary cover materials will be removed. During the initial waste placement operations along the perimeter of fill areas, waste will be placed as shown in the detail on Figure 6 to allow leachate to flow to collection inlets. When waste filling is complete the area along the terrace berm will become a temporary stormwater drainage ditch when the intermediate geomembrane cover is installed on the first area.

Waste placement operations in first fill area will progress until final waste grades are achieved as shown on Figure 2. At the completion of the filling of the first fill area and prior to filling in the second fill area the intermediate cover placed on the top of Cell 7 will be removed, an intermediate terrace berm as shown on Figure 2 will be constructed along the northern and eastern side of the second fill area, and the existing leachate collection risers located on the north and southern side of the second fill area are extended and inlet installed. Horizontal gas collection trenches and extraction wells will be installed and connected to the site's gas management infrastructure and intermediate geomembrane cover will be placed on the sideslopes of the first fill area. Runoff from the intermediate geomembrane covering the sideslopes of first fill area will flow via a temporary stormwater ditches to ditches constructed along the inside edge of the western access road to the stormwater structures located outside of the cells.

Operational controls and waste filling will progress in the second and third fill areas (as shown on Figures 3, 4 and 5 respectively) in the same manner as the first fill area. As the waste elevation approaches the final elevation in each fill area the mid-slope intermediate berms, leachate transport piping, leachate collection inlets, landfill gas infrastructure and intermediate geomembrane cover are installed to be ready for the operation of the next fill area. The filling of second and third fill areas will include the construction of the landfill access road which incorporates 2-foot high berms on the outside edge of the road and 2-foot wide stormwater ditch

on the inside edge of the road. The waste below the landfill access road and any berms constructed of waste must be a high shear strength waste such as construction and demolition debris. The waste has adequate strength if it can be piled while maintaining side slopes of 1 Horizontal to 1 Vertical. High strength wastes would not include materials such as sludges or other high moisture content materials. The stormwater ditch along the roadway in the previously filled areas will be lined with temporary geomembrane cover. The stormwater ditch will direct clean runoff from the the covered landfill via culverts to the lower portion of the landfill where it is directed to the roadside ditch located along the perimeter access road.



NOTES:

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE. PHOTO DATE 10/30/13.
2. JUNIPER RIDGE LANDFILL IS AN ACTIVE LANDFILL FACILITY AND TOPOGRAPHY WITHIN ACTIVE LIMITS OF CELL ARE SUBJECT TO CHANGE.

LEGEND

- PROPOSED AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- EXISTING AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- SOIL COVER
- LC — EXISTING LEACHATE COLLECTION PIPING
- CELL ACCESS ROAD OPTIONS
- CLEAN STORMWATER DITCH AND DIRECTION OF FLOW
- PERIMETER BERM DOWNSPOUT
- LEACHATE COLLECTION INLET

100 0 200 FEET

FIGURE 1
CELL 1–4 SECOND ELEVATION
INITIAL DEVELOPMENT CONDITIONS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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DWG: CELL-DEV-325-PLUS LMN: FIGURE 1 CTB: SME-STD REV: 2/19/2014

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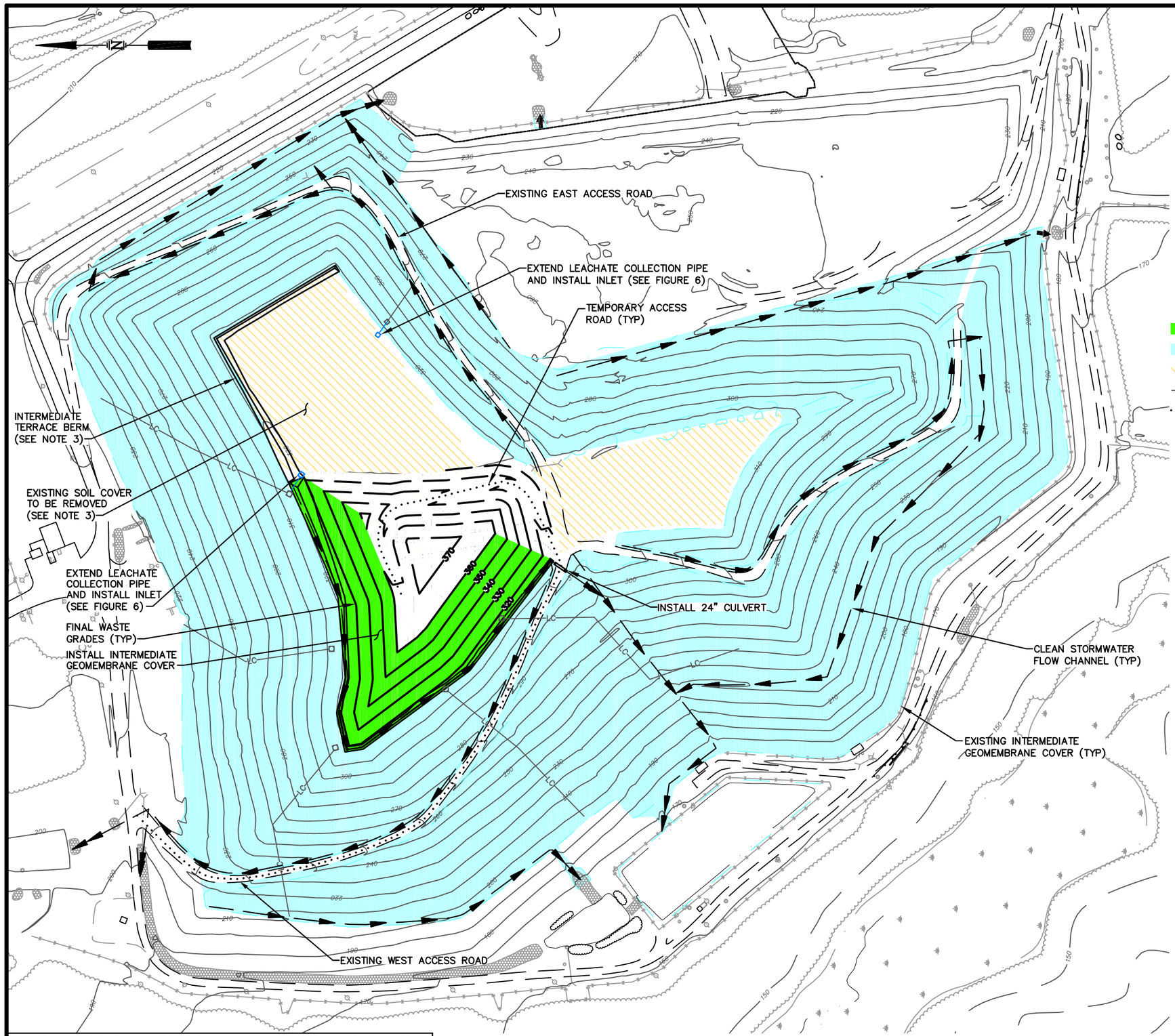

NOTES:

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3. EXISTING SOIL COVER IS TO BE REMOVED AND INTERMEDIATE TERRACE BERM CONSTRUCTED AS SHOWN ON FIGURE 6 PRIOR TO WASTE FILLING.

LEGEND

- PROPOSED AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- EXISTING AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- SOIL COVER
- LC — EXISTING LEACHATE COLLECTION PIPING
- CELL ACCESS ROAD OPTIONS
- CLEAN STORMWATER DITCH AND DIRECTION OF FLOW
- PERIMETER BERM DOWNSPOUT
- LEACHATE COLLECTION INLET

100 0 200 FEET

DWG: CELL-DEV-325-PLUS LMN: FIGURE 2 CTB: SME-STD REV: 2/19/2014

FIGURE 2
CELLS 1-4 SECOND ELEVATION FINAL
CELL 7 SECOND ELEVATION INITIAL
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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NOTES:

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LEGEND

- PROPOSED AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- EXISTING AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- SOIL COVER
- LC — EXISTING LEACHATE COLLECTION PIPING
- CELL ACCESS ROAD OPTIONS
- CLEAN STORMWATER DITCH AND DIRECTION OF FLOW
- PERIMETER BERM DOWNSPOUT
- LEACHATE COLLECTION INLET

EXISTING EAST ACCESS ROAD

CELL 8

EXTEND LEACHATE COLLECTION PIPE AND INSTALL INLET (TYP) (SEE FIGURE 6)

FINAL WASTE GRADES (TYP)

CLEAN STORMWATER FLOW CHANNEL (TYP)

EXISTING INTERMEDIATE GEOMEMBRANE COVER (TYP)

EXISTING WEST ACCESS ROAD

GROUND OBSCURED

100 0 200 FEET

FIGURE 3
CELL 7 SECOND ELEVATION FINAL
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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DWG: CELL-DEV-325-PLUS LMN: FIGURE 3 CTB: SME-STD REV: 2/19/2014

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CELL 8 FINAL WASTE GRADES (SEE NOTE 3)

CELL 8 ACCESS ROAD

EXISTING EAST ACCESS ROAD

EXTEND LEACHATE COLLECTION PIPE AND INSTALL INLET (SEE FIGURE 6)

SOUTH ACCESS ROAD

INSTALL INTERMEDIATE GEOMEMBRANE COVER

EXISTING SOIL COVER TO BE REMOVED

CLEAN STORMWATER FLOW CHANNEL (TYP)

EXISTING WEST ACCESS ROAD

NOTES:

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3. CELL 8 FINAL WASTE GRADES FROM CELL 8 STAGE 4 CELL DEVELOPMENT PLAN. TOP OF CELL 8 AT ELEVATION 325.

LEGEND

- PROPOSED AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- EXISTING AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- SOIL COVER
- LC — EXISTING LEACHATE COLLECTION PIPING
- CELL ACCESS ROAD OPTIONS
- CLEAN STORMWATER DITCH AND DIRECTION OF FLOW
- PERIMETER BERM DOWNSPOUT
- LEACHATE COLLECTION INLET

100 0 200 FEET

FIGURE 4
CELL 5, 6, AND 8 SECOND ELEVATION INITIAL
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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DWG: CELL-DEV-325-PLUS LMN: FIGURE 4 CTB: SME-STD REV: 2/19/2014

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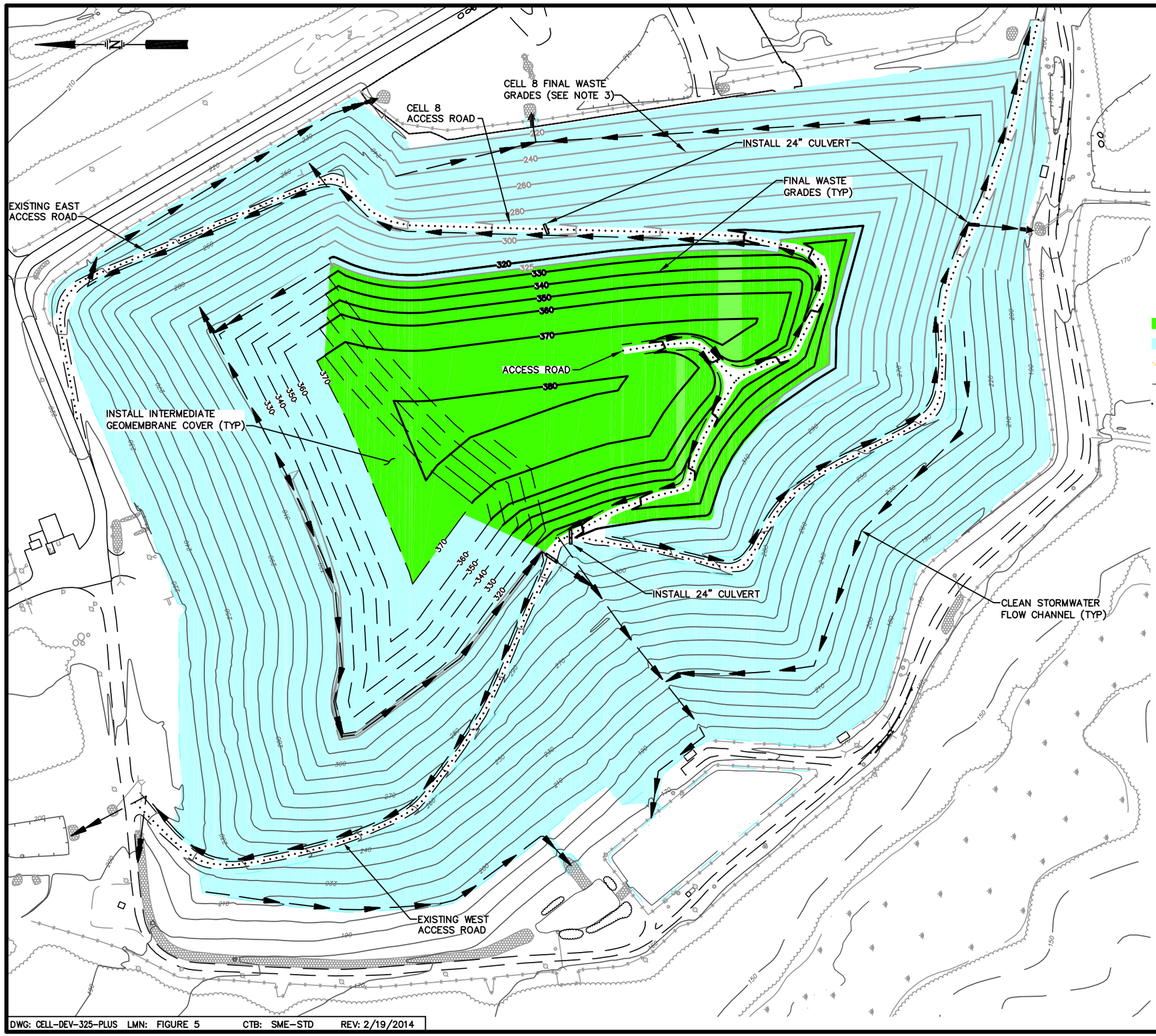

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3. CELL 8 FINAL WASTE GRADES FROM CELL 8 STAGE 4 CELL DEVELOPMENT PLAN. TOP OF CELL 8 AT ELEVATION 325.

LEGEND

- PROPOSED AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- EXISTING AREA WITH GEOMEMBRANE INTERMEDIATE COVER
- SOIL COVER
- LC — EXISTING LEACHATE COLLECTION PIPING
- CELL ACCESS ROAD OPTIONS
- CLEAN STORMWATER DITCH AND DIRECTION OF FLOW
- PERIMETER BERM DOWNSPOUT
- LEACHATE COLLECTION INLET

100 0 200 FEET

FIGURE 5
CELL 5, 6, AND 8 SECOND ELEVATION FINAL
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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DWG: CELL-DEV-325-PLUS LMN: FIGURE 5 CTB: SME-STD REV: 2/19/2014

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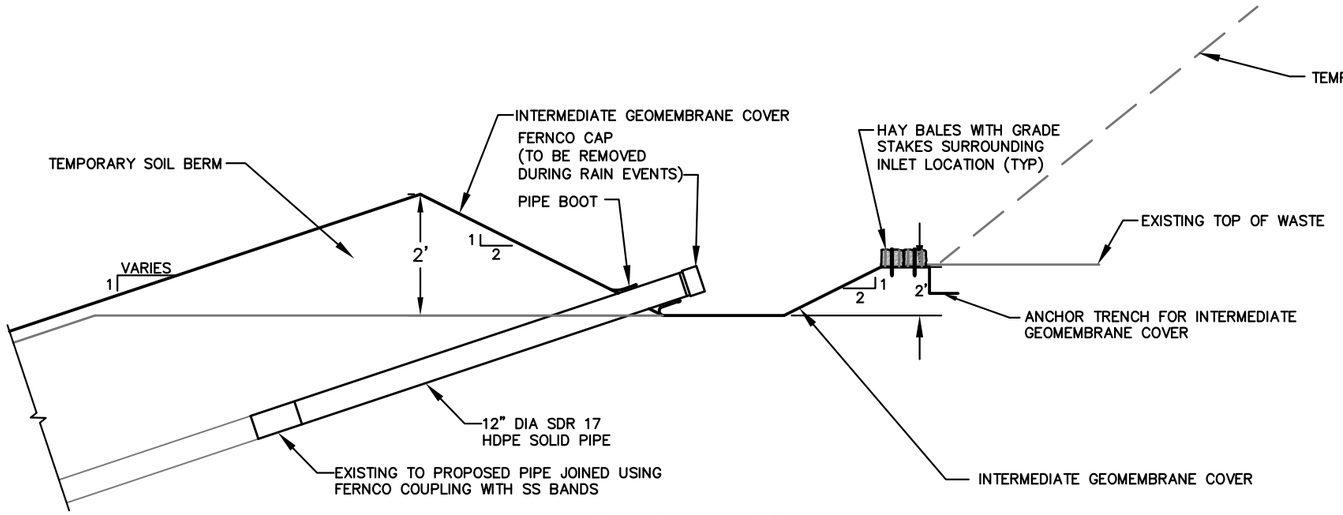
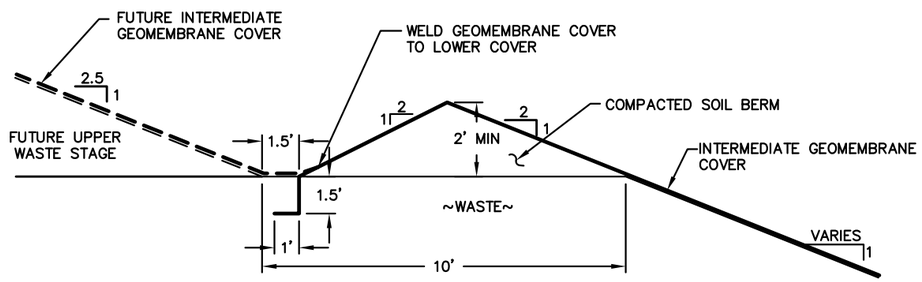


COLLECTION INLET
NTS



TEMPORARY INTERMEDIATE TERRACE BERM
NTS

FIGURE 6
SECOND ELEVATION
CELL DEVELOPMENT DETAILS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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

DWG: C11–DETAILS LMN: NONE CTB: SME–STD REV: 2/19/2014

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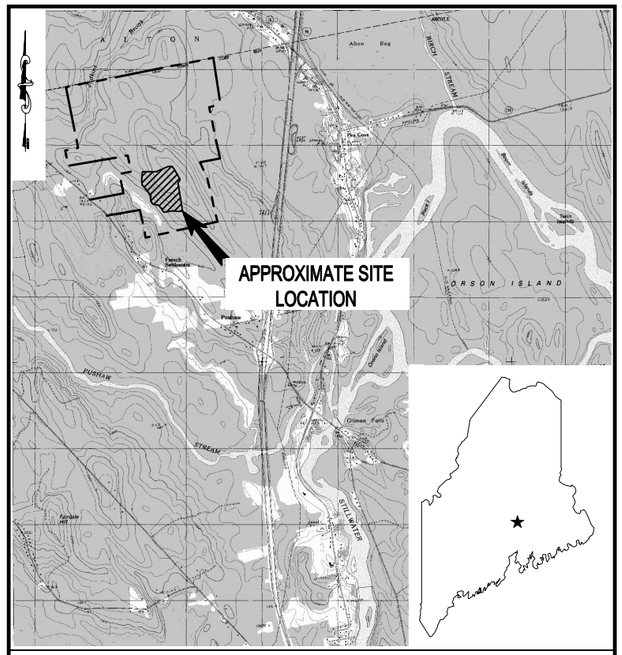
SECOND ELEVATION FILLING
LANDFILL GAS SYSTEM EXPANSION DRAWINGS

JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE
FEBRUARY 2014



FROM: USGS TOPOGRAPHIC MAP- OLD TOWN, MAINE (1988)

LOCUS PLAN

SCALE: 1"=1000'

SHEET INDEX

SHEET 1	EXISTING CONDITIONS PLAN
SHEET 2	LFG INFRASTRUCTURE DEVELOPMENT PLAN - CELLS 1-4
SHEET 3	LFG INFRASTRUCTURE DEVELOPMENT PLAN - CELL 7
SHEET 4	LFG INFRASTRUCTURE DEVELOPMENT PLAN - CELLS 5, 6 & 8
SHEET 5	CROSS SECTIONS
SHEETS 6-8	DETAILS

STATE OF MAINE
Eric S. Steinhauser
10809
PROFESSIONAL ENGINEER

PREPARED FOR:

NEWSME LANDFILL OPERATIONS, LLC

JUNIPER RIDGE LANDFILL

OLD TOWN, MAINE

PREPARED BY:

SANBORN HEAD

20 FOUNDRY STREET, CONCORD, NEW HAMPSHIRE 03301
(603) 229-1900 FAX (603) 229-1919

PROJ.#: 2536.26 "SECOND ELEVATION FILLING LFG SYSTEM EXPANSION DRAWINGS, JUNIPER RIDGE LANDFILL, OLD TOWN, MAINE" FEBRUARY 2014.

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NOTES:

1. THE EXISTING LANDFILL GAS EXTRACTION SYSTEM INFRASTRUCTURE FEATURES SHOWN ARE BASED ON A COMBINATION OF DESIGN AND AS-BUILT DOCUMENTATION AVAILABLE TO SANBORN, HEAD & ASSOCIATES, INC. (SANBORN HEAD). ACTUAL LOCATIONS OF INDIVIDUAL FEATURES MAY BE DIFFERENT THAN SHOWN.
2. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO INC., OF NORRIDGEWOCK, MAINE. PHOTO DATE OCTOBER 30, 2013. VERTICAL DATUM: BRASS PLUG AT PUMP STATION. HORIZONTAL DATUM: MAINE STATE COORDINATES EAST ZONE NAD 83. GROUND CONTROL BY PLISGA & DAY LAND SURVEYORS, BANGOR, MAINE.

LEGEND:

EXISTING

- 10-FOOT CONTOUR
- 2-FOOT CONTOUR
- LIMIT OF WASTE CONTAINMENT
- CELL LIMIT
- EDGE OF ROAD
- LANDFILL GAS CONVEYANCE PIPE
- LANDFILL GAS COLLECTION TRENCH (PERFORATED PIPE)
- LIMIT OF MARSH
- FENCE LINE
- GW-9 — LANDFILL GAS EXTRACTION WELL
- GCT-21 — COLLECTION TRENCH WELLHEAD
- COLLECTION TRENCH TERMINATION
- PIPE END CAP
- LEACHATE COLLECTION PIPE CLEANOUT
- LEACHATE COLLECTION INLET
- LANDFILL GAS EXTRACTION WELLHEAD
- RIPRAP AREAS

SANBORN HEAD

GRAPHICAL SCALE
100' 50' 0 100' 200'

STATE OF MAINE — Eric S. Steinhauser — 10809 — REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. CLAY/T. REED
DESIGNED BY: T. REED
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: FEBRUARY 2014

SECOND ELEVATION FILLING LFG SYSTEM EXPANSION DRAWINGS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

PROJECT NUMBER: 2536.26

EXISTING CONDITIONS PLAN

SHEET NUMBER: 1 OF 8

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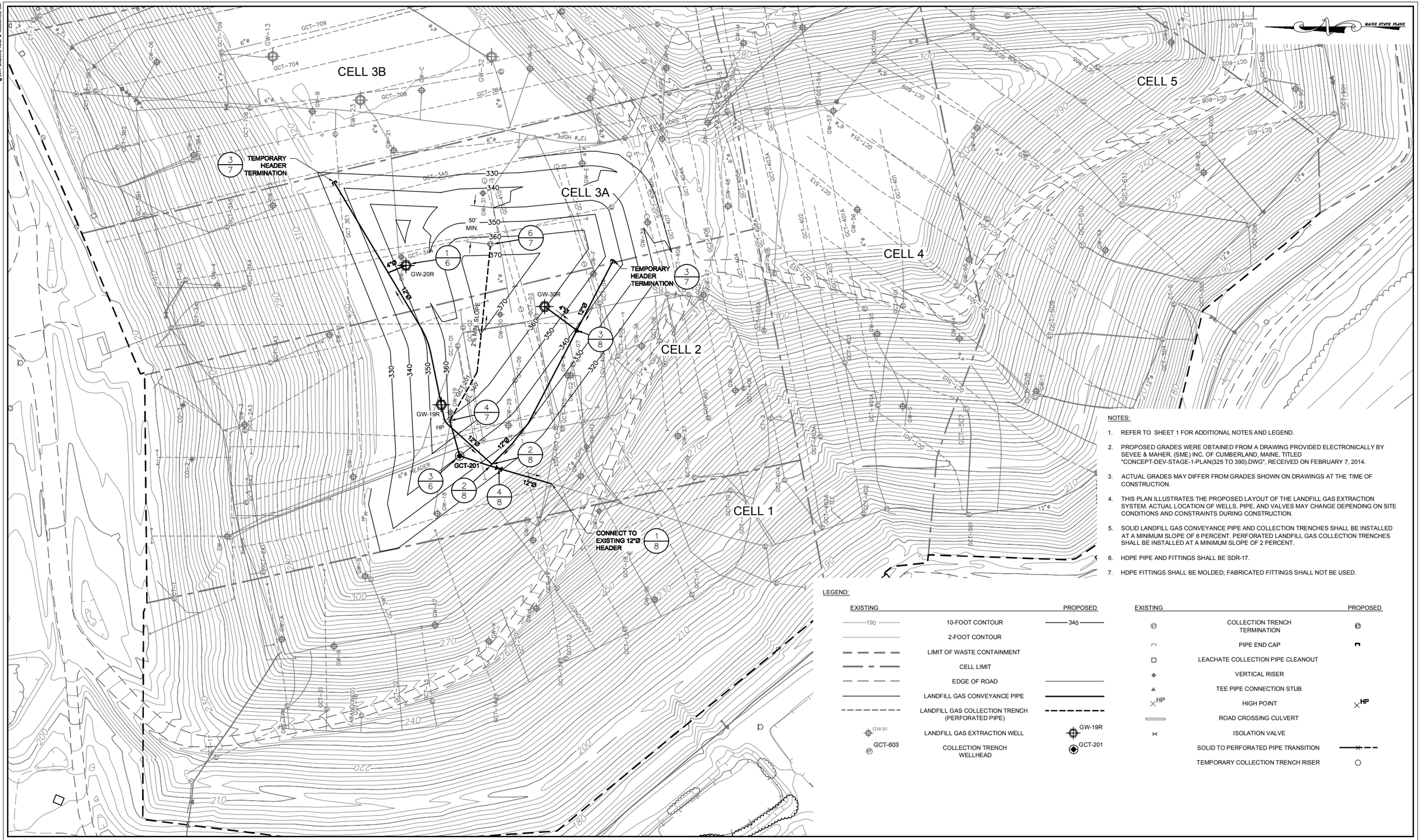

NOTES:

1. REFER TO SHEET 1 FOR ADDITIONAL NOTES AND LEGEND.
2. PROPOSED GRADES WERE OBTAINED FROM A DRAWING PROVIDED ELECTRONICALLY BY SEVEE & MAHER, (SME) INC. OF CUMBERLAND, MAINE, TITLED "CONCEPT-DEV-STAGE-1-PLAN(325 TO 390).DWG", RECEIVED ON FEBRUARY 7, 2014.
3. ACTUAL GRADES MAY DIFFER FROM GRADES SHOWN ON DRAWINGS AT THE TIME OF CONSTRUCTION.
4. THIS PLAN ILLUSTRATES THE PROPOSED LAYOUT OF THE LANDFILL GAS EXTRACTION SYSTEM. ACTUAL LOCATION OF WELLS, PIPE, AND VALVES MAY CHANGE DEPENDING ON SITE CONDITIONS AND CONSTRAINTS DURING CONSTRUCTION.
5. SOLID LANDFILL GAS CONVEYANCE PIPE AND COLLECTION TRENCHES SHALL BE INSTALLED AT A MINIMUM SLOPE OF 6 PERCENT. PERFORATED LANDFILL GAS COLLECTION TRENCHES SHALL BE INSTALLED AT A MINIMUM SLOPE OF 2 PERCENT.
6. HDPE PIPE AND FITTINGS SHALL BE SDR-17.
7. HDPE FITTINGS SHALL BE MOLDED; FABRICATED FITTINGS SHALL NOT BE USED.

LEGEND:

EXISTING		PROPOSED
190	10-FOOT CONTOUR	340
	2-FOOT CONTOUR	
	LIMIT OF WASTE CONTAINMENT	
	CELL LIMIT	
	EDGE OF ROAD	
	LANDFILL GAS CONVEYANCE PIPE	
	LANDFILL GAS COLLECTION TRENCH (PERFORATED PIPE)	
GW-91	LANDFILL GAS EXTRACTION WELL	GW-19R
GCT-603	COLLECTION TRENCH WELLHEAD	GCT-201

EXISTING		PROPOSED
	COLLECTION TRENCH TERMINATION	
	PIPE END CAP	
	LEACHATE COLLECTION PIPE CLEANOUT	
	VERTICAL RISER	
	TEE PIPE CONNECTION STUB	
HP	HIGH POINT	HP
	ROAD CROSSING CULVERT	
	ISOLATION VALVE	
	SOLID TO PERFORATED PIPE TRANSITION	
	TEMPORARY COLLECTION TRENCH RISER	

SANBORN HEAD

GRAPHICAL SCALE
60' 30' 0 60' 120'

STATE OF MAINE
Eric S. Steinhauser
10809
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. CLAY/T. REED
DESIGNED BY: T. REED
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: FEBRUARY 2014

SECOND ELEVATION FILLING LFG SYSTEM EXPANSION DRAWINGS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

PROJECT NUMBER: 2536.26

LFG INFRASTRUCTURE DEVELOPMENT PLAN - CELLS 1 - 4

SHEET NUMBER: 2 OF 8

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PLOTTED BY: Eric Steinhauser

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MAINE STATE PLANE

CELL 8

CELL 6

CELL 5

CELL 4

CELL 7

CELL 3B

CELL 3A

CELL 2

CELL 1

TEMPORARY HEADER TERMINATION

GCT-711

50' MIN.

2% MIN SLOPE

5% MIN SLOPE

6" Ø HEADER

GW-22R

GW-23R

GW-31R

GW-20R

GW-30R

GW-19R

GCT-201

HP

NOTES:

1. REFER TO SHEET 1 FOR ADDITIONAL NOTES AND LEGEND.
2. PROPOSED GRADES WERE OBTAINED FROM A DRAWING PROVIDED ELECTRONICALLY BY SEVEE & MAHER, (SME) INC. OF CUMBERLAND, MAINE, TITLED "CONCEPT-DEV-STAGE-2-PLAN(325 TO 390).DWG", RECEIVED ON FEBRUARY 7, 2014.
3. ACTUAL GRADES MAY DIFFER FROM GRADES SHOWN ON DRAWINGS AT THE TIME OF CONSTRUCTION.
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6. HDPE PIPE AND FITTINGS SHALL BE SDR-17.
7. HDPE FITTINGS SHALL BE MOLDED; FABRICATED FITTINGS SHALL NOT BE USED.

LEGEND:

EXISTING		PROPOSED
190	10-FOOT CONTOUR	340
	2-FOOT CONTOUR	
	LIMIT OF WASTE CONTAINMENT	
	CELL LIMIT	
	EDGE OF ROAD	
	LANDFILL GAS CONVEYANCE PIPE	
	LANDFILL GAS COLLECTION TRENCH (PERFORATED PIPE)	
GW-91	LANDFILL GAS EXTRACTION WELL	GW-22R
GCT-603	COLLECTION TRENCH WELLHEAD	GCT-711

EXISTING		PROPOSED
	COLLECTION TRENCH TERMINATION	
	PIPE END CAP	
	LEACHATE COLLECTION PIPE CLEANOUT	
	VERTICAL RISER	
	TEE PIPE CONNECTION STUB	
HP	HIGH POINT	HP
	ROAD CROSSING CULVERT	
	ISOLATION VALVE	
	SOLID TO PERFORATED PIPE TRANSITION	

SANBORN HEAD

GRAPHICAL SCALE
60' 30' 0 60' 120'

STATE OF MAINE
Eric S. Steinhauser
10809
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. CLAY/T. REED
DESIGNED BY: T. REED
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: FEBRUARY 2014

SECOND ELEVATION FILLING LFG SYSTEM EXPANSION DRAWINGS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

PROJECT NUMBER: 2536.26

LFG INFRASTRUCTURE DEVELOPMENT PLAN - CELL 7

SHEET NUMBER: 3 OF 8

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MAINE STATE PLANE

CELL 7
CELL 8
CELL 6
CELL 5
CELL 4
CELL 3B
CELL 3A
CELL 2
CELL 1

TEMPORARY HEADER TERMINATION

UPGRADE PIPE SIZE TO 12"Ø

ROAD CROSSING (TYP.)

LEGEND:

EXISTING		PROPOSED
190	10-FOOT CONTOUR	340
	2-FOOT CONTOUR	
	LIMIT OF WASTE CONTAINMENT	
	CELL LIMIT	
	EDGE OF ROAD	
	LANDFILL GAS CONVEYANCE PIPE	
	LANDFILL GAS COLLECTION TRENCH (PERFORATED PIPE)	
GW-22	LANDFILL GAS EXTRACTION WELL	GW-40
GCT-603	COLLECTION TRENCH WELLHEAD	GCT-830

EXISTING		PROPOSED
	COLLECTION TRENCH TERMINATION	
	PIPE END CAP	
	LEACHATE COLLECTION PIPE CLEANOUT	
	VERTICAL RISER	
	TEE PIPE CONNECTION STUB	
HP	HIGH POINT	HP
	ROAD CROSSING CULVERT	
	ISOLATION VALVE	
	SOLID TO PERFORATED PIPE TRANSITION	

NOTES:

1. REFER TO SHEET 1 FOR ADDITIONAL NOTES AND LEGEND.
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6. HDPE PIPE AND FITTINGS SHALL BE SDR-17.
7. HDPE FITTINGS SHALL BE MOLDED; FABRICATED FITTINGS SHALL NOT BE USED.

SANBORN HEAD

GRAPHICAL SCALE
60' 30' 0 60' 120'

STATE OF MAINE
Eric S. Steinhauser
10809
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. CLAY/T. REED
DESIGNED BY: T. REED
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: FEBRUARY 2014

SECOND ELEVATION FILLING LFG SYSTEM EXPANSION DRAWINGS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

PROJECT NUMBER: 2536.26

LFG INFRASTRUCTURE DEVELOPMENT PLAN - CELLS 5, 6 & 8

SHEET NUMBER: 4 OF 8

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Juniper Ridge Landfill
Cell 7 and 8 Expansion
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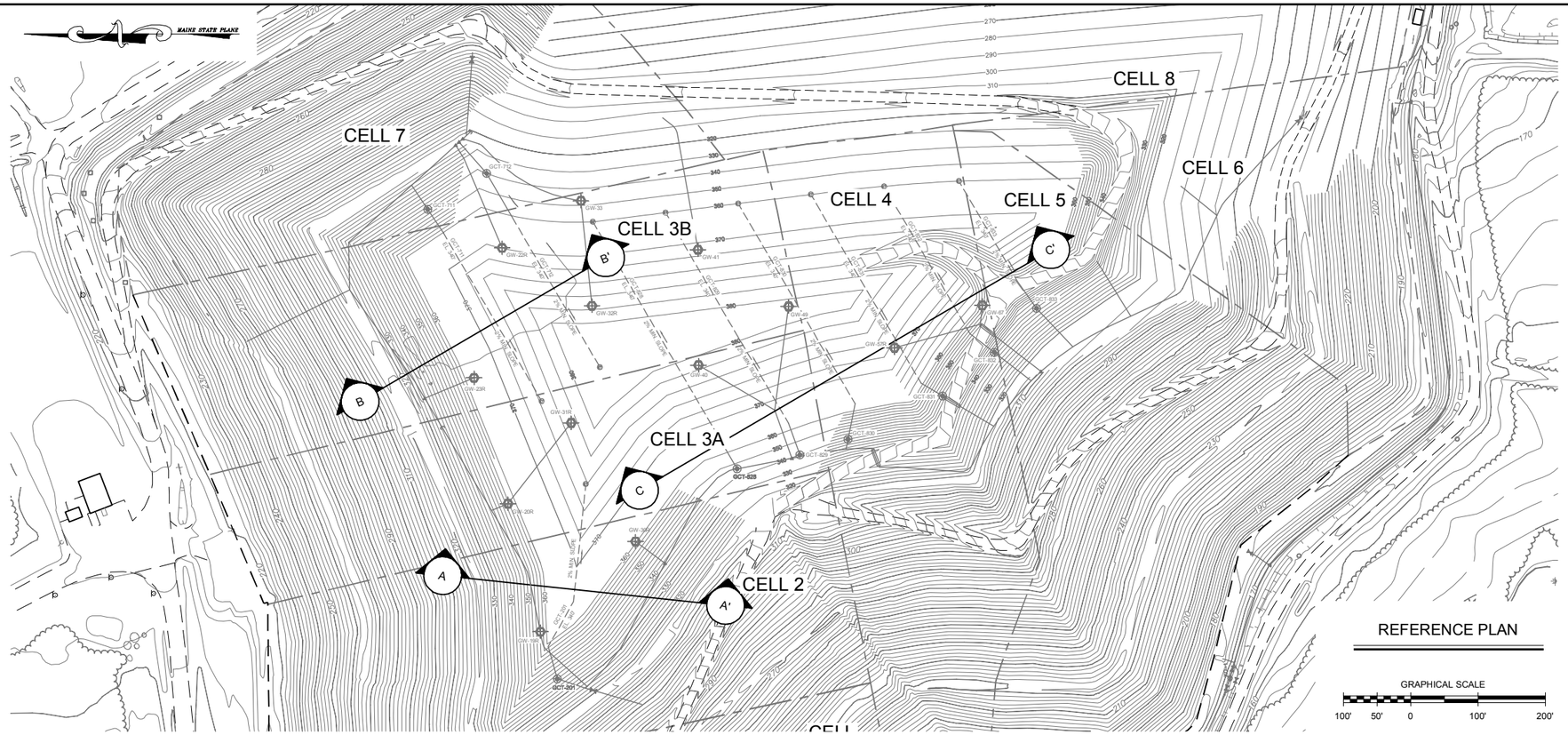

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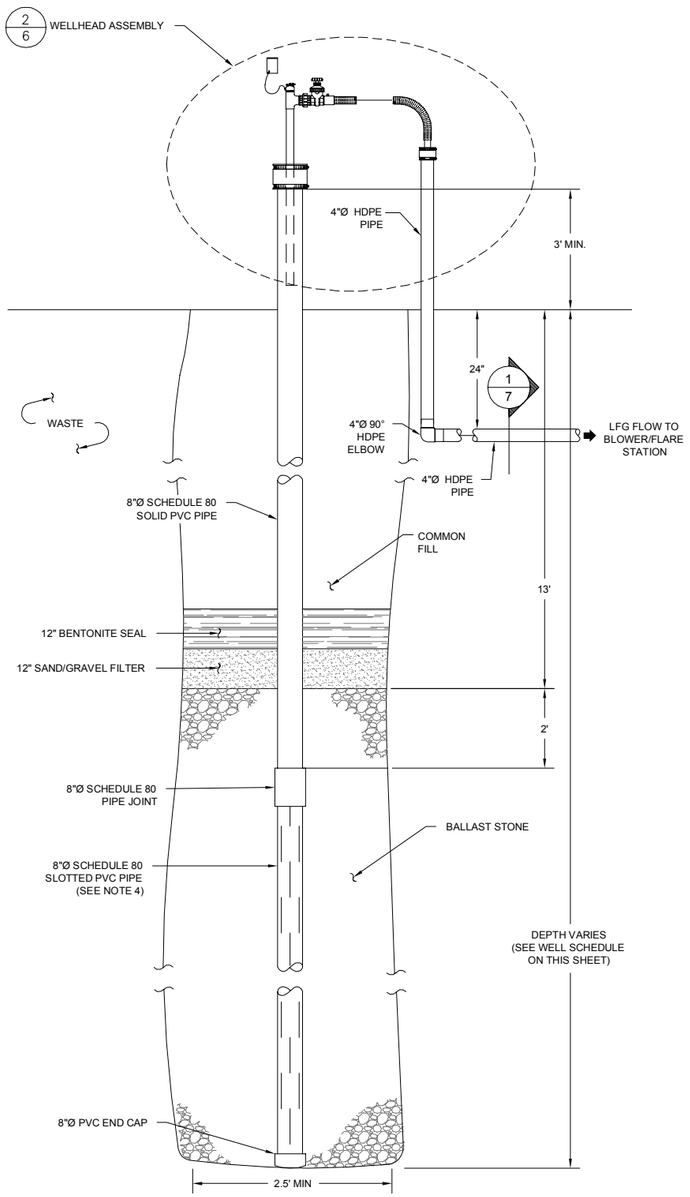


LFG EXTRACTION WELL

1

NOT TO SCALE

NOTES:

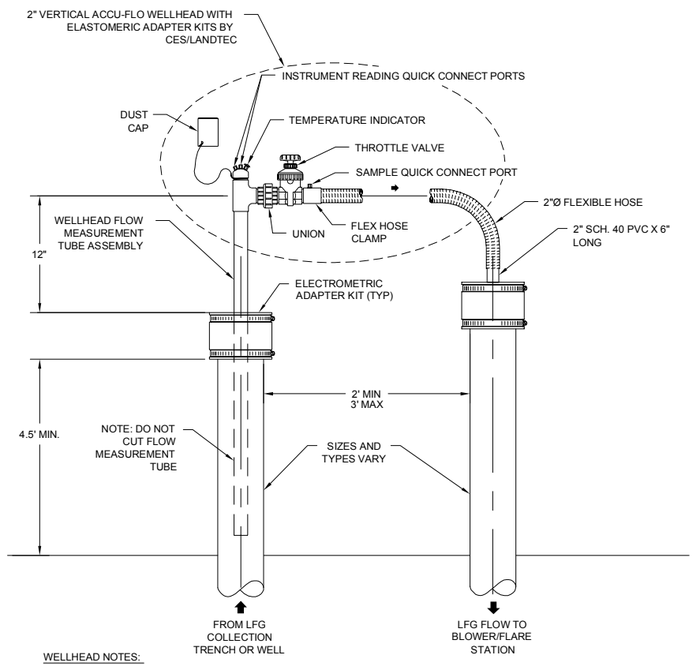
1. ALL HDPE PIPE SHALL BE SDR-17, UNLESS OTHERWISE NOTED.
2. ALL SOLID HDPE PIPE SHALL BE BUTT-FUSION WELDED UNLESS OTHERWISE INDICATED OR AN ALTERNATIVE IS APPROVED BY THE ENGINEER.
3. COVER SOLID HDPE PIPE ON LANDFILL SLOPES WITH MINIMUM 2 FEET OF SOIL AND STABILIZE AGAINST EROSION.
4. PIPE PERFORATED WITH SLOTS ⅛" TO ¼" WIDE BY 8" LONG. FOUR SLOTS PER ROW SPACED 90° APART, WITH ADJACENT ROWS OFFSET BY 45°.

WELL SCHEDULE NOTES:

1. LFG EXTRACTION WELLS SHALL BE INSTALLED WITHIN ONE FOOT OF LISTED LOCATIONS.
2. A TEMPORARY BENCHMARK WITH ELEVATION SHALL BE ESTABLISHED AT EACH WELL PRIOR TO DRILLING.
3. 15 FEET OF SOLID RISER IS TO BE PROVIDED BELOW INTERMEDIATE COVER GRADES. THE INTENT IS TO PROVIDE 3 FEET OF STICK UP ABOVE FILL GRADES.
4. ELEVATIONS SHALL BE CONFIRMED AGAINST AS-BUILT TOP OF PRIMARY SAND GRADES AND FILL GRADES PRIOR TO CONSTRUCTION.

WELL SCHEDULE

WELL DESIGNATION	NORTHING	EASTING	BOTTOM OF WASTE (FT)	TOP OF EXISTING WASTE (FT)	TOTAL WELL DEPTH (FT)	BOTTOM OF WELL SCREEN (FT)	TOP OF WELL SCREEN (FT)	SCREEN LENGTH (FT)	TOP OF CASING ELEV. (FT)
GW-19R	478830.0	925903.3	202.3	356.3	139.0	217.3	341.3	124.0	359.3
GW-20R	478878.2	926093.3	209.3	355.3	131.0	224.3	340.3	116.0	358.3
GW-22R	478887.0	926473.0	213.6	344.5	116.0	228.6	329.5	101.0	347.5
GW-23R	478928.7	926280.1	212.5	362.6	135.1	227.5	347.6	120.1	365.6
GW-30R	478688.8	926037.2	202.3	360.3	143.0	217.3	345.3	128.0	363.3
GW-31R	478784.3	926213.2	208.6	370.0	146.4	223.6	355.0	131.4	373.0
GW-32R	478753.5	926387.1	210.9	377.5	151.5	225.9	362.5	136.5	380.5
GW-33	478769.9	926542.9	214.8	347.3	117.5	229.8	332.3	102.5	350.3
GW-40	478595.2	926299.0	205.3	378.6	158.3	220.3	363.6	143.3	381.6
GW-41	478596.0	926470.3	209.4	371.1	146.7	224.4	356.1	131.7	374.1
GW-49	478461.3	926386.1	205.7	380.0	159.3	220.7	365.0	144.3	383.0
GW-57R	478304.0	926324.8	196.4	371.4	160.0	211.4	356.4	145.0	374.4
GW-67	478173.5	926387.8	195.8	356.6	145.8	210.8	341.6	130.8	359.6



WELLHEAD ASSEMBLY

2

NOT TO SCALE

WELLHEAD NOTES:

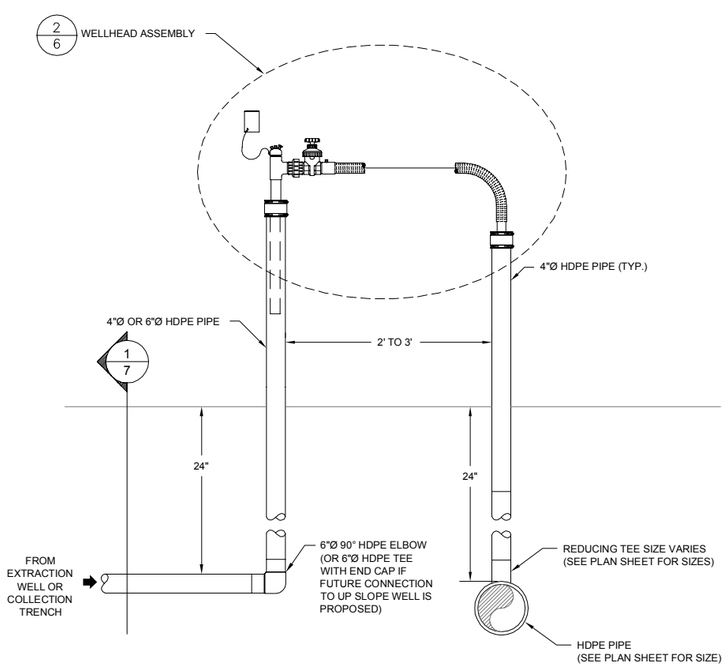
A. CES-LANDTEC ACCU-FLOW WELLHEAD SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTION MANUAL. INSTRUCTIONS SHALL BE THOROUGHLY READ BEFORE ATTEMPTING ASSEMBLY AND INSTALLATION OF WELLHEAD.

B. WELLHEAD AND FLOW MEASUREMENT TUBE ASSEMBLY SHALL BE COMPATIBLE WITH CES-LANDTEC GEM-2000 (LANDFILL GAS INSTRUMENT).

C. FOR FLEXIBLE CONNECTIONS TO PIPE, USE ONLY "IPS WELD-ON 795" PLASTIC PIPE CEMENT OR EQUAL APPROVED BY THE ENGINEER.

D. WARNING: DO NOT CUT THE FLOW MEASUREMENT TUBE ASSEMBLY. FAILURE TO HEED THIS WARNING WILL RESULT IN A DAMAGED OR INOPERATIVE WELLHEAD AND VOID THE WARRANTY. SUCH DAMAGE WOULD REQUIRE REPLACEMENT OF THE WELLHEAD AT THE CONTRACTOR'S EXPENSE.

E. ALLOW SUFFICIENT SLACK IN FLEX HOSE FOR PIPE EXPANSION AND CONTRACTION; AN EXTRA 8 TO 12 INCHES IS RECOMMENDED.



COLLECTION TRENCH WELLHEAD

3

NOT TO SCALE

SANBORN HEAD

SCALE AS NOTED

STATE OF MAINE — Eric S. Steinhauser 10809 — REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. CLAY/T. REED
DESIGNED BY: T. REED
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: FEBRUARY 2014

SECOND ELEVATION FILLING LFG SYSTEM EXPANSION DRAWINGS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

PROJECT NUMBER: 2536.26

DETAILS

SHEET NUMBER: 6 OF 8

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LAYOUT: 6 - DETAILS
CTB FILE: BWSheets.ctb
PLOTDATE: 2-24-14

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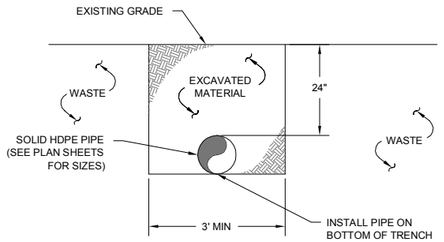
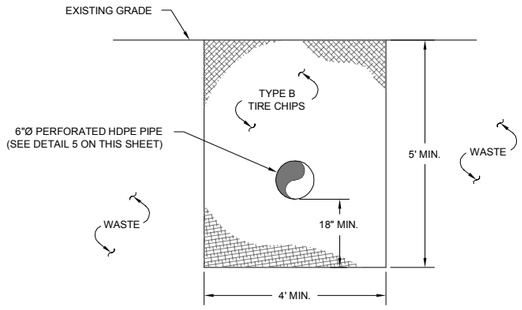


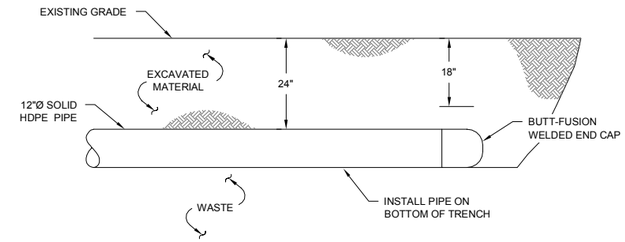
1 SOLID PIPE TRENCH

NOT TO SCALE



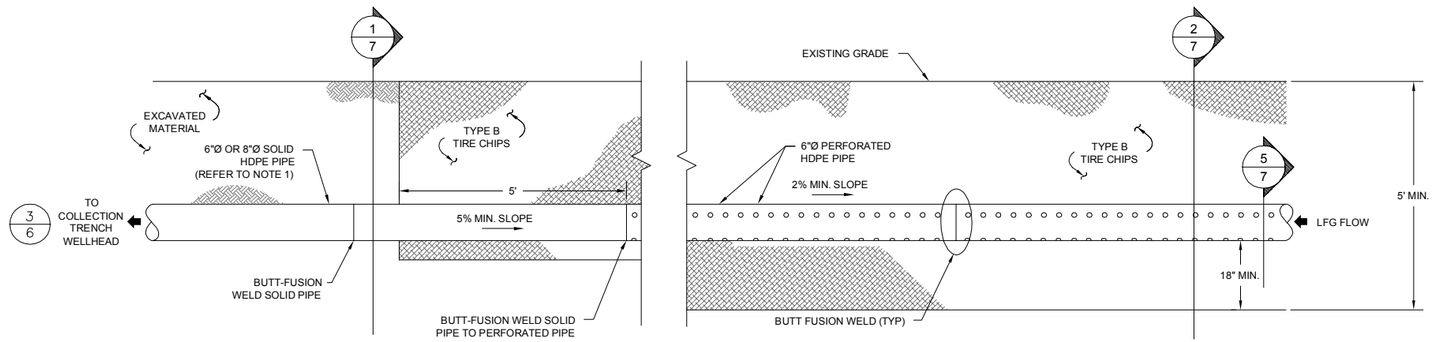
2 PERFORATED PIPE TRENCH

NOT TO SCALE



3 TEMPORARY PIPE TERMINATION

NOT TO SCALE

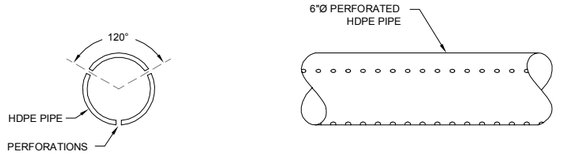


4 LFG COLLECTION TRENCH TRANSITION

NOT TO SCALE

NOTES:

1. ALL HDPE PIPE SHALL BE SDR-17.
2. ALL SOLID HDPE PIPE SHALL BE BUTT-FUSION WELDED UNLESS OTHERWISE INDICATED OR AN ALTERNATIVE IS APPROVED BY THE ENGINEER.
3. COVER SOLID HDPE PIPE ON LANDFILL SLOPES WITH MINIMUM 2 FEET OF SOIL AND STABILIZE AGAINST EROSION.

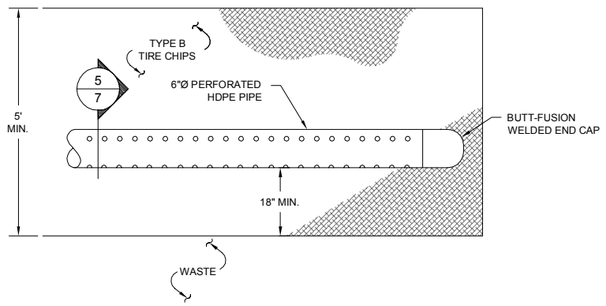


NOTE:

1. HOLES SHALL BE 1/2"Ø DRILLED HOLES SPACED 12" APART ALONG THE LENGTH OF THE PIPE OR APPROVED EQUIVALENT BY OWNER.

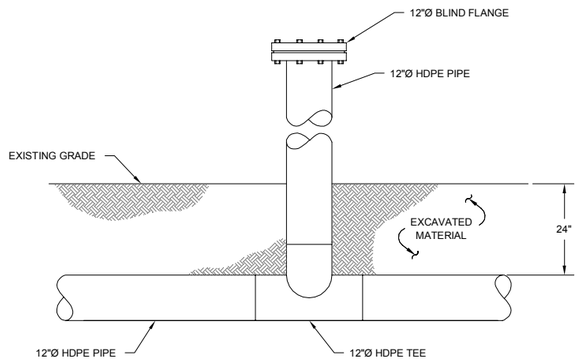
5 TYPICAL PERFORATED PIPE

NOT TO SCALE



6 COLLECTION TRENCH TERMINATION

NOT TO SCALE



7 VERTICAL RISER

NOT TO SCALE

SANBORN HEAD

SCALE AS NOTED

STATE OF MAINE Eric S. Steinhauser 10809 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. CLAY/T. REED
DESIGNED BY: T. REED
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: FEBRUARY 2014

SECOND ELEVATION FILLING LFG SYSTEM EXPANSION DRAWINGS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

PROJECT NUMBER: 2536.26

DETAILS

SHEET NUMBER: 7 OF 8

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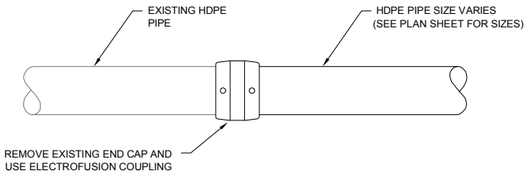
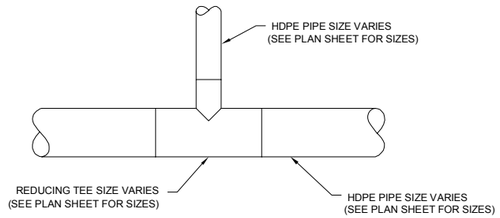
NOTES:

1. ALL HDPE PIPE SHALL BE SDR-17.
2. ALL SOLID HDPE PIPE SHALL BE BUTT-FUSION WELDED UNLESS OTHERWISE INDICATED OR AN ALTERNATIVE IS APPROVED BY THE ENGINEER.
3. COVER SOLID HDPE PIPE ON LANDFILL SLOPES WITH MINIMUM 2 FEET OF SOIL AND STABILIZE AGAINST EROSION.



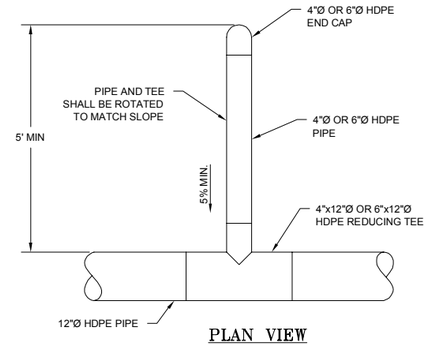
EXISTING CONVEYANCE PIPE CONNECTION

1 NOT TO SCALE



"TEE" CONNECTION

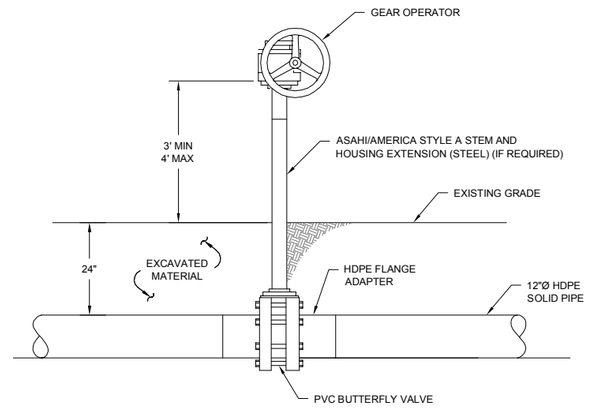
2 NOT TO SCALE



PLAN VIEW

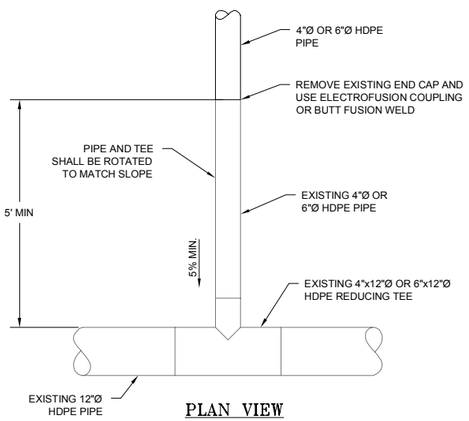
TEE PIPE CONNECTION STUB

3 NOT TO SCALE



LFG FLOW CONTROL VALVE

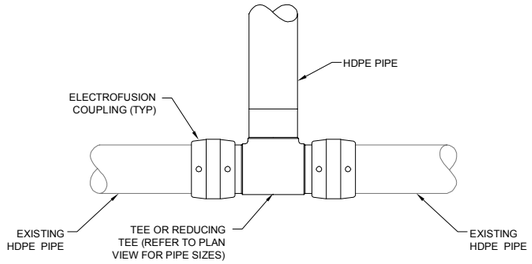
4 NOT TO SCALE



PLAN VIEW

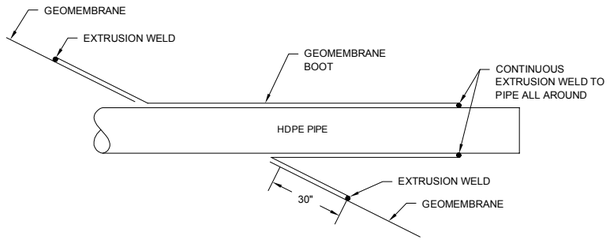
CONNECTION TO TEE PIPE STUB

5 NOT TO SCALE



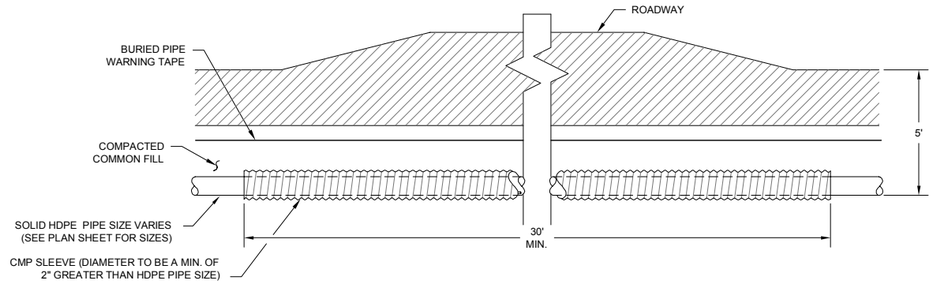
"TEE" CONNECTION TO EXISTING PIPE

6 NOT TO SCALE



TYPICAL GEOMEMBRANE BOOT SEAL

7 NOT TO SCALE



ROAD CROSSING PIPE SLEEVE

8 NOT TO SCALE

SANBORN HEAD

SCALE AS NOTED

STATE OF MAINE — Eric S. Steinhauser — 10809 — REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. CLAY/T. REED
DESIGNED BY: T. REED
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: FEBRUARY 2014

SECOND ELEVATION FILLING LFG SYSTEM EXPANSION DRAWINGS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

PROJECT NUMBER: 2536.26

DETAILS

SHEET NUMBER: 8 OF 8

SANBORN HEAD

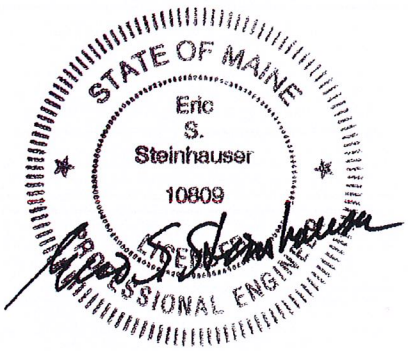
Building Trust. Engineering Success.

Technical Specifications
Second Elevation LFG System Expansion
Landfill Gas Extraction System
Juniper Ridge Landfill
Old Town, Maine

Prepared for
NEWSME Landfill Operations, LLC
Old Town, Maine

Prepared by
Sanborn, Head & Associates, Inc.
20 Foundry Street
Concord, New Hampshire

File 2536.26
February 2014



SECTION 02560

LANDFILL GAS EXTRACTION WELLS

PART 1 - GENERAL

1.1 SCOPE OF APPLICATION

A. Supply all equipment, materials, and labor needed to install landfill gas extraction wells as specified herein and as indicated on the Drawings.

1.2 SUBMITTALS

A. Submit to ENGINEER Certificates of Compliance on materials furnished, and manufacturer's brochures containing complete information and instructions pertaining to the storage, handling, installation, and inspection of pipe and appurtenances furnished.

B. Submit to ENGINEER well logs within 7 days of the completion of well installations.

C. The well logs shall depict a construction diagram for each well drilled, including the total depth of the well, the temperature of spoils, depth, thickness, and description of soil or waste strata, and the occurrence of any water bearing zones.

1.3 SITE CONDITIONS

A. Obstructions and saturated conditions such as sludges, and foundry sands are sometimes encountered when drilling in landfills, many of which can be drilled through. CONTRACTOR is expected to make reasonable effort to drill through obstructions and saturated conditions and will be paid for offset redrilling and boring abandonment only with prior written approval from OWNER.

B. Well drilling shall be performed on a level surface. CONTRACTOR shall provide a level surface at each drilling location as required. The size of the level area shall be acceptable to the drilling subcontractor. Any soil placed to level the drilling location shall be removed following well installation.

PART 2 - PRODUCTS

2.1 BALLAST STONE

A. Ballast Stone shall be hard, durable, and resistant to weathering and to water action, free from overburden, spoil, and organic materials. Ballast Stone shall be washed, and uniformly blended according to the particle size distribution requirements shown below.

Sieve Size	Percent Passing by Weight
2-inch	100
1½-inch	90 - 100
1-inch	30 - 40
¾-inch	10 - 15
½-inch	0 - 5
⅜-inch	0 - 5

2.2 BENTONITE SEAL

A. Bentonite Seal shall be constructed using dry bentonite chips or pellets.

2.3 SAND/GRAVEL FILTER

A. Sand/Gravel Filter should conform to the following particle size distribution.

Sieve Size	Percent Passing by Weight
1½-inch	100
No. 4	70 - 100
No. 40	30 - 80
No. 200	0 - 15

2.4 COMMON FILL

A. Common Fill should be soil containing no stone larger than 4 inches, and shall have a maximum of 75 percent passing the No. 40 sieve and a minimum of 35 percent passing the No. 200 sieve.

2.5 PVC PIPE

A. Refer to Specification Section 15212.

2.6 WELLHEAD

A. Wellheads should be nominal 2-inch size CES/LANDTEC Accu-Flo wellhead, Model 200, with elastomer adapter kits, or equivalent approved by OWNER. The wellhead components are indicated on the Drawings.

B. Wellhead and flow measurement tube shall be compatible with the CES/LANDTEC GEM-2000™ Landfill Gas Monitor.

PART 3 - EXECUTION

3.1 DRILLING

A. ENGINEER shall observe all drilling operations.

B. Wells shall be drilled to the minimum diameter and the specific depths shown on the Drawings. CONTRACTOR shall drill the wells using bucket-type augers and dry drilling equipment; wet rotary drilling equipment may not be used.

C. Well depths shown on the Drawings are estimated based on projected top of waste elevations and may be adjusted in the field by ENGINEER. At no time shall the drilling extend deeper than the bottom of well screen elevation.

D. If water is encountered in a borehole, then CONTRACTOR may be directed to drill beyond the point that it was encountered. If wet conditions remain, then drilling may be terminated and the length of perforated pipe adjusted by ENGINEER, or the well may be relocated. If wet conditions cease (e.g., due to trapped water layer), then drilling will continue to the design depth.

E. As soon as drilling is completed, a safety screen shall be placed over the top of the borehole. This screen shall stay in place until backfilling is within 4 feet of the surface. Safety screen size should be large enough to accommodate all backfill materials and any tools used during backfill yet not large enough for any human to accidentally fall through.

F. Wells shall be drilled straight and plumb and the well pipe shall be installed in the center of the borehole. CONTRACTOR will take all compression off of the pipe by mechanical means and center the pipe in the middle of the borehole before starting to backfill.

G. PVC well pipe shall be solvent cemented and mechanically fastened with stainless steel fasteners.

3.2 BACKFILLING

A. Backfilling the borehole shall commence immediately after drilling is completed and the PVC pipe has been installed. Backfill materials shall be installed as indicated on the Drawings and as approved by ENGINEER.

B. Ballast Stone shall be poured or scooped through the safety screen at a rate that will not endanger the integrity of the well casing and limits the potential for bridging.

C. The Sand/Gravel Filter shall be poured through the safety screen until a layer at least 1-foot thick above the Ballast Stone is formed.

D. The Bentonite Seal will be formed by evenly distributing bentonite around the annulus of the well until a minimum plug thickness of 1 foot has been achieved.

E. Common Fill shall be rodded in the boring to provide even distribution and compaction.

3.3 DISPOSAL

A. Refuse from well drilling operations shall be hauled to the active face of the landfill operation the same day it is excavated.

[END OF SECTION 02560]

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SECTION 02565

LANDFILL GAS TRENCHES

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. CONTRACTOR shall provide all labor, materials, equipment, and incidentals necessary to excavate and backfill trenches for the landfill gas management system as shown on the Drawings and specified herein, including, but not limited to: excavation of waste; placement of soil, aggregate, and pipe; compaction of soil; and grading.

PART 2 – PRODUCTS

2.1 GENERAL

A. All soil, unless otherwise specified, shall consist of clean soil substantially free from organic materials, wood, trash, and other objectionable materials that may be compressible or that cannot be properly compacted. Soil shall not contain stone blocks, broken concrete, masonry rubble, or other similar materials. Soil shall have physical properties such that it can be readily spread and compacted to the specified density. Snow, ice, and frozen soil shall not be permitted.

B. Unless otherwise specified, the maximum soil particle size shall be no larger than two-thirds the loose lift thickness.

2.2 MATERIALS

A. Tire Chips shall be provided by the OWNER and shall be placed in accordance with ASTM D 6270.

B. HDPE pipe and fittings refer to Specification Section 15210.

PART 3 - EXECUTION

3.1 GENERAL EXCAVATION BELOW GRADE

A. CONTRACTOR shall plan and perform earthwork activities to prevent damage to existing structures, safeguard people and property, minimize disruptions to site traffic, protect the structures to be installed, and provide safe working conditions in compliance with local safety regulations and provisions of the Occupational Safety and Health Act (OSHA).

B. Excavation shall be made to the elevations and dimensions shown on the Drawings. Excavate sufficient material to provide suitable room for construction providing bracing and support as required.

3.2 EXCAVATION IN WASTE

A. CONTRACTOR shall take safety precautions during construction activities that conform to all OSHA regulations and the safety requirements of OWNER and the Specifications.

B. Trenches shall be excavated to the depths, widths, and alignments shown on the Drawings.

C. CONTRACTOR shall separate cover soil from excavated refuse to the extent possible. Cover soil may be used to backfill trenches. Excavated material not suitable for use as soil shall be transported to the working face as directed by OWNER.

D. Pockets of perched leachate may be encountered during waste excavation activities. CONTRACTOR shall immediately notify OWNER and ENGINEER when leachate is encountered. ENGINEER will provide CONTRACTOR with directions on how to manage the leachate in narrative and/or drawing form. Potential leachate management techniques may include one or a combination of the following.
   1. Backfilling the affected area.
   2. Realigning the trench.
   3. Installing a French drain.

E. To the extent possible, the trench invert shall slope uniformly as indicated on the Drawings.

F. CONTRACTOR shall not excavate more trench than can be backfilled in one day after placement of the pipe. Excavations shall not be left open overnight.

3.3 BACKFILL

A. Excavated material shall be placed in loose layers and compacted to the extent possible with the goal of establishing a firm, even surface. The loose lift thickness shall not exceed 12 inches.

B. ENGINEER does not have to be present, and does not supervise or direct the actual Work by CONTRACTOR, his/her employees, or agents. Neither the presence of ENGINEER nor any observations and testing performed by ENGINEER shall excuse CONTRACTOR from defects discovered in their Work.

[END OF SECTION 02565]

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SECTION 15210

HIGH DENSITY POLYETHYLENE (HDPE) PIPE, FITTINGS, AND APPURTENANCES

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. Furnish and install HDPE pipe and fittings for the landfill gas extraction system.

B. Pressure test HDPE pipe.

1.2 DELIVERY, STORAGE, AND HANDLING

A. The pipe and fitting manufacturer shall package products for shipment in a manner suitable for safe transport by commercial carrier. When delivered, CONTRACTOR shall inspect the shipment and report any damage to the pipe and fittings manufacturer. Pipe and fittings shall be handled, installed, and tested in accordance with manufacturer's recommendations, and the requirements of this Section.

B. Pipe Storage:
   1. Store or stack pipe to prevent damage from marring, crushing or puncture. Limit maximum stacking height to 6 feet or manufacturer's recommended maximum height, whichever is less.
   2. Store in accordance with manufacturer's recommendations.

C. Pipe Handling:

   1. Protect pipe from excessive heat or harmful chemicals.
   2. Handle pipe and use equipment needed to avoid gouging of the pipe surfaces.

PART 2 - PRODUCTS

2.1 PHYSICAL PROPERTIES:

A. Materials used for the manufacture of PE pipe and fittings shall meet the following physical property requirements:

Property	Unit	Test Procedure	Value
Material Designation	-	PPI/ASTM	–
PPI Material Listing	-	PPI TR-4	PE 3408
Cell Classification	-	ASTM D 3350	345434C or 355434C
Density	g/cm3	ASTM D 1505	>0.941
Melt Index [E]	g/10 min	ASTM D 1238	<0.15
Flexural Modulus	psi	ASTM D 790	>110,000 and
Tensile Strength	psi	ASTM D 638	<160,000
ESCR [C]	hours	ASTM D 1693	3,000 to 3,500
HDB	psi	ASTM D 2837	f_0>5000
UV Stabilizer [C]	% Carbon	ASTM D 1603	1,600 23 C
Elastic Modulus	Black	ASTM D 638	2 to 3
Brittleness Temperature	°F	ASTM D 746	<-180
Vicat Softening Thermal	°F	ASTM D 1525	255
Expansion	in/in/ °F	ASTM D 696	8 x 10E-5
Hardness	Shore D	ASTM D 2240	64
Molecular Weight Category	-	-	Extra High

B. There shall be no evidence of splitting, cracking, or breaking when the pipe is tested.

C. Ring Stiffness Constant (RSC) values for the pipe shall be 90 percent of the nominal.

D. The pipe and fittings shall be homogenous throughout and free from visible cracks, holes, foreign inclusions, or other injurious defects. The pipe shall be as uniform as commercially practical in color, opacity, density, and other physical properties.

E. Clean rework or recycled material generated by the manufacturer's own production may be used so long as the pipe or fittings produced meet all the requirements of this Section.

2.2 PIPE AND FITTINGS

A. Dimensions:
1. Pipe Dimensions: The nominal inside diameter of the pipe shall be true to the specified pipe size in accordance with ASTM D 2513. Standard laying lengths shall be 40 feet ± 2 inches.
2. Fitting Dimensions: Fittings such as couplings, wyes, tees, adaptors, etc. for use in laying pipe shall have standard dimensions that conform to ASTM D 3261.
3. Pipe and fittings shall be SDR-17 unless otherwise noted.

B. Pipe and fittings shall be produced from identical materials meeting the requirements of this Section. Special or custom fittings may be exempted from this requirement.

C. Pipe and fittings shall be pressure rated to meet the service pressure requirements specified. Fittings shall be fully pressure rated to at least the same service pressure rating as the joining pipe.

D. Molded fittings shall meet the requirements of ASTM D 3261 and this Section. At the point of fusion, the outside diameter and minimum wall thickness of fitting butt fusion outlets shall meet the diameter and wall thickness specifications of the mating system pipe. Fitting markings shall include a production code that identifies the location and date of manufacture. Upon request, the manufacturer shall provide an explanation of his production code.

E. Marking:
   1. Each standard and random length of pipe and fitting shall be clearly marked with the following information:
      a. Manufacturer's Name or Trademark;
      b. ASTM Standard Designation;
      c. Nominal Pipe Size;
      d. Class & Profile Number;
      e. Production Code, including Extrusion Date, and Lot or Batch Number; and
      f. Standard Dimension Ratio.

F. The pipe and fitting manufacturer shall certify that samples of production pipe have undergone stress regression testing, evaluation, and validation in accordance with ASTM D 2837 and PPI TR-3. Under these procedures, the minimum hydrostatic design basis shall be certified by the pipe and fitting manufacturer to be 1600 psi at 73.4° F and 800 psi at 140° F.

G. Material shall be listed in the name of the pipe and fitting manufacturer by the Plastics Pipe Institute (PPI) in PPI TR-4 with the following Standard Grade ratings:

		73.4° F	140° F
1.	Hydrostatic Design Basis (HDB)	1,600 psi	800 psi
2.	Hydrostatic Design Stress (HDS)	800 psi	400 psi

H. PPI material listing in the name of the resin supplier is not acceptable in meeting this requirement.

I. Certification:
   1. As the basis of the acceptance of the material, the manufacturer shall furnish a certificate of conformance of this Section upon request. When prior agreement is being made in writing between CONTRACTOR and the manufacturer, the manufacturer shall furnish other conformance

certification in the form of affidavit of conformance, test results, or copies of test reports.

2.3 GASKETS AND HARDWARE

A. All gaskets shall be Viton or other similar materials approved by OWNER. Joint hardware shall be Type 304 stainless steel.

2.4 FITTINGS

A. Fittings shall be manufactured from polyethylene compound having cell classification equal to or exceeding compound used in pipe to ensure compatibility of polyethylene resins.

B. Fittings greater than 10-inches in diameter shall be molded. Fittings less than 10-inches in diameter may be fabricated.

C. Dimensions of fittings conforming to standard dimensions and tolerances in accordance with ASTM D 3261.

D. Fittings shall have the same or higher pressure rating as pipe.

E. Markings:
1. Manufacturer's name or trademark.
2. Nominal size.
3. Type of plastic pipe (i.e., PE 3408).
4. Standard dimension ratio.
5. Extrusion date, lot number or batch number.

G. The Drawings do not show all fittings that may be required. Provide all fittings required for a complete installation.

PART 3 – EXECUTION

3.1 FIELD QUALITY CONTROL

A. Pipe may be rejected for failure to conform to any of the following:
1. Fractures or cracks passing through pipe wall, except single crack not exceeding 2 inches in length at either end of pipe, which may be cut off and discarded. All pipes within one shipment shall be rejected if defects exist in more than five percent of shipment or delivery.
2. Cracks sufficient to impair strength, durability, or service ability of pipe.
3. Defects indicating improper proportioning, mixing, and molding.
4. Damaged ends, where such damage prevents making satisfactory joint.
5. Damage due to handling or installation. Scratches and gouges exceeding five percent of the wall thickness shall be considered excessive, and may be rejected by ENGINEER or OWNER.

B. Acceptance of fittings, stubs, or other specially fabricated pipe sections shall be based on visual inspection by ENGINEER and documentation of conformance to this Section.

C. Prior to backfilling trench CONTRACTOR shall obtain as-built top of pipe coordinates and elevations at grade changes, terminations, fittings, and at least every 50 feet along the pipe.

3.2 INSTALLATION

A. Trench, backfill, and compact in accordance with Specification Section 02565.

B. Heat Fusion of Pipe:

1. Weld pipe in accordance with manufacturer's recommendation for butt fusion methods. The pipe manufacturer shall certify fusion machine operators.
2. Butt fusion equipment for joining procedures shall be capable of meeting conditions recommended by pipe manufacturer including, but not limited to, temperature, alignment, and fusion pressures.
3. Branch saddle fusions shall be joined in accordance with manufacturer's recommendations and procedures. Branch saddle fusion equipment shall be of a size to facilitate saddle fusion within the trench.
4. For cleaning pipe ends, solutions such as detergents and solvents, when required, shall be used in accordance with manufacturer's recommendations. Solvents shall not be used unless approved by OWNER.
5. Do not bend pipe to greater degree than minimum radius recommended by manufacturer for type and grade.
6. Do not subject pipe to strains that will overstress or buckle pipe or impose excessive stress on joints.
7. Before butt fusing pipe, observe inside of each pipe length for presence of dirt, sand, mud, shavings, and other debris or animals. Remove debris from pipe prior to fusing.
8. Cap open ends of fused pipe at end of each working day to prevent entry by animals, debris, or stormwater.
9. Use compatible fusion techniques when polyethylenes of different melt indexes are fused together. Refer to manufacturer's specifications for compatible fusion.

C. Flange Jointing:
1. Use on flanged pipe connection sections.
2. At a minimum convoluted stainless steel backup rings shall be used for joining HDPE pipes below grade, and epoxy-coated carbon steel backup flanges shall be used above grade, unless stainless steel is specified by OWNER.
3. Butt fuse fabricated flange adapters to pipe or use electrofusion couplings.
4. Observe the following precautions in connection of flange joints:

a. Use full-face gaskets only.
b. All fasteners and back-up rings shall be Type 18-8 or Type 304 stainless steel below grade, and zinc-plated steel above grade.
c. Align flanges or flange/valve connections to provide tight seal.
d. U.S. Standard round washers may be used on some flanges when in accordance with manufacturer's recommendations. Bolts shall be lubricated prior to installation.

5. Protect below grade bolts and flanges by covering with a 6-mil thick PE wrap. Duct tape wrap to HDPE pipe.
6. Electrofusion couplers, where used, shall be installed per manufacturer's specifications. The outside diameter of the HDPE pipe and face shall be prepared in accordance with manufacturer's recommendations prior to installing the coupler.

D. Pipe Placement:
1. Grade control equipment shall be of the type to accurately maintain design grades and slopes during installation of pipe.
2. Unless otherwise specifically stated, install pipe in accordance with manufacturer's recommendations.
3. Maximum lengths of fused pipe to be handled as one section shall not exceed 400 feet and shall be placed according to the manufacturer's recommendations as to pipe size, pipe SDR, and topography so as not to cause excessive gouging or surface abrasion. Pipe wall gouges deeper than 3/16-inch may be cause for rejection of the pipe.
4. Cap pipe sections longer than single joint (usually 40 feet) on both ends during placement except during fusing operations.
5. Remove dirt or debris from inside of pipe before backfilling.
6. Notify ENGINEER prior to installing pipe into trench and allow time for observation. CONTRACTOR shall correct irregularities identified during observation.
7. Complete connections within trench whenever possible to prevent overstressed connections.
8. Allow pipe sufficient time to adjust to trench temperature prior to testing, fusion welding, making segment connections, or backfilling activity.
9. To reduce branch saddle stress, install saddles at slope equal to and continuous with connecting pipe.
10. Install reducers adjacent to laterals and tees unless directed otherwise.
11. Place pipe system in trench allowing at least 12 in./100 ft. for thermal contraction and expansion.
12. Trench and backfill soil in accordance with Specification Section 02565.

3.2 PIPE TESTING

A. CONTRACTOR shall perform a pneumatic test of the non-perforated pipe and fittings, with the exception of the 50-feet of solid pipe installed in the horizontal collection trenches, after placement in the trench, in accordance with manufacturer's recommendations.

B. Pipes shall be pressure tested in presence of ENGINEER. Provide adequate notice to ENGINEER before performing test.

C. Pneumatic testing shall be performed as follows:
   1. The test period at the test pressure shall last no more than 10 minutes.
   2. Provide all necessary connections, bulkheads, flanges, bracing, and blocking, as well as all required test equipment.
   3. Test pressure gauge shall have a recommended range of 20 psig, with minor gradations no greater than 0.1 psig.
   4. Pipe to be tested shall be exposed in the trench, except bends, reduced pressure rated fittings and components, which shall be buried or restrained. Flange connections shall be visible to check for leaks.
   5. Test pressure shall be 10 psig.
   6. Acceptance
      a. Test shall be accepted if the pressure drop over 10 minutes is less than 5 percent of the pressure at the beginning of the test period.

D. Test Report
   1. ENGINEER shall prepare and submit to OWNER a test report using the attached forms for each pipe system tested. Include following information in test report.
      a. Date of test.
      b. Description and identification of pipe system tested.
      c. Type of test performed.
      d. Test fluid.
      e. Test pressure.
      f. Results of test.
      g. Type and location of leaks detected.
      h. Corrective action taken to repair leaks.
      i. Results of retesting.
      j. Name of person performing test.

[END OF SECTION 15210]

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ATTACHMENT 1 TO SECTION 15210
PIPE PRESSURE AIR TEST LOG

SANBORN HEAD	Project No.:
	Project Name:
	Project Location:
	Weather:
Contractor:	Test No.:
SHA Personnel:	Person/Company Performing the Test:
Date of Test:	Time of Test: Finish:
Pipe Length: ~ ft. Pipe Diameter: in.	Pipe Material: Pipe SDR/Sch.:
Rated Working Pressure:	Test Pressure: psi
Location/designation of pipe tested:	

t Time (min.)	T Pipe Temperature (ºC)	P_t Pressure Gauge Reading (psig)	P_c Pressure Drop (%)
0			
5			
10			
15			
30			
60			

Pass Fail	Retest? Yes No

Description of leaks and repairs of retested pipe segments:

P_c = Percent Pressure Drop $\frac{P_o - P_t}{P_o} \times 100$

P_o = Initial Pressure Gauge Reading

P_t = Pressure Gauge Reading at Time t

Comments:

Signature:

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SECTION 15212

POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. Supply polyvinyl chloride (PVC) Schedule 80 pipe and fittings as shown on the Drawings.

1.2 SUBMITTALS

A. Submit to ENGINEER manufacturer's technical product data and installation instructions for PVC pipe and fittings.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

A. Pipe and fittings shall be manufactured from a PVC compound which meets the requirements of Cell Classification 12454-B polyvinyl chloride as outlined in ASTM D 1784.

B. PVC pipe used in the construction of landfill gas extraction system shall meet the requirements of ASTM D 1784 and ASTM D 1785 for Schedule 80 PVC pipe.

C. PVC fittings used in the construction of landfill gas extraction system shall meet the requirements of ASTM D 2464 and ASTM D 2467.

D. All PVC cements shall meet the requirements of ASTM D 2564 for solvent cemented PVC joints.

E. Clean rework or recycle material generated by the manufacturer's own production may be used so long as the pipe or fittings produced meet all the requirements of this Section.

F. Fittings shall be industrial, heavy duty, hub style.

G. Socket fittings shall be pressure rated the same as the corresponding size pipe prescribed by ASTM D 1785. Threaded fittings shall be pressure rated to at least 50 percent of the rating for socket fittings.

2.2 FLANGES

A. Flanges shall be one piece solid design or two-part Van Stone type that use the tapered, serrated face and full face gasket technique for joining and are compatible with ANSI B16.5 Class 150 metal flanges.

B. Flanges shall be pressure rated at 150 psi for water service at 73°F, non-shock and have a minimum burst requirement of 3.3 times the rated pressure.

C. Bolts shall be zinc-plated ASTM A193, Grade B8M hex head, and nuts shall be zinc-plated ASTM A194, Grade 8M hex head.

D. Gaskets shall be ⅛-inch thick, full face Viton or other similar materials approved by OWNER.

PART 3 - EXECUTION

3.1 PVC PIPE HANDLING

A. PVC pipe and pipe fittings shall be handled carefully in loading and unloading. They shall be lifted by hoists and lowered on skidways in such a manner as to avoid shock. Derricks, ropes, or other suitable equipment shall be used for lowering the pipe into well borings. Pipe and pipe fittings shall not be dropped or dumped.

3.2 PVC PIPE INSTALLATION

A. PVC pipe installation shall conform to the requirements of this Section, the manufacturer's recommendations, and as outlined in ASTM D 2774V.

3.3 JOINING OF PVC PIPES

A. Pipes shall be joined in accordance with ASTM D 2855.

B. Pipe shall be inspected for cuts, scratches, or other damages prior to installation. Pipe with imperfections shall not be used.

C. Burrs, chips, etc., shall be removed from pipe interior and exterior.

D. Loose dirt and moisture shall be wiped from the interior and exterior of the pipe end and the interior of the fitting.

E. Pipe cuts shall be square and perpendicular to the center line of pipe.

F. A coating of CPS primer, as recommended by pipe supplier, shall be applied to the entire interior surface of the fitting socket, and to an equivalent area on the exterior of the pipe prior to applying solvent cement.

G. The solvent cement shall comply with the requirements of ASTM D 2564 and shall be applied in strict accordance with manufacturer's specifications.

H. Pipe and pipe fittings shall be selected so that there will be as small a deviation as possible at the joints, and so that inverts present a smooth surface. Pipe and fittings that do not fit together to form a tight fitting shall be rejected.

[END OF SECTION 15212]

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SANBORN HEAD

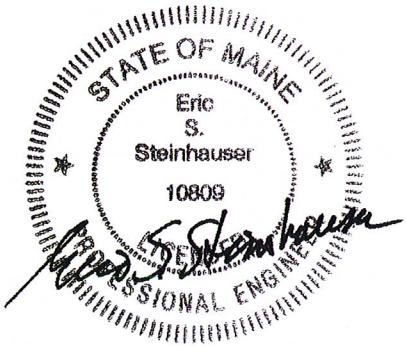
Building Trust. Engineering Success.

Construction Quality Assurance Plan
Second Elevation LFG System Expansion
Landfill Gas Extraction System
Juniper Ridge Landfill
Old Town, Maine

Prepared for
NEWSME Landfill Operations, LLC
Old Town, Maine

Prepared by
Sanborn, Head & Associates, Inc.
20 Foundry Street
Concord, New Hampshire

File 2536.26
February 2014



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1.0 INTRODUCTION

This Construction Quality Assurance (CQA) Plan addresses the quality assurance activities specific to the installation of landfill gas (LFG) extraction systems components at the NEWSME Landfill Operations LLC (NEWSME) Juniper Ridge Landfill. In the context of this Plan, quality assurance refers to means and actions employed to assure that the components of the LFG extraction system are installed in accordance with the drawings and specifications. Quality assurance is provided by a party independent from the Contractor. Quality control refers to those actions taken by the contractor and the manufacturers to ensure that materials and workmanship meet the requirements of the drawings and specifications.

The scope of this CQA Plan applies to manufacturing, shipment, handling, and installation of LFG extraction system components. The CQA Plan does not address design guidelines, installation specifications, or selection of the components. The specifications define the quality of materials and workmanship to be used and employed. The CQA Plan defines the means to assure that the level of material and workmanship used in the construction meets or exceeds the requirements of the drawings and specifications.

2.0 PARTIES

2.1 Project Manager

The Project Manager is an official representative of NEWSME and is responsible for construction project. The Project Manager coordinates the project meetings as defined in Section 3.0, and serves as a liaison between all parties involved in the project. The Project Manager is also responsible for proper resolution of quality assurance issues that arise during construction.

2.2 Design Engineer

The Design Engineer is the individual and/or firms responsible for the preparation of the design, including drawings and specifications. The Engineer is responsible for approving all changes to the drawings and specifications, and for making design clarifications during construction. The Engineer may attend the pre-construction meeting and progress meetings as requested by the Project Manager. At the completion of the construction, the Design Engineer will prepare record drawings based on as-built information provided by the CQA Engineer.

2.3 CQA Engineer

The CQA Engineer is either a qualified representative of NEWSME, or a representative of an engineering firm, independent of NEWSME, that is experienced in observing and documenting construction. The number of CQA Engineer personnel needed on site at a given time will be decided by the Contractor's schedule.

The CQA Engineer is responsible for observing and documenting the construction activities as defined in this CQA Plan. Specific duties of the CQA Engineer personnel include:

- Reviewing the drawings and specifications, and all modifications thereto;
- Reviewing other project-specific documentation, including proposed layouts, and manufacturer and Contractor literature;
- Documenting construction operations using field reports, logs, and/or photographs;
- Attending project meetings;
- Noting on-site activities that could result in damage and/or delays;
- Reporting unapproved construction deviations to the Project Manager;
- Verifying that the contractor is obtaining as-built survey information as required by this plan, the drawings, and specifications; and
- Preparing a construction documentation report.

3.0 COMMUNICATION

3.1 Pre-Construction Meeting

A pre-construction meeting should be held at the site prior to the start of construction. Typically, the meeting is to be attended by the Project Manager and representatives of the Design Engineer, CQA Engineer, and Contractor. Specific agenda topics for meeting include:

- Review of the project team members, and their roles and responsibilities;
- Review of the site-specific safety and security requirements;
- Review of the project design components and goals; and
- Review of construction schedule.

The meeting shall be documented by the Project Manager or his designee.

3.2 Progress Meetings

Progress meetings should be held with the Project Manager and representatives of the Contractor, CQA Engineer, and other parties invited by the Project Manager. The agenda for the progress meetings should include a discussion of:

- Current progress;
- Planned activities for the next week;
- Issues requiring resolution; and
- New business.

The Project Manager, or his designee, should document the meetings, specifically noting problems and decisions. If any matter remains unresolved at the end of this meeting, then the Project Manager is responsible for assuring that the matter is resolved and the resolution is communicated to the appropriate parties.

4.0 DOCUMENTATION

The CQA Engineer is responsible for providing the Project Manager with documentation that clearly and succinctly describes the construction activities and the locations of the constructed components. A complete file of the construction documentation should be maintained on site. Documentation consists of daily reports, test reports, as-built survey, and the Construction Documentation Report.

4.1 Daily Reports

A report and/or log should be prepared for each day construction is performed. The report and/or log should document the construction and monitoring activities performed that day, identifying problems encountered and remedial action taken. Documentation should include the equipment used, the work force provided including subcontractors. The report and/or log should be completed at the end of the work day, prior to the CQA Engineer leaving the site.

4.2 Testing Reports

On-site testing of pressure pipe shall be reported on an appropriate Test Report Log. Test reports shall be submitted along with the daily report.

4.3 As-Built Survey

The CQA Engineer is responsible for verifying that the Contractor as-built survey is correct and accurate. In addition, the CQA Engineer is responsible for documenting changes to the construction details. As-built survey drawings are to include horizontal and vertical locations of trench end points, landfill gas extraction wells, and well heads. The Contractor is responsible for recording changes to pertinent details and supplying this information to the CQA Engineer. The CQA Engineer will forward the as-built survey and changes to the construction details to the Design Engineer, who will prepare the record drawings to be included in the CQA Engineer's Construction Documentation Report.

4.4 Construction Documentation Report

The CQA Engineer is responsible for preparing a report that documents the construction activities and includes the record drawings prepared by the Design Engineer. The report should include the following:

- Parties and personnel involved with the project;
- Seal and signature of a professional engineer licensed in the State of Maine;
- Record drawings, sealed and signed by a professional engineer licensed in the State of Maine;

- Written clarifications and interpretations of the specifications;
- Change Orders to the design;
- Minutes from pertinent meetings;
- Copies of the pertinent CQA records (e.g., contractor submittals; pipe test logs; and daily reports); and
- Photographs.

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ATTACHMENT E

Facility Inspection Reports

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Jan 2013 **INSPECTION DATE:** 1/31/13

NAME OF INSPECTOR: Jeremy L

Summary of weekly inspections

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed		✓ ①
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion	✓	
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

① Litter on site - will pick up when weather permits

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

see previous

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature _____ Date 1/31/13

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Feb 2013 **INSPECTION DATE:** 2/28/13

summary of weekly inspections

NAME OF INSPECTOR: Jeremy L

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed	✓	✓ - windy, snow
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion		✓ (1)
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower		✓ (2)
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

(1) SICM loss due to wind, needs to be repaired in spring

(2) Slight vibration in blower AJ will continue to monitor

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

See previous page

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature 2/28/13 Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Mar 2013 **INSPECTION DATE:** 3/26/13

NAME OF INSPECTOR: Jeremy L summary of ~~monthly~~ weekly inspections

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed		✓①
Dust being minimized		✓②
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing		✓③
Signs of erosion	✓	
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

① Litter from winter / snowmelt - cleanup ongoing
② dust in roadways, will sweep/water when weather permits
③ West side ditch w/some sed. Will clean when weather permits

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

See previous page

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature 3/26/13 Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Apr 2013 **INSPECTION DATE:** 4/26/13

summary of weekly Insp.

NAME OF INSPECTOR: Jeremy L

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed		✓ (1)
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion		✓ (2)
Check dams	✓	
Detention ponds		✓ (3)
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

(1) Litter cleanup from winter ongoing
(2) SICM currently being repaired on north & west sides
(3) Some litter in sept pond 9

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

See previous page

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature

9/26/13
Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: ~~April~~ May 2013 **INSPECTION DATE:** 5/16/13

NAME OF INSPECTOR: Jeremy Labbe

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓ (1)	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed	✓	
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms		✓ (2)
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage tank & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion	✓	
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

(1) now working in cell 8

(2) cover (ADC) close to cell 7 intermediate cover, need to watch setback.

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature 5/10/13 Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Jun 2013 **INSPECTION DATE:** 6/25/13

NAME OF INSPECTOR: Jeremy L

summary of weekly inspections

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris		✓(1)
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed	✓	
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain		✓(2)
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion	✓	
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower		✓(3)
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

(1) Dirt on roadways to be swept

(2) Oil spot from tanker - cleaned up by hauler

(3) Vibration on blower #3, will continue to monitor

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

See Previous Page

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature

6/25/13
Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Jul 2013 **INSPECTION DATE:** 7/23/13

NAME OF INSPECTOR: Jeremy L

Summary of weekly Inspections

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris		✓①
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed		✓②
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion	✓	
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

(1) Dirt/dust - roadways currently being swept regularly

(2) Litter on south side, pickers to clean

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature 7/23/13 Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Aug 2013 **INSPECTION DATE:** 8/29/13

Summary of weekly Insp.

NAME OF INSPECTOR: Jeremy L

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed	✓	
Dust being minimized		✓ (1)
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion	✓	
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

(1) Dusty around roadways - will water roadways

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature 8/29/13 Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Sep 2013 **INSPECTION DATE:** 9/20/13
summary of weekly Insp.

NAME OF INSPECTOR: Jeremy L

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed	✓	
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled		✓ (1)
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly		✓ (2)
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion		✓ (3)
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

1. some fines tracked, will be swept up
2. Leachate pump malfunctioning - scheduled to be fixed
3. Sed Pond 5 project underway - ECM's in place (More BMP's)

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature 9/26/13 Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Oct 2013 **INSPECTION DATE:** 10/31/13

NAME OF INSPECTOR: Jeremy L Summary of weekly Inspections

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed		✓①
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion		✓②
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

① Litter by cell 8, being picked up

⑤ Sed pond 5 project ongoing - BMP's in place

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature

10/31/13
Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Nov 2013 **INSPECTION DATE:** 11/26/13

NAME OF INSPECTOR: Jeremy

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed	✓	
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion	✓	
Check dams	✓	
Detention ponds		✓ (r)
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

(1) Sed pond 5 finished up, BMP's still in place

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature 11/20/13 Date

Distribution: General Manager
PCE Manager

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

INSPECTION MONTH\YEAR: Dec 2013 **INSPECTION DATE:** 12/27/13

NAME OF INSPECTOR: Jeremy L

INSPECTION ITEM DESCRIPTION	INSPECTED NO ACTION TAKEN	NEEDS ACTION (See Comments)
OPERATIONS	(place a check mark in the appropriate column)	
Access roads clear and free of debris	✓	
Active disposal area size minimized	✓	
Daily cover materials being utilized	✓	
Litter being controlled & collected as needed	✓	
Dust being minimized	✓	
Tracking of wastes outside of cell being controlled	✓	
Waste setback from berms	✓	
Leachate controlled & contained in cells	✓	
Odor control measures in-place	✓	
Vector control measures in-place (birds, rats, etc.)	✓	
Fire prevention & control measures in-place	✓	
Adequate working equipment onsite	✓	
LEACHATE MANAGEMENT		
Build-up of sediment in wetwells	✓	
Pumps & valves functioning properly	✓	
Flow conditions	✓	
Pump station vented properly	✓	
Electrical panel inspection	✓	
Flow meter inspection	✓	
Manholes intact and serviceable	✓	
LEACHATE STORAGE & DISPOSAL		
Inspection of leachate storage pond & level	✓	
Any signs of leachate seeps	✓	
Underdrain system monitoring being performed	✓	
Inspection of loading rack system & drain	✓	
Leachate forcemain system	✓	
STORMWATER COLLECTION & CONTROL SYSTEMS		
Check outlet structures for condition	✓	
Drainage ditches clear and flowing	✓	
Signs of erosion	✓	
Check dams	✓	
Detention ponds	✓	
Silt fences installed properly	✓	
Check roadway ditches for erosion	✓	
ACTIVE GAS COLLECTION SYSTEM		
Condensate knockout system	✓	
Condition of wellheads ok	✓	
Presence of leakage on assembly	✓	
Noise/vibration in the motor or blower	✓	
Maintenance up-to-date	✓	
Condition of igniter system	✓	
Plumbness of stack	✓	

JUNIPER RIDGE LANDFILL
FACILITY INSPECTION REPORT

COMMENTS ON NON-COMPLIANT CONDITIONS:

Site looks pretty good Happy Holidays!

REVIEW BY ENVIRONMENTAL COMPLIANCE MANAGER:

Signature

12/27/13
Date

Distribution: General Manager
PCE Manager

ATTACHMENT F

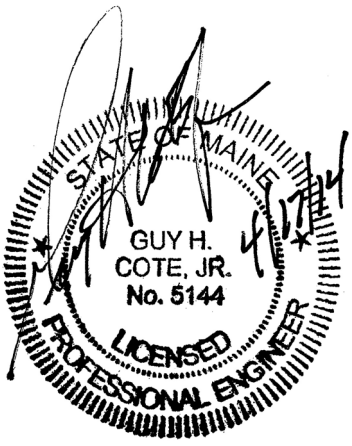
Water Quality Monitoring Report

2013 ANNUAL WATER QUALITY REPORT
JUNIPER RIDGE LANDFILL

Prepared for

NEWSME LANDFILL OPERATIONS, LLC

April 2014



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

4 Blanchard Road, PO Box 85A, Cumberland Center, ME 04021 • Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

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2013 ANNUAL WATER QUALITY REPORT
JUNIPER RIDGE LANDFILL
NEWSME LANDFILL OPERATIONS, LLC

EXECUTIVE SUMMARY

During 2013, water quality samples were collected at the Juniper Ridge Landfill (JRL) in accordance with the Environmental Monitoring Program (EMP) during April, July, and October of 2013. Changes were made to the EMP as a result of Sevee & Maher Engineers, Inc. (SME) recommendations, as contained in the 2012 Annual Water Quality Report, to modify the EMP to align it with current site conditions and subsequent discussions with Maine Department of Environmental Protection (MEDEP). The changes included the addition and removal of monitoring locations and parameters of analysis. The majority of these changes were implemented beginning with the July sampling round.

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 2013 data indicate that the water quality has remained consistent with recent historical data. Samples from the landfill underdrains generally have low overall parameter concentrations, indicating they are not influenced by landfill leachate and verifying that the landfill liner systems are performing as designed.

As recommended by SME in the 2012 Annual Water Quality Report for JRL, in 2013 NEWSME Landfill Operations, LLC (NEWSME) completed several upgrades to site infrastructure, and investigations along the northwest side of the landfill to address water quality changes observed during the past several years at several monitoring locations on the northwest side of the landfill. These activities included:

- The re-construction of Detention Pond #5 to include a liner and phased treatment capabilities, including an initial phase sand filtration unit. Portions of the road and stormwater drainage ditches northwest of the landfill were also re-graded and paved to optimize the collection of stormwater runoff for treatment along the northwest perimeter of the landfill.

- NEWSME removed discolored soils exposed during the road and stormwater drainage ditch regrading in 2013. Soils were removed along the northwest perimeter of the landfill both in the access road sub-base gravels and in an area between the access road and the northern boundary of Cell 2. SME believes that the discolored soils were remnants of waste materials that had been deposited on the access road during use of Cells 1 and 2 by the prior owner, likely by truck tire tracking. This material may have contributed to the water quality changes observed at the monitoring locations on the northwest side of the landfill. These materials were removed and placed in the landfill during the summer of 2013.

- NEWSME exposed the anchor trench on the northern side of Cell 2 to evaluate if leachate had overtopped the landfill liner in this area. No indication of overtopping was observed.

These items should result in improvements to site water quality on the northwest side of the site over the next few years.

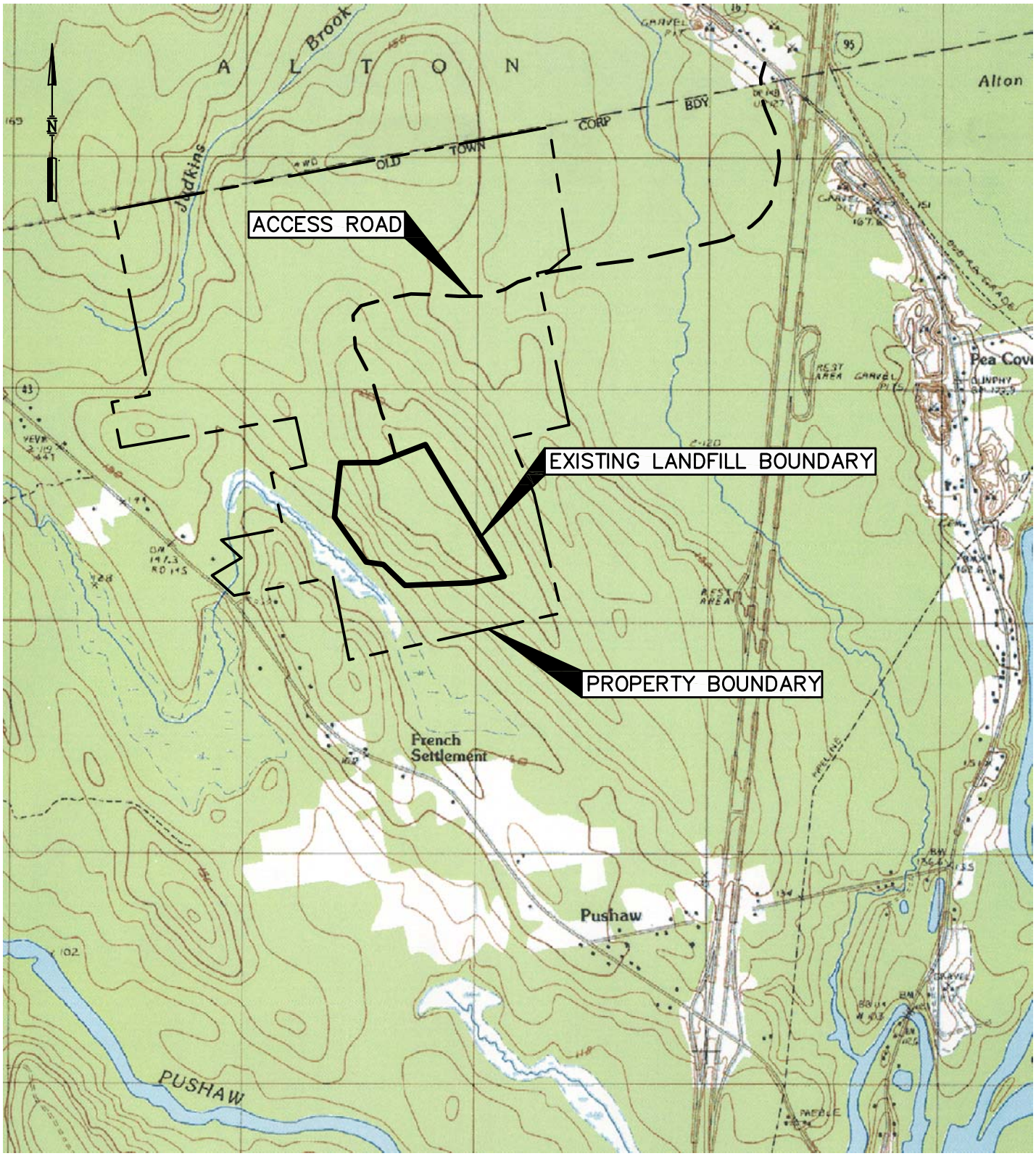
1.0 INTRODUCTION

The Juniper Ridge Landfill (JRL), located in Old Town, Maine, is currently owned by the Maine Bureau of General Services (BGS) and is operated by NEWSME Landfill Operations, LLC (NEWSME). The JRL, formerly known as the West Old Town Landfill, was originally 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 Sevee and Maher Engineers Inc. (SME) entitled: *James River Paper Company Inc., West Old Town Landfill Project, Old Town Maine, Volume III, Site Investigation and Hydrogeologic Evaluation, August 1991*). Figure 1-1 shows the location of the site. Figures 1-2 and 1-3 show the general site layout and monitoring locations.

Water quality has been monitored at the site since 1990 when the site was first selected for the landfill. This report describes the results of the water quality sampling and analyses for 2013 and compares the results to historical water quality at the site and to State and Federal water quality standards. In 2013, changes were made to the Environmental Monitoring Plan (EMP) after discussion with Maine Department of Environmental Protection (MEDEP) about aligning the EMP to current site conditions. The changes included the addition and removal of monitoring locations and parameters of analysis. These changes were implemented beginning with the July sampling round. The 2013 data evaluation includes statistical and graphical evaluations of trends in the data by sample location. Description of the site setting, facility layout, monitoring locations, 2013 site activities, and analytical parameters are also included herein.

1.1 Landfill Conditions

The landfill has been 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 is collected and stored in an on-site storage tank, then transported to the Old Town Fuel & Fiber wastewater treatment facility for treatment. The City of Brewer's treatment facility is available as a back-up leachate disposal location.



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

1000 0 2000 4000 FEET

DWG: SITELOC LMN: FIG 1 CTB: HPSTD REV: 3/26/2014

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

SME
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\\Nserver\cfs\Casella\OldTownLandfill\GeneralSiteInfo\Usgs\SITELOC.dwg, 3/26/2014 8:48:58 AM, sjm

SW-AR3
DISCONTINUED

HYDROGEN SULFIDE
MONITOR LOCATION A
N 482095.70
E 929404.13

HYDROGEN SULFIDE
MONITOR LOCATION B
N 477352.97
E 930685.56

SW-AR1
DISCONTINUED

SW-AR2
DISCONTINUED

PROPERTY
BOUNDARY

NORTHEAST
PROPERTY LINE

MW-304A
MW11-207R
MW-212

MW-206
P-206A

LT-C4LR

LF-UD-8
SW-DP6

SOUTH PROPERTY LINE

SEE FIGURE 1-3

LF-UD-6

MW-302R
SW-DP5
P-04-04
P-04-02

MW-402B
MW-402A
MW-09-901
SW-2

STORMWATER
DETENTION POND #5

SW-DP1

MW-216BR
PWS10-3
LF-UD-5AND6

MW-223A
MW-223B
MW-04-102
MW-227
MW-04-105
MW-04-109R
MW-401B
MW-401A
PWS10-1

WEST PROPERTY LINE B

MW-301
SW-1
DP-4
MW-204
PWS10-2

WEST PROPERTY LINE A

HYDROGEN SULFIDE
MONITOR LOCATION D
N 482955.24
E 921878.25

HYDROGEN SULFIDE
MONITOR LOCATION C
N 478101.11
E 923701.00

SW-3

LEGEND

- GROUNDWATER SAMPLING LOCATION
- SURFACE WATER SAMPLING LOCATION
- GAS MONITORING LOCATION HYDROGEN
- SULFIDE MONITORING LOCATION PORE
- WATER SAMPLE LOCATION
- FALL FIELD PARAMETER
- REMOVED FROM MONITORING PROGRAM IN JULY 2013
- NEW LOCATION

400 0 800 1600 FEET

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

SME
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DWG: EMP LMN: EML CTB: SME-STD REV: 4/8/2014

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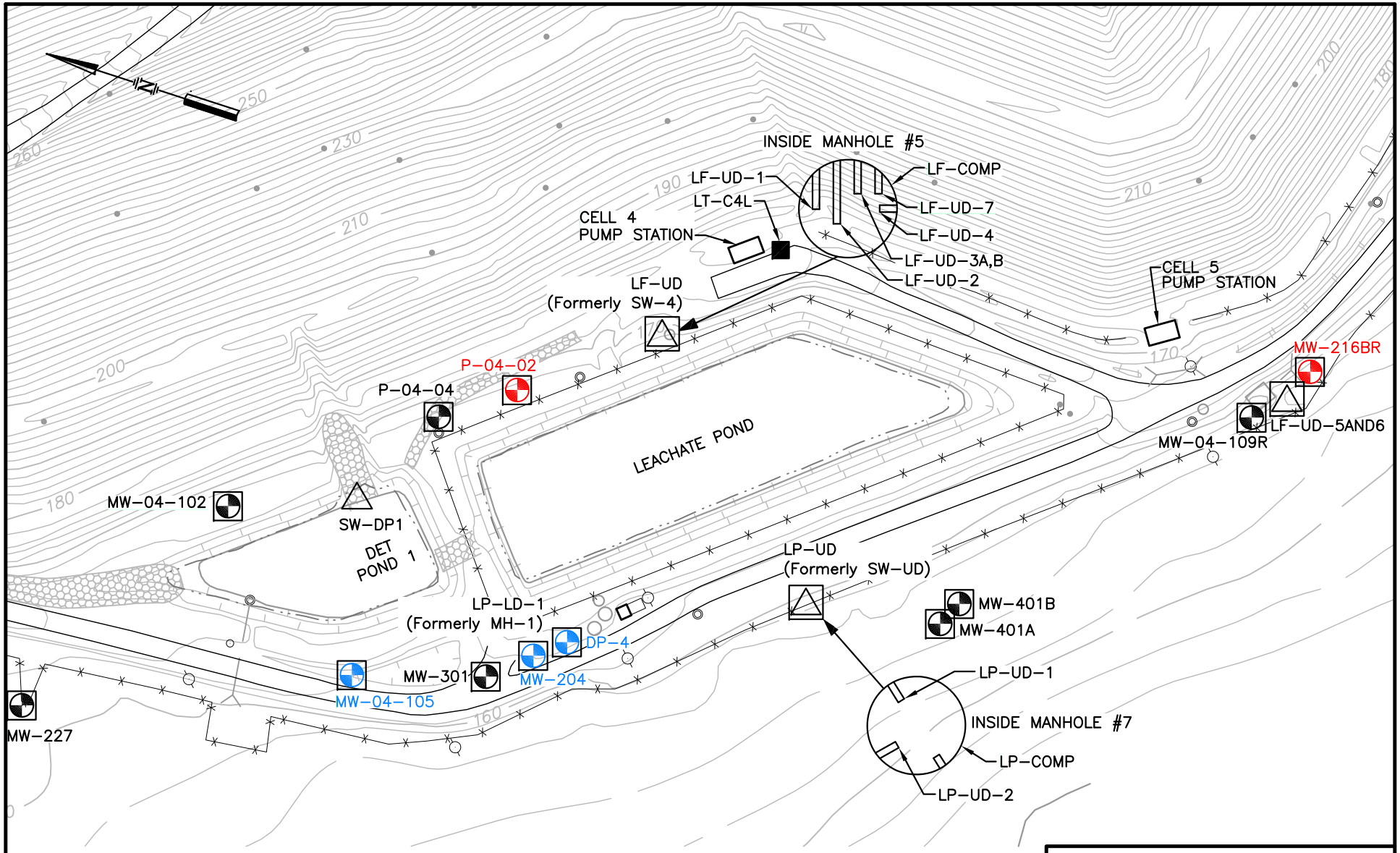

NOTE

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

50 0 100 200 FEET

LEGEND

- GROUNDWATER SAMPLING LOCATION
- SURFACE WATER/UNDERDRAIN SAMPLING LOCATION
- GAS MONITORING LOCATION
- LEACHATE PUMP STATION
- FALL FIELD PARAMETER ONLY
- REMOVED FROM MONITORING PROGRAM IN JULY 2013

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

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The facility was originally permitted for the disposal of pulp and papermaking residuals (primarily wastewater treatment plant sludges) from the Old Town mill (then owned by James River), bottom ash from Lincoln Pulp & Paper, and burn pile ash from the City of Old Town transfer station. In addition to the waste streams historically disposed of at the landfill, the landfill is now permitted to receive non-hazardous waste streams including, but not limited to, construction and demolition debris, municipal solid waste, incinerator ash, sludges, contaminated soils, and other solid waste for which the facility has either blanket or individual permits.

To date, Cells 1, 2, 3A, 3B, 4, 5, 6, 7, and 8 have been constructed; this accounts for approximately 56 acres of the permitted 68-acre facility. The majority of the waste filling in 2013 occurred in Cell 8. As of December 2013, approximately 4,637,000 cubic yards of the site's permitted capacity remains. In 2013, there was no new landfill cell construction; however, intermediate cover was applied to several areas within the active landfill area. The other major site construction activity which occurred in 2013 was associated with the improvements to stormwater runoff collection and treatment along the northwest perimeter of the landfill. The improvements included re-construction of Detention Pond #5 with a liner and phased treatment capabilities, including an initial phase sand filtration unit. The reconstruction and paving of a portion of the northern access road and associated stormwater drainage ditches are intended to optimize the collection and treatment of stormwater runoff along the northwest perimeter of the landfill. In the process of completing this construction, discolored soils were observed both in the sub-base gravel soils under the access road, and in an area between the access road and the northern boundary of Cell 2. These discolored soils appeared to be the remnants of cell access roads and possible waste materials. These materials were removed and disposed of in the landfill. NEWSME also exposed the Cell 2 anchor trench on the northern side of Cell 2 to investigate the potential that leachate had overtopped the Cell 2 dike at the suggestion of the MEDEP. No indication that this had occurred was observed. The reconstruction of Detention Pond #5 and the paving of the access road were completed between August and October of 2013.

1.2 Hydrogeologic Setting

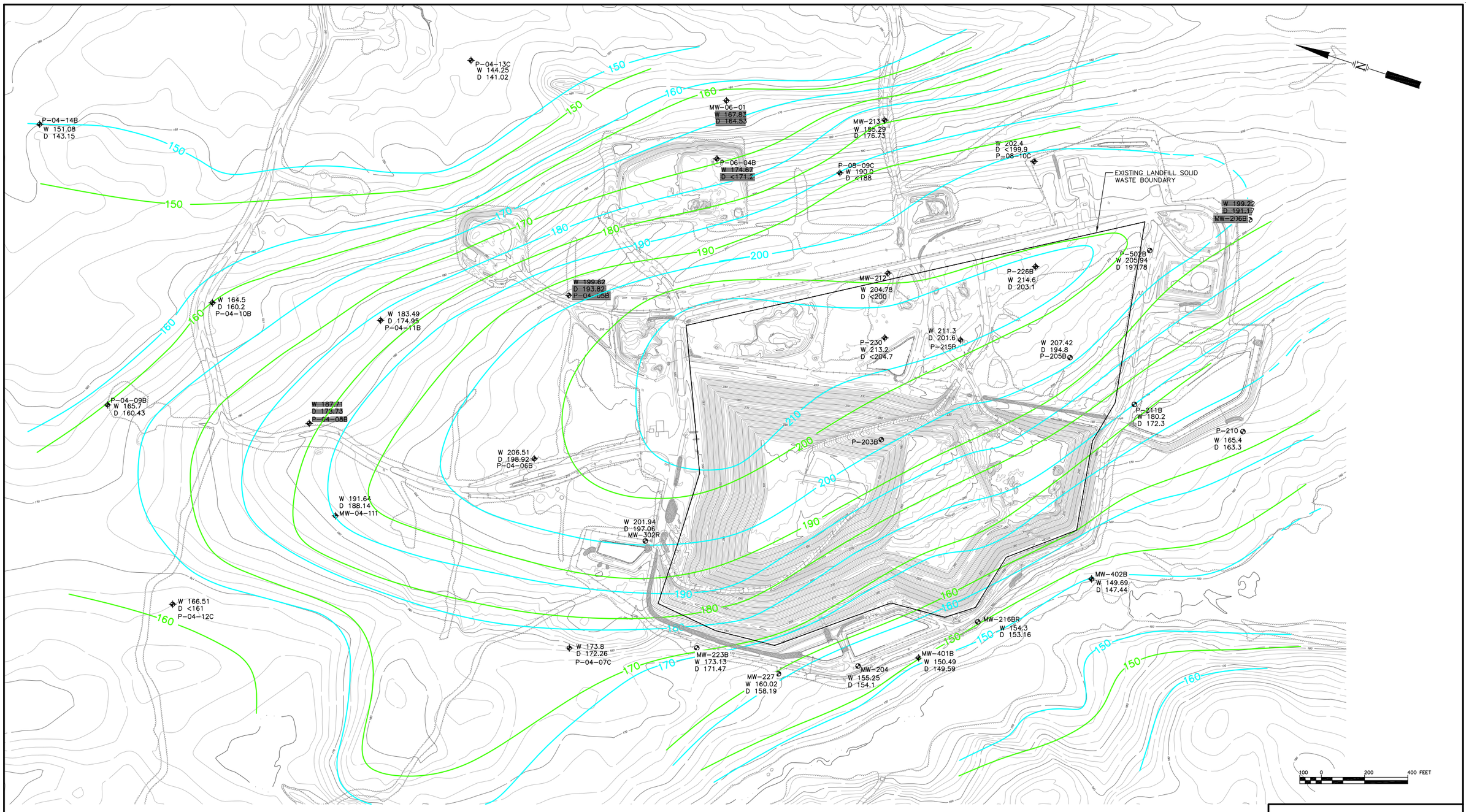
The existing JRL facility is located on the southwestern side of a northwest-southeast trending drumlin. The natural topography in the landfill area slopes downward to the southwest towards a large wetland and an unnamed stream which empties into Pushaw Stream (Class B). Pushaw Stream empties into the 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, and, thus, the stream acts as a hydrologic boundary for groundwater flow from the landfill towards the west. The interpreted shallow groundwater phreatic surface and shallow bedrock groundwater potentiometric surface are shown in Figures 1-4 and 1-5. The 2013 groundwater level data are generally consistent with the data utilized to construct these figures.

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

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

boundary where no soil is present and bedrock is exposed at the ground surface. This is the case on the northwestern corner of the site adjacent to stormwater Detention Pond #5.

Based on measured hydraulic conductivities at the site, horizontal hydraulic conductivities of the till vary between around 10^{-7} to around 10^{-5} cm/sec, resulting in estimated horizontal groundwater seepage rates from about 1 foot/year to about 40 feet/year. Slightly higher hydraulic conductivities were measured in the discontinuous washed till, which result in estimated localized horizontal groundwater seepage velocities ranging from 50 to 200 feet per year in the washed till. Measured hydraulic conductivities of the bedrock range from around 10^{-7} to upper 10^{-3} cm/sec, resulting in estimated horizontal groundwater seepage rates of less than 1 foot per day to 40 feet per day in the bedrock fractures.



NOTES

1.EXISTING GROUND CONTOURS FROM NOVEMBER 12, 2010 AERIAL SURVEY PERFORMED BY AERIAL SURVEY AND PHOTO, INC. OF NORRIDGEWOCK, MAINE.

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.GROUND WATER CONTOURS BASED ON WATER LEVEL MEASUREMENTS RECORDED DURING 2007, AND FROM HISTORICAL DATA FOR SOME LOCATIONS BEYOND THE EXPANSION FOOTPRINT.

DWG: FIGURES LMN: PHREATIC–2007 CTB: PHREATIC REV: 4/9/2012

LEGEND

150 — INTERPRETED WET–SEASON POTENTIOMETRIC SURFACE, (2007) IN BEDROCK (ELEVATION IN FEET NGVD).

150 — INTERPRETED DRY–SEASON POTENTIOMETRIC SURFACE, (2007), IN BEDROCK (ELEVATION IN FEET NGVD).

MW-227 W 160.02 D 158.19 — WELL/PIEZOMETER LOCATION WITH ELEVATION OF GROUNDWATER FOR WET (W) AND DRY (D) SEASON.

FIGURE 1–4
INTERPRETED PHREATIC SURFACE
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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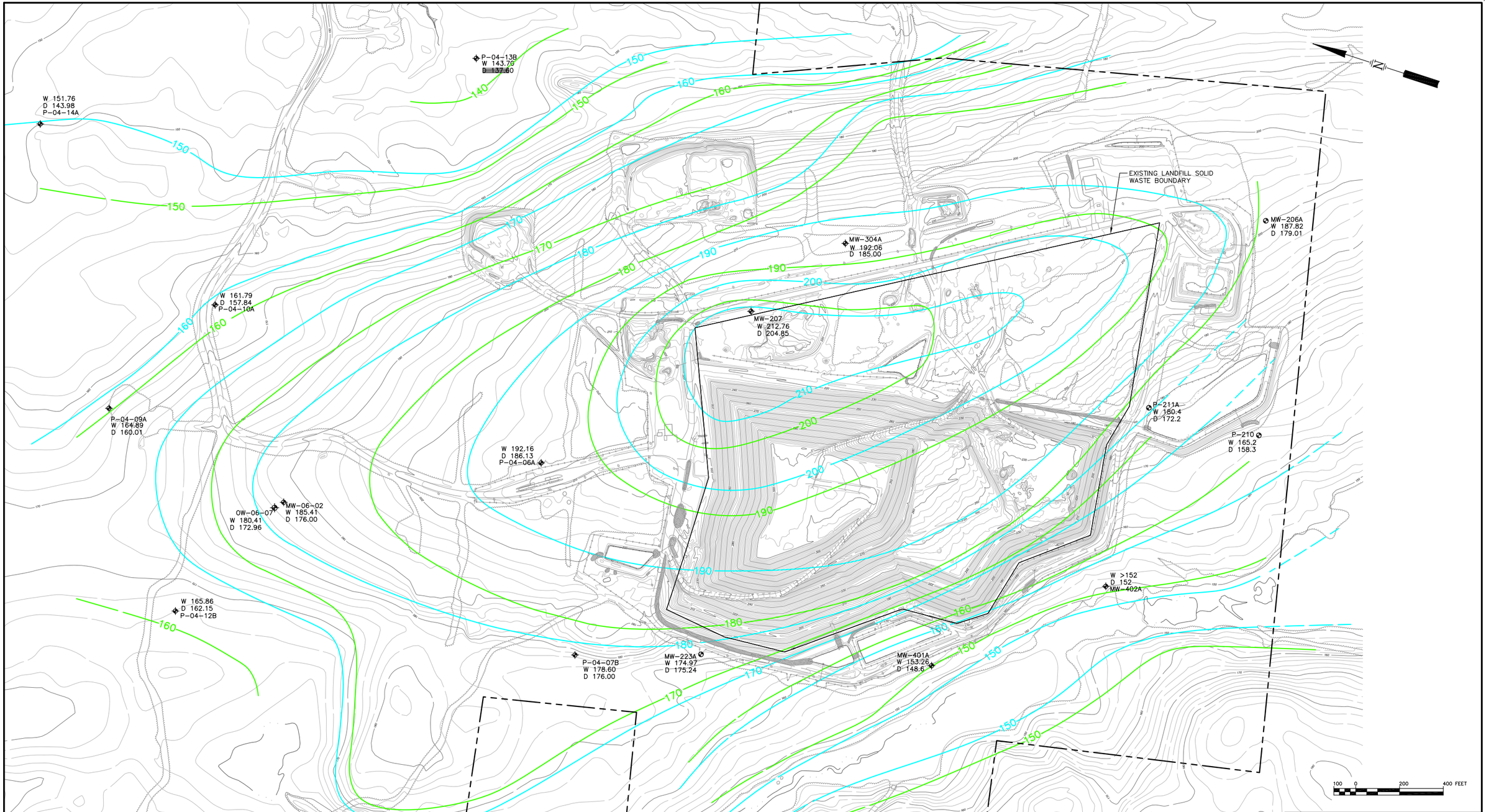

NOTES

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3.LOCATIONS OF EXPLORATIONS ARE APPROXIMATE.

4.GROUND WATER CONTOURS BASED ON WATER LEVEL MEASUREMENTS RECORDED DURING 2007, AND FROM HISTORICAL DATA FOR SOME LOCATIONS BEYOND THE EXPANSION FOOTPRINT.

LEGEND

150 — INTERPRETED WET–SEASON POTENTIOMETRIC SURFACE, (2007) IN BEDROCK (ELEVATION IN FEET NGVD).

–150– INTERPRETED DRY–SEASON POTENTIOMETRIC SURFACE, (2007), IN BEDROCK (ELEVATION IN FEET NGVD).

MW–223A
W 174.97
D 173.04

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

FIGURE 1–5
INTERPRETED POTENTIOMETRIC SURFACE IN BEDROCK
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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DWG: FIGURES LMN: POTENTIO–BEDROCK CTB: PHREATIC REV: 4/9/2012

\\Nserver\cfs\Casella\OldTownLandfillExpansion\Acad\2009-Design\Figures\FIGURES.dwg, 4/9/2012 9:53:24 AM, paf

2.0 MONITORING LOCATIONS

2.1 2013 Monitoring Locations

In 2013, water quality samples were collected by SME from 22 groundwater monitoring wells, three pore-water sample locations, six surface water locations, seven[1] underdrain locations, one leak detection location, and two[2] leachate monitoring locations. These monitoring points are summarized in Table 2-1 and Table 2-2 and their locations are shown in Figures 1-2 and 1-3. Information on the geologic formation in which each monitoring well is screened, as well as the elevation and distance below ground of each screened interval, is listed in Table 2-1. Groundwater, surface water, leachate, leak detection, and underdrain samples from the landfill site were collected in April, July, and October 2013. Measurement of field parameters (e.g., temperature and specific conductance) at the underdrain locations were completed on a monthly basis by NEWSME personnel. During 2013 there were several changes to the locations included in the groundwater monitoring program. The changes to the monitoring locations are discussed in the following sections.

2.2 Groundwater Locations

Monitoring wells MW-206, P-206A, MW11-207R, MW-212, MW-303R, and MW-304A are positioned upgradient of the landfill. Monitoring location P-206A was added to the monitoring program beginning in July 2013 as a new upgradient bedrock groundwater monitoring location. P-206A is located southeast of the landfill directly beside MW-206 in an area outside of the active site landfill area. Monitoring well MW-212 was removed from the monitoring program beginning during the July 2013 sampling event.

Monitoring locations MW-204, MW-216BR, MW-223A, MW-223B, MW-227, MW-301, MW-401A, MW-401B, MW-402A, MW-402B, and MW09-901 are positioned downgradient of the

[1] Three additional locations were not sampled due to dry conditions, including LF-UD-3A,B, LF-UD-7, and LP-UD-1. No composite samples were required to be taken at Manhole #5 and Manhole #7.
[2] Leachate samples were collected from two locations during 2013 due to a sampling location change following the April 2013 sampling round.

landfill. Monitoring well MW-216BR was removed from the monitoring program beginning during the October 2013 sampling event. Monitoring well MW-204 was removed from the monitoring program beginning with the July sampling event; however, MW-204 will continue to be sampled for field parameters during fall sampling events.

TABLE 2-1

2013 GROUNDWATER MONITORING LOCATIONS

Monitoring Well	Position Relative to Landfill	Screen Depth Interval (feet-BGS)	Ground Surface Elevation (ft-MSL)	Screen Interval Elevation (ft-MSL)	Geologic Formation Screened
MW-204 [1]	Downgradient	13.8 – 18.8	164.0	150.2 – 145.2	Till
MW-206	Upgradient	15.0 – 20.0	200.9	185.9 – 180.9	Till
P-206A [2]	Upgradient	85.5 – 90.5	201.5	111.0 – 116.0	Bedrock
MW11-207R	Upgradient	39.5 – 44.5	212.5	173.0 – 168.0	Bedrock
MW-212 [3]	Upgradient	12.0 – 17.0	217.0	205.0 – 200.0	Till
MW-223A	Downgradient	28.0 – 33.0	173.4	145.4 – 140.4	Bedrock
MW-223B	Downgradient	12.6 – 17.6	173.3	160.7 – 155.7	Till
MW-227	Downgradient	15.0 – 20.0	160.8	145.8 – 140.8	Till
MW-301	Downgradient	162.7 – 182.7	163.5	0.8 – -19.2	Bedrock
MW-302R	Side-gradient	19.5 – 29.5	204.5	185.0 – 175.0	Bedrock
MW12-303R	Upgradient	30.4 – 40.4	206.1	175.7 – 165.7	Till
MW-304A	Upgradient	29.5 – 39.5	214.7	185.2 – 175.2	Bedrock
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 [4]	Downgradient (In proximity of leachate pond)	18.5 – 24.5	165.5	147.0 – 141.0	Till
P-04-02 [5]	Downgradient (In proximity of leachate pond)	(32.11 – 37.11)	166.1	136.6 – 131.6	Till
P-04-04	Downgradient (In proximity of leachate pond)	(27.21 – 32.21)	166.7	142.1 – 137.1	Till
MW04-102	Downgradient (In proximity of leachate pond)	10.0 – 15.0	167.0	157.0 – 152.0	Till
MW04-105 [6]	Downgradient (In proximity of leachate pond)	14.8 – 19.8	162.2	147.4 – 142.4	Till
MW04-109R	Downgradient (In proximity of leachate pond)	15.0 – 20.0	157.1	142.1 – 137.1	Till
MW-216BR [7]	Downgradient	14.6 – 19.6	156.2	141.6 – 136.6	Till
MW09-901	Downgradient	15.0 – 20.0	161.9	146.9 – 141.9	Till

Notes
1. MW-204 was removed from the detection monitoring analytical program after April 2013; it is now sampled only during the fall sampling events for field parameters only.
2. P-206A was added to the detection monitoring analytical program, beginning in April 2013.
3. MW-212 was removed from the detection monitoring analytical program after April 2013.
4. DP-4 was removed from the detection monitoring analytical program after July 2013; it is now sampled only during the fall sampling events for field parameters only.
5. P-04-02 was found damaged beyond repair during the April 2013 and was removed from the detection monitoring analytical program in July so the well was not repaired.
6. MW04-105 was removed from the detection monitoring analytical program after July 2013; it is now sampled only during the fall sampling events for field parameters only.
7. MW-216BR was removed from the detection monitoring analytical program after July 2013.

TABLE 2-2

2013 SURFACE WATER, LEACHATE, UNDERDRAIN, AND LEAK DETECTION MONITORING LOCATIONS

Location Designation	Water Body Description
SW-1	Unnamed tributary of Pushaw Stream
SW-2	Unnamed tributary of Pushaw Stream
SW-3	Unnamed tributary of Pushaw Stream
SW-DP1	Storm Water Detention Pond #1
SW-DP5	Storm Water Detention Pond #5
SW-DP6	Storm Water 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
LP-LD-1	Leachate pond leak detection at MH #1
LP-UD-1	Leachate pond underdrain south end at MH #7
LP-UD-2	Leachate pond underdrain north end at MH #7
LF-COMP	Composite sample of LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, and LF-UD-7 when water level in manhole covers the inlet pipes at MH #5
LP-COMP	Composite sample of LP-UD-1 and LP-UD-2 when water level in manhole covers both of the inlet pipes at MH #7
LT-C4L	Leachate – Cell 4 pump station

Monitoring wells P-04-04, MW04-102, MW04-105, MW04-109R, and DP-4 are located in the proximity of the leachate pond and are also downgradient of the landfill. Monitoring locations DP-4 and MW04-105 were removed from the monitoring program beginning with the July 2013 sampling event; however, these monitoring locations will continue to be sampled for field parameters during fall sampling events. P-04-02 was removed from the monitoring program in July 2013 due to adequate coverage in this area by continued monitoring of proximate monitoring wells MW04-102 and P-04-04. It was also not sampled in April of 2013 because of damage to the well casing that occurred prior to the April 2013 sampling event.

Monitoring well MW-302R is considered to be side-gradient to the landfill directly adjacent to and above stormwater Detention Pond #5.

2.3 Surface Water Locations

Surface water samples were collected at nine locations in 2013. SW-1, SW-2, and SW-3 are collected at the unnamed tributary to Pushaw Stream. SW-1 and SW-3 are located downstream of the landfill while SW-2 is located upstream of the landfill. SW-DP1, SW-DP5, and SW-DP6 are collected at storm water Detention Pond #1, storm water Detention Pond #5, and storm water Detention Pond #6, respectively. Detention Pond #5, SW-DP5, was added as a monitoring location to the monitoring program during the April 2013 sampling event due to recent historical water quality changes at MW-302R, and that well's proximity and apparent hydraulic connection to storm water from SW-DP5. Stream-based pore-water sample locations PWS10-1, PWS10-2, and PWS10-3 were added to the monitoring program in April 2010. The pore-water sample locations are located downgradient of the landfill along the unnamed tributary to Pushaw Stream and represent water in the sediments at the base of the stream.

2.4 Leachate Sample Locations

During the April 2013 sampling event, leachate samples were collected from the Cell 4 leachate pump station designated as LT-C4L. The location of LT-C4L is shown on Figure 1-3. All leachate generated from Cells 1, 2, 3A, 3B, 4, and 7 flows to the Cell 4 pump station where it is pumped to the site's above ground leachate storage tank.

Leachate generated in Cell 5 and Cell 6 flows to the Cell 5 pump station where it is pumped directly to the site's above ground leachate storage tank. Leachate from Cell 8 flows to the newly constructed Cell 8 pump station where it is pumped to the site's above ground leachate storage tank. In order to provide a representative sample of the leachate from the entire site, the leachate sampling location was moved to the on-site leachate storage tank (i.e., LT-C4LR) beginning during the July 2013 sampling event. Leachate samples associated with compliance monitoring for off-site wastewater treatment are also collected at the leachate storage tank when transport tanker trucks are being loaded. The location of the leachate storage tank sampling location, LT-C4LR, is shown on Figure 1-3.

2.5 Leachate Pond Leak Detection Monitoring

The leachate pond's leak detection manhole (MH #1) is located outside the northwest corner of the leachate pond. This location is called LP-LD-1 and monitors the leak detection layer of the leachate pond. As previously discussed, use of the leachate pond to store leachate was discontinued with the construction of Cell 4 in 2008. The pond is currently used as a stormwater detention pond for the collection of clean surface water runoff from covered areas of the landfill. Beginning in 2010, monitoring of the leachate pond's leak detection system was reduced to the collection of only field parameters during the tri-annual monitoring of the site until the pond is again used to store leachate. As there are currently no plans to reestablish use of the leachate pond for leachate storage, LP-LD-1 was discontinued as a monitoring location following the July 2013 sampling event.

2.6 Underdrain Monitoring

The sample locations where underdrain samples were collected in 2013 are shown on Figures 1-2 and 1-3. The landfill underdrain system supplements as a cell leak detection system. Manhole MH #5, located northeast of the leachate pond, is the sample location which receives groundwater entering the underdrains beneath Cells 1, 2, 3A, 3B, 4, and 7. The underdrain for Cell 6 is sampled from a stilling well in the underdrain line. Flow from the Cell 6 underdrain is then connected to the Cell 5 underdrain line. The combined flow from the Cell 5 and Cell 6 underdrains then drains to a 6-inch diameter pipe outfall located on the southern perimeter of the landfill. Beginning in June 2010, samples collected 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 collected from this 6-inch diameter outfall pipe were for the Cell 5 underdrain only (LF-UD-5). A separate sample is collected from the Cell 6 underdrain (UD-6). This sample is collected from a small stilling well which is built into the underdrain line.

The underdrain for Cell 8 was constructed in 2012 at a discrete location shown on Figure 1-2. LF-UD-8 was added to the monitoring program during the April 2013 sampling event as the underdrain monitoring location for Cell 8.

Underdrain samples were collected tri-annually for laboratory analysis and monthly for field parameters at sample locations LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, LF-UD-5 and 6, LF-UD-6, LF-UD-7, and LF-UD-8 during 2013, unless those locations were dry or their sample pipe inverts were submerged.

Manhole location MH #7, which is located southwest of the 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 leachate pond. LP-UD-1 and LP-UD-2 were monitored by SME tri-annually for laboratory parameters and monthly for field parameters by NEWSME in 2013.

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 collected from the manhole MH #5. This sample provides a composite sample of the aforementioned underdrain locations. This condition did not occur during the tri-annual monitoring events during 2013; however, LF-COMP samples were collected and analyzed for field parameters during ten months of the year during 2013.

LP-COMP samples were not collected during the tri-annual monitoring events in 2013 because the conditions did not exist where LP-UD-1 and LP-UD-2 were not able to be sampled separately due to pipe invert submergence.

2.7 Annual Monitoring Well Specific Conductance Measurements

Specific conductance measurements were taken from an expanded select list of monitoring wells surrounding the existing landfill operations at JRL during the fall sample round of 2013. This sampling has occurred since 2008 when MEDEP made a request that these samples be collected. Locations measured annually for specific conductance are shown on Figure 2-1 and listed in Table 2-3 below. A summary report table for the annual specific conductance data collected at the site to date is contained in Appendix F.

TABLE 2-3

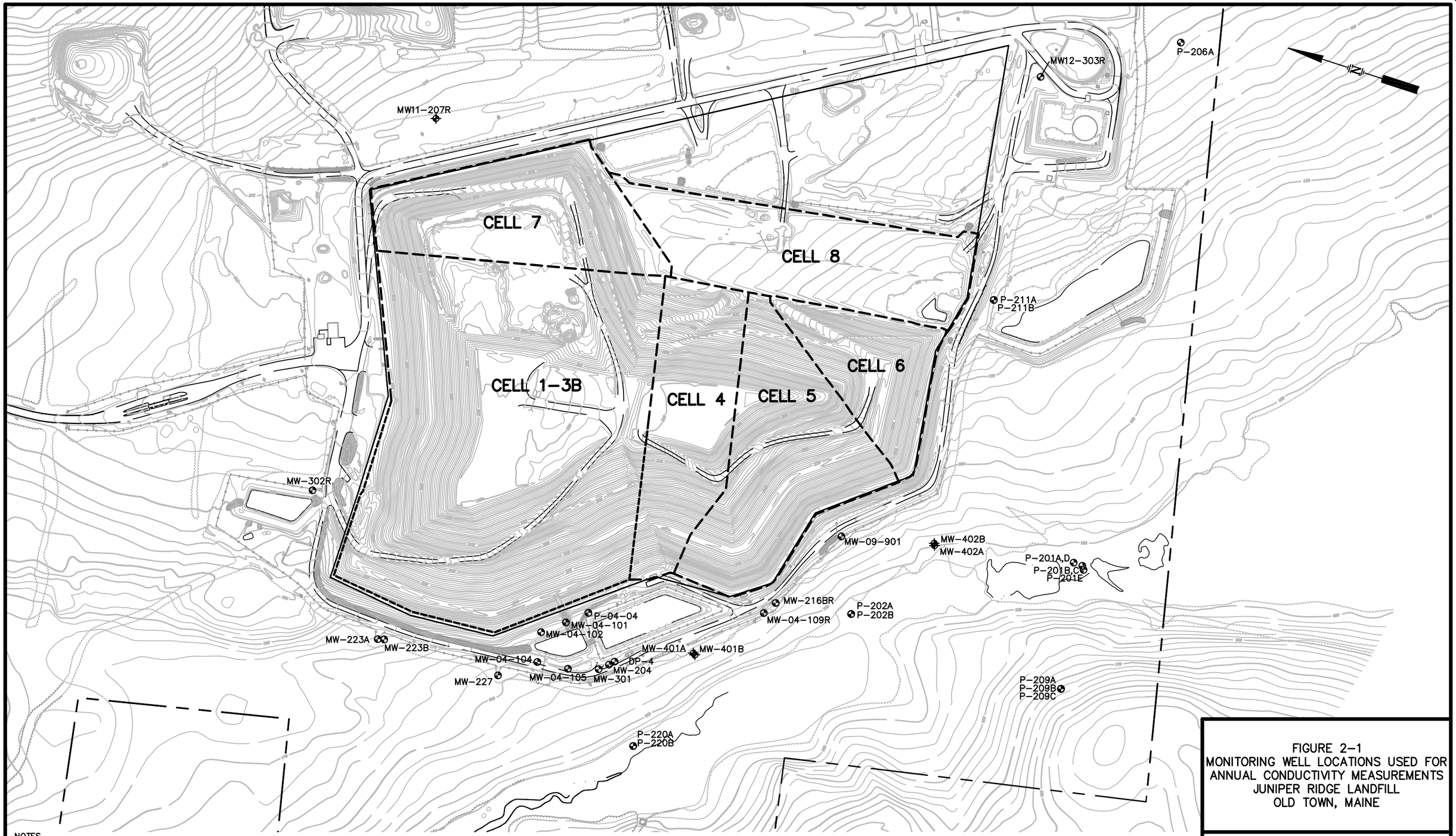
2013 MONITORING WELL AND PIEZOMETER LOCATIONS USED FOR ANNUAL SPECIFIC CONDUCTANCE MEASUREMENTS

DP-4	MW-402B
MW04-101	MW11-207R
MW04-102	P-206A
MW04-104	P-04-04
MW04-105	P-201A
MW04-109R	P-201B
MW-204	P-201C
MW09-901	P-201D
MW-216BR	P-201E
MW-223A	P-202A
MW-223B	P-202B
MW-227	P-209A
MW-301	P-209B
MW-302R	P-209C
MW12-303R	P-211A
MW-401A	P-211B
MW-401B	P-220A
MW-402A	P-220B

Notes:

Monitoring locations MW04-110, P-214A, P-214B, P-214C, MW-212, and P-04-02 are included in the EMP (April 2010) for annual specific conductance measurements, but have since been decommissioned.

P-206A was added for annual specific conductance measurements during 2013.



NOTES

1. EXISTING GROUND CONTOURS FROM NOVEMBER 6, 2012 AERIAL SURVEY PERFORMED BY AERIAL SURVEY AND PHOTO, INC. OF NORRIDGEWOCK, MAINE.
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.

DWG: FIGURES LMN: FIG3-3 CONDUCTIVITY CTB: CONDUCTIVITY REV: 4/8/2014

FIGURE 2-1
MONITORING WELL LOCATIONS USED FOR ANNUAL CONDUCTIVITY MEASUREMENTS
JUNIPER RIDGE LANDFILL
OLD TOWN, MAINE

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2.8 Landfill Gas Monitoring Program

Concurrent with the site tri-annual water quality monitoring events, site monitoring wells, underdrain locations, leachate manholes, leak detection manhole, and JRL site property boundaries were monitored for the presence of landfill-related gases during 2013 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.

3.0 MONITORING PARAMETERS

Detection monitoring was performed in 2013 at the locations shown in Tables 2-1 and 2-2. The majority of the locations listed in Tables 2-1 and 2-2 were analyzed for the detection monitoring parameters listed in Table 3-1 in April, July, and October 2013. As requested by the MEDEP, analysis for volatile organic compounds (VOCs) was included during the April 2013 monitoring event for multiple locations (LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, LF-UD-5 and 6, LF-UD-6, LF-UD-7, LF-UD-8, LP-UD-1, LP-UD-2, DP-4, MW-204, and MW-401B), provided that there was sufficient water available for sampling. The leachate sample from LT-C4L was analyzed for VOCs in April 2013, and the leachate samples from LT-C4LR were analyzed for VOCs during the July 2013 and October 2013 monitoring events. The leachate location (LT-C4L) was also analyzed for the parameters listed in Appendix A, Column 3 of the Chapter 405 MEDEP Solid Waste Regulations during the April 2013 sample event. These parameters will be analyzed annually for the leachate sample collected at LT-C4LR beginning in April 2014.

During 2013 there were three monitoring parameter changes in the monitoring program as agreed upon with MEDEP. Beginning during the July 2013 sampling event, ammonia and chloride were removed from the detection monitoring analytical program for all locations except for leachate. Beginning during the April 2013 sampling event, bromide was added to the detection monitoring analytical program.

One supplementary addition to the 2013 monitoring program included sampling and analyses for dissolved methane at MW12-303R, MW-223A, MW-223B, MW-302R, and MW-304A in July 2013 and at MW-223B in October 2013. The results of the supplementary dissolved methane monitoring are discussed in Section 6.0.

TABLE 3-1

2013 DETECTION MONITORING ANALYTICAL PROGRAM

Water Quality Parameter	Method	PQL[1] (mg/l)
Total Dissolved Solids	SM 2540C	10
Total Suspended Solids	SM 2540D	4
Tannins/Lignins	SM 5550B	0.20
Ammonia (NH_3-N) [9]	SM 4500 NH3 E/4500NH3 B	0.5
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)	SW9056	0.1
Sulfate (SO_4)	SW846/9056	2.0
Nitrate (NO_3-N)	SW846/9056	0.3
Bicarbonate (HCO_3-$CaCO_3$)	SM 2320B	1.5
Volatile Organic Compounds (VOCs)[3,7]	U.S.EPA 8260B	0.0005 – 0.01
Chemical Oxygen Demand (COD)	Hach 8000	10
Sulfide[8]	SW846/9030B	0.10
Total Kjeldahl Nitrogen (TKN)[4]	SM 4500 NORC	0.30
Total Phosphorous[5]	U.S.EPA 365.3	0.04
Biochemical Oxygen Demand (BOD)[6]	SM 5210B	2
Cadmium (Cd)	SW846/6010B/3010A	0.0006
Copper (Cu) [9]	SW846/6010B/3010A	0.003
Nickel (Ni)	SW846/6010B/3010A	0.005
Field Parameters Groundwater Elevation	Field Measurement	NA
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
Monitoring Well Pumping Rate	Field Measurement	NA
Surface Water Flow Rate	Field Measurement	NA
Field Observations	Visual Observations	NA
Total Alkalinity (as $CaCO_3$)	Field Measurement	5

Notes:

1. At dilution factor of unity
2. NA = Not Applicable.
3. VOCs are the 47 organic constituents listed in Appendix I of 40 CFR Part 258. PQLs for VOCs are reported at a dilution factor of unity.
4. Monitoring wells and leachate only.
5. Surface waters and underdrain only.
6. Surface waters only (excluding stormwater detention ponds and underdrains).
7. In April 2013, LF-UD-1, LF-UD-2, LF-UD-3A,B, LF-UD-4, LF-UD-5 and 6, LF-UD-6, LF-UD-7, LF-UD-8, LP-UD-1, LP-UD-2, DP-4, MW-204, P-04-02, and MW-401B were analyzed for VOC compounds. Leachate location LT-C4L was analyzed for VOC compounds in the spring sample event and its replacement LTC4LR sampled during the summer and fall monitoring events in 2013.
8. In April 2013, leachate was analyzed for Appendix A, Column 3 parameters (from Chapter 405 MEDEP Solid Waste Regulations), including sulfide.

Water Quality Parameter	Method	PQL[1] (mg/l)
9. Ammonia and copper are only analyzed for leachate samples (beginning during 2013).		

4.0 SAMPLING TECHNIQUES

4.1 Monitoring Wells

Groundwater samples were obtained from the monitoring wells utilizing the low-flow sample collection techniques in general accordance with the EMP for the landfill. The low-flow sampling program includes dedication of a small-diameter (1/8-inch 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 deep well 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 well at approximately 100 to 200 ml/min. 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 collected for chemical analysis. Several of the wells have very low recharge rates and, therefore, do not stabilize even under 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 Underdrain, Leak Detection, and Sampling Leachate Locations

Grab samples are collected at the surface water, underdrain, leak detection, 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 Gas Monitoring

Gas monitoring at the monitoring wells and underdrain locations was done using a GEM 2000 gas meter manufactured by Landtec of Colton, California with an auxiliary H_2S pod. Measurement of headspace gas in the monitoring wells is measured 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 locations are measured by placing the probe at the manhole opening where underdrain samples are collected. The meter is calibrated daily before use. Methane, carbon dioxide, and oxygen are reported as percent by volume. Hydrogen sulfide is reported in parts per million by volume.

4.4 Sample Handling and Chain-of-Custody

After collecting the water quality samples, the samples were preserved on ice in coolers and shipped by SME to Maine Environmental Laboratory of Yarmouth, Maine for analyses. Katahdin Analytical Services of Scarborough, Maine performed the semi-volatile organic compounds (SVOCS), pesticides, herbicides, and polychlorinated biphenyls (PCBs) analyses for the spring (April) 2013 sampling event. 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 CONTROL (QC)/QUALITY ASSURANCE (QA)

QA/QC activities associated with sampling include the utilization of standardized collection procedures and sample data records, calibration of field instruments, and the use of chain-of-custody procedures. SME followed the EMP procedures to ensure that both the field instruments and protocols employed generate data that is reliable and provided 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 2013 sampling rounds, 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 TDS to specific conductance, and values falling outside of historic ranges for each sampling round were presented in each of the three data transmittals provided in 2013.

6.0 WATER QUALITY EVALUATION

Groundwater, surface water, leachate, leak detection, and underdrain water quality samples were collected at monitoring locations as described in Section 2.0 of this report. Samples were collected during April, July, and October 2013. Laboratory analytical reports, field data sheets, and data validation documentation have been presented in tri-annual data submittals forwarded to MEDEP during 2013 for each sampling round.

Noteworthy observations in the data for 2013 have been identified and are reported below for groundwater monitoring locations (Section 6.1), surface water monitoring locations (Section 6.2), leachate monitoring (Section 6.3), leak detection monitoring (Section 6.4), and underdrain monitoring (Section 6.5). Appendix A contains tables of historic water quality data collected over the past ten years, including 2013, for the sampling locations and parameters identified in this report. Water quality data not specifically referenced in this report are considered to be generally consistent with the previously collected water quality data for the JRL and are not changing significantly over time.

Bromide was added to the monitoring program during 2013, beginning with the April 2013 monitoring event. Bromide concentrations were low site-wide during 2013, ranging from non-detect to low concentrations (i.e., up to 0.42 mg/L at MW12-303R) near to the laboratory detection limit of 0.1 mg/L. The bromide monitoring results for 2013 are included in the historic water quality data tables in Appendix A.

The methods used for analyzing the water quality data in 2013 are summarized below.

Box and Whisker Plots and Data Summary Sheets. 2013 water quality data for each monitoring location are summarized in the data summary sheets contained in Appendix B of this document. The summary sheet prepared for each sampling location contains a map and description of the monitoring point, a 2013 water quality data summary, and a statistical summary of the historic data prior to 2013. Parameter concentrations that exceeded historical minimum and maximum concentration values in 2013 at site monitoring locations are identified on the individual water quality summary sheets contained in Appendix B.

Also included in Appendix B are box and whisker plots of select monitoring parameters 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 long-term trends occur in the data, the trends are typically visually detectable on the plots. Plotting the range of annual values on the box and whisker plots also provides a sense of the variability of the annual data (statistically expressed as a standard deviation) and whether or not an apparent trend may be real or lies within the inherent variability of the data. Visual observation of water quality trends over time using the historical data (including 2013 data) is aided by using a fast-Fourier transform regression of each of the select parameter annual mean concentration values. A graph of the fast-Fourier regression accompanies the box and whisker plots in Appendix B.

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 2013 back five years and three years. The three-year and five-year timeframes are suitable for evaluating landfill performance and changes in water quality related to recent site operations and identify ongoing 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 is less than 0.05. The Mann-Kendall results for groundwater, surface water, leachate, leak detection, and underdrain locations are included in Appendix C and are discussed by location in Sections 6.1 through 6.5. It should be noted that trend analyses using analytical data that is typically non-detect are at times positive for increasing or decreasing trend screenings due to changes in the laboratory detection limit reported. In those cases, trends are interpreted and reported as no trends; these instances are identified in Appendix C. This occurrence is frequent

for JRL site water quality due to the generally low parameter concentrations in groundwater at the site. Examples of parameters for which this occurs frequently include (but are not limited to) cadmium and nitrate, which are typically non-detect at most groundwater monitoring locations, but had increased reporting limits in 2013.

The trend analysis is used as one of the screening tools to review the water quality and must be viewed in conjunction with other factors such as the specific parameter exhibiting the trend and the parameter concentration detected at the monitoring locations (i.e., a specific parameter could have an increasing trend, but remain within a range consistent with upgradient concentrations). The results of the trend screening analyses are compared visually with the time-series plots (box and whisker plots) described above to aid in assessing the actual significance of statistical trend.

Although rapid increases in concentrations of multiple parameters at a monitoring location may reflect site operational impact such as spillage of leachate or a landfill liner failure, changes in one or only a few parameters at a given monitoring location are also potentially the result of changes in groundwater conditions unrelated to the landfill leachate (e.g., decreases in natural precipitation recharge to the groundwater will change redox, alkalinity, and pH conditions, which allows the release of various constituents such as iron, manganese, and arsenic from soils and bedrock into the groundwater). Generally, at a given monitoring well, an increase in landfill leachate contribution should result in increased chloride concentrations due to its presence at high concentrations in the JRL leachate (i.e., between 5,970 mg/L to 24,300 mg/L at LT-C4LR in 2013) and the conservative nature of chloride in terms of adsorption, precipitation, and degradation. Therefore, sudden increases in chloride concentration, in conjunction with changes in other parameter concentrations, can be a reliable indicator of landfill impacts resulting from the presence of JRL leachate assuming that no other natural or anthropogenic sources of chloride are present. 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, any increase in chloride levels needs to reviewed in terms of site conditions. Specific conductance is also a useful parameter for assessing water quality across the site as it gives an indication of the total dissolved constituents at each monitoring location. Nearly all other chemical constituents are subject to changes in concentrations resulting from interactions between soil,

rock, and groundwater in addition to the presence of leachate. Increases in multiple (4 or more) parameters, especially when including chloride, are believed to be the most reliable indicator of *potential* landfill leachate impacts that require further investigation. At locations where this criterion is met, further analysis of water quality data is completed to ascertain the potential causes for the change in water quality.

Concentrations above MCL, MEG, MFCCC. Parameters measured at the site groundwater monitoring wells and pore-water sample locations that were above their U.S.EPA Maximum Contamination Levels (MCLs) or Maine Maximum Exposure Guidelines (MEGs) during 2013 are identified in detail in Sections 6.1 and 6.2. Only one parameter (i.e., arsenic) of the parameters analyzed at groundwater monitoring locations, was detected above an MCL in 2013. This was consistent with water quality results for 2012. Arsenic concentrations were detected above their MCL at 14 locations during one or more monitoring event in 2013; there were eight locations with arsenic MCL exceedances in 2012. Although arsenic concentrations were above the arsenic MCL at multiple locations, the arsenic exceedances at the site are generally consistent with historical arsenic exceedances at the site and include exceedances at multiple upgradient monitoring locations. Arsenic concentrations were reported as high as 0.027 mg/L in 2013 (MW-402B in October 2013). In the past, several potential reasons for the arsenic concentrations detected at the site have been identified including the arsenic concentrations occurring naturally in Maine, and the presence of general site wide reducing conditions in the groundwater associated with decreasing groundwater recharge from site development. The conditions that result in arsenic detected on-site in 2013 are consistent with these previously identified reasons and the 2013 results are not interpreted as impact from the landfill leachate.

Four parameters (i.e., arsenic, manganese, sodium, and iron) were detected at concentrations above an MEG in 2013. Manganese and iron were above their MEGs at only two locations, and sodium was above its MEG at only one location. Both iron MEG exceedances and one of the manganese exceedances were in pore-water samples collected in shallow saturated soils along the edge of the unnamed tributary to Pushaw Stream. These results are not interpreted as being landfill related given the relative location of this sampling point. The sample results did

not detect concentrations of nitrate, cadmium, copper, nickel, ammonia, or VOCs[3] above their respective MCL or MEG at the groundwater monitoring locations sampled in 2013.[4]

Parameters measured at the site surface water monitoring locations that were above their Maine Freshwater Criterion Continuous Concentrations (MFCCCs) are identified in detail in Section 6.2. In summary, the MFCCC for iron was exceeded at multiple surface water monitoring locations in 2013. There were no MFCCC exceedances for chloride, arsenic, nickel, cadmium, copper, or ammonia at any of the surface water monitoring locations in 2013.

6.1 Groundwater Quality

6.1.1 Bedrock Groundwater. Groundwater quality in the bedrock is measured at eight monitoring wells. Bedrock groundwater upgradient of the site is monitored at MW-304A, P-206A, and MW11-207R. The upgradient bedrock groundwater monitoring wells are currently located in areas that have not been disturbed by landfill development, and are presently considered to be unaffected by both landfill leachate and landfill operations. P-206A was added as a new monitoring location during the July 2013 monitoring event. Bedrock groundwater downgradient of the landfill area is monitored at MW-223A, MW-301, MW-401A, and MW-402A. Monitoring well MW-302R monitors groundwater along the northwestern side of the landfill and is interpreted to be cross-gradient of the landfill rather than downgradient. Notable observations in bedrock groundwater quality during 2013 are as follows:

6.1.1.1 Upgradient Bedrock Groundwater Monitoring Wells

- MW11-207R is located outside of the construction and operational area of the landfill and replaced MW-207 in 2011. Consistent with historical data since sampling began in 2011, there were no exceedances of MCLs or MEGs for parameters analyzed at MW11-207R in 2013. Water quality at MW11-207R in

[3] Groundwater analyses for VOCs occurs only at DP-4, P-04-02, MW-204, and MW-401B.

[4] Copper and ammonia were removed from the detection monitoring analytical program following the April 2013 monitoring event.

2013 was consistent with historical data since the fall round of 2011, and there are not statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (four or more) in the three years of monitoring at this location. The 2013 annual maximum specific conductance value of 88 µmhos/cm and chloride concentration of 3.8 mg/L at MW11-207R were very low and in the range expected in an upgradient groundwater monitoring well.

- Monitoring well MW-304A is located upgradient from the landfill and outside of the area of landfill construction. There were no MCL or MEG exceedances of analyzed parameters at MW-304A in 2013. In 2013 and historically, groundwater quality data from MW-304A has not indicated influence from site activities. The Mann-Kendall analyses indicate that there are no statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (4 or more) at MW-304A for 5-year or 3-year periods from the end of 2013. The 2013 annual maximum specific conductance value of 138 µmhos/cm and chloride concentration of 3.2 mg/L at MW-304A were very low and in the range expected in an upgradient groundwater monitoring well. Dissolved methane was sampled at MW-304A during the July 2013 sampling round as requested by MEDEP and was not detected.

- P-206A is a bedrock piezometer located upgradient 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. The location has limited recharge so the parameters analyzed at this location vary depending on the amount of sample that can be collected. In July there was insufficient sample to analyze for laboratory parameters, so only field parameters were measured. In October 2013, groundwater samples were collected from P-206A for measurement of field parameters and analyses for inorganic parameters; however, there was insufficient groundwater for analyses of metals. There were no MCL or MEG exceedances of analyzed parameters at P-206A in October 2013, and October 2013 groundwater quality data from P-206A does not indicate influence from

landfill leachate or site activities. There is insufficient data for three-year and five-year Mann-Kendall trend analyses at P-206A at this time. The October 2013 specific conductance value of 126 µmhos/cm and chloride concentration of 4.3 mg/L at P-206A were very low and in the range expected in an upgradient groundwater monitoring well.

6.1.1.2 Downgradient Bedrock Groundwater Monitoring Wells

- Water quality from downgradient bedrock monitoring well MW-223A includes concentrations of multiple parameters greater than those at the upgradient bedrock monitoring wells. Arsenic was the only monitored parameter with an MCL or MEG exceedances in 2013. Arsenic slightly exceeded its MCL and MEG of 0.01 mg/L at MW-223A during the July (0.012 mg/L) and October (0.013 mg/L) sampling events. MW-223A has statistically significant increasing trends (95% confidence level) for twelve parameters over the past five years, including specific conductance, pH, arsenic, calcium, magnesium, potassium, sodium, total dissolved solids, sulfate, bicarbonate, alkalinity, and chloride. Similarly, nine parameters, including chloride, have statistically significant increasing trends (95% confidence level) over the past three years at MW-223A. Nine parameters were detected at new historic maximum values during one or more sampling event in 2013, including specific conductance, arsenic, calcium, magnesium, nitrate, total dissolved solids, sulfate, bicarbonate, and chloride.

  The increase in the multiple parameter concentrations in recent years at MW-223A are subtle between about 2007 and the end of 2008, and more pronounced since 2009. The annual maximum specific conductance value and chloride concentration in 2013 at MW-223A were 454 µmhos/cm and 45.2 mg/L, respectively, which were both historic maximum concentrations at this location. In comparison, these values were 189 µmhos/cm (specific conductance) and 2.6 mg/L (chloride) during the October 2008 sampling event.

In our evaluation of MW-223A water quality in 2012,[5] SME noted that that while something is affecting water quality in this well, the current specific conductance and chloride levels do not suggest landfill leachate impact. A comparison of MW-223A to landfill leachate collected from LT-C4L in 2012 indicated that water quality at MW-223A remains distinct from the leachate water quality.

The location of MW-223A relative to the location of site infrastructure suggests that the current water quality changes at this well (i.e., increasing parameter values) is related to infiltration of storm water runoff in the vicinity of the northwest corner of the landfill. Storm water runoff northwest of the landfill is partially directed toward storm water Detention Pond #5, and partially around the northwest corner of the landfill toward storm water Detention Pond #1 (SW-DP1). It should be noted that similar water quality trends and concentrations have been observed at MW-223B, the shallow companion well to MW-223A, and MW-302R, which is located proximate to Detention Pond #5. Water quality data for MW-223B and MW-302R are discussed further in later sections.

As discussed previously, NEWSME implemented multiple construction activities during 2013 to address the recent historical groundwater quality changes that have been observed at the three monitoring locations northwest of the landfill (i.e., MW-223A, MW-223B, MW-302R). These corrective actions included re-grading and paving the road and storm water drainage ways along the northwest corner of the landfill and re-constructing storm water Detention Pond #5 with a liner and sand filter unit. As described previously, during these construction activities, an area was exposed along the northwest perimeter of the landfill which contained discolored soils. This area was cleared of these soils during the summer of the 2013. The presence of the discolored soils is a plausible explanation for the water quality changes over the past several years in the northwest monitoring wells. The infiltration of precipitation and storm water

[5] SME 2013, Juniper Ridge Landfill, NEWSME Landfill Operations, LLC. 2012 Annual Water Quality Report.

through the discolored soils may have resulted in the elevated chloride, among other parameter concentrations observed over the past several years, at MW-223A and other northwest monitoring locations. While water quality at MW-223A during the October 2013 sampling event did not yet reflect any changes related to the corrective actions, improvements to water quality at MW-223A, and the other northwest monitoring wells, are anticipated and will be watched for during future sampling events.

Dissolved methane was sampled at MW-223A during the July 2013 sampling round as requested by MEDEP and was not detected.

- MW-301 is a deep bedrock monitoring well (screened 162.7 feet-BGS to 182.7 feet-BGS) located downgradient from the landfill in proximity of the leachate pond. There were no MCL or MEG exceedances of analyzed parameters at MW-301 in 2013. Parameter concentrations at MW-301 remained relatively low in 2013, with no statistically significant increasing trends (95% confidence level) for multiple parameters (4 or more) over the past three-year and five-year periods back from 2013. There were four parameters with statistically significant decreasing trends (95% confidence level) over the past five years, including pH, dissolved oxygen, potassium, and sodium. The concentrations of several parameters are marginally higher than at the upgradient bedrock monitoring locations, but are still at low levels (e.g., the 2013 annual maximum specific conductance value at MW-301 was 209 µmhos/cm in July 2013 compared to the annual maximum value of 138 µmhos/cm reported for MW-304A in 2013). The 2013 annual maximum chloride concentration remains very low at MW-301 (3.1 mg/L), which is an indication that the subtle differences in water quality at MW-301 compared to upgradient water quality are not a result of leachate influence.

- Downgradient bedrock monitoring wells MW-401A and MW-402A both have relatively low parameter concentrations, similar to or only slightly greater than those measured upgradient of the landfill. There were no MCL or MEG

exceedances of analyzed parameters at MW-401A in 2013. Consistent with historical data, arsenic was detected above its MCL and MEG (i.e. 0.010 mg/L) at MW-402A in April 2013 at 0.021 mg/L, July 2013 at 0.024 mg/L, and October 2013 at 0.02 mg/L. The presence of arsenic above the MCL standard in this well is consistent with the discussion earlier in Section 6.0. Besides arsenic, there were no other parameters above their respective MCL or MEG at MW-402A in 2013.

There were not statistically significant increasing or decreasing trends (95% confidence level) over that past three years or five years at either MW-401A or MW-402A. Water quality remains essentially unchanged at MW-401A and MW-402A since sampling began at these locations in 2004.

The 2013 annual maximum specific conductance value and chloride concentration at MW-401A were 140 µmhos/cm and 2.8 mg/L, respectively. The 2013 annual maximum specific conductance value and chloride concentration at MW-402A were 141 µmhos/cm and 2.5 mg/L, respectively. These parameter values are low and comparable to upgradient monitoring locations for both MW-401A and MW-402A, and do not indicate water quality impacts from the landfill.

6.1.1.3 Cross-gradient Bedrock Groundwater Monitoring Well

- Monitoring well MW-302R is located cross-gradient of the landfill on the northwest side of the site, but downgradient from the office facility, former topsoil and stump stockpile area, and a subsurface wastewater disposal field. MW-302R is directly adjacent to storm water Detention Pond #5. The roadways and paved parking area uphill and adjacent to MW-302R, along with the area of where the old flare pad and associated condensate drains drain into a ditch that passes alongside of the well and into Detention Pond #5. Additionally, portions of both access roads to Cell 7, and Cells 1 and 2 above elevation 325 drain to this pond. Thus, the water quality at MW-302R has the potential to be influenced

by a number of site features other than the landfill. Although this well is screened in the bedrock, the bedrock surface appears to be within a few feet of the bottom the detention pond. The greater extent of fluctuation of the water level in this well compared to other site monitoring wells, as summarized on the data tables included in Appendix A, suggest that there has been a hydraulic connection between the bottom of the pond and this well. With the reconstruction and lining of Detention Pond #5 and the paving of the access road and ditches, these potential sources of impact to this well have been eliminated; however, the effect of these site improvements will take time to be reflected in the water quality at MW-302R.

With the exception of sodium, there were no MCL or MEG exceedances of analyzed parameters at MW-302R in 2013. Sodium slightly exceeded its MEG (i.e. 20 mg/L) at MW-302R in October 2013 at a concentration of 20.3 mg/L. Sodium and chloride concentrations at MW-302R are higher than the sodium and chloride concentrations detected at upgradient bedrock groundwater monitoring wells. An annual maximum chloride concentration of 77.1 mg/L (July 2013) was detected above previous historic maximum concentrations. Specific conductance values at MW-302R, which ranged from 205 µmhos/cm in April 2013 to 350 µmhos/cm in July 2013, are marginally higher than at upgradient monitoring locations. MW-302R has a distinct water quality signature as compared to other groundwater monitoring locations at the site.

There were no statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (four or more) over that past three years or five years at MW-302R. Dissolved methane was sampled at MW-302R during the July 2013 sampling round and was not detected.

6.1.2 Soil Overburden Groundwater. During 2013, groundwater quality in the overburden was monitored at 15 monitoring wells. Several of the groundwater monitoring locations were sampled one or more times during 2013, but were discontinued as monitoring locations during the year as discussed previously. These locations are noted below. The soil overburden at the

site consists of glacial till at the upper site elevations and marine clay along the unnamed stream west of the landfill. Notable observations in soil overburden groundwater quality are as follows.

6.1.2.1 Upgradient Overburden Groundwater Monitoring Wells

Soil overburden groundwater upgradient of the site was monitored at three locations during 2013: MW-206, MW-212, and MW12-303R. Monitoring well MW-212 was discontinued from the monitoring program following the April 2013 monitoring event. While all of the overburden groundwater monitoring wells upgradient from the landfill are not influenced by landfill leachate, MW12-303R is located in an area that could be influenced by landfill operations (e.g., near roadways, near temporary storm water structures, or in an area that has been affected by disturbance of vegetation and soils). Notable observations in upgradient soil overburden groundwater quality are as follows.

- Upgradient soil overburden monitoring wells MW-206 and MW12-303R generally have relatively low historic parameter concentrations. MW-303 was replaced by MW12-303R following the April 2012 sampling event and was installed in the same geologic formation (till) as MW-303; the groundwater quality measured at MW12-303R since October 2012 is similar to groundwater quality measured previously at MW-303. There is insufficient data for statistically significant trend analyses at MW12-303R for the past three-year and five-year periods. Monitoring well MW-206 does not have multiple (four or more) parameters with statistically significant increasing or decreasing trends (95% confidence level) over the past five years or three years. Groundwater quality at MW-206 has been generally consistent since sampling began at this location in 1993.

  Arsenic was detected above its MCL and MEG (i.e. 0.010 mg/L) at MW-206 (0.013 mg/L) and MW12-303R (0.015 mg/L) during the October 2013 sampling event. The arsenic exceedance at MW12-303R was a first time exceedance since sampling began at that location in October 2012. The presence of arsenic above the MCL and MEG standard in these upgradient wells corroborates the

premise that the presence of arsenic detected in site monitoring is consistent with natural concentrations in groundwater in the State of Maine; particularly at MW-206, which is located in an area outside of influence from landfill operations (e.g., away from roadways and areas that have been affected by disturbance of vegetation and soils). Besides arsenic, there were no other analyzed parameters above their respective MCL or MEG at MW-206 and MW12-303R in 2013.

The 2013 annual maximum specific conductance values and chloride concentrations at upgradient monitoring wells MW-206 and MW12-303R are included below on Table 6-1. Table 6-1 also includes the 2013 annual maximum chloride concentrations and specific conductance values for all downgradient overburden monitoring wells for reference throughout this section.

TABLE 6-1

2013 ANNUAL MAXIMUM SPECIFIC CONDUCTANCE VALUES AND CHLORIDE CONCENTRATIONS AT OVERBURDEN GROUNDWATER MONITORING LOCATIONS

Location Designation	Specific Conductance (µmhos/cm)	Chloride (mg/L)	Position Relative To Landfill
MW-206	146	2.4	Upgradient
MW-212	Dry	Dry	Upgradient
MW12-303R	254	8.4	Upgradient
DP-4	293	30.8	Downgradient
MW-204	185	5.5	Downgradient
MW-223B	363	42.9	Downgradient
MW-227	192	2.5	Downgradient
MW-401B	376	16.3	Downgradient
MW-402B	174	2.5	Downgradient
P-04-04	194	1.8	Downgradient
MW04-102	227	2.5	Downgradient
MW04-105	286	7.7	Downgradient
MW04-109R	414	7.7	Downgradient
MW-216BR	329	9.1	Downgradient
MW09-901	197	2.7	Downgradient

Note:
U – not detected above laboratory reporting limit

Dissolved methane was sampled at MW12-302R during the July 2013 sampling round and was not detected.

- Monitoring well MW-212 has been dry since the April 2011, including the April 2013 monitoring event. MW-212 was discontinued as a monitoring location following the April 2013 monitoring event.

6.1.2.2 Downgradient Overburden Groundwater Monitoring Wells

Overburden groundwater downgradient of the landfill area was monitored at 12 monitoring well locations during 2013 (DP-4, MW-204, MW-223B, MW-227, MW-401B, MW-402B, P-04-04, MW04-102, MW04-105, MW04-109R, MW-216BR, and MW09-901).

There were several changes to the groundwater monitoring program during 2013 that affected the downgradient overburden groundwater monitoring locations. Monitoring well P-04-02 was found to be damaged during the April 2013 sampling event. It was not repaired since it was one of the locations removed from the monitoring program. Groundwater quality samples were collected from MW-216BR in April 2013 and July 2013 prior to its removal from the monitoring program during 2013. Monitoring locations DP-4, MW-204, and MW04-105 were removed from the monitoring program following the April 2013 monitoring event; however, these three locations will continue to be monitored for field parameters during fall monitoring events.

Notable observations in downgradient overburden groundwater quality during 2013 are as follows:

- As shown above in Table 6-1, the 2013 annual maximum specific conductance values at the downgradient overburden monitoring locations remain low; all downgradient overburden monitoring locations have specific conductance values under 500 µmhos/cm. Chloride concentrations also remain relatively low at the downgradient monitoring locations, which is in contrast with the high chloride concentrations in the site leachate (e.g., 24,300 mg/L at LT-C4LR in July 2013) and suggests that the subtle differences in overburden groundwater quality

downgradient from the landfill compared to the upgradient locations are likely attributed to general site construction, development, and operational activities.

- Volatile organic compounds (VOCs) were analyzed at DP-4, MW-204, and MW-401B in April of 2013. No VOCs were detected above the laboratory reporting limit at these monitoring locations in 2013. There were no VOCs detected above the laboratory reporting limit at any of the downgradient overburden monitoring locations in 2013.

- Parameter concentrations that were above MCLs or MEGs at downgradient overburden groundwater monitoring locations in 2013 are identified below:

  Arsenic was present above the MCL and MEG (i.e., 0.010 mg/L) in 2013 at:

  - DP-4 (0.011 mg/L in April 2013);
  - MW-206 (0.013 mg/L in October 2013);
  - MW-227 (0.018 mg/L in April 2013, 0.017 mg/L in July 2013, and 0.017 mg/L in October 2013);
  - MW-401B (0.013 mg/L in April 2013, 0.022 mg/L in July 2013, and 0.027 mg/L in October 2013);
  - MW-402B (0.019 mg/L in April 2013, 0.024 mg/L in July 2013, and 0.019 mg/L in October 2013);
  - MW04-102 (0.017 mg/L in July 2013 and 0.013 mg/L in October 2013);
  - MW04-105 (0.012 mg/L in April 2013);
  - MW04-109R (0.017 mg/L in April 2013, 0.016 mg/L in July 2013, and 0.015 mg/L in October 2013);
  - P-04-04 (0.011 mg/L in April 2013 and 0.012 mg/L in July 2013);
  - MW-216BR (0.019 mg/L in April 2013 and 0.015 mg/L in July 2013).

  The arsenic exceedances at MW04-102 were first time exceedances. The remaining downgradient overburden monitoring location arsenic exceedances at each of these locations are consistent with historical exceedances.

Manganese was present above the MEG (i.e., 0.5 mg/L) in 2013 at DP-4 (1.81 mg/L in April 2013). The manganese exceedance at DP-4 during 2013 is consistent with historical exceedances at this location.

There were no other parameters at concentrations above MCLs or MEGs at downgradient overburden groundwater locations in 2013 for the parameters analyzed.

- Only two of the downgradient overburden monitoring locations have statistically significant increasing trends (95% confidence level) for multiple (four or more) parameters over the past three-year or five-year periods. Monitoring well DP-4 has statistically significant increasing trends for iron, magnesium, sodium, total Kjeldahl nitrogen, sulfate, chloride, and turbidity over the past three years. Each of these parameters, however, remains within their historical range at this location and overall water quality at DP-4 generally has improved from previous site operations in the early to mid-2000s. Visual assessments of these trends suggest that the parameters with increasing trends at DP-4 are subtle and at relatively low concentrations.

  At MW-223B, there were statistically significant increasing trends (95% confidence level) for six parameters (calcium, magnesium, nitrate, sulfate, alkalinity, and chloride) over the past three years, and for eight parameters (specific conductance, pH, calcium, magnesium, nitrate, total dissolved solids, sulfate, and chloride) over the past five years. Five parameters (specific conductance, calcium, magnesium, nitrate, and bromide) were detected at new historical maximum concentrations in 2013 at MW-223B. It should be noted that, although the increasing trends for these multiple parameters are apparent, their concentrations still remain relatively low and there were no MCL or MEG exceedances at MW-223B in 2013 for the parameters analyzed.

Monitoring well MW-223B is located along the northwest perimeter of the landfill, and like MW-223A, groundwater quality at this location appears to be affected by infiltration of surface water runoff in the vicinity of the northwest corner of the landfill as well as the discolored soil uncovered during 2013 outside of the lined portion of the of the northwest corner of the landfill. As discussed above, NEWSME implemented multiple corrective actions during 2013 to address the recent historical groundwater quality changes that have been observed at the monitoring locations northwest of the landfill. These corrective actions were not yet reflected in October 2013 groundwater quality from MW-223B; however, improvements to water quality at MW-223B are anticipated and will be watched for during future sampling events.

- Groundwater quality from many of the soil overburden downgradient monitoring locations continues to improve from water quality impacts from previous site operations in the early to mid-2000s. Seven of the overburden downgradient monitoring wells (DP-4, MW-301, MW04-105, MW04-109R, MW09-901, MW-204, and MW-216BR) have statistically significant decreasing trends (95% confidence level) for multiple (four or more) parameters over the past five years. The complete Mann-Kendall statistical trend analyses for these locations are included in Appendix C. These decreasing parameter values at these overburden downgradient monitoring wells are now typically approaching or are near equivalent to those values observed at the upgradient overburden monitoring wells.

  Groundwater quality at MW04-102, MW-227, MW-401B, MW-402B, and P-04-04 does not exhibit statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (four or more). Groundwater quality at MW-401B has historically had multiple parameter values that are moderately higher than upgradient values. While groundwater quality at MW-401B does not have statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (four or more) over the past three years, visual assessment of the water quality data at MW-401B indicates that multiple

parameter values at this location have had generally steady declines since the early 2000s (e.g., specific conductance, calcium, potassium, sodium, iron, magnesium, total dissolved solids, sulfate, bicarbonate, and alkalinity).

- Dissolved methane was sampled for at monitoring well MW-223B during the July 2013 sampling round as requested by MEDEP and was detected at a low concentration of 40.6 µg/L. Dissolved methane was sampled again at MW-223B in October 2013 and was detected slightly above its laboratory reporting limit (i.e., 6.6 µg/L) at a concentration of 9.2 µg/L. Given the location of this well adjacent to the large bog area associated with the unnamed tributary to Pushaw Stream, these low concentrations are interpreted to be related to natural sources. Methane will be analyzed at this location during the spring and summer sampling round in 2014.

6.2 Surface Water

Surface water at the site was monitored in 2013 at three locations on the southwest side of the landfill along an unnamed tributary to Pushaw Stream (SW-1, SW-2, and SW-3). Surface water was also monitored at three surface water detention ponds (SW-DP1, SW-DP5, and SW-DP6) during 2013. SW-DP5 was added as a new monitoring location during 2013. Additionally, three pore-water sampling locations were monitored in 2013 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. Parameter concentrations that exceeded historical minimum and maximum concentration values for these surface water monitoring locations are identified on the individual water quality summary sheets contained in Appendix B. Notable observations in the surface water sampling data for 2013 are as follows:

- 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 2013 sampling events at downstream locations SW-1 and SW-3 were generally similar to those measured at SW-2, which is located upstream of 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. There were not statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (four or more) at SW-1, SW-2, or SW-3 for the past three-year or five-year periods.

Iron concentrations exceeded their MFCCC standard of 1 mg/L at SW-1 and SW-2 during the July 2013 sampling round at concentrations of 2.92 mg/L and 1.1 mg/L, respectively. These exceedances were consistent with historical exceedances at these locations. There were no other MFCCC exceedances at SW-1, SW-2, or SW-3 for parameters analyzed during 2013.

- SW-DP1 is collected from a surface water detention pond at the downstream western edge of the JRL site. SW-DP5 was added to the monitoring program during the April 2013 sampling event and is collected from an outfall on the west side of Detention Pond #5. SW-DP6 is a surface water detention pond sampling location at the southern end of the site.

  Parameter concentrations at SW-DP1 were generally similar to historical concentrations for most parameters. Parameter concentrations at SW-DP1 have remained low since sampling began at this location in 2004 and have not indicated influences from landfill leachate or landfill operations. The annual maximum specific conductance value and chloride concentration at SW-DP1 were 204 µmhos/cm and 15.2 mg/L, respectively. There were no statistically significant increasing or decreasing trends (95% confidence level) for multiple parameters (four or more) at SW-DP1 for the past three-year and five-year periods. Additionally, there were no MFCCC exceedances at SW-DP1 for parameters analyzed during 2013.

  Surface water quality monitoring at SW-DP6 began in October 2009. Many parameter concentrations measured at SW-DP6 during 2013 were generally lower than or similar to those concentrations recorded at SW-DP1 during 2013.

The annual maximum specific conductance value and chloride concentration at SW-DP6 were 113 µmhos/cm and 7.0 mg/L, respectively. Many parameter concentrations at SW-DP6 have been lower over the past two years compared to previous historical data, which has resulted in statistically significant decreasing trends (95% confidence level) for seven parameters (specific conductance, calcium, magnesium, potassium, sodium, total dissolved solids, and bicarbonate) over the past three years, and nine parameters (specific conductance, calcium, magnesium, manganese, sodium, total dissolved solids, bicarbonate, organic carbon, and chloride) over the past five years. There was only one MFCCC exceedance at SW-DP6 for parameters analyzed during 2013; iron exceeded its MFCCC of 1 mg/L during the April 2013 sampling event with a concentration of 1.39 mg/L.

Surface water quality monitoring at SW-DP5 during 2013 was completed during the April 2013 and July 2013 monitoring events. This location was dry during the October 2013 monitoring event and samples were not collected. Similar to surface water quality at SW-DP1 and SW-DP6, the surface water quality at SW-DP5 during 2013 is characterized by low parameter concentrations that do not indicate influences from landfill leachate or landfill operations. The annual maximum specific conductance value and chloride concentration at SW-DP5 were 162 µmhos/cm and 10.7 mg/L, respectively. There were no MFCCC exceedances for the parameters analyzed during 2013. There is currently insufficient data for three-year and five-year statistically significant trend analyses at SW-DP5.

- 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. Groundwater quality has been generally consistent at all three pore-water sampling locations since sampling began at these locations in 2010. The Mann-Kendall analyses indicate that there are not three-year statistically significant

increasing or decreasing trends (95% confidence level) for multiple parameters (four or more) at PWS10-1, PWS10-2, or PWS10-3. There is insufficient data for five-year trend analyses at these locations.

2013 pore-water sample quality at PWS10-1, PWS10-2, and PWS10-3 is generally similar to groundwater quality upgradient from the landfill; exceptions include higher pore-water concentrations of iron, organic carbon, and chemical oxygen demand, which is consistent with the local hydrology of the sample locations (i.e., shallow fluctuating water table with high organic matter associated with the wetland and stream).

While the pore-water sampling locations are grouped with surface monitoring locations, the samples are collected from soil and the sampling results from these locations are compared to MCL and MEG standards for groundwater. Arsenic was detected slightly above its MCL and MEG standard of 0.01 mg/L during the April 2013 sampling event with a concentration of 0.011 mg/L at PWS10-1. Iron was detected above its MEG standard of 5 mg/L at PWS10-2 during the October 2013 sampling event with a concentration of 6.07 mg/L, and at PWS10-3 during the July 2013 sampling event with a concentration of 11.4 mg/L. Manganese was detected slightly above its MEG standard of 0.5 mg/L during the July 2013 sampling event with a concentration of 0.51 mg/L at PWS10-3. All of these exceedances were consistent with periodic historical exceedances with the exception of the first time exceedance of the iron MEG standard at PWS10-2. There were no other MCL or MEG exceedances for analyzed parameters at PWS10-1, PWS10-2, or PWS10-3 during 2013. Given the location and setting of these sample locations, the exceedances are not interpreted to be related to the landfill.

6.3 Leachate

The landfill leachate is sampled and analyzed as part of the ongoing water quality monitoring program. The landfill leachate sampling location changed during the course of 2013. Landfill

leachate sampling, which had occurred at LT-4CL since 2009 from a pump station that pumps leachate collected from Cell 1, Cell 2, Cell 3A, Cell 3B, Cell 4, and Cell 7 to the onsite leachate storage tank, was moved to the on-site leachate storage tank following the April 2013 sampling event. This change was made in order to provide a representative sample of the leachate from the entire site, including leachate from Cell 5, Cell 6, and Cell 8, which are pumped to the leachate storage tank from individual pump stations. Leachate samples were collected from the on-site leachate storage tank (i.e., LT-C4LR) beginning during the July 2013 sampling event. Leachate samples associated with compliance monitoring for off-site wastewater treatment are also collected at the leachate storage tank when transport tanker trucks are being loaded. During 2013, approximately 10.9 million gallons of leachate was loaded into tanker trucks and transported from JRL for off-site treatment.

The April 2013 leachate sample collected from LT-4CL resulted in parameter concentrations consistent with historic data collected at LT-4CL since 2009. Furthermore, most parameter concentrations from samples collected at the leachate storage tank, LT-4CLR, during July 2013 and October 2013 were within the range of those collected at LT-4CL since 2009.

The specific conductance values recorded at LT-C4LR in 2013 ranged from 23,400 µmhos/cm in July 2013 to 24,100 µmhos/cm in October 2013. Chloride concentrations at LT-C4LR in 2013 ranged from 5,970 mg/L in October 2013 to 24,300 mg/L in July 2013. Since LT-C4LR is a new monitoring location, there is currently insufficient data for three-year and five-year trend analyses.

Leachate was monitored for VOCs, SVOCs, herbicides, pesticides, and PCBs during the April 2013 monitoring event at LT-4CL, and for VOCs during the July 2013 and October 2013 monitoring events at LT-4CLR. Appendix D summarizes the VOC, SVOC, herbicide, pesticide, and PCB detections above the laboratory reporting limits in 2013 at LT-4CL and LT-4CLR. At LT-4CL in April 2013, acetone (1,310 µg/L), methyl ethyl ketone (4,110 µg/L), phenol (140 µg/L), and 3&4-methyohenol (1,000 µg/L) were detected in LT-C4L at levels above their respective laboratory detection limits. Acetone and methyl ethyl ketone were also detected above their respective laboratory reporting limits at LT-4CLR during 2013. Acetone was detected at concentrations of 4,400 µg/L in July 2013 and 4,000 µg/L in October 2013. Methyl ethyl ketone

was detected at concentrations of 23,000 µg/L in July 2013 and 20,000 µg/L in October 2013. There were no detections of these parameters in groundwater, surface water, or underdrain samples collected during 2013. No herbicides, pesticides, or PCBs were detected above the laboratory detection limits in 2013 at LT-C4L.

6.4 Leak Detection

The 2013 leak detection monitoring at the leachate pond leak detection manhole location, LP-LD-1, indicates that the leachate pond liner is intact and functioning properly. Because the pond is no longer used as the primary leachate storage structure on site, this monitoring location was dropped from the monitoring program at the end of 2009 and was reduced to field parameters. Field parameter data has been consistent at LP-LD-1 since 2009 and there are no three-year or five-year statistically significant trends (95% confidence level) for field parameters analyzed at this location. As there are currently no plans to reestablish use of the leachate pond for leachate storage, LP-LD-1 was discontinued as a monitoring location following the July 2013 sampling event.

6.5 Underdrains

The water quality monitoring results from underdrain sampling locations are used to indicate whether the landfill liner systems are performing as designed. Historically, the landfill underdrain samples have had relatively low parameter concentrations and high dissolved oxygen levels, and monitoring results have been generally similar to upgradient groundwater monitoring locations. In general, slight increases in some parameter concentrations at the landfill cell underdrain locations are likely attributed to the soil disturbances associated with the construction of Cell 5, Cell 6, Cell 7, and Cell 8 during the last five years, and the stormwater management associated with the construction of those cells. The 2013 monthly landfill and leachate pond underdrain field data and the 2013 and historical tri-annual underdrain water quality data is included in Appendix A. Notable observations for the underdrain monitoring locations in 2013 are discussed below.

- Consistent with recent historical data, there was no flow at LF-UD-3A,B, LF-UD-7, and LP-UD-1 during 2013, and thus, no samples were collected at these locations during 2013.

- VOCs were analyzed at all sampled underdrain locations (both landfill and leachate pond underdrains) in April of 2013. There were no VOCs detected in 2013 at any of the sampled underdrain locations.

- Chloride concentrations detected in several of the landfill underdrain monitoring locations were higher during one or more of the 2013 monitoring events. Chloride was detected at new historical maximum concentrations at LF-UD-1 (22.5 mg/L), LF-UD-2, (35.2 mg/L), LF-UD-4 (13.2 mg/L), and LF-UD-6 (18.2 mg/L) during 2013. These chloride concentrations still remain relatively low in comparison to the concentration of chloride in the leachate (e.g., 24,300 mg/L in July 2013 at LT-4CLR). Of these locations, there are currently statistically significant increasing trends (95% confidence level) for chloride at LF-UD-2 (five-year) and LF-UD-6 (three-year). Chloride concentrations will be closely watched at these locations during 2014. Annual maximum chloride concentrations remained low at LF-UD-5 and 6 at 3.6 mg/L, LF-UD-8 at 3.5 mg/L, and LP-UD-2 at 7.2 mg/L during 2013.

  The chloride concentrations from samples collected from LF-UD-1, LF-UD-2, which are located along the northwest portion of the landfill, may be attributed to a combination of the conditions that existed on the northwest side of the landfill and were remediated with the removal of the discolored soils discovered outside of the lined portion of the landfill during 2013, and the paving of the surface water drainage ditches on the northwest side. They are not interpreted to be related to the performance of the landfill liner systems. These conditions are also believed to have contributed to rising chloride concentrations (among other parameters) detected at several groundwater monitoring locations northwest of the landfill over the past several years.

The higher chloride concentrations detected at LF-UD-6 during 2013 are concurrent with higher concentrations of additional parameters. Specific conductance values at LF-UD-6 ranged from 281 µmhos/cm in February 2013 to 919 µmhos/cm in August 2013, and total dissolved solids were detected at an annual maximum concentration of 554 mg/L in July 2013. These values are higher than other underdrain monitoring locations and site groundwater. Sample collection from LF-UD-6 is unique from other sampling locations in that it is sampled from a stilling well in the underdrain line. It is suspected that recent higher parameter values, including chloride and specific conductance, may be due to constituents in the stilling well water becoming more concentrated over time due to settling and due to evaporation of water from the stilling well. This premise is supported by the lack of evidence of influence from LF-UD-6 on underdrain water quality at LF-UD-5 and 6, which is a combination of underdrain water from Cell 5 and Cell 6. In fact, eight parameters have statistically significant decreasing trends (95% confidence level) at LF-UD-5 and 6 over the past three years (as discussed below). Attempts have been made during 2014 to flush the stilling well from which samples for LF-UD-6 are collected with clean water. The sampling results from LF-UD-6 will be closely watched during 2014.

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 for parameters (95% confidence level) analyzed at the landfill and leachate pond underdrain locations. There was insufficient data for both three-year and five-year trend analyses for sample locations LF-UD-3A,B, LF-UD-7, LF-UD-8, LP-COMP, and LP-UD-1; there was insufficient data for five-year trend analyses for LF-COMP, LF-UD-5 and 6, and LF-UD-6; and there was insufficient data for three-year trend analyses at LF-UD-4. Underdrain sampling locations with statistically significant increasing or decreasing trends for multiple parameters (four or more) include the following.

- Ten parameters have statistically significant increasing trends (95% confidence level) at LF-UD-2 over the past three years, including specific conductance, dissolved oxygen, calcium, magnesium, sodium, nitrate, total dissolved solids,

sulfate, chloride, and turbidity. Visual assessment of the data indicates that these increases over the past three years remain within a range of low concentrations and are generally subtle trends. Specific conductance levels have been generally stable over the past three years at LF-UD-2, and at values only moderately greater than at upgradient overburden groundwater in areas developed for landfill operations (e.g., monthly specific conductance values for LF-UD-2 in 2013 ranged from186 µmhos/cm in January to 404 µmhos/cm in October). LF-UD-2 also has statistically significant increasing trends (95% confidence level) for four parameters (temperature, Eh, dissolved oxygen, and chloride) over the past five years. As discussed above, the water quality changes at LF-UD-2 are believed to be influenced by the conditions that existed on the northwest side of the site and were remediated in 2013 with the removal of the discolored soils discovered outside of the lined portion of the landfill during and the pavement of the stormwater ditches; they are not interpreted to be related to the performance of the landfill liner systems.

- Eight parameters have statistically significant decreasing trends (95% confidence level) at LF-UD-5 and 6 over the past three years, including specific conductance, magnesium, potassium, sodium, total dissolved solids, sulfate, bicarbonate, and turbidity.

- Seven parameters have statistically significant increasing trends (95% confidence level) at LF-UD-6 over the past three years, including specific conductance, pH, magnesium, sodium, bicarbonate, alkalinity, and chloride. Parameter concentrations at LF-UD-6 are generally higher than at other underdrain monitoring locations. As discussed above, the water quality changes at LF-UD-6 are believed to be influenced by its collection method, which is a stilling well in the underdrain line.

- Four parameters have statistically significant increasing trends (95% confidence level) at LP-UD-2 over the past five years, including temperature, Eh, arsenic,

and bicarbonate. Review of the data for these locations shows groundwater quality at LP-UD-2 is generally consistent with upgradient groundwater quality.

7.0 GAS MONITORING

As part of the 2013 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.[6] During 2013, methane gas monitoring results were below the meter detection limit. Hydrogen sulfide (H_2S) was monitored at all of the above locations in 2013 and was not detected at any of the locations. Historical and 2013 gas monitoring results for the site are contained in Appendix E. The 2013 gas monitoring results indicate no landfill-related gases are present at the monitored locations.

[6] GEM2000 multi-gas meter accuracy is ±0.3% for detections ranging from 0-5%, and ±0.1% for detections ranging from 5-15%.

8.0 SUMMARY AND RECOMMENDATIONS

8.1 Summary

In general, the 2013 water quality data for the JRL is consistent with the historical data for the site. With few exceptions, the downgradient groundwater quality is similar to or has parameter concentrations only slightly greater than that of the upgradient groundwater. Given that the upgradient groundwater is in close proximity to the recharge area and receives atmospheric water regularly in contrast to the downgradient wells, which represent groundwater that has traveled up to 2,000 feet through soil and rock, it is expected that the downgradient wells will have higher dissolved constituents present. The 2013 site water quality can be summarized as follows:

- In 2013, groundwater monitoring wells do not show adverse impacts from the landfill or leachate transport and storage systems. Three of the monitoring wells (i.e., MW-302R, MW-223A, and MW-223B) located along the northwest perimeter of the landfill continued to show influence of site activities. As noted in the 2012 Annual Water Quality Report for the JRL, the water quality from those wells warranted further investigation, and it was interpreted that the location of site infrastructure relative to these wells (e.g., storm water runoff and detention) was contributing to the water quality changes at these locations. 2013 construction activities at the JRL included improvements to storm water runoff collection and treatment along the northwest perimeter of the landfill. The improvements included re-construction of Detention Pond #5 with a liner. Detention Pond #5 was also designed and constructed with phased treatment capabilities, including an initial phase sand filtration unit. Portions of the road and storm water drainage ditches northwest of the landfill were re-graded and paved to optimize the collection of storm water runoff for treatment along the northwest perimeter of the landfill.

  During 2013 construction activities, an area was exposed along the northwest perimeter of the landfill that contained discolored soil outside of the lined portion

of the landfill. This area was cleared of this material during the summer of the 2013. SME believes that this may have been contributing to water quality changes observed at monitoring locations along the northwest perimeter of the landfill over the past several years. Also during the excavation of this soil the Cell 2 anchor trench was exposed and there were no signs that leachate had overflowed the Cell 2 containment berm.

The corrective actions implemented along the northwest perimeter of the landfill and at storm water Detention Pond #5 during 2013 were completed in the summer/fall of 2013. While water quality at MW-223A, MW-223B, and MW-302R during the October 2013 sampling event did not yet reflect any changes related to the corrective actions, improvements to water quality at these locations are anticipated and will be watched for during future sampling events.

During 2013, the remainder of the soil overburden and bedrock monitoring wells and the pore-water sampling locations either: (1) had water quality consistent with groundwater quality monitoring wells located upgradient from the landfill and outside of the area of influence from landfill construction activities; or (2) recorded parameter concentrations and trends that suggest that water quality at these locations is consistent with water quality at a site with various construction related activities associated with landfill cell construction. The latter are not interpreted to be indications of landfill leachate impacts to groundwater.

- Samples from the landfill underdrains generally have low overall parameter concentrations, indicating they are not influenced by landfill leachate and verifying that the landfill liner systems are performing as designed. Similar to monitoring wells located along the northwest perimeter of the landfill, the landfill underdrains for landfill cells located along the northwest perimeter of the landfill (i.e., LF-UD-1 and LF-UD-2) have exhibited water quality changes, including increased chloride concentrations during 2013. These water quality changes are believed to have been influenced by the above mentioned storm water runoff and detention infrastructure located northwest of the landfill, and the discolored soil

exposed during 2013 construction activities in an area along the northwest perimeter of the landfill outside of the lined portion of the landfill. Improvements to water quality at these locations are anticipated and will be watched for during future sampling events following the (1) clearing of the discolored soil, (2) the improvements made by re-grading and paving the roads and storm water drainage ditches along the northwest perimeter of the landfill, and (3) re-construction of Detention Pond #5 with a liner and sand filter unit.

At LF-UD-6, parameter values are generally higher than at other landfill underdrain monitoring locations. Sample collection from LF-UD-6 is unique from other sampling locations in that it is sampled from a stilling well in the underdrain line. It is suspected that recent higher parameter values, including chloride and specific conductance, may be due to constituents in the stilling well water becoming more concentrated over time due to settling and due to evaporation of water from the stilling well. This premise is supported by the lack of evidence of influence from LF-UD-6 on underdrain water quality at LF-UD-5 and 6, which is a combination of underdrain water from Cell 5 and Cell 6. Attempts will be made during 2014 to purge the stilling well with clean water, from which samples for LF-UD-6 are collected. The sampling results will be closely watched during 2014.

- Bromide was added to the monitoring program during 2013, beginning with the April 2013 monitoring event. Bromide concentrations were low site-wide during 2013, ranging from non-detect to low concentrations (i.e., up to 0.42 mg/L at MW12-303R) near to the laboratory detection limit of 0.1 mg/L.

- A supplementary addition to the 2013 monitoring program included sampling and analyses for dissolved methane at MW12-303R, MW-223A, MW-223B, MW-302R, and MW-304A in July 2013 and at MW-223B in October 2013. Dissolved methane was not detected at MW12-303R, MW-223A, MW-302R, and MW-304A during July 2013. Dissolved methane sampling at monitoring well MW-223B during 2013 resulted in detections at low concentrations during the

July (40.6 µg/L) and October 2013 (9.2 µg/L) sampling events. Given the location of this well adjacent to the large bog area associated with the unnamed tributary to Pushaw Stream these low concentrations are interpreted to be related to natural sources.

- Surface water downstream of the site along the unnamed tributary to Pushaw Stream appears to be un-affected by the landfill operations, with SW-1 and SW-3 having similar parameter concentrations as upstream location SW-2. Additionally, the 2013 samples from the SW-DP1, SW-DP5, and SW-DP6 do not show adverse impacts from the landfill.

8.2 Recommendations

Based on review of 2013 and recent historical water quality data and the recent changes in the site water quality monitoring program, SME recommends that site water quality monitoring be continued in 2014 implementing the changes to the program made in 2013.

Based on results of the dissolved methane sampling at monitoring well MW-223B during 2013, which included detections of dissolved methane at low concentrations during the July and October 2013 sampling events, SME recommends that dissolved methane be monitored at this location during the 2014 spring and summer sampling rounds.

APPENDIX A

2013 AND HISTORICAL WATER QUALITY DATA

Groundwater, Surface Water, Pore Water, Underdrain, and Leak Detection Locations

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

(DP-4) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
DP-4																	
1/30/2004	XX	GWDP4X039	965	6.3	6	14.12	155.25			0.6		14.8					
5/6/2004	XX	GWXXXX00D	601	6.3	9.8	14.78	154.59		272	1	290	7.1					
7/26/2004	XX	GWXXXX041	417	7.1	14.6	13.92	155.45		318	6	255	36.2					
10/26/2004	XX	GWXXXX07H	346	7	16.5	13.81	155.56	27.04	266	5	230	9.9					
5/9/2005	XX	GWXXXX13I	264	6.9	9.6	13.25	156.12		239	1	215	6					
8/1/2005	XX	GWXXXX176	295	6.7	15.8	13.8	155.57		295	2	175	16.8					
9/20/2005	XX	GWXXXX1A4	380	7.3	16.6	14.38	154.99	27.06	228	4	135	0.7					
5/22/2006	XX	GWXXXX1EJ	340	6.8	10.3	14.59	154.78		188	1	105	27.8					
7/24/2006	XX	GWXXXX1HG	270	7.1	19.6	14.52	154.85		251	1	150	3					
9/11/2006	XX	GWXXXX209	333	6.2	19.2	14.96	154.41	27.07	238	1	125	4.3					
5/14/2007	XX	GWXXXX23G	381	6.8	11.6	15	154.37		196	1	75	28					
7/23/2007	XX	GWXXXX280	274	6.4	7.2	15.28	154.09		233	6	175	18.6					
9/10/2007	XX	GWXXXX2AA	338	6.5	15.3	15.65	153.72	27.1	337	1	115	9.6					
5/19/2008	XX	GWXXXX2E4	356	6.6	9.5	14.4	154.97		-51	2	150	5.7					
7/29/2008	XX	GWXXXX2H8	362	6.4	17.4	17.19	152.18		64	1	105	5.9					
10/27/2008	XX	GWXXXX2JI	366	6.4	11.7	15.3	154.07	27.05	154	1	75	4.2					
4/13/2009	XX	GWXXXX336	442	6.3	7.1	14.55	154.82		279	4	70	8.5					
7/6/2009	XX	GWXXXX37A	380	6.7	15.3	14.59	154.78		308	5	130	12.1					
10/26/2009	XX	GWXXXX3F5	499	6.5	13.2	13.68	155.69	27.05	253	3	100	4.5					
4/26/2010	XX	GWXXXX404	271	6.3	13.2	14.8	154.57		216	3	100	3.3					
7/19/2010	XX	GWXXXX438	100	5.6	23.9	15.41	153.96		345	2	125	8.1					
10/18/2010	XX	GWXXXX46C	396	6.3	11.3	14.98	154.39	27.1	352	2	50	2.6					
4/25/2011	XX	GWXXXX4AD	277	6.4	12.2	13.9	155.47		282	1	70	2.5					
7/18/2011	XX	GWXXXX4EB	282	6.4	18.2	14.35	155.02		233	1	95	0.6					
10/24/2011	XX	GWXXXX4I6	256	6.7	13.8	16.95	152.42	27.06	312	0.8	70	1.6					
4/25/2012	XX	GWXXXX52G	334	6.3	9.1	14.1	155.27		232	1	120	5.9					
7/25/2012	XX	GWXXXX57F	313	6.2	13.8	15.3	154.07		25	0.6	120	3.7					
10/24/2012	XX	GWXXXX5E6	302	7.3	9.4	14.08	155.29	27.06	221	1	100	7.9					
4/24/2013	XX	GWXXXX5IH	293	6.5	7.2	14.38	154.99		240	1	70	10					
10/30/2013	XX	GWDP4X689	273	5.8	10.7	14.9	154.47	27.06	217	0.8	70	3.9					
LF-COMP																	
5/25/2011	XX	LFCMPX4FE	405	6.8	23.3				352	5	100	0.07					
6/20/2011	XX	LFCMPX4G5	370	7	23.8				376	5	125	1					
7/19/2011	XX	LFXXXX4F1	368	6.8	24.7				404	4	113	0					
8/3/2011	XX	LFCMPX4JF	223	7.1	22.7				337	5	90	129.3					
10/8/2011	XX	LFCMPX4J4	371	7.1	24.8				370	6	80	0.6					
11/30/2011	XX	LFCMPX50I	351	7.1	20				382		90	24.9					
12/29/2011	XX	LFCMPX506	362	7.4	17.2				341	6	125	1.1					
1/26/2012	XX	LFCMPX58I	381	7.5	17				372	6	140	1.05					
2/24/2012	XX	LFCMPX599	366	7.5	13.7				371	5	145	0.91					
3/23/2012	XX	LFCMPX5A0	I	I	I				I	I	I	I					
4/16/2012	XX	LFCMPX5AB	I	I	I				I	I	I	I					
4/24/2012	XX	LFXXXX53B	314	7.2	17.8				403	6	85	4.4					
5/3/2012	XX	LFCMPX5B2	400	7	18.7				446	6	140	11.82					
6/29/2012	XX	LFCMPX5BD	394	6.9	22.5				444	5	125	0.07					
7/31/2012	XX	LFCMPX5C4	389	7.3	29.7				383	8	150	0.33					
8/31/2012	XX	LFCMPX5F5	421	6.9	22.1				384	6	150	0.27					

SEVEE & MAHER ENGINEERS, INC.
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(LF-COMP) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
9/27/2012	XX	LFCMPX5FG	373	7.3	21.2				348	8	150	0.14					
11/13/2012	XX	LFCMPX5G7	307	7.6	17.7				355	6	135	3.91					
12/31/2012	XX	LFCMPX5GI	306	7.7	11.4				406	8	130	5.27					
1/30/2013	XX	LFCMPX60E	239	7.1	15.1				426	7	100	9.85					
2/15/2013	XX	LFCMPX602	306	7.5	13.5				407	6	145	3.75					
3/28/2013	XX	LFCMPX617	294	8	16.7				333	8	170	0.74					
4/24/2013	XX	LFCMPX61J	262	7.1	15.9				347	6	160	0.39					
5/30/2013	XX	LFCMPX62B	271	7.3	20.4				331	8	160	0.4					
6/26/2013	XX	LFCMPX633	311	7.8	20.2				397	8	150	1.48					
8/20/2013	XX	LFCMPX69D	397	7.1	25.3				383	6	150	0.44					
9/26/2013	XX	LFCMPX691	384	8.1	18.3				399	8	125	0.72					
11/25/2013	XX	LFCMPX6A6	370	8.4	7.2				371	8	160	0.32					
12/17/2013	XX	LFCMPX6D6	359	7.5	8.9				433	8	185	5.86					
LF-UD-1																	
7/28/2004	XX	LFUD1X05E	245	6.6	9				305	8	120	0					
8/30/2004	XX	LFUD1X080	H2	H2	H2				H2	H2	H2	H2					
9/27/2004	XX	LFUD1X086	366	6.8	10.2				208	5	100	0.8					
10/27/2004	XX	LFUD1X076	230	6.7	12.5				326	6	155	0					
11/23/2004	XX	LFUD1X101	258	7.6	10.4				249	6	100	0.8					
12/22/2004	XX	LFUD1X107	235	7.1	9.5				201	8	120	4					
1/26/2005	XX	LFUD1X119	317	7.9	5.2				300	6	115	0.1					
2/24/2005	XX	LFUD1X11G	D	D	D				D	D	D	D					
3/29/2005	XX	LFUD1X14H	182	6.3	8.6				337	6	75	0					
4/28/2005	XX	LFUD1X152	H2	H2	H2				H2	H2	H2	H2					
5/11/2005	XX	LFUD1X137	246	6.3	11.9				330	6	135	0					
6/22/2005	XX	LFUD1X17A	287	7.4	13.4				426	6	110	0					
7/27/2005	XX	LFUD1X16F	185	7.1	17.1				309	6	125	1.2					
8/29/2005	XX	LFUD1X1B0	238	7.4	16.6				259	6	100	4.6					
9/21/2005	XX	LFUD1X19D	155	7.6	16.2				294	6	100	1.1					
10/21/2005	XX	LFUD1X1BA	246	8.1	9.1				220	5	110	3.8					
11/21/2005	XX	LFUD1X1BH	218	7	13.2				231	2	100	2.6					
12/27/2005	XX	LFUD1X1C3	256	7.9	2.6				274	5	90	2.2					
1/23/2006	XX	LFUD1X1C8	246	7.5	8				428	6	80	1.2					
2/23/2006	XX	LFUD1X1CD	194	7	8.6				387	5	100	0.4	0.0033				
3/15/2006	XX	LFUD1X1D0	247	7.1	8.1				447	6	85	2.5	0.0033				
4/27/2006	XX	LFUD1X1G1	211	7.6	13.2				363	6	105	2.2	0.00446				
5/24/2006	XX	LFUD1X1E8	247	6.8	13.2				369	6	135	0.7	0.00223				
6/13/2006	XX	LFUD1X1IA	295	6.5	15.1				469	5	140	0	0.0033				
7/25/2006	XX	LFUD1X1H5	256	6.6	18.4				173	6	175	1.2	0.0056				
8/16/2006	XX	LFUD1X20H	248	7.2	16.9				348	4	90	0	0.0022				
9/11/2006	XX	LFUD1X1JI	211	7.2	14.7				279	6	100	1.2	0.0011				
10/19/2006	XX	LFUD1X213	280	7.5	14.3				236	6	150	0					
11/21/2006	XX	LFUD1X219	249	8	7.4				221	4	115	2	0.0045				
12/5/2006	XX	LFUD1X21E	266	8.3	7.2				312	3	100	4	0.0045				
1/24/2007	XX	LFUD1X247	373	6.3	7.5				295	2	105	1.3	0.0067				
2/22/2007	XX	LFUD1X255	340	7.2	6.8				217	6	75	0	0.0033				
3/21/2007	XX	LFUD1X25C	102	7.4	9.4				299	6	115	0.2	0.0022				
4/26/2007	XX	LFUD1X25J	375	7.4	12.8				229	5	135	1	0.0033				
5/16/2007	XX	LFUD1X235	302	6.7	10.2				335	5	140	1	0.0011				

SUMMARY REPORT

Field Data Part 1 of 1

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

(LF-UD-1)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
6/21/2007	XX	LFUD1X289	264	6.3	16.8				382	6	130	1.8	0.0022				
7/25/2007	XX	LFUD1X279	353	7.6	18.6				302	6	195	2.6	0.0022				
8/16/2007	XX	LFUD1X2AJ	305	6.9	17.3				289	6	140	0.2	0.0006				
9/12/2007	XX	LFUD1X29J	I	I	I				I	I	I	I	I				
10/24/2007	XX	LFUD1X2B5	611	7.9	12.1				235	6	150	0.8	0.0011				
11/27/2007	XX	LFUD1X2BB	359	7.3	9.7				324	6	125	0.8	0.0022				
12/18/2007	XX	LFUD1X2BH	360	7.9	7.4				294	6	110	1.2	0.0006				
1/9/2008	XX	LFUD1X2C3	261	6.6	10.4				273	6	145	0.8	0.0022				
2/25/2008	XX	LFUD1X2EF	317	6.8	5.1				374	5	120	3.6	0.0022				
3/13/2008	XX	LFUD1X2F1	279	7.2	0.6				352	6	115	4.9	0.0022				
4/17/2008	XX	LFUD1X2F7	459	7.3	13.6				305	5	115	1.1	0.0022				
5/20/2008	XX	LFUD1X2DD	304	7.4	12.2				400	6	150	0.8	0.0022				
6/9/2008	XX	LFUD1X2HH	336	7.2	16.1				293	5	100	1.2	0.0022				
7/28/2008	XX	LFUD1X2GH	314	6.7	19.2				404	5	185	1.5	0.0022				
8/28/2008	XX	LFUD1X307	438	7.3	21.9				376	5	160	1.2	0.0006				
9/25/2008	XX	LFUD1X30D	295	6.7	16.7				239	6	100	0.9	0.0006				
10/28/2008	XX	LFUD1X2J7	300	7.3	13.5				298	8	135	0	0.0004				
11/17/2008	XX	LFUD1X30J	324	8.1	11.1				365	5	120	0.5	0.0017				
12/23/2008	XX	LFUD1X315	328	7.3	8.7				208	6	175	0.5	0.0022				
1/14/2009	XX	LFUD1X33G	280	7.9	5.3				247	6	95	1.2	0.0033				
2/2/2009	XX	LFUD1X343	365	7.1	9.4				388	5	110	0.8	0.0011				
3/11/2009	XX	LFUD1X34B	283	6.8	9				276	6	145	1.4	0.0017				
4/15/2009	XX	LFUD1X32F	371	7.9	11.2				424	5	150	0.5	0.0022				
5/28/2009	XX	LFUD1X34J	415	6.8	16.2				264	5	135	4	0.0011				
6/23/2009	XX	LFUD1X357	H2	H2	H2				H2	H2	H2	H2	H6				
7/8/2009	XX	LFUD1X36J	H2	H2	H2				H2	H2	H2	H2	H6				
8/4/2009	XX	LFUD1X381	F6	F6	F6				F6	F6	F6	F6	F6				
9/1/2009	XX	LFUD1X38A	H2	H2	H2				H2	H2	H2	H2	H6				
10/27/2009	XX	LFUD1X3EE	H2	H2	H2				H2	H2	H2	H2	H6				
11/11/2009	XX	LFUD1X3FH	F6	F6	F6				F6	F6	F6	F6	F6				
12/8/2009	XX	LFUD1X3G7	F6	F6	F6				F6	F6	F6	F6	F6				
1/21/2010	XX	LFUD1X3GJ	F6	F6	F6				F6	F6	F6	F6	F6				
2/23/2010	XX	LFUD1X3HB	F6	F6	F6				F6	F6	F6	F6	F6				
3/17/2010	XX	LFUD1X3I0	389	6.5	15.4				375	6	150	2.6	0.0006				
4/27/2010	XX	LFUD1X3JD	356	7.5	13.4				245	6	160	0.2	0.0011				
5/18/2010	XX	LFUD1X40G	F6	F6	F6				F6	F6	F6	F6	F6				
6/22/2010	XX	LFUD1X415	F6	F6	F6				F6	F6	F6	F6	F6				
7/20/2010	XX	LFUD1X42H	F6	F6	F6				F6	F6	F6	F6	F6				
8/30/2010	XX	LFUD1X449	F6	F6	F6				F6	F6	F6	F6	F6				
9/28/2010	XX	LFUD1X441	F6	F6	F6				F6	F6	F6	F6	F6				
10/19/2010	XX	LFUD1X461	F6	F6	F6				F6	F6	F6	F6	F6				
11/11/2010	XX	LFUD1X473	F6	F6	F6				F6	F6	F6	F6	F6				
12/16/2010	XX	LFUD1X47J	H2	H2	H2				H2	H2	H2	H2	H2				
1/24/2011	XX	LFUD1X47B	356	8	12.8				244	8	485	0	0.0006				
2/24/2011	XX	LFUD1X4BG	483	7.1	13.6				310	5	345	2.3	0.0011				
3/25/2011	XX	LFUD1X4C6	H2	H2	H2					H2	H2	H2	H2				
4/26/2011	XX	LFUD1X4A2	331	7.4	15.4				360	5	240	0.5	0.0022				
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	125	0	0.0022				

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

(LF-UD-1) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
8/3/2011	XX	LFUD1X4J6	H2	H2	H2				H2	H2	H2	H2	H2				
10/8/2011	XX	LFUD1X4IE	353	7	23.7				375	6	100	0.1	0.0006				
10/25/2011	XX	LFUD1X4HF	368	6.8	17.7				311	6	200	4.5	0.0006				
11/30/2011	XX	LFUD1X509	349	7.6	17.6				361	5	115	0.56	0.0006				
12/29/2011	XX	LFUD1X4JH	337	8	14.2				324	6	115	0.1	0.0011				
1/26/2012	XX	LFUD1X589	173	7.5	13.7				371	8	150	2.03	0.0006				
2/24/2012	XX	LFUD1X591	382	7.4	15.3				371	5	150	2.23	0.0006				
3/23/2012	XX	LFUD1X59C	349	7.2	16.7				399	6	150	0.22	0.0003				
4/16/2012	XX	LFUD1X5A3	359	7	17.3				387	6	150	0.04	0.0006				
4/24/2012	XX	LFUD1X525	H2	H2	H2				H2	H2	H2	H2	H2				
5/3/2012	XX	LFUD1X5AE	364	7	16.7				438	8	150	0.79	0.0006				
6/29/2012	XX	LFUD1X5B5	338	6.6	21.4				427	6	125	0.64	0.0006				
7/24/2012	XX	LFUD1X574	355	6.5	20.4				316	6	200	1.8	0.0022				
7/31/2012	XX	LFUD1X5BG	375	7.1	24.1				341	8	160	0.17	0.0003				
8/31/2012	XX	LFUD1X5EH	384	6.7	21.1				343	5	135	0.32	0.0003				
9/27/2012	XX	LFUD1X5F8	317	8.1	18.6				375	6	125	0.01	0.0003				
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	125	0.65	0.0002				
2/15/2013	XX	LFUD1X5JE	298	7.5	10				404	6	145	0.7	0.0002				
3/28/2013	XX	LFUD1X60J	291	8.1	14.1				359	8	150	0.41	0.0002				
4/23/2013	XX	LFUD1X5I6	358	7.5	16.1				270	5	100	1.1	0.0022				
4/24/2013	XX	LFUD1X61B	230	7.1	14.6				331	8	150	0.28	0.0002				
5/30/2013	XX	LFUD1X623	240	7.5	25.9				342	8	125	0.16	0.0003				
6/26/2013	XX	LFUD1X62F	308	7.8	19.5				366	8	175	0.81	0.0003				
7/30/2013	XX	LFUD1X64B	362	6.8	21.5				262	6	100	0.9	0.0022				
8/20/2013	XX	LFUD1X695	348	7	23.6				388	6	125	0.75	0.0001				
9/26/2013	XX	LFUD1X68D	334	7.9	18.1				420	8	125	0.65	0.0003				
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	160	3.52	0.00017				
LF-UD-2																	
7/28/2004	XX	LFUD2X05F	231	6.8	11.5				207	8	135	0					
8/30/2004	XX	LFUD2X081	H2	H2	H2				H2	H2	H2	H2					
9/27/2004	XX	LFUD2X087	280	6.9	11.1				206	6	125	0					
10/27/2004	XX	LFUD2X077	224	7.6	13.6				336	8	130	0					
11/23/2004	XX	LFUD2X102	224	7.6	8.4				234	6	100	1.2					
12/22/2004	XX	LFUD2X108	208	7.4	8.3				211	8	85	6.6					
1/26/2005	XX	LFUD2X11A	286	7.8	6.8				246	5	110	0					
2/24/2005	XX	LFUD2X11H	D	D	D				D	D	D	D					
3/29/2005	XX	LFUD2X14I	182	6.3	8.6				337	6	75	0					
4/28/2005	XX	LFUD2X153	H2	H2	H2				H2	H2	H2	H2					
5/11/2005	XX	LFUD2X138	193	6.8	14.6				306	8	145	0					
6/22/2005	XX	LFUD2X17B	265	7.5	14.4				240	6	135	1.2					
7/27/2005	XX	LFUD2X16G	187	7.5	18				320	6	125	1.2					
8/29/2005	XX	LFUD2X1B1	221	7.2	15.4				256	6	105	0.9					
9/21/2005	XX	LFUD2X19E	291	7.7	16.5				287	6	110	1.2					
10/21/2005	XX	LFUD2X1B6	225	8.3	9.8				210	5	105	2.4					

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

(LF-UD-2)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs
11/21/2005	XX	LFUD2X1BD	209	7.1	12.9				298	3	125	1.8	
12/27/2005	XX	LFUD2X1BJ	235	7.8	2.4				287	5	100	2.1	
1/23/2006	XX	LFUD2X1C4	218	7.6	9.7				413	6	95	1.3	
2/23/2006	XX	LFUD2X1C9	237	7.6	10.2				377	5	105	0.2	0.0067
3/15/2006	XX	LFUD2X1CG	232	7.5	10.3				423	5	110	1.3	0.0067
4/27/2006	XX	LFUD2X1FH	234	7.1	10.5				366	6	125	2.2	0.00668
5/24/2006	XX	LFUD2X1E9	204	7.1	15.2				403	6	120	0.8	0.00446
6/13/2006	XX	LFUD2X1I6	231	6.9	16.4				485	6	125	0	0.0067
7/25/2006	XX	LFUD2X1H6	235	7	19.3				187	6	160	1.4	0.0067
8/16/2006	XX	LFUD2X20I	230	7.4	18.3				377	5	80	0	0.0056
9/11/2006	XX	LFUD2X1JJ	134	7.3	16				255	6	115	0.8	0.0022
10/19/2006	XX	LFUD2X214	301	7.4	14.7				244	6	130	0.2	
11/21/2006	XX	LFUD2X21A	246	8.3	11				208	2	100	0	0.0056
12/5/2006	XX	LFUD2X21F	274	8.3	10.1				214	4	100	2	0.0067
1/24/2007	XX	LFUD2X248	305	6	3.8				336	4	100	2	0.0056
2/22/2007	XX	LFUD2X256	288	7.8	6.9				219	5	80	0	0.0056
3/21/2007	XX	LFUD2X25D	154	6.8	10.6				297	5	85	0.3	0.0022
4/26/2007	XX	LFUD2X260	250	7.9	16.7				202	6	110	0.6	0.0045
5/16/2007	XX	LFUD2X236	246	7.6	12.6				380	6	120	0.3	0.0033
6/21/2007	XX	LFUD2X28A	217	6.5	19.1				353	6	120	1.8	0.0045
7/25/2007	XX	LFUD2X27A	274	7.5	18.7				221	6	155	1.2	0.0045
8/16/2007	XX	LFUD2X2B0	252	7.2	18.3				315	6	140	0.5	0.0011
9/12/2007	XX	LFUD2X2A0	272	8.3	17				265	5	120	1.8	0.0011
10/24/2007	XX	LFUD2X2B6	377	8.3	12.9				221	6	140	1.2	0.0022
11/27/2007	XX	LFUD2X2BC	319	7.5	12.3				252	6	140	0.6	0.0045
12/18/2007	XX	LFUD2X2BI	248	8.1	6.2				302	6	75	1.4	0.0011
1/9/2008	XX	LFUD2X2C4	174	6.6	11.4				241	6	130	0.9	0.0045
2/25/2008	XX	LFUD2X2EG	249	7.7	9				344	5	105	1	0.0045
3/13/2008	XX	LFUD2X2F2	243	8	2.2				316	5	80	1.5	0.0045
4/17/2008	XX	LFUD2X2F8	246	7.3	15.4				311	5	90	0.3	0.0045
5/20/2008	XX	LFUD2X2DE	253	7.9	14.3				377	6	140	1.2	0.0045
6/9/2008	XX	LFUD2X2HI	257	7.5	17				294	5	75	0.1	0.0045
7/28/2008	XX	LFUD2X2GI	254	6.9	20.1				410	5	170	1.1	0.0033
8/28/2008	XX	LFUD2X308	430	7.9	19.9				353	5	140	1.4	0.0022
9/25/2008	XX	LFUD2X30E	224	7.1	17.7				216	6	95	0.6	0.0011
10/29/2008	XX	LFUD2X2J8	231	8.1	13.6				386	6	105	1	0.0022
11/17/2008	XX	LFUD2X310	253	8	12.3				372	6	120	1	0.0022
12/23/2008	XX	LFUD2X316	234	7.8	8.7				168	6	100	0.2	0.0045
1/14/2009	XX	LFUD2X33H	215	8	7.9				303	5	75	1	0.0045 A6
2/2/2009	XX	LFUD2X344	276	7.4	12.6				388	5	85	1.2	0.0022
3/11/2009	XX	LFUD2X34C	233	6.8	10.2				308	5	95	1.1	0.0022
4/15/2009	XX	LFUD2X32G	288	7.7	14.2				446	5	90	0.8	0.0045
5/28/2009	XX	LFUD2X350	331	7.4	18.3				238	6	140	4.8	0.0022
6/23/2009	XX	LFUD2X358	H2	H2	H2				H2	H2	H2	H2	H6
7/8/2009	XX	LFUD2X370	H2	H2	H2				H2	H2	H2	H2	H6
8/4/2009	XX	LFUD2X382	432	6.9	20.2				335	5	220	0.6	0.0022
9/1/2009	XX	LFUD2X38B	H2	H2	H2				H2	H2	H2	H2	H6
10/27/2009	XX	LFUD2X3EF	H2	H2	H2				H2	H2	H2	H2	H6
11/11/2009	XX	LFUD2X3FI	457	7.4	18.7				375	6	120	0.5	0.0033
12/8/2009	XX	LFUD2X3G8	320	8.2	12.6				221	6	130	0.4	0.0045

SUMMARY REPORT

Field Data Part 1 of 1

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

(LF-UD-2)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
1/21/2010	XX	LFUD2X3H0	335	7.1	11.2				264	6	110	8.2	0.0056				
2/23/2010	XX	LFUD2X3HC	309	8.2	15.1				201	6	155	0.2	0.0056				
3/17/2010	XX	LFUD2X3I1	296	6.7	17.6				358	5	145	5.2	0.0078				
4/27/2010	XX	LFUD2X3JE	250	8	12.9				248	6	140	0.5	0.0045				
5/18/2010	XX	LFUD2X40H	286	7.8	19.1				315	4	100	1.1	0.0056				
6/22/2010	XX	LFUD2X416	309	7.8	21.1				305	6	130	0.4	0.0045				
7/20/2010	XX	LFUD2X42I	352	8	22.1				343	5	245	2.4	0.0223				
8/30/2010	XX	LFUD2X44A	455	7.6	24.2				303	5	220	8.5	0.0011				
9/28/2010	XX	LFUD2X442	499	7.2	20.3				340	6	175	0	0.0022				
10/19/2010	XX	LFUD2X462	709	6.8	11.7				438	5	160	0	0.0006				
11/11/2010	XX	LFUD2X474	323	8.2	13.1				245	4	135	0.5	0.0033				
12/16/2010	XX	LFUD2X480	H2	H2	H2				H2	H2	H2	H2	H2				
1/24/2011	XX	LFUD2X47C	286	8	12				251	6	350	0	0.0011				
2/24/2011	XX	LFUD2X4BH	328	7.6	16.1				321	6	260	0	0.0033				
3/25/2011	XX	LFUD2X4C7	H2	H2	H2					H2	H2	H2	H2				
4/26/2011	XX	LFUD2X4A3	273	7.7	17.2				325	5	35	0.8	0.0056				
5/25/2011	XX	LFUD2X4F6	H2	H2	H2				H2	H2	H2	H2	H2				
6/20/2011	XX	LFUD2X4FH	H2	H2	H2				H2	H2	H2	H2	H2				
7/19/2011	XX	LFUD2X4E1	277	7.4	23.2				269	5	100	0	0.0045				
8/3/2011	XX	LFUD2X4J7	H2	H2	H2				H2	H2	H2	H2	H2				
10/8/2011	XX	LFUD2X4IF	291	7.4	24.5				364	6	100	0.1	0.0022				
10/25/2011	XX	LFUD2X4HG	302	6.4	18.3				329	6	120	2.7	0.0045				
11/30/2011	XX	LFUD2X50A	288	8	19.2				345		100	0.27	0.0022				
12/29/2011	XX	LFUD2X4JI	288	8.2	16.3				318	9	110	0.2	0.0022				
1/26/2012	XX	LFUD2X58A	297	8	16.8				357	8	115	0.37	0.0011				
2/24/2012	XX	LFUD2X592	310	7.3	16.8				273	4	130	0.82	0.0011				
3/23/2012	XX	LFUD2X59D	302	7.25	17.9				393	5	125	0.26	0.0011				
4/16/2012	XX	LFUD2X5A4	311	7	20.9				391	6	130	0.18	0.0011				
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	115	0.1	0.0011				
6/29/2012	XX	LFUD2X5B6	305	6.8	22.8				444	6	100	0.21	0.0011				
7/24/2012	XX	LFUD2X575	316	6.8	22.6				495	5	225	1.5	0.0056				
7/31/2012	XX	LFUD2X5BH	345	7.1	28.4				364	8	120	0.01	0.0011				
8/31/2012	XX	LFUD2X5EI	368	6.8	22.6				349	6	125	0	0.0011				
9/27/2012	XX	LFUD2X5F9	321	8.1	21.3				360	6	150	0.01	0.0006				
10/23/2012	XX	LFUD2X5DG	307	7.1	14.3				518	5	100	1.2	0.0045				
11/13/2012	XX	LFUD2X5G0	276	8	17.5				346	6	115	0.63	0.0011				
12/31/2012	XX	LFUD2X5GB	293	7.7	13.7				399	6	115	0.72	0.0003				
1/30/2013	XX	LFUD2X607	186	7	16.4				404	6	85	4.1	0.0022				
2/15/2013	XX	LFUD2X5JF	277	7.7	14.3				407	6	135	0.04	0.0022				
3/28/2013	XX	LFUD2X610	284	8.2	18.2				352	8	140	0.35	0.0006				
4/23/2013	XX	LFUD2X5I7	304	7.4	18.3				285	6	90	1	0.0045				
4/24/2013	XX	LFUD2X61C	229	7.1	17.8				349	8	150	0.04	0.0006				
5/30/2013	XX	LFUD2X624	234	7.4	24.1				329	8	150	0.32	0.0011				
6/26/2013	XX	LFUD2X62G	298	8	21.2				366	8	125	0.58	0.0011				
7/30/2013	XX	LFUD2X64C	320	7.1	22.9				196	6	105	0.5	0.0056				
8/20/2013	XX	LFUD2X696	348	7	24.8				386	6	135	0.27	0.0011				
9/26/2013	XX	LFUD2X68E	338	8.2	20				398	8	120	0.63	0.0022				
10/29/2013	XX	LFUD2X675	404	7.3	17.3				260	6	120	0.5	0.0022				
11/25/2013	XX	LFUD2X69J	332	8.4	13.4				343	8	125	1.48	0.0011				

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(LF-UD-2) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
12/17/2013	XX	LFUD2X6CJ	327	7.4	9.1				366	8	150	0.46	0.00033				
LF-UD-3A,B																	
1/24/2007	XX	LFUD3X24C	482	6.2	7.5				372	4	90	1.8	0.0045				
2/22/2007	XX	LFUD3X25A	471	8.3	5				209	5	110	0	0.0022				
3/21/2007	XX	LFUD3X25H	249	7	9.7				278	5	135	0.4	0.0017				
4/26/2007	XX	LFUD3X264	339	8	14.2				335	6	125	0	0.0045				
5/16/2007	XX	LFUD3X246	386	8	11.1				373	6	150	0.3	0.0011				
6/21/2007	XX	LFUD3X28E	443	6.8	19.8				300	6	195	2.1	0.0022				
7/25/2007	XX	LFUD3X288	F6	F6	F6				F6	F6	F6	F6	F6				
8/16/2007	XX	LFUD3X2B4	F6	F6	F6				F6	F6	F6	F6	F6				
9/12/2007	XX	LFUD3X2AI	F6	F6	F6				F6	F6	F6	F6	F6				
10/24/2007	XX	LFUD3X2BA	F6	F6	F6				F6	F6	F6	F6	F6				
11/27/2007	XX	LFUD3X2BG	329	7.7	11.7				247	6	90	0.5	0.0033				
12/18/2007	XX	LFUD3X2C2	219	7.8	6.8				356	6	85	1	0.0022				
1/9/2008	XX	LFUD3X2C8	126	6.5	9.3				249	6	90	0.6	0.0067				
2/25/2008	XX	LFUD3X2F0	294	7.9	7.7				302	5	105	0.8	0.0045				
3/13/2008	XX	LFUD3X2F6	236	8.2	7.7				311	5	90	0	0.0056				
4/17/2008	XX	LFUD3X2FC	311	7.2	14.9				315	6	190	0.9	0.0022				
5/20/2008	XX	LFUD3X2EE	314	8	13.3				337	6	160	1.8	0.0045				
6/9/2008	XX	LFUD3X2I2	269	7.4	15.8				288	6	150	1	0.0033				
7/28/2008	XX	LFUD3X2HG	D	D	D				D	D	D	D	D				
8/28/2008	XX	LFUD3X30C	D	D	D				D	D	D	D	D				
9/25/2008	XX	LFUD3X30I	D	D	D				D	D	D	D	D				
10/29/2008	XX	LFUD3X306	F6	F6	F6				F6	F6	F6	F6	F6				
11/17/2008	XX	LFUD3X314	F6	F6	F6				F6	F6	F6	F6	F6				
12/23/2008	XX	LFUD3X31A	D	D	D				D	D	D	D	D				
1/14/2009	XX	LFUD3X341	F6	F6	F6				F6	F6	F6	F6	F6				
2/2/2009	XX	LFUD3X348	F6	F6	F6				F6	F6	F6	F6	F6				
3/11/2009	XX	LFXXXX34G	F6	F6	F6				F6	F6	F6	F6	F6				
4/15/2009	XX	LFXXXX33F	411	8.1	14.8				447	5	200	0.5	0.0033				
5/28/2009	XX	LFXXXX354	505	7.7	16.7				94	6	185	5	0.0003				
6/23/2009	XX	LFXXXX35C	H2	H2	H2				H2	H2	H2	H2	H6				
7/8/2009	XX	LFXXXX37I	H2	H2	H2				H2	H2	H2	H2	H6				
8/4/2009	XX	LFXXXX386	401	6.9	19.7				274	6	275	1.8	0.0006				
9/1/2009	XX	LFXXXX38F	H2	H2	H2				H2	H2	H2	H2	H6				
10/27/2009	XX	LFXXXX3FC	H2	H2	H2				H2	H2	H2	H2	H6				
11/11/2009	XX	LFXXXX3G2	F6	F6	F6				F6	F6	F6	F6	F6				
12/8/2009	XX	LFUD3A3GC	439	8.4	10.3				215	5	170	0.5	0.0056				
1/21/2010	XX	LFUD3A3H4	405	7.5	9.4				248	6	185	1.2	0.0033				
2/23/2010	XX	LFUD3A3HG	402	8.2	13.6				215	5	190	0.1	0.0045				
3/17/2010	XX	LFUD3A3I5	490	6.6	18.3				340	5	205	1.9	0.0067				
4/27/2010	XX	LFXXXX40C	408	7.9	14.3				270	6	160	0.4	0.0045				
5/18/2010	XX	LFUD3A411	400	7.9	19.1				315	5	160	0.5	0.0022				
6/22/2010	XX	LFUD3A419	F6	F6	F6				F6	F6	F6	F6	F6				
7/20/2010	XX	LFXXXX43G	F6	F6	F6				F6	F6	F6	F6	F6				
8/30/2010	XX	LFUD3A44D	F6	F6	F6				F6	F6	F6	F6	F6				
9/28/2010	XX	LFUD3A445	F6	F6	F6				F6	F6	F6	F6	F6				
10/19/2010	XX	LFXXXX46J	F6	F6	F6				F6	F6	F6	F6	F6				
11/11/2010	XX	LFUD3A477	565	8.2	14.7				201	5	200	0.6	0.0022				

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(LF-UD-3A,B)			Specific Conductance	pH	Temperature	Water Level Depth	Water Level Elevation	Well Depth	Corrected Eh	Dissolved Oxygen	Alkalinity (CaCO3) (field)	Turbidity (field)	Flow Rate				
Date	Type	Sample ID	µmhos/cm @25°C	Standard Units	Degrees Celcius	Feet	Feet	Feet	mV	mg/L	mg/L	NTU	cfs				
12/16/2010	XX	LFUD3A483	H2	H2	H2				H2	H2	H2	H2	H2				
1/24/2011	XX	LFUD3A47F	385	8.1	14.2				255	8	475	0	0.0011				
2/24/2011	XX	LFUD3A4C0	453	7.3	17.8				326	6	360	0	0.0022				
3/25/2011	XX	LFUD3A4CA	H2	H2	H2					H2	H2	H2	H2				
4/26/2011	XX	LFXXXX4B1	370	7.9	17.4				309	5	265	0.5	0.0045				
5/25/2011	XX	LFUD3A4F9	H2	H2	H2				H2	H2	H2	H2	H2				
6/20/2011	XX	LFUD3A4G0	H2	H2	H2				H2	H2	H2	H2	H2				
7/19/2011	XX	LFXXXX4EJ	H2	H2	H2				H2	H2	H2	H2	H2				
8/3/2011	XX	LFUD3A4JA	H2	H2	H2				H2	H2	H2	H2	H2				
10/8/2011	XX	LFUD3A4II	H8	H8	H8				H8	H8	H8	H8	H8				
10/25/2011	XX	LFXXXX4IC	F6	F6	F6				F6	F6	F6	F6	F6				
11/30/2011	XX	LFUD3A50D	H8	H8	H8				H8	H8	H8	H8	H8				
12/29/2011	XX	LFUD3A501	H8	H8	H8				H8	H8	H8	H8	H8				
1/26/2012	XX	LFXXXX58D	H8	H8	H8				H8	H8	H8	H8					
2/24/2012	XX	LFXXXX595	H8	H8	H8				H8	H8	H8	H8					
3/23/2012	XX	LFXXXX59G	F6	F6	F6				F6	F6	F6	F6					
4/16/2012	XX	LFXXXX5A7	F6	F6	F6				F6	F6	F6	F6					
4/24/2012	XX	LFXXXX534	H2	H2	H2				H2	H2	H2	H2					
5/3/2012	XX	LFXXXX5AI	H8	H8	H8				H8	H8	H8	H8					
6/29/2012	XX	LFXXXX5B9	H8	H8	H8				H8	H8	H8	H8					
7/24/2012	XX	LFXXXX581	F6	F6	F6				F6	F6	F6	F6					
7/31/2012	XX	LFXXXX5C0	H8	H8	H8				H8	H8	H8	H8					
8/31/2012	XX	LFXXXX5F1	H8	H8	H8				H8	H8	H8	H8					
9/27/2012	XX	LFXXXX5FC	H8	H8	H8				H8	H8	H8	H8					
10/23/2012	XX	LFXXXX5EC	F6	F6	F6				F6	F6	F6	F6					
11/13/2012	XX	LFXXXX5G3	H8	H8	H8				H8	H8	H8	H8					
12/31/2012	XX	LFXXXX5GE	H8	H8	H8				H8	H8	H8	H8					
1/30/2013	XX	LFXXXX60A	H8	H8	H8				H8	H8	H8	H8					
2/15/2013	XX	LFXXXX5JI	H8	H8	H8				H8	H8	H8	H8					
3/28/2013	XX	LFXXXX613	H8	H8	H8				H8	H8	H8	H8					
4/23/2013	XX	LFXXXX5J5	F6	F6	F6				F6	F6	F6	F6					
4/24/2013	XX	LFXXXX61F	H8	H8	H8				H8	H8	H8	H8					
5/30/2013	XX	LFXXXX627	H8	H8	H8				H8	H8	H8	H8					
6/26/2013	XX	LFXXXX62J	H8	H8	H8				H8	H8	H8	H8					
7/30/2013	XX	LFXXXX65A	F6	F6	F6				F6	F6	F6	F6					
8/20/2013	XX	LFXXXX699	H8	H8	H8				H8	H8	H8	H8					
9/26/2013	XX	LFXXXX68H	H8	H8	H8				H8	H8	H8	H8					
10/29/2013	XX	LFXXXX67J	F6	F6	F6				F6	F6	F6	F6					
11/25/2013	XX	LFXXXX6A2	H8	H8	H8				H8	H8	H8	H8					
12/17/2013	XX	LFXXXX6D2	H8	H8	H8				H8	H8	H8	H8					
LF-UD-4																	
3/11/2009	XX	LFXXXX34I	F6	F6	F6				F6	F6	F6	F6	F6				
4/15/2009	XX	LFXXXX34A	366	7.2	13				491	6	120	0.8	0.0033				
5/28/2009	XX	LFXXXX356	F6	F6	F6				F6	F6	F6	F6	F6				
6/23/2009	XX	LFXXXX35E	H2	H2	H2				H2	H2	H2	H2	H6				
7/8/2009	XX	LFXXXX380	H2	H2	H2				H2	H2	H2	H2	H6				
8/4/2009	XX	LFXXXX388	F6	F6	F6				F6	F6	F6	F6	F6				
9/1/2009	XX	LFXXXX38H	H2	H2	H2				H2	H2	H2	H2	H6				
10/27/2009	XX	LFXXXX3FE	H2	H2	H2				H2	H2	H2	H2	H6				

SUMMARY REPORT
Field Data Part 1 of 1

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

(LF-UD-4)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
11/11/2009	XX	LFXXXX3G4	562	7.2	20				418	6	110	1.1	0.0045				
12/8/2009	XX	LFUD4X3GE	470	8.3	12.1				218	5	115	0	0.0022				
1/21/2010	XX	LFUD4X3H6	473	7.4	11.1				263	6	125	0	0.0056				
2/23/2010	XX	LFUD4X3HI	406	7.8	14.1				212	5	170	0	0.0078				
3/17/2010	XX	LFUD4X3I7	427	6.9	17.1				322	5	145	2.6	0.0067				
4/27/2010	XX	LFXXXX40E	F6	F6	F6				F6	F6	F6	F6	F6				
5/18/2010	XX	LFUD4X413	371	7.1	18.8				325	4	125	1.1	H6				
6/22/2010	XX	LFUD4X41B	373	7	21.3				321	5	165	0	H6				
7/20/2010	XX	LFXXXX43I	F6	F6	F6				F6	F6	F6	F6	F6				
8/30/2010	XX	LFUD4X44F	464	7.4	23.8				303	6	215	9.1	0.0011				
9/28/2010	XX	LFUD4X447	F6	F6	F6				F6	F6	F6	F6	F6				
10/19/2010	XX	LFXXXX471	F6	F6	F6				F6	F6	F6	F6	F6				
11/11/2010	XX	LFUD4X479	459	7.3	14.7				233	4	125	0.2	H6				
12/16/2010	XX	LFUD4X485	H2	H2	H2				H2	H2	H2	H2	H2				
1/24/2011	XX	LFUD4X47H	H6	H6	H6				H6	H6	H6	H6	H6				
2/24/2011	XX	LFUD4X4C2	H8	H8	H8				H8	H8	H8	H8	H8				
3/25/2011	XX	LFUD4X4CC	H2	H2	H2				H2	H2	H2	H2	H2				
4/26/2011	XX	LFXXXX4B3	F12	F12	F12				F12	F12	F12	F12	F12				
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	H2				
8/3/2011	XX	LFUD4X4JC	H2	H2	H2				H2	H2	H2	H2	H2				
10/8/2011	XX	LFUD4X4J0	H2	H2	H2				H2	H2	H2	H2	H2				
10/25/2011	XX	LFXXXX4GA	F6	F6	F6				F6	F6	F6	F6	F6				
11/30/2011	XX	LFUD4X50F	H2	H2	H2				H2	H2	H2	H2	H2				
12/29/2011	XX	LFUD4X503	H2	H2	H2				H2	H2	H2	H2	H2				
1/26/2012	XX	LFUD4X58F	H2	H2	H2				H2	H2	H2	H2	H2				
2/24/2012	XX	LFUD4X596	H8	H8	H8				H8	H8	H8	H8	H8				
3/23/2012	XX	LFUD4X59H	444	7.3	17.3				395	5	200	0.29	0.0006				
4/16/2012	XX	LFUD4X5A8	437	7.2	20.7				390	8	200	0.32	0.0011				
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	300	1.2	0.0045				
7/31/2012	XX	LFUD4X5C1	457	7.3	30.7				403	8	140	0.19	0.0006				
8/31/2012	XX	LFUD4X5F2	485	6.9	22.6				375	5	200	0.11	0.0006				
9/27/2012	XX	LFUD4X5FD	447	7.9	21				375	6	170	0.03	0.0006				
10/23/2012	XX	LFXXXX5CA	362	7	16.2				571	5	150	1.6	0.0022				
11/13/2012	XX	LFUD4X5G4	387	7.8	17.3				355	6	200	0.85	0.0003				
12/31/2012	XX	LFUD4X5GF	416	7.8	12.1				358	6	165	0.49	0.0003				
1/30/2013	XX	LFUD4X60B	402	7.3	13.8				437	6	175	0.43	0.0003				
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	92	1.1	0.0022				
4/24/2013	XX	LFUD4X61G	327	7.3	15.5				346	8	205	0.44	0.0006				
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	215	0.41	0.0011				

(LF-UD-4) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
10/29/2013	XX	LFXXXX680	424	7	17.8				322	5	110	0.3	0.0022				
11/25/2013	XX	LFUD4X6A3	440	8.2	8.1				380	8	185	0.64	0.0006				
12/17/2013	XX	LFUD4X6D3	424	7.5	8.4				413	8	210	1.67	0.00017				
LF-UD-5																	
12/8/2009	XX	LFUD5X3GI	395	8.3	4.2				264	6	125	0.1	0.0067				
1/21/2010	XX	LFUD5X3HA	350	7.6	6.1				309	5	120	0	0.0033				
2/23/2010	XX	LFUD5X3HJ	337	7.9	7				220	6	135	0.4	0.0078				
3/17/2010	XX	LFUD5X3I8	337	7.3	9.5				324	6	130	0.9	0.0056				
4/27/2010	XX	LFXXXX40F	345	7.4	10.1				285	5	130	0.4	0.0045				
5/18/2010	XX	LFUD5X414	349	7.6	12.3				285	5	105	0.2	0.0067				
LF-UD-5and6																	
6/22/2010	XX	LFUD5X41C	355	7.7	18.9				328	6	140	6.5	0.0022				
7/20/2010	XX	LFXXXX43J	407	7	19.1				213	6	200	1.5	0.0002				
8/30/2010	XX	LFUD5X44G	470	7.8	23.3				324	6	245	8.1	0.0006				
9/28/2010	XX	LFUD5X448	428	7	18.2				332	6	160	0	0.0033				
10/19/2010	XX	LFXXXX472	652	6.9	10.9				434	5	150	4.2	0.0006				
11/11/2010	XX	LFUD5X47A	440	8.1	10.7				238	4	150	9	0.0022				
12/16/2010	XX	LFUD5X486	472	6.7	8.9				307	6	165	0	0.0022				
1/24/2011	XX	LFUD5X47I	414	8	13.4				275	6	435	0	0.0045				
2/24/2011	XX	LFUD5X4C3	515	7.3	16.1				354	5	375	1.2	0.0022				
3/25/2011	XX	LFUD5X4CD	440	7.6	13.7					8	150	1.5	0.0022				
4/26/2011	XX	LFXXXX4B4	450	6.9	16.8				281	5	415	1.5	0.0033				
5/25/2011	XX	LFUD5X4FC	510 G7	7.4 G7	20.7 G7				367 G7	8 G7	113 G7	18 G7					
6/20/2011	XX	LFUD5X4G3	469	7.2	22.6				382	8	125	15.3					
7/19/2011	XX	LFXXXX4F2	440	7.3	21.9				403	5	175	0	0.0022				
8/3/2011	XX	LFUD5X4JD	458	7.8	21.2				348	8	150	4.3					
10/8/2011	XX	LFUD5X4J1	447	7.7	20.3				358	8	150	11.6					
10/25/2011	XX	LFXXXX4G7	476	7.3	17.8				250	5	240	5.5	0.0028				
11/30/2011	XX	LFUD5X50G	443	7.6	15.7				347		150	6.14					
12/29/2011	XX	LFUD5X504	477	7.9	15.7				333	8	118	2.9					
1/26/2012	XX	LFXXXX58G	473	8.3	11.9				359	8	150	14.95					
2/24/2012	XX	LFXXXX597	460	8.1	15.2				348	5	175	3.16					
3/23/2012	XX	LFXXXX59I	486	7.8	16.6				382	6	190	1.58					
4/16/2012	XX	LFXXXX5A9	467	8	22.8				357	6	200	6.06					
4/24/2012	XX	LFXXXX537	389	7.4	18.8				427	6	95	4.6					
5/3/2012	XX	LFXXXX5B0	491	8	17.4				370	8	160	1.16					
6/29/2012	XX	LFXXXX5BB	473	7.2	23.1				416	6	175	0.55					
7/24/2012	XX	LFXXXX584	482	7.3	22.4				417	6	260	3					
7/31/2012	XX	LFXXXX5C2	500	7.5	23.6				355	6	200	0.13					
8/31/2012	XX	LFXXXX5F3	514	7.3	21.5				317	6	200	0.12					
9/27/2012	XX	LFXXXX5FE	407	7.9	18				354	6	170	30.88					
10/23/2012	XX	LFXXXX5C7	498	7.3	14.5				423	4	160	6.7					
11/13/2012	XX	LFXXXX5G5	378	7.3	16.8				390	7	175	0.2					
12/31/2012	XX	LFXXXX5GG	368	8.3	10.7				303	8	125	1.48	0.0003				
1/30/2013	XX	LFXXXX60C	177	7.5	7.1				447	10	75	9.79					
2/15/2013	XX	LFXXXX600	F	F	F				F	F	F	F	F				
3/28/2013	XX	LFXXXX615	356	8.2	10.3				311	8	170	0.66	0.0002				
4/23/2013	XX	LFXXXX5J7	353	7.8	10.9				237	6	145	2.6	0.0011				

(LF-UD-5and6) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
4/24/2013	XX	LFXXXX61H	296	7.6	11.6				344	8	190	0	0.0002				
5/30/2013	XX	LFXXXX629	291	7.4	18.2				368	8	200	0.09	0.0022				
6/26/2013	XX	LFXXXX631	401	8	18.1				338	8	175	0.67	0.0006				
7/30/2013	XX	LFXXXX65C	319	7.5	20.9				240	6	115	1.7	0.0006				
8/20/2013	XX	LFXXXX69B	H8	H8	H8				H8	H8	H8	H8	H8				
9/26/2013	XX	LFXXXX68J	458	8.1	16				366	6	150	0.63	0.0004				
10/29/2013	XX	LFXXXX681	453	7.2	6.4				412	6	120	0.8	0.0011				
11/25/2013	XX	LFXXXX6A4	369	8.2	12.3				382	6	150	0.34	0.0022				
12/17/2013	XX	LFXXXX6D4	F12	F12	F12				F12	F12	F12	F12	F12				
LF-UD-6																	
2/3/2011	XX	LFXX6X48H	502	7.4	10.4				446	5	163	1	0.0006				
2/24/2011	XX	LFUD6X4C5	640	7.2	12				353	6	88	4.2	0.0045				
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	200	25.1	0.0022				
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	280	1.2	0.0022				
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	360	4	0.0022				
7/31/2012	XX	LFUD6X5C3	733	7.1	20.05				352	6	275	0.3					
8/31/2012	XX	LFUD6X5F4	773	7.1	19.3				329	4	175	0.98					
9/27/2012	XX	LFUD6X5FF	748	7.2	17.2				372	5	165	0.57					
10/23/2012	XX	LFUD6X5C9	762	7.1	13.7				443	5	240	0.8	0.0022				
11/13/2012	XX	LFUD6X5G6	748	7.2	16.8				377	5	250	1.5					
12/31/2012	XX	LFUD6X5GH	720	7.2	14.7				362	6	250	0.82					
1/30/2013	XX	LFUD6X60D	704	7.6	12.5				472	6	250	1.14					
2/15/2013	XX	LFUD6X601	281	7.6	10.6				374	6	110	5.3					
3/28/2013	XX	LFUD6X616	499	7.6	11				330	8	155	1.27					
4/23/2013	XX	LFUD6X5J9	572	7.3	12.2				234	6	140	5	0.0022				
4/24/2013	XX	LFUD6X61I	467	7.7	12.2				351	8	225	0.87					
5/30/2013	XX	LFUD6X62A	525	7.4	18.5				376	6	225	0.26					
6/26/2013	XX	LFUD6X632	809	7.3	16.6				361	6	275	0.26					
7/30/2013	XX	LFUD6X65E	823	7.3	19.5				140	5	235	10.3	0.0022				
8/20/2013	XX	LFUD6X69C	919	7.4	21.4				374	6	250	0.65					
9/26/2013	XX	LFUD6X690	899	7.4	16.6				379	6	250	1.14	F14				
10/29/2013	XX	LFUD6X683	913	7.7	16.1				422	4	265	2.2	0.0022				
11/25/2013	XX	LFUD6X6A5	788	7.6	15.3				396	6	300	0.8					
12/17/2013	XX	LFUD6X6D5	785	7.7	7.6				403	6	225	1.55					

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

(LF-UD-7) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
LF-UD-7																	
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	XX	LFUD7X5FI	H8	H8	H8				H8	H8	H8	H8					
10/23/2012	XX	LFXXXX5EF	F6	F6	F6				F6	F6	F6	F6					
11/13/2012	XX	LFUD7X5G9	H8	H8	H8				H8	H8	H8	H8					
12/31/2012	XX	LFUD7X5GJ	H8	H8	H8				H8	H8	H8	H8					
1/30/2013	XX	LFUD7X60F	H8	H8	H8				H8	H8	H8	H8					
2/15/2013	XX	LFUD7X603	H8	H8	H8				H8	H8	H8	H8					
3/28/2013	XX	LFUD7X618	H8	H8	H8				H8	H8	H8	H8					
4/23/2013	XX	LFUD7X5JA	F6	F6	F6				F6	F6	F6	F6					
4/24/2013	XX	LFUD7X620	H8	H8	H8				H8	H8	H8	H8					
5/30/2013	XX	LFUD7X62C	H8	H8	H8				H8	H8	H8	H8					
6/26/2013	XX	LFUD7X634	H8	H8	H8				H8	H8	H8	H8					
7/30/2013	XX	LFUD7X65F	F6	F6	F6				F6	F6	F6	F6					
8/20/2013	XX	LFUD7X69E	H8	H8	H8				H8	H8	H8	H8					
9/26/2013	XX	LFUD7X692	H8	H8	H8				H8	H8	H8	H8					
10/29/2013	XX	LFUD7X684	F6	F6	F6				F6	F6	F6	F6					
11/25/2013	XX	LFUD7X6A7	H8	H8	H8				H8	H8	H8	H8					
12/17/2013	XX	LFUD7X6D7	H8	H8	H8				H8	H8	H8	H8					
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	145	1.2	0.0011				
4/24/2013	XX	LFUD8X622	243	7.1	11.2				359	8	140	0.04	0.0002				
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	140	0.8	0.0022				
8/20/2013	XX	LFUD8X69G	H2	H2	H2				H2	H2	H2	H2	H2				
9/26/2013	XX	LFUD8X694	363	7.1	16				568	8	135	0.8	0.0003				
10/29/2013	XX	LFUD8X685	407	7	9.6				435	5	140	0.6	0.0011				
11/25/2013	XX	LFUD8X6A9	374	7.2	9.9				401	10	165	0.42	0.00003				
12/17/2013	XX	LFUD8X6D9	344	7.2	5.9				405	6	185	0.64	0.00017				
LP-COMP																	
10/27/2004	XX	LPCOMPHD2	665	6.8	12.4				336	6	260	0					
10/21/2005	XX	LPXXXX1BB	483	7.5	10.2				222	3	125	1.2					
2/23/2006	XX	LPXXXX1CE	377	7.3	6.5				375	6	125	1.9					

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(LP-COMP) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
6/13/2006	XX	LPCOMX1IB	260	7.3	16.2				371	5	175	1.2					
8/16/2006	XX	LPXXXX212	334	7.3	20.7				289	4	110	0					
12/5/2006	XX	LPXXXX21J	405	8.4	6.6				191	4	135	1.2					
1/24/2007	XX	LPXXXX24D	415	6.7	10.3				433	5	85	0.6					
2/22/2007	XX	LPXXXX25B	419	6.9	7.7				306	5	120	4					
8/1/2011	XX	LPCMPX4JG	315	7.1	21.4				346	6	83	0.1					
10/8/2011	XX	LPCMPX4J5	296	7.2	18.2				377	5	95	1.2					
11/30/2011	XX	LPCMPX50J	296	7.2	10.3				372		90	0.4					
12/29/2011	XX	LPCMPX507	315	7.6	8.3				374	10	110	3.1					
1/26/2012	XX	LPCMPX58J	315	7.6	9.1				371	6	110	1.47					
2/24/2012	XX	LPCMPX59A	323	7.8	13				354	8	125	1.74					
3/23/2012	XX	LPCMPX5A1	320	7.6	15.3				360	6	125	0.39					
4/16/2012	XX	LPCMPX5AC	331	7.3	13.2				377	6	150	0.48					
5/3/2012	XX	LPCMPX5B3	324	7.4	14.3				395	10	120	0.42					
7/31/2012	XX	LPCMPX5C5	355	7	22				363	8	125	0.79					
LP-LD-1																	
7/28/2004	XX	LPLD1X05I	835	7.5	12.4				277	6	300	1.9					
8/30/2004	XX	LPLD1X082	316	6.9	17.2				301	6	165	12.5					
9/27/2004	XX	LPLD1X088	630	7.4	19.7				277	5	325	1.1					
10/27/2004	XX	LPLD1X07A	467	7.9	12.4				326	5	200	3.4					
11/23/2004	XX	LPLD1X103	497	7.9	9.7				269	6	175	4.9					
12/22/2004	XX	LPLD1X109	487	7	7.5				195	8	250	15.4					
1/26/2005	XX	LPLD1X11B	D	D	D				D	D	D	D					
2/24/2005	XX	LPLD1X11I	168	7.5	4.3				265	5	85	0					
3/29/2005	XX	LPLD1X14J	56	6.4	3.2				360	5	35	0					
4/28/2005	XX	LPLD1X154	610	7.3	5.9				398	6	25	25					
5/11/2005	XX	LPLD1X13B	71	7.2	10.9				320	6	60	14					
6/22/2005	XX	LPLD1X17C	120	7.7	12.8				406	6	60	14.5					
7/27/2005	XX	LPLD1X16J	304	7	20.2				343	6	70	0.8					
8/29/2005	XX	LPLD1X1B2	539	6.7	15.9				281	4	160	6.7					
9/21/2005	XX	LPLD1X19H	944	7	16.4				305	6	425	4.5					
10/21/2005	XX	LPLD1X1B7	105	8.3	9.3				227	4	45	2.3					
11/21/2005	XX	LPLD1X1BE	124	7.6	11.6				238	5	60	1.8					
12/27/2005	XX	LPLD1X1C0	639	7.3	4.1				302	6	150	2.6					
1/23/2006	XX	LPLD1X1C5	670	7.5	5.5				398	6	225	1.1					
2/23/2006	XX	LPLD1X1CA	727	7.1	6.5				330	6	290	2.3					
3/15/2006	XX	LPLD1X1CH	402	6.8	3.8				431	6	90	1.7					
4/27/2006	XX	LPLD1X1FI	691	7.2	7.3				353	6	200	3.6					
5/24/2006	XX	LPLD1X1EC	207	7.5	11.6				367	6	75	1.2					
6/13/2006	XX	LPLD1X1I7	103	7	13				460	5	50	3.1					
7/25/2006	XX	LPLD1X1H9	555	6.5	19.6				397	5	280	1.2					
8/16/2006	XX	LPLD1X20J	693	7.5	19				349	4	195	0					
9/11/2006	XX	LPLD1X202	805	7.1	14.9				286	6	135	1.3					
10/19/2006	XX	LPLD1X215	301	7.2	13.2				236	6	130	1.8					
11/21/2006	XX	LPLD1X21B	240	7.6	10				168	6	90	1.2					
12/5/2006	XX	LPLD1X21G	399	7.8	4				330	5	50	5.5					
1/24/2007	XX	LPLD1X249	357	6.5	9.2				419	4	50	3.5					
2/22/2007	XX	LPLD1X257	517	7	3.7				227	6	130	0					
3/21/2007	XX	LPLD1X25E	L	L	L				L	L	L	L					

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(LP-LD-1) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
4/26/2007	XX	LPLD1X261	212	7.2	7.2				342	5	80	5.1					
5/16/2007	XX	LPLD1X239	500	6.6	10.1				270	5	200	2.5					
6/21/2007	XX	LPLD1X28B	453	6.4	10.8				314	6	210	2.2					
7/25/2007	XX	LPLD1X27D	788	7.2	18.6				232	3	325	2.9					
8/16/2007	XX	LPLD1X2B1	781	7.2	14.9				244	6	355	2.8					
9/12/2007	XX	LPLD1X2A3	695	7.7	15.9				115	4	370	2.6					
10/24/2007	XX	LPLD1X2B7	774	8.1	12.8				176	6	60	1.2					
11/27/2007	XX	LPLD1X2BD	187	7.7	7.3				252	6	55	2.2					
12/18/2007	XX	LPLD1X2BJ	545	5.8	3.1				322	6	50	1.1					
1/9/2008	XX	LPLD1X2C5	329	6.9	7.4				258	6	250	0.8					
2/25/2008	XX	LPLD1X2EH	303	7.8	5.2				336	6	110	0.6					
3/13/2008	XX	LPLD1X2F3	192	8.3	1.2				321	5	60	1.7					
4/17/2008	XX	LPLD1X2F9	121	7.9	7.2				293	6	60	2.7					
5/20/2008	XX	LPLD1X2DH	129	8.1	8.8				379	6	70	2.2					
6/9/2008	XX	LPLD1X2HJ	140	7.9	12.3				307	6	45	1.6					
7/28/2008	XX	LPLD1X2H1	252	6.9	22.6				391	4	115	0					
8/28/2008	XX	LPLD1X309	430	7.8	15.8				293	3	125	1.8					
9/25/2008	XX	LPLD1X30F	254	7.1	14.9				226	3	115	0.7					
10/29/2008	XX	LPLD1X2JB	290	7.6	9.4				383	5	115	1.2					
11/17/2008	XX	LPLD1X311	331	7.7	10.3				354	6	160	1.2					
12/23/2008	XX	LPLD1X317	321	7.7	6.9				210	5	95	1.1					
1/14/2009	XX	LPLD1X33I	292	8.6	4.1				169	5	55	0.7					
2/2/2009	XX	LPLD1X345	315	7.6	5.7				371	5	95	1.7					
3/11/2009	XX	LPLD1X34D	A	A	A				A	A	A	A					
4/15/2009	XX	LPLD1X32J	627	6.6	7.4				503	5	130	0.5					
5/28/2009	XX	LPLD1X351	366	7	14.6				283	6	120	2.3					
6/23/2009	XX	LPLD1X359	180	8	11.1				327	4	40	8.7					
7/8/2009	XX	LPLD1X373	145	7.6	17.1				246	4	35	0.3					
8/4/2009	XX	LPLD1X383	154	6.7	23.5				260	5	55	0.9					
9/1/2009	XX	LPLD1X38C	162	7.4	17.6				317	5	70	1.7					
10/27/2009	XX	LPLD1X3EI	227	7.8	11.2				409	5	30	3.6					
11/11/2009	XX	LPLD1X3FJ	328	7.1	12.2				408	5	65	1.6					
12/8/2009	XX	LPLD1X3G9	310	7.8	7.1				286	4	90	0					
1/21/2010	XX	LPLD1X3H1	337	7.5	6.2				309	3	95	0					
2/23/2010	XX	LPLD1X3HD	241	7.4	6.3				220	6	105	0.1					
3/17/2010	XX	LPLD1X3I2	202	7.4	8.2				313	6	140	2.3					
4/27/2010	XX	LPLD1X3JH	343	6.4	7.8				295	5	100	0.5					
7/20/2010	XX	LPLD1X431	406	6.6	14.2				408	5	210	2.4					
10/19/2010	XX	LPLD1X465	536	6.9	9.2				324	4	110	0.3					
4/26/2011	XX	LPLD1X4A6	173	7.7	8				310	6	150	2.5					
7/19/2011	XX	LPLD1X4E4	212	7.7	16.4				263	3	75	0					
10/25/2011	XX	LPLD1X4HJ	336	7.4	13.3				186	5	130	0					
4/24/2012	XX	LPLD1X529	184	8	7				383	6	65	2					
7/24/2012	XX	LPLD1X578	206	7.5	15.4				381	5	110	2.1					
10/23/2012	XX	LPLD1X5DJ	123	7.1	13.2				411	5	100	1.5					
4/23/2013	XX	LPLD1X5IA	238	7.9	6.9				231	6	85	1.3					
7/30/2013	XX	LPLD1X64F	191	7.3	15.4				217	3	65	1.3					
LP-UD-1																	
7/28/2004	XX	LPUD1X05G	D	D	D				D	D	D	D					

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(LP-UD-1) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
8/30/2004	XX	LPUD1X083	D	D	D				D	D	D	D					
9/27/2004	XX	LPUD1X089	D	D	D				D	D	D	D					
10/27/2004	XX	LPUD1X078	H2	H2	H2				H2	H2	H2	H2					
11/23/2004	XX	LPUD1X104	D	D	D				D	D	D	D					
12/22/2004	XX	LPUD1X10A	D	D	D				D	D	D	D					
1/26/2005	XX	LPUD1X11C	D	D	D				D	D	D	D					
2/24/2005	XX	LPUD1X11J	D	D	D				D	D	D	D					
3/29/2005	XX	LPUD1X150	517	6.8	8.3				368	5	125	0					
4/28/2005	XX	LPUD1X155	D	D	D				D	D	D	D					
5/11/2005	XX	LPUD1X139	D	D	D				D	D	D	D					
6/22/2005	XX	LPUD1X17D	D	D	D				D	D	D	D					
7/27/2005	XX	LPUD1X16H	D	D	D				D	D	D	D					
8/29/2005	XX	LPUD1X1B3	D	D	D				D	D	D	D					
9/21/2005	XX	LPUD1X19F	D	D	D				D	D	D	D					
11/21/2005	XX	LPUD1X1BF	D	D	D				D	D	D	D					
12/27/2005	XX	LPUD1X1C1	D	D	D				D	D	D	D					
1/23/2006	XX	LPUD1X1C6	F6	F6	F6				F6	F6	F6	F6					
3/15/2006	XX	LPUD1X1CI	D	D	D				D	D	D	D					
4/27/2006	XX	LPUD1X1FJ	D	D	D				D	D	D	D					
5/24/2006	XX	LPUD1X1EA	D	D	D				D	D	D	D					
6/13/2006	XX	LPUD1X1I8	H5	H5	H5				H5	H5	H5	H5					
7/26/2006	XX	LPUD1X1H7	F6	F6	F6				F6	F6	F6	F6					
8/16/2006	XX	LPUD1X210	H5	H5	H5				H5	H5	H5	H5					
9/11/2006	XX	LPUD1X200	F6	F6	F6				F6	F6	F6	F6					
10/19/2006	XX	LPUD1X216	F6	F6	F6				F6	F6	F6	F6					
11/21/2006	XX	LPUD1X21C	D	D	D				D	D	D	D					
12/5/2006	XX	LPUD1X21H	H5	H5	H5				H5	H5	H5	H5					
1/24/2007	XX	LPUD1X24A	H5	H5	H5				H5	H5	H5	H5					
2/22/2007	XX	LPUD1X258	H5	H5	H5				H5	H5	H5	H5					
3/21/2007	XX	LPUD1X25F	F6	F6	F6				F6	F6	F6	F6					
4/26/2007	XX	LPUD1X262	F6	F6	F6				F6	F6	F6	F6					
5/16/2007	XX	LPUD1X237	F6	F6	F6				F6	F6	F6	F6					
6/21/2007	XX	LPUD1X28C	F6	F6	F6				F6	F6	F6	F6					
7/25/2007	XX	LPUD1X27B	F6	F6	F6				F6	F6	F6	F6					
8/16/2007	XX	LPUD1X2B2	F6	F6	F6				F6	F6	F6	F6					
9/12/2007	XX	LPUD1X2A1	F6	F6	F6				F6	F6	F6	F6					
10/24/2007	XX	LPUD1X2B8	F6	F6	F6				F6	F6	F6	F6					
11/27/2007	XX	LPUD1X2BE	F6	F6	F6				F6	F6	F6	F6					
12/18/2007	XX	LPUD1X2C0	F6	F6	F6				F6	F6	F6	F6					
1/9/2008	XX	LPUD1X2C6	F6	F6	F6				F6	F6	F6	F6					
2/25/2008	XX	LPUD1X2EI	F6	F6	F6				F6	F6	F6	F6					
3/13/2008	XX	LPUD1X2F4	F6	F6	F6				F6	F6	F6	F6					
4/17/2008	XX	LPUD1X2FA	F6	F6	F6				F6	F6	F6	F6					
5/20/2008	XX	LPUD1X2DF	F6	F6	F6				F6	F6	F6	F6					
6/9/2008	XX	LPUD1X2I0	F6	F6	F6				F6	F6	F6	F6					
7/28/2008	XX	LPUD1X2GJ	D	D	D				D	D	D	D					
8/28/2008	XX	LPUD1X30A	D	D	D				D	D	D	D					
9/25/2008	XX	LPUD1X30G	F6	F6	F6				F6	F6	F6	F6					
10/29/2008	XX	LPUD1X2J9	F6	F6	F6				F6	F6	F6	F6					
11/17/2008	XX	LPUD1X312	F6	F6	F6				F6	F6	F6	F6					

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Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
12/23/2008	XX	LPUD1X318	D	D	D				D	D	D	D					
1/14/2009	XX	LPUD1X33J	F6	F6	F6				F6	F6	F6	F6					
2/2/2009	XX	LPUD1X346	F6	F6	F6				F6	F6	F6	F6					
3/11/2009	XX	LPUD1X34E	F6	F6	F6				F6	F6	F6	F6					
4/15/2009	XX	LPUD1X32H	F6	F6	F6				F6	F6	F6	F6					
5/28/2009	XX	LPUD1X352	F6	F6	F6				F6	F6	F6	F6					
6/23/2009	XX	LPUD1X35A	F6	F6	F6				F6	F6	F6	F6					
7/8/2009	XX	LPUD1X371	F6	F6	F6				F6	F6	F6	F6					
8/4/2009	XX	LPUD1X384	F6	F6	F6				F6	F6	F6	F6					
9/1/2009	XX	LPUD1X38D	F6	F6	F6				F6	F6	F6	F6					
10/27/2009	XX	LPUD1X3EG	F6	F6	F6				F6	F6	F6	F6					
11/11/2009	XX	LPUD1X3G0	F6	F6	F6				F6	F6	F6	F6					
12/8/2009	XX	LPUD1X3GA	F6	F6	F6				F6	F6	F6	F6					
1/21/2010	XX	LPUD1X3H2	F6	F6	F6				F6	F6	F6	F6					
2/23/2010	XX	LPUD1X3HE	F6	F6	F6				F6	F6	F6	F6					
3/17/2010	XX	LPUD1X3I3	F6	F6	F6				F6	F6	F6	F6					
4/27/2010	XX	LPUD1X3JF	F6	F6	F6				F6	F6	F6	F6					
5/18/2010	XX	LPUD1X40J	F6	F6	F6				F6	F6	F6	F6					
6/22/2010	XX	LPUD1X417	F6	F6	F6				F6	F6	F6	F6					
7/20/2010	XX	LPUD1X42J	F6	F6	F6				F6	F6	F6	F6					
8/30/2010	XX	LPUD1X44B	F6	F6	F6				F6	F6	F6	F6					
9/28/2010	XX	LPUD1X443	F6	F6	F6				F6	F6	F6	F6					
10/19/2010	XX	LPUD1X463	F6	F6	F6				F6	F6	F6	F6					
11/11/2010	XX	LPUD1X475	F6	F6	F6				F6	F6	F6	F6					
12/16/2010	XX	LPUD1X481	F6	F6	F6				F6	F6	F6	F6					
1/24/2011	XX	LPUD1X47D	F6	F6	F6				F6	F6	F6	F6					
2/24/2011	XX	LPUD1X4BI	F6	F6	F6				F6	F6	F6	F6					
3/25/2011	XX	LPUD1X4C8	F6	F6	F6				F6	F6	F6	F6					
4/26/2011	XX	LPUD1X4A4	F6	F6	F6				F6	F6	F6	F6					
5/25/2011	XX	LPUD1X4F7	F6	F6	F6				F6	F6	F6	F6					
6/20/2011	XX	LPUD1X4FI	F6	F6	F6				F6	F6	F6	F6					
7/19/2011	XX	LPUD1X4E2	F6	F6	F6				F6	F6	F6	F6					
8/1/2011	XX	LPUD1X4J8	H9	H9	H9				H9	H9	H9	H9					
10/8/2011	XX	LPUD1X4IG	H9	H9	H9				H9	H9	H9	H9					
10/25/2011	XX	LPUD1X4HH	F6	F6	F6				F6	F6	F6	F6					
11/30/2011	XX	LPUD1X50B	H9	H9	H9				H9	H9	H9	H9					
12/29/2011	XX	LPUD1X4JJ	H9	H9	H9				H9	H9	H9	H9					
1/26/2012	XX	LPUD1X58B	H9	H9	H9				H9	H9	H9	H9					
2/24/2012	XX	LPUD1X593	H9	H9	H9				H9	H9	H9	H9					
3/23/2012	XX	LPUD1X59E	H9	H9	H9				H9	H9	H9	H9					
4/16/2012	XX	LPUD1X5A5	H5	H5	H5				H5	H5	H5	H5					
4/24/2012	XX	LPUD1X527	F6	F6	F6				F6	F6	F6	F6					
5/3/2012	XX	LPUD1X5AG	H9	H9	H9				H9	H9	H9	H9					
6/29/2012	XX	LPUD1X5B7	F6	F6	F6				F6	F6	F6	F6					
7/24/2012	XX	LPUD1X576	F6	F6	F6				F6	F6	F6	F6					
7/31/2012	XX	LPUD1X5BI	H9	H9	H9				H9	H9	H9	H9					
8/31/2012	XX	LPUD1X5EJ	F6	F6	F6				F6	F6	F6	F6					
9/27/2012	XX	LPUD1X5FA	F6	F6	F6				F6	F6	F6	F6					
10/23/2012	XX	LPUD1X5DH	F6	F6	F6				F6	F6	F6	F6					
11/13/2012	XX	LPUD1X5G1	F6	F6	F6				F6	F6	F6	F6					

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(LP-UD-1) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
12/31/2012	XX	LPUD1X5GC	F6	F6	F6				F6	F6	F6	F6					
1/30/2013	XX	LPUD1X608	F6	F6	F6				F6	F6	F6	F6					
2/15/2013	XX	LPUD1X5JG	F6	F6	F6				F6	F6	F6	F6					
3/28/2013	XX	LPUD1X611	F6	F6	F6				F6	F6	F6	F6					
4/23/2013	XX	LPUD1X5I8	F6	F6	F6				F6	F6	F6	F6					
4/24/2013	XX	LPUD1X61D	F6	F6	F6				F6	F6	F6	F6					
5/30/2013	XX	LPUD1X625	F6	F6	F6				F6	F6	F6	F6					
6/26/2013	XX	LPUD1X62H	F6	F6	F6				F6	F6	F6	F6					
7/30/2013	XX	LPUD1X64D	F6	F6	F6				F6	F6	F6	F6					
8/20/2013	XX	LPUD1X697	F6	F6	F6				F6	F6	F6	F6					
9/26/2013	XX	LPUD1X68F	F6	F6	F6				F6	F6	F6	F6					
10/29/2013	XX	LPUD1X676	F6	F6	F6				F6	F6	F6	F6					
11/25/2013	XX	LPUD1X6A0	F6	F6	F6				F6	F6	F6	F6					
12/17/2013	XX	LPUD1X6D0	F6	F6	F6				F6	F6	F6	F6					
LP-UD-2																	
7/28/2004	XX	LPUD2X05H	480	6.6	12				332	6	180	0					
8/30/2004	XX	LPUD2X084	519	6.1	16				328	6	175	1.6					
9/27/2004	XX	LPUD2X08A	522	6.9	19.9				322	3	265	0					
10/27/2004	XX	LPUD2X079	656	6.8	12.6				311	5	290	0					
11/23/2004	XX	LPUD2X105	574	7.6	9.8				311	5	185	4.1					
12/22/2004	XX	LPUD2X10B	834	7.2	7.6				243	8	250	3.7					
1/26/2005	XX	LPUD2X11D	580	7.2	6.2				262	5	165	0					
2/24/2005	XX	LPUD2X120	498	6.6	6.1				260	6	190	0.4					
3/29/2005	XX	LPUD2X151	517	6.8	8.3				368	5	125	0					
4/28/2005	XX	LPUD2X156	414	6.9	6.4				335	6	205	5.1					
5/11/2005	XX	LPUD2X13A	377	6.7	10.2				339	8	200	0					
6/22/2005	XX	LPUD2X17E	411	7.6	13.3				377	6	155	4.1					
7/27/2005	XX	LPUD2X16I	375	6.9	16.2				302	4		0.9					
8/29/2005	XX	LPUD2X1B4	396	6.7	15.6				253	4	125	60					
9/21/2005	XX	LPUD2X19G	374	7.1	15.3				245	6	190	0					
11/21/2005	XX	LPUD2X1BG	353	7.4	11.8				234	5	155	2.1					
12/27/2005	XX	LPUD2X1C2	430	7.1	4.7				273	6	150	2.5					
1/23/2006	XX	LPUD2X1C7	405	7.2	7.2				273	6	180	1.6					
3/15/2006	XX	LPUD2X1CJ	373	6.8	7.9				324	5	100	1.9					
4/27/2006	XX	LPUD2X1G0	332	7.4	7.2				329	6	130	4.6					
5/24/2006	XX	LPUD2X1EB	349	7.5	12.8				249	5	175	1.5					
6/13/2006	XX	LPUD2X1I9	H5	H5	H5				H5	H5	H5	H5					
7/25/2006	XX	LPUD2X1H8	342	6.4	20.8				231	6	165	1					
8/16/2006	XX	LPUD2X211	H5	H5	H5				H5	H5	H5	H5					
9/11/2006	XX	LPUD2X201	372	6.7	14.9				283	6	110	1.3					
10/19/2006	XX	LPUD2X217	352	7.1	13				246	5	130	2.2					
11/21/2006	XX	LPUD2X21D	289	6.9	10.6				224	1	125	0.8					
12/5/2006	XX	LPUD2X21I	H5	H5	H5				H5	H5	H5	H5					
1/24/2007	XX	LPUD2X24B	H5	H5	H5				H5	H5	H5	H5					
2/22/2007	XX	LPUD2X259	H5	H5	H5				H5	H5	H5	H5					
3/21/2007	XX	LPUD2X25G	210	6.9	8.3				357	5	90	0					
4/26/2007	XX	LPUD2X263	352	7	11.4				263	5	135	1.2					
5/16/2007	XX	LPUD2X238	350	6.6	8.9				423	5	170	0.3					
6/21/2007	XX	LPUD2X28D	289	5.9	12.6				330	6	165	2.8	0.0006				

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(LP-UD-2) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/25/2007	XX	LPUD2X27C	250	7.4	16				359	6	165	3.4	0.0006				
8/16/2007	XX	LPUD2X2B3	334	6.7	16				321	6	125	1.8	0.0006				
9/12/2007	XX	LPUD2X2A2	350	6.8	16.1				414	6	140	0.8	0.0006				
10/24/2007	XX	LPUD2X2B9	464	7	12.1				273	6	125	0.8	0.0006				
11/27/2007	XX	LPUD2X2BF	335	7.4	9.7				259	6	110	0.8	0.0006				
12/18/2007	XX	LPUD2X2C1	322	7.6	6.6				323	6	115	1.3	0.0006				
1/9/2008	XX	LPUD2X2C7	226	6.8	8.6				244	6	135	1.2	0.0033				
2/25/2008	XX	LPUD2X2EJ	333	6.9	6.7				368	6	115	1.5	H6				
3/13/2008	XX	LPUD2X2F5	309	7.5	2.9				356	5	70	0	H6				
4/17/2008	XX	LPUD2X2FB	302	7.3	9.4				311	5	125	0	H6				
5/20/2008	XX	LPUD2X2DG	324	7.5	10.6				388	6	145	1.8	0.0033				
6/9/2008	XX	LPUD2X2I1	308	7.1	13.6				373	5	100	0	H6				
7/28/2008	XX	LPUD2X2H0	306	6.7	23.8				367	4	140	1	H6				
8/28/2008	XX	LPUD2X30B	521	7.3	16.5				325	6	120	0.5	0.0006				
9/25/2008	XX	LPUD2X30H	273	6.9	15.4				218	5	110	0.3	H6				
10/29/2008	XX	LPUD2X2JA	284	7.6	10.1				511	6	115	1.6	0.0089				
11/17/2008	XX	LPUD2X313	282	7.6	9.8				342	5	100	1.3	0.0033				
12/23/2008	XX	LPUD2X319	283	7.7	6				220	6	80	2	0.0022 A6				
1/14/2009	XX	LPUD2X340	277	7.2	3.1				318	6	70	8.3	0.0022 A6				
2/2/2009	XX	LPUD2X347	327	7.4	5.4				364	6	115	4.5	0.0011				
3/11/2009	XX	LPUD2X34F	257	6.9	4.9				375	5	100	2.6	0.0033				
4/15/2009	XX	LPUD2X32I	311	7.1	10.7				520	6	85	0.8	0.0045				
5/28/2009	XX	LPUD2X353	380	7	11.6				307	6	135	4.8	0.0022				
6/23/2009	XX	LPUD2X35B	296	7.2	13.1				277	5	115	0.6	0.0022				
7/8/2009	XX	LPUD2X372	313	7.4	14.1				158	5	125	0	0.0045				
8/4/2009	XX	LPUD2X385	311	6.6	18.3				371	6	225	0.9	0.0022				
9/1/2009	XX	LPUD2X38E	279	6.6	18.8				319	6	135	0.8	0.0056				
10/27/2009	XX	LPUD2X3EH	353	7	10				179	6	50	1.5	0.0045				
11/11/2009	XX	LPUD2X3G1	439	7.3	13.6				377	5	100	0.5	0.0045				
12/8/2009	XX	LPUD2X3GB	363	7.8	7				230	4	115	0.5	0.0045				
1/21/2010	XX	LPUD2X3H3	370	7.5	6.6				301	5	120	0	0.0045				
2/23/2010	XX	LPUD2X3HF	353	7.5	7.4				210	5	150	0.2	0.0033				
3/17/2010	XX	LPUD2X3I4	324	7.3	9.5				291	6	110	0.9	0.0056				
4/27/2010	XX	LPUD2X3JG	324	6.7	8.8				274	6	110	0	0.0045				
5/18/2010	XX	LPUD2X410	318	7.3	12				336	5	80	0.2	0.0022				
6/22/2010	XX	LPUD2X418	379	7.1	14.9				358	5	110	0	0.0045				
7/20/2010	XX	LPUD2X430	315	7.2	19.5				385	6	160	5.9	0.0022				
8/30/2010	XX	LPUD2X44C	355	7.2	18.5				271	5	165	0.2	0.0006				
9/28/2010	XX	LPUD2X444	312	6.9	17.7				295	6	155	0	0.0022				
10/19/2010	XX	LPUD2X464	480	7	10.1				407	6	110	0.1	0.0067				
11/11/2010	XX	LPUD2X476	317	7.7	8.9				231	4	125	0	0.0045				
12/16/2010	XX	LPUD2X482	331	6.9	7.7				307	5	115	0	0.0045				
1/24/2011	XX	LPUD2X47E	302	8	10				273	10	350	0	0.0056				
2/24/2011	XX	LPUD2X4BJ	341	7.3	8.4				358	6	260	0	0.0056				
3/25/2011	XX	LPUD2X4C9	300	7.3	7.5					8	115	0.2	0.0056				
4/26/2011	XX	LPUD2X4A5	325	6.9	9.6				337	6	250	1.2					
5/25/2011	XX	LPUD2X4F8	333	7	13				361	8	72.5	0.03					
6/20/2011	XX	LPUD2X4FJ	304	7	18.1				382	8	100	0.6					
7/19/2011	XX	LPUD2X4E3	250	6.7	18.3				294	5	100	0	0.0033				
8/1/2011	XX	LPUD2X4J9	F12	F12	F12				F12	F12	F12	F12	F12				

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(LP-UD-2) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
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	140	0	0.0045				
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	100	1.23	0.0006				
7/24/2012	XX	LPUD2X577	110	6.7	18.9				468	6	185	3	0.0033				
7/31/2012	XX	LPUD2X5BJ	338	7	20.3				360	6	130	0.14	0.0011				
8/31/2012	XX	LPUD2X5F0	342	6.6	19				298	7	125	0.23	0.0003				
9/27/2012	XX	LPUD2X5FB	196	6.8	17.6				368	6	115	0.39	0.0003				
10/23/2012	XX	LPUD2X5DI	272	6.8	14.1				453	4	105	1.3	0.0033				
11/13/2012	XX	LPUD2X5G2	272	7.2	12.5				364	6	125	0.36	0.0003				
12/31/2012	XX	LPUD2X5GD	286	7.4	7.6				350	8	110	0.64	0.0006				
1/30/2013	XX	LPUD2X609	289	7.7	8.7				463	10	125	0.35	0.0003				
2/15/2013	XX	LPUD2X5JH	272	7.6	9.6				393	6	130	0.04	0.0003				
3/28/2013	XX	LPUD2X612	270	7.9	8.5				300	10	110	0.47	0.0003				
4/23/2013	XX	LPUD2X5I9	299	7.1	7.9				238	6	85	1	0.0033				
4/24/2013	XX	LPUD2X61E	231	7.6	11.1				343	10	137	0.02	0.0006				
5/30/2013	XX	LPUD2X626	216	7.2	18.6				324	10	115	0.19	0.005				
6/26/2013	XX	LPUD2X62I	302	7.1	13.5				409	8	150	0.32	0.0045				
7/30/2013	XX	LPUD2X64E	304	6.8	18.1				261	6	105	1.1	0.0033				
8/20/2013	XX	LPUD2X698	335	6.9	21.3				372	6	125	0.41	0.0045				
9/26/2013	XX	LPUD2X68G	337	7.2	15.9				377	8	110	1.08	0.0011				
10/29/2013	XX	LPUD2X677	361	7	10.8				366	6	125	0.6	0.0022				
11/25/2013	XX	LPUD2X6A1	315	7.4	10.9				381	8	125	0.62	0.0022				
12/17/2013	XX	LPUD2X6D1	288	7.6	9.2				357	10		0.44					
MW04-102																	
1/18/2005	XX	GW102X10C	240	8.1	4	5.45	164.77		241	6	110	1.2					
3/21/2005	XX	GW102X144	202	7.3	7.8	4.9	165.32		292	5	100	1.4					
7/25/2005	XX	GW102X17I	248	7.7	16.4	6.7	163.52		307	4	125	1.2					
9/20/2005	XX	GW102X1A9	205	7.1	13.7	5.52	164.7	18.02	273	2	105	0.4					
5/23/2006	XX	GW102X1F4	219	7.8	11.9	4.8	165.42		366	3	170	0					
7/25/2006	XX	GW102X1I0	215	7.7	20.1	5.13	165.09		343	3	165	0.8					
9/12/2006	XX	GW102X20D	204	7.9	18.3	5.54	164.68	18.04	351	2	75	0					
5/15/2007	XX	GW102X240	236	7.7	9.8	5.67	164.55		341	4	40	1.5					
7/24/2007	XX	GW102X284	217	8.1	19.4	6.3	163.92		371	2	90	0					
9/11/2007	XX	GW102X2AE	215	7.9	12.9	7.42	162.8	18	271	3	90	0.5					
5/20/2008	XX	GW102X2E8	223	7.3	11	6.05	164.17		287	4	130	0.1					
7/29/2008	XX	GW102X2HC	193	7.9	15.7	5.81	164.41		283	3	95	0.6					
10/27/2008	XX	GW102X302	198	7.8	13.7	5.5	164.72	18	151	3	115	0					
4/14/2009	XX	GW102X339	234	7.7	9	5.47	164.75		353	4	75	0					
7/7/2009	XX	GW102X37D	234	8.1	11.8	5	165.22		310	2	75	0					
10/27/2009	XX	GW102X3F8	236	8.2	10.8	5.27	164.95	17.84	354	4	70	0					
4/27/2010	XX	GW102X407	234	7.8	7.3	5.97	164.25		380	3	60	0.8					

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7/21/2010	XX	GW102X43B	245	7.6	18.1	7.58	162.64		180	2	135	2					
10/19/2010	XX	GW102X46F	232	7.9	12.8	5.85	164.37	17.97	231	3	75	0					
4/25/2011	XX	GW102X4AG	249	7.9	11.2	5.02	165.2		335	4	80	0.2					
7/19/2011	XX	GW102X4EE	239	8.1	17.4	6.65	163.57		294	2	85	0.8					
10/25/2011	XX	GW102X4I9	209	8.2	13.1	6.5	163.72	17.85	305	5	95	3.8					
4/24/2012	XX	GW102X52J	227	8.1	9.8	6	164.22		-8	3	120	3.2					
7/24/2012	XX	GW102X57I	230	7.9	15.8	8	162.22		38	3	100	1.4					
10/22/2012	XX	GW102X5E9	221	7.7	14.1	5.78	164.44	17.98	178	3	45	1.5					
4/23/2013	XX	GW102X5J0	220	8.4	7	5.8	164.42		396	3	85	0.9					
7/31/2013	XX	GW102X655	227	7.8	16.1	6.5	163.72		334	3	100	0.8					
10/28/2013	XX	GW102X67F	207	8.3	12.7	7.1	163.12	18.05	306	1	100	1.2					
MW04-105																	
1/17/2005	XX	GW105X10F	435	7.6	7.4	7.31	158.28		170	4	125	0					
3/21/2005	XX	GW105X147	703	6.4	6.7	6.85	158.74		404	2	145	0					
7/25/2005	XX	GW105X181	531	7.3	16.1	8.08	157.51		223	2	230	1.3					
9/20/2005	XX	GW105X1AC	531	6.9	14.4	7.69	157.9	22.83	293	1	145	1.7					
5/23/2006	XX	GW105X1F7	361	6.5	13.8	7.08	158.51		299	1	220	0					
7/25/2006	XX	GW105X1I1	370	6.4	23.8	7.05	158.54		333	2	205	0.9					
9/12/2006	XX	GW105X20E	447	6.1	12.2	6.85	158.74	22.85	344	1	150	1.5					
5/14/2007	XX	GW105X241	343	7	13.3	7.8	157.79		365	3	175	0					
7/24/2007	XX	GW105X285	483	7.2	17.3	8.02	157.57		404	1	135	0					
9/10/2007	XX	GW105X2AF	472	6.8	12.1	8.48	157.11	22.76	213	0.6	240	0					
5/19/2008	XX	GW105X2E9	447	6.8	9.1	8.13	157.46		256	4	210	0.1					
7/29/2008	XX	GW105X2HD	429	6.6	14.6	7.32	158.27		322	1	185	1.2					
10/27/2008	XX	GW105X303	338	7	12.1	7	158.59	22.78	289	0.8	175	0.5					
4/15/2009	XX	GW105X33A	274	6.6	7.7	7.67	157.92		295	2	85	0.9					
7/7/2009	XX	GW105X37E	345	7.3	10.4	5.91	159.68		313	0.8	185	0.2					
10/26/2009	XX	GW105X3F9	528	6.8	10.6	5.8	159.79	22.75	412	3	100	0.6					
4/27/2010	XX	GW105X408	304	6.7	7.7	7.32	158.27		322	0.8	70	0.7					
7/19/2010	XX	GW105X43C	348	6.5	15.6	7.5	158.09		302	0.8	150	0.3					
10/18/2010	XX	GW105X46G	306	7.2	11.5	6.9	158.69	22.75	270	0.6	105	0					
4/26/2011	XX	GW105X4AH	312	7.1	9.6	6.46	159.13		322	1	75	0					
7/18/2011	XX	GW105X4EF	325	6.7	16.7	7.1	158.49		275	0.8	100	0.3					
10/25/2011	XX	GW105X4IA	217	7.7	11.9	6.9	158.69	22.75	339	0.8	85	1.8					
4/23/2012	XX	GW105X530	240	7.4	8.7	7.6	157.99		325	3	160	1.7					
7/24/2012	XX	GW105X57J	299	7.1	13.6	8.6	156.99		-7	0.4	160	1.1					
10/22/2012	XX	GW105X5EA	252	7.2	11.9	6.6	158.99	22.75	281	0.4	70	1.3					
4/24/2013	XX	GW105X5J1	249	6.8	7.1	7.55	158.04		381	1	90	3					
10/29/2013	XX	GW105X68B	286	6.7	11.2	8.43	157.16	22.83	324	0.6	125	1.2					
MW04-109																	
1/19/2005	XX	GW109X10I	572	7.8	4.7	10.95	153.64		323	2	260	0					
3/23/2005	XX	GW109X14A	662	7.1	7.8	10.8	153.79		343	2	200	0					
7/26/2005	XX	GW109X184	416	5.5	11.3	11.65	152.94		273	0.8	225	0					
9/20/2005	XX	GW109X1AF	454	7.2	16.2	11.72	152.87	22.9	168	1	165	0					
5/23/2006	XX	GW109X1FA	349	7.1	9.5	10.17	154.42		300	1	138	0					
7/25/2006	XX	GW109X1I2	370	7.1	13.6	10.15	154.44		297	1	150	0					
9/12/2006	XX	GW109X20F	357	6.2	15.9	10.53	154.06	22.92	200	1	150	0					
5/15/2007	XX	GW109X242	385	7.1	6.9	9.8	154.79		207	1	125	0					

(MW04-109) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/24/2007	XX	GW109X286	314	6.9	15	10.45	154.14		375	0.4	125	0					
9/10/2007	XX	GW109X2AG	283	7	12.2	11.47	153.12	22.85	200	0.3	88	0					
5/19/2008	XX	GW109X2EA	645	6.8	7.1	9.52	155.07		7	0.3	190	0					
7/29/2008	XX	GW109X2HE	613	6.8	14.6	9.61	154.98		72	0.3	285	0					
10/28/2008	XX	GW109X304	494	7.2	12.8	9.9	154.69	22.9	229	2	260	0.2					
4/15/2009	XX	GW109X33B	551	7.2	6.8	10	154.59		262	0.6	240	0.7					
7/7/2009	XX	GW109X37F	DE	DE	DE	DE			DE	DE	DE	DE					
MW04-109R																	
12/8/2009	XX	GW109X3GF	550	7.9	7.9	6.15	153.98	22.98	269	1	210	0					
4/27/2010	XX	GW109X409	402	6.7	9.2	6.35	153.78		286	0.6	125	0					
7/20/2010	XX	GW109X43D	450	6.5	17.2	7.49	152.64		220	0.4	155	0.5					
10/19/2010	XX	GW109X46H	489	7	12.1	6.6	153.53	22.92	209	0.6	155	0					
4/26/2011	XX	GW109X4AI	446	6.6	10.9	6.25	153.88		281	0.6	105	0					
7/19/2011	XX	GW109X4EG	423	6.5	21.1	7.25	152.88		259	0.3	130	0.2					
10/25/2011	XX	GW109X4IB	416	7	12.2	6.62	153.51	22.95	360	0.3	145	1.4					
4/24/2012	XX	GW109X531	382	6.6	10.4	6.36	153.77		-478	0.4	240	2.9					
7/24/2012	XX	GW109X580	408	6.5	19.1	7.27	152.86		-155	0.3	140	1					
10/23/2012	XX	GW109X5EB	404	6.6	9.3	6.4	153.73	22.92	241	0.8	160	1.1					
4/23/2013	XX	GW109X5J2	390	6.8	10.2	6.68	153.45		341	1	165	0.3					
7/30/2013	XX	GW109X657	414	6.6	19	6.92	153.21		278	0.6	180	0.2					
10/29/2013	XX	GW109X67G	397	6.3	5.9	7.41	152.72	22.97	327	0.6	220	0.2					
MW09-901																	
12/8/2009	XX	GW901X3GH	300	8.2	5.3	7.95	157.15	22.8	260	2	90	10.1					
4/27/2010	XX	GW901X3J7	241	7.6	10.6	8.86	156.24		328	3	60	2.1					
7/20/2010	XX	GW901X42B	275	7.4	17.5	10.8	154.3		321	0.8	105	2.7					
10/19/2010	XX	GW901X45F	300	7.5	12.8	9.25	155.85	22.75	235	0.6	80	0.3					
4/26/2011	XX	GW901X49G	254	8	9.7	8.6	156.5		355	2	50	1.6					
7/19/2011	XX	GW901X4DE	219	7.9	19.2	10.5	154.6		329	2	75	0.3					
10/25/2011	XX	GW901X4H9	192	8.2	11.7	9.35	155.75	22.75	206	1	70	3.1					
4/24/2012	XX	GW901X51J	189	8.4	11.9	8.6	156.5		183	3	100	3.3					
7/24/2012	XX	GW901X56I	194	7.9	17.2	10.6	154.5		20	2	120	1					
10/23/2012	XX	GW901X5D9	197	7.6	12.2	8.8	156.3	22.73	215	2	100	1.4					
4/23/2013	XX	GW901X5I0	178	8.4	9.8	9.42	155.68		382	4	65	0.1					
7/30/2013	XX	GW901X645	197	7.7	14.3	9.94	155.16		352	4	80	0.4					
10/29/2013	XX	GW901X66I	195	7.3	8.9	10.63	154.47	22.8	312	2	85	1.4					
MW11-207R																	
7/20/2011	XX	GW207X4CH	87	7.9	11.8	12	203.13		337	5	35	1.6					
10/24/2011	XX	GW207X4GC	83	8	11.7	11.5	203.63	44.2	360	5	30	1.7					
4/23/2012	XX	GW207X512	103	8.1	8.1	11.7			313	6	40	3					
7/23/2012	XX	GW207X561	85	7.7	12.7	12.1	203.03		314	5	40	2.5					
10/22/2012	XX	GW207X5CC	88	7.7	12.2	6.57	208.56	44.2	139	6	25	1.7					
4/22/2013	XX	GW207X5H3	83	8	8.4	8.2	206.93		212	6	40	0.5					
7/29/2013	XX	GW207X638	88	7.9	12.8	11.97	203.16		444	8	45	0.2					
10/28/2013	XX	GW207X661	82	8.2	9.9	14.54	200.59	44.11	278	6	40	1.6					
MW-204																	
1/29/2004	XX	GW204X03A	252	6.6	4.2	9.45	155.3			1		1.3					
5/4/2004	XX	GW204X008	206	6.2	8.2	8.92	155.83		301	2	95	1.6					

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(MW-204) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/27/2004	XX	GW204X03G	211	6.4	12.3	9.49	155.26		280	1	140	1.4					
10/25/2004	XX	GW204X07D	263	6.3	10.9	9.14	155.61	24.43	345	1	125	0.4					
5/9/2005	XX	GW204X13E	160	6.8	9.3	8.35	156.4		273	2	100	0					
8/1/2005	XX	GW204X172	211	6.7	14.2	9.23	155.52		302	1	95	0					
9/20/2005	XX	GW204X1A0	325	6.9	16.4	9.68	155.07	24.41	268	3	75	1.5					
5/23/2006	XX	GW204X1EF	235	7	8	9.05	155.7		334	1	135	0.4					
7/24/2006	XX	GW204X1HC	205	6.7	16.7	8.92	155.83		245	1	120	0					
9/11/2006	XX	GW204X205	199	5.7	13.5	9.2	155.55	24.4	223	1	100	0					
5/14/2007	XX	GW204X23C	214	7.1	12.4	9.5	155.25		479	2	100	0.4					
7/23/2007	XX	GW204X27G	254	6.3	16	9.71	155.04		390	2	85	6.7					
9/10/2007	XX	GW204X2A6	301	6.4	14.2	10.65	154.1	24.45	300	1	125	0.4					
5/21/2008	XX	GW204X2E0	340	6.5	9.2	9.72	155.03		309	1	120	0					
7/30/2008	XX	GW204X2H4	220	6.9	15.2	9.52	155.23		358	2	85	0.1					
10/28/2008	XX	GW204X2JE	188	7.4	12.5	9.12	155.63	24.45	437	1	100	4.3					
4/13/2009	XX	GW204X332	214	6.3	8.8	9.1	155.65		442	3	95	0.9					
7/6/2009	XX	GW204X376	223	7.1	13.6	8.4	156.35		334	1	95	1					
10/26/2009	XX	GW204X3F1	309	6.6	10.8	8.7	156.05	24.42	491	5	70	0.8					
4/28/2010	XX	GW204X400	216	6.6	7	9.22	155.53		357	0.6	60	1.6					
7/19/2010	XX	GW204X434	175	6.6	18	9.82	154.93		379	2	110	2					
10/19/2010	XX	GW204X468	200	7.5	12.1	9.32	155.43	24.45	306	0.6	70	0					
4/26/2011	XX	GW204X4A9	193	7.3	9.4	8.74	156.01		328	0.8	50	0.4					
7/19/2011	XX	GW204X4E7	176	6.9	15.1	9.43	155.32		355	1	100	0					
10/26/2011	XX	GW204X4I2	180	7	10.6	9.1	155.65	24.45	328	0.8	55	2.6					
4/24/2012	XX	GW204X52C	192	6.5	9.4	9	155.75		255	1	100	2.7					
7/23/2012	XX	GW204X57B	189	7.2	16	10.15	154.6		258	0.6	80	1.3					
10/24/2012	XX	GW204X5E2	193	7	10.9	9.05	155.7	24.45	228	0.4	100	4.6					
4/24/2013	XX	GW204X5ID	185	6.7	7.2	9.22	155.53		339	1	60	5.5					
10/30/2013	XX	GW204X68A	185	6	10.8	9.95	154.8	24.43	210	0.6	80	1.7					
MW-207																	
5/5/2004	XX	GW207X011	125	6.8	16.8	3.69	214.27		297	0.6	60	3.5					
7/28/2004	XX	GW207X048	139	7.2	11	7.48	210.48		319	2	100	0.7					
10/25/2004	XX	GW207X063	173	7.3	10.6	8	209.96	32.58	208	1	90	5.1					
1/25/2005	XX	GW207X115	143	6.3	4.4	4.92	213.04		307	1		9.2					
5/12/2005	XX	GW207X124	149	7.4	7.7	3.7	214.26		191	1	110	0.7					
8/1/2005	XX	GW207X15C	157	7.5	15.2	4.6	213.36		226	1	75	0					
9/19/2005	XX	GW207X18A	164	7.9	18.8	4.35	213.61	32.83	269	5	120	0					
5/22/2006	XX	GW207X1D5	141	7.5	12.8	3.91	214.05		211	3	100	0					
7/25/2006	XX	GW207X1G2	176	7.7	15.1	4	213.96		176	1	65	0.8					
9/11/2006	XX	GW207X1IF	160	6.6	16	6.59	211.37	32.82	240	1	95	0.6					
5/14/2007	XX	GW207X222	183	7.1	13	6.15	211.81		386	1	85	0.8					
7/25/2007	XX	GW207X266	238	7.5	16.8	8.85	209.11		237	1	95	0					
9/10/2007	XX	GW207X28G	273	6.7	13.6	13.11	204.85	32.6	178	2	115	0					
5/19/2008	XX	GW207X2CA	232	7.4	10.7	5.6	212.36		352	1	130	2					
7/29/2008	XX	GW207X2FE	231	6.8	19.4	6.7	211.26		-23	1	140	0.6					
10/28/2008	XX	GW207X2I4	288	6.3	12.4	6.25	211.71	32.55	174	0.8	160	0.4					
4/13/2009	XX	GW207X31C	508	7.1	8.1	5.25	212.71		87	0.4	155	1					
7/6/2009	XX	GW207X35G	601	6.7	18.2	4.82	213.14		72	1	310	12					
10/26/2009	XX	GW207X3DB	151	6.3	9.2	8.27	209.69	20.1	304	1	130	1.2					
4/26/2010	XX	GW207X3IA	490	6.3	15.3	5.75	212.21		172	1	205	7.9					

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(MW-207) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/19/2010	XX	GW207X41E	522	6.3	16.8	14.1	203.86		-15	0.6	275	2.5					
10/18/2010	XX	GW207X44I	538	6.7	9.3	12.87	205.09	32.8	44	0.3	175	0.3					
4/25/2011	XX	GW207X48J	453	6.6	12.7	5.5	212.46		223	0.6	170	3.6					
MW-206																	
5/6/2004	XX	GW206X010	132	7.8	7.8	3.08	201.59		298	8	70	6.9					
7/28/2004	XX	GW206X047	139	6.7	10.8	6.48	198.19		312	8	75	0.8					
10/26/2004	XX	GW206X062	160	7.8	9.6	7.09	197.58	23.05	301	8	85	11.2					
5/11/2005	XX	GW206X123	129	7.8	14.7	4.13	200.54		332	6	100	0					
7/28/2005	XX	GW206X15B	89	8.6	13.6	5.06	199.61		290	5	85	0.1					
9/19/2005	XX	GW206X189	120	7.1	14	5.8	198.87	23.02	208	6	70	0					
5/24/2006	XX	GW206X1D4	140	6.4	11.8	4.43	200.24		400	6	60	0					
7/25/2006	XX	GW206X1G1	134	7.2	17.5	4.3	200.37		329	6	100	0.9					
9/12/2006	XX	GW206X1IE	146	7.4	14.9	6.92	197.75	23.13	320	6	85	0					
5/14/2007	XX	GW206X221	150	7.5	12.2	5.45	199.22		366	6	90	0					
7/25/2007	XX	GW206X265	156	8	14.7	9.77	194.9		335	6	50	0					
9/11/2007	XX	GW206X28F	137	8.3	11.7	13.5	191.17	23.12	263	6	70	0					
5/20/2008	XX	GW206X2C9	134	8.4	10.7	5.83	198.84		293	5	80	0.5					
7/29/2008	XX	GW206X2FD	129	8.3	15.8	5.84	198.83		212	5	85	0					
10/27/2008	XX	GW206X2I3	129	8	11.6	4.8	199.87	23.08	262	5	85	0					
4/13/2009	XX	GW206X31B	151	8.1	7.3	5.11	199.56		371	6	70	0.4					
7/6/2009	XX	GW206X35F	158	8.4	13.4	5.49	199.18		308	5	60	0.5					
10/28/2009	XX	GW206X3DA	141	8.3	8.5	6.05	198.62	23.08	342	5	30	0.8					
4/26/2010	XX	GW206X3I9	135	7.4	11.2	5.3	199.37		302	5	60	0.3					
7/19/2010	XX	GW206X41D	160	7.4	14	10.4	194.27		227	4	70	1					
10/18/2010	XX	GW206X44H	187	7.7	9.9	6.85	197.82	23.08	20	3	70	1.9					
4/25/2011	XX	GW206X48I	179	7.8	10.7	4.56	200.11		350	3	60	1.4					
7/18/2011	XX	GW206X4CG	169	7.8	16.1	8	196.67		105	2	125	2.9					
10/24/2011	XX	GW206X4GB	148	7.4	12.7	4.67	200	23.1	208	4	105	2.7					
4/23/2012	XX	GW206X511	153	7	8.6	4.41	200.26		-334	4	100	2.7					
7/23/2012	XX	GW206X560	155	7.9	15.7	8.35	196.32		329	6	80	1.3					
10/22/2012	XX	GW206X5CB	157	8.4	11.2	4.55	200.12	23.09	312	6	60	1.8					
4/22/2013	XX	GW206X5H2	141	8.1	8.6	4.8	199.87		317	6	65	0.9					
7/29/2013	XX	GW206X637	146	7.7	12.3	6.78	197.89		464	8	65	0.9					
10/28/2013	XX	GW206X660	135	7.9	10.3	8.05	196.62	23.15	164	6	60	1.5					
P-206A																	
7/31/2013	XX	GW206A64I	120	7.6	14.9	21.7	182.81		352	4	50	8.1					
10/28/2013	XX	GW206A67B	126	7.3	9.4	22.9	181.61	93.5	63	3	50	9.3					
MW-212																	
5/5/2004	XX	GW212X00B	46	6.6	11	17.01	203.07		373	8	25	3.7					
7/27/2004	XX	GW212X03J	D	D	D	D			D	D	D	D					
10/27/2004	XX	GW212X07F	D	D	D	D		20.06	D	D	D	D					
5/12/2005	XX	GW212X13G	81	7.4	6.4	12.77	207.31		428	5	65	2.7					
8/1/2005	XX	GW212X174	81	6.4	14.2	18.25	201.83		253	6	20	0					
9/20/2005	XX	GW212X1A2	I	I	I	19.78	200.3	20.1	I	I	I	I					
5/22/2006	XX	GW212X1EH	48	6.5	8.9	16.4	203.68		241	6	25	2.5					
7/25/2006	XX	GW212X1HE	41	7.7	15.9	17.21	202.87		309	6	30	2.6					
9/11/2006	XX	GW212X207	I	I	I	I	I	20.1	I	I	I	I					
5/14/2007	XX	GW212X23E	61	7.4	10.3	17.2	202.88		467	6	25	1.5					

SUMMARY REPORT
Field Data Part 1 of 1

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

(MW-212) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/24/2007	XX	GW212X27I	D	D	D	D			D	D	D	D					
9/10/2007	XX	GW212X2A8	D	D	D	D		20.1	D	D	D	D					
5/19/2008	XX	GW212X2E2	84	7.4	11.2	17.2	202.88		334	5	40	1.6					
7/29/2008	XX	GW212X2H6	D	D	D	D			D	D	D	D					
10/28/2008	XX	GW212X2JG	D	D	D	D			D	D	D	D					
4/13/2009	XX	GW212X334	205	5.9	6.7	15.5	204.58		560	4	40	0.7					
7/6/2009	XX	GW212X378	196	6.3	14.2	16.3	203.78		112	5	50	7.1					
10/26/2009	XX	GW212X3F3	D	D	D	D			D	D	D	D					
4/26/2010	XX	GW212X402	289	6.3	10.2	17.8	202.28		347	4	25	1.9					
7/19/2010	XX	GW212X436	D	D	D	D			D	D	D	D					
10/18/2010	XX	GW212X46A	D	D	D	D			D	D	D	D					
4/25/2011	XX	GW212X4AB	264	7.3	10.2	15.2	204.88		308	4	50	1					
7/18/2011	XX	GW212X4E9	D	D	D	D			D	D	D	D					
10/24/2011	XX	GW212X4I4	D	D	D	D			D	D	D	D					
4/23/2012	XX	GW212X52E	D	D	D	D			D	D	D	D					
7/23/2012	XX	GW212X57D	D	D	D	D			D	D	D	D					
10/22/2012	XX	GW212X5E4	D	D	D	D		20.07	D	D	D	D					
4/22/2013	XX	GW212X5IF	D	D	D	D			D	D	D	D					
MW-216B																	
5/6/2004	XX	GW216B013	101	6.2	7.2	5.7	154.61		352	3	55	0.4					
7/26/2004	XX	GW216B049	90	5.8	11.6	6.37	153.94		346	3	55	0.1					
10/26/2004	XX	GW216B064	91	5.7	9.3	5.9	154.41	21.95	273	2	50	0					
5/10/2005	XX	GW216B125	55	5.8	13.7	5.38	154.93		285	2	40	0.4					
7/27/2005	XX	GW216B15D	128	5.8	15.1	6.96	153.35		277	1	75	0					
9/22/2005	XX	GW216B18B	85	5.3	13.5	6.93	153.38	21.9	285	0.8	70	0					
5/23/2006	XX	GW216B1D6	265	5.8	10.9	5.68	154.63		247	1	205	0					
7/25/2006	XX	GW216B1G3	158	5.5	15.7	5.6	154.71		187	1	140	0.2					
9/12/2006	XX	GW216B1IG	132	4.7	15.5	6.2	154.11	22.1	174	1	55	0					
5/15/2007	XX	GW216B223	147	5.5	7.8	5.38	154.93		299	2	45	0.3					
7/24/2007	XX	GW216B267	143	5.8	13.9	6	154.31		363	3	35	1					
9/10/2007	XX	GW216B28H	131	6.1	11.1	7.15	153.16	21.95	203	0.3	50	0.4					
5/20/2008	XX	GW216B2CB	190	6	10.9	5	155.31		264	1	60	2					
7/28/2008	XX	GW216B2FF	378	6	14.4	5.04	155.27		207	0.4	90	6					
10/28/2008	XX	GW216B2I5	166	5.4	11.2	5.2	155.11	22	197	0.6	65	0.6					
4/14/2009	XX	GW216B31D	146	5.4	8.2	5.2	155.11		387	1	40	1.8					
7/7/2009	XX	GW216B35H	DE	DE	DE	DE			DE	DE	DE	DE					
MW-216BR																	
12/8/2009	XX	GW216B3GG	342	8	5.2	5	154.4	22.5	206	0.6	90	0					
4/27/2010	XX	GW216B3IB	288	6.6	10.3	5.22	154.18		254	0.4	70	0					
7/20/2010	XX	GW216B41F	281	6.5	17.1	6.47	152.93		290	0.4	110	0.2					
10/19/2010	XX	GW216B44J	278	6.9	11.5	5.51	153.89	22.46	178	0.4	70	0					
4/26/2011	XX	GW216B490	365	6.4	11.1	5.13	154.27		237	0.4	115	0.9					
7/19/2011	XX	GW216B4CI	370	6.3	21	6.15	153.25		195	0.3	135	0.1					
10/25/2011	XX	GW216B4GD	400	6.5	12.3	5.48	153.92	22.48	267	0.4	135	1.2					
4/24/2012	XX	GW216B513	391	6.2	12	5.22	154.18		25	0.4	200	2.6					
7/24/2012	XX	GW216B562	415	5.9	18.8	6.21	153.19		-126	0.6	160	1					
10/23/2012	XX	GW216B5CD	334	6.3	10.9	5.2	154.2	22.45	249	0.4	120	0.7					
4/23/2013	XX	GW216B5H4	312	6.3	10.6	5.5	153.9		287	0.4	135	0.3					

(MW-216BR) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/30/2013	XX	GW216B639	329	6.2	19.7	5.79	153.61		273	0.6	145	0.1					
MW-223A																	
5/5/2004	XX	GW223A014	151	7.2	9.6	0.98	175.56		318	3	95	1.4					
7/28/2004	XX	GW223A04A	187	7.8	10.7	1.95	174.59		330	4	110	0					
10/25/2004	XX	GW223A065	175	7.8	9.6	1.44	175.1	35.46	263	3	95	0					
5/10/2005	XX	GW223A126	132	7.7	13.8	0.6	175.94		254	3	90	0					
7/26/2005	XX	GW223A15E	167	7.7	11.9	2.04	174.5		258	4	65	0					
9/21/2005	XX	GW223A18C	79	7.5	13.2	1.59	174.95	35.55	405	2	75	0					
5/24/2006	XX	GW223A1D7	200	7.4	9.5	1.1	175.44		300	3	180	0					
7/26/2006	XX	GW223A1G4	174	7.7	13.7	1.25	175.29		367	3	150	0					
9/13/2006	XX	GW223A1IH	191	6.9	12	1.6	174.94	35.65	356	3	85	0					
5/15/2007	XX	GW223A224	208	7.6	6.9	1.57	174.97		369	2	80	0					
7/24/2007	XX	GW223A268	197	7.1	16.2	2.05	174.49		445	3	75	0					
9/11/2007	XX	GW223A28I	190	7.8	10.6	3.5	173.04	35.45	286	2	80	0					
5/20/2008	XX	GW223A2CC	193	7.7	8.5	1.85	174.69		121	2	100	0.1					
7/30/2008	XX	GW223A2FG	198	7.3	14.9	1.87	174.67		388	3	110	0					
10/28/2008	XX	GW223A2I6	189	7.5	13.7	1.35	175.19	35.57	165	2	85	0					
4/14/2009	XX	GW223A31E	355	7	5.6	0.9	175.64		298	1	130	0.5					
7/7/2009	XX	GW223A35I	260	6.7	12	0.71	175.83		319	1	85	0.1					
10/27/2009	XX	GW223A3DD	271	7.3	8.6	1.35	175.19	35.44	360	1	85	0					
4/27/2010	XX	GW223A3IC	297	7.4	7	1.35	175.19		332	1	70	0.9					
7/20/2010	XX	GW223A41G	309	7.1	14.8	3.9	172.64		350	1	125	0.2					
10/19/2010	XX	GW223A450	324	7.5	9	2.2	174.34	35.42	253	2	100	0					
4/26/2011	XX	GW223A491	361	7.4	8.8	0.75	175.79		309	2	115	0.4					
7/19/2011	XX	GW223A4CJ	375	7.5	14.2	2.25	174.29		422	2	110	0.2					
10/25/2011	XX	GW223A4GE	367	7.5	10.8	0.7	175.84	35.56	271	1	95	1.7					
4/24/2012	XX	GW223A514	378	7.8	8	0.4	176.14		-345	1	200	2.2					
7/24/2012	XX	GW223A563	400	7.3	13.4	2.1	174.44		323	1	160	0.6					
10/23/2012	XX	GW223A5CE	390	7.5	8.5	0.5	176.04	35.48	207	1	125	0.8					
4/23/2013	XX	GW223A5H5	439	7.6	4.8	0.31	176.23		255	1	180	0.5					
7/30/2013	XX	GW223A63A	454	7.6	13.4	1.09	175.45		322	1	180	0.1					
10/29/2013	XX	GW223A663	420	7.6	9.3	1.95	174.59	35.56	237	0.8	180	0.3					
MW-223B																	
5/5/2004	XX	GW223B00A	170	6.8	6.6	1.98	173.95		352	1	95	1.1					
7/27/2004	XX	GW223B03I	211	7.1	10.7	3.26	172.67		312	2	125	0.9					
10/25/2004	XX	GW223B07E	191	7.6	10.6	2.71	173.22	19.95	260	2	105	0.6					
5/10/2005	XX	GW223B13F	158	7.6	13.3	2	173.93		280	2	130	0.8					
7/26/2005	XX	GW223B173	186	7.7	15.4	4.03	171.9		265	2	60	0.6					
9/21/2005	XX	GW223B1A1	187	7.4	13.7	2.85	173.08	20.1	388	2	105	0					
5/24/2006	XX	GW223B1EG	196	7.4	9.2	2.41	173.52		378	2	120	0.2					
7/26/2006	XX	GW223B1HD	189	7.8	17.7	2.52	173.41		372	2	140	0					
9/13/2006	XX	GW223B206	196	7.3	17.5	2.92	173.01	20.1	373	2	60	0					
5/15/2007	XX	GW223B23D	240	7.4	6.8	2.8	173.13		391	1	70	0.4					
7/24/2007	XX	GW223B27H	224	7.3	14	3.28	172.65		435	1	60	0					
9/11/2007	XX	GW223B2A7	217	7.3	11.8	4.46	171.47	19.93	273	1	100	0.4					
5/20/2008	XX	GW223B2E1	245	7.4	7.9	3.2	172.73		247	1	115	0					
7/30/2008	XX	GW223B2H5	251	7.2	15.3	3.17	172.76		381	0.8	125	1					
10/28/2008	XX	GW223B2JF	242	7.2	13.8	2.6	173.33	20.1	235	1	115	0.6					

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

(MW-223B) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
4/14/2009	XX	GW223B333	234	7	7	2.5	173.43		271	1	90	0.4					
7/7/2009	XX	GW223B377	281	6.8	10.8	2	173.93		353	1	105	1					
10/27/2009	XX	GW223B3F2	331	7.5	9.7	2.65	173.28	19.95	387	1	90	0					
4/27/2010	XX	GW223B401	306	7.1	6.8	2.67	173.26		393	1	80	1.8					
7/20/2010	XX	GW223B435	343	7	13.1	4.92	171.01		-113	1	120	0.8					
10/19/2010	XX	GW223B469	316	7.4	10	3.45	172.48	20	108	0.8	70	0					
4/26/2011	XX	GW223B4AA	320	7.2	8.5	2.2	173.73		328	1	70	0.2					
7/19/2011	XX	GW223B4E8	336	7.4	13.7	3.7	172.23		357	0.8	75	0.6					
10/25/2011	XX	GW223B4I3	327	7.5	11.3	2.2	173.73	19.93	144	0.4	80	2.5					
4/24/2012	XX	GW223B52D	316	7.1	6.7	1.95	173.98		-402	0.8	180	3.6					
7/24/2012	XX	GW223B57C	338	6.9	12.9	3.8	172.13		173	1	140	1.2					
10/23/2012	XX	GW223B5E3	333	7.5	10.3	2.1	173.83	20.05	238	1	90	0.9					
4/23/2013	XX	GW223B5IE	344	7.3	5.5	2.18	173.75		244	1	95	0.2					
7/30/2013	XX	GW223B64J	363	7.8	13.8	2.77	173.16		318	2	125	0.4					
10/29/2013	XX	GW223B67C	336	7.5	10.8	3.3	172.63	20.07	267	0.8	140	0.1					
MW-227																	
5/5/2004	XX	GW227X015	151	6.4	7.7	3.96	160.27		349	1	95	2.8					
7/26/2004	XX	GW227X04B	149	8.2	11.4	5.73	158.5		339	2	120	0.9					
10/26/2004	XX	GW227X066	201	6.2	9.7	4.4	159.83	22.21	266	1	105	0					
5/9/2005	XX	GW227X127	122	8.2	8.9	3.9	160.33		263	1	100	0					
7/27/2005	XX	GW227X15F	162	7.8	15.4	7.14	157.09		298	1	95	0.3					
9/21/2005	XX	GW227X18D	160	8.7	12.3	4.34	159.89	22.34	239	1	75	1.9					
5/24/2006	XX	GW227X1D8	163	8.3	9.4	4.25	159.98		354	0.8	150	0					
7/26/2006	XX	GW227X1G5	161	8.1	16.8	4.33	159.9		347	1	125	0.3					
9/13/2006	XX	GW227X1II	185	7.7	13.9	4.9	159.33	22.35	341	1	75	0					
5/15/2007	XX	GW227X225	200	7.4	6.4	4.21	160.02		334	1	60	0.2					
7/24/2007	XX	GW227X269	182	7.7	12.6	4.6	159.63		366	0.8	60	0					
9/11/2007	XX	GW227X28J	181	8.4	11.6	6.04	158.19	22.33	262	0.8	70	0.2					
5/20/2008	XX	GW227X2CD	179	7.4	8.3	4.38	159.85		175	2	90	0.3					
7/30/2008	XX	GW227X2FH	187	8.2	15.9	4.36	159.87		310	1	75	0					
10/27/2008	XX	GW227X2I7	174	7.5	11.8	4	160.23	22.33	205	2	100	0					
4/14/2009	XX	GW227X31F	186	7.9	6.2	4.12	160.11		252	2	60	0.6					
7/7/2009	XX	GW227X35J	185	8.3	11.1	3.85	160.38		329	1	70	0.2					
10/27/2009	XX	GW227X3DE	182	8.1	9.7	4.1	160.13	22.2	411	2	55	2.3					
4/27/2010	XX	GW227X3ID	183	7.8	6.3	4.23	160		364	1	50	3.5					
7/20/2010	XX	GW227X41H	185	7.7	13.8	6.65	157.58		180	0.6	70	2.6					
10/19/2010	XX	GW227X451	189	7.9	10.4	4.42	159.81	22.3	191	0.8	50	0.7					
4/26/2011	XX	GW227X492	194	8.1	9.8	4.1	160.13		339	2	70	1.6					
7/19/2011	XX	GW227X4D0	199	8.5	15.6	5.75	158.48		356	1	60	0.2					
10/25/2011	XX	GW227X4GF	188	8.3	11.3	4.05	160.18	22.28	346	0.6	65	3.3					
4/24/2012	XX	GW227X515	186	8.5	6.8	3.64	160.59		-455	2	120	3					
7/24/2012	XX	GW227X564	191	7.8	13.9	6.45	157.78		43	1	80	1.3					
10/23/2012	XX	GW227X5CF	201	7.8	11	4.23	160	22.3	213	0.3	100	1.3					
4/23/2013	XX	GW227X5H6	189	8.5	5.8	4.33	159.9		281	1	85	0.2					
7/30/2013	XX	GW227X63B	192	8.9	15	4.39	159.84		227	0.8	85	0.3					
10/29/2013	XX	GW227X664	177	8.4	10.5	4.65	159.58	22.28	305	1	80	0.7					
MW-301																	
5/5/2004	XX	GW301X016	167	8.1	10.8	1.68	164.68		355	3	70	0.8					

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CUMBERLAND CENTER, ME 04021

(MW-301) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/26/2004	XX	GW301X04C	162	8	19.1	2.15	164.21		338	4	95	2.1					
10/25/2004	XX	GW301X067	181	8.3	9.6	1.81	164.55	185.13	383	1	100	0.2					
5/9/2005	XX	GW301X128	82	8	9	0.6	165.76		236	1	90	0.2					
8/1/2005	XX	GW301X15G	162	7.7	14.6	2.32	164.04		284	2	90	0					
9/22/2005	XX	GW301X18E	152	7.1	16.2	2.73	163.63	184.4	213	2	45	0					
5/22/2006	XX	GW301X1D9	230	8	9.2	4.25	162.11		207	1	120	1					
7/24/2006	XX	GW301X1G6	165	7.4	17.8	4.03	162.33		282	1	105	0.9					
9/11/2006	XX	GW301X1IJ	175	7.2	14.3	3.93	162.43	184.05	285	1	70	3.1					
5/14/2007	XX	GW301X226	187	8.1	12.4	4.7	161.66		386	1	70	1.5					
7/23/2007	XX	GW301X26A	151	7.6	16.8	4.3	162.06		166	2	95	17.8					
9/10/2007	XX	GW301X290	186	7.9	13.9	4.76	161.6	183.75	236	5	75	0.8					
5/19/2008	XX	GW301X2CE	188	8.2	7.4	4.53	161.83		105	1	75	2.4					
7/30/2008	XX	GW301X2FI	178	7.9	16.3	4.4	161.96		339	1	55	0.7					
10/28/2008	XX	GW301X2I8	200	7.8	13.4	4.3	162.06	185.05	200	1	60	0.5					
4/15/2009	XX	GW301X31G	248	7.1	7.4	4.84	161.52		317	1	70	1.3					
7/7/2009	XX	GW301X360	203	8.3	11.4	4.1	162.26		337	1	75	1.4					
10/26/2009	XX	GW301X3DF	276	8.2	9.3	4.25	162.11	185.15	471	4	65	2.6					
4/26/2010	XX	GW301X3IE	183	7.9	14.5	5.2	161.16		284	4	100	4.2					
7/19/2010	XX	GW301X41I	137	7	17.8	5.16	161.2		266	1	105	2.6					
10/19/2010	XX	GW301X452	340	7.3	11.7	4.96	161.4	182.45	427	1	60	0					
4/27/2011	XX	GW301X493	210	8.2	9.3	4.31	162.05		354	1	60	3					
7/20/2011	XX	GW301X4D1	193	8.1	15.7	5.1	161.26		267	1	60	1.1					
10/26/2011	XX	GW301X4GG	204	7.3	9.4	4.11	162.25	185.1	265	0.6	55	5.5					
4/25/2012	XX	GW301X516	194	8.1	9.5	3.93	162.43		290	0.6	100	7.6					
7/25/2012	XX	GW301X565	202	7.4	13.3	5	161.36		307	0.8	120	1.5					
10/24/2012	XX	GW301X5CG	171	7.2	15.5	4.56	161.8	179.61	448	1	55	8.5					
4/22/2013	XX	GW301X5H7	!	!	!	!			!	!	!	!					
7/31/2013	XX	GW301X63C	209	6.3	16.9	0.04	165.87		367	0.4	60	6.2					
10/30/2013	XX	GW301X665	198	7	7.9	0.1	165.81	184.1	339	0.6	70	3.2					
MW-302																	
5/6/2004	XX	GW302X009	282	6.8	9.9	3.91	201.31		269	3	140	5.4					
7/27/2004	XX	GW302XHD1	335	6.9	10.8	7.23	197.99		333	2	210	1.1					
10/25/2004	XX	GW302X07C	319	6.7	9.7	6.65	198.57	30.42	340	1	180	0.3					
5/10/2005	XX	GW302X13D	149	7.7	14.1	3.78	201.44		232	3	180	0.9					
7/27/2005	XX	GW302X171	324	6.9	17.5	7.76	197.46		196	4	140	2.6					
9/19/2005	XX	GW302X19J	245	6.9	17.7	8.16	197.06	30.35	403	2	140	2.9					
5/23/2006	XX	GW302X1EE	342	7.3	14.5	4.47	200.83		366	3	180	4.5					
7/24/2006	XX	GW302X1HB	336	6.7	16.6	4.89	200.41		220	5	230	1.2					
9/12/2006	XX	GW302X204	351	6.5	11.1	7.27	198.03	30.28	355	2	75	0.4					
5/14/2007	XX	GW302X23B	299	7.1	11.9	5.9	199.4		443	3	100	0.6					
7/25/2007	XX	GW302X27F	505	9.2	14.4	8.41	196.89		344	4	90	0					
9/10/2007	XX	GW302X2A5	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE					
MW-302R																	
5/20/2008	XX	GW302X2DJ	246	6.9	8.2	7.3	199.56		223	4	140	3.1					
7/29/2008	XX	GW302X2H3	238	6.6	12.3	8.27	198.59		256	3	140	0.9					
10/27/2008	XX	GW302X2JD	261	6.8	10.9	7.72	199.14	32.25	271	2	75	1.9					
4/13/2009	XX	GW302X331	184	6.2	7.5	5.75	201.11		302	4	80	0.4					
7/6/2009	XX	GW302X375	220	6.2	12	5	201.86		315	3	100	0.9					

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(MW-302R) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs
10/27/2009	XX	GW302X3F0	470	6.1	9.8	8.46	198.4	32.25	360	1	115	0	
4/26/2010	XX	GW302X3JJ	167	6.4	8.8	7.53	199.33		349	4	135	1.2	
7/19/2010	XX	GW302X433	475	6	13.6	15.91	190.95		291	2	165	0.4	
10/18/2010	XX	GW302X467	502	6.5	11.1	8.05	198.81	32.22	347	1	130	0	
4/25/2011	XX	GW302X4A8	301	6.4	7.8	5.3	201.56		291	1	130	0	
7/18/2011	XX	GW302X4E6	382	6.7	13.3	11.2	195.66		304	2	345	0.2	
10/24/2011	XX	GW302X4I1	400	6.9	11.4	6.6	200.26	32.2	362	2	270	1.5	
4/23/2012	XX	GW302X52B	249	6.7	7.2	9.02	197.84		315	3	220	1.9	
7/23/2012	XX	GW302X57A	355	6.6	12.2	11.25	195.61		241	3	60	1.7	
10/22/2012	XX	GW302X5E1	463	6.8	12.3	4.12	202.74	32.2	319	3	70	1.9	
4/22/2013	XX	GW302X5IC	205	6.7	7.7	7.15	199.71		299	4	180	2.5	
7/29/2013	XX	GW302X64H	350	6.5	11.8	8.39	198.47		546	5	80	0.4	
10/28/2013	XX	GW302X67A	341	6.5	10.9	14.15	192.71	32.22	374	2	180	1.3	
MW-303													
5/6/2004	XX	GW303X00C	62	6.4	7.5	23.31	184.56		296	8	25	0.3	
7/28/2004	XX	GW303X040	60	6.3	8.7	25.3	182.57		239	6	30	0.4	
10/26/2004	XX	GW303X07G	63	7.2	8.3	27.93	179.94	46.83	309	6	30	0	
5/11/2005	XX	GW303X13H	38	7.2	13	19.75	188.12		290	4	25	0	
8/1/2005	XX	GW303X175	33	7.1	17.5	23.2	184.67		287	5	25	0	
9/19/2005	XX	GW303X1A3	56	7.2	15.2	25.3	182.57	46.93	280	6	35	0	
5/23/2006	XX	GW303X1EI	48	7	9.4	22.5	185.37		426	5	45	0	
7/24/2006	XX	GW303X1HF	53	6.6	12.2	22.45	185.42		239	4	40	0	
9/12/2006	XX	GW303X208	60	7	16.4	23.36	184.51	46.9	302	6	30	0	
5/14/2007	XX	GW303X23F	59	7.1	11.3	21.48	186.39		300	5	40	0	
7/25/2007	XX	GW303X27J	67	7	16.6	25.9	181.97		497	5	25	0	
9/11/2007	XX	GW303X2A9	63	6.9	10.5	28.7	179.17	46.85	452	5	20	0	
5/19/2008	XX	GW303X2E3	91	6.7	9	21.18	186.69		381	4	40	0	
7/29/2008	XX	GW303X2H7	97	6.4	13.9	24.82	183.05		329	4	70	0.2	
10/27/2008	XX	GW303X2JH	104	6.6	10.5	26.2	181.67	46.9	303	2	45	0.3	
4/13/2009	XX	GW303X335	158	6.3	7.5	21	186.87		330	3	60	0.2	
7/6/2009	XX	GW303X379	163	6.1	12	21.6	186.27		305	1	85	0.3	
10/28/2009	XX	GW303X3F4	161	6.6	7.8	26.45	181.42	46.8	314	2	40	0	
4/26/2010	XX	GW303X403	196	6.3	13.3	21.6	186.27		340	2	55	0.8	
7/19/2010	XX	GW303X437	201	5.8	14.8	26.8	181.07		245	0.8	75	0.5	
10/18/2010	XX	GW303X46B	175	6.7	10.7	30.9	176.97	46.76	334	2	50	1.5	
4/25/2011	XX	GW303X4AC	223	6	10.9	21.1	186.77		218	1	70	1	
7/18/2011	XX	GW303X4EA	223	6.2	13.3	24.35	183.52		133	0.4	200	1	
10/24/2011	XX	GW303X4I5	222	6.6	10.9	26.4	181.47	46.82	1	0.6	190	3.4	
4/23/2012	XX	GW303X52F	243	6.1	7.1	24.95	182.92		294	0.8	180	5.6	
7/24/2012	XX	GW303X57E	!	!	!	!			!	!	!	!	
MW12-303R													
10/23/2012	XX	GW303X5EG	189	7	10.6	27.47		43.32	236	2	80	9.3	
4/22/2013	XX	GW303X5IG	254	6.7	9.4	25.63	183.37		311	2	110	2	
7/29/2013	XX	GW303X651	253	6.6	12.4	25.98			418	1	105	0.9	
10/28/2013	XX	GW303X67D	223	6.5	10.2	27.43		43.38	353	1	140	2.4	
MW-304A													
7/29/2004	XX	GW304AHD0	207	7.5	8.5	28.55	188.77		131	2	95	5.5	
10/27/2004	XX	GW304A07B	195	7.5	7.9	30.2	187.12	42.28	332	2	100	0.5	

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(MW-304A) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
5/11/2005	XX	GW304A13C	58	7.3	14.2	23	194.32		297	4	70	0					
7/28/2005	XX	GW304A170	76	7.2	13.8	26.95	190.37		193	4	40	0					
9/19/2005	XX	GW304A19I	80	7	8.7	26.45	190.87	42.45	403	4	45	0					
5/24/2006	XX	GW304A1ED	100	7.8	8.2	27.1	190.21		427	4	80	0					
7/25/2006	XX	GW304A1HA	104	6.8	11	26.95	190.36		311	5	70	2					
9/12/2006	XX	GW304A203	111	6.9	11.9	27.7	189.61	42.4	370	5	60	0					
5/15/2007	XX	GW304A23A	110	7.1	7.9	25.8	191.51		324	5	20	1.3					
7/24/2007	XX	GW304A27E	129	6.8	14.9	29.25	188.06		512	5	45	0.6					
9/11/2007	XX	GW304A2A4	118	7	8.5	30.74	186.57	42.4	468	4	55	0.8					
5/20/2008	XX	GW304A2DI	90	6.9	8	25.3	192.01		286	5	70	0.5					
7/29/2008	XX	GW304A2H2	116	6.5	10.6	28.76	188.55		259	4	45	0.6					
10/27/2008	XX	GW304A2JC	131	6.9	9.2	29.2	188.11	42.26	314	4	40	0.4					
4/13/2009	XX	GW304A330	122	6.9	8.3	25.62	191.69		359	4	50	0.7					
7/6/2009	XX	GW304A374	107	6.3	9.9	26.42	190.89		301	5	40	1					
10/27/2009	XX	GW304A3EJ	122	7.7	8.9	30.08	187.23	42.25	331	3	30	0					
4/26/2010	XX	GW304A3JI	97	6.5	9.9	26.1	191.21		324	4	40	0.4					
7/19/2010	XX	GW304A432	122	6.4	11.6	29.9	187.41		190	4	50	0.4					
10/18/2010	XX	GW304A466	116	7.4	9	32.81	184.5	42.23	250	5	50	9.2					
4/25/2011	XX	GW304A4A7	100	7	9	24.65	192.66		326	4	45	0.5					
7/18/2011	XX	GW304A4E5	106	7.1	11.1	28	189.31		329	6	75	0.4					
10/24/2011	XX	GW304A4I0	125	7.4	9.4	29.65	187.66	42.28	365	4	75	1.3					
4/23/2012	XX	GW304A52A	122	7	7.8	29.3	188.01		200	4	60	1.6					
7/23/2012	XX	GW304A579	141	7	11.6	28.85	188.46		331	4	60	1					
10/22/2012	XX	GW304A5E0	114	7.3	9.2	29.75	187.56	42.28	260	5	45	1.2					
4/22/2013	XX	GW304A5IB	131	7	8.1	29.65	187.66		307	4	50	0.2					
7/29/2013	XX	GW304A64G	138	6.9	10.7	29.46	187.85		505	5	55	0.3					
10/28/2013	XX	GW304A679	123	7	8.4	30.15	187.16	42.45	357	4	50	1.9					
MW-401A																	
7/29/2004	XX	GW401A059	116	7.9	9.4	5.95	150.88		287	6	75	1.1					
10/27/2004	XX	GW401A071	132	8.2	9.5	5.28	151.55	111.98	258	6	80	0					
5/10/2005	XX	GW401A132	98	8.3	13.3	0.87	155.96		305	5	75	0					
7/28/2005	XX	GW401A16A	108	8.4	11.6	5.85	150.98		375	4	55	0					
9/21/2005	XX	GW401A198	93	8.5	10.3	5.84	150.99	111.92	256	6	85	0					
5/23/2006	XX	GW401A1E3	109	8.5	7.7	1.95	154.88		243	4	70	1.5					
7/25/2006	XX	GW401A1H0	109	8.2	12.7	3.15	153.68		329	3	80	0					
9/12/2006	XX	GW401A1JD	128	8.2	9.1	5.16	151.67	112.05	229	4	45	0					
5/14/2007	XX	GW401A230	118	8.2	7.3	3.57	153.26		341	4	90	0					
7/24/2007	XX	GW401A274	129	7.9	8.9	6.71	150.12		338	5	75	1.2					
9/11/2007	XX	GW401A29E	130	8.1	9.8	8.23	148.6	111.99	245	5	70	0					
5/20/2008	XX	GW401A2D8	123	8.3	7.8	4.15	152.68		243	6	80	0					
7/28/2008	XX	GW401A2GC	123	7.7	11.1	5.7	151.13		321	6	60	0					
10/27/2008	XX	GW401A2J2	112	7.6	9.1	4.75	152.08	112.02	233	5	80	0					
4/13/2009	XX	GW401A32A	73	7.9	7.3	1.3	155.53		470	3	70	0.4					
7/7/2009	XX	GW401A36E	121	7.7	9.3	1.55	155.28		356	6	75	0					
10/28/2009	XX	GW401A3E9	165	8.1	8.1	4.12	152.71	111.98	516	6	100	0					
4/27/2010	XX	GW401A3J8	122	8.3	8.1	4.45	152.38		456	6	45	0					
7/20/2010	XX	GW401A42C	125	7.9	10.3	7.78	149.05		375	4	70	2					
10/20/2010	XX	GW401A45G	191	7.8	8.1	5.52	151.31	112.1	462	5	50	0					
4/25/2011	XX	GW401A49H	132	7.6	8.6	1.6	155.23		320	3	115	0					

(MW-401A) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/18/2011	XX	GW401A4DF	142	7.5	11.5	6.15	150.68		403	5	140	0					
10/24/2011	XX	GW401A4HA	128	8.2	10.2	3.62	153.21	112.02	309	6	50	0					
4/23/2012	XX	GW401A520	123	8.3	8.6	4.42	152.41		422	5	50	2.4					
7/23/2012	XX	GW401A56J	126	7.8	12.7	6.03	150.8		394	6	100	4.9					
10/22/2012	XX	GW401A5DA	119	7.1	9.9	0.93	155.9	112.02	452	5	75	0.7					
4/22/2013	XX	GW401A5I1	123	7.9	7.8	2.9	153.93		233	5	45	1.4					
7/29/2013	XX	GW401A646	124	7.2	12.3	5.6	151.23		330	6	45	1.6					
10/28/2013	XX	GW401A66J	140	6.8	9.3	6.1	150.73	112.04	209	5	45	0.2					
MW-401B																	
7/29/2004	XX	GW401B05A	496	6.9	9	7.81	149.51		1	0.6	220	2.2					
10/27/2004	XX	GW401B072	641	6.7	9	7.5	149.82	23.03	122	0.6	335	0.4					
5/10/2005	XX	GW401B133	470	7.1	11.5	6.94	150.38		72	2	310	2					
7/27/2005	XX	GW401B16B	533	6.9	10.8	8.85	148.47		5	1	320	1					
9/21/2005	XX	GW401B199	699	6.7	16.1	7.55	149.77	23.1	408	0.8	235	0.9					
5/23/2006	XX	GW401B1E4	489	6.7	6.2	6.67	150.65		75	1	235	2.2					
7/25/2006	XX	GW401B1H1	444	6.4	11.8	6.38	150.94		34	2	200	1.8					
9/12/2006	XX	GW401B1JE	539	6.6	9.7	6.82	150.5	23.12	42	1	85	0					
5/14/2007	XX	GW401B231	350	6.8	7.8	6.83	150.49		122	1	210	4.5					
7/24/2007	XX	GW401B275	451	5.9	8.9	7.14	150.18		100	0.3	180	1.7					
9/11/2007	XX	GW401B29F	485	6.3	10.4	7.73	149.59	23.12	125	1	180	0					
5/20/2008	XX	GW401B2D9	340	7	7.4	6.8	150.52		-33	1	160	1.4					
7/28/2008	XX	GW401B2GD	384	6.2	11.2	6.68	150.64		80	0.4	135	2.3					
10/27/2008	XX	GW401B2J3	366	6.6	10.2	6.5	150.82	23.1	97	1	120	0					
4/13/2009	XX	GW401B32B	180	6.7	6.7	6.4	150.92		355	1	80	3.5					
7/7/2009	XX	GW401B36F	290	6.6	8.9	6.35	150.97		130	1	140	0.5					
10/28/2009	XX	GW401B3EA	520	6.4	9.2	6.6	150.72	23.2	239	1	85	0					
4/27/2010	XX	GW401B3J9	237	7.3	7.4	6.7	150.62		266	0.8	100	0					
7/20/2010	XX	GW401B42D	339	6.6	11	7.55	149.77		141	0.6	180	2.2					
10/20/2010	XX	GW401B45H	514	6	9.4	6.82	150.5	23.1	241	0.3	100	0					
4/25/2011	XX	GW401B49I	248	6.5	7.8	6.56	150.76		239	1	225	3.4					
7/18/2011	XX	GW401B4DG	313	6.3	11.1	7.33	149.99		183	1	275	0					
10/24/2011	XX	GW401B4HB	319	6.6	11.1	6.63	150.69	23.12	152	1	115	0					
4/23/2012	XX	GW401B521	235	7.5	7.5	6.63	150.69		338	5	60	2.2					
7/23/2012	XX	GW401B570	276	6.9	11.9	7.4	149.92		181	0.3	140	2.8					
10/22/2012	XX	GW401B5DB	310	6.7	11.1	6.35	150.97	23.13	227	0.4	110	1.2					
4/22/2013	XX	GW401B5I2	262	6.8	6.9	6.7	150.62		234	0.8	90	1.1					
7/29/2013	XX	GW401B647	238	7.1	12.2	6.94	150.38		158	0.4	95	1.4					
10/28/2013	XX	GW401B670	376	6.5	10	7.2	150.12	23.11	172	0.6	100	0.3					
MW-402A																	
7/29/2004	XX	GW402A05B	115	8.7	13	F1			210	6	65	3.7					
10/27/2004	XX	GW402A073	149	7.4	7	0.05	152.15	108.21	215	4	70	0					
5/11/2005	XX	GW402A134	113	7.5	10.7	0	152.2		283	4	50	0.2					
8/1/2005	XX	GW402A16C	104	7.6	12.1	F1			231	5	50	0.1					
9/21/2005	XX	GW402A19A	110	7.4	11.2	F1		108.19	219	4	40	0					
5/23/2006	XX	GW402A1E5	106	8.7	9.6	F1			291	4	55	0					
7/26/2006	XX	GW402A1H2	121	8.3	14.4	F1			451	4	70	0.7					
9/12/2006	XX	GW402A1JF	130	8.1	12.1	F1		108.35	412	6	75	0					
5/15/2007	XX	GW402A232	132	9.5	8.8	F1			106	5	35	0					

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(MW-402A) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/25/2007	XX	GW402A276	130	8.7	12.3	F1			223	5	55	0					
9/12/2007	XX	GW402A29G	126	8.4	12.9	F1		108.25	285	6	55	0.6					
5/20/2008	XX	GW402A2DA	122	8.4	8.8	F1			345	6	75	0					
7/28/2008	XX	GW402A2GE	124	8.6	14.4	0	152.2		187	3	55	0.1					
10/27/2008	XX	GW402A2J4	111	8.1	10.6	F1		108.3	199	4	30	0					
4/14/2009	XX	GW402A32C	129	7.6	5.2	F1			425	5	40	0					
7/8/2009	XX	GW402A36G	125	8.4	9.9	F1			429	4	60	0					
10/28/2009	XX	GW402A3EB	183	8.9	7.6	F1		108.45	413	5	35	0					
4/27/2010	XX	GW402A3JA	120	8.5	9.9	F1			336	6	45	0					
7/21/2010	XX	GW402A42E	123	7.8	14.7	F1			256	4	70	2.2					
10/20/2010	XX	GW402A45I	197	7.3	8.8	F1		108.35	390	5	35	0					
4/27/2011	XX	GW402A49J	130	7.8	8	F1			287	3	135	0					
7/20/2011	XX	GW402A4DH	114	7.8	14.7	F1			361	3	50	0.9					
10/26/2011	XX	GW402A4HC	130	7.8	7.6	F1		108.35	215	5	50	0					
4/24/2012	XX	GW402A522	121	7.5	9.3	F1			353	4	60	0.7					
7/25/2012	XX	GW402A571	125	8.4	13.4	F1			392	4	70	1.9					
10/24/2012	XX	GW402A5DC	116	7.4	7.9	F1		108.35	405	4	60	0.8					
4/22/2013	XX	GW402A5I3	138	9.2	10.4	0.13	152.07		339	3	50	0.5					
7/31/2013	XX	GW402A648	125	8.3	14.4	0.05	152.15		139	5	25	0.6					
10/30/2013	XX	GW402A671	141	8.1	7.7	F1		108.35	348	5	30	0.3					
MW-402B																	
7/29/2004	XX	GW402B05C	143	8.8	13.8	2.99	149.75		229	1	100	1.9					
10/27/2004	XX	GW402B074	172	8.5	8.2	2.65	150.09	25.12	203	1	95	1.4					
5/11/2005	XX	GW402B135	118	8.3	12.3	2.18	150.56		248	2	65	0					
8/1/2005	XX	GW402B16D	151	7	10.8	3.12	149.62		255	2	65	1.4					
9/21/2005	XX	GW402B19B	141	7.3	12.8	3.07	149.67	25.15	200	1	70	0					
5/23/2006	XX	GW402B1E6	145	8.7	8.4	2.88	149.86		46	1	90	0					
7/26/2006	XX	GW402B1H3	145	8.5	9.5	3.24	149.5		293	1	100	0					
9/12/2006	XX	GW402B1JG	165	8.6	11.3	3.8	148.94	25.2	306	0.3	65	0					
5/15/2007	XX	GW402B233	151	9.1	6.9	3.05	149.69		81	1	50	0					
7/25/2007	XX	GW402B277	163	9	9.6	4.22	148.52		106	1	45	0					
9/12/2007	XX	GW402B29H	160	8.6	11.4	5.3	147.44	25.18	198	1	75	0					
5/20/2008	XX	GW402B2DB	157	8.6	8.2	3.3	149.44		11	1	75	0					
7/28/2008	XX	GW402B2GF	148	8.7	12.5	3.6	149.14		143	0.3	70	0					
10/27/2008	XX	GW402B2J5	142	8.1	10.1	3	149.74	25.18	112	1	40	0					
4/14/2009	XX	GW402B32D	96	8.1	5.4	2.9	149.84		317	1	45	0					
7/8/2009	XX	GW402B36H	154	8.4	9.6	2.9	149.84		274	0.4	70	0					
10/28/2009	XX	GW402B3EC	215	8.9	8.7	2.98	149.76	25.2	416	1	35	0					
4/27/2010	XX	GW402B3JB	150	8.7	7.7	3	149.74		154	0.6	75	0					
7/21/2010	XX	GW402B42F	154	8	12.5	5.11	147.63		153	0.3	70	2.8					
10/20/2010	XX	GW402B45J	246	7.2	9.5	3.4	149.34	25.18	323	0.4	60	0					
4/27/2011	XX	GW402B4A0	164	8.1	7.1	2.72	150.02		226	1	135	0					
7/20/2011	XX	GW402B4DI	141	8.1	11.7	4.55	148.19		223	1	63	3.5					
10/26/2011	XX	GW402B4HD	160	7.9	8	2.95	149.79	25.18	107	1	100	0					
4/24/2012	XX	GW402B523	149	8.4	7.1	2.65	150.09		264	0.2	75	0.8					
7/25/2012	XX	GW402B572	157	8.5	10.8	4.62	148.12		279	0.3	90	2.2					
10/24/2012	XX	GW402B5DD	141	7.6	8.9	2.9	149.84	25.2	323	0.4	50	3.2					
4/22/2013	XX	GW402B5I4	152	9.2	7.3	3	149.74		242	0.3	60	0.9					
7/31/2013	XX	GW402B649	147	8.2	11.6	3.92	148.82		76	0.3	40	0.4					

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(MW-402B) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
10/30/2013	XX	GW402B672	174	8.7	9	3.8	148.94	25.18	195	0.3	35	0.3					
P-04-02																	
2/5/2004	XX	GWXXXX03E	414	8.5	4.8	23.42	145.32			6		80.6					
2/11/2004	XX	GWXXXX03C	247	7.7	4.6	27.17	141.57			3		5.3					
5/5/2004	XX	GWXXXX00E	305	6.2	9.6	8.23	160.51		350	2	110	1.3					
7/26/2004	XX	GWXXXX042	202	8.3	13.1	8.78	159.96		215	2	100	0					
10/25/2004	XX	GWXXXX07I	288	7.9	6.6	8.9	159.84	37.14	230	1	135	0.5					
5/9/2005	XX	GWXXXX13J	243	7.1	9.2	7.02	161.72		273	1	135	0.5					
7/27/2005	XX	GWXXXX177	166	7.4	17.1	9.11	159.63		295	1	105	0.9					
9/22/2005	XX	GWXXXX1A5	250	7	11.8	9.16	159.58	27.9	270	1	110	0					
5/22/2006	XX	GWXXXX1F0	205	7.4	12.2	7.8	160.94		181	2	135	0.5					
7/24/2006	XX	GWXXXX1HH	208	7.3	17.2	8.55	160.19		270	1	125	0					
9/11/2006	XX	GWXXXX20A	237	7.5	15.8	8.38	160.36	37.18	230	3	75	1.4					
5/14/2007	XX	GWXXXX23H	233	7.4	11.9	8	160.74		367	2	95	1					
7/23/2007	XX	GWXXXX281	183	7.6	16.1	9.25	159.49		247	2	105	8					
9/10/2007	XX	GWXXXX2AB	222	7.8	13.8	9.8	158.94	37.2	270	1	95	0.7					
5/21/2008	XX	GWXXXX2E5	215	7.7	10.8	7.98	160.76		301	3	110	0.05					
7/30/2008	XX	GWXXXX2H9	213	7.6	15.3	9.63	159.11		166	3	80	0					
10/29/2008	XX	GWXXXX2JJ	197	8	9.3	8.73	160.01	37.2	50	1	75	0					
4/13/2009	XX	GWXXXX337	198	8	8.9	8.25	160.49		461	5	105	0					
7/6/2009	XX	GWXXXX37B	215	7.1	16.4	7.95	160.79		279	4	115	0					
10/27/2009	XX	GWXXXX3F6	242	7.9	10.9	7.55	161.19	37.2	393	1	60	0					
4/26/2010	XX	GWXXXX405	222	7.1	12.9	7.81	160.93		303	4	50	0.6					
7/21/2010	XX	GWXXXX439	213	7.4	16.2	8.25	160.49		322	3	115	2.5					
10/20/2010	XX	GWXXXX46D	214	7.9	10.3	8.5	160.24	37.15	282	1	55	0					
4/27/2011	XX	GWXXXX4AE	227	7.8	10.8	7.28	161.46		483	5	175	0.4					
7/20/2011	XX	GWXXXX4EC	201	7.4	18.8	7.81	160.93		381	3	75	0					
10/26/2011	XX	GWXXXX4I7	!	!	!	!		!	!	!	!	!					
4/25/2012	XX	GWXXXX52H	193	6.3	10.7	10.55	158.19		263	1	100	64.4					
7/25/2012	XX	GWXXXX57G	283	7.3	4.9	11.56	157.18		346	1	85	19.1					
10/24/2012	XX	GWXXXX5E7	245	6.8	13.3	6.65	162.09	39.98	340	1	60	16.2					
4/22/2013	XX	GWXXXX5II	!	!	!	!			!	!	!	!					
P-04-04																	
2/5/2004	XX	GWXXXX03F	405	8	5.2	23.52	145.83			5		162					
2/11/2004	XX	GWXXXX03D	237	8	3.4	29.17	140.18			6		4.2					
5/6/2004	XX	GWXXXX00F	287	6.2	11.3	8.86	160.49		347	3	115	2					
7/26/2004	XX	GWXXXX043	190	7.9	13.2	9.38	159.97		356	2	105	0.3					
10/25/2004	XX	GWXXXX07J	249	7.6	10.5	9.35	160	32.23	280	1	105	0					
5/9/2005	XX	GWXXXX140	179	7.3	9.2	7.5	161.85		283	3	110	0					
7/27/2005	XX	GWXXXX178	174	8.2	17.7	9.71	159.64		291	3	115	1.1					
9/22/2005	XX	GWXXXX1A6	174	7	12.6	9.6	159.75	32.32	290	1	50	0					
5/22/2006	XX	GWXXXX1F1	161	7.4	13.9	8.28	161.07		189	3	120	1.5					
7/24/2006	XX	GWXXXX1HI	191	7.9	15.3	8.88	160.47		202	2	130	0					
9/11/2006	XX	GWXXXX20B	201	7.2	16.5	8.85	160.5	32.35	151	4	60	1.6					
5/14/2007	XX	GWXXXX23I	182	7.9	12.1	8.47	160.88		415	4	65	0.6					
7/23/2007	XX	GWXXXX282	148	7.7	16.4	9.52	159.83		250	5	100	7.6					
9/10/2007	XX	GWXXXX2AC	178	7.8	14.1	10.03	159.32	32.33	275	6	75	0.2					
5/21/2008	XX	GWXXXX2E6	173	7.5	9.8	8.41	160.94		274	4	105	0					

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(P-04-04) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/30/2008	XX	GWXXXX2HA	162	7.9	15	9.34	160.01		337	4	55	0.2					
10/29/2008	XX	GWXXXX300	159	8	9.7	9.1	160.25	32.3	171	2	50	0.2					
4/13/2009	XX	GWXXXX338	178	7.9	9	8.8	160.55		484	5	40	0.2					
7/6/2009	XX	GWXXXX37C	175	7.6	19.5	8.4	160.95		239	6	80	0.6					
10/27/2009	XX	GWXXXX3F7	175	8	10.4	7.96	161.39	32.21	376	2	45	0					
4/26/2010	XX	GWXXXX406	177	7.5	12.3	8.45	160.9		325	4	60	0.6					
7/21/2010	XX	GWXXXX43A	173	7.5	16.3	8.9	160.45		288	4	95	2					
10/20/2010	XX	GWXXXX46E	177	7.9	10.5	9	160.35	32.25	238	2	50	0					
4/27/2011	XX	GWXXXX4AF	188	7.8	9.8	7.82	161.53		520	6	150	0					
7/20/2011	XX	GWXXXX4ED	166	7.6	18.7	8.44	160.91		362	3	75	0					
10/26/2011	XX	GWXXXX4I8	181	8.4	11.2	9.3	160.05	32.3	185	1	60	1.6					
4/25/2012	XX	GWXXXX52I	185	7.1	11.9	9.62	159.73		290	3	100	2.9					
7/25/2012	XX	GWXXXX57H	177	7.7	18.7	10.05	159.3		396	4	100	2.7					
10/24/2012	XX	GWXXXX5E8	158	7.4	16.1	8.9	160.45	32.33	388	3	50	3					
4/24/2013	XX	GWXXXX5IJ	178	8.3	8.1	9.05	160.3		307	5	90	0.4					
7/31/2013	XX	GWXXXX654	175	8.1	17.3	9.12	160.13		274	4	50	1.2					
10/30/2013	XX	GWXXXX67E	194	7.9	11	10.01	159.24	32.26	346	3	35	0.8					
PWS10-1																	
4/26/2010	XX	GWPWS13IJ	223	6.1	11.7				23	1	70	8.8					
7/19/2010	XX	GWPWS1423	314	6.1	19.9				192	3	25	7.6					
10/18/2010	XX	GWPWS1457	438	6.5	8.8				232	5	10	2.7					
4/25/2011	XX	GWPWS1498	154	6.4	8.3				134	1	170	3					
7/18/2011	XX	GWPWS14D6	265	5.9	19.7				142	1	200	20					
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					
PWS10-2																	
4/26/2010	XX	GWPWS23J0	82	6	9.3				102	4	20	2.3					
7/19/2010	XX	GWPWS2424	110	5.6	21.1				-5	1	45	3.4					
10/18/2010	XX	GWPWS2458	150	6.6	8.7				302	1	20	5.5					
4/25/2011	XX	GWPWS2499	66	5.6	9.4				67	5	40	2.1					
7/18/2011	XX	GWPWS24D7	157	5.8	24.6				248	1	135	4.4					
10/24/2011	XX	GWPWS24H2	105	5.6	10.6				145	4	30	2.5					
4/23/2012	XX	GWPWS251C	73	5.7	6.4				104	1	35	3.2					
7/23/2012	XX	GWPWS256B	86	6.3	26.7				293	8	50	6.5					
10/22/2012	XX	GWPWS25D2	74	6	12.3				278	5	15	1.6					
4/22/2013	XX	GWPWS25HD	100	5.5	7.8				221	3	15	2.5					
7/29/2013	XX	GWPWS263I	127	5.4	16.2				-1	1	30	3.1					
10/28/2013	XX	GWPWS266B	107	6.7	9.6				133	5	15	6.2					
PWS10-3																	
4/26/2010	XX	GWPWS33J1	175	7	11.8				39	2	80	6.3					
7/19/2010	XX	GWPWS3425	211	5.5	17.9				79	2	105	7.1					
10/18/2010	XX	GWPWS3459	131	6.2	7.8				400	4	20	4.1					
4/25/2011	XX	GWPWS349A	222	5.9	9				118	1	145	3.5					

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(PWS10-3) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/18/2011	XX	GWPWS34D8	148	5.8	23.1				203	3	125	18.3					
10/24/2011	XX	GWPWS34H3	111	5.3	11.1				164	1	35	4.5					
4/23/2012	XX	GWPWS351D	63	6.5	20.7				307	3	50	4.2					
7/23/2012	XX	GWPWS356C	73	5.8	26.8				155	4	25	6.6					
10/22/2012	XX	GWPWS35D3	59	5.4	11.9				284	0.8	15	4.3					
4/22/2013	XX	GWPWS35HE	62	5	7.3				223	5	15	5.6					
7/29/2013	XX	GWPWS363J	180	5.5	18.9				-7	1	90	5.9					
10/28/2013	XX	GWPWS366C	80	6.6	7.6				152	4	20	8.1					
SW-1																	
5/3/2004	XX	SWXX1X018	91	6.3	18				364	6	30	0.7					
7/27/2004	XX	SWXX1X04E	80	5.8	16.4				261	5.7	30	3.4					
10/26/2004	XX	SWXX1X069	72	6	8				278	5	30	0.9					
5/10/2005	XX	SWXX1X12A	57	6.7	25				442	5	95	1.4					
7/28/2005	XX	SWXX1X15I	62	6.1	22.9				267	6	80	20.1					
9/20/2005	XX	SWXX1X18G	106	8	16.9				267	6	30	9.2					
5/24/2006	XX	SWXX1X1DB	181	6.5	14.6				430	6	70	3.8					
7/26/2006	XX	SWXX1X1G8	120	6	26.3				228	4	30	1.8					
9/13/2006	XX	SWXX1X1J1	345	6.6	17.6				244	5		2.4					
5/15/2007	XX	SWXX1X228	84	5.9	10.9				273	5	35	1.6					
7/24/2007	XX	SWXX1X26C	101	6.7	25.1				366	6	60	3.1					
9/11/2007	XX	SWXX1X292	101	6.7	15.9				275	5	30	2.9					
5/21/2008	XX	SWXX1X2CG	96	6.9	13.7				279	6	50	1.3					
7/29/2008	XX	SWXX1X2G0	I	I	I				I	I	I	I					
10/28/2008	XX	SWXX1X2IA	68	7.7	11.2				207	5	20	4.7					
4/14/2009	XX	SWXX1X31I	109	7	7.7				475	6	15	3.6					
7/7/2009	XX	SWXX1X362	59	6.7	16.9				383	5	30	0.8					
10/27/2009	XX	SWXX1X3DH	86	6.5	5.6				336	3	10	1					
4/28/2010	XX	SWXX1X3IG	186	6.2	7.9				404	5	15	1.7					
7/20/2010	XX	SWXX1X420	293	6.3	21.3				100	2	135	15.5					
10/19/2010	XX	SWXX1X454	142	7.3	6.2				450	4	20	3.2					
4/26/2011	XX	SWXX1X495	76	5.9	10.9				404	5	30	1.4					
7/19/2011	XX	SWXX1X4D3	235	6.4	21.9				273	4	100	0.4					
10/25/2011	XX	SWXX1X4GI	78	7.5	11.6				234	6	30	0.6					
4/24/2012	XX	SWXX1X518	78	6.7	11.6				549	6	35	2					
7/24/2012	XX	SWXX1X567	108	6.9	22.1				299	5	60	9.6					
10/23/2012	XX	SWXX1X5CI	98	7.2	10.1				475	5	50	1.6					
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					
SW-2																	
5/3/2004	XX	SWXX2X019	85	6.1	16.4				366	6	25	1.8					
7/27/2004	XX	SWXX2X04F	87	5.7	20.5				311	5	25	0.8					
10/26/2004	XX	SWXX2X06A	83	5.9	7.6				355	5	25	0.4					
5/10/2005	XX	SWXX2X12B	66	6.4	15.7				364	6	30	0.9	2.82				
7/28/2005	XX	SWXX2X15J	49	6.3	22.1				210	6	25	1.5	5.6				
9/20/2005	XX	SWXX2X18H	64	7	16.6				267	5	30	2.4	3.4				
5/24/2006	XX	SWXX2X1DC	65	6.4	13				284	6	25	2.8	2				
7/26/2006	XX	SWXX2X1G9	66	6	25.3				240	3	30	0.6	1.3				

(SW-2) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
9/13/2006	XX	SWXX2X1J2	80	6.4	16.3				304	4	25	1.8	1				
5/15/2007	XX	SWXX2X229	74	6.1	11.7				310	4	30	1.1	0.5				
7/24/2007	XX	SWXX2X26D	101	6.3	26.3				260	6	45	3.5	2.5				
9/11/2007	XX	SWXX2X293	99	6.6	16.8				203	5	40	2.4	0.6				
5/21/2008	XX	SWXX2X2CH	83	6.7	13.3				282	6	45	2.7	3				
7/29/2008	XX	SWXX2X2G1	81	6.8	27.7				340	4	20	0.7	1				
10/28/2008	XX	SWXX2X2IB	54	7.4	14.4				432	6	50	2.6	3.5				
4/14/2009	XX	SWXX2X31J	62	6.7	6.8				516	3	35	3.2	1.9				
7/7/2009	XX	SWXX2X363	62	7.1	16.2				453	5	25	2.6	6.5				
10/27/2009	XX	SWXX2X3DI	122	5.8	6.9				445	5	15	3.6	3				
4/28/2010	XX	SWXX2X3IH	78	6.2	7.6				422	2	20	1.1	1.8				
7/20/2010	XX	SWXX2X421	83	7.1	28.2				288	8	25	3.7	0.5				
10/19/2010	XX	SWXX2X455	130	7.2	9.5				444	6	20	3.2	2				
4/26/2011	XX	SWXX2X496	71	5.9	12.3				367	5	30	1.2	2.5				
7/19/2011	XX	SWXX2X4D4	46	7.1	29.6				332	6	38	0	0.1				
10/25/2011	XX	SWXX2X4GJ	72	7.6	11.7				337	5	25	1.2	1.5				
4/24/2012	XX	SWXX2X519	87	6.9	10.6				454	5	30	2.4	14				
7/24/2012	XX	SWXX2X568	65	6.9	25.9				449	6	25	3.1	1.75				
10/23/2012	XX	SWXX2X5CJ	54	7.2	12.2				472	5	15	1.7	2.75				
4/23/2013	XX	SWXX2X5HA	77	6.4	10.6				236	5	15	4.1	1.5				
7/30/2013	XX	SWXX2X63F	65	7	26.2				274	6	20	2.2	1				
10/29/2013	XX	SWXX2X668	82	8	10.1				469	5	20	1.2	0.1				
SW-3																	
5/3/2004	XX	SWXX3X01A	68	5.5	16.8				360	6	25	3.8					
7/27/2004	XX	SWXX3X04G	104	6.3	18.1				364	3	45	5.3					
10/26/2004	XX	SWXX3X06B	73	6.5	7.9				290	4	35	2.1					
5/10/2005	XX	SWXX3X12C	149	6.5	14.7				363	4	15	1	5.42				
7/28/2005	XX	SWXX3X160	66	6.3	21.2				318	4	15	2.1	2.35				
9/20/2005	XX	SWXX3X18I	74	6.9	17.3				316	5	35	4	5.4				
5/24/2006	XX	SWXX3X1DD	73	6.4	14.4				271	6	25	2	6				
7/26/2006	XX	SWXX3X1GA	65	6.4	23.9				237	6	40	0.4	6.1				
9/13/2006	XX	SWXX3X1J3	88	6.8	13.9				354	6	25	1.4					
5/15/2007	XX	SWXX3X22A	68	6.4	12.2				300	4	25	1.8	5.76				
7/24/2007	XX	SWXX3X26E	84	6.7	21.4				259	5	40	2.1	5.08				
9/11/2007	XX	SWXX3X294	98	6.9	16				258	5	45	1.8	4.67				
5/21/2008	XX	SWXX3X2CI	84	6.9	12.3				346	6	30	2.3	5				
7/29/2008	XX	SWXX3X2G2	103	7	27.4				260	4	45	3.1	5				
10/28/2008	XX	SWXX3X2IC	63	7.3	12.9				452	4	20	2.6	7				
4/14/2009	XX	SWXX3X320	71	6.5	3.8				495	6	20	1.6	12				
7/7/2009	XX	SWXX3X364	58	6.6	16				421	4	30	2.6	8				
10/27/2009	XX	SWXX3X3DJ	82	6.1	4.7				461	5	20	1.7	10				
4/28/2010	XX	SWXX3X3II	81	6.8	8.9				368	2	20	1.7	9				
7/20/2010	XX	SWXX3X422	110	7	22.3				287	4	60	9.6	3.5				
10/19/2010	XX	SWXX3X456	137	7.5	6.2				437	6	15	0.6	8				
4/26/2011	XX	SWXX3X497	73	6.3	11.2				438	6	35	1.6	8				
7/19/2011	XX	SWXX3X4D5	93	6.8	23.3				338	5	38	0	2.5				
10/25/2011	XX	SWXX3X4H0	78	6.6	10.5				257	5	25	1.2	7.5				
4/24/2012	XX	SWXX3X51A	54	7.4	9.8				449	6	25	2.4	19				
7/24/2012	XX	SWXX3X569	103	7.5	22.9				326	4	100	2.5	3.75				

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

(SW-3) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
10/23/2012	XX	SWXX3X5D0	46	7.4	11.5				422	6	50	2.1	5				
4/23/2013	XX	SWXX3X5HB	71	6.5	9.7				234	6	20	1.5	8				
7/30/2013	XX	SWXX3X63G	81	7.9	23				170	6	25	1.2	6				
10/29/2013	XX	SWXX3X669	108	7.7	6.7				365	4	15	1.2	6.5				
SW-DP1																	
5/3/2004	XX	SWDP1X01H	358	7.6	18.1				343	8	125	2.1					
7/27/2004	XX	SWDP1X053	400	8.2	20.5				275	8	175	14					
10/26/2004	XX	SWDP1X06H	232	8.2	10.4				276	0.8	150	0.8					
5/10/2005	XX	SWDP1X12I	118	6.9	19				350	5	65	15					
7/28/2005	XX	SWDP1X166	101	6.4	26.9				282	6	80	28.1					
9/20/2005	XX	SWDP1X194	147	7.1	16				296	5	30	15.2					
5/24/2006	XX	SWDP1X1DJ	206	7	14.9				402	6	50	3.2					
7/26/2006	XX	SWDP1X1GG	196	8.5	31.1				308	5	40	0.6					
9/13/2006	XX	SWDP1X1J9	177	7	18.7				258	6	70	2.4					
5/15/2007	XX	SWDP1X22G	190	7.3	14.8				264	6	85	3.1					
7/24/2007	XX	SWDP1X270	142	8.9	24.3				281	6	40	1.6					
9/11/2007	XX	SWDP1X29A	112	9.1	18.4				211	6	40	0.2					
5/21/2008	XX	SWDP1X2D4	156	8.2	15.4				277	6	75	1.6					
7/29/2008	XX	SWDP1X2G8	111	9.4	26.5				261	5	30	2.5					
10/28/2008	XX	SWDP1X2II	152	7.4	14.4				285	6	50	3.6					
4/14/2009	XX	SWDP1X326	223	8.6	13.7				442	6	70	16.5					
7/7/2009	XX	SWDP1X36A	111	6.7	18.1				368	6	50	1.7					
10/27/2009	XX	SWDP1X3E5	186	6.3	7.8				319	5	25	0.8					
4/28/2010	XX	SWDP1X3J4	201	6.6	10.9				335	5	55	3.1					
7/20/2010	XX	SWDP1X428	106	8.2	26.5				200	5	25	3.9					
10/19/2010	XX	SWDP1X45C	197	7.3	8.6				419	6	35	0.5					
4/26/2011	XX	SWDP1X49D	139	6.6	12.6				374	6	80	3.6					
7/19/2011	XX	SWDP1X4DB	154	7.6	27.1				328	5	63	0					
10/25/2011	XX	SWDP1X4H6	117	7.7	14.2				324	6	35	0					
4/24/2012	XX	SWDP1X51G	107	6.9	12.8				466	6	75	6.8					
7/24/2012	XX	SWDP1X56F	167	7.4	25.6				395	6	80	7.5					
10/23/2012	XX	SWDP1X5D6	66	7.2	11.7				477	6	25	2.1					
4/23/2013	XX	SWDP1X5HH	195	7.3	12.1				236	6	20	3.1					
7/30/2013	XX	SWDP1X642	82	6.7	26.8				285	6	30	0.7					
10/29/2013	XX	SWDP1X66F	204	7.4	7.4				311	6	20	1.6					
SW-DP5																	
4/23/2013	XX	SWDP5X60I	162	7.6	12.8				236	6	20	2.6					
7/30/2013	XX	SWDP5X65H	150	8	30.7				241	6	50	1.5					
10/29/2013	XX	SWDP5X686	D	D	D				D	D	D	D					
SW-DP6																	
10/27/2009	XX	SWDP6X3G6	148	6.3	7.5				385	5	15	3.7					
4/28/2010	XX	SWDP6X3J5	271	6.5	7.3				369	6	50	4.2					
7/20/2010	XX	SWDP6X429	260	7	27				280	5	90	7.9					
10/19/2010	XX	SWDP6X45D	297	7.4	8.8				396	6	35	2.6					
4/26/2011	XX	SWDP6X49E	192	6.3	12.8				365	6		6.8					
7/19/2011	XX	SWDP6X4DC	427	7.5	28.4				346	6	75	0					
10/25/2011	XX	SWDP6X4H7	307	7.5	12.7				212	6	80	0.5	0.0022				
4/24/2012	XX	SWDP6X51H	172	6.7	15.1				547	6	100	2.5					

SEVEE & MAHER ENGINEERS, INC.
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(SW-DP6)

Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU	Flow Rate cfs				
7/24/2012	XX	SWDP6X56G	97	7.2	25.1				396	5	40	12	0.0045				
10/23/2012	XX	SWDP6X5D7	65	7.5	11.7				439	5	15	5.1					
4/23/2013	XX	SWDP6X5HI	62	6.6	15.2				235	6	15	3.2					
7/30/2013	XX	SWDP6X643	87	7	27.8				313	6	25	0.8					
10/29/2013	XX	SWDP6X66G	113	7.3	8.3				333	5	25	0.6					

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
- A6 - Approximate value.
- D - The sampling location was dry.
- DE - Decommissioned Location
- 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.
- 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.

SUMMARY REPORT

Inorganics (part 1 of 1)

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

(DP-4) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
DP-4																
1/30/2004	XX	GWDP4X039			0.1 U	301	72.9	18	0.2 U		113	575		8.1	18	
5/6/2004	XX	GWXXXX00D	0.63		0.1 U	269	20.4	16	0.1 U		60.8	433		6.2	84	1.1
7/26/2004	XX	GWXXXX041	0.26		0.1 U	190	7.5	3 U	0.1 U		24	253		3.5	6	0.55
10/26/2004	XX	GWXXXX07H	0.39		0.1 U	182	5.5	5 J	0.1 U		14.6	248		3.3	4 U	0.37
5/9/2005	XX	GWXXXX13I	0.3 U		0.1 U	203	5.5	5 J	0.1 U		9.7	262		2.9	5	0.4
8/1/2005	XX	GWXXXX176	0.3 U		0.1 U	191	6.6	6 J	0.1 U		5.7	235		2.5	26	0.24
9/20/2005	XX	GWXXXX1A4	0.74		0.1 U	175	5.9	10	0.1 U		7.8	229		2.8	11	0.4
5/22/2006	XX	GWXXXX1EJ	0.59		0.1 U	150	7.9	6 J	0.2 J		7.3	189		2.6	258	0.23
7/24/2006	XX	GWXXXX1HG	1.1		0.1 U	145	9.6	9 J	0.2 J		6.5	200		2.2	192	0.2 U
9/11/2006	XX	GWXXXX209	0.69		0.1 U	140	14.2	4 J	0.1 U		7	191		2.5	40	0.2 U
5/14/2007	XX	GWXXXX23G	0.69		0.1 U	138	14.1	8 J	0.1 J		7	210		6.3	391	0.35
7/23/2007	XX	GWXXXX280	0.41		0.1 U	138	19.3	17	0.1 U		11.5	223		4.1	363	0.2 U
9/10/2007	XX	GWXXXX2AA	0.3 U		0.1 U	132	21.2	5 J	0.1 U		13.1	234		3.1	137	0.2 U
5/19/2008	XX	GWXXXX2E4	0.92		0.1 U	141	20.6	3 J	0.1 U		12.7	237		2.2	443	0.21
7/29/2008	XX	GWXXXX2H8	0.5 U		0.1 U	126	32.2	7 J	0.2 J		13.2	229		3.5	157	0.21
10/27/2008	XX	GWXXXX2JI	0.5 U		0.1 U	94	57	3 U	0.1 U		11.8	300		2.2	394	0.2 U
4/13/2009	XX	GWXXXX336	110		0.1 U	109	49.8	3 U	0.2 J		12.5	292		2	1084	0.21
7/6/2009	XX	GWXXXX37A	20		0.1 J	104	50.7	3 U	0.1 U		15.9	274		2.7	116	0.21
10/26/2009	XX	GWXXXX3F5	0.47		0.1 U	118	21	16	0.1 U		12.3	225		3	254	0.2 U
4/26/2010	XX	GWXXXX404	0.31		0.1 U	104	14.9	3 U	0.1 U		11.6	185		1.8 J	1490	0.2 U
7/19/2010	XX	GWXXXX438	0.34		0.1 U	109	14.7	3 U	0.1 U		12.1	170		1.3 J	37	0.2 U
10/18/2010	XX	GWXXXX46C	0.3 U		0.1 U	105	7.2	6 J	0.1 U		10.7	165		1.3 J	33	0.2 U
4/25/2011	XX	GWXXXX4AD	0.3 U		0.1 U	102	7.6	3 U	0.1 U		8.5	166		0.9 J	114	0.2 U
7/18/2011	XX	GWXXXX4EB	0.3 U		0.1 U	106	8.3	3 U	0.1 U		10.1	172		1.4 J	46	0.2 U
10/24/2011	XX	GWXXXX4I6	0.3 U		0.1 U	104	9.9	3 U	0.1 U		9.7	166		1.4	5	0.2 U
4/25/2012	XX	GWXXXX52G	0.3		0.5 U	93	25.4	10 U	0.3 U		13	198		2 U	21	0.2 U
7/25/2012	XX	GWXXXX57F	0.4		0.5 U	77	26.9	10 U	0.3 U		14.4	182		2 U	22	0.2 U
10/24/2012	XX	GWXXXX5E6	0.31		0.5 U	78	31.6	10 U	0.3 U		15.3	196		2 U	34	0.2 U
4/24/2013	XX	GWXXXX5IH	0.349		0.5 U	80	30.8	10 U	0.3 U		19.3	195	0.12	2 U	75	0.2 U
LF-COMP																
7/19/2011	XX	LFXXXX4F1			0.1 U	175	5.4	3 U	0.1 J	0.02 J	7.2	233		0.7 U	4 U	0.2 U
4/24/2012	XX	LFXXXX53B			0.5 U	143	7	10 U	0.3 U	0.04 U	6	195		2 U	4 U	0.2 U
LF-UD-1																
7/28/2004	XX	LFUD1X05E			0.1 U	118	2.7	3 U	0.3	0.02 J	5.8	151		0.5 U	4 U	0.2 U
10/27/2004	XX	LFUD1X076			0.1 U	115	2.5	3 U	0.3	0.02 J	4.9	130		2.2	4 U	0.2 U
5/11/2005	XX	LFUD1X137			0.1 U	115	3.9	3 U	0.3	0.01 J	7.7	162		2	4 U	0.2 U
7/27/2005	XX	LFUD1X16F			0.1 U	113	2.6	3 U	0.2 J	0.01 U	4.4	154		0.8 J	4 U	0.2 U
9/21/2005	XX	LFUD1X19D			0.1 U	110	3.3	3 U	0.4	0.01 J	8	155		1.1 J	4 U	0.2 U
5/24/2006	XX	LFUD1X1E8			0.1 U	118	5.3	4 J	0.6	0.01 J	11	170		3.8	4 U	0.2 U
7/25/2006	XX	LFUD1X1H5			0.1 U	117	3.6	4 J	0.4	0.01 J	7.6	151		1.6	4 U	0.2 U
9/11/2006	XX	LFUD1X1JI			0.1 U	130	3.3	3 J	0.4	0.03 J	7	169		1 J	4	0.2 U
5/16/2007	XX	LFUD1X235			0.1 U	148	3.8	3 U	0.1 J	0.01 J	6.7	181		2.3	4 U	0.21
7/25/2007	XX	LFUD1X279			0.1 U	157	3.3	4 J	0.2 J	0.02 J	6	190		6.4	4 U	0.2 U
9/12/2007	XX	LFUD1X29J			I	I	I	I	I	I	I	I		I	I	I
5/20/2008	XX	LFUD1X2DD			0.1 U	143	3.7	3 U	0.3	0.01 J	7.6	178		1.8 J	4 U	0.2 U
7/28/2008	XX	LFUD1X2GH			0.1 U	164	2.3	14	0.3	0.01 J	7.4	218		1.7 J	4 U	0.2 U
10/28/2008	XX	LFUD1X2J7			0.1 U	155	1.9	3 U	0.3	0.01 J	9	202		1.1 J	4 U	0.2 U

(LF-UD-1) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
4/15/2009	XX	LFUD1X32F			0.1 U	175	4	9 J	0.3	0.01 U	6.4	211		1.8 J	4 U	0.2 U
7/8/2009	XX	LFUD1X36J			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
10/27/2009	XX	LFUD1X3EE			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
4/27/2010	XX	LFUD1X3JD			0.1 U	174	3.5	3 J	0.3	0.02 J	6.6	191		2.3	4 U	0.2 U
7/20/2010	XX	LFUD1X42H			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/19/2010	XX	LFUD1X461			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/26/2011	XX	LFUD1X4A2			0.1 U	149	7.7	3 U	0.2 J	0.02 J	6.9	211		1.6 J	4 U	0.2 U
7/19/2011	XX	LFUD1X4E0			0.1 J	171	5.1	7 J	0.1 J	0.02 J	10	232		0.7 J	8	0.2 U
10/25/2011	XX	LFUD1X4HF			0.1 U	173	3.3	3 U	0.5	0.03 J	8.2	205		1 J	40	1 U
4/24/2012	XX	LFUD1X525			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
7/24/2012	XX	LFUD1X574			0.5 U	168	3	10 U	0.3	0.05	4.1	208		2 U	10	0.2 U
10/23/2012	XX	LFUD1X5DF			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/23/2013	XX	LFUD1X5I6			0.5 U	164	11.5	10 U	0.3 U	0.04 U	7.8	230	0.16	2 U	4	0.2 U
7/30/2013	XX	LFUD1X64B				156	22.5	10 U	0.4	0.04 U	9.9	232	0.14	2 U	4 U	0.2 U
10/29/2013	XX	LFUD1X674				F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-2																
7/28/2004	XX	LFUD2X05F			0.1 U	113	2.7	3 U	0.4	0.02 J	3.5	138		0.8 J	4 U	0.2 U
10/27/2004	XX	LFUD2X077			0.1 U	113	2.7	3 U	0.4	0.02 J	3.1	133		1.1 J	4 U	0.2 U
5/11/2005	XX	LFUD2X138			0.1 U	92	2.4	3 U	0.3	0.02 J	2.3	132		2	4 U	0.2 U
7/27/2005	XX	LFUD2X16G			0.1 U	116	2.4	3 U	0.3	0.01 J	2.8	145		0.9 J	4 U	0.2 U
9/21/2005	XX	LFUD2X19E			0.1 U	112	2.7	3 U	0.3	0.02 J	4.1	143		0.7 J	4 U	0.2 U
5/24/2006	XX	LFUD2X1E9			0.1 U	105	2.9	3 J	0.4	0.02 J	3.8	145		12	4 U	0.2 U
7/25/2006	XX	LFUD2X1H6			0.1 U	107	2.1	3 U	0.3	0.02 J	2.7	139		1.2 J	4 U	0.2 U
9/11/2006	XX	LFUD2X1JJ			0.1 U	155	7	3 U	0.3	0.02 J	15.2	208		2.4	4 U	0.2 U
5/16/2007	XX	LFUD2X236			0.1 U	123	2.1	3 U	0.1 U	0.01 J	2.2	160		1 J	4 U	0.2 U
7/25/2007	XX	LFUD2X27A			0.1 U	125	3.2	6 J	0.2 J	0.02 J	3	158		1.4 J	4 U	0.2 U
9/12/2007	XX	LFUD2X2A0			0.1 U	120	3.1	3 U	0.2 J	0.01 J	3.3	176		0.6 J	4 U	0.2 U
5/20/2008	XX	LFUD2X2DE			0.1 U	125	2.5	3 U	0.3	0.02 J	3.7	157		2	4 U	0.2 U
7/28/2008	XX	LFUD2X2GI			0.1 U	134	2.3	7 J	0.2 J	0.01 J	3.8	186		1.3 J	4 U	0.2 U
10/29/2008	XX	LFUD2X2J8			0.1 U	123	1.7	3 J	0.3	0.01 J	3.5	159		0.8 J	4 U	0.2 U
4/15/2009	XX	LFUD2X32G			0.1 U	123	6	6 J	0.2 J	0.01 U	5.4	171		1.7 J	4 U	0.2 U
7/8/2009	XX	LFUD2X370			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
10/27/2009	XX	LFUD2X3EF			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
4/27/2010	XX	LFUD2X3JE			0.1 U	134	3.8	4 J	0.2 J	0.02 J	3.8	152		1.9 J	4 U	0.2 U
7/20/2010	XX	LFUD2X42I			0.1 U	185	2.4	4 J	0.3	0.66	3.2	229		0.7 U	4 U	0.2 U
10/19/2010	XX	LFUD2X462			0.1 U	213	3.2	3 U	0.1 J	0.05	17.5	290		0.7 U	39	0.2 U
4/26/2011	XX	LFUD2X4A3			0.1 U	117	6.6	3 U	0.1 J	0.02 J	3.1	172		0.7 U	4 U	0.2 U
7/19/2011	XX	LFUD2X4E1			0.1 U	135	5.7	3 J	0.1 J	0.02 J	4.4	191		0.7 U	4 U	0.2 U
10/25/2011	XX	LFUD2X4HG			0.1 U	133	7.1	3 U	0.2 J	0.02 J	3.3	173		0.7 J	36	0.3
4/24/2012	XX	LFUD2X526			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
7/24/2012	XX	LFUD2X575			0.5 U	135	9.5	10 U	0.3 U	0.04 U	2 U	188		2 U	4 U	0.2 U
10/23/2012	XX	LFUD2X5DG			0.5 U	133	12.6	10 U	0.3 U	0.04 U	5.4	211		2 U	4 U	0.2 U
4/23/2013	XX	LFUD2X5I7			0.5 U	134	18.5	10 U	0.3 U	0.04 U	4.6	207	0.19	2 U	4 U	0.2 U
7/30/2013	XX	LFUD2X64C				127	35.2	10 U	0.4	0.04 U	4.8	208	0.12	2 U	4 U	0.2 U
10/29/2013	XX	LFUD2X675				162	15.3	10 U	0.4	0.04 U	9.9	228	0.18	2 U	12	0.2 U
LF-UD-3A,B																
5/16/2007	XX	LFUD3X246			0.1 U	201	2.4	3 U	0.1 J	0.01 J	8.3	249		4.8	4 U	0.24
7/25/2007	XX	LFUD3X288			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6

(LF-UD-3A,B) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
9/12/2007	XX	LFUD3X2AI			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
5/20/2008	XX	LFUD3X2EE			0.1 U	130	6.5	9 J	1.3	0.01 J	16.3	163		4.3	4 U	0.2 U
7/28/2008	XX	LFUD3X2HG			D	D	D	D	D	D	D	D		D	D	D
10/29/2008	XX	LFUD3X306			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/15/2009	XX	LFXXXX33F			0.1 U	123	10	10	0.7	0.01 U	13.3	263		2.6	4 U	0.2 U
7/8/2009	XX	LFXXXX37I			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
10/27/2009	XX	LFXXXX3FC			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
4/27/2010	XX	LFXXXX40C			0.1 U	181	12.6	3 U	0.3	0.01 J	13.6	236		4	4 U	0.2 U
7/20/2010	XX	LFXXXX43G			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/19/2010	XX	LFXXXX46J			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/26/2011	XX	LFXXXX4B1			0.1 U	148	7.4	3 U	0.6	0.01 J	13.4	229		1.2 J	4 U	0.2 U
7/19/2011	XX	LFXXXX4EJ			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
10/25/2011	XX	LFXXXX4IC			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/24/2012	XX	LFXXXX534			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
7/24/2012	XX	LFXXXX581			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/23/2012	XX	LFXXXX5EC			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/23/2013	XX	LFXXXX5J5			F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LFXXXX65A				F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFXXXX67J				F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-4																
4/15/2009	XX	LFXXXX34A			0.1 U	136	9	6 J	0.6	0.01 U	14.8	206		5.1	5	0.2 U
7/8/2009	XX	LFXXXX380			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
10/27/2009	XX	LFXXXX3FE			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
4/27/2010	XX	LFXXXX40E			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
7/20/2010	XX	LFXXXX43I			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/19/2010	XX	LFXXXX471			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/26/2011	XX	LFXXXX4B3			F12	F12	F12	F12	F12	F12	F12	F12		F12	F12	F12
7/19/2011	XX	LFXXXXHG2			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
10/25/2011	XX	LFXXXX4GA			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/24/2012	XX	LFXXXX536			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
7/24/2012	XX	LFXXXX582			0.5 U	207	3.1	10 U	0.3 U	0.04 U	2 U	263		2 U	4 U	0.2 U
10/23/2012	XX	LFXXXX5CA			0.5 U	180	8.1	10 U	0.3 U	0.04 U	7.9	252		2 U	4 U	0.2 U
4/23/2013	XX	LFXXXX5J6			0.5 U	166	11.8	10 U	0.3 U	0.04 U	8.8	235	0.14	2 U	4 U	0.2 U
7/30/2013	XX	LFXXXX65B				F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFXXXX680				168	13.2	10 U	0.4	0.04 U	11.1	234	0.1 U	2 U	4 U	0.2 U
LF-UD-5																
4/27/2010	XX	LFXXXX40F			0.1 U	153	3.3	3 J	0.7	0.01 J	16.1	197		1.4 J	4 U	0.2 U
LF-UD-5and6																
7/20/2010	XX	LFXXXX43J			0.1 U	180	6.2	5 J	1.1	0.03 J	22	272		2.5	7	0.2 U
10/19/2010	XX	LFXXXX472			0.1 U	184	3.6	3 J	0.2 J	0.06	19.6	277		1.6 J	42	0.2 U
4/26/2011	XX	LFXXXX4B4			0.1 U	224	2.7	3 U	0.2 J	0.01 J	15.9	287		1.5 J	4 U	0.2 U
7/19/2011	XX	LFXXXX4F2			0.1 U	238	2.5	4 J	0.1 J	0.02 J	15.3	293		1.9 J	14	0.2 U
10/25/2011	XX	LFXXXX4G7			0.1 U	224	3.2	3 U	0.2 J	0.16	16.6	332		2.5	154	3.2
4/24/2012	XX	LFXXXX537			0.5 U	232	3.2	10 U	0.3 U	0.05	14.9	272		2 U	26	0.2 U
7/24/2012	XX	LFXXXX584			0.5 U	232	2.5	10 U	0.3 U	0.04 U	11.9	279		2 U	4 U	0.2 U
10/23/2012	XX	LFXXXX5C7			0.5 U	201	3.3	10 U	0.3 U	0.07	14.6	268		2 U	128	0.2 U
4/23/2013	XX	LFXXXX5J7			0.5 U	157	3.6	10 U	0.3 U	0.04 U	11.5	200	0.11	2 U	8	0.2 U
7/30/2013	XX	LFXXXX65C				163	3.4	10 U	0.3 U	0.04 U	10.8	202	0.1 U	2 U	4 U	0.2 U

SUMMARY REPORT

Inorganics (part 1 of 1)

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

(LF-UD-5and6) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
10/29/2013	XX	LFXXXX681				200	3.3	10 U	0.4	0.04 U	11.8	244	0.1 U	2 U	7	0.2 U
LF-UD-6																
4/26/2011	XX	LFUD6X4B6			0.1 U	263	2.6	7 J	1	0.02 J	30.8	366		3.6	4 U	0.2 U
7/19/2011	XX	LFUD6X4F4			0.1 U	272	2.4	3 U	0.8	0.17	24.6	368		3.6	102	0.2 U
10/25/2011	XX	LFUD6X4G9			0.1 U	307	2.1	8 J	0.4	0.01 J	14.8	344		3.5	4 U	0.33
4/24/2012	XX	LFUD6X539			0.5 U	278	2.7	10 U	0.3	0.04 U	10.6	309		2 U	4 U	0.2 U
7/24/2012	XX	LFUD6X586			0.5 U	326	3.1	10 U	0.3 U	0.04 U	2 U	414		2.8	4 U	0.2 U
10/23/2012	XX	LFUD6X5C9			0.5 U	359	11.6	10	0.5	0.04 U	107	563		3.1	4 U	0.2 U
4/23/2013	XX	LFUD6X5J9			0.5 U	222	8.9	10 U	0.6	0.05	84.9	357	0.1	2 U	4 U	0.2 U
7/30/2013	XX	LFUD6X65E				338	18.2	10 U	1	0.04 U	143	554	0.1 U	3.3	4 U	0.2 U
10/29/2013	XX	LFUD6X683				343	14.1	14	1.2	0.04 U	116	552	0.12	3.1	4 U	0.2 U
LF-UD-7																
4/24/2012	XX	LFUD7X53A			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
7/24/2012	XX	LFXXXX587			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/23/2012	XX	LFXXXX5EF			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/23/2013	XX	LFUD7X5JA			F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LFUD7X65F				F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFUD7X684				F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8																
4/23/2013	XX	LFUD8X5JD			0.5 U	152	3.5	10 U	0.9	0.04 U	7.3	195	0.1 U	2 U	4 U	0.2 U
7/30/2013	XX	LFUD8X65G				172	4	10 U	1.4	0.04 U	9.6	216	0.1 U	2 U	4 U	0.2 U
10/29/2013	XX	LFUD8X685				180	3.5	10 U	0.8	0.04 U	8.2	222	0.1 U	2 U	4 U	0.2 U
LP-COMP																
10/27/2004	XX	LPCOMPHD2			0.1 U	225	31.4	14	2.3	0.02 J	117	459		5.5	4 U	0.2 U
LP-LD-1																
7/28/2004	XX	LPLD1X05I			0.1 U	288	39.1	18	7.5	0.02 J	98.6	578		5.2	34	0.2 U
10/27/2004	XX	LPLD1X07A			0.1 U	182	16.2	20	3.1	0.14	45.8	306		5.4	141	0.46
5/11/2005	XX	LPLD1X13B			0.1 U	32	0.7 J	7 J	0.1 U	0.05	0.6 U	73		4	4 U	0.59
7/27/2005	XX	LPLD1X16J			0.1 U	192	3.7	4 J	0.7	0.01 U	10.9	247		2.1	4 U	0.2 U
9/21/2005	XX	LPLD1X19H			0.3 J	316	96.4	29	2.4	0.09	42.2	571		10.7	13	1
5/24/2006	XX	LPLD1X1EC			0.1 U	87	12.2	11	2.1	0.02 J	23.2	172		4.7	4 U	0.28
7/25/2006	XX	LPLD1X1H9			0.1 U	230	15.5	11	4	0.01 J	42.4	370		4.5	4 U	0.2 U
9/11/2006	XX	LPLD1X202			0.1 J	303	25.7	13	5	0.01 J	62.8	492		6.3	4 U	0.2 U
5/16/2007	XX	LPLD1X239			0.2 J	200	13.7	12	1.7	0.01 U	28.1	312		5.4	4 U	0.37
7/25/2007	XX	LPLD1X27D			0.1 U	316	24.5	18	1	0.05	52.9	486		6.4	4 U	0.2 U
9/12/2007	XX	LPLD1X2A3			0.1 J	373	25.1	29	0.1 U	0.18	34.1	509		9.7	21	0.35
5/20/2008	XX	LPLD1X2DH			0.1 U	54	1.2	9 J	0.8	0.04	2.3	75		5.2	4 U	0.54
7/28/2008	XX	LPLD1X2H1			0.1 U	90	1.4	13	0.9	0.05	3	182		4.8	4 U	0.55
10/29/2008	XX	LPLD1X2JB			0.1 U	145	2.4	17	0.9	0.07	5.7	196		44.7	4 U	0.43
4/15/2009	XX	LPLD1X32J			0.1 U	209	24.2	11	4	0.01 U	35.4	371		3.8	4 U	0.2 U
7/8/2009	XX	LPLD1X373			0.1 U	32	13.2	4 J	0.1 J	0.12	6	85		2	9	0.2 U
10/27/2009	XX	LPLD1X3EI			0.1 U	43	10.1	4 J	0.4	0.03 J	4.9	97		3.8	4 U	0.2 U
LP-UD-1																
7/28/2004	XX	LPUD1X05G			D	D	D	D	D	D	D	D		D	D	D
10/27/2004	XX	LPUD1X078			H2	H2	H2	H2	H2	H2	H2	H2		H2	H2	H2
5/11/2005	XX	LPUD1X139			D	D	D	D	D	D	D	D		D	D	D

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

(LP-UD-1) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
7/27/2005	XX	LPUD1X16H			D	D	D	D	D	D	D	D		D	D	D
9/21/2005	XX	LPUD1X19F			D	D	D	D	D	D	D	D		D	D	D
5/24/2006	XX	LPUD1X1EA			D	D	D	D	D	D	D	D		D	D	D
7/26/2006	XX	LPUD1X1H7			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
9/11/2006	XX	LPUD1X200			D	D	D	D	D	D	D	D		D	D	D
5/16/2007	XX	LPUD1X237			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
7/25/2007	XX	LPUD1X27B			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
9/12/2007	XX	LPUD1X2A1			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
5/20/2008	XX	LPUD1X2DF			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
7/28/2008	XX	LPUD1X2GJ			D	D	D	D	D	D	D	D		D	D	D
10/29/2008	XX	LPUD1X2J9			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/15/2009	XX	LPUD1X32H			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
7/8/2009	XX	LPUD1X371			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/27/2009	XX	LPUD1X3EG			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/27/2010	XX	LPUD1X3JF			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
7/20/2010	XX	LPUD1X42J			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/19/2010	XX	LPUD1X463			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/26/2011	XX	LPUD1X4A4			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
7/19/2011	XX	LPUD1X4E2			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/25/2011	XX	LPUD1X4HH			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/24/2012	XX	LPUD1X527			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
7/24/2012	XX	LPUD1X576			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
10/23/2012	XX	LPUD1X5DH			F6	F6	F6	F6	F6	F6	F6	F6		F6	F6	F6
4/23/2013	XX	LPUD1X5I8			F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LPUD1X64D				F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LPUD1X676				F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-2																
7/28/2004	XX	LPUD2X05H			0.1 U	178	15.7	8 J	0.7	0.01 J	58.3	300		2.9	4 U	0.2 U
10/27/2004	XX	LPUD2X079			0.1 U	228	31.1	14	2.3	0.02 J	116	455		6.3	4 U	0.2 U
5/11/2005	XX	LPUD2X13A			0.1 U	155	9.9	3 J	0.7	0.01 J	34.3	258		3.1	4 U	0.2 U
7/27/2005	XX	LPUD2X16I			0.1 U	168	8.7	3 U	0.4	0.01 U	21.4	236		1.5	4 U	0.2 U
9/21/2005	XX	LPUD2X19G			0.1 U	172	8.3	3 U	0.4	0.01 J	22.4	246		1.4 J	4 U	0.2 U
5/24/2006	XX	LPUD2X1EB			0.1 U	147	8.6	5 J	0.7	0.01 J	21.4	212		4	4 U	0.2 U
7/25/2006	XX	LPUD2X1H8			0.1 U	143	6.9	3 U	0.4	0.01 J	16.5	209		1.8	4 U	0.2 U
9/11/2006	XX	LPUD2X201			0.1 U	120	2.3	3 U	0.2 J	0.02 J	2.7	153		1.5	4 U	0.2 U
5/16/2007	XX	LPUD2X238			0.1 U	151	8.1	6 J	0.2 J	0.01 J	12.7	211		2.4	4	0.29
7/25/2007	XX	LPUD2X27C			0.1 U	142	8.2	7 J	0.1 J	0.01 J	14.2	206		2.5	4 U	0.2 U
9/12/2007	XX	LPUD2X2A2			0.1 U	139	8.4	3 J	0.3	0.01 U	14.3	210		1 J	4 U	0.2 U
5/20/2008	XX	LPUD2X2DG			0.1 U	126	16.5	3 U	0.4	0.01 J	14.5	180		1.6 J	4 U	0.2 U
7/28/2008	XX	LPUD2X2H0			0.1 U	123	14	3 J	0.4	0.01 J	13.6	215		2	4 U	0.2 U
10/29/2008	XX	LPUD2X2JA			0.1 U	121	12.1	3 U	0.3	0.01 J	13.4	191		1.3 J	4 U	0.2 U
4/15/2009	XX	LPUD2X32I			0.1 U	123	9.1	6 J	0.3	0.01 U	9.8	187		2.8	4 U	0.2 U
7/8/2009	XX	LPUD2X372			0.1 U	132	7.6	3 U	0.3	0.01 U	10.4	185		2	4 U	0.2 U
10/27/2009	XX	LPUD2X3EH			0.1 U	90	11.1	11	0.2 J	0.07	7.7	151		1.4 J	4 U	0.2 U
4/27/2010	XX	LPUD2X3JG			0.1 U	129	12.5	3 J	0.2 J	0.01 J	9.7	187		1.3 J	4	0.2 U
7/20/2010	XX	LPUD2X430			0.1 U	137	8.6	3 J	0.2 J	0.01 J	9.2	206		0.7 U	4 U	0.2 U
10/19/2010	XX	LPUD2X464			0.1 U	125	7.2	3 U	0.1 J	0.01 J	8	197		0.7 U	4 U	0.2 U
4/26/2011	XX	LPUD2X4A5			0.1 U	133	6.7	3 U	0.2 J	0.01 U	8.5	187		0.7 U	4 U	0.2 U
7/19/2011	XX	LPUD2X4E3			0.1 U	135	6.3	18	0.1 J	0.06	8.6	193		0.8 J	73	0.2 U

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(LP-UD-2)			Total Kjeldahl Nitrogen	Biochemical Oxygen Demand	Ammonia (N)	Bicarbonate (CaCO3)	Chloride	Chemical Oxygen Demand	Nitrate (N)	Phosphate Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	Tannin & Lignins (Tannic Acid)	
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	mg/L	mg/L	mg/L	
10/25/2011	XX	LPUD2X4HI			0.1 U	135	5.3	4 J	0.2 J	0.11	9.7	181		0.9 J	11	0.2 U	
4/24/2012	XX	LPUD2X528			0.5 U	123	5.2	10 U	0.3 U	0.04 U	9.9	165		2 U	4 U	0.2 U	
7/24/2012	XX	LPUD2X577			0.5 U	143	5.1	10 U	0.3 U	0.04 U	8.5	192		2 U	4 U	0.2 U	
10/23/2012	XX	LPUD2X5DI			0.5 U	128	5.6	10 U	0.3 U	0.04 U	8.6	287		2 U	4 U	0.2 U	
4/23/2013	XX	LPUD2X5I9			0.5 U	137	6.7	10 U	0.4	0.04 U	12.2	185	0.11	2 U	4 U	0.2 U	
7/30/2013	XX	LPUD2X64E				136	7.2	10 U	0.6	0.04 U	12.1	182	0.1 U	2 U	4 U	0.2 U	
10/29/2013	XX	LPUD2X677				153	6.2	10 U	0.5	0.04 U	10.4	194	0.11	2 U	4 U	0.2 U	
MW04-102																	
1/18/2005	XX	GW102X10C	0.3 U	6 U	0.1 U	103	2	3 U	0.1 U		7.6	129	0.03 U	1.6	4 U		
3/21/2005	XX	GW102X144	0.3 U	6 U	0.1 U	101	1.7	3 U	0.2 J		7.3	121	0.03 U	2.3	4 U		
7/25/2005	XX	GW102X17I	0.44	6 U	0.1 U	109	1.9	3 U	0.2 J		7.6	142	0.03 U	0.7 J	5		
9/20/2005	XX	GW102X1A9	0.3 U	6 U	0.1 U	108	2.1	3 U	0.2 J		7.8	126	0.03 U	0.5 J	4 U		
5/23/2006	XX	GW102X1F4	0.3 U		0.1 U	100	2.9	3 U	0.2 J		11.4	148		3.1	4 U	0.2 U	
7/25/2006	XX	GW102X1I0	1.3		0.1 U	100	1.5	3 U	0.2 J		8.1	123		2.2	4 U	0.2 U	
9/12/2006	XX	GW102X20D	0.3 U		0.1 U	102	1.6	3 U	0.1 U		7.9	125		3.3	4 U	0.2 U	
5/15/2007	XX	GW102X240	0.5 U		0.1 U	100	1.7	3 J	0.1 U		10.1	116		5.3	4	0.25	
7/24/2007	XX	GW102X284	0.3 U		0.1 U	95	2.5	9 J	0.1 J		10.6	136		2.7	4 U	0.2 U	
9/11/2007	XX	GW102X2AE	0.5 U		0.1 U	96	2.7	3 U	0.1 J		9.5	131		1.4 J	4 U	0.2 U	
5/20/2008	XX	GW102X2E8	0.3 U		0.1 U	73	1.9	3 U	0.2 J		12.5	122		1.3 J	4 U	0.2 U	
7/29/2008	XX	GW102X2HC	1.2		0.1 U	96	2.7	3 J	0.2 J		14	121		1.2 J	4 U	0.2 U	
10/27/2008	XX	GW102X302	0.5 U		0.1 U	98	1.3	3 U	0.1 J		10.8	120		2.1	4 U	0.2 U	
4/14/2009	XX	GW102X339	0.5 U		0.1 U	95	3.5	3 U	0.1 J		9.1	147		0.9 J	4 U	0.2 U	
7/7/2009	XX	GW102X37D	0.5 U		0.1 U	101	1.7	5 J	0.1 J		9.4	131		0.7 U	4 U	0.2 U	
10/27/2009	XX	GW102X3F8	0.3 U		0.1 U	100	2.4	6 J	0.1 U		8.5	136		0.7 U	4 U	0.2 U	
4/27/2010	XX	GW102X407	0.3 U		0.1 U	104	2.7	3 U	0.1 U		10.2	141		1.2 J	4 U	0.2 U	
7/21/2010	XX	GW102X43B	0.3 U		0.1 U	100	1.3	4 J	0.3		8.5	134		0.7 U	4 U	0.2 U	
10/19/2010	XX	GW102X46F	0.3 U		0.1 U	102	1	3 U	0.2 J		8.1	139		0.7 U	4 U	0.2 U	
4/25/2011	XX	GW102X4AG	0.3 U		0.1 U	102	1.1	3 U	0.1 U		8.5	136		0.7 U	4 U	0.2 U	
7/19/2011	XX	GW102X4EE	0.3 U		0.1 U	101	1	3 U	0.1 U		9.1	137		0.7 U	4 U	0.2 U	
10/25/2011	XX	GW102X4I9	0.3 U		0.1 U	105	2	3 U	0.1 J		8.8	126		0.7 U	4 U	0.2 U	
4/24/2012	XX	GW102X52J	0.35		0.5 U	102	2	10 U	0.3 U		11.4	119		2 U	4 U	0.2 U	
7/24/2012	XX	GW102X57I	3.8		0.5 U	101	1 U	10 U	0.3 U		11.4	122		2 U	4 U	0.2 U	
10/22/2012	XX	GW102X5E9	0.98		0.5 U	107	1.1	10 U	0.3 U		6.7	141		2 U	4 U	0.2 U	
4/23/2013	XX	GW102X5J0	0.3 U		0.5 U	100	2.4	10 U	0.3 U		13.2	143	0.1 U	2 U	4 U	0.2 U	
7/31/2013	XX	GW102X655	0.646			102	1.2	10 U	0.3 U		9.1	134	0.1 U	2 U	4 U	0.2 U	
10/28/2013	XX	GW102X67F	0.5 U			101	2.5	10 U	0.3 U		9.1	137	0.1 U	2 U	4 U	0.2 U	
MW04-105																	
1/17/2005	XX	GW105X10F	0.46	6 U	0.1 U	163	16.9	11	0.1 U		97.4	379	0.03 U	5.2	4 U		
3/21/2005	XX	GW105X147	0.34	6 U	0.1 U	180	30.9	12	0.2 J		115	432	0.05 J	7.5	4 U		
7/25/2005	XX	GW105X181	0.31	6 U	0.1 U	175	20.4	8 J	0.1 U		94.5	407	0.03 U	5	4 U		
9/20/2005	XX	GW105X1AC	0.32	6 U	0.1 U	191	15.1	5 J	0.1 U		83.5	396	0.03 U	4.5	4 U		
5/23/2006	XX	GW105X1F7	0.34		0.1 J	138	8.7	11	0.1 U		42.1	241		2.7	4 U	0.2 U	
7/25/2006	XX	GW105X1I1	0.92		0.1 U	193	9.4	6 J	0.1 U		44.1	318		3.4	4 U	0.2 U	
7/25/2006	XD	GWDP3X1GI	0.43		0.1 U	140	6.4	3 J	0.1 U		30.2	231		2.9	4 U	0.2 U	
9/12/2006	XX	GW105X20E	0.3 U		0.1 U	200	7.1	4 J	0.1 U		32.3	272		3.5	4 U	0.2 U	
5/14/2007	XX	GW105X241	0.5 U		0.1 U	152	14.4	5 J	0.1 U		12.6	234		3.5	4 U	0.22	
5/14/2007	XD	GWDP3X22I	0.5 U		0.1 U	152	13.7	3 J	0.1 U		12.7	220		3.4	4 U	0.2 U	
7/24/2007	XX	GW105X285	0.3 U		0.1 U	179	14.7	7 J	0.1 U		17	257		4	4 U	0.2 U	

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(MW04-105) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
7/24/2007	XD	GWDP3X272	0.3 U		0.1 J	207	15.4	10	0.1 U		18.4	294		5	4 U	0.2 U
9/10/2007	XX	GW105X2AF	0.3 U		0.1 U	225	14.9	10	0.1 U		17.7	292		2.5	4 U	0.2 U
5/19/2008	XX	GW105X2E9	0.5 U		0.1 U	206	12.1	3 U	0.1 U		13.7	263		2.5	4 U	0.2 U
5/19/2008	XD	GWDP3X2D6	0.5 U		0.1 U	201	11.8	3 U	0.1 U		13.3	256		2.2	4 U	0.2 U
7/29/2008	XX	GW105X2HD	0.5 U		0.1 U	210	8.6	7 J	0.2 J		13.4	251		2.5	4 U	0.2 U
7/29/2008	XD	GWDP3X2GA	0.5 U		0.1 U	205	8.7	8 J	0.2 J		12.9	250		2.6	4 U	0.2 U
10/27/2008	XX	GW105X303	0.5 U		0.1 U	177	7	3 U	0.1 U		11.2	216		2.9	4 U	0.2 U
10/27/2008	XD	GWDP1X305	0.5 U		0.1 U	177	7.1	3 U	0.1 U		10.8	218		2.3	4 U	0.2 U
4/15/2009	XD	GWDP3X328	0.5 U		0.1 U	117	7.5	8 J	0.1 J		6.2	167		2.8	4 U	0.2 U
4/15/2009	XX	GW105X33A	0.5 U		0.1 U	117	7.3	7 J	0.1 J		6.2	168		2.3	4 U	0.2 U
7/7/2009	XX	GW105X37E	0.5 U		0.1 U	155	10.1	3 U	0.1 U		8.7	195		2.8	4 U	0.2 U
7/7/2009	XD	GWDP1X361	0.5 U		0.1 U	151	9.3	3 U	0.1 U		8.8	199		1.8 J	4 U	0.2 U
10/26/2009	XD	GWDP1X3DG	0.3 U		0.1 U	143	9.6	3 U	0.1 U		7.8	196		1.6 J	4 U	0.2 U
10/26/2009	XX	GW105X3F9	0.3 U		0.1 U	147	10.5	3 U	0.1 U		8.3	201		1.3 J	4 U	0.2 U
4/27/2010	XD	GWDP3X3J6	0.3 U		0.1 U	139	8.2	4 J	0.1 U		7.5	156		1.3 J	4 U	0.2 U
4/27/2010	XX	GW105X408	0.3 U		0.1 U	138	8.4	3 J	0.1 U		7	185		3	5	0.2 U
7/19/2010	XX	GW105X43C	0.3 U		0.1 U	148	7	3 U	0.1 U		6.4	170		0.8 J	4 U	0.2 U
10/18/2010	XD	GWDP3X45E	0.3 U		0.1 U	133	8.9	4 J	0.1 U		5.5	179		0.8 J	4 U	0.2 U
10/18/2010	XX	GW105X46G	0.3 U		0.1 U	126	9.6	3 J	0.1 U		5.2	177		0.9 J	4 U	0.2 U
4/26/2011	XX	GW105X4AH	0.3 U		0.1 U	125	8.3	3 U	0.1 U		5.2	178		0.8 J	4 U	0.2 U
4/26/2011	XD	GWDP3X49F	0.3 U		0.6	124	8.3	3 U	0.1 U		5.2	175		0.7 J	4 U	0.2 U
7/18/2011	XX	GW105X4EF	0.3 U		0.1 U	144	7.1	3 U	0.1 U		5.9	184		1.1 J	4 U	0.2 U
10/25/2011	XD	GWDP1X4GH	0.3 U		0.1 U	102	5.8	3 U	0.1 U		5.1	148		1.1 J	4 U	0.2 U
10/25/2011	XX	GW105X4IA	0.3 U		0.1 U	100	5	3 U	0.1 U		4.5	141		1.2 J	4 U	0.2 U
4/23/2012	XD	GWDP3X51I	0.3 U		0.5 U	102	5.7	10 U	0.3 U		6.4	154		2 U	4 U	0.2 U
4/23/2012	XX	GW105X530	0.3 U		0.5 U	105	5.6	10 U	0.3 U		6.4	164		2 U	4 U	0.2 U
7/24/2012	XX	GW105X57J	1		0.5 U	125	2.9	10 U	0.3 U		7.7	156		2 U	4 U	0.2 U
10/22/2012	XD	GWDP1X5CH	0.71		0.5 U	108	3.3	10 U	0.3 U		4.6	150		2 U	4 U	0.2 U
10/22/2012	XX	GW105X5EA	1		0.5 U	117	3	10 U	0.3 U		4.2	160		2 U	4 U	0.2 U
4/24/2013	XD	GWDP3X5HJ	0.3 U		0.5 U	110	7.3	10 U	0.3 U		5.6	154	0.1 U	2 U	4 U	0.2 U
4/24/2013	XX	GW105X5J1	0.3 U		0.5 U	111	7.7	10 U	0.3 U		5.5	162	0.1 U	2 U	4 U	0.2 U
MW04-109																
1/19/2005	XD	GWDP1X110	0.35	6 U	0.1 U	276	11.1	15	0.1 U		50.1	409	0.03 U	6.8	4 U	
1/19/2005	XX	GW109X10I	0.37	6 U	0.1 U	276	11.2	15	0.1 U		49.6	408	0.03 U	8.2	4 U	
3/23/2005	XX	GW109X14A	0.36	6 U	0.1 U	240	9.9	15	0.1 U		54.6	372	0.04 J	5.3	4 U	
7/26/2005	XX	GW109X184	0.3	6 U	0.1 U	222	5.1	7 J	0.1 U		22.4	298	0.03 U	3.5	4 U	
7/26/2005	XD	GWDP5X186	0.32	6 U	0.1 U	218	5	4 J	0.1 U		22.4	302	0.03 U	3.5	4 U	
9/20/2005	XX	GW109X1AF	0.36	6 U	0.1 U	264	3.3	8 J	0.1 U		13.7	316	0.03 U	4.1	4 U	
9/20/2005	XD	GWDP5X1AH	0.44	6 U	0.1 U	266	3.2	3 U	0.1 U		13	316	0.03 U	4.3	4 U	
5/23/2006	XX	GW109X1FA	0.32		0.1 U	220	7.4	6 J	0.1 U		8.9	279		4.4	4 U	0.2 U
5/23/2006	XD	GWDP3X1E1	0.75		0.1 U	226	7.5	6 J	0.1 U		8.8	286		5.1	4 U	0.2 U
7/25/2006	XX	GW109X1I2	0.58		0.1 U	193	4.1	3 J	0.1 U		7.3	242		3.5	4 U	0.2 U
9/12/2006	XD	GWDP1X1J0	0.37		0.1 U	195	4	3 U	0.1 U		7.4	234		4.3	4 U	0.2 U
9/12/2006	XX	GW109X20F	0.32		0.1 U	200	4.1	7 J	0.1 U		7.3	227		6.3	4 U	0.2 U
5/15/2007	XX	GW109X242	0.5 U		0.1 U	178	4.4	4 J	0.1 U		5.5	215		4.3	4 U	0.35
7/24/2007	XX	GW109X286	0.3 U		0.1 U	140	5.3	10	0.1 U		6.6	194		4.3	4 U	0.2 U
9/10/2007	XD	GWDP5X2AH	0.3 U		0.1 U	145	6.1	13	0.1 U		5.4	189		4.8	4 U	0.2 U
9/10/2007	XX	GW109X2AG	0.3 U		0.1 U	147	5.8	8 J	0.1 U		5.7	196		3.6	4 U	0.2 U
5/19/2008	XX	GW109X2EA	1 U		0.1 U	181	92.8	13	0.1 U		3.6	412		3.5	4 U	0.2 U

(MW04-109) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
7/29/2008	XX	GW109X2HE	0.5 U		0.1 U	240	61.9	11	0.2 J		4.3	371		4.6	4 U	0.32
10/28/2008	XX	GW109X304	0.5 U		0.1 U	236	36.8	7 J	0.1 U		3.4	330		3.8	4 U	0.2 U
4/15/2009	XX	GW109X33B	0.5 U		0.1 U	246	19.3	12	0.1 J		2.2	305		4.4	4 U	0.2 U
7/7/2009	XX	GW109X37F	DE		DE	DE	DE	DE	DE		DE	DE		DE	DE	DE
MW04-109R																
12/8/2009	XX	GW109X3GF	0.3 U		0.1 U	220	15.9	3 U	0.1 U		15.2	310		2.9	4 U	0.2 U
4/27/2010	XX	GW109X409	0.3 U		0.1 U	185	12.3	4 J	0.1 U		12	258		2.2	4 U	0.2 U
7/20/2010	XX	GW109X43D	0.3 U		0.1 U	224	6.6	3 J	0.1 U		7.9	262		1.3 J	4 U	0.2 U
10/19/2010	XX	GW109X46H	0.3 U		0.1 U	233	6.3	3 U	0.1 U		7.1	303		1.3 J	4 U	0.2 U
4/26/2011	XX	GW109X4AI	0.3 U		0.1 U	220	4.6	3 J	0.1 U		5.3	267		1.2 J	4 U	0.2 U
7/19/2011	XX	GW109X4EG	0.3 U		0.1 U	195	8.5	3 J	0.1 U		5.8	258		1.4 J	4 U	0.2 U
10/25/2011	XX	GW109X4IB	0.3 U		0.1 J	202	7.7	5 J	0.1 U		6.2	253		1.8 J	4 U	0.2 U
4/24/2012	XX	GW109X531	0.3 U		0.5 U	186	5.7	10 U	0.3 U		6.9	230		2 U	4 U	0.2 U
7/24/2012	XX	GW109X580	0.59		0.5 U	184	2.3	10 U	0.3 U		6.4	227		2 U	4 U	0.2 U
10/23/2012	XX	GW109X5EB	0.32		0.5 U	203	5.8	10 U	0.3 U		2.6	271		2 U	4 U	0.2 U
4/23/2013	XX	GW109X5J2	0.3 U		0.5 U	190	6.5	10 U	0.3 U		8.7	245	0.17	2 U	4 U	0.2 U
7/30/2013	XX	GW109X657	0.444			195	7.7	10 U	0.3 U		8.6	242	0.14	2 U	4 U	0.2 U
10/29/2013	XX	GW109X67G	0.5 U			206	6.3	10 U	0.3 U		7.7	259	0.16	2 U	4 U	0.2 U
MW09-901																
12/8/2009	XX	GW901X3GH	0.3 U		0.1 U	108	5.1	3 U	0.1 U		15.4	165		1.8 J	4	0.2 U
4/27/2010	XX	GW901X3J7	0.3 U		0.1 U	101	4.2	3 J	0.1 U		13.2	124		1.9 J	4 U	0.2 U
7/20/2010	XX	GW901X42B	0.3 U		0.1 U	104	2.6	3 U	0.1 U		13.7	154		0.9 J	4	0.2 U
10/19/2010	XX	GW901X45F	0.3 U		0.1 U	110	2.7	4 J	0.1 U		27.4	193		0.7 U	4 U	0.2 U
4/26/2011	XX	GW901X49G	0.3 U		0.1 U	90	1.3	3 U	0.1 U		8.4	126		0.7 U	4 U	0.2 U
7/19/2011	XX	GW901X4DE	0.3 U		0.1 U	86	1.3	3 U	0.1 U		8.3	125		0.7 U	4 U	0.2 U
10/25/2011	XX	GW901X4H9	0.3 U		0.1 U	87	1.2	3 J	0.1 U		7	109		1.2 J	4 U	0.2 U
4/24/2012	XX	GW901X51J	0.3 U		0.5 U	75	2.2	10 U	0.3 U		8.3	103		2 U	4 U	0.2 U
7/24/2012	XX	GW901X56I	0.3 U		0.5 U	77	1 U	10 U	0.3 U		9.5	108		2 U	4 U	0.2 U
10/23/2012	XX	GW901X5D9	0.3 U		0.5 U	82	2.5	12	0.3 U		9	118		2 U	4 U	0.2 U
4/23/2013	XX	GW901X5I0	0.3 U		0.5 U	81	2.5	10 U	0.3 U		10.8	116	0.1 U	2 U	4 U	0.2 U
7/30/2013	XX	GW901X645	0.52			80	2	10 U	0.3 U		10.7	110	0.1 U	2 U	4 U	0.2 U
10/29/2013	XX	GW901X66I	0.5 U			85	2.7	10 U	0.3 U		9.2	116	0.1 U	2 U	4 U	0.2 U
MW11-207R																
7/20/2011	XX	GW207X4CH	0.48		0.1 U	37	1.4	3 U	0.2 J		1.3 J	70		0.7 U	4 U	0.2 U
10/24/2011	XX	GW207X4GC	0.3 U		0.1 U	36	2.1	3 U	0.2 J		1 J	61		0.7 U	4 U	0.2 U
4/23/2012	XX	GW207X512	0.3 U		0.5 U	40	2.1	10 U	0.3 U		2 U	69		2 U	4 U	0.2 U
7/23/2012	XX	GW207X561	0.3 U		0.5 U	42	1.3	10 U	0.3 U		2 U	72		2 U	4 U	0.2 U
10/22/2012	XX	GW207X5CC	0.93		0.5 U	39	2	10 U	0.3 U		2 U	69		2 U	4 U	0.2 U
4/22/2013	XX	GW207X5H3	0.3 U		0.5 U	39	2.8	10 U	0.3 U		2.1	70	0.1 U	2 U	4 U	0.2 U
7/29/2013	XX	GW207X638	0.551			40	2.6	10 U	0.3 U		2 U	69	0.1 U	2 U	4 U	0.2 U
10/28/2013	XX	GW207X661	0.5 U			39	3.8	10 U	0.3 U		2 U	75	0.1 U	2 U	4 U	0.2 U
MW-204																
1/29/2004	XX	GW204X03A			0.1 U	110	4.4	3 U	0.1 J		5.2	151		1.3 J	4 U	
5/4/2004	XX	GW204X008	0.15 U	6 U	0.1 U	98	5.1	3 U	0.1 J		9.9	138	0.03 U	1 J	4 U	
7/27/2004	XX	GW204X03G	0.29	6 U	0.1 U	95	2.4	3 U	0.2 J		4	148	0.03 U	1.2 J	4 U	
10/25/2004	XX	GW204X07D	0.53		0.1 U	97	4.3	4 J	0.1 J		28.7	175		9.3	4 U	0.2 U
5/9/2005	XX	GW204X13E	0.3 U		0.1 U	80	5.1	3 U	0.1 J		18.4	146		1.4 J	4 U	0.2 U

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(MW-204) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L	
8/1/2005	XX	GW204X172	0.3 U		0.1 U	93	6.2	3 U	0.1 U		23.9	170		1.3 J	4 U	0.2 U	
9/20/2005	XX	GW204X1A0	0.3 U		0.1 U	105	7.7	3 U	0.1 J		42.5	210		2	4 U	0.2 U	
5/23/2006	XX	GW204X1EF	0.33		0.1 U	81	4.3	3 U	0.2 J		18.7	147		3.3	4 U	0.2 U	
7/24/2006	XX	GW204X1HC	0.82		0.1 U	81	3	3 U	0.1 U		16.3	143		1.7	4 U	0.2 U	
9/11/2006	XX	GW204X205	0.3 U		0.1 U	85	3.6	3 U	0.1 U		15.7	138		2.4	4 U	0.2 U	
5/14/2007	XX	GW204X23C	0.5 U		0.1 U	83	3.7	3 U	0.1 U		8.7	142		1.7	4 U	0.2 U	
7/23/2007	XX	GW204X27G	0.3 U		0.1 U	84	5.8	6 J	0.1 U		12.8	140		1.9	4 U	0.2 U	
9/10/2007	XX	GW204X2A6	0.3 U		0.1 U	97	7.2	9 J	0.1 U		14.3	161		3.7	4 U	0.2 U	
5/21/2008	XX	GW204X2E0	0.3 U		0.1 U	94	8.8	3 U	0.3		7.8	134		3	4 U	0.2 U	
7/30/2008	XX	GW204X2H4	0.5 U		0.1 U	96	5	4 J	0.2 J		9.8	147		0.8 J	4 U	0.2 U	
10/28/2008	XX	GW204X2JE	0.5 U		0.1 U	94	3.8	3 J	0.2 J		10.5	144		0.7 J	4 U	0.2 U	
4/13/2009	XX	GW204X332	0.54		0.1 U	84	4.7	3 U	0.3		7.7	148		4.7	4 U	0.2 U	
7/6/2009	XX	GW204X376	2 U		0.1 U	90	4.1	3 U	0.1 J		7.9	134		1.2 J	4 U	0.2 U	
10/26/2009	XX	GW204X3F1	0.3 U		0.1 U	98	4.5	3 U	0.1 U		7.2	133		0.9 J	4 U	0.2 U	
4/28/2010	XX	GW204X400	0.34		0.1 U	83	4.9	4 J	0.1 U		5.9	119		3.7	4 U	0.2 U	
7/19/2010	XX	GW204X434	0.3 U		0.1 U	81	5.1	3 U	0.1 U		5.5	113		0.7 U	4 U	0.2 U	
10/19/2010	XX	GW204X468	0.3 U		0.1 U	76	4.8	3 U	0.1 U		5.5	138		0.9 J	4 U	0.2 U	
4/26/2011	XX	GW204X4A9	0.3 U		0.1 U	73	5.1	3 U	0.1 U		4.5	130		0.7 U	4 U	0.2 U	
7/19/2011	XX	GW204X4E7	0.3 U		0.1 U	80	4.7	3 U	0.1 U		4.7	121		0.7 U	4 U	0.2 U	
10/26/2011	XX	GW204X4I2	0.3 U		0.1 U	78	4.2	3 U	0.1 U		6.4	124		0.8 J	4 U	0.2 U	
4/24/2012	XX	GW204X52C	0.3 U		0.5 U	72	3.8	10 U	0.3 U		7.7	112		2 U	4 U	0.2 U	
7/23/2012	XX	GW204X57B	0.3 U		0.5 U	80	3.1	10 U	0.3 U		8.1	130		2 U	4 U	0.2 U	
10/24/2012	XX	GW204X5E2	0.3		0.5 U	82	4.8	10 U	0.3 U		7.5	136		2 U	4 U	0.2 U	
4/24/2013	XX	GW204X5ID	0.381		0.5 U	77	5.5	10 U	0.3 U		6.2	134	0.1 U	2 U	5	0.2 U	
MW-207																	
5/5/2004	XX	GW207X011	0.15 U		0.1 U	69	1.6	3 U	0.1 U		1.7	80		1.2 J	4 U	0.25	
7/28/2004	XX	GW207X048	0.15 U		0.1 U	71	1.9	3 U	0.1 U		2.4	97		1.9	4 U	0.2 U	
10/25/2004	XX	GW207X063	0.42		0.1 U	75	1.8	3 U	0.1 U		2.1	107		4.1	16	0.32	
5/12/2005	XX	GW207X124	0.59		0.1 U	68	1.9	3 U	0.1 U		0.6 U	104		2	6	0.51	
8/1/2005	XX	GW207X15C	0.6		0.1 U	78	2.1	3 U	0.1 U		0.6 U	101		1 J	5	0.3	
9/19/2005	XD	GWDP1X18F	0.31		0.1 U	62	2.3	3 U	0.1 U		1.2 J	90		1.1 J	4 U	0.24	
9/19/2005	XX	GW207X18A	0.3		0.1 U	73	1.7	3 U	0.1 U		1.2 J	93		3.1	4 U	0.25	
5/22/2006	XX	GW207X1D5	0.42		0.1 U	72	3.6	7 J	0.1 U		5.8	114		4.6	4 U	0.29	
7/25/2006	XX	GW207X1G2	0.58		0.1 U	73	1.8	4 J	0.1 U		2.1	117		4.8	4 U	0.2 U	
9/11/2006	XX	GW207X1IF	0.55		0.1 U	71	2.3	11	0.1 U		1.6 J	105		4.7	4 U	0.2 U	
5/14/2007	XX	GW207X222	0.5 U		0.1 U	80	3.6	8 J	0.1 U		4	130		2.5	10	0.28	
7/25/2007	XX	GW207X266	0.3		0.1 U	89	5.5	17	0.1 U		7.8	136		4.5	4	0.2 U	
9/10/2007	XX	GW207X28G	0.39		0.1 U	90	4.9	12	0.1 J		6.8	143		6.8	4 U	0.2 U	
5/19/2008	XX	GW207X2CA	0.54		0.1 U	100	2.2	9 J	0.1 U		7.6	144		3.7	4 U	0.2 U	
7/29/2008	XX	GW207X2FE	0.5 U		0.1 U	115	2.6	11	0.1 J		8.7	162		5.2	4 U	0.27	
10/28/2008	XX	GW207X2I4	0.58		0.1 U	142	2	20	0.1 U		7.7	210		6.4	8	0.36	
4/13/2009	XX	GW207X31C	25		15.7	230	4.8	44	0.3		0.8 J	195		17.1	20	1.8	
7/6/2009	XX	GW207X35G	22		20.7	284	4.9	55	0.1 U		0.7 J	213		22.3	38	2.1	
10/26/2009	XX	GW207X3DB	12		9	195	5.9	35	2.9		9.4	265		9.2	17	1	
4/26/2010	XX	GW207X3IA	3.8		2.2	238	5.2	14	0.1 J		6.1	259		6.5	46	0.74	
7/19/2010	XX	GW207X41E	4.4		2.5	228	4.9	18	0.6		6.6	244		5.3	29	0.78	
10/18/2010	XX	GW207X44I	5.1		4.1	213	4	18	0.1 U		5.2	286		6.2	14	2.3	
4/25/2011	XX	GW207X48J	1.9		1.5	207	3.6	11	0.1 U		7	266		4.4	4 U	0.4 U	

(MW-206)			Total Kjeldahl Nitrogen	Biochemical Oxygen Demand	Ammonia (N)	Bicarbonate (CaCO3)	Chloride	Chemical Oxygen Demand	Nitrate (N)	Phosphate Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	Tannin & Lignins (Tannic Acid)	
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	mg/L	mg/L	mg/L	
MW-206																	
5/6/2004	XX	GW206X010	0.15 U		0.1 U	69	1.5	3 J	0.1 U		0.2 J	96		0.5 U	8	0.2 U	
7/28/2004	XX	GW206X047	0.15 U		0.1 U	68	1.7	3 U	0.1 U		1.2	96		0.5 U	4 U	0.2 U	
10/26/2004	XX	GW206X062	0.3 U		0.1 U	71	1.8	3 U	0.1 U		1.1	86		0.7 J	4 U	0.2 U	
5/11/2005	XX	GW206X123	0.3 U		0.1 U	69	1.6	3 U	0.1 U		0.6 J	97		0.8 J	4 U	0.2 U	
7/28/2005	XX	GW206X15B	0.3 U		0.1 U	67	1.7	3 U	0.1 U		0.9 J	89		1.3 J	4 U	0.2 U	
9/19/2005	XX	GW206X189	0.3 U		0.1 U	73	1.9	3 U	0.1 U		1.1 J	81		1.1 J	4 U	0.2 U	
5/24/2006	XX	GW206X1D4	0.44		0.1 U	71	1.9	3 J	0.1 J		1.8 J	98		1.7	4 U	0.2 U	
7/25/2006	XX	GW206X1G1	1.2		0.1 U	71	1.5	3 U	0.1 U		1 J	88		2.2	4 U	0.2 U	
9/12/2006	XX	GW206X1IE	0.3 U		0.1 U	68	0.9 J	3 U	0.1 U		1.1 J	66		0.8 J	4 U	0.2 U	
5/14/2007	XX	GW206X221	0.5 U		0.1 U	68	1.2	3 U	0.1 U		0.8 J	97		2.7	4 U	0.2 U	
7/25/2007	XX	GW206X265	0.3 U		0.1 U	62	2.5	10	0.1 U		2.5	85		2.1	4 U	0.2 U	
9/11/2007	XX	GW206X28F	0.5 U		0.1 U	58	2.6	3 U	0.1 U		1.2 J	95		2.6	4 U	0.2 U	
5/20/2008	XX	GW206X2C9	0.3 U		0.1 U	67	1.5	3 U	0.1 J		1.6 J	74		1.5 J	4 U	0.2 U	
7/29/2008	XX	GW206X2FD	0.5 U		0.1 U	69	1.5	3 J	0.2 J		2	83		1.4 J	4 U	0.2 U	
10/27/2008	XX	GW206X2I3	0.5 U		0.5	69	0.9 J	3 U	0.1 U		4.1	90		1.2 J	4 U	0.2 U	
4/13/2009	XX	GW206X31B	0.5 U		0.1 U	68	1.6	4 J	0.2 J		1.4 J	97		1.2 J	4 U	0.2 U	
7/6/2009	XX	GW206X35F	2 U		0.1 U	68	1.3	3 U	0.1 J		1.9 J	86		0.7 U	4 U	0.2 U	
10/28/2009	XX	GW206X3DA	0.3 U		0.1 U	71	1.7	3 U	0.1 U		1.2 J	86		0.8 J	4 U	0.2 U	
4/26/2010	XX	GW206X3I9	0.3 U		0.3 J	67	2.7	3 U	0.1 U		1.6 J	69		0.7 J	4 U	0.2 U	
7/19/2010	XX	GW206X41D	2.4		0.6	70	1.8	8 J	0.1 U		1.7 J	81		1.4 J	4 U	0.2 U	
10/18/2010	XX	GW206X44H	2.4		2	80	1.2	5 J	0.1 U		0.6 U	98		1.5 J	10	0.2 U	
4/25/2011	XX	GW206X48I	0.3 U		0.1 U	65	1.1	3 J	0.1 U		1 J	97		0.7 U	8	0.2 U	
7/18/2011	XX	GW206X4CG	1.2		0.1 U	73	1.8	14	0.1 U		0.8 J	92		2.2	12	0.2 U	
10/24/2011	XX	GW206X4GB	0.3 U		0.1 U	69	1.8	6 J	0.1 J		1.1 J	91		1.1 J	5	0.2 U	
4/23/2012	XX	GW206X511	0.3 U		0.5 U	70	1.8	10 U	0.3 U		2.7	91		2 U	4 U	0.2 U	
7/23/2012	XX	GW206X560	0.35		0.5 U	69	1.2	10 U	0.3 U		2 U	99		2 U	4 U	0.2 U	
7/23/2012	XD	GWDP4X573	0.3 U		0.5 U	68	1.4	10 U	0.3 U		2.1	86		2 U	6	0.2 U	
10/22/2012	XX	GW206X5CB	0.94		0.5 U	70	1.2	10 U	0.3 U		2 U	95		2 U	4	0.2 U	
4/22/2013	XX	GW206X5H2	0.311		0.5 U	66	2.4	10 U	0.3 U		2.8	88	0.1 U	2 U	4 U	0.2 U	
7/29/2013	XX	GW206X637	0.684			66	2	10 U	0.3 U		2.2	88	0.1 U	2 U	4 U	0.2 U	
7/29/2013	XD	GWDP4X64A	0.492			63	1.8	10 U	0.3 U		2.2	90	0.1 U	2 U	4 U	0.2 U	
10/28/2013	XX	GW206X660	0.5 U			70	2.4	10 U	0.3 U		2.3	95	0.1 U	2 U	4 U	0.2 U	
MW-212																	
5/5/2004	XX	GW212X00B	0.15 U	6 U	0.1 U	20	0.7	3 U	0.1 U		5.5	48	0.03 U	0.5 U	4 U		
7/27/2004	XX	GW212X03J	D	D	D	D	D	D	D		D	D	D	D	D		
10/27/2004	XX	GW212X07F	D		D	D	D	D	D		D	D		D	D	D	
5/12/2005	XX	GW212X13G	0.32		0.1 U	35	1.9	3 U	0.1 J		16.9	101		2.3	4 U	0.2 U	
8/1/2005	XX	GW212X174	0.3 U		0.1 U	13.8	1.2	3 U	0.1 U		1.9 J	35		0.6 J	4 U	0.2 U	
9/20/2005	XX	GW212X1A2	I		I	I	I	I	I		I	I		I	I	I	
5/22/2006	XX	GW212X1EH	0.38		0.1 U	15.2	2.3	3 J	0.1 U		5.8	56		2.4	4 U	0.2 U	
7/25/2006	XX	GW212X1HE	3.1		0.1 U	12.5	1.4	3 U	0.1 U		2.1	48		2.5	4 U	0.2 U	
9/11/2006	XX	GW212X207	I		I	I	I	I	I		I	I		I	I	I	
5/14/2007	XX	GW212X23E	0.5 U		0.1 U	20	1.6	3 U	0.1 J		4.3	60		0.5 U	4 U	0.2 U	
7/24/2007	XX	GW212X27I	D		D	D	D	D	D		D	D		D	D	D	
9/10/2007	XX	GW212X2A8	D		D	D	D	D	D		D	D		D	D	D	
5/19/2008	XX	GW212X2E2	0.5 U		0.1 U	24	1.8	3 U	0.5		3.3	64		0.7 U	4 U	0.2 U	
7/29/2008	XX	GW212X2H6	D		D	D	D	D	D		D	D		D	D	D	

(MW-212) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
10/28/2008	XX	GW212X2JG	D		D	D	D	D	D		D	D		D	D	D
4/13/2009	XX	GW212X334	0.72		0.1 U	42	27.5	3 J	0.2 J		7	132		4.7	4 U	0.2 U
7/6/2009	XX	GW212X378	2.6		2.2	46	19.6	17	0.1 U		5	100		6.7	4 U	0.33
10/26/2009	XX	GW212X3F3	D		D	D	D	D	D		D	D		D	D	D
4/26/2010	XX	GW212X402	0.36		0.1 U	30	47.2	3 U	0.3		3.4	135		1.3 J	5	0.2 U
7/19/2010	XX	GW212X436	D		D	D	D	D	D		D	D		D	D	D
10/18/2010	XX	GW212X46A	D		D	D	D	D	D		D	D		D	D	D
4/25/2011	XX	GW212X4AB	0.3 U		0.1 U	53	25.3	3 U	0.1 U		3.2	129		0.7 U	4 U	0.2 U
7/18/2011	XX	GW212X4E9	D		D	D	D	D	D		D	D		D	D	D
10/24/2011	XX	GW212X4I4	D		D	D	D	D	D		D	D		D	D	D
4/23/2012	XX	GW212X52E	D		D	D	D	D	D		D	D		D	D	D
7/23/2012	XX	GW212X57D	D		D	D	D	D	D		D	D		D	D	D
10/22/2012	XX	GW212X5E4	D		D	D	D	D	D		D	D		D	D	D
4/22/2013	XX	GW212X5IF	D		D	D	D	D	D		D	D	D	D	D	D
MW-216B																
5/6/2004	XX	GW216B013	0.16		0.1 U	65	2.3	3 J	0.3		2.5	90		0.8 J	4 U	0.2 U
5/6/2004	XD	GWDP1X017	0.21		0.1 U	58	2.3	3 J	0.3		2.5	94		0.7 J	4 U	0.2 U
7/26/2004	XX	GW216B049	0.15 U		0.1 U	48	2.1	3 U	0.1 U		4.4	72		3.6	4 U	0.2 U
10/26/2004	XD	GWDP1X068	0.3 U		0.1 U	44	2	3 U	0.2 J		4.4	84		2.2	4 U	0.2 U
10/26/2004	XX	GW216B064	0.48		0.1 U	38	2.1	3 U	0.2 J		4.5	68		1.6	4 U	0.2 U
5/10/2005	XX	GW216B125	0.3 U		0.1 U	29	2.7	4 J	0.3		3.4	55		1.8	4 U	0.2 U
7/27/2005	XX	GW216B15D	0.47		0.1 U	74	3	3 U	0.1 U		3.7	105		1.8	4 U	0.2 U
7/27/2005	XD	GWDP3X168	0.35		0.1 U	73	3	3 U	0.1 U		3.5	111		1.9	4 U	0.2 U
9/22/2005	XX	GW216B18B	0.3 U		0.1 U	33	1.4	3 U	0.1 J		4	67		5.8	4 U	0.2 U
5/23/2006	XX	GW216B1D6	0.63		0.1 U	70	15.8	24	0.1 U		10	187		7.4	4 U	6.1
7/25/2006	XD	GWDP1X1G7	0.56		0.1 U	38	5.6	13	0.1 U		4.1	86		5.5	18	0.2 U
7/25/2006	XX	GW216B1G3	1.2		0.1 U	40	5.7	10	0.1 U		4.1	88		6.5	19	0.2 U
9/12/2006	XX	GW216B1IG	0.57		0.1 U	44	4.5	8 J	0.1 U		4.3	92		4.9	4 U	6.5
5/15/2007	XX	GW216B223	0.5 U		0.1 U	46	6.6	10	0.1 U		4.2	81		5.6	9	0.34
7/24/2007	XX	GW216B267	0.3 U		0.1 U	44	6.2	8 J	0.1 U		10.3	106		5	4 U	0.2 U
7/24/2007	XD	GWDP1X26B	0.3 U		0.1 U	41	6	7 J	0.1 U		10.3	102		5.8	4 U	0.2 U
9/10/2007	XX	GW216B28H	0.3 U		0.1 U	46	5	7 J	0.1 J		7.9	92		4	4 U	0.2 U
5/20/2008	XX	GW216B2CB	0.3 U		0.1 U	56	29.9	5 J	0.2 J		11.5	157		3.2	4 U	0.2 U
7/28/2008	XX	GW216B2FF	0.5 U		3.6	95	50.4	14	0.1 U		19.7	261		5.9	7	0.27
7/28/2008	XD	GWDP1X2FJ	0.5 U		3.4	95	51.9	10	0.1 U		20.5	276		5.4	4 U	0.33
10/28/2008	XX	GW216B2I5	0.51		0.1 U	58	13.8	11	0.1 U		9.1	139		6.3	4 U	0.21
4/14/2009	XX	GW216B31D	0.5 U		0.1 U	60	8.7	4 J	0.1 U		4.5	113		3.4	4 U	0.2 U
7/7/2009	XX	GW216B35H	DE		DE	DE	DE	DE	DE		DE	DE		DE	DE	DE
MW-216BR																
12/8/2009	XX	GW216B3GG	0.3 U		0.1 U	122	15.3	3 U	0.1 U		8	192		1.6 J	4 U	0.2 U
4/27/2010	XX	GW216B3IB	0.3 U		0.1 U	127	10.9	7 J	0.1 U		6.8	185		2.5	4 U	0.2 U
7/20/2010	XX	GW216B41F	0.3 U		0.1 U	117	9.3	5 J	0.1 U		6.2	174		0.8 J	4 U	0.2 U
10/19/2010	XX	GW216B44J	0.3 U		0.1 U	117	8.7	3 U	0.1 U		5.2	188		0.7 U	4 U	0.2 U
4/26/2011	XX	GW216B490	0.3 U		0.1 U	164	8.1	3 U	0.1 U		4.6	224		0.9 J	4 U	0.2 U
7/19/2011	XX	GW216B4CI	0.3 U		0.1 U	171	9.1	3 J	0.1 U		4.7	229		1.1 J	4 U	0.2 U
10/25/2011	XX	GW216B4GD	0.36		0.1 U	190	9.4	4 J	0.1 U		5.6	242		1.9 J	4 U	0.2 U
4/24/2012	XX	GW216B513	0.3 U		0.5 U	182	9.3	10 U	0.3 U		4.6	245		2 U	4 U	0.2 U
7/24/2012	XX	GW216B562	0.43		0.5 U	180	5.5	10 U	0.3 U		2 U	238		2 U	4 U	0.2 U

(MW-216BR)			Total Kjeldahl Nitrogen	Biochemical Oxygen Demand	Ammonia (N)	Bicarbonate (CaCO3)	Chloride	Chemical Oxygen Demand	Nitrate (N)	Phosphate Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	Tannin & Lignins (Tannic Acid)	
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	mg/L	mg/L	mg/L	
10/23/2012	XX	GW216B5CD	0.3 U		0.5 U	156	7.5	10 U	0.3 U		2.5	231		2 U	4 U	0.2 U	
4/23/2013	XX	GW216B5H4	0.3 U		0.5 U	145	7.3	10 U	0.3 U		9.1	209	0.18	2 U	4 U	0.2 U	
7/30/2013	XX	GW216B639	0.565			147	9.1	10 U	0.3 U		8.7	206	0.2	2 U	4 U	0.2 U	
MW-223A																	
5/5/2004	XX	GW223A014	0.15 U		0.1 U	93	1.9	3 U	0.1 J		3.4	112		0.5 U	4 U	0.2 U	
7/28/2004	XX	GW223A04A	0.15 U		0.1 U	89	2.4	3 U	0.1 J		5	120		0.5 J	4 U	0.2 U	
7/28/2004	XD	GWDP1X04D	0.15 U		0.1 U	87	2.4	3 U	0.1 J		5	113		0.5 U	4 U	0.2 U	
10/25/2004	XX	GW223A065	0.49		0.1 U	88	2.4	3 U	0.1 J		4.5	118		1.4 J	4 U	0.2 U	
5/10/2005	XD	GWDP3X130	0.3 U		0.1 U	90	2.2	3 U	0.1 J		4.7	114		0.5 U	4 U	0.2 U	
5/10/2005	XX	GW223A126	0.3 U		0.1 U	87	2.2	3 U	0.1 J		4.7	112		0.5 J	4 U	0.2 U	
7/26/2005	XX	GW223A15E	0.3 U		0.1 U	88	2.3	3 U	0.1 J		4.3	117		0.5 U	4 U	0.2 U	
9/21/2005	XX	GW223A18C	0.3 U		0.1 U	87	2.5	3 U	0.1 J		4.8	123		3.4	4 U	0.2 U	
5/24/2006	XX	GW223A1D7	0.34		0.1 U	91	3	3 U	0.3		6.4	136		1.9	4 U	0.2 U	
5/24/2006	XD	GWDP1X1DA	0.59		0.1 U	90	3	3 J	0.3		7	126		1.2 J	4 U	0.2 U	
7/26/2006	XD	GWDP5X1I3	0.34		0.1 U	88	2	5 J	0.2 J		4.3	133		1.3 J	4 U	0.2 U	
7/26/2006	XX	GW223A1G4	0.45		0.1 U	90	1.9	6 J	0.2 J		4.4	128		2	4 U	0.2 U	
9/13/2006	XD	GWDP5X20G	0.36		0.1 U	91	2.2	3 U	0.1 U		4.4	90		0.6 J	4 U	0.2 U	
9/13/2006	XX	GW223A1IH	0.3 U		0.1 U	104	2.2	3 J	0.1 U		4.2	99		2.2	4 U	0.2 U	
5/15/2007	XD	GWDP1X227	0.5 U		0.1 U	91	2.8	3 U	0.1 U		4	117		1.1 J	4 U	0.31	
5/15/2007	XX	GW223A224	0.5 U		0.1 U	93	2.7	3 U	0.1 U		4.1	110		3.2	4 U	0.25	
7/24/2007	XD	GWDP5X287	0.3 U		0.1 J	76	3.2	5 J	0.1 J		4.8	127		1.7	4 U	0.2 U	
7/24/2007	XX	GW223A268	0.3 U		0.1 U	86	3.2	3 U	0.1 J		4.9	36		2.6	4 U	0.2 U	
9/11/2007	XX	GW223A28I	0.5 U		0.1 U	88	3.6	3 U	0.2 J		4.7	128		0.8 J	4 U	0.2 U	
5/20/2008	XD	GWDP1X2CF	0.3 U		0.1 U	95	2.8	4 J	0.2 J		5.4	121		1.4 J	4 U	0.2 U	
5/20/2008	XX	GW223A2CC	0.3 U		0.1 U	92	2.8	3 U	0.2 J		5.4	125		1.3 J	4 U	0.2 U	
7/30/2008	XX	GW223A2FG	0.5 U		0.1 U	99	2.9	3 J	0.3		6	146		0.7 U	4 U	0.2 U	
7/30/2008	XD	GWDP5X2HF	1.3		0.1 U	95	3.2	3 U	0.3		5.7	121		0.7 J	4 U	0.2 U	
10/28/2008	XX	GW223A2I6	0.5 U		0.1 J	98	2.6	3 U	0.2 J		6.4	137		0.7 U	4 U	0.2 U	
4/14/2009	XX	GW223A31E	0.5 U		0.1 U	155	14	3 U	0.1 U		3.7	229		1.2 J	4 U	0.2 U	
4/14/2009	XD	GWDP1X31H	0.5 U		0.1 U	165	14.1	3 U	0.1 J		4.4	226		1.2 J	4 U	0.2 U	
7/7/2009	XX	GW223A35I	0.5 U		0.1 U	108	8.9	3 U	0.2 J		4.8	162		0.7 U	4 U	0.2 U	
10/27/2009	XX	GW223A3DD	0.3 U		0.1 U	112	10.6	3 U	0.1 J		4.2	165		0.7 U	4 U	0.2 U	
10/27/2009	XD	GWDP4X3ED	0.3 U		0.1 U	113	11	3 U	0.1 J		4.2	171		0.9 J	4 U	0.2 U	
4/27/2010	XX	GW223A3IC	0.3 U		0.1 U	124	14.2	3 U	0.2 J		4.5	189		2.1	4 U	0.2 U	
4/27/2010	XD	GWDP1X3IF	0.3 U		0.1 U	121	14.2	3 J	0.1 J		4.5	169		1.4 J	4 U	0.2 U	
7/20/2010	XX	GW223A41G	0.56		0.1 U	127	12.7	3 U	0.2 J		4.2	176		0.7 U	4 U	0.2 U	
10/19/2010	XX	GW223A450	0.3 U		0.1 U	120	16.5	3 U	0.1 J		3.9	229		0.7 U	4 U	0.2 U	
10/19/2010	XD	GWDP1X453	0.35		0.1 U	125	14.9	3 U	0.1 J		3.7	214		0.7 U	4 U	0.2 U	
4/26/2011	XX	GW223A491	0.3 U		0.1 J	137	20.3	3 U	0.2 J		3.8	224		0.7 U	4 U	0.2 U	
4/26/2011	XD	GWDP1X494	0.3 U		0.1 U	135	19.5	3 U	0.2 J		3.7	230		0.7 U	4 U	0.2 U	
7/19/2011	XX	GW223A4CJ	0.3 U		0.1 J	138	21.3	3 U	0.1 J		4.7	241		0.7 U	4 U	0.2 U	
10/25/2011	XD	GWDP3X4H8	0.3 U		0.1 U	139	22.8	3 U	0.4		6.6	235		0.7 U	4 U	0.2 U	
10/25/2011	XX	GW223A4GE	0.3 U		0.1 U	143	21.8	3 U	0.4		6.3	231		0.7 U	4 U	0.2 U	
4/24/2012	XX	GW223A514	0.3 U		0.5 U	149	24.1	10 U	0.3 U		7.4	244		2 U	4 U	0.2 U	
4/24/2012	XD	GWDP1X517	0.3 U		0.5 U	147	24.1	10 U	0.3 U		7.5	231		2 U	4 U	0.2 U	
7/24/2012	XX	GW223A563	0.31		0.5 U	144	23.9	10 U	0.3 U		7.8	229		2 U	4 U	0.2 U	
10/23/2012	XD	GWDP3X5D8	0.3 U		0.5 U	149	24.4	10 U	0.3 U		7	266		2 U	4 U	0.2 U	
10/23/2012	XX	GW223A5CE	0.31		0.5 U	153	25.4	10 U	0.3 U		4	262		2 U	4 U	0.2 U	
4/23/2013	XX	GW223A5H5	0.323		0.5 U	168	34.9	10 U	0.3 U		9	275	0.2	2 U	4 U	0.2 U	

(MW-223A) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
4/23/2013	XD	GWDP1X5H8	0.3 U		0.5 U	168	35.2	10 U	0.3 U		9.8	275	0.18	2 U	4 U	0.2 U
7/30/2013	XX	GW223A63A	0.556			168	45.2	10 U	0.5		9.3	266	0.15	2 U	4 U	0.2 U
10/29/2013	XD	GWDP3X66H	0.5 U			170	36.6	10 U	0.5		8.6	278	0.22	2 U	4 U	0.2 U
10/29/2013	XX	GW223A663	0.5 U			176	36.8	10 U	0.4		8.6	278	0.22	2 U	4 U	0.2 U
MW-223B																
5/5/2004	XX	GW223B00A	0.15 U	6 U	0.1 U	101	2.7	3 U	0.3		2.8	109	0.06 J	0.5 J	4 U	
7/27/2004	XX	GW223B03I	0.24	6 U	0.1 U	92	2.4	3 U	0.2 J		4	114	0.03 J	0.5 U	4 U	
10/25/2004	XX	GW223B07E	0.3 U		0.1 U	92	2.9	3 U	0.3		3.7	127		3.3	4 U	0.2 U
5/10/2005	XX	GW223B13F	0.3 U		0.1 U	98	3.1	3 U	0.2 J		3.5	120		5.7	4 U	0.2 U
7/26/2005	XX	GW223B173	0.3 U		0.1 U	95	3	3 U	0.2 J		3.7	127		0.5 U	4 U	0.2 U
9/21/2005	XX	GW223B1A1	0.3 U		0.1 U	96	3.2	3 U	0.2 J		3.6	129		1.3 J	4 U	0.2 U
5/24/2006	XX	GW223B1EG	0.34		0.1 U	100	3.8	3 U	0.4		5.2	137		1.6	4 U	0.2 U
7/26/2006	XX	GW223B1HD	0.53		0.1 U	99	2.1	6 J	0.3		3.5	142		1.7	4 U	0.2 U
9/13/2006	XX	GW223B206	0.33		0.1 U	104	2.7	3 U	0.1 U		4.2	93		2.2	4 U	0.2 U
5/15/2007	XX	GW223B23D	0.5 U		0.1 U	103	3.6	3 U	0.1 U		3.2	117		3.3	4 U	0.37
7/24/2007	XX	GW223B27H	0.3 U		0.1 U	98	4.3	3 J	0.2 J		5.6	147		2.7	4 U	0.2 U
9/11/2007	XX	GW223B2A7	2.5 U		0.1 U	100	5.7	3 U	0.2 J		3.8	141		0.5 J	4 U	0.2 U
5/20/2008	XX	GW223B2E1	0.3 U		0.1 U	111	5.4	3 U	0.2 J		4.4	150		2.2	4 U	0.2 U
7/30/2008	XX	GW223B2H5	0.5 U		0.1 U	124	5.8	4 J	0.3		4.9	158		0.7 U	4 U	0.2 U
10/28/2008	XX	GW223B2JF	0.5 U		0.1 U	120	5.5	3 J	0.2 J		5.6	163		0.8 J	4 U	0.2 U
4/14/2009	XX	GW223B333	0.5 U		0.1 U	103	6.8	3 U	0.1 U		3	145		3.4	4 U	0.2 U
7/7/2009	XD	GWDP4X36I	0.5 U		0.1 U	128	8.7	3 U	0.1 U		3.9	171		0.7 U	4 U	0.2 U
7/7/2009	XX	GW223B377	0.5 U		0.1 U	129	9.6	3 U	0.1 U		4	176		0.7 U	4 U	0.2 U
10/27/2009	XX	GW223B3F2	0.3 U		0.1 U	128	10.9	3 J	0.2 J		3.5	166		0.8 J	4 U	0.2 U
4/27/2010	XX	GW223B401	0.3 U		0.1 U	133	12.6	3 J	0.1 J		3.8	185		0.8 J	4 U	0.2 U
7/20/2010	XX	GW223B435	1.5		1.3	140	11.8	12	0.1 U		2.2	173		2.6	4 U	0.2 U
7/20/2010	XD	GWDP1X41J	1.7		1.1	136	12	5 J	0.1 U		2.3	173		2.7	4 U	0.2 U
10/19/2010	XX	GW223B469	0.33		0.3 J	128	12	3 U	0.1 U		3.1	195		0.8 J	4 U	0.2 U
4/26/2011	XX	GW223B4AA	0.3 U		0.1 U	124	15.6	3 U	0.1 U		2.5	185		0.7 U	4 U	0.2 U
7/19/2011	XD	GWDP3X4DD	1.2		0.3 J	127	18	4 J	0.1 J		2.6	189		1.9 J	4 U	0.31
7/19/2011	XX	GW223B4E8	1.1		0.3 J	122	18.1	3 J	0.1 J		3.6	198		1.9 J	4 U	0.2 U
10/25/2011	XX	GW223B4I3	1		0.6	128	17.9	9 J	0.1 U		3.3	199		1.8 J	4	0.27
4/24/2012	XX	GW223B52D	0.57		0.5 U	118	22.3	10 U	0.3 U		5.1	190		2 U	4 U	0.2 U
7/24/2012	XD	GWDP3X56H	0.45		0.5 U	117	23.7	10 U	0.3 U		4.6	191		2 U	4 U	0.2 U
7/24/2012	XX	GW223B57C	0.79		0.5 U	115	24.4	10 U	0.3 U		4.6	205		2 U	4 U	0.2 U
10/23/2012	XX	GW223B5E3	0.3 U		0.5 U	121	24.1	10 U	0.3 U		5	216		2 U	4 U	0.2 U
4/23/2013	XX	GW223B5IE	0.597		0.5 U	124	32.6	10 U	0.3 U		5.6	201	0.16	2 U	4 U	0.2 U
7/30/2013	XX	GW223B64J	0.493			119	42.9	10 U	0.5		5.7	185	0.16	2 U	4 U	0.2 U
10/29/2013	XX	GW223B67C	0.5 U			125	34.3	10 U	0.4		5.5	202	0.2	2 U	4 U	0.2 U
MW-227																
5/5/2004	XX	GW227X015	0.15 U		0.1 U	89	1.1	3 U	0.1 U		9.2	98		0.5 U	4 U	0.2 U
7/26/2004	XX	GW227X04B	0.15		0.1 U	78	1.6	3 U	0.1 U		10.5	95		0.5 U	4 U	0.2 U
10/26/2004	XX	GW227X066	0.3 U		0.1 U	81	1.7	3 U	0.1 U		9.6	100		2.4	4 U	0.2 U
5/9/2005	XX	GW227X127	0.3 U		0.1 U	81	1.5	3 U	0.1 U		10.5	113		0.5 J	4 U	0.2 U
7/27/2005	XX	GW227X15F	0.3 U		0.1 U	79	1.7	3 U	0.1 U		8.3	113		0.7 J	4 U	0.2 U
9/21/2005	XX	GW227X18D	0.3 U		0.1 U	79	1.8	3 U	0.1 U		9.3	108		1.3 J	4 U	0.2 U
5/24/2006	XX	GW227X1D8	0.42		0.1 U	81	2	3 U	0.1 J		12.8	116		2.2	4 U	0.2 U
7/26/2006	XX	GW227X1G5	0.37		0.1 U	76	1.6	5 J	0.1 U		9.7	115		1.5	4 U	0.2 U

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(MW-227) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L	
9/13/2006	XX	GW227X1II	0.55		0.1 U	84	1.4	3 J	0.1 U		9.2	74		0.5 J	4 U	0.2 U	
5/15/2007	XX	GW227X225	0.5 U		0.1 U	79	1.7	3 U	0.1 U		8.8	95		2.2	4 U	0.45	
7/24/2007	XX	GW227X269	0.3 U		0.1 U	75	2.4	6 J	0.1 U		9.9	120		3.7	4 U	0.2 U	
9/11/2007	XX	GW227X28J	0.5 U		0.1 U	77	2.6	5 J	0.1 U		10.5	112		1.1 J	4 U	0.2 U	
5/20/2008	XX	GW227X2CD	0.3 U		0.1 U	80	1.5	3 U	0.1 J		11	104		2.9	4	0.2 U	
7/30/2008	XX	GW227X2FH	0.5 U		0.1 U	82	1.5	3 J	0.2 J		11.3	116		1.2 J	4 U	0.2 U	
10/27/2008	XX	GW227X2I7	0.5 U		0.1 U	75	1.3	3 U	0.1 U		14.4	98		1.6 J	4 U	0.2 U	
4/14/2009	XX	GW227X31F	0.5 U		0.1 U	80	3	3 U	0.1 U		8.9	122		2.8	4 U	0.2 U	
7/7/2009	XX	GW227X35J	0.5 U		0.1 U	75	2	3 U	0.1 U		10.4	111		0.7 U	4 U	0.2 U	
10/27/2009	XX	GW227X3DE	0.3 U		0.1 U	80	2.3	3 U	0.1 U		9.2	105		1.7 J	4 U	0.2 U	
4/27/2010	XX	GW227X3ID	0.3 U		0.1 U	81	22.9	3 U	0.1 J		1.6 J	99		6.9	4 U	0.2 U	
7/20/2010	XX	GW227X41H	0.3 U		0.1 J	79	1.1	3 U	0.1 U		8.6	100		0.7 U	4 U	0.2 U	
10/19/2010	XX	GW227X451	0.3 U		0.1 U	77	1.7	3 U	0.1 U		8.1	115		0.7 U	4 U	0.2 U	
4/26/2011	XX	GW227X492	0.3 U		0.1 U	76	1.1	3 U	0.1 U		7.5	114		0.7 U	4 U	0.2 U	
7/19/2011	XX	GW227X4D0	0.3 U		0.1 U	80	1	3 U	0.1 U		9.7	115		0.7 U	4 U	0.2 U	
10/25/2011	XX	GW227X4GF	0.3 U		0.1 U	78	2.2	3 U	0.1 U		11.2	107		0.7 U	4 U	0.2 U	
4/24/2012	XX	GW227X515	0.3 U		0.5 U	79	1.6	10 U	0.3 U		12	108		2 U	4 U	0.2 U	
7/24/2012	XX	GW227X564	0.3 U		0.5 U	75	1 U	10 U	0.3 U		13.4	109		2 U	4 U	0.2 U	
10/23/2012	XX	GW227X5CF	0.31		0.5 U	78	2.6	10 U	0.3 U		11.2	222		2 U	4 U	0.2 U	
4/23/2013	XX	GW227X5H6	0.3 U		0.5 U	81	2.4	10 U	0.3 U		14.4	118	0.1 U	2 U	4 U	0.2 U	
7/30/2013	XX	GW227X63B	0.635			77	2	10 U	0.3 U		11.5	103	0.1 U	2 U	4 U	0.2 U	
7/30/2013	XD	GWDP3X644	0.59			77	2.1	10 U	0.3 U		12.9	104	0.1 U	2 U	4 U	0.2 U	
10/29/2013	XX	GW227X664	0.5 U			79	2.5	10 U	0.3 U		11	114	0.1 U	2 U	4 U	0.2 U	
MW-301																	
5/5/2004	XD	GWDP3X01J	0.15 U		0.1 U	79	1.4	3 U	0.1 U		0.1 U	96		0.5 J	4 U	0.2 U	
5/5/2004	XX	GW301X016	0.31 U		0.1 U	87	1.3	3 U	0.1 U		9	100		0.5 J	4 U	0.2 U	
7/26/2004	XX	GW301X04C	0.15 U		0.1 U	76	1.8	3 U	0.1 U		11.7	101		0.5 U	4 U	0.2 U	
10/25/2004	XX	GW301X067	0.3 U		0.1 U	76	1.8	3 U	0.1 U		11	117		2.1	4 U	0.2 U	
5/9/2005	XX	GW301X128	0.3 U		0.1 U	75	1.8	3 U	0.1 U		12.2	113		4.2	4 U	0.2 U	
8/1/2005	XX	GW301X15G	0.34		0.1 U	76	1.9	3 U	0.1 U		8	108		0.5 U	4 U	0.2 U	
9/22/2005	XX	GW301X18E	0.3 U		0.1 U	75	2	3 U	0.1 U		10.9	115		1.4 J	4 U	0.2 U	
5/22/2006	XX	GW301X1D9	0.39		0.1 U	78	3.4	3 U	0.1 U		14.3	122		1.9	5	0.2 U	
7/24/2006	XX	GW301X1G6	0.6		0.1 U	76	1.5	3 U	0.1 U		11.5	109		1.3 J	4 U	0.2 U	
9/11/2006	XX	GW301X1IJ	0.37		0.1 U	77	1.5	3 U	0.1 U		11.5	104		2.1	6	0.2 U	
5/14/2007	XX	GW301X226	0.5 U		0.1 U	73	1.7	3 U	0.1 U		9.8	124		1.3 J	4	0.2 U	
7/23/2007	XX	GW301X26A	0.3 U		0.1 U	72	2	9 J	0.1 U		11.8	110		1.7	18	0.2 U	
9/10/2007	XX	GW301X290	0.3 U		0.1 U	74	1.8	3 J	0.1 U		14.1	144		0.9 J	4 U	0.2 U	
5/19/2008	XX	GW301X2CE	0.5 U		0.1 U	75	1.2	3 U	0.1 U		14.4	114		2	4 U	0.2 U	
7/30/2008	XX	GW301X2FI	0.5 U		0.1 U	75	1.7	3 J	0.1 J		14.8	121		1.3 J	5	0.2 U	
10/28/2008	XX	GW301X2I8	0.5 U		0.1 U	75	1.1	3 J	0.1 U		14.8	125		0.7 U	4 U	0.21	
4/15/2009	XX	GW301X31G	0.5 U		0.1 U	91	6	12	0.7		14.4	160		5.7	4 U	0.2 U	
7/7/2009	XX	GW301X360	0.5 U		0.1 U	76	1.9	4 J	0.1 U		13.6	118		1.2 J	6	0.2 U	
10/26/2009	XX	GW301X3DF	0.3 U		0.1 U	82	1.9	3 U	0.1 U		12.5	123		0.7 U	7	0.2 U	
4/26/2010	XX	GW301X3IE	0.3 U		0.1 U	72	2.6	3 U	0.1 U		12.4	117		1.9 J	21	0.2 U	
7/19/2010	XX	GW301X41I	0.3 U		0.1 U	73	1.4	3 U	0.1 U		11.7	109		0.7 U	8	0.2 U	
10/19/2010	XX	GW301X452	0.3 U		0.1 U	76	1.5	3 U	0.1 U		12.3	133		0.7 U	4 U	0.2 U	
4/27/2011	XX	GW301X493	0.34		0.1 U	76	1.3	3 U	0.1 U		10.3	126		0.7 U	4 U	0.2 U	
7/20/2011	XX	GW301X4D1	0.41		0.1 U	73	1.4	3 U	0.1 U		11.7	118		0.7 U	4 U	0.2 U	
10/26/2011	XX	GW301X4GG	0.3 U		0.1 U	72	1.9	3 J	0.1 U		11.3	127		0.7 U	6	0.2 U	

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(MW-301) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L	
4/25/2012	XX	GW301X516	0.3 U		0.5 U	76	2.3	10 U	0.3 U		15	123		2 U	13	0.2 U	
7/25/2012	XX	GW301X565	0.3 U		0.5 U	74	2.3	10 U	0.3 U		14.3	118		2 U	4 U	0.2 U	
10/24/2012	XX	GW301X5CG	0.3 U		0.5 U	77	2.3	10 U	0.3 U		15.1	130		2 U	20	0.2 U	
10/24/2012	XD	GWDP4X5DE	0.31		0.5 U	75	2.3	10 U	0.3 U		15.2	118		2 U	15	0.2 U	
4/22/2013	XX	GW301X5H7	!		!	!	!	!	!		!	!	!	!	!	!	
7/31/2013	XX	GW301X63C	0.543			76	2.3	10 U	0.3 U		14.6	136	0.1 U	2 U	11	1 U	
10/30/2013	XX	GW301X665	0.5 U			76	3.1	10 U	0.3 U		11.9	130	0.1 U	2 U	4	0.2 U	
10/30/2013	XD	GWDP1X666	0.5 U			75	3.1	10 U	0.3 U		14.5	129	0.1 U	2 U	4 U	0.2 U	
MW-302																	
5/6/2004	XX	GW302X009	0.22	6 U	0.1 U	143	6.1	3 U	0.2 J		8.7	197	0.03 J	0.5 U	10		
7/27/2004	XX	GW302XHD1	0.16	6 U	0.1 U	137	5.7	3 U	0.3		10.1	180	0.04 J	0.8 J	4 U		
10/25/2004	XX	GW302X07C	0.52		0.1 U	149	5.6	3 U	0.5		10.3	188		1.5	4 U	0.2 U	
5/10/2005	XX	GW302X13D	0.3 U		0.1 U	139	14.3	3 U	0.4		10.2	192		2.7	5	0.2 U	
7/27/2005	XX	GW302X171	0.3 U		0.1 U	121	12.9	3 U	0.4		7	199		1.3 J	4	0.2 U	
9/19/2005	XX	GW302X19J	0.3 U		0.1 U	159	14.6	3 U	0.5		9.4	227		2.3	60	0.2 U	
5/23/2006	XX	GW302X1EE	0.85		0.1 U	112	18.4	3 J	0.6		11.7	208		3.3	18	0.2 U	
7/24/2006	XX	GW302X1HB	0.37		0.1 U	110	26.6	3 U	0.2 J		8.5	261		1.7	21	0.2 U	
9/12/2006	XX	GW302X204	0.49		0.1 U	115	34.4	3 U	0.1 J		9.5	258		1.1 J	4 U	0.2 U	
5/14/2007	XX	GW302X23B	0.5 U		0.1 U	100	19.3	3 J	0.1 J		7.2	198		3.4	4 U	0.2 U	
7/25/2007	XX	GW302X27F	0.3 U		0.1 U	100	18	9 J	0.1 U		9.5	190		1 J	4 U	0.2 U	
9/10/2007	XX	GW302X2A5	DE		DE	DE	DE	DE	DE		DE	DE		DE	DE	DE	
MW-302R																	
5/20/2008	XX	GW302X2DJ	0.3 U		0.1 U	66	26.2	3 U	0.2 J		7	148		2.1	4	0.2 U	
7/29/2008	XX	GW302X2H3	0.5 U		0.1 U	75	22.2	3 J	0.3		9	176		1.2 J	4 U	0.2 U	
10/27/2008	XX	GW302X2JD	0.5 U		0.1 U	91	22.5	3 U	0.2 J		10.5	201		1.3 J	4 U	0.2 U	
4/13/2009	XX	GW302X331	0.5 U		0.1 U	44	20.8	5 J	0.3		5.6	145		3.1	4 U	0.2 U	
7/6/2009	XX	GW302X375	0.5 U		0.1 U	46	25.4	3 J	0.1 U		8.8	144		1.2 J	4 U	0.2 U	
10/27/2009	XX	GW302X3F0	0.3 U		0.1 U	116	55.9	3 J	0.7		22.9	306		1.5 J	4 U	0.2 U	
4/26/2010	XX	GW302X3JJ	0.3 U		0.1 U	46	12.8	3 U	0.1 J		6.9	78		1 J	4 U	0.2 U	
7/19/2010	XX	GW302X433	0.3 U		0.1 U	106	56.1	3 U	1.4		18	318		0.8 J	4 U	0.2 U	
10/18/2010	XX	GW302X467	0.3 U		0.1 U	96	60.8	3 U	1.6		21.7	327		0.9 J	4 U	0.2 U	
4/25/2011	XX	GW302X4A8	0.3 U		0.1 U	44	51.2	3 U	0.2 J		8.9	196		0.7 U	4 U	0.2 U	
7/18/2011	XX	GW302X4E6	0.3 U		0.1 U	58	61.5	3 U	0.2 J		13.3	239		0.7 J	4 U	0.2 U	
10/24/2011	XX	GW302X4I1	0.3 U		0.1 U	80	49.3	3 U	0.4		15.8	236		0.7 J	4 U	0.2 U	
4/23/2012	XX	GW302X52B	0.3 U		0.5 U	51	28.2	10 U	0.3 U		10.8	150		2 U	4 U	0.2 U	
7/23/2012	XX	GW302X57A	0.3		0.5 U	57	52.4	10 U	0.3 U		21.1	223		2 U	4 U	0.2 U	
10/22/2012	XX	GW302X5E1	0.64		0.5 U	78	66.1	10 U	0.8		28.8	287		2 U	4 U	0.2 U	
4/22/2013	XX	GW302X5IC	0.3 U		0.5 U	46	24.5	10 U	0.3 U		11.7	120	0.1 U	2 U	4 U	0.2 U	
7/29/2013	XX	GW302X64H	0.68			53	77.1	10 U	0.6		17.9	234	0.1 U	2 U	4 U	0.2 U	
10/28/2013	XX	GW302X67A	0.5 U			57	55.8	10 U	0.6		16	199	0.1 U	2 U	4 U	0.2 U	
MW-303																	
5/6/2004	XX	GW303X00C	0.15 U	6 U	0.1 U	23	1.9	3 U	0.1 U		1	62	0.03 U	0.5 U	4 U		
7/28/2004	XX	GW303X040	0.15 U	6 U	0.1 U	24	2	3 J	0.1 U		1.9	50	0.03 U	0.5 U	4 U		
10/26/2004	XX	GW303X07G	0.62		0.1 U	23	2.1	3 U	0.1 U		1.6	47		1.1 J	5	0.2 U	
10/26/2004	XD	GWDP3X06J	0.3 U		0.1 U	24	1.5	3 U	0.2 J		1.1	60		1.3 J	8	0.2 U	
5/11/2005	XX	GW303X13H	0.3 U		0.1 U	25	1.6	3 U	0.1 J		2.6	59		0.8 J	4 U	0.2 U	
8/1/2005	XD	GWDP1X15H	0.3 U		0.1 U	24	1.8	3 U	0.1 U		1 J	45		0.7 J	4 U	0.2 U	
8/1/2005	XX	GW303X175	0.3 U		0.1 U	24	1.8	3 U	0.1 U		1.4 J	40		0.5 U	4 U	0.2 U	

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(MW-303) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
9/19/2005	XX	GW303X1A3	0.3 U		0.1 U	25	2.1	3 U	0.1 U		1.7 J	44		1.1 J	4 U	0.2 U
5/23/2006	XX	GW303X1EI	0.3 U		0.1 U	25	2.8	4 J	0.1 J		2	68		1.4 J	4 U	0.2 U
7/24/2006	XD	GWDP4X1H4	0.34		0.1 U	23	1.5	3 U	0.1 J		1.6 J	51		1.5	4 U	0.2 U
7/24/2006	XX	GW303X1HF	0.37		0.1 U	24	1.5	3 U	0.1 J		1.6 J	47		1 J	4 U	0.2 U
9/12/2006	XX	GW303X208	0.3 U		0.1 U	24	1.6	3 U	0.1 U		1.8 J	35		1 J	4 U	0.2 U
5/14/2007	XX	GW303X23F	0.66		0.1 U	26	1.6	3 U	0.1 U		1.5 J	67		1.8	4 U	0.2 U
7/25/2007	XD	GWDP4X278	0.3 U		0.1 U	24	2.5	13	0.1 U		1.9 J	55		0.9 J	4 U	0.2 U
7/25/2007	XX	GW303X27J	0.3 U		0.1 U	22	2.4	6 J	0.1 U		1.9 J	49		1.3 J	4 U	0.2 U
9/11/2007	XX	GW303X2A9	0.5 U		0.1 U	28	2.8	3 U	0.1 U		1 J	67		2.2	4 U	0.2 U
9/11/2007	XD	GWDP1X291	0.5 U		0.1 U	27	2.5	13	0.1 U		1 J	57		2.2	4 U	0.2 U
5/19/2008	XX	GW303X2E3	0.5 U		0.1 U	41	1.3	3 U	0.1 U		1.7 J	65		1.1 J	4 U	0.2 U
7/29/2008	XD	GWDP4X2GG	0.5 U		0.1 U	50	1.7	3 J	0.2 J		2	67		1.4 J	4 U	0.2 U
7/29/2008	XX	GW303X2H7	0.66		0.1 U	49	1.7	4 J	0.1 J		2.2	65		0.7 J	4 U	0.2 U
10/27/2008	XD	GWDP3X2J0	0.5 U		0.1 U	52	1.8	3 U	0.1 U		2.5	71		1 J	4 U	0.2 U
10/27/2008	XX	GW303X2JH	0.5 U		0.1 U	54	1.6	3 U	0.1 U		1.8 J	81		1 J	4 U	0.2 U
4/13/2009	XX	GW303X335	1 U		0.1 U	72	3.2	6 J	0.2 J		2.1	120		1.8 J	4 U	0.2 U
7/6/2009	XD	GWDP3X36C	1 U		0.1 U	87	4.3	3 U	0.1 U		1.8 J	115		2.1	4 U	0.2 U
7/6/2009	XX	GW303X379	2 U		0.1 U	86	4.1	3 U	0.1 U		1.8 J	115		1.9 J	4 U	0.2 U
10/28/2009	XX	GW303X3F4	0.3 U		0.1 U	77	3.7	3 U	0.1 U		1.3 J	103		1.1 J	4 U	0.2 U
4/26/2010	XX	GW303X403	0.3 U		0.1 J	89	8.3	3 U	0.1 U		1.5 J	108		1.7 J	4 U	0.2 U
7/19/2010	XD	GWDP4X42G	0.51		0.1 U	92	4.6	3 U	0.1 U		1.2 J	117		0.7 U	4 U	0.2 U
7/19/2010	XX	GW303X437	0.3 U		0.1 U	91	4.5	3 U	0.1 U		1.2 J	115		0.7 U	4 U	0.2 U
10/18/2010	XX	GW303X46B	0.3 U		0.1 U	82	3.5	3 U	0.1 U		0.8 J	111		0.7 U	6	0.2 U
4/25/2011	XX	GW303X4AC	0.3 U		0.1 U	96	6.8	3 U	0.1 U		1.9 J	139		0.7 U	4 U	0.2 U
7/18/2011	XX	GW303X4EA	0.34		0.1 U	101	5.8	3 U	0.1 U		0.9 J	135		0.8 J	4 U	0.2 U
7/18/2011	XD	GWDP4X4DJ	0.36		0.1 U	101	5.3	3 U	0.1 U		0.8 J	138		0.7 J	4 U	0.2 U
10/24/2011	XX	GW303X4I5	0.3 U		0.1 U	105	5.9	3 U	0.1 U		1.1 J	132		0.8 J	4 U	0.2 U
10/24/2011	XD	GWDP4X4HE	0.3 U		0.1 U	106	5.9	3 U	0.1 U		1.1 J	135		0.9 J	4 U	0.2 U
4/23/2012	XX	GW303X52F	0.3 U		0.5 U	113	7.5	10 U	0.3 U		2.1	162		2 U	5	0.2 U
7/24/2012	XX	GW303X57E	!		!	!	!	!	!		!	!		!	!	!
MW12-303R																
10/23/2012	XX	GW303X5EG	0.3 U		0.5 U	92	4.9	10 U	0.3 U		4.2	143		2 U	4 U	0.2 U
4/22/2013	XX	GW303X5IG	0.3 U		0.5 U	114	6.6	10 U	0.3 U		7.6	159	0.22	2 U	4 U	0.2 U
7/29/2013	XX	GW303X651	0.673			113	8	10 U	0.5		4.2	195	0.3	2 U	4 U	0.2 U
10/28/2013	XX	GW303X67D	0.5 U			111	8.4	10 U	0.5		2.8	158	0.42	2 U	4 U	0.2 U
MW-304A																
7/29/2004	XX	GW304AHD0	0.15 U	6 U	0.1 U	77	2.3	4 J	0.1 U	0.02 J	5	130		0.5 U	4 U	
10/27/2004	XX	GW304A07B	0.3 U	6 U	0.1 U	92	2	4 J	0.1 U	0.02 J	4.3	95		4	4 U	
5/11/2005	XX	GW304A13C	0.3 U		0.1 U	37	1	3 U	0.1 U		1.5 J	63		0.5 J	4 U	0.2 U
7/28/2005	XX	GW304A170	0.3 U		0.1 U	39	1.8	3 U	0.1 U		2.2	61		0.7 J	4 U	0.2 U
9/19/2005	XX	GW304A19I	0.32		0.1 U	54	2.1	3 U	0.1 U		4	75		0.7 J	4 U	0.2 U
5/24/2006	XX	GW304A1ED	0.44		0.1 U	54	1.3	3 U	0.1 J		4.7	92		1.2 J	4 U	0.2 U
7/25/2006	XX	GW304A1HA	0.41		0.1 U	48	1.6	5 J	0.1 J		2.9	79		1.2 J	12	0.2 U
9/12/2006	XX	GW304A203	0.3 U		0.1 U	54	1.6	3 U	0.1 U		2.8	70		0.9 J	4 U	0.2 U
5/15/2007	XX	GW304A23A	0.5 U		0.1 U	48	2	10	0.1 J		3	59		1.5	17	0.45
7/24/2007	XX	GW304A27E	0.3 U		0.1 U	55	2.5	8 J	0.2 J		3.9	91		3.3	4 U	0.2 U
9/11/2007	XX	GW304A2A4	0.5 U		0.1 U	49	2.6	7 J	0.1 J		3	89		0.9 J	4 U	0.2 U
5/20/2008	XX	GW304A2DI	0.3 U		0.1 U	39	1.7	3 J	0.2 J		2.7	55		2.3	4 U	0.2 U

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(MW-304A) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
7/29/2008	XX	GW304A2H2	1 U		0.1 U	53	1.7	3 J	0.2 J		4.3	75		2	4 U	0.2 U
10/27/2008	XX	GW304A2JC	0.5 U		0.1 U	60	2.5	3 U	0.1 J		8.8	93		1.1 J	4 U	0.2 U
4/13/2009	XX	GW304A330	1 U		0.1 U	43	2	3 U	0.2 J		3.2	83		1.2 J	4 U	0.2 U
7/6/2009	XX	GW304A374	2 U		0.1 U	49	2.1	3 U	0.1 J		3.4	68		0.7 U	4 U	0.2 U
10/27/2009	XX	GW304A3EJ	0.3 U		0.1 U	51	3.3	3 U	0.1 U		2.7	83		1.8 J	4 U	0.2 U
4/26/2010	XX	GW304A3JI	0.3 U		0.1 U	41	3.5	3 U	0.1 U		2.6	54		0.7 U	4 U	0.2 U
7/19/2010	XX	GW304A432	0.3 U		0.1 U	49	3.2	3 U	0.1 U		2.5	68		0.7 U	4 U	0.2 U
10/18/2010	XX	GW304A466	0.3 U		0.1 J	45	2.3	3 U	0.1 U		2.4	70		0.7 U	259	0.2 U
4/25/2011	XX	GW304A4A7	0.59		0.1 U	37	2.1	3 U	0.1 U		1.6 J	63		0.7 U	4 U	0.2 U
7/18/2011	XX	GW304A4E5	0.3		0.1 U	44	3	3 U	0.1 U		2.1	72		0.7 U	4 U	0.2 U
10/24/2011	XX	GW304A4I0	0.3 U		0.1 U	46	3.3	3 U	0.1 U		3.5	73		0.7 U	4 U	0.2 U
4/23/2012	XX	GW304A52A	0.3 U		0.5 U	56	3	10 U	0.3 U		5.7	94		2 U	4 U	0.2 U
7/23/2012	XX	GW304A579	0.3 U		0.5 U	55	1.9	10 U	0.3 U		2.4	95		2 U	4 U	0.2 U
10/22/2012	XX	GW304A5E0	1.2		0.5 U	43	1.8	10 U	0.3 U		2 U	74		2 U	4 U	0.2 U
4/22/2013	XX	GW304A5IB	0.3 U		0.5 U	52	3.1	10 U	0.3 U		6.7	82	0.1 U	2 U	4 U	0.2 U
7/29/2013	XX	GW304A64G	0.685			57	2.9	10 U	0.3 U		6.3	87	0.1 U	2 U	4 U	0.2 U
10/28/2013	XX	GW304A679	0.5 U			52	3.2	10 U	0.3 U		5.4	85	0.1 U	2 U	5	0.2 U
MW-401A																
7/29/2004	XX	GW401A059	0.3	6 U	0.1 U	64	1.6	4 J	0.1 U	0.04	3	87		0.5 U	4 U	
10/27/2004	XD	GWDP4X075	0.32	6 U	0.1 U	62	1.8	3 U	0.2 J	0.08	2.7	68		0.5 J	4	
10/27/2004	XX	GW401A071	0.53	6 U	0.1 U	58	1.8	6 J	0.1 U	0.08	2.7	68		2	4 U	
5/10/2005	XX	GW401A132	0.3 U		0.1 U	53	1.8	3 U	0.1 U		2.5	75		0.5 U	4 U	0.2 U
7/28/2005	XD	GWDP4X16E	0.3 U		0.1 U	58	1.7	3 U	0.1 U		2	81		0.5 U	4 U	0.2 U
7/28/2005	XX	GW401A16A	0.3 U		0.1 U	59	1.8	3 U	0.1 U		2.4	82		1 J	4 U	0.2 U
9/21/2005	XX	GW401A198	0.3 U		0.1 U	51	1.8	3 U	0.1 U		2.6	80		2.1	4 U	0.2 U
5/23/2006	XX	GW401A1E3	0.39		0.1 U	60	3.2	3 U	0.1 U		3.3	100		0.8 J	4 U	0.2 U
7/25/2006	XX	GW401A1H0	0.43		0.1 U	55	1.6	3 U	0.1 U		2.6	79		1.1 J	4 U	0.2 U
9/12/2006	XX	GW401A1JD	0.34		0.1 U	59	1.6	3 U	0.1 U		2.6	74		6.3	4 U	0.2 U
5/14/2007	XX	GW401A230	0.5 U		0.1 U	57	1.5	3 U	0.1 U		2.3	89		6.1	4 U	0.2 U
7/24/2007	XX	GW401A274	0.3 U		0.1 U	55	2.4	6 J	0.1 U		3.3	104		2.3	4 U	0.2 U
9/11/2007	XX	GW401A29E	0.5 U		0.1 U	51	2.7	3 J	0.1 U		3.1	86		0.5 U	4 U	0.2 U
5/20/2008	XX	GW401A2D8	0.49		0.1 U	54	1.6	9 J	0.2 J		3.5	116		3.3	4 U	0.2 U
7/28/2008	XX	GW401A2GC	0.5 U		0.1 U	58	1.8	3 J	0.1 J		4.7	95		2.1	4 U	0.41
10/27/2008	XX	GW401A2J2	0.5 U		0.1 U	56	1.5	3 U	0.1 U		3.4	88		0.8 J	4 U	0.2 U
4/13/2009	XX	GW401A32A	1 U		0.1 U	52	1.6	3 U	0.2 J		3.2	97		3.5	4 U	0.2 U
7/7/2009	XX	GW401A36E	0.5 U		0.1 U	57	1.7	3 U	0.1 U		3.5	85		1.5 J	4 U	0.2 U
10/28/2009	XX	GW401A3E9	0.3 U		0.1 U	58	1.8	3 U	0.1 U		2.8	91		1.1 J	4 U	0.2 U
4/27/2010	XX	GW401A3J8	0.3 U		0.1 J	57	2.4	3 U	0.1 U		3	79		2.1	4 U	0.2 U
7/20/2010	XX	GW401A42C	0.4		0.1 U	60	1	3 U	0.1 U		2.6	88		0.7 U	4 U	0.2 U
10/20/2010	XX	GW401A45G	0.3 U		0.1 U	56	1.5	3 U	0.1 U		2.2	89		0.7 U	4 U	0.2 U
4/25/2011	XX	GW401A49H	0.3 U		0.1 U	58	1.1	3 U	0.1 U		2.1	83		0.7 U	4 U	0.2 U
7/18/2011	XX	GW401A4DF	0.3 U		0.1 U	56	1.3	3 U	0.1 U		2.4	89		0.7 U	4 U	0.2 U
10/24/2011	XX	GW401A4HA	0.3 U		0.2 J	58	2	3 U	0.1 U		2.7	76		0.7 U	4 U	0.2 U
4/23/2012	XX	GW401A520	0.3 U		0.5 U	56	1.9	10 U	0.3 U		4.4	89		2 U	4 U	0.2 U
7/23/2012	XX	GW401A56J	0.36		0.5 U	57	1.2	10 U	0.3 U		4.2	97		2 U	4 U	0.2 U
10/22/2012	XX	GW401A5DA	1.1		0.5 U	55	1.2	10 U	0.3		2 U	94		2 U	4 U	0.2 U
4/22/2013	XX	GW401A5I1	0.3 U		0.5 U	58	2.4	10 U	0.3 U		4.9	85	0.1 U	2 U	4 U	0.2 U
7/29/2013	XX	GW401A646	0.572			57	2.2	10 U	0.3 U		4.3	86	0.1 U	2 U	4 U	0.2 U
10/28/2013	XX	GW401A66J	0.5 U			57	2.8	10 U	0.3 U		4.3	87	0.1 U	2 U	4 U	0.2 U

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(MW-401B)			Total Kjeldahl Nitrogen	Biochemical Oxygen Demand	Ammonia (N)	Bicarbonate (CaCO3)	Chloride	Chemical Oxygen Demand	Nitrate (N)	Phosphate Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	Tannin & Lignins (Tannic Acid)	
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	mg/L	mg/L	mg/L	
MW-401B																	
7/29/2004	XD	GWDP4X05D	0.15 U	6 U	0.1 U	217	36.7	11	0.1 U	0.01 J	25.1	335		2.8	4 U		
7/29/2004	XX	GW401B05A	0.24	6 U	0.1 U	217	36.4	11	0.1 U	0.01 J	24.7	346		3.3	4 U		
10/27/2004	XX	GW401B072	0.38	6 U	0.1 U	245	38.8	17	0.1 U	0.02 J	52.4	409		4.6	11		
5/10/2005	XX	GW401B133	0.3 U		0.1 U	211	31.9	8 J	0.1 U		36.4	307		3.2	36	3.6	
5/10/2005	XD	GWDP4X136	0.3 U		0.1 U	205	32.9	8 J	0.1 U		41.5	327		3	35	3.6	
7/27/2005	XX	GW401B16B	0.3 U		0.1 U	218	9.7	8 J	0.1 U		44.7	387		3.3	12	0.65	
9/21/2005	XD	GWDP4X19C	0.3 U		0.1 U	233	38.9	6 J	0.1 U		70.9	471		4.9	15	0.76	
9/21/2005	XX	GW401B199	0.36		0.1 U	229	40.5	6 J	0.1 U		69.2	488		4.6	14	0.81	
5/23/2006	XX	GW401B1E4	0.48		0.1 U	192	20.4	8 J	0.1 U		40.5	312		2.7	4 U	0.2 U	
5/23/2006	XD	GWDP4X1E7	0.4		0.1 U	195	18.1	5 J	0.1 U		40.1	307		4	6	0.2 U	
7/25/2006	XX	GW401B1H1	0.68		0.1 U	192	18.6	3 J	0.1 U		32.6	305		3	4 U	0.2 U	
9/12/2006	XX	GW401B1JE	0.45		0.1 U	196	19.3	4 J	0.1 U		32.3	295		4.4	4 U	2	
9/12/2006	XD	GWDP3X1JB	0.38		0.1 U	194	19.8	3 U	0.1 U		32.8	292		2.6	4 U	1.7	
5/14/2007	XX	GW401B231	0.5 U		0.1 U	152	9.4	5 J	0.1 U		17.4	233		3.4	5	0.2	
5/14/2007	XD	GWDP4X234	0.5 U		0.1 U	152	9.1	4 J	0.1 U		17.2	231		2.2	4	0.22	
7/24/2007	XX	GW401B275	0.3 U		0.1 U	156	21.2	4 J	0.1 U		28.3	275		4.3	4 U	0.2 U	
9/11/2007	XX	GW401B29F	0.5 U		0.1 U	177	19.9	6 J	0.1 U		36.5	292		3.3	5	0.2 U	
9/11/2007	XD	GWDP4X29I	0.5 U		0.1 U	166	19.9	3 J	0.1 U		36.6	299		2	4	0.28	
5/20/2008	XX	GW401B2D9	0.3 U		0.1 U	130	18.4	3 U	0.1 J		15.8	197		1.6 J	4 U	0.2 U	
5/20/2008	XD	GWDP4X2DC	0.3 U		0.1 U	130	19.3	3 J	0.1 J		16.1	193		1.5 J	4 U	0.2 U	
7/28/2008	XX	GW401B2GD	0.5 U		0.1 U	143	30	4 J	0.1 U		20.9	257		2.8	4 U	0.2 U	
10/27/2008	XD	GWDP4X2J6	0.5 U		0.1 U	153	22.6	3 U	0.1 U		22.4	250		3.8	4 U	0.2 U	
10/27/2008	XX	GW401B2J3	0.5 U		0.1 U	152	22.6	3 U	0.1 U		22.2	243		3.7	4 U	0.2 U	
4/13/2009	XD	GWDP4X32E	0.5 U		0.1 U	119	10.4	6 J	0.2 J		12.2	188		4.8	4 U	0.2 U	
4/13/2009	XX	GW401B32B	3.2		0.1 U	118	9.2	5 J	0.2 J		11.3	178		2.2	4 U	0.2 U	
7/7/2009	XX	GW401B36F	0.5 U		0.1 U	121	11.6	3 U	0.1 U		12.9	185		3.6	4 U	0.2 U	
10/28/2009	XX	GW401B3EA	0.34		0.1 U	145	12.6	3 U	0.1 U		17	220		2.4	4 U	0.2 U	
10/28/2009	XD	GWDP3X3E7	0.3 U		0.1 U	145	13.2	4 J	0.1 U		17.1	222		1.8 J	4 U	0.2 U	
4/27/2010	XX	GW401B3J9	0.3 U		0.1 U	116	8	4 J	0.1 U		10.6	142		1.3 J	4 U	0.2 U	
4/27/2010	XD	GWDP4X3JC	0.3 U		0.1 U	121	8.4	5 J	0.1 U		11	150		2.4	4 U	0.2 U	
7/20/2010	XD	GWDP3X42A	0.3 U		0.1 U	136	11.5	4 J	0.1 U		12.8	212		0.8 J	4 U	0.2 U	
7/20/2010	XX	GW401B42D	0.57		0.1 U	137	10.8	3 U	0.1 U		12.5	208		0.8 J	4 U	0.22	
10/20/2010	XX	GW401B45H	0.3 U		0.1 U	132	7.2	3 U	0.1 U		13.5	204		0.7 J	4 U	0.47	
10/20/2010	XD	GWDP4X460	0.3 U		0.1 U	133	7.2	3 U	0.1 U		13.6	209		0.7 J	4 U	0.25	
4/25/2011	XD	GWDP4X4A1	0.3 U		0.1 U	119	6.8	3 U	0.1 U		7.8	164		0.7 U	4 U	0.2 U	
4/25/2011	XX	GW401B49I	0.3 U		0.1 U	116	7.1	3 U	0.1 U		8	165		0.7 U	4 U	0.2 U	
7/18/2011	XD	GWDP1X4D2	0.3 U		0.1 U	122	11.3	3 U	0.1 U		10.3	188		0.7 J	4 U	0.2 U	
7/18/2011	XX	GW401B4DG	0.45		0.1 U	126	11.9	3 U	0.1 U		10.6	184		0.7 J	4 U	0.2 U	
10/24/2011	XX	GW401B4HB	0.3 U		0.1 U	131	10.5	3 U	0.1 U		9.1	183		1.1 J	4 U	0.4 U	
4/23/2012	XD	GWDP4X524	0.3 U		0.5 U	116	9.8	10 U	0.3 U		11	177		2 U	4 U	0.2 U	
4/23/2012	XX	GW401B521	0.3 U		0.5 U	117	9.4	10 U	0.3 U		11	173		2 U	4 U	0.2 U	
7/23/2012	XD	GWDP1X566	0.3 U		0.5 U	116	10.7	10 U	0.3 U		12.5	172		2 U	4 U	0.2 U	
7/23/2012	XX	GW401B570	0.3 U		0.5 U	117	12	10 U	0.3 U		13.4	181		2 U	4 U	0.2 U	
10/22/2012	XX	GW401B5DB	0.94		0.5 U	133	8.3	10 U	0.3 U		9.8	201		2 U	4 U	0.2 U	
4/22/2013	XX	GW401B5I2	0.3 U		0.5 U	122	12.5	10 U	0.3 U		13.2	172	0.1	2 U	4 U	0.2 U	
4/22/2013	XD	GWDP4X5I5	0.3 U		0.5 U	121	12.5	10 U	0.3 U		13	186	0.13	2 U	4 U	0.2 U	
7/29/2013	XX	GW401B647	0.528			108	13	10 U	0.3 U		11.4	156	0.1 U	2 U	4 U	0.2 U	
7/29/2013	XD	GWDP1X63D	0.512			116	16.6	10 U	0.3 U		12.8	175	0.1 U	2 U	4 U	0.2 U	

(MW-401B)			Total Kjeldahl Nitrogen	Biochemical Oxygen Demand	Ammonia (N)	Bicarbonate (CaCO3)	Chloride	Chemical Oxygen Demand	Nitrate (N)	Phosphate Phosphorus	Sulfate	Total Dissolved Solids	Bromide	Organic Carbon	Total Suspended Solids	Tannin & Lignins (Tannic Acid)	
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	mg/L	mg/L	mg/L	
10/28/2013	XX	GW401B670	0.5 U			139	16.3	10 U	0.3 U		13	212	0.22	2 U	4 U	0.2 U	
10/28/2013	XD	GWDP4X673	0.5 U			138	15.8	10 U	0.3 U		13	206	0.21	2 U	4 U	0.2 U	
MW-402A																	
7/29/2004	XX	GW402A05B	0.15 U	6 U	0.1 J	54	1.6	4 J	0.1 U	0.05	4.3	75		0.5 U	4 U		
10/27/2004	XX	GW402A073	0.3 U	6 U	0.1 U	53	1.7	4 J	0.1 U	0.05	3.7	67		0.7 J	4 U		
5/11/2005	XX	GW402A134	0.3		0.1 U	52	1.8	3 U	0.1 U		3.5	81		2	4 U	0.2 U	
8/1/2005	XX	GW402A16C	1		0.1 U	55	1.8	3 U	0.1 U		3	78		0.5 U	4 U	0.2 U	
9/21/2005	XX	GW402A19A	0.3 U		0.1 U	48	1.9	3 U	0.1 U		3.5	78		2.2	4 U	0.2 U	
5/23/2006	XX	GW402A1E5	0.3 U		0.1 U	53	3	3 U	0.1 U		4.8	89		2.2	4 U	0.2 U	
7/26/2006	XX	GW402A1H2	0.3 U		0.1 U	51	1.4	5 J	0.1 U		4.6	80		1.6	4 U	0.2 U	
9/12/2006	XX	GW402A1JF	0.82		0.1 U	52	1.4	3 U	0.1 U		4.3	66		1.6	4 U	0.2 U	
5/15/2007	XX	GW402A232	0.5 U		0.1 U	52	1.6	3 U	0.1 U		4.4	73		5	4 U	0.24	
7/25/2007	XX	GW402A276	0.3 U		0.1 U	46	2.4	7 J	0.1 U		5.8	76		1.3 J	4 U	0.2 U	
9/12/2007	XX	GW402A29G	0.3 U		0.1 U	48	2.4	3 J	0.1 U		5.8	90		0.5 U	4 U	0.2 U	
5/20/2008	XX	GW402A2DA	0.3 U		0.1 J	56	1.6	3 U	0.1 J		6.1	76		1.9 J	4 U	0.2 U	
7/28/2008	XX	GW402A2GE	0.5 U		0.1 U	53	1.5	3 U	0.1 U		7.4	87		1.8 J	4 U	0.2 U	
10/27/2008	XX	GW402A2J4	0.5 U		0.1 U	47	1.5	3 U	0.1 U		6.3	83		1.4 J	4 U	0.2 U	
4/14/2009	XX	GW402A32C	0.5 U		0.1 U	54	3.1	3 U	0.1 U		5	94		8.1	4 U	0.2 U	
7/8/2009	XX	GW402A36G	0.5 U		0.1 U	52	1.7	3 U	0.1 J		6	77		0.7 U	4 U	0.2 U	
10/28/2009	XX	GW402A3EB	0.3 U		0.1 U	54	1.7	4 J	0.1 U		5.3	85		1.5 J	4 U	0.2 U	
4/27/2010	XX	GW402A3JA	0.3 U		0.1 J	53	2.3	3 U	0.1 U		5.6	58		1.6 J	4 U	0.2 U	
7/21/2010	XX	GW402A42E	0.34		0.1 U	54	1.2	3 U	0.1 U		4.7	87		0.7 U	4 U	0.2 U	
10/20/2010	XX	GW402A45I	0.3 U		0.1 U	53	1.5	3 U	0.1 U		4.2	89		0.7 U	4 U	0.2 U	
4/27/2011	XX	GW402A49J	0.3 U		0.1 U	52	1.2	3 U	0.1 U		4.1	78		0.7 U	4 U	0.2 U	
7/20/2011	XX	GW402A4DH	0.54		0.1 U	51	1.6	3 U	0.1 U		4.2	80		0.7 U	4 U	0.2 U	
10/26/2011	XX	GW402A4HC	0.3 U		0.1 U	54	0.8 J	5 J	0.1 U		4.4	86		0.7 U	4 U	0.2 U	
4/24/2012	XX	GW402A522	0.3 U		0.5 U	52	2	10 U	0.3 U		7	70		2 U	4 U	0.2 U	
7/25/2012	XX	GW402A571	0.3 U		0.5 U	52	1.6	10 U	0.3 U		6.4	80		2 U	4 U	0.2 U	
10/24/2012	XX	GW402A5DC	0.31		0.5 U	51	2.3	10 U	0.3 U		7.3	83		2 U	4 U	0.2 U	
4/22/2013	XX	GW402A5I3	0.3 U		0.5 U	51	2.5	10 U	0.3 U		9.3	99	0.1 U	2 U	4 U	0.2 U	
7/31/2013	XX	GW402A648	0.3 U			53	1.3	10 U	0.3 U		7	81	0.1 U	2 U	4 U	0.2 U	
10/30/2013	XX	GW402A671	0.5 U			51	1.8	10 U	0.3 U		7.2	89	0.1 U	2 U	4 U	0.2 U	
MW-402B																	
7/29/2004	XX	GW402B05C	0.21	6 U	0.1 U	69	1.8	4 J	0.1 U	0.04	8.4	96		0.5 U	4 U		
10/27/2004	XX	GW402B074	0.4	6 U	0.1 U	79	2	6 J	0.1 U	0.05	7.9	82		2.8	5		
5/11/2005	XX	GW402B135	0.4		0.1 U	68	1.7	3 U	0.1 U		8.6	101		0.9 J	4 U	0.2 U	
8/1/2005	XX	GW402B16D	0.3 U		0.1 U	71	1.9	3 U	0.1 U		5.6	88		1 J	4 U	0.2 U	
9/21/2005	XD	GWDP3X196	0.3 U		0.1 U	66	2	3 U	0.1 U		7.8	94		2.2	4 U	0.2 U	
9/21/2005	XX	GW402B19B	0.3 U		0.1 U	66	2.1	3 U	0.1 U		7.7	95		2.1	4 U	0.2 U	
5/23/2006	XX	GW402B1E6	0.45		0.1 U	67	2.9	3 U	0.1 U		8.9	116		0.8 J	4 U	0.2 U	
7/26/2006	XX	GW402B1H3	0.3 U		0.1 U	68	1.4	4 J	0.1 U		7.5	97		0.9 J	4 U	0.2 U	
9/12/2006	XX	GW402B1JG	0.3 U		0.1 U	69	1.5	3 U	0.1 U		7.8	84		0.5 J	4 U	0.2 U	
5/15/2007	XX	GW402B233	0.5 U		0.1 U	66	1.5	3 U	0.1 U		7.3	82		5.2	4 U	0.26	
7/25/2007	XX	GW402B277	0.3 U		0.1 U	63	3.1	6 J	0.1 U		8.6	90		1.6	4 U	0.2 U	
9/12/2007	XX	GW402B29H	0.3 U		0.1 U	65	2.8	3 U	0.1 U		9.1	101		0.7 J	4 U	0.2 U	
5/20/2008	XX	GW402B2DB	0.3 U		0.1 U	57	1.7	3 U	0.1 J		9	93		4.4	4 U	0.2 U	
7/28/2008	XX	GW402B2GF	0.5 U		0.1 U	34	2.2	3 U	0.1 U		44.9	124		0.8 J	4 U	0.2 U	
10/27/2008	XX	GW402B2J5	0.5 U		0.5	65	1.8	3 U	0.1 U		9.2	89		0.9 J	4 U	0.2 U	

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(MW-402B) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L	
4/14/2009	XX	GW402B32D	0.5 U		0.1 U	66	26.5	3 U	0.1 U		2.3	98		2.5	4 U	0.2 U	
7/8/2009	XX	GW402B36H	0.5 U		0.1 U	65	1.7	3 U	0.1 U		8.5	89		0.8 J	4 U	0.2 U	
10/28/2009	XX	GW402B3EC	0.3 U		0.1 U	70	1.8	3 U	0.1 U		7.3	93		1.7 J	4 U	0.2 U	
4/27/2010	XX	GW402B3JB	0.3 U		0.1 U	68	2.5	3 U	0.1 U		8	64		3.5	4 U	0.2 U	
7/21/2010	XX	GW402B42F	0.38		0.1 U	69	1	3 U	0.1 U		6.9	93		0.7 U	4 U	0.2 U	
10/20/2010	XX	GW402B45J	0.3 U		0.1 U	65	1.5	3 U	0.1 U		6.3	102		0.7 U	4 U	0.2 U	
4/27/2011	XX	GW402B4A0	0.3 U		0.1 U	68	1.1	3 U	0.1 U		6.6	92		0.7 U	4 U	0.2 U	
7/20/2011	XX	GW402B4DI	0.61		0.1 U	65	1.2	3 U	0.1 U		6.6	92		0.7 U	4 U	0.2 U	
10/26/2011	XX	GW402B4HD	0.3 U		0.1 U	69	1.1	3 U	0.1 U		6.3	100		0.7 U	4 U	0.2 U	
4/24/2012	XX	GW402B523	0.3 U		0.5 U	64	2.2	10 U	0.3 U		9	88		2 U	4 U	0.2 U	
7/25/2012	XX	GW402B572	0.3 U		0.5 U	68	1.9	10 U	0.3 U		9.9	91		2 U	4 U	0.2 U	
10/24/2012	XX	GW402B5DD	0.3 U		0.5 U	65	2.5	10 U	0.3 U		9.5	97		2 U	4 U	0.2 U	
4/22/2013	XX	GW402B5I4	0.3 U		0.5 U	60	2.5	10 U	0.3 U		9	100	0.1 U	2 U	4 U	0.2 U	
7/31/2013	XX	GW402B649	0.3 U			68	1.4	10 U	0.3 U		8.6	92	0.1 U	2 U	4 U	0.2 U	
10/30/2013	XX	GW402B672	0.5 U			67	1.9	10 U	0.3 U		8.4	102	0.1 U	2 U	4 U	0.2 U	
P-04-02																	
2/5/2004	XX	GWXXXX03E			0.1 U	178	7	28	0.1 U		16	275		10	8		
2/11/2004	XX	GWXXXX03C			0.1 U	116	3	30	0.3		29	166		3.4	4 U		
5/5/2004	XX	GWXXXX00E	0.22		0.1 U	121	1.8	3 U	0.1 U		21.2	151		0.8 J	4 U	0.2 U	
7/26/2004	XX	GWXXXX042	0.69		0.1 U	111	2.2	3 U	0.1 U		19.5	145		0.6 J	4 U	0.2 U	
10/25/2004	XX	GWXXXX07I	0.73		0.1 U	108	2	3 U	0.1 U		16	144		0.9 J	21	0.2 U	
5/9/2005	XX	GWXXXX13J	0.3 U		0.1 U	108	2	3 U	0.1 J		14.5	138		0.8 J	4 U	0.2 U	
7/27/2005	XX	GWXXXX177	0.67		0.1 U	107	1.9	4 J	0.1 U		11.9	145		2	4 U	0.2 U	
9/22/2005	XX	GWXXXX1A5	0.36		0.1 U	104	2.2	3 U	0.1 U		11.6	135		1.9	4 U	0.2 U	
5/22/2006	XX	GWXXXX1F0	0.42		0.1 U	95	3	3 U	0.3		14.5	129		4.8	4 U	0.2 U	
7/24/2006	XX	GWXXXX1HH	0.48		0.1 U	95	1.5	3 U	0.3		11	133		1.3 J	4 U	0.2 U	
9/11/2006	XX	GWXXXX20A	0.39		0.1 U	98	2	3 U	0.1 U		11.2	124		1.5	4 U	0.2 U	
5/14/2007	XX	GWXXXX23H	0.5 U		0.1 U	98	1.5	3 J	0.1 U		9.2	138		2.3	4 U	0.2 U	
7/23/2007	XX	GWXXXX281	0.3 U		0.1 U	91	2	4 J	0.1 J		11.6	124		1.2 J	4 U	0.2 U	
9/10/2007	XX	GWXXXX2AB	0.3 U		0.1 U	92	1.8	3 J	0.2 J		13.5	131		0.5 U	4 U	0.2 U	
5/21/2008	XX	GWXXXX2E5	0.3 U		0.1 U	96	2.1	3 U	0.3		12.6	118		1.8 J	4 U	0.2 U	
7/30/2008	XX	GWXXXX2H9	0.5 U		0.1 U	95	1.6	7 J	0.3		13.8	138		1.2 J	4 U	0.2 U	
10/29/2008	XX	GWXXXX2JJ	0.5 U		0.1 U	93	1.2	4 J	0.2 J		13.7	124		0.7 J	4 U	0.2 U	
4/13/2009	XX	GWXXXX337	1 U		0.1 U	93	1.6	3 J	0.3		11.4	134		5.1	4 U	0.2 U	
7/6/2009	XX	GWXXXX37B	0.5 U		0.1 U	93	1.6	3 U	0.2 J		13	128		1.8 J	4 U	0.2 U	
10/27/2009	XX	GWXXXX3F6	0.3 U		0.1 U	93	2	3 U	0.1 U		11.1	114		3.7	4 U	0.2 U	
4/26/2010	XX	GWXXXX405	0.3 U		0.1 J	95	3.1	3 J	0.1 J		11.2	113		0.8 J	4 U	0.2 U	
7/21/2010	XX	GWXXXX439	0.3 U		0.1 U	93	1	3 U	0.1 J		10.5	121		0.7 U	4 U	0.2 U	
10/20/2010	XX	GWXXXX46D	0.3 U		0.1 U	90	1.3	3 U	0.1 U		10.7	130		0.7 U	4 U	0.2 U	
4/27/2011	XX	GWXXXX4AE	0.3 U		0.1 U	90	1.1	3 U	0.1 U		8.9	129		0.7 U	4 U	0.2 U	
7/20/2011	XX	GWXXXX4EC	0.38		0.1 U	93	1.1	3 U	0.1 U		12.2	138		0.7 U	4 U	0.2 U	
10/26/2011	XX	GWXXXX4I7	!		!	!	!	!	!		!	!		!	!	!	
4/25/2012	XX	GWXXXX52H	0.6		0.5 U	63	8.8	19	0.3 U		11.3	211		11.9	11	1.7	
7/25/2012	XX	GWXXXX57G	0.35		0.5 U	94	7.8	10 U	0.3 U		25.2	205		5.2	9	0.76	
10/24/2012	XX	GWXXXX5E7	0.62		0.5 U	85	4.9	15	0.3 U		25.1	198		5.7	13	1 U	
4/22/2013	XX	GWXXXX5II	!		!	!	!	!	!		!	!	!	!	!	!	
P-04-04																	
2/5/2004	XX	GWXXXX03F			0.1 U	153	7.2	3 U	0.1 U		18.2	287		1.8	21		

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(P-04-04) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
2/11/2004	XX	GWXXXX03D			0.1 U	91	1.5	13	0.2 J		23.8	139		0.6 J	4 U	
5/6/2004	XX	GWXXXX00F	0.17		0.1 U	108	2	3 U	0.1 U		18.1	146		0.7 J	4 U	0.2 U
7/26/2004	XX	GWXXXX043	0.57		0.1 U	101	1.9	3 U	0.1 U		15.1	125		0.7 J	4 U	0.2 U
10/25/2004	XX	GWXXXX07J	0.62		0.1 U	97	2	3 U	0.2 J		11	124		0.9 J	4	0.2 U
5/9/2005	XX	GWXXXX140	0.3 U		0.1 U	93	1.7	3 U	0.2 J		9.5	118		1.7	4 U	0.2 U
7/27/2005	XX	GWXXXX178	0.3 U		0.1 U	86	1.8	3 U	0.2 J		6.2	124		0.5 J	4 U	0.2 U
9/22/2005	XX	GWXXXX1A6	0.56		0.1 U	84	2	3 U	0.4		7.5	117		2	4 U	0.2 U
5/22/2006	XX	GWXXXX1F1	0.61		0.1 U	84	2.9	3 U	0.4		8.9	110		1.9	4	0.2 U
7/24/2006	XX	GWXXXX1HI	0.33		0.1 U	80	1.4	3 J	0.3		7.2	111		1.7	4 U	0.2 U
9/11/2006	XX	GWXXXX20B	0.36		0.1 U	80	1.9	3 U	0.1 J		6.7	98		0.5 U	7	0.2 U
5/14/2007	XX	GWXXXX23I	0.5 U		0.1 U	79	1.6	3 U	0.1 U		5.7	116		2.4	4 U	0.2 U
7/23/2007	XX	GWXXXX282	0.3 U		0.1 U	73	2	5 J	0.1 J		7.1	106		0.9 J	4 U	0.2 U
9/10/2007	XX	GWXXXX2AC	0.3 U		0.1 U	74	2.7	3 U	0.1 J		7.1	111		0.7 J	4 U	0.2 U
5/21/2008	XX	GWXXXX2E6	0.3 U		0.1 U	80	1.7	3 U	0.2 J		8.3	105		1.5 J	4 U	0.2 U
7/30/2008	XX	GWXXXX2HA	0.5 U		0.1 U	80	1.5	3 U	0.2 J		9.4	114		0.8 J	4 U	0.2 U
10/29/2008	XX	GWXXXX300	0.5 U		0.2 J	78	1.1	3 U	0.1 U		8.5	108		2	4 U	0.2 U
4/13/2009	XX	GWXXXX338	0.5 U		0.1 U	77	1.6	4 J	0.1 J		7.3	118		3.8	4 U	0.2 U
7/6/2009	XX	GWXXXX37C	0.5 U		0.1 U	77	1.4	3 U	0.1 U		8.2	108		0.9 J	4 U	0.2 U
10/27/2009	XX	GWXXXX3F7	0.3 U		0.1 U	80	1	3 U	2.5		6.7	92		1.8 J	4 U	0.2 U
4/26/2010	XX	GWXXXX406	0.3 U		0.4 J	79	2.7	3 U	0.1 U		7.9	95		1.2 J	4 U	0.2 U
7/21/2010	XX	GWXXXX43A	0.3 U		0.1 U	78	0.9 J	3 J	0.1 U		6.5	104		0.7 U	4 U	0.2 U
10/20/2010	XX	GWXXXX46E	0.3 U		0.1 U	72	1.4	3 U	0.1 U		5.9	119		0.7 U	4 U	0.2 U
4/27/2011	XX	GWXXXX4AF	0.3 U		0.1 U	80	1	3 U	0.1 U		5.5	104		0.7 U	4 U	0.2 U
7/20/2011	XX	GWXXXX4ED	0.36		0.1 U	76	1.1	3 U	0.1 J		9	112		0.7 U	4 U	0.2 U
10/26/2011	XX	GWXXXX4I8	0.7		0.1 U	78	1.8	3 U	0.2 J		6.8	122		0.8 J	4 U	0.2 U
4/25/2012	XX	GWXXXX52I	0.3 U		0.5 U	75	1.8	10 U	0.3 U		8.5	114		2 U	4 U	0.2 U
7/25/2012	XX	GWXXXX57H	0.3 U		0.5 U	76	1.8	10 U	0.3 U		28.8	95		2 U	4 U	0.2 U
10/24/2012	XX	GWXXXX5E8	0.3 U		0.5 U	78	2	10 U	0.3 U		8.1	111		2 U	4 U	0.2 U
4/24/2013	XX	GWXXXX5IJ	0.479		0.5 U	80	1.3	10 U	0.3 U		9.2	115	0.1 U	2 U	4 U	0.2 U
7/31/2013	XX	GWXXXX654	0.613			76	1.4	10 U	0.3 U		7.8	100	0.1 U	2 U	4 U	0.2 U
10/30/2013	XX	GWXXXX67E	0.5 U			76	1.8	10 U	0.3 U		7.7	115	0.1 U	2 U	4 U	0.2 U
P-206A																
7/31/2013	XX	GW206A64I	I			I	I	I	I		I	I	I	I	I	I
10/28/2013	XX	GW206A67B					4.3		0.3 U		2 U					
PWS10-1																
4/26/2010	XX	GWPWS13IJ			1.1	74	14.6	33	0.1 U	0.14	1 J	148		9.9	4 U	2.3
7/19/2010	XX	GWPWS1423			1.1	125	10.1	31	0.1 U	0.26	2.1	154		8.3	786	1.4
10/18/2010	XX	GWPWS1457			0.1 U	100	10.6	29	0.1 U	0.05	10	176		7.5	12	1
4/25/2011	XX	GWPWS1498			0.1 J	73	14.2	20	0.1 U	0.03 J	1.3 J	154		7.5	4 U	1.4
7/18/2011	XX	GWPWS14D6			0.1 U	110	7.3	31	0.1 U	0.14	2.9	171		8.4	42	1.1
10/24/2011	XX	GWPWS14H1			0.2 J	70	10.8	40	0.1 U	0.08	1.6 J	134		19.7	16	5
4/23/2012	XX	GWPWS151B			0.5 U	63	8.4	26	0.3 U	0.04 U	6.3	132		10.5	8	1.2
7/23/2012	XX	GWPWS156A			0.5 U	41	3.5	58	0.5	0.16	2 U	104		13.7	32	3.4
10/22/2012	XX	GWPWS15D1			0.5 U	48	8.2	38	0.3 U	0.09	2.7	130		13.3	25	1.8
4/22/2013	XX	GWPWS15HC			0.5 U	113	16.4	20	0.3 U	0.06	3.1	177	0.1	4.5	4 U	0.75
7/29/2013	XX	GWPWS163H				82	8.9	46	0.3 U	0.32	2 U	148	0.1 U	12.6	95	2.6
10/28/2013	XX	GWPWS166A				45	7	33	0.3 U	0.06	2.5	90	0.1 U	9.8	25	5 U
PWS10-2																

(PWS10-2) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
4/26/2010	XX	GWPWS23J0			0.2 J	16.3	9.5	19	0.1 U	0.02 J	3.1	59		8.2	7	1.4
7/19/2010	XX	GWPWS2424			0.7	35	12.6	26	0.2 J	0.08	4.2	81		9.2	182	2
10/18/2010	XX	GWPWS2458			0.1 J	16.4	5.7	40	0.1 U	0.03 J	6.9	88		14.7	4 U	2.6
4/25/2011	XX	GWPWS2499			0.1 U	12.1	5.8	18	0.1 U	0.02 J	1.7 J	60		7.3	4 U	1 U
7/18/2011	XX	GWPWS24D7			0.1 J	62	4.1	25	0.1 U	0.03 J	1.6 J	107		9.9	4 U	1.2
10/24/2011	XX	GWPWS24H2			0.1 U	36	3.8	27	0.1 U	0.03 J	2.9	76		10.2	78	1.7
4/23/2012	XX	GWPWS251C			0.5 U	10.6	8.3	33	0.3 U	0.04 U	7.7	79		11.5	4 U	1.9
7/23/2012	XX	GWPWS256B			0.5 U	35	3.2	40	0.4	0.05	2 U	90		13	4 U	5.1
10/22/2012	XX	GWPWS25D2			0.5 U	9.3	4.4	29	0.3 U	0.04 U	8.4	75		10.2	4	1 U
4/22/2013	XX	GWPWS25HD			0.5 U	30	8.4	26	0.3 U	0.04 U	3.8	82	0.1 U	6.4	5	1.1
7/29/2013	XX	GWPWS263I				28	19.8	55	0.3 U	0.05	2 U	111	0.1 U	11.8	62	1.8
10/28/2013	XX	GWPWS266B				28	5.1	29	0.3 U	0.1	4.3	78	0.1 U	5.5	43	2.5 U
PWS10-3																
4/26/2010	XX	GWPWS33J1			0.1 U	87	2.5	11	0.1 U	0.05	3.3	113		2.1	5	0.45
7/19/2010	XX	GWPWS3425			1.9	70	1.7	251	0.1 U	0.48	1.8 J	124		10.4	36	1.9
10/18/2010	XX	GWPWS3459			0.1 U	12.5	7.7	105	0.1 U	0.22	4.6	103		19.3	34	4.6
4/25/2011	XX	GWPWS349A			0.1 U	64	2.3	18	0.1 U	0.03 J	0.6 U	105		4	4 U	1.1
7/18/2011	XX	GWPWS34D8			1.2	56	3.2	60	0.1 U	0.15	1.2 J	112		14.9	101	2.3
10/24/2011	XX	GWPWS34H3			0.1 U	37	3.4	56	0.1 U	0.07	0.6 U	95		13.4	10	3.7
4/23/2012	XX	GWPWS351D			0.5 U	16.4	4.5	25	0.4	0.06	6.3	66		7.5	60	1.1
7/23/2012	XX	GWPWS356C			0.5 U	26	3	47	0.5	0.07	2 U	89		13.8	18	3.1
10/22/2012	XX	GWPWS35D3			0.5 U	11.8	2.6	79	0.3 U	0.06	2 U	83		19	15	3.1
4/22/2013	XX	GWPWS35HE			0.5 U	21	4.1	46	0.3 U	0.08	2	72	0.1 U	11	8	1.6
7/29/2013	XX	GWPWS363J				56	5.4	62	0.3 U	0.5	2 U	141	0.1 U	21.6	39	5.2
10/28/2013	XX	GWPWS366C				22	6.2	43	0.3 U	0.08	2 U	73	0.1 U	11.9	29	2.5 U
SW-1																
5/3/2004	XX	SWXX1X018		6 U	0.1 U	31	12.5	36	0.1 U	0.03 J	1.3	82		13.1	5	2.5
7/27/2004	XX	SWXX1X04E		6 U	0.1 U	29	3.5	61	0.1 U	0.07	0.2 J	103		18.4	9	4.5
10/26/2004	XX	SWXX1X069		6 U	0.1 U	20	5.4	42	0.1 U	0.03 J	1.2	76		14.3	4 U	3.4
5/10/2005	XX	SWXX1X12A		6 U	0.1 U	13.9	7.5	28	0.1 U	0.02 J	0.6 J	61		10.1	4 U	2.2
7/28/2005	XX	SWXX1X15I		12	0.1 U	22	4.9	229	0.1 U	0.11	0.6 U	67		14.3	13	3.5
9/20/2005	XX	SWXX1X18G		6 U	0.1 U	41	3.1	33	0.1 U	0.26	6	159		9.8	55	1.1
5/24/2006	XX	SWXX1X1DB		6 U	0.1 U	86	22.7	31	0.1 U	0.03 J	11.3	184		10.2	22	0.94
7/26/2006	XD	SWDP2X1GE		6 U	0.1 U	23	4.1	64	0.1 U	0.07	0.6 U	85		20.4	6	3
7/26/2006	XX	SWXX1X1G8		6 U	0.1 U	23	4.4	71	0.1 U	0.06	0.6 U	90		20.6	17	2.5
9/13/2006	XX	SWXX1X1J1		6 U	0.1 U	148	13.3	15	0.1 U	0.06	9.3	181		11.4	28	0.31
5/15/2007	XX	SWXX1X228		6 U	0.1 U	29	6.5	24	0.1 U	0.06	0.6 J	59		7.9	4 U	2
5/15/2007	XD	SWDP2X22E		6 U	0.1 U	25	6.5	24	0.1 U	0.02 J	0.6 J	58		8.3	4 U	1.9
7/24/2007	XX	SWXX1X26C		6 U	0.1 U	30	8.4	43	0.1 U	0.04	0.6 U	93		16.6	4 U	2.4
7/24/2007	XD	SWDP2X26I		6 U	0.1 U	31	8.7	44	0.1 U	0.05	0.6 U	98		17.3	4 U	2.7
9/11/2007	XX	SWXX1X292		7	0.1 U	33	8.4	67	0.1 J	0.11	0.6 U	90		15.6	11	2.2
5/21/2008	XD	SWDP2X2D2		6 U	0.1 U	28	9.4	26	0.1 J	0.07	1.2 J	67		9.5	14	2.1
5/21/2008	XX	SWXX1X2CG		6 U	0.1 U	28	9.4	26	0.1 J	0.06	1.2 J	71		12.5	14	2.1
7/29/2008	XX	SWXX1X2G0		I	I	I	I	I	I	I	I	I		I	I	I
10/28/2008	XX	SWXX1X2IA		5 U	0.1 U	23	4.8	36	0.1 U	0.02 J	1.2 J	70		12.5	4 U	2.1
4/14/2009	XX	SWXX1X31I		4 U	0.1 U	20	11.6	20	0.1 U	0.01 U	2.2	85		9.8	4 U	1.4
7/7/2009	XX	SWXX1X362		5 U	0.2 U	17.2	4.7	45	0.1 U	0.03 J	0.9 J	85		15	4 U	3.9
10/27/2009	XX	SWXX1X3DH		5 U	0.1 U	10.6	6.3	36	0.1 U	0.02 J	2.2	69		12.5	39	2.6

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

(SW-1) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
4/28/2010	XX	SWXX1X3IG		2 U	0.1 U	23	8.9	29	0.1 U	0.02 J	1.4 J	61		9.1	4 U	2.5
7/20/2010	XX	SWXX1X420		3 U	0.6	126	8.5	752	0.1 U	0.81	3.5	230		7.3	1490	1
10/19/2010	XX	SWXX1X454		5 U	0.1 U	11.6	7.3	55	0.1 U	0.02 J	4.4	101		18.8	4 U	0.87
4/26/2011	XX	SWXX1X495		3 U	0.1 U	16.7	6.8	22	0.1 U	0.02 J	1.6 J	70		8	5	1.7
7/19/2011	XX	SWXX1X4D3		4	0.1 J	107	6.9	48	0.1 U	0.21	2.6	157		8.4	144	0.89
10/25/2011	XX	SWXX1X4GI		4 U	0.1 U	19	5.8	37	0.1 U	0.02 J	2.4	64		13.4	11	3.8
4/24/2012	XX	SWXX1X518		5 U	0.5 U	13.9	9.3	33	0.3 U	0.04 U	3.6	65		10.8	4 U	2.2
7/24/2012	XX	SWXX1X567		4 U	0.5 U	40	3.8	50	0.3	0.11	2 U	89		13.8	15	4
10/23/2012	XX	SWXX1X5CI		2 U	0.5 U	35	6	29	0.3 U	0.04 U	5.6	104		9.6	13	1.7
4/23/2013	XX	SWXX1X5H9		4 U	0.5 U	15.3	12.7	23	0.3 U	0.04 U	3.1	60	0.1 U	7.4	4 U	1.4
7/30/2013	XX	SWXX1X63E		3 U		34	5.1	46	0.3 U	0.05	2 U	81	0.1 U	16.8	41	3.2
10/29/2013	XX	SWXX1X667		1 U		30	6.2	38	0.3 U	0.04 U	2.2	73	0.1 U	10.1	4 U	2.5 U
SW-2																
5/3/2004	XX	SWXX2X019		6 U	0.1 U	22	16.4	39	0.1 U	0.03 J	0.1 U	73		13	5	3.8
7/27/2004	XD	SWDP2X050		6 U	0.1 U	24	4.5	58	0.1 U	0.04	0.3 J	83		19.4	4 U	5.2
7/27/2004	XX	SWXX2X04F		6 U	0.1 U	24	4.4	57	0.1 U	0.05	0.3 J	85		19.2	4 U	5.3
10/26/2004	XX	SWXX2X06A		6 U	0.1 U	15.3	10.1	40	0.1 U	0.02 J	0.9	87		13.9	4 U	3.4
5/10/2005	XD	SWDP2X12G		6 U	0.1 U	13.8	8.9	32	0.1 U	0.01 J	0.6 U	58		12	4 U	2.5
5/10/2005	XX	SWXX2X12B		6 U	0.1 U	11	8.8	30	0.1 U	0.02 J	0.6 U	62		11.9	4 U	2.6
7/28/2005	XX	SWXX2X15J		6 U	0.1 U	18.2	3.4	43	0.1 U	0.02 J	0.6 U	60		15	4 U	3.7
9/20/2005	XX	SWXX2X18H		6 U	0.1 U	20	5.2	56	0.1 U	0.02 J	0.6 U	77		19	14	5.4
5/24/2006	XX	SWXX2X1DC		6 U	0.1 U	15.2	9.6	36	0.1 U	0.01 J	0.6 J	80		12.4	4 U	2.4
5/24/2006	XD	SWDP2X1DH		6 U	0.1 U	14.3	10.3	37	0.1 U	0.01 J	0.6 J	76		12	4 U	2.6
7/26/2006	XX	SWXX2X1G9		6 U	0.1 U	14.1	3.2	74	0.1 U	0.07	0.6 U	94		21.6	89	2.8
9/13/2006	XX	SWXX2X1J2		6 U	0.1 U	28	4.5	46	0.1 U	0.04	0.6 U	58		19.8	8	2.9
9/13/2006	XD	SWDP2X1J7		6 U	0.1 U	28	4.5	42	0.1 U	0.03 J	0.6 U	58		4.4	5	2.6
5/15/2007	XX	SWXX2X229		6 U	0.1 U	17.3	8.8	30	0.1 U	0.03 J	0.6 U	53		10.3	4 U	2.3
7/24/2007	XX	SWXX2X26D		6 U	0.1 U	27	7.9	48	0.1 U	0.03 J	0.6 U	78		17.9	8	2.8
9/11/2007	XX	SWXX2X293		6 U	0.1 U	31	7.1	57	0.1 J	0.02 J	0.6 U	84		15.3	6	2.9
9/11/2007	XD	SWDP2X298		6 U	0.1 U	30	7.1	50	0.1 J	0.01 J	0.6 U	86		15.5	6	2.7
5/21/2008	XX	SWXX2X2CH		6 U	0.1 U	18.1	9.6	21	0.1 J	0.04	1.1 J	68		13.9	23	2.3
7/29/2008	XX	SWXX2X2G1		6 U	0.1 U	26	8.6	50	0.1 J	0.04	1 J	119		16.7	12	3.6
10/28/2008	XD	SWDP2X2IG		5 U	0.1 U	15.8	4.1	34	0.1 U	0.27	1 J	66		13.9	4 U	2.9
10/28/2008	XX	SWXX2X2IB		5 U	0.2 J	16.1	4	32	0.1 U	0.02 J	0.9 J	70		17	4 U	2.5
4/14/2009	XX	SWXX2X31J		4 U	0.1 U	8.5	8.7	27	0.1 U	0.02 J	1.4 J	69		8.2	4 U	2
7/7/2009	XX	SWXX2X363		5 U	1.4 J	13	5.1	47	0.1 U	0.02 J	1.1 J	78		15.8	4 U	4.4
7/7/2009	XD	SWDP2X368		5 U	0.2 U	13.5	4.9	46	0.1 U	0.02 J	1 J	82		15.2	4 U	4.1
10/27/2009	XX	SWXX2X3DI		5 U	0.1 U	21	6.4	31	0.1 U	0.02 J	3.2	69		8.3	4 U	2
4/28/2010	XX	SWXX2X3IH		2 U	0.1 J	14.6	9.8	33	0.1 U	0.02 J	0.9 J	59		9.7	4 U	2.8
4/28/2010	XD	SWDP2X3J2		2 U	0.1 U	14.5	9.8	33	0.1 U	0.02 J	1.1 J	52		10.5	4 U	2.7
7/20/2010	XX	SWXX2X421		4	0.1 U	25	3.8	72	0.1 U	0.05	0.6 U	86		21.2	9	2.9
7/20/2010	XD	SWDP2X426		4	0.1 U	23	3.7	72	0.1 U	0.04	1.9 J	88		21.4	8	2.4
10/19/2010	XD	SWDP2X45A		5 U	0.1 U	10	8.2	57	0.1 U	0.02 J	4.2	102		19.5	4 U	5
10/19/2010	XX	SWXX2X455		5 U	0.1 U	10.1	8	58	0.1 U	0.02 J	4.8	98		19.3	4 U	4.8
4/26/2011	XD	SWDP2X49B		3 U	0.1 U	11.4	7.1	21	0.1 U	0.01 J	1 J	62		8.5	4 U	1.7
4/26/2011	XX	SWXX2X496		3 U	0.1 U	11.5	6.7	24	0.1 U	0.01 J	0.9 J	57		8.3	4 U	1.9
7/19/2011	XD	SWDP2X4D9		4 U	0.1 J	33	2.8	36	0.1 U	0.06	1.5 J	82		13.3	6	2
7/19/2011	XX	SWXX2X4D4		4 U	0.1 J	35	2.9	43	0.1 U	0.06	1.6 J	83		12.6	15	2.1
10/25/2011	XX	SWXX2X4GJ		4 U	0.1 U	12.6	7.4	42	0.1 U	0.01 J	2.6	76		14	4 U	5 U

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FOR: Juniper Ridge Landfill

SUMMARY REPORT
Inorganics (part 1 of 1)

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

(SW-2) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
10/25/2011	XD	SWDP2X4H4		4 U	0.1 J	13	6.3	43	0.1 U	0.01 J	2.3	75		14.4	4 U	5 U
4/24/2012	XX	SWXX2X519		5 U	0.5 U	15.1	21.6	35	0.3 U	0.04 U	2.6	89		12	4 U	2.3
4/24/2012	XD	SWDP2X51E		5 U	0.5 U	15.4	21.6	35	0.3 U	0.04 U	2.6	90		11.7	4 U	2.3
7/24/2012	XX	SWXX2X568		4 U	0.5 U	17.6	3.3	65	0.3	0.08	2 U	71		18	17	4
10/23/2012	XD	SWDP2X5D4		2 U	0.5 U	13.8	4	31	0.3 U	0.04 U	3	72		10.9	4 U	2.3
10/23/2012	XX	SWXX2X5CJ		2 U	0.5 U	13	4.2	32	0.3 U	0.04 U	3	72		10.7	4 U	1.8
4/23/2013	XD	SWDP2X5HF		4 U	0.5 U	12.8	14.2	28	0.3 U	0.04 U	2 U	62	0.1 U	7.8	4 U	1.5
4/23/2013	XX	SWXX2X5HA		4 U	0.5 U	13	13.6	29	0.3 U	0.04 U	2 U	66	0.1 U	7.6	4 U	1.5
7/30/2013	XX	SWXX2X63F		3 U		25	4.5	54	0.3 U	0.04 U	2 U	74	0.1 U	24.1	4	5 U
10/29/2013	XD	SWDP2X66D		1 U		21	6.6	39	0.3 U	0.04	2 U	68	0.1 U	11.9	6	2.5 U
10/29/2013	XX	SWXX2X668		1 U		22	6.6	40	0.3 U	0.04 U	2 U	65	0.1 U	11.8	4 U	2.5 U
SW-3																
5/3/2004	XX	SWXX3X01A		6 U	0.5	22	10	31	0.1 U	0.03 J	1.3	68		10.8	5	2
5/3/2004	XD	SWDP2X01E		6 U	0.5	20	7.9	31	0.1 U	0.03 J	1.3	65		10.6	5	2
7/27/2004	XX	SWXX3X04G		6 U	0.1 J	37	4.7	49	0.1 U	0.04	0.4	100		16.4	4 U	2.7
10/26/2004	XD	SWDP2X06F		6 U	0.1 U	31	3.9	39	0.1 U	0.03 J	0.4	82		13.5	4 U	3.4
10/26/2004	XX	SWXX3X06B		6 U	0.1 U	28	3.9	40	0.1 U	0.03 J	0.5	84		13.8	4 U	3.2
5/10/2005	XX	SWXX3X12C		6 U	0.1 U	10	5	30	0.1 U	0.02 J	1.1 J	46		9.6	4 U	2
7/28/2005	XX	SWXX3X160		6 U	0.1 U	25	3.5	41	0.1 U	0.02 J	0.6 U	71		13.3	4	2.6
7/28/2005	XD	SWDP2X164		6 U	0.1 U	25	3.5	47	0.1 U	0.03 J	0.6 U	73		14.5	4	2.7
9/20/2005	XD	SWDP2X192		6 U	0.1 U	25	4.6	38	0.1 U	0.04	1.3 J	74		12.4	5	2.9
9/20/2005	XX	SWXX3X18I		6 U	0.1 U	25	4.5	38	0.1 U	0.03 J	1.3 J	65		14.2	10	2.9
5/24/2006	XX	SWXX3X1DD		6 U	0.1 U	15	8.1	33	0.1 U	0.02 J	2.3	70		10.4	4 U	1.7
7/26/2006	XX	SWXX3X1GA		6 U	0.1 U	17	2.5	45	0.1 U	0.02 J	0.8 J	74		15.6	4 U	2
9/13/2006	XX	SWXX3X1J3		6 U	0.1 U	27	4.2	30	0.1 U	0.02 J	0.6 J	36		13.2	4	1.3
5/15/2007	XX	SWXX3X22A		6 U	0.1 U	21	6.4	30	0.1 U	0.02 J	1 J	51		8.5	4 U	1.8
7/24/2007	XX	SWXX3X26E		6 U	0.1 U	26	5.9	43	0.1 J	0.03 J	1.8 J	83		13.1	4 U	1.7
9/11/2007	XX	SWXX3X294		6 U	0.1 U	31	7.5	38	0.1 J	0.02 J	1.3 J	74		12.6	4 U	1.3
5/21/2008	XX	SWXX3X2CI		6 U	0.1 U	23	8.4	29	0.1 J	0.03 J	1.9 J	66		10.9	7	1.8
7/29/2008	XX	SWXX3X2G2		6 U	0.1 U	26	6.4	37	0.2 J	0.03 J	2.5	121		14.8	4 U	3.1
10/28/2008	XX	SWXX3X2IC		5 U	0.1 U	15.9	6.7	32	0.1 U	0.02 J	2.9	76		12.9	4 U	1.9
4/14/2009	XX	SWXX3X320		4 U	0.1 U	10.5	9.8	19	0.1 U	0.01 U	1.5 J	63		9.2	4 U	1.6
7/7/2009	XX	SWXX3X364		5 U	0.2 U	16.6	4.5	42	0.1 U	0.03 J	1.5 J	80		16.6	4 U	2.9
10/27/2009	XX	SWXX3X3DJ		5 U	0.1 U	10.7	4.8	35	0.1 U	0.02 J	2.5	74		11.4	4 U	2.3
4/28/2010	XX	SWXX3X3II		2 U	0.1 U	21	8.1	27	0.1 U	0.03 J	1.8 J	50		8.5	4	2
7/20/2010	XX	SWXX3X422		3 U	0.3 J	40	5	27	0.1 U	0.06	1.8 J	86		8.9	16	1.2
10/19/2010	XX	SWXX3X456		5 U	0.1 U	12.5	6.4	49	0.1 U	0.02 J	5.5	97		17.2	4 U	4.1
4/26/2011	XX	SWXX3X497		3 U	0.1 U	12.3	5.8	20	0.1 U	0.01 J	1.4 J	57		7.3	4 U	1.4
7/19/2011	XX	SWXX3X4D5		4 U	0.1 U	36	5	29	0.1 U	0.04	0.6 J	85		11.8	4 U	1.3
10/25/2011	XX	SWXX3X4H0			0.1 U	18.5	5.6	35	0.1 U	0.02 J	1.9 J	72		12.9	4 U	2.5 U
10/26/2011	XX	SWXX3XHBB		4 U												
4/24/2012	XX	SWXX3X51A		5 U	0.5 U	10.9	4.6	32	0.3 U	0.04 U	3.5	58		11.3	4 U	2.2
7/24/2012	XD	SWDP2X56D		4 U	0.5 U	33	1.9	33	0.3 U	0.05	2 U	76		11	4 U	2.5 U
7/24/2012	XX	SWXX3X569		4 U	0.5 U	33	2	31	0.3 U	0.05	2 U	79		11.1	4	2.5 U
10/23/2012	XX	SWXX3X5D0		2 U	0.5 U	13.6	3.8	35	0.3 U	0.04 U	2.3	74		12.1	4 U	2.5 U
4/23/2013	XX	SWXX3X5HB		4 U	0.5 U	14.8	9.8	27	0.3 U	0.04 U	3.1	56	0.1 U	7	4 U	1.3
7/30/2013	XX	SWXX3X63G		3 U		28	5.2	39	0.3 U	0.04 U	2.4	67	0.1 U	13.7	5	1.6
7/30/2013	XD	SWDP2X640		3 U		28	5.1	37	0.3 U	0.04 U	2.3	72	0.1 U	13.7	4 U	1.8
10/29/2013	XX	SWXX3X669		1 U		29	7.7	26	0.3 U	0.04 U	2.7	74	0.1 U	7.8	4 U	1.5

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(SW-DP1) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L
SW-DP1																
5/3/2004	XX	SWDP1X01H			0.1 U	128	12.5	21	0.1 U	0.02 J	13.5	200		7.5	4 U	0.69
7/27/2004	XX	SWDP1X053			0.1 U	170	1.5	39	0.1 U	0.03 J	0.2 J	262		13.3	4 U	1
10/26/2004	XX	SWDP1X06H			0.1 U	116	4.5	10	0.1 U	0.02 J	4.7	155		3.5	4 U	0.36
5/10/2005	XX	SWDP1X12I			0.1 U	42	3.4	38	0.1 U	0.09	4.7	87		11.4	6	2
7/28/2005	XX	SWDP1X166			0.1 U	47	2.1	15	0.1 U	0.07	3.7	83		4.7	14	0.55
9/20/2005	XX	SWDP1X194			0.1 U	81	5.5	9 J	0.1 U	0.15	12	172		3.4	13	1.1
5/24/2006	XX	SWDP1X1DJ			0.1 U	91	9.7	13	0.1 U	0.04	22	162		4.5	5	0.2 U
7/26/2006	XX	SWDP1X1GG		6 U	0.1 U	52	8.3	45	0.1 U	0.12	30	149		12.9	115	0.48
9/13/2006	XX	SWDP1X1J9			0.1 U	69	3.6	9 J	0.1 U	0.03 J	9.2	95		4.4	4 U	0.2
5/15/2007	XX	SWDP1X22G			0.1 U	74	6.9	3 J	0.1 U	0.01 J	11.4	115		4.2	4 U	0.53
7/24/2007	XX	SWDP1X270			0.1 U	42	5.2	14	0.1 U	0.02 J	11.9	90		4.5	4 U	0.2 U
9/11/2007	XX	SWDP1X29A			0.1 U	33	5.1	13	0.1 U	0.01 U	12.8	73		3.7	4 U	0.2 U
5/21/2008	XX	SWDP1X2D4			0.1 U	30	11.3	9 J	0.1 J	0.02 J	8.8	102		3.6	4 U	0.2 U
7/29/2008	XX	SWDP1X2G8			0.1 U	26	8.8	9 J	0.1 J	0.03 J	6.5	94		8.4	5	0.21
10/28/2008	XX	SWDP1X2II			0.1 U	56	8.2	11	0.1 J	0.05	12.9	139		3	13	0.2 U
4/14/2009	XX	SWDP1X326			0.1 U	69	11.7	10	0.1 U	0.05	11.7	145		3.6	12	0.29
7/7/2009	XX	SWDP1X36A			0.5 U	39	4.1	9 J	0.1 J	0.02 J	7.5	81		4.5	4 U	0.26
10/27/2009	XX	SWDP1X3E5			0.1 U	37	5.5	10	0.1 U	0.04	11	83		3.5	6	0.47
4/28/2010	XX	SWDP1X3J4			0.1 U	62	10.2	8 J	0.1 U	0.02 J	12.1	116		2.9	5	0.2 U
7/20/2010	XX	SWDP1X428			0.1 U	16	4.1	15	0.1 U	0.02 J	6.5	68		3.7	4 U	0.2 U
10/19/2010	XX	SWDP1X45C			0.1 U	37	5.2	6 J	0.1 U	0.02 J	9.7	102		2.2	4 U	0.3
4/26/2011	XX	SWDP1X49D			0.1 U	46	4.1	7 J	0.1 U	0.03 J	4	85		2.3	6	0.5 U
7/19/2011	XX	SWDP1X4DB			0.1 U	69	2.4	8 J	0.1 U	0.02 J	4.5	92		4.1	4 U	0.2 U
10/25/2011	XX	SWDP1X4H6			0.1 U	43	3.4	5 J	0.1 U	0.03 J	6.1	51		3	5	0.3
4/24/2012	XX	SWDP1X51G			0.5 U	28	4.1	10 U	0.3 U	0.1	11.2	90		2.4	65	1.2
7/24/2012	XX	SWDP1X56F			0.5 U	63	4.1	16	0.3 U	0.14	8.1	97		3.3	6	0.4 U
10/23/2012	XX	SWDP1X5D6			0.5 U	23	3	10 U	0.3 U	0.08	5.5	90		2.2	46	1 U
4/23/2013	XX	SWDP1X5HH			0.5 U	57	15.2	10 U	0.3 U	0.06	27.4	118	0.13	2 U	12	0.4 U
7/30/2013	XX	SWDP1X642				27	4.4	10 U	0.3 U	0.04 U	7.2	55	0.1 U	2.6	4 U	0.4 U
10/29/2013	XX	SWDP1X66F				69	5.5	13	0.3 U	0.04	9.1	90	0.1 U	2.8	12	0.2 U
SW-DP5																
4/23/2013	XX	SWDP5X60I			0.5 U	37	10.7	10 U	0.3 U	0.06	32.1	110	0.1 U	2 U	7	0.4 U
7/30/2013	XX	SWDP5X65H				9	2.3	21	0.3 U	0.05	12.3	71	0.1 U	4.8	5	0.5 U
10/29/2013	XX	SWDP5X686				D	D	D	D	D	D	D	D	D	D	D
SW-DP6																
10/27/2009	XX	SWDP6X3G6			0.1 U	29	5.4	14	0.1 J	0.12	5.5	94		5.3	31	0.45
4/28/2010	XX	SWDP6X3J5			0.1 U	66	22.3	29	0.1 U	0.11	18.5	179		11.8	54	0.49
7/20/2010	XX	SWDP6X429			0.1 U	71	22.1	36	0.1 U	0.07	10.4	196		11.9	5	0.86
10/19/2010	XX	SWDP6X45D			0.1 U	39	10.7	17	0.1 U	0.03 J	20.8	149		5.6	4	0.93
4/26/2011	XX	SWDP6X49E			0.1 U	23	17.7	13	0.1 U	0.04	22.2	127		4.5	7	0.54
7/19/2011	XX	SWDP6X4DC			0.1 U	75	8.7	14	0.2 U	0.05	155	323		4.6	5	0.31
10/25/2011	XX	SWDP6X4H7			0.1 U	59	16.3	8 J	0.1 U	0.03 J	42.2	168		3.1	4 U	0.4
4/24/2012	XX	SWDP6X51H			0.5 U	16.8	10.3	13	0.3 U	0.04 U	21.3	91		4.4	5	0.42
7/24/2012	XX	SWDP6X56G			0.5 U	30	1.1	37	0.3 U	0.14	5.5	81		8.7	16	2.5 U
10/23/2012	XX	SWDP6X5D7			0.5 U	22	3.5	14	0.3 U	0.07	3.9	89		4.6	11	0.91
4/23/2013	XX	SWDP6X5HI			0.5 U	7.8	7	16	0.3 U	0.07	10.7	60	0.1 U	4.4	35	0.4
7/30/2013	XX	SWDP6X643				13.1	4.6	15	0.3 U	0.04 U	20.4	73	0.1 U	4.9	4	0.5 U

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(SW-DP6) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Biochemical Oxygen Demand mg/L	Ammonia (N) mg/L	Bicarbonate (CaCO3) mg/L	Chloride mg/L	Chemical Oxygen Demand mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Bromide mg/L	Organic Carbon mg/L	Total Suspended Solids mg/L	Tannin & Lignins (Tannic Acid) mg/L	
10/29/2013	XX	SWDP6X66G				12.6	4.9	15	0.3 U	0.04	23.2	71	0.1 U	3.8	4 U	0.4 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.
- D - The sampling location was dry.
- DE - Decommissioned Location
- 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 below reporting limit.
- U - Not Detected above the reported sample detection limit.

SUMMARY REPORT

Metal (part 1 of 1)

SEVEE & MAHER ENGINEERS, INC.
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(DP-4) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
DP-4												
1/30/2004	XX	GWDP4X039			4.5	0.001 U	40		105	5.1	24	4.5
5/6/2004	XX	GWXXXX00D			3.2	0.004	54		55	1.26	23	3.4
7/26/2004	XX	GWXXXX041			2.5	0.004	50		32	1.75	9.3	1.27
10/26/2004	XX	GWXXXX07H			1.8	0.005	74		19	0.73	5.2	0.88
5/9/2005	XX	GWXXXX13I	0.01 U	0.006	1.8	0.003 J	50	0.0002 U	26	0.6	8.3	1.04
8/1/2005	XX	GWXXXX176	0.001 U	0.004 J	1.5	0.001 U	35	0.0002 U	32	0.67	9.2	1.24
9/20/2005	XX	GWXXXX1A4	0.001 J	0.002 U	1.6	0.003 J	29	0.0002 J	38	0.5	10.5	1.31
5/22/2006	XX	GWXXXX1EJ	0.003	0.003 J	1.1	0.001 J	7.3	0.0012	26	0.72	5.7	0.77
7/24/2006	XX	GWXXXX1HG	0.001 U	0.002 U	1	0.001 U	10.4	0.0002 U	37	0.51	10.5	1.42
9/11/2006	XX	GWXXXX209	0.001 U	0.002 J	1.4	0.004	13.4	0.0003 J	42	0.57	10.5	1.44
5/14/2007	XX	GWXXXX23G	0.007	0.002 U	2.1	0.004	8	0.0008	34	0.94	9.7	1.67
7/23/2007	XX	GWXXXX280	0.001 U	0.003 J	1.5	0.001 U	7.3	0.0005 J	37	0.65	10.5	2
9/10/2007	XX	GWXXXX2AA	0.002 J	0.005	1.3	0.001 U	8.8	0.0006	42	0.88	10.5	1.75
5/19/2008	XX	GWXXXX2E4	0.003 U	0.004 J	1.5	0.003 J	7.9	0.001 U	44.9	1.91	12	2.29
7/29/2008	XX	GWXXXX2H8	0.001 U	0.004 J	1.3	0.002 U	7.4	0.0002 U	42.2	0.67	11	2.32
10/27/2008	XX	GWXXXX2JI	0.01 U	0.005	1.3	0.002 U	7.3	0.0002 U	37.4	1.18	9.8	1.98
4/13/2009	XX	GWXXXX336	0.005	0.006	1.5	0.002 J	8	0.0005 J	45.7	2.26	12.4	2.71
7/6/2009	XX	GWXXXX37A	0.001 J	0.005	1.4	0.009	9.3	0.0002 J	46.5	1.32	12.4	2.33
10/26/2009	XX	GWXXXX3F5	0.003	0.007	1.7	0.015	9.4	0.0008	38.6	1.02	9.9	1.96
4/26/2010	XX	GWXXXX404	0.001 U	0.002 U	1.2	0.008	7.9	0.0002 J	28	0.69	7.2	1.79
7/19/2010	XX	GWXXXX438	0.001 U	0.002 U	1.3	0.016	8.9	0.0002 U	31.9	0.61	8.7	1.38
10/18/2010	XX	GWXXXX46C	0.001 J	0.002 J	1.5	0.009	9	0.0002 U	30.9	0.34	7.2	1.4
4/25/2011	XX	GWXXXX4AD	0.001 U	0.002 U	1.1	0.012	8.3	0.0002 U	26.3	0.28	7.2	1.48
7/18/2011	XX	GWXXXX4EB	0.001 U	0.002 U	1.1	0.016	8.8	0.0007	25.5	0.22	7.4	1.38
10/24/2011	XX	GWXXXX4I6	0.001 U	0.002 U	1.3	0.002 U	10.3	0.0002 U	29.2	0.24	8	1.68
4/25/2012	XX	GWXXXX52G	0.003 U	0.005 U	1.1	0.011	10.2	0.0006 U	29.2	0.55	7.7	1.85
7/25/2012	XX	GWXXXX57F	0.003 U	0.005 U	1.3	0.011	10.5	0.0006 U	25.8	0.46	7.6	1.59
10/24/2012	XX	GWXXXX5E6	0.003 U	0.005 U	1.2	0.006	11.8	0.0006 U	25.2	0.52	7.9	1.92
4/24/2013	XX	GWXXXX5IH	0.003 U	0.005 U	1.3	0.011	10.8	0.0006 U	29.5	0.89	8.2	1.81
LF-COMP												
7/19/2011	XX	LFXXXX4F1	0.001 U	0.002 U	4.3	0.014	9	0.0002 U	44.3	0.02 U	10	0.02 U
4/24/2012	XX	LFXXXX53B	0.006	0.005 U	3.4	0.008	6.9	0.0006 U	41.4	0.1	9.2	0.05 U
LF-UD-1												
7/28/2004	XX	LFUD1X05E			2.7	0.003 J	5.9		31	0.02 J	8.4	0.02 U
10/27/2004	XX	LFUD1X076			2.1	0.002 J	5.8		25	0.02 U	7.4	0.02 U
5/11/2005	XX	LFUD1X137	0.01 J	0.01	1.9	0.001 J	6.8	0.0002 U	29	0.03 J	8.1	0.02 U
7/27/2005	XX	LFUD1X16F	0.001 J	0.002 U	1.8	0.002 J	6.4	0.0002 U	29	0.02 J	7.9	0.02 J
9/21/2005	XX	LFUD1X19D	0.003	0.002 U	1.8	0.001 J	7.1	0.0002 U	32	0.02 J	7.9	0.02 U
5/24/2006	XX	LFUD1X1E8	0.001 U	0.002 U	2	0.004	7.6	0.0004 J	30	0.02 J	8.5	0.02 U
7/25/2006	XX	LFUD1X1H5	0.002 J	0.002 U	2.4	0.001 J	8.6	0.0002 U	29	0.02 J	8.5	0.02 U
9/11/2006	XX	LFUD1X1JI	0.001 U	0.003 J	2	0.002 J	9.1	0.0006	33	0.3	9.5	0.02 J
5/16/2007	XX	LFUD1X235	0.003	0.002 U	4	0.002 J	9.4	0.001	36	0.02 U	10.5	0.02 J
7/25/2007	XX	LFUD1X279	0.002 J	0.002 U	2.5	0.001 J	8	0.0002 U	39	0.1	9.9	0.02 U
9/12/2007	XX	LFUD1X29J	I	I	I	I	I	I	I	I	I	I
5/20/2008	XX	LFUD1X2DD	0.003 U	0.003 U	2.3	0.005 J	8.3	0.001 U	40.4	0.02 J	10.4	0.02 U
7/28/2008	XX	LFUD1X2GH	0.001 U	0.002 U	2.2	0.002 U	6.8	0.0002 U	41.8	0.02 J	9.6	0.02 U
10/28/2008	XX	LFUD1X2J7	0.01 U	0.002 U	2.4	0.002 U	7.8	0.0002 U	45.1	0.02 U	10.6	0.02 U

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(LF-UD-1) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
4/15/2009	XX	LFUD1X32F	0.001 U	0.002 U	2.8	0.002 U	8.2	0.0002 U	53.6	0.02 U	11.3	0.02 U
7/8/2009	XX	LFUD1X36J	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
10/27/2009	XX	LFUD1X3EE	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/27/2010	XX	LFUD1X3JD	0.001 U	0.002 U	3.1	0.007	7.6	0.0002 U	47	0.02 J	10.6	0.02 U
7/20/2010	XX	LFUD1X42H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/19/2010	XX	LFUD1X461	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFUD1X4A2	0.001 U	0.002 U	3.3	0.014	8	0.0004 J	42.8	0.02 U	9.3	0.02 U
7/19/2011	XX	LFUD1X4E0	0.001 U	0.002 U	4.1	0.014	9.1	0.0002 U	45.2	0.03 J	9.8	0.02 U
10/25/2011	XX	LFUD1X4HF	0.001 U	0.002 U	3.1	0.002 U	8.4	0.0002 U	43.2	0.03 J	11.4	0.02 U
4/24/2012	XX	LFUD1X525	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFUD1X574	0.004	0.005 U	3.5	0.007	8.7	0.0006 U	44.3	0.13	12.2	0.05 U
10/23/2012	XX	LFUD1X5DF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LFUD1X5I6	0.003 U	0.005 U	3.7	0.012	7.9	0.0006 U	44.4	0.05 U	10.5	0.05 U
7/30/2013	XX	LFUD1X64B		0.005 U	3.2	0.015	7.1	0.0006 U	49.7	0.05 U	10.8	0.05 U
10/29/2013	XX	LFUD1X674		F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-2												
7/28/2004	XX	LFUD2X05F			2.5	0.003 J	5.4		29	0.04 J	8	0.02 U
10/27/2004	XX	LFUD2X077			2	0.006	5.2		25	0.02 U	7.2	0.02 J
5/11/2005	XX	LFUD2X138	0.01 U	0.002 J	2	0.002 J	5.7	0.0002 U	20	0.04 J	6.1	0.02 U
7/27/2005	XX	LFUD2X16G	0.001 U	0.002 U	2	0.001 J	6.9	0.0002 U	29	0.02 J	8.1	0.02 J
9/21/2005	XX	LFUD2X19E	0.003	0.002 U	1.9	0.002 J	6.1	0.0002 U	30	0.02 J	7	0.02 U
5/24/2006	XX	LFUD2X1E9	0.001 U	0.002 U	2.1	0.004	5.7	0.0005 J	23	0.05 J	6.6	0.02 U
7/25/2006	XX	LFUD2X1H6	0.001 J	0.002 U	2.4	0.001 J	6	0.0002 J	26	0.02 J	7.1	0.02 U
9/11/2006	XX	LFUD2X1JJ	0.001 U	0.002 J	3.2	0.003 J	18.1	0.0004 J	38	0.18	11	0.02 U
5/16/2007	XX	LFUD2X236	0.001 J	0.002 J	3.6	0.004	6.4	0.0003 J	30	0.02 U	8.2	0.02 J
7/25/2007	XX	LFUD2X27A	0.001 J	0.002 U	2.5	0.001 U	5.9	0.0002 U	30	0.05 J	8.1	0.02 U
9/12/2007	XX	LFUD2X2A0	0.001 U	0.002 U	2.3	0.001 U	5.8	0.0002 U	35	0.02 U	8	0.02 J
5/20/2008	XX	LFUD2X2DE	0.003 U	0.003 U	2.4	0.003 J	5.5	0.001 U	34.1	0.02 U	8.2	0.02 U
7/28/2008	XX	LFUD2X2GI	0.001 U	0.002 U	2.3	0.002 U	5.4	0.0002 U	33.5	0.02 J	7.9	0.02 U
10/29/2008	XX	LFUD2X2J8	0.01 U	0.002 U	2.3	0.002 U	5.2	0.0002 U	33.9	0.02 U	7.8	0.02 U
4/15/2009	XX	LFUD2X32G	0.001 U	0.002 U	2.9	0.004 J	6.1	0.0002 U	38.8	0.02 U	8.8	0.02 U
7/8/2009	XX	LFUD2X370	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
10/27/2009	XX	LFUD2X3EF	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/27/2010	XX	LFUD2X3JE	0.001 U	0.002 U	3.3	0.005	6.6	0.0002 U	44.8	0.03 J	9.8	0.02 U
7/20/2010	XX	LFUD2X42I	0.001 U	0.002 U	3.3	0.013	6.2	0.0002 U	50.5	0.02 U	10.9	0.02 U
10/19/2010	XX	LFUD2X462	0.001 U	0.002 U	5	0.01	9.9	0.0002 U	64.3	0.13	12.3	0.02 J
4/26/2011	XX	LFUD2X4A3	0.001 U	0.002 U	2.6	0.009	5.2	0.0003 J	30.7	0.02 U	8	0.02 U
7/19/2011	XX	LFUD2X4E1	0.001 U	0.002 U	2.6	0.014	6.1	0.0002 U	33.6	0.02 U	8.9	0.02 U
10/25/2011	XX	LFUD2X4HG	0.001 J	0.002 U	2.7	0.002 U	5.9	0.0002 U	34.2	0.02 U	8.9	0.02 U
4/24/2012	XX	LFUD2X526	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFUD2X575	0.003 U	0.005 U	3.1	0.005 U	6.7	0.0006 U	39	0.05 U	10.4	0.05 U
10/23/2012	XX	LFUD2X5DG	0.003 U	0.005 U	2.7	0.01	6.3	0.0006 U	35.6	0.05 U	9.9	0.05 U
4/23/2013	XX	LFUD2X5I7	0.003 U	0.005 U	3	0.011	6.8	0.0006 U	36.3	0.05 U	9.6	0.05 U
7/30/2013	XX	LFUD2X64C		0.005 U	2.6	0.012	6.2	0.0006 U	40.3	0.05 U	10.3	0.05 U
10/29/2013	XX	LFUD2X675		0.005 U	3.4	0.008	7.3	0.0006 U	50.5	0.05 U	10.7	0.05 U
LF-UD-3A,B												
5/16/2007	XX	LFUD3X246	0.002 J	0.002 U	3.3	0.003 J	8.9	0.0004 J	60	0.02 U	11.5	0.02 U
7/25/2007	XX	LFUD3X288	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6

SUMMARY REPORT

Metal (part 1 of 1)

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

(LF-UD-3A,B)

Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
9/12/2007	XX	LFUD3X2AI	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
5/20/2008	XX	LFUD3X2EE	0.003 U	0.003 U	2.9	0.003 U	6	0.001 U	46.4	0.02 U	8.2	0.12
7/28/2008	XX	LFUD3X2HG	D	D	D	D	D	D	D	D	D	D
10/29/2008	XX	LFUD3X306	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/15/2009	XX	LFXXXX33F	0.001 U	0.002 U	2	0.003 J	8.4	0.0002 U	69.9	0.02 U	12.5	0.02 U
7/8/2009	XX	LFXXXX37I	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
10/27/2009	XX	LFXXXX3FC	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/27/2010	XX	LFXXXX40C	0.001 U	0.002 U	1.8	0.005	9.5	0.0002 U	57.4	0.02 U	10.7	0.02 U
7/20/2010	XX	LFXXXX43G	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/19/2010	XX	LFXXXX46J	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFXXXX4B1	0.001 U	0.002 U	1.8	0.01	7.2	0.0004 J	47.2	0.02 U	8.8	0.06
7/19/2011	XX	LFXXXX4EJ	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
10/25/2011	XX	LFXXXX4IC	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LFXXXX534	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFXXXX581	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/23/2012	XX	LFXXXX5EC	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LFXXXX5J5	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LFXXXX65A		F6	F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFXXXX67J		F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-4												
4/15/2009	XX	LFXXXX34A	0.001 U	0.002 U	4.9	0.002 J	10.2	0.0002 U	51.9	0.02 U	11.8	0.02 U
7/8/2009	XX	LFXXXX380	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
10/27/2009	XX	LFXXXX3FE	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/27/2010	XX	LFXXXX40E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/20/2010	XX	LFXXXX43I	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/19/2010	XX	LFXXXX471	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LFXXXX4B3	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
7/19/2011	XX	LFXXXXHG2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
10/25/2011	XX	LFXXXX4GA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LFXXXX536	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFXXXX582	0.003 U	0.005 U	5.8	0.007	10.6	0.0006 U	63.5	0.05 U	12.1	0.05 U
10/23/2012	XX	LFXXXX5CA	0.003 U	0.005 U	3.8	0.011	8.4	0.0006 U	48.6	0.05 U	11.1	0.05 U
4/23/2013	XX	LFXXXX5J6	0.003 U	0.005 U	3.7	0.012	8.2	0.0006 U	44.8	0.05 U	10.6	0.05 U
7/30/2013	XX	LFXXXX65B		F6	F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFXXXX680		0.005 U	3.4	0.009	7.4	0.0006 U	49.4	0.05 U	10.9	0.05 U
LF-UD-5												
4/27/2010	XX	LFXXXX40F	0.001 U	0.002 U	3.9	0.004 J	6	0.0002 U	46	0.02 U	9.6	0.02 U
LF-UD-5and6												
7/20/2010	XX	LFXXXX43J	0.001 U	0.002 U	4.9	0.007	7.1	0.0002 U	58.1	0.05	11.7	0.02 U
10/19/2010	XX	LFXXXX472	0.001 U	0.002 U	4.8	0.007	8.1	0.0002 U	58.1	0.42	11.6	0.05
4/26/2011	XX	LFXXXX4B4	0.001 U	0.002 U	5.7	0.017	8.8	0.0004 J	64.6	0.02 U	13.3	0.02 U
7/19/2011	XX	LFXXXX4F2	0.001 U	0.002 U	5.5	0.012	10.2	0.0002 U	59.1	0.15	13.6	0.02 U
10/25/2011	XX	LFXXXX4G7	0.003	0.007	7	0.008	10	0.0002 U	71.3	11.3	15.4	0.25
4/24/2012	XX	LFXXXX537	0.004	0.005 U	5.3	0.008	9.8	0.0006 U	65.9	0.05	12.9	0.05 U
7/24/2012	XX	LFXXXX584	0.003	0.005 U	5.5	0.01	9.8	0.0006 U	68.3	0.05 U	14.1	0.05 U
10/23/2012	XX	LFXXXX5C7	0.003 U	0.005 U	4.8	0.014	8.7	0.0006 U	52.5	0.26	11.9	0.05
4/23/2013	XX	LFXXXX5J7	0.003 U	0.005 U	4	0.009	6.7	0.0006 U	42.8	0.05	8.4	0.05 U
7/30/2013	XX	LFXXXX65C		0.005 U	3.4	0.016	6.2	0.0006 U	48.5	0.08	9.4	0.05 U

(LF-UD-5and6) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
10/29/2013	XX	LFXXXX681		0.005 U	3.9	0.009	7.7	0.0006 U	56.1	0.05 U	11.4	0.05 U
LF-UD-6												
4/26/2011	XX	LFUD6X4B6	0.001 U	0.002 U	5	0.02	11.3	0.0006	81.2	0.02 U	16.7	0.02 U
7/19/2011	XX	LFUD6X4F4	0.007	0.013	5.9	0.003 J	9.6	0.0002 U	83.1	6.28	17.6	0.17
10/25/2011	XX	LFUD6X4G9	0.002 J	0.007	5.1	0.006	8.7	0.0007	94.1	0.02 U	18.6	0.02 U
4/24/2012	XX	LFUD6X539	0.004	0.005 U	4.7	0.007	7.9	0.0006 U	75.7	0.05 U	15.9	0.05 U
7/24/2012	XX	LFUD6X586	0.003	0.005 U	5.3	0.011	26.5	0.0006 U	96.4	0.05 U	22.2	0.05 U
10/23/2012	XX	LFUD6X5C9	0.003 U	0.005 U	5.1	0.025	64.1	0.0006 U	83.7	0.05 U	23.7	0.05 U
4/23/2013	XX	LFUD6X5J9	0.003 U	0.005 U	3.3	0.015	39.7	0.0006 U	62	0.05 U	14.7	0.05 U
7/30/2013	XX	LFUD6X65E		0.005 U	4.3	0.023	74.3	0.0006 U	86.3	0.05 U	24.2	0.05 U
10/29/2013	XX	LFUD6X683		0.005 U	4.4	0.019	73.6	0.0006 U	85.6	0.06	25.4	0.05 U
LF-UD-7												
4/24/2012	XX	LFUD7X53A	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
7/24/2012	XX	LFXXXX587	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/23/2012	XX	LFXXXX5EF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LFUD7X5JA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LFUD7X65F		F6	F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LFUD7X684		F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8												
4/23/2013	XX	LFUD8X5JD	0.003 U	0.005 U	3.7	0.014	6.9	0.0006 U	39.3	0.05 U	9	0.05 U
7/30/2013	XX	LFUD8X65G		0.005 U	3.7	0.013	7.1	0.0006 U	50.1	0.05 U	10.7	0.05 U
10/29/2013	XX	LFUD8X685		0.005 U	3.7	0.009	7.3	0.0006 U	49.1	0.05 U	11.1	0.05 U
LP-COMP												
10/27/2004	XX	LPCOMPHD2			33	0.001 J	62		60	0.02 J	22	0.02 J
LP-LD-1												
7/28/2004	XX	LPLD1X05I			32	0.006	51		100	0.2	21	0.02 J
10/27/2004	XX	LPLD1X07A			22	0.001 J	37		55	0.41	9.3	0.03 J
5/11/2005	XX	LPLD1X13B	0.01 U	0.002 U	4.2	0.004	2.8	0.0002 U	6.6	0.47	1.1	0.02 J
7/27/2005	XX	LPLD1X16J	0.002 J	0.002 J	6.5	0.001 U	9.7	0.0002 U	65	0.03 J	6.9	0.06
9/21/2005	XX	LPLD1X19H	0.004	0.005	58	0.005	68	0.0002 U	75	0.44	28	0.28
5/24/2006	XX	LPLD1X1EC	0.001 J	0.002 J	8.7	0.001 J	12	0.0002 U	27	0.19	4.6	0.02 U
7/25/2006	XX	LPLD1X1H9	0.001 J	0.002 U	8.3	0.005	26	0.0002 U	75	0.15	12	0.02 J
9/11/2006	XX	LPLD1X202	0.004	0.006	11.5	0.005	45	0.0015	105	0.16	16	0.02 J
5/16/2007	XX	LPLD1X239	0.003	0.002 J	4.5	0.003 J	22	0.0009	80	0.18	21	0.03 J
7/25/2007	XX	LPLD1X27D	0.001 J	0.002 U	18	0.001 U	35	0.0002 U	115	0.17	15	0.25
9/12/2007	XX	LPLD1X2A3	0.001 U	0.005	18	0.001 U	42	0.0002 J	140	4.7	16	1.56
5/20/2008	XX	LPLD1X2DH	0.003 U	0.003 U	9.3	0.003 U	2.7	0.001 U	14.5	0.08	1.3	0.02 U
7/28/2008	XX	LPLD1X2H1	0.002 J	0.002 U	17.3	0.002 U	5.3	0.0002 U	19.4	0.05	1.6	0.06
10/29/2008	XX	LPLD1X2JB	0.01 U	0.002 U	24.9	0.002 U	7.4	0.0002 U	35.4	0.05	2.8	0.02 U
4/15/2009	XX	LPLD1X32J	0.001 U	0.002 U	6.2	0.002 J	21.3	0.0002 U	94.6	0.02 J	14.8	0.05
7/8/2009	XX	LPLD1X373	0.001 J	0.002 U	2.1	0.003 J	8.1	0.0002 U	14.6	0.39	2	0.04 J
10/27/2009	XX	LPLD1X3EI	0.001 U	0.002 J	7.1	0.002 J	7.7	0.0006	17.9	0.02 U	1.2	0.02 U
LP-UD-1												
7/28/2004	XX	LPUD1X05G			D	D	D		D	D	D	D
10/27/2004	XX	LPUD1X078			H2	H2	H2		H2	H2	H2	H2
5/11/2005	XX	LPUD1X139	D	D	D	D	D	D	D	D	D	D

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

(LP-UD-1) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
7/27/2005	XX	LPUD1X16H	D	D	D	D	D	D	D	D	D	D
9/21/2005	XX	LPUD1X19F	D	D	D	D	D	D	D	D	D	D
5/24/2006	XX	LPUD1X1EA	D	D	D	D	D	D	D	D	D	D
7/26/2006	XX	LPUD1X1H7	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
9/11/2006	XX	LPUD1X200	D	D	D	D	D	D	D	D	D	D
5/16/2007	XX	LPUD1X237	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/25/2007	XX	LPUD1X27B	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
9/12/2007	XX	LPUD1X2A1	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
5/20/2008	XX	LPUD1X2DF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/28/2008	XX	LPUD1X2GJ	D	D	D	D	D	D	D	D	D	D
10/29/2008	XX	LPUD1X2J9	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/15/2009	XX	LPUD1X32H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/8/2009	XX	LPUD1X371	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/27/2009	XX	LPUD1X3EG	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/27/2010	XX	LPUD1X3JF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/20/2010	XX	LPUD1X42J	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/19/2010	XX	LPUD1X463	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/19/2011	XX	LPUD1X4E2	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/25/2011	XX	LPUD1X4HH	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LPUD1X527	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/24/2012	XX	LPUD1X576	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
10/23/2012	XX	LPUD1X5DH	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
7/30/2013	XX	LPUD1X64D		F6	F6	F6	F6	F6	F6	F6	F6	F6
10/29/2013	XX	LPUD1X676		F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-2												
7/28/2004	XX	LPUD2X05H			8	0.003 J	24		60	0.03 J	16.5	0.02 J
10/27/2004	XX	LPUD2X079			25	0.003 J	58		60	0.02 J	21	0.02 U
5/11/2005	XX	LPUD2X13A	0.01 J	0.007	8.4	0.002 J	23	0.0002 U	36	0.04 J	12.5	0.02 U
7/27/2005	XX	LPUD2X16I	0.001 U	0.002 U	3.7	0.002 J	21	0.0002 U	40	0.04 J	12.5	0.02 J
9/21/2005	XX	LPUD2X19G	0.003	0.002 J	5.3	0.002 J	25	0.0002 U	42	0.02 J	12	0.02 U
5/24/2006	XX	LPUD2X1EB	0.003	0.002 U	4.2	0.003 J	17	0.0002 J	34	0.13	10.5	0.05
7/25/2006	XX	LPUD2X1H8	0.001 J	0.002 J	4	0.002 J	17.6	0.0002 U	33	0.04 J	10.5	0.02 U
9/11/2006	XX	LPUD2X201	0.001 U	0.002 J	2.3	0.006	7	0.0016	31	0.02 J	8.1	0.02 U
5/16/2007	XX	LPUD2X238	0.002 J	0.002 J	4.3	0.002 J	15.9	0.0005 J	37	0.07	12.5	0.02 J
7/25/2007	XX	LPUD2X27C	0.001 J	0.002 U	4.2	0.001 J	14.5	0.0002 J	34	0.06	10.5	0.02 U
9/12/2007	XX	LPUD2X2A2	0.001 J	0.002 U	2.9	0.001 U	12.6	0.0002 U	38	0.02 U	10.5	0.02 U
5/20/2008	XX	LPUD2X2DG	0.003 U	0.003 U	3	0.003 J	12.1	0.001 U	36.9	0.02 U	10.9	0.02 U
7/28/2008	XX	LPUD2X2H0	0.001 U	0.002 U	3.1	0.002 U	10.6	0.0002 U	33.5	0.02 J	9.2	0.02 U
10/29/2008	XX	LPUD2X2JA	0.01 U	0.002 U	3.2	0.002 U	9.9	0.0002 U	34.4	0.02 U	9.9	0.02 U
4/15/2009	XX	LPUD2X32I	0.001 U	0.002 U	2.7	0.002 U	9.2	0.0002 U	36.8	0.02 U	10.2	0.02 U
7/8/2009	XX	LPUD2X372	0.001 J	0.002 J	3.1	0.005	10.4	0.0003 J	38.1	0.07	10.1	0.02 U
10/27/2009	XX	LPUD2X3EH	0.001 J	0.003 J	2.8	0.003 J	7.6	0.0007	28.8	0.02 U	7.7	0.03 J
4/27/2010	XX	LPUD2X3JG	0.001 U	0.002 U	2.3	0.004 J	8.5	0.0002 U	37.8	0.05	10.9	0.02 U
7/20/2010	XX	LPUD2X430	0.001 U	0.002 U	2.5	0.011	8.9	0.0002 U	37	0.06	10.3	0.02 U
10/19/2010	XX	LPUD2X464	0.001 U	0.002 U	2.3	0.005	8.7	0.0002 U	34.5	0.02 U	9.5	0.02 U
4/26/2011	XX	LPUD2X4A5	0.001 U	0.002 U	2.4	0.008	8.5	0.0003 J	32.6	0.02 U	10.6	0.02 U
7/19/2011	XX	LPUD2X4E3	0.008	0.004 J	2.7	0.002 J	9.3	0.0002 U	31.5	2.86	10.2	0.36

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(LP-UD-2) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
10/25/2011	XX	LPUD2X4HI	0.006	0.002 U	2.8	0.002 U	9.6	0.0002 U	33.1	0.88	10.7	0.08
4/24/2012	XX	LPUD2X528	0.005	0.005 U	2.9	0.006	8.5	0.0006 U	29.9	0.11	9.7	0.05 U
7/24/2012	XX	LPUD2X577	0.003	0.005 U	3.2	0.008	9.7	0.0006	40.5	0.05 U	11.7	0.05 U
10/23/2012	XX	LPUD2X5DI	0.003 U	0.005 U	2.4	0.012	9	0.0006 U	29.9	0.05 U	10	0.05 U
4/23/2013	XX	LPUD2X5I9	0.003 U	0.005 U	2.3	0.011	8	0.0006 U	33.9	0.05 U	10.4	0.05 U
7/30/2013	XX	LPUD2X64E		0.005 U	2.5	0.011	8.1	0.0006 U	37.1	0.05 U	10.8	0.05 U
10/29/2013	XX	LPUD2X677		0.005 U	2.2	0.01	7.9	0.0006 U	36.4	0.05 U	11.4	0.05 U
MW04-102												
1/18/2005	XX	GW102X10C	0.001 J	0.003 J	1.2	0.001 U	9.8	0.0002 J	25	0.1	6.6	0.08
3/21/2005	XX	GW102X144	0.001 U	0.002 U	1.5	0.001 U	11	0.0008	25	0.02 J	6.4	0.02 U
7/25/2005	XX	GW102X17I	0.001 U	0.002 U	2.5	0.003 J	9	0.0002 J	29	0.1	7.4	0.09
9/20/2005	XX	GW102X1A9	0.001 J	0.006	1.8	0.002 J	9.2	0.0002 U	27	0.03 J	6.7	0.02 U
5/23/2006	XX	GW102X1F4	0.001 U	0.002 U	2.3	0.001 U	8.7	0.0008	25	0.04 J	6.7	0.02 U
7/25/2006	XX	GW102X1I0	0.002 J	0.012	2.5	0.005	8.9	0.0002 U	25	0.02 U	7.1	0.02 U
9/12/2006	XX	GW102X20D	0.001 U	0.002 U	3.2	0.002 J	10.1	0.0002 U	28	0.13	7.3	0.02 U
5/15/2007	XX	GW102X240	0.004	0.003 J	2.6	0.004	8.7	0.001	25	0.06	7.2	0.03 J
7/24/2007	XX	GW102X284	0.002 J	0.002 J	2.4	0.001 U	8.1	0.0002 J	24	0.05 J	8	0.02 J
9/11/2007	XX	GW102X2AE	0.001 J	0.002 U	1.9	0.001 U	8.2	0.0004 J	27	0.04 J	6.9	0.02 J
5/20/2008	XX	GW102X2E8	0.003 U	0.003 U	1.8	0.003 J	7.5	0.001 U	27	0.02 U	7.2	0.02 U
7/29/2008	XX	GW102X2HC	0.001 U	0.002 U	1.7	0.002 U	6.8	0.0002 U	25.5	0.05	6.7	0.02 U
10/27/2008	XX	GW102X302	0.01 U	0.002 U	1.6	0.002 U	6.4	0.0002 U	24.1	0.04 J	6.5	0.02 U
4/14/2009	XX	GW102X339	0.001 U	0.002 U	1.7	0.002 U	7.3	0.0002 U	28.1	0.02 J	7.5	0.02 U
7/7/2009	XX	GW102X37D	0.003	0.002 U	1.7	0.002 U	7.2	0.0005 J	27.6	0.02 J	6.9	0.02 U
10/27/2009	XX	GW102X3F8	0.001 U	0.002 U	1.7	0.004 J	6.8	0.0002 U	26.7	0.02 U	7	0.02 U
4/27/2010	XX	GW102X407	0.001 U	0.002 U	1.6	0.004 J	6.9	0.0002 U	27.1	0.02 J	7	0.02 U
7/21/2010	XX	GW102X43B	0.001 U	0.002 U	1.7	0.006	6.6	0.0002 U	26.1	0.02 U	6.8	0.02 U
10/19/2010	XX	GW102X46F	0.001 U	0.002 U	1.8	0.003 J	7.3	0.0002 U	27.1	0.02 U	7	0.02 U
4/25/2011	XX	GW102X4AG	0.001 U	0.002 U	1.7	0.005	6.9	0.0002 U	26.3	0.02 J	7.5	0.02 U
7/19/2011	XX	GW102X4EE	0.001 U	0.002 U	1.7	0.002 U	7.1	0.0002 U	26.8	0.02 U	7.2	0.02 U
10/25/2011	XX	GW102X4I9	0.001 U	0.003 J	2	0.004 J	7.6	0.0002 U	25.4	0.02 U	7.5	0.02 U
4/24/2012	XX	GW102X52J	0.003 U	0.005 U	1.7	0.005	6.9	0.0006 U	23.5	0.05 U	7.8	0.05 U
7/24/2012	XX	GW102X57I	0.003 U	0.005 U	1.9	0.005 U	7.9	0.0006 U	25	0.05 U	7.6	0.05 U
10/22/2012	XX	GW102X5E9	0.003 U	0.005 U	2	0.005 U	8.9	0.0006	31.2	0.05 U	8.1	0.05 U
4/23/2013	XX	GW102X5J0	0.003 U	0.005 U	1.6	0.008	7.1	0.0006 U	24.2	0.05 U	7	0.05 U
7/31/2013	XX	GW102X655		0.005 U	1.5	0.017	7	0.0008	27.5	0.05 U	7.4	0.05 U
10/28/2013	XX	GW102X67F		0.005 U	2.1	0.013	8.2	0.0006 U	25.6	0.05 U	7.1	0.05 U
MW04-105												
1/17/2005	XX	GW105X10F	0.005	0.002 J	2	0.001 U	19	0.0004 J	54	0.11	18	0.98
3/21/2005	XX	GW105X147	0.001 U	0.002 U	1.9	0.001 U	16	0.0002 U	75	0.02 J	27	0.19
7/25/2005	XX	GW105X181	0.002 J	0.002 U	1.9	0.003 J	15	0.0002 U	65	0.05 J	26	0.35
9/20/2005	XX	GW105X1AC	0.002 J	0.002 U	1.6	0.002 J	18	0.0002 U	60	0.06	30	0.25
5/23/2006	XX	GW105X1F7	0.001 U	0.003 J	2	0.001 U	12	0.0004 J	36	0.05 J	13.5	0.42
7/25/2006	XX	GW105X1I1	0.003	0.004 J	2.2	0.003 J	18	0.0002 U	42	0.07	16	0.34
7/25/2006	XD	GWDP3X1GI	0.003	0.004 J	2	0.002 J	18.9	0.0002 U	38	0.08	13	0.34
9/12/2006	XX	GW105X20E	0.001 U	0.002 J	2.8	0.001 U	26	0.0002 U	48	0.06	17	0.14
5/14/2007	XX	GW105X241	0.002 J	0.002 U	1.9	0.003 J	19	0.0009	36	0.05 J	13.5	0.2
5/14/2007	XD	GWDP3X22I	0.001 J	0.002 U	2.3	0.002 J	19.5	0.0009	35	0.05 J	13.5	0.2
7/24/2007	XX	GW105X285	0.001 U	0.003 J	1.9	0.002 J	31	0.0003 J	60	0.04 J	15	0.04 J

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(MW04-105) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
7/24/2007	XD	GWDP3X272	0.001 U	0.002 J	1.9	0.001 J	29	0.0003 J	60	0.04 J	15.5	0.03 J
9/10/2007	XX	GW105X2AF	0.001 J	0.002 U	1.7	0.001 U	32	0.0002 J	75	0.03 J	17	0.03 J
5/19/2008	XX	GW105X2E9	0.003 U	0.003 U	2.2	0.004 J	25.3	0.001 U	49.9	0.06	17.8	0.03 J
5/19/2008	XD	GWDP3X2D6	0.003 U	0.003 U	2.1	0.005 J	24.3	0.001 U	49.2	0.06	17.1	0.02 J
7/29/2008	XX	GW105X2HD	0.002 J	0.002 U	1.7	0.002 U	25.2	0.0002 U	42.9	0.1	15.4	0.06
7/29/2008	XD	GWDP3X2GA	0.001 U	0.002 U	1.7	0.002 U	24.1	0.0002 U	41.7	0.1	14.9	0.09
10/27/2008	XX	GW105X303	0.01 U	0.002 U	2	0.002 U	20.9	0.0002 U	41.1	0.04 J	14.8	0.06
10/27/2008	XD	GWDP1X305	0.01 U	0.002 U	1.6	0.002 U	23.2	0.0003 J	38.3	0.05	13	0.04 J
4/15/2009	XD	GWDP3X328	0.001 U	0.002 U	1.6	0.002 U	13.7	0.0002 U	29.8	0.04 J	9.6	0.02 J
4/15/2009	XX	GW105X33A	0.001 U	0.002 U	1.6	0.002 U	15.3	0.0002 U	31.4	0.05	10.3	0.02 U
7/7/2009	XX	GW105X37E	0.002 J	0.002 J	1.4	0.004 J	22.6	0.0003 J	36.5	0.07	12.1	0.04 J
7/7/2009	XD	GWDP1X361	0.001 U	0.002 J	1.7	0.002 J	20.3	0.0002 U	34.7	0.07	11.8	0.05
10/26/2009	XD	GWDP1X3DG	0.001 U	0.003 J	1.3	0.014	19.6	0.0019	32.1	0.04 J	10.7	0.03 J
10/26/2009	XX	GW105X3F9	0.001 U	0.004 J	1.6	0.014	20.8	0.0021	35.2	0.02 U	11.6	0.03 J
4/27/2010	XD	GWDP3X3J6	0.001 U	0.002 U	1.3	0.007	16.4	0.0002 U	28.2	0.02 U	9.8	0.02 U
4/27/2010	XX	GW105X408	0.001 U	0.002 U	1.3	0.005	16.7	0.0003 J	30.1	0.02 U	9.9	0.02 U
7/19/2010	XX	GW105X43C	0.001 U	0.002 U	1.3	0.013	17.3	0.0002 U	31.2	0.02 U	10.6	0.02 U
10/18/2010	XD	GWDP3X45E	0.001 U	0.002 U	1.7	0.014	18.9	0.0002 U	33.6	0.12	12.4	0.04 J
10/18/2010	XX	GW105X46G	0.001 U	0.002 U	1.4	0.013	17.7	0.0002 U	32.8	0.02 J	11.6	0.08
4/26/2011	XX	GW105X4AH	0.001 U	0.002 J	1.4	0.01	13.4	0.0002 U	27.2	0.03 J	10	0.02 U
4/26/2011	XD	GWDP3X49F	0.001 U	0.002 J	1.5	0.012	13.3	0.0002 U	27.4	0.02 J	9.7	0.02 U
7/18/2011	XX	GW105X4EF	0.001 U	0.002 U	1.3	0.006	14.9	0.0008	28.3	0.02 U	10.9	0.02 J
10/25/2011	XD	GWDP1X4GH	0.001 U	0.002 U	1.5	0.002 U	13	0.0002 U	26.3	0.03 J	9.8	0.03 J
10/25/2011	XX	GW105X4IA	0.001 U	0.002 U	1.3	0.002 U	11	0.0002 U	22.7	0.02 U	8.4	0.05
4/23/2012	XD	GWDP3X51I	0.003 U	0.005 U	1.5	0.005 U	12	0.0006 U	21.9	0.05 U	9	0.05 U
4/23/2012	XX	GW105X530	0.003 U	0.005 U	1.5	0.005 U	12.1	0.0006 U	23.7	0.05 U	9.1	0.05 U
7/24/2012	XX	GW105X57J	0.003 U	0.005 U	1.4	0.005 U	12.4	0.0006 U	27	0.05 U	11.3	0.08
10/22/2012	XD	GWDP1X5CH	0.003 U	0.005 U	1.3	0.006	8.4	0.0006 U	22.4	0.05 U	8.7	0.53
10/22/2012	XX	GW105X5EA	0.003 U	0.005 U	1.3	0.007	8.7	0.0006 U	27	0.05 U	9.2	0.59
4/24/2013	XD	GWDP3X5HJ	0.003 U	0.005 U	1.3	0.01	8.6	0.0006 U	25.8	0.05 U	9.1	0.05 U
4/24/2013	XX	GW105X5J1	0.003 U	0.005 U	1.3	0.012	8.4	0.0006 U	25.9	0.05 U	9.1	0.05 U
MW04-109												
1/19/2005	XD	GWDP1X110	0.002 J	0.002 U	2.2	0.001 U	72	0.0002 U	52	0.02 J	17	0.21
1/19/2005	XX	GW109X10I	0.002 J	0.002 U	2.3	0.001 U	70	0.0002 U	54	0.02 J	17.5	0.22
3/23/2005	XX	GW109X14A	0.001 U	0.002 U	2.1	0.003 J	55	0.0004 J	50	0.02 J	16.5	0.08
7/26/2005	XX	GW109X184	0.001 J	0.002 U	2.4	0.002 J	45	0.0002 U	42	0.04 J	15.5	0.11
7/26/2005	XD	GWDP5X186	0.001 U	0.002 U	2.4	0.002 J	44	0.0002 U	41	0.04 J	15	0.1
9/20/2005	XX	GW109X1AF	0.001 U	0.002 U	2.1	0.003 J	40	0.0002 U	46	0.03 J	16.5	0.07
9/20/2005	XD	GWDP5X1AH	0.001 U	0.002 J	1.9	0.002 J	43	0.0002 U	45	0.03 J	18	0.07
5/23/2006	XX	GW109X1FA	0.007	0.002 U	2	0.003 J	22	0.0002 U	47	0.06	16.5	0.06
5/23/2006	XD	GWDP3X1E1	0.007	0.002 J	2.1	0.002 J	23	0.0002 U	48	0.07	16	0.05
7/25/2006	XX	GW109X1I2	0.002 J	0.002 J	2	0.006	19.2	0.0002 U	40	0.02 J	14	0.05
9/12/2006	XD	GWDP1X1J0	0.001 U	0.004 J	4.9	0.001 U	21	0.0003 J	42	0.05 J	13.5	0.06
9/12/2006	XX	GW109X20F	0.001 U	0.004 J	5.4	0.001 U	19.5	0.0002 U	42	0.06	14	0.06
5/15/2007	XX	GW109X242	0.001 J	0.004 J	2.1	0.003 J	13.5	0.0002 J	40	0.06	14	0.07
7/24/2007	XX	GW109X286	0.002 J	0.002 J	2	0.001 J	12.6	0.0002 J	32	0.03 J	16.5	0.04 J
9/10/2007	XD	GWDP5X2AH	0.001 U	0.002 U	1.7	0.001 U	12.1	0.0002 J	39	0.05 J	10.5	0.05
9/10/2007	XX	GW109X2AG	0.001 U	0.002 U	1.7	0.001 U	12	0.0004 J	38	0.06	10.5	0.04 J
5/19/2008	XX	GW109X2EA	0.003 U	0.003 U	2.7	0.003 J	15.4	0.001 U	81.2	0.06	25.4	0.11

SUMMARY REPORT

Metal (part 1 of 1)

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(MW04-109) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L					
7/29/2008	XX	GW109X2HE	0.001 U	0.002 J	3.1	0.002 U	21.6	0.0002 U	70.5	0.03 J	21.4	0.13					
10/28/2008	XX	GW109X304	0.01 U	0.002 U	3	0.002 U	22.9	0.0002 J	62.7	0.03 J	19.3	0.21					
4/15/2009	XX	GW109X33B	0.001 U	0.002 J	2.5	0.003 J	19.7	0.0002 U	76.3	0.06	19.3	0.2					
7/7/2009	XX	GW109X37F	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE					
MW04-109R																	
12/8/2009	XX	GW109X3GF	0.001 J	0.002 U	2.5	0.033	9	0.0006	77.2	0.03 J	14.3	0.15					
4/27/2010	XX	GW109X409	0.001 U	0.002 U	1.9	0.008	9.1	0.0002 U	54.9	0.02 U	12.4	0.03 J					
7/20/2010	XX	GW109X43D	0.001 U	0.002 U	2.1	0.023	9.5	0.0002 U	64.2	0.02 U	12.7	0.04 J					
10/19/2010	XX	GW109X46H	0.001 U	0.002 U	2.2	0.014	10.3	0.0002 U	69.1	0.02 U	13.6	0.04 J					
4/26/2011	XX	GW109X4AI	0.001 U	0.002 U	2.2	0.014	9.1	0.0002 U	62.7	0.02 U	11.8	0.02 J					
7/19/2011	XX	GW109X4EG	0.001 U	0.002 U	2.1	0.01	8.3	0.0002 U	55.7	0.02 U	10.7	0.03 J					
10/25/2011	XX	GW109X4IB	0.001 U	0.002 U	2.2	0.002 U	9.6	0.0006	57.7	0.02 U	11	0.03 J					
4/24/2012	XX	GW109X531	0.003 U	0.005 U	2.2	0.008	10.6	0.0006 U	50.3	0.05 U	10.1	0.05 U					
7/24/2012	XX	GW109X580	0.003 U	0.005 U	2.2	0.009	10	0.0006 U	52.8	0.05 U	10.9	0.05 U					
10/23/2012	XX	GW109X5EB	0.003 U	0.005 U	2	0.017	9.8	0.0006 U	54	0.05 U	11	0.06					
4/23/2013	XX	GW109X5J2	0.003 U	0.005 U	2	0.017	9	0.0006 U	54.1	0.05 U	9.7	0.05 U					
7/30/2013	XX	GW109X657		0.005 U	1.8	0.016	8.2	0.0006 U	62.5	0.05 U	10.8	0.1					
10/29/2013	XX	GW109X67G		0.005 U	1.9	0.015	8.4	0.0006 U	58.5	0.05 U	10.9	0.15					
MW09-901																	
12/8/2009	XX	GW901X3GH	0.001 J	0.002 J	2.6	0.013	11.9	0.0003 J	29.6	0.18	7.1	0.39					
4/27/2010	XX	GW901X3J7	0.001 U	0.002 U	2.5	0.005	8.2	0.0002 U	27.4	0.03 J	6.9	0.1					
7/20/2010	XX	GW901X42B	0.001 U	0.002 U	2.3	0.01	7.7	0.0002 U	28.5	0.05	7.1	0.04 J					
10/19/2010	XX	GW901X45F	0.001 U	0.002 U	2.5	0.008	17.4	0.0002 U	29.4	0.02 U	8	0.09					
4/26/2011	XX	GW901X49G	0.001 U	0.002 U	2.1	0.007	6	0.0002 U	23.3	0.02 U	6.1	0.02 U					
7/19/2011	XX	GW901X4DE	0.001 U	0.002 U	1.8	0.002 J	5.9	0.0002 U	21.3	0.02 U	5.9	0.02 U					
10/25/2011	XX	GW901X4H9	0.001 U	0.003 J	2	0.002 U	6.2	0.0002 U	21	0.02 U	6.1	0.02 U					
4/24/2012	XX	GW901X51J	0.003 U	0.005 U	1.6	0.005	5.2	0.0006 U	18.8	0.05 U	5.4	0.05 U					
7/24/2012	XX	GW901X56I	0.003	0.005 U	1.8	0.005	5.5	0.0006	21.2	0.05 U	6	0.05 U					
10/23/2012	XX	GW901X5D9	0.003 U	0.005 U	1.8	0.008	6.4	0.0006 U	19.9	0.05 U	6	0.05 U					
4/23/2013	XX	GW901X5I0	0.003	0.005 U	1.7	0.009	5.1	0.0006 U	19.1	0.05 U	5.4	0.05 U					
7/30/2013	XX	GW901X645		0.005 U	1.5	0.01	4.9	0.0006 U	21.8	0.05 U	5.9	0.05 U					
10/29/2013	XX	GW901X66I		0.005 U	1.7	0.009	5.9	0.0006 U	22.5	0.05 U	6.1	0.05 U					
MW11-207R																	
7/20/2011	XX	GW207X4CH	0.001 U	0.002 U	0.5	0.008	3.6	0.0005 J	8.2	0.02 U	2.6	0.02 U					
10/24/2011	XX	GW207X4GC	0.001 U	0.002 U	0.5	0.004 J	3.6	0.0002 U	8.5	0.02 U	2.9	0.02 U					
4/23/2012	XX	GW207X512	0.003 U	0.005 U	0.5	0.005 U	3.7	0.0006 U	7.9	0.05 U	2.9	0.05 U					
7/23/2012	XX	GW207X561	0.003 U	0.005 U	0.4	0.005 U	3.3	0.0006 U	8.3	0.05 U	2.7	0.05 U					
10/22/2012	XX	GW207X5CC	0.003 U	0.005 U	0.5	0.005 U	3.9	0.0006 U	9.3	0.05 U	3.3	0.05 U					
4/22/2013	XX	GW207X5H3	0.003 U	0.005 U	0.5	0.005 U	3.8	0.0006 U	8.1	0.05 U	2.8	0.05 U					
7/29/2013	XX	GW207X638		0.005 U	0.4	0.005 U	3.1	0.0006 U	9	0.05 U	2.9	0.05 U					
10/28/2013	XX	GW207X661		0.005 U	0.5	0.007	3.7	0.0006 U	8.7	0.05 U	3	0.05 U					
MW-204																	
1/29/2004	XX	GW204X03A			1.6	0.001 U	8.1		32	0.02 J	9.4	0.02 J					
5/4/2004	XX	GW204X008	0.009	0.002 J	1.1	0.004	6.2	0.0002 J	27	0.05 J	8.5	0.02 J					
7/27/2004	XX	GW204X03G	0.001 J	0.002 U	1.7	0.006	6	0.0002 U	24	0.06	8.6	0.02 U					
10/25/2004	XX	GW204X07D			1.3	0.004	6.1		25	0.02 J	9.3	0.02 U					
5/9/2005	XX	GW204X13E	0.01 U	0.003 J	1.1	0.005	6.8	0.0002 U	20	0.04 J	7.3	0.02 J					

(MW-204) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
8/1/2005	XX	GW204X172	0.002 J	0.002 U	1.2	0.001 J	7.3	0.0002 U	26	0.04 J	8.7	0.02 J
9/20/2005	XX	GW204X1A0	0.004	0.002 U	1.3	0.001 U	8.2	0.0002 J	35	0.05 J	10.5	0.02 U
5/23/2006	XX	GW204X1EF	0.004	0.002 U	1.2	0.001 U	7	0.0002 U	22	0.05 J	7.2	0.02 U
7/24/2006	XX	GW204X1HC	0.001 U	0.002 U	1.2	0.001 U	7.4	0.0002 U	22	0.03 J	7	0.02 J
9/11/2006	XX	GW204X205	0.001 U	0.002 U	1.1	0.001 J	8.6	0.0002 J	22	0.03 J	7.6	0.02 J
5/14/2007	XX	GW204X23C	0.01	0.002 U	3.3	0.002 J	8.9	0.0005 J	21	0.03 J	7.1	0.02 J
7/23/2007	XX	GW204X27G	0.001 U	0.003 J	1.3	0.001 U	8.7	0.0002 U	23	0.05 J	8	0.02 U
9/10/2007	XX	GW204X2A6	0.002 J	0.004 J	1.2	0.001 U	10.6	0.0002 U	30	0.02 J	9.2	0.02 J
5/21/2008	XX	GW204X2E0	0.003 U	0.003 U	1.1	0.003 J	8.4	0.001 U	25.8	0.03 J	7.8	0.02 U
7/30/2008	XX	GW204X2H4	0.001 U	0.002 U	1	0.002 U	7.8	0.0002 U	23.1	0.08	6.8	0.02 U
10/28/2008	XX	GW204X2JE	0.01 U	0.002 U	1.1	0.002 U	8.7	0.0002 U	25.1	0.04 J	7.6	0.02 U
4/13/2009	XX	GW204X332	0.001 U	0.002 U	1.1	0.002 U	7.6	0.0002 U	23.2	0.03 J	7.3	0.02 U
7/6/2009	XX	GW204X376	0.001 U	0.002 J	0.9	0.005	7.2	0.0002 U	21.4	0.04 J	6.1	0.02 U
10/26/2009	XX	GW204X3F1	0.001 U	0.002 U	1.1	0.009	8.1	0.0003 J	24.8	0.02 U	7.1	0.02 U
4/28/2010	XX	GW204X400	0.001 U	0.002 U	0.9	0.003 J	6.3	0.0002 U	20.2	0.02 J	5.9	0.02 U
7/19/2010	XX	GW204X434	0.001 U	0.002 U	0.9	0.006	7	0.0002 U	21.1	0.02 U	6.1	0.02 U
10/19/2010	XX	GW204X468	0.001 U	0.002 U	1	0.004 J	7.5	0.0002 U	20.6	0.02 U	6	0.02 U
4/26/2011	XX	GW204X4A9	0.001 U	0.002 J	1	0.009	6.7	0.0002 U	19.5	0.02 U	6.3	0.02 U
7/19/2011	XX	GW204X4E7	0.001 U	0.002 U	0.9	0.01	7	0.0006	20	0.02 U	5.9	0.02 J
10/26/2011	XX	GW204X4I2	0.001 U	0.002 U	1	0.002 U	6.7	0.0002 U	19.8	0.02 U	5.6	0.02 U
4/24/2012	XX	GW204X52C	0.003 U	0.005 U	0.9	0.005	6.2	0.0006 U	16.7	0.05 U	5.6	0.05 U
7/23/2012	XX	GW204X57B	0.003 U	0.005 U	0.9	0.005 U	7	0.0006 U	18.4	0.25	5.7	0.05 U
10/24/2012	XX	GW204X5E2	0.003 U	0.005 U	1	0.005	7.8	0.0006 U	17.9	0.05	6.4	0.05 U
4/24/2013	XX	GW204X5ID	0.003 U	0.005 U	0.9	0.008	6.8	0.0006 U	19.6	0.05 U	6	0.05 U
MW-207												
5/5/2004	XX	GW207X011			0.9	0.002 J	8.3		13	0.29	4.9	1.16
7/28/2004	XX	GW207X048			1.2	0.007	3.1		12	1.55	5.3	1.37
10/25/2004	XX	GW207X063			1	0.009	2.9		16	1.58	6.1	1.53
5/12/2005	XX	GW207X124	0.01 U	0.002 J	3.1	0.001 J	4.5	0.0002 J	13	2.2	5.4	1.44
8/1/2005	XX	GW207X15C	0.001 J	0.003 J	0.9	0.004	3.9	0.0002 U	15	2.2	5.6	1.34
9/19/2005	XD	GWDP1X18F	0.002 J	0.002 U	0.5	0.009	4	0.0002 U	17	1.98	5.4	1.36
9/19/2005	XX	GW207X18A	0.001 J	0.002 U	0.5	0.009	3.8	0.0003 J	17	2	5.4	1.38
5/22/2006	XX	GW207X1D5	0.001 U	0.003 J	1	0.01	3.8	0.0004 J	14	2.6	5.3	1.28
7/25/2006	XX	GW207X1G2	0.002 J	0.005	1.2	0.011	3.5	0.0002 J	16	2.3	6	1.38
9/11/2006	XX	GW207X1IF	0.001 U	0.003 J	0.9	0.01	4.3	0.0004 J	19	2.1	6.7	1.34
5/14/2007	XX	GW207X222	0.006	0.002 U	1.2	0.002 J	4.7	0.0005 J	20	0.34	6.9	0.46
7/25/2007	XX	GW207X266	0.002 J	0.002 U	1.3	0.001 J	4	0.0005 J	22	3	7.9	1.82
9/10/2007	XX	GW207X28G	0.001 J	0.004 J	3.9	0.003 J	4.7	0.0006	31	4.7	9.1	2
5/19/2008	XX	GW207X2CA	0.003 U	0.003 U	1.2	0.003 U	3.2	0.001 U	31.6	1.05	8.9	0.47
7/29/2008	XX	GW207X2FE	0.001 U	0.002 J	1.3	0.002 U	3.2	0.0002 U	29.6	1.73	7.9	1.9
10/28/2008	XX	GW207X2I4	0.01 U	0.002 J	1.3	0.003 J	2.9	0.0002 U	35.2	5.51	9.4	2.24
4/13/2009	XX	GW207X31C	0.001 U	0.002 J	6.1	0.007	3.7	0.0002 U	34	7.48	9.6	3.47
7/6/2009	XX	GW207X35G	0.001 U	0.002 J	5.8	0.021	4.4	0.0003 J	39.3	11.6	9.5	3.42
10/26/2009	XX	GW207X3DB	0.001 J	0.013	4.5	0.046	5.8	0.0002 J	43.7	17.6	14.1	4.02
4/26/2010	XX	GW207X3IA	0.001 U	0.003 J	2.4	0.012	5.5	0.0002 U	46.5	12.2	19.5	4.33
7/19/2010	XX	GW207X41E	0.001 J	0.002 U	0.9	0.011	4.9	0.0002 J	14.9	2.26	5.2	1.26
10/18/2010	XX	GW207X44I	0.001 U	0.002 U	3.7	0.041	6.4	0.0002 U	55.4	23.2	19.1	5.48
4/25/2011	XX	GW207X48J	0.001 U	0.005	3	0.043	5.6	0.0002 U	47.6	19.8	20.3	5.79

(MW-206) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
MW-206												
5/6/2004	XX	GW206X010			1	0.004	5.7		16	0.08	4.6	0.02 J
7/28/2004	XX	GW206X047			1.8	0.006	5.6		13	0.02 J	4.7	0.02 U
10/26/2004	XX	GW206X062			1	0.006	5.1		15	0.3	4.5	0.02 J
5/11/2005	XX	GW206X123	0.01 U	0.003 J	0.8	0.005	7	0.0005 J	14	0.13	4.3	0.02 U
7/28/2005	XX	GW206X15B	0.001 U	0.002 U	0.8	0.005	6.4	0.0002 U	15	0.12	4.6	0.03 J
9/19/2005	XX	GW206X189	0.002 J	0.002 U	0.6	0.007	4.5	0.0002 U	15	0.03 J	4.8	0.02 J
5/24/2006	XX	GW206X1D4	0.001 J	0.002 U	0.8	0.007	5.9	0.0008	13	0.03 J	4.4	0.02 U
7/25/2006	XX	GW206X1G1	0.001 J	0.002 U	0.9	0.008	5.6	0.0002 U	14	0.04 J	4.6	0.02 U
9/12/2006	XX	GW206X1IE	0.001 U	0.002 U	0.8	0.001 J	8	0.0002 U	14	0.03 J	4.5	0.02 U
5/14/2007	XX	GW206X221	0.011	0.002 U	0.3	0.006	7.2	0.0006	16	0.06	4.6	0.02 J
7/25/2007	XX	GW206X265	0.001 U	0.002 U	0.8	0.004	5.8	0.0006	14	0.06	4.6	0.02 U
9/11/2007	XX	GW206X28F	0.001 U	0.002 U	1	0.001 J	5.2	0.0009	16	0.02 J	4.4	0.02 U
5/20/2008	XX	GW206X2C9	0.003 U	0.003 U	0.7	0.006 J	4.9	0.001 U	16	0.02 U	4.6	0.02 U
7/29/2008	XX	GW206X2FD	0.001 J	0.002 U	0.8	0.003 J	4.9	0.0002 U	15.3	0.08	4.5	0.02 U
10/27/2008	XX	GW206X2I3	0.01 U	0.002 U	0.6	0.003 J	4.4	0.0002 U	14.5	0.05	4.2	0.02 U
4/13/2009	XX	GW206X31B	0.001 U	0.002 U	0.8	0.004 J	5.1	0.0003 J	16.8	0.02 U	5.1	0.02 U
7/6/2009	XX	GW206X35F	0.001 U	0.002 U	0.7	0.007	5.1	0.0002 U	16.1	0.02 J	4.7	0.02 U
10/28/2009	XX	GW206X3DA	0.001 U	0.002 U	0.7	0.009	4.8	0.0002 U	17	0.02 U	4.7	0.02 U
4/26/2010	XX	GW206X3I9	0.001 U	0.002 U	0.8	0.005	4.8	0.0002 U	14.5	0.02 U	4	0.02 U
7/19/2010	XX	GW206X41D	0.001 U	0.002 U	2.5	0.01	4.9	0.0005 J	14.8	0.02 U	4.3	0.02 U
10/18/2010	XX	GW206X44H	0.001 J	0.002 U	1.5	0.015	6.5	0.0002 U	27.2	1.2	6.9	0.32
4/25/2011	XX	GW206X48I	0.001 U	0.002 U	0.9	0.009	5	0.0002 U	16.4	0.32	5.1	0.02 J
7/18/2011	XX	GW206X4CG	0.004	0.003 J	0.9	0.005	5.2	0.0011	16.3	0.91	4.9	0.04 J
10/24/2011	XX	GW206X4GB	0.001 U	0.002 U	0.8	0.005	5	0.0002 U	15.9	0.18	5	0.02 U
4/23/2012	XX	GW206X511	0.003 U	0.005 U	0.9	0.006	5.5	0.0006 U	15.2	0.29	5.2	0.05 U
7/23/2012	XX	GW206X560	0.003 U	0.005 U	0.8	0.006	4.6	0.0006 U	14.8	0.13	4.6	0.05 U
7/23/2012	XD	GWDP4X573	0.003 U	0.005 U	0.8	0.005	4.7	0.0006 U	14.7	0.24	4.6	0.05 U
10/22/2012	XX	GW206X5CB	0.003 U	0.005 U	0.8	0.01	5.3	0.0006 U	17.6	0.33	5.3	0.05 U
4/22/2013	XX	GW206X5H2	0.003 U	0.005 U	0.8	0.008	5.1	0.0006 U	14.5	0.05 U	4.8	0.05 U
7/29/2013	XX	GW206X637		0.005 U	0.6	0.008	4.1	0.0006 U	15.7	0.05 U	4.7	0.05 U
7/29/2013	XD	GWDP4X64A		0.005 U	0.6	0.008	4.3	0.0006 U	15.4	0.05 U	4.7	0.05 U
10/28/2013	XX	GW206X660		0.005 U	0.9	0.013	5.2	0.0006 U	16	0.05 U	4.9	0.05 U
MW-212												
5/5/2004	XX	GW212X00B	0.001 J	0.002 J	0.5	0.008	3.6	0.0002 J	3.8	0.11	1.09	0.02 J
7/27/2004	XX	GW212X03J	D	D	D	D	D	D	D	D	D	D
10/27/2004	XX	GW212X07F			D	D	D		D	D	D	D
5/12/2005	XX	GW212X13G	0.01 U	0.002 U	1.4	0.001 J	22	0.0002 J	3	0.34	0.91	0.03 J
8/1/2005	XX	GW212X174	0.002 J	0.002 U	0.4	0.001 U	3.4	0.0002 U	2.1	0.15	1	0.02 U
9/20/2005	XX	GW212X1A2	I	I	I	I	I	I	I	I	I	I
5/22/2006	XX	GW212X1EH	0.001 U	0.002 U	0.6	0.002 J	4.9	0.0002 U	2.1	0.16	0.85	0.02 U
7/25/2006	XX	GW212X1HE	0.001 J	0.002 U	0.7	0.002 J	3.4	0.0002 U	2.5	0.13	0.97	0.02 J
9/11/2006	XX	GW212X207	I	I	I	I	I	I	I	I	I	I
5/14/2007	XX	GW212X23E	0.006	0.002 U	0.2 J	0.001 J	5.5	0.0002 J	3.5	0.16	1.25	0.02 U
7/24/2007	XX	GW212X27I	D	D	D	D	D	D	D	D	D	D
9/10/2007	XX	GW212X2A8	D	D	D	D	D	D	D	D	D	D
5/19/2008	XX	GW212X2E2	0.003 U	0.003 U	0.5	0.003 U	5.5	0.001 U	7	0.06	2	0.02 U
7/29/2008	XX	GW212X2H6	D	D	D	D	D	D	D	D	D	D

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(MW-212) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
10/28/2008	XX	GW212X2JG	D	D	D	D	D	D	D	D	D	D
4/13/2009	XX	GW212X334	0.001 U	0.002 U	0.9	0.002 U	24.9	0.0002 J	10.9	0.03 J	2.8	0.02 U
7/6/2009	XX	GW212X378	0.002 J	0.002 J	0.9	0.006	8.9	0.0002 J	11.4	1.77	3	0.16
10/26/2009	XX	GW212X3F3	D	D	D	D	D	D	D	D	D	D
4/26/2010	XX	GW212X402	0.001 U	0.002 U	1	0.003 J	17.4	0.0002 U	18.8	0.06	4.6	0.02 U
7/19/2010	XX	GW212X436	D	D	D	D	D	D	D	D	D	D
10/18/2010	XX	GW212X46A	D	D	D	D	D	D	D	D	D	D
4/25/2011	XX	GW212X4AB	0.001 U	0.002 U	0.8	0.009	33.3	0.0002 J	8.6	0.07	2.1	0.02 U
7/18/2011	XX	GW212X4E9	D	D	D	D	D	D	D	D	D	D
10/24/2011	XX	GW212X4I4	D	D	D	D	D	D	D	D	D	D
4/23/2012	XX	GW212X52E	D	D	D	D	D	D	D	D	D	D
7/23/2012	XX	GW212X57D	D	D	D	D	D	D	D	D	D	D
10/22/2012	XX	GW212X5E4	D	D	D	D	D	D	D	D	D	D
4/22/2013	XX	GW212X5IF	D	D	D	D	D	D	D	D	D	D
MW-216B												
5/6/2004	XX	GW216B013			0.8	0.002 J	4.8		14	0.06	5.1	0.03 J
5/6/2004	XD	GWDP1X017			0.8	0.002 J	4.9		14	0.05 J	5	0.03 J
7/26/2004	XX	GW216B049			1	0.006	4.6		8.1	0.03 J	4.8	0.06
10/26/2004	XD	GWDP1X068			1.8	0.004	4		4.4	0.02 J	3.1	0.1
10/26/2004	XX	GW216B064			2	0.005	4		4.5	0.03 J	3.2	0.1
5/10/2005	XX	GW216B125	0.01 J	0.004 J	0.4	0.001 J	4.5	0.0002 U	4.9	0.08	3.2	0.05
7/27/2005	XX	GW216B15D	0.001 U	0.002 J	0.9	0.002 J	5.8	0.0002 U	15	0.02 J	7	0.09
7/27/2005	XD	GWDP3X168	0.001 U	0.002 J	0.7	0.001 U	5.9	0.0002 U	14	0.02 J	7.1	0.1
9/22/2005	XX	GW216B18B	0.002 J	0.003 J	0.4	0.001 U	4.9	0.0002 U	6.2	0.04 J	3.2	0.12
5/23/2006	XX	GW216B1D6	0.001 J	0.1	2.6	0.011	11	0.0002 U	14	20	6.2	2.6
7/25/2006	XD	GWDP1X1G7	0.002 J	0.073	1.3	0.011	5.7	0.0006	6.4	13.5	4.4	1.41
7/25/2006	XX	GW216B1G3	0.002 J	0.067	1.4	0.011	5.7	0.0008	6.3	13	4.5	1.42
9/12/2006	XX	GW216B1IG	0.001 U	0.046	1.3	0.005	4.5	0.0002 U	4.3	11	3.8	1.09
5/15/2007	XX	GW216B223	0.002 J	0.018	0.5	0.004	5.4	0.0006	7.7	6.2	5.7	0.8
7/24/2007	XX	GW216B267	0.004	0.01	0.8	0.001 J	4.8	0.0003 J	10	3.8	5.2	0.49
7/24/2007	XD	GWDP1X26B	0.004	0.012	0.7	0.001 J	5.1	0.0003 J	11	3.8	5.3	0.5
9/10/2007	XX	GW216B28H	0.001 J	0.002 U	1.1	0.001 J	7.9	0.0002 J	12	1.53	4.9	0.45
5/20/2008	XX	GW216B2CB	0.003 U	0.094	1.5	0.007 J	7.4	0.001 J	20.9	1.49	8.8	0.89
7/28/2008	XX	GW216B2FF	0.001 U	0.032	1.2	0.002 U	11	0.0002 U	34.6	2.95	13.8	1
7/28/2008	XD	GWDP1X2FJ	0.001 U	0.032	1.2	0.002 U	10.8	0.0002 U	34.4	3.21	13.8	1.01
10/28/2008	XX	GW216B2I5	0.01 U	0.013	0.7	0.002 J	6.6	0.0002 U	13.9	3.29	7.4	0.61
4/14/2009	XX	GW216B31D	0.001 U	0.045	0.5	0.002 J	4.9	0.0002 U	11.3	1.88	6	0.54
7/7/2009	XX	GW216B35H	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE
MW-216BR												
12/8/2009	XX	GW216B3GG	0.001 U	0.002 J	2.4	0.015	18.8	0.0002 U	30.7	0.13	11	0.68
4/27/2010	XX	GW216B3IB	0.001 U	0.002 U	1.7	0.007	15.9	0.0002 U	27	0.25	9.8	0.17
7/20/2010	XX	GW216B41F	0.001 U	0.002 U	1.5	0.011	14.9	0.0002 U	24	0.19	8.8	0.14
10/19/2010	XX	GW216B44J	0.001 U	0.002 U	1.6	0.008	15.8	0.0002 U	25.2	0.19	9.2	0.12
4/26/2011	XX	GW216B490	0.001 U	0.002 U	2	0.021	12.8	0.0002 U	35.8	0.25	14.4	0.1
7/19/2011	XX	GW216B4CI	0.001 U	0.002 U	1.8	0.016	15.2	0.0008	37.9	0.21	13.9	0.09
10/25/2011	XX	GW216B4GD	0.001 J	0.002 U	2.2	0.004 J	14.3	0.0003 J	41.4	0.2	17.1	0.09
4/24/2012	XX	GW216B513	0.003 U	0.005 U	1.8	0.012	11.3	0.0006 U	41.3	0.18	16.5	0.08
7/24/2012	XX	GW216B562	0.003	0.005 U	2.2	0.012	12.2	0.0006 U	43.8	0.15	18.2	0.07

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(MW-216BR) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
10/23/2012	XX	GW216B5CD	0.003 U	0.005 U	1.8	0.016	10.6	0.0006 U	34.8	0.09	14.5	0.06
4/23/2013	XX	GW216B5H4	0.003 U	0.005 U	1.8	0.019	9.2	0.0006 U	32	0.05 U	13.1	0.07
7/30/2013	XX	GW216B639		0.005 U	1.5	0.015	8.1	0.0006 U	36.1	0.08	13.7	0.06
MW-223A												
5/5/2004	XX	GW223A014			0.7	0.004	3.4		23	0.04 J	3.7	0.02 U
7/28/2004	XX	GW223A04A			1.3	0.001 U	3.6		29	0.02 J	3.3	0.02 U
7/28/2004	XD	GWDP1X04D			1.2	0.001 U	3.5		30	0.03 J	3.3	0.02 U
10/25/2004	XX	GW223A065			0.7	0.001 U	3		27	0.06	3.3	0.02 J
5/10/2005	XD	GWDP3X130	0.01 U	0.009	0.7	0.002 J	3.9	0.0002 U	29	0.06	3.2	0.02 U
5/10/2005	XX	GW223A126	0.01 U	0.008	0.6	0.002 J	3.8	0.0002 U	28	0.07	3.1	0.02 U
7/26/2005	XX	GW223A15E	0.002 J	0.002 U	0.7	0.001 U	4	0.0002 U	28	0.05 J	3.3	0.02 U
9/21/2005	XX	GW223A18C	0.003	0.002 U	0.5	0.001 J	9.8	0.0002 U	29	0.02 J	3.1	0.02 U
5/24/2006	XX	GW223A1D7	0.002 J	0.004 J	1	0.011	3.6	0.0002 J	28	0.05 J	3.1	0.02 U
5/24/2006	XD	GWDP1X1DA	0.001 J	0.004 J	0.9	0.01	3.7	0.0003 J	29	0.05 J	3	0.02 U
7/26/2006	XD	GWDP5X1I3	0.001 J	0.002 U	0.6	0.003 J	3.5	0.0002 U	27	0.07	3.2	0.02 U
7/26/2006	XX	GW223A1G4	0.001 J	0.002 U	0.8	0.003 J	3.6	0.0002 U	28	0.07	3.3	0.02 U
9/13/2006	XD	GWDP5X20G	0.001 U	0.003 J	0.5	0.001 U	3.9	0.0005 J	31	0.05 J	3.3	0.02 J
9/13/2006	XX	GW223A1IH	0.001 U	0.002 J	0.7	0.001 J	3.7	0.0006	30	0.07	3.2	0.02 J
5/15/2007	XD	GWDP1X227	0.002 J	0.002 U	0.5	0.002 J	3.6	0.0003 J	30	0.02 J	3.5	0.02 J
5/15/2007	XX	GW223A224	0.004	0.002 J	0.4	0.002 J	3.6	0.0003 J	29	0.03 J	3.5	0.02 J
7/24/2007	XD	GWDP5X287	0.001 J	0.002 U	0.4	0.001 J	3.4	0.0003 J	27	0.02 J	3.5	0.02 U
7/24/2007	XX	GW223A268	0.001 J	0.002 U	0.6	0.001 U	3.4	0.0005 J	28	0.02 J	3.7	0.02 U
9/11/2007	XX	GW223A28I	0.001 U	0.003 J	0.6	0.001 U	2.7	0.0005 J	32	0.03 J	3.2	0.02 J
5/20/2008	XD	GWDP1X2CF	0.003 U	0.003 U	0.4	0.003 U	2.7	0.001 U	34.7	0.02 U	3.8	0.02 U
5/20/2008	XX	GW223A2CC	0.003 U	0.003 U	0.4	0.003 U	2.7	0.001 U	34.8	0.02 U	3.9	0.02 U
7/30/2008	XX	GW223A2FG	0.001 U	0.002 U	0.5	0.002 U	2.9	0.0002 U	30.6	0.02 J	3.3	0.02 U
7/30/2008	XD	GWDP5X2HF	0.001 U	0.002 U	0.5	0.002 U	3	0.0002 U	31.3	0.05	3.4	0.02 U
10/28/2008	XX	GW223A2I6	0.01 U	0.002 U	0.6	0.002 U	2.9	0.0002 U	33.3	0.03 J	3.7	0.02 U
4/14/2009	XX	GW223A31E	0.001 U	0.002 U	0.8	0.002 U	4.6	0.0002 U	60.9	0.02 U	8.2	0.02 U
4/14/2009	XD	GWDP1X31H	0.001 U	0.002 U	0.8	0.002 U	4.8	0.0002 U	64.2	0.02 U	8.5	0.02 U
7/7/2009	XX	GW223A35I	0.001 J	0.002 J	0.5	0.002 U	3.3	0.0002 U	43.1	0.08	4.7	0.02 U
10/27/2009	XX	GW223A3DD	0.001 U	0.002 U	0.6	0.004 J	3.3	0.0002 U	43.9	0.02 J	4.8	0.02 U
10/27/2009	XD	GWDP4X3ED	0.001 U	0.002 U	0.6	0.003 J	3.4	0.0002 U	44.1	0.02 U	4.9	0.02 U
4/27/2010	XX	GW223A3IC	0.001 U	0.002 U	0.6	0.003 J	3.4	0.0002 U	48.6	0.02 U	5.2	0.02 U
4/27/2010	XD	GWDP1X3IF	0.001 U	0.002 U	0.6	0.004 J	3.5	0.0002 U	46.8	0.02 J	5.1	0.02 U
7/20/2010	XX	GW223A41G	0.001 U	0.002 U	0.6	0.006	3.5	0.0002 U	48.9	0.02 U	5.2	0.02 U
10/19/2010	XX	GW223A450	0.001 U	0.002 U	0.7	0.006	3.4	0.0002 U	48.7	0.02 U	5.4	0.02 U
10/19/2010	XD	GWDP1X453	0.001 U	0.002 U	0.6	0.006	3.5	0.0002 U	48.2	0.02 U	5.3	0.02 U
4/26/2011	XX	GW223A491	0.001 U	0.002 U	0.7	0.011	3.7	0.0002 J	53.3	0.02 U	6	0.02 U
4/26/2011	XD	GWDP1X494	0.001 U	0.002 U	0.7	0.012	3.9	0.0002 U	53.4	0.02 U	6	0.02 U
7/19/2011	XX	GW223A4CJ	0.001 U	0.002 U	0.7	0.005	3.5	0.0002 U	58.4	0.02 U	6.1	0.02 U
10/25/2011	XD	GWDP3X4H8	0.001 J	0.002 U	0.8	0.002 U	4.1	0.0002 U	56.8	0.02 U	6.6	0.02 U
10/25/2011	XX	GW223A4GE	0.001 U	0.002 U	0.8	0.002 U	4.1	0.0002 U	55.9	0.02 U	6.4	0.02 U
4/24/2012	XX	GW223A514	0.003 U	0.005 U	0.7	0.005	4	0.0006 U	54.4	0.05 U	6.5	0.05 U
4/24/2012	XD	GWDP1X517	0.003 U	0.005 U	0.7	0.006	3.7	0.0006 U	57.9	0.05 U	6.5	0.05 U
7/24/2012	XX	GW223A563	0.003	0.005 U	0.8	0.005 U	4.4	0.0006 U	60.7	0.05 U	7.2	0.05 U
10/23/2012	XD	GWDP3X5D8	0.003 U	0.005 U	0.7	0.007	4.5	0.0006 U	57.4	0.05 U	7.1	0.05 U
10/23/2012	XX	GW223A5CE	0.003 U	0.005 U	0.7	0.008	4.3	0.0006 U	61.5	0.05 U	7.2	0.05 U
4/23/2013	XX	GW223A5H5	0.003 U	0.005 U	0.9	0.012	4.7	0.0006 U	68.1	0.05 U	8	0.05 U

(MW-223A) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
4/23/2013	XD	GWDP1X5H8	0.003 U	0.005 U	0.8	0.011	4.4	0.0006 U	65.3	0.05 U	7.8	0.05 U
7/30/2013	XX	GW223A63A		0.005 U	0.7	0.01	4	0.0006 U	73.8	0.05 U	7.7	0.05 U
10/29/2013	XD	GWDP3X66H		0.005 U	0.8	0.012	4.4	0.0006 U	67.5	0.05 U	8.2	0.05 U
10/29/2013	XX	GW223A663		0.005 U	0.8	0.013	4.7	0.0006 U	74.1	0.05 U	9.1	0.05 U
MW-223B												
5/5/2004	XX	GW223B00A	0.002 J	0.002 J	0.7	0.002 J	4.3	0.0002 U	24	0.03 J	6.2	0.02 J
7/27/2004	XX	GW223B03I	0.002 J	0.002 U	1.3	0.002 J	3.2	0.0002 U	25	0.04 J	6.5	0.02 U
10/25/2004	XX	GW223B07E			0.8	0.002 J	3.8		25	0.14	6.4	0.02 U
5/10/2005	XX	GW223B13F	0.01 U	0.004 J	0.6	0.003 J	4.5	0.0002 U	24	0.07	6.3	0.02 U
7/26/2005	XX	GW223B173	0.001 U	0.002 U	0.7	0.001 U	5.2	0.0002 U	26	0.07	6.8	0.02 U
9/21/2005	XX	GW223B1A1	0.001 J	0.002 J	0.5	0.001 J	4.5	0.0002 U	26	0.04 J	6.5	0.02 U
5/24/2006	XX	GW223B1EG	0.001 J	0.002 U	0.6	0.009	4.6	0.0009	25	0.18	6.5	0.02 U
7/26/2006	XX	GW223B1HD	0.001 U	0.002 U	0.9	0.003 J	4.5	0.0002 U	25	0.06	6.7	0.02 U
9/13/2006	XX	GW223B206	0.001 J	0.002 U	0.7	0.001 J	4.9	0.0002 U	27	0.12	6.9	0.02 J
5/15/2007	XX	GW223B23D	0.002 J	0.002 U	0.3	0.002 J	4.5	0.0002 J	27	0.08	7.2	0.02 J
7/24/2007	XX	GW223B27H	0.001 J	0.002 U	0.6	0.001 U	4.1	0.0002 J	26	0.03 J	7.3	0.02 U
9/11/2007	XX	GW223B2A7	0.001 U	0.002 U	0.8	0.001 U	3.8	0.0002 U	30	0.07	7	0.02 J
5/20/2008	XX	GW223B2E1	0.003 U	0.003 U	0.5	0.003 U	3.9	0.001 U	35.2	0.04 J	8.9	0.02 U
7/30/2008	XX	GW223B2H5	0.001 U	0.002 U	0.7	0.002 U	4.2	0.0002 U	32.9	0.02 J	7.8	0.02 U
10/28/2008	XX	GW223B2JF	0.01 U	0.002 U	0.7	0.002 U	4.2	0.0002 U	35.8	0.03 J	8.7	0.02 U
4/14/2009	XX	GW223B333	0.001 U	0.002 U	0.7	0.002 U	4.6	0.0002 U	33.5	0.14	8.5	0.02 U
7/7/2009	XD	GWDP4X36I	0.001 U	0.002 U	0.6	0.002 U	4.5	0.0002 U	40	0.02 J	9.6	0.02 U
7/7/2009	XX	GW223B377	0.001 U	0.002 U	0.5	0.002 U	4.8	0.0002 U	37.8	0.02 J	9.4	0.02 U
10/27/2009	XX	GW223B3F2	0.001 U	0.003 J	0.7	0.005	4.4	0.001	41.9	0.02 U	9.7	0.02 U
4/27/2010	XX	GW223B401	0.001 U	0.002 U	0.6	0.005	4.2	0.0002 U	39.3	0.35	9.1	0.02 U
7/20/2010	XX	GW223B435	0.001 U	0.002 U	0.8	0.011	4.6	0.0002 U	40.8	0.58	9.8	0.09
7/20/2010	XD	GWDP1X41J	0.001 U	0.002 U	0.8	0.011	4.6	0.0002 U	41.9	0.57	10	0.09
10/19/2010	XX	GW223B469	0.001 U	0.002 U	0.8	0.007	4.4	0.0002 U	40.1	0.11	9.5	0.04 J
4/26/2011	XX	GW223B4AA	0.001 U	0.002 U	0.7	0.013	4.3	0.0002 U	40.2	0.02 J	10.3	0.02 U
7/19/2011	XD	GWDP3X4DD	0.001 U	0.002 U	1.9	0.006	4.3	0.0002 U	36.1	0.04 J	9.7	0.05
7/19/2011	XX	GW223B4E8	0.001 U	0.002 U	1.7	0.005	4.1	0.0002 U	37.8	0.04 J	9.5	0.04 J
10/25/2011	XX	GW223B4I3	0.001 U	0.002 U	2	0.002 U	4.8	0.0025	38.5	0.49	10.6	0.07
4/24/2012	XX	GW223B52D	0.003 U	0.005 U	0.6	0.005 U	4.2	0.0006 U	37	0.24	9.8	0.05 U
7/24/2012	XD	GWDP3X56H	0.003 U	0.005 U	0.8	0.005	4.6	0.0006 U	43.1	0.08	10.9	0.05 U
7/24/2012	XX	GW223B57C	0.003	0.005 U	0.8	0.005 U	4.6	0.0006 U	40.5	0.1	11	0.05 U
10/23/2012	XX	GW223B5E3	0.003 U	0.005 U	0.7	0.011	4.6	0.0006 U	39	0.09	10.7	0.05 U
4/23/2013	XX	GW223B5IE	0.003 U	0.005 U	0.7	0.009	4.7	0.0006 U	41.3	0.06	11.1	0.05 U
7/30/2013	XX	GW223B64J		0.005 U	0.7	0.008	4.3	0.0006 U	46.2	0.12	11.3	0.05 U
10/29/2013	XX	GW223B67C		0.005 U	0.8	0.008	4.9	0.0006 U	44.3	0.09	11.5	0.05 U
MW-227												
5/5/2004	XX	GW227X015			1	0.012	9		20	0.03 J	5.1	0.02 J
7/26/2004	XX	GW227X04B			1	0.012	6.2		21	0.03 J	5.3	0.02 U
10/26/2004	XX	GW227X066			1	0.016	11		22	0.04 J	5.2	0.06
5/9/2005	XX	GW227X127	0.01 U	0.004 J	1.2	0.016	7.5	0.0002 U	20	0.08	5.1	0.02 U
7/27/2005	XX	GW227X15F	0.001 U	0.002 U	1.1	0.012	7.4	0.0002 U	22	0.02 J	5.3	0.05
9/21/2005	XX	GW227X18D	0.001 U	0.002 U	0.6	0.01	7.2	0.0002 U	22	0.05 J	5.1	0.06
5/24/2006	XX	GW227X1D8	0.001 U	0.002 U	1.1	0.018	6.9	0.0007	21	0.07	5.1	0.02 U
7/26/2006	XX	GW227X1G5	0.001 J	0.002 U	0.9	0.015	6.8	0.0002 U	20	0.04 J	5.2	0.02 U

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(MW-227) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
9/13/2006	XX	GW227X1II	0.001 U	0.002 J	1.2	0.008	7.2	0.0002 U	23	0.06	5.3	0.02 J
5/15/2007	XX	GW227X225	0.004	0.002 U	0.7	0.009	6.8	0.0002 U	21	0.03 J	5.5	0.02 J
7/24/2007	XX	GW227X269	0.004	0.002 U	1.1	0.007	6.6	0.0003 J	21	0.02 J	5.5	0.02 U
9/11/2007	XX	GW227X28J	0.001 U	0.002 U	1.1	0.007	6	0.0002 U	22	0.05 J	5	0.02 J
5/20/2008	XX	GW227X2CD	0.003 U	0.003 U	0.9	0.009	5.6	0.001 U	23	0.05	5.6	0.02 U
7/30/2008	XX	GW227X2FH	0.001 U	0.002 U	1	0.009	5.5	0.0002 U	20.4	0.03 J	4.9	0.02 U
10/27/2008	XX	GW227X2I7	0.01 U	0.002 U	0.8	0.009	5.3	0.0002 U	20	0.03 J	4.9	0.02 U
4/14/2009	XX	GW227X31F	0.001 U	0.002 U	1	0.011	6.2	0.0002 U	24.3	0.02 J	5.9	0.02 U
7/7/2009	XX	GW227X35J	0.001 U	0.002 U	0.9	0.009	5.5	0.0002 U	23.6	0.02 J	5.1	0.02 U
10/27/2009	XX	GW227X3DE	0.001 U	0.002 J	1.1	0.013	5.6	0.0007	24.8	0.02 U	5.6	0.02 U
4/27/2010	XX	GW227X3ID	0.001 U	0.002 U	1.6	0.015	5.3	0.0002 U	21.7	0.05	5.1	0.02 U
7/20/2010	XX	GW227X41H	0.001 U	0.002 U	1	0.014	5.5	0.0002 U	21.2	0.08	5.2	0.02 U
10/19/2010	XX	GW227X451	0.001 U	0.002 U	1	0.014	5.2	0.0002 U	21.9	0.06	5.1	0.02 U
4/26/2011	XX	GW227X492	0.001 U	0.002 U	1	0.019	5.1	0.0002 U	21.4	0.02 U	5.5	0.02 U
7/19/2011	XX	GW227X4D0	0.001 U	0.002 U	0.9	0.012	5.3	0.0002 U	21.4	0.02 U	5.4	0.02 U
10/25/2011	XX	GW227X4GF	0.001 U	0.002 U	1.1	0.017	3.1	0.0026	20.5	0.06	5.6	0.02 U
4/24/2012	XX	GW227X515	0.003 U	0.005 U	1	0.012	5	0.0006 U	19.9	0.05 U	5.4	0.05 U
7/24/2012	XX	GW227X564	0.003 U	0.005 U	1.1	0.011	5.3	0.0006 U	22	0.05 U	5.7	0.05 U
10/23/2012	XX	GW227X5CF	0.003 U	0.005 U	1	0.014	5.5	0.0006 U	22.4	0.05 U	5.6	0.05 U
4/23/2013	XX	GW227X5H6	0.003 U	0.005 U	1.1	0.018	5.4	0.0006 U	22.1	0.05 U	5.5	0.05 U
7/30/2013	XX	GW227X63B		0.005 U	0.8	0.017	4.7	0.0006 U	22.8	0.05 U	5.5	0.05 U
7/30/2013	XD	GWDP3X644		0.005 U	0.8	0.016	4.8	0.0006 U	23	0.05 U	5.3	0.05 U
10/29/2013	XX	GW227X664		0.005 U	1	0.017	5.5	0.0006 U	21	0.05 U	5.5	0.05 U
MW-301												
5/5/2004	XD	GWDP3X01J			1	0.006	10		17	0.06 J	4.2	0.02 J
5/5/2004	XX	GW301X016			0.8	0.005	11		17	0.05 J	4.3	0.03 J
7/26/2004	XX	GW301X04C			1	0.007	12		16	0.08	4.5	0.02 U
10/25/2004	XX	GW301X067			0.7	0.006	14		16	0.02 J	4.4	0.02 U
5/9/2005	XX	GW301X128	0.01 U	0.002 U	0.5	0.005	14	0.0002 U	15	0.07	4.3	0.03 J
8/1/2005	XX	GW301X15G	0.002 J	0.002 U	0.7	0.003 J	11	0.0002 U	17	0.1	4.6	0.03 J
9/22/2005	XX	GW301X18E	0.003	0.002 U	0.9	0.003 J	14	0.0002 U	17	0.1	4.4	0.05
5/22/2006	XX	GW301X1D9	0.001 U	0.002 U	1	0.002 J	13	0.0005 J	15	0.32	4.4	0.03 J
7/24/2006	XX	GW301X1G6	0.001 U	0.002 U	0.7	0.002 J	12.5	0.0002 U	17	0.09	4.5	0.03 J
9/11/2006	XX	GW301X1IJ	0.002 J	0.002 J	0.9	0.003 J	12.9	0.0006	18	0.05 J	4.6	0.02 J
5/14/2007	XX	GW301X226	0.001 J	0.002 U	0.8	0.006	14.2	0.0002 U	18	0.32	4.6	0.05
7/23/2007	XX	GW301X26A	0.001 J	0.002 U	1	0.001 J	12.4	0.0002 U	16	1.59	4.5	0.02 U
9/10/2007	XX	GW301X290	0.002 J	0.002 U	1	0.002 J	12.5	0.0002 J	20	0.14	4.3	0.02 J
5/19/2008	XX	GW301X2CE	0.003 U	0.003 U	0.6	0.003 J	12.3	0.001 U	19.4	0.38	4.9	0.05
7/30/2008	XX	GW301X2FI	0.001 U	0.002 U	0.7	0.002 U	11.1	0.0002 U	16.7	0.21	4.1	0.02 U
10/28/2008	XX	GW301X2I8	0.01 U	0.002 U	0.8	0.003 J	11.3	0.0002 J	17.5	0.07	4.6	0.02 U
4/15/2009	XX	GW301X31G	0.001 U	0.002 U	1.2	0.003 J	11.8	0.0002 U	31.4	0.15	5.7	0.02 U
7/7/2009	XX	GW301X360	0.001 J	0.002 U	0.7	0.002 U	13.1	0.0002 J	20.8	0.4	4.9	0.02 J
10/26/2009	XX	GW301X3DF	0.001 U	0.002 U	0.7	0.008	11.5	0.0002 U	19.3	0.34	4.6	0.02 J
4/26/2010	XX	GW301X3IE	0.001 U	0.002 U	0.7	0.005	10.9	0.0002 U	16.9	0.46	3.9	0.03 J
7/19/2010	XX	GW301X41I	0.001 U	0.002 U	0.8	0.005	11.8	0.0002 J	19.4	0.86	4.7	0.02 J
10/19/2010	XX	GW301X452	0.001 U	0.002 U	0.7	0.007	10.7	0.0002 U	17.9	0.21	4.4	0.02 J
4/27/2011	XX	GW301X493	0.001 U	0.002 U	0.7	0.005	11.4	0.0004 J	18.1	0.24	4.5	0.02 J
7/20/2011	XX	GW301X4D1	0.001 U	0.002 U	0.7	0.012	10.6	0.0002 U	18.5	0.26	4.4	0.02 J
10/26/2011	XX	GW301X4GG	0.001 U	0.002 U	0.7	0.002 U	10.7	0.0002 U	18.7	0.27	4.3	0.02 J

(MW-301) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
4/25/2012	XX	GW301X516	0.003 U	0.005 U	0.7	0.009	11.1	0.0006 U	16.9	0.15	4.4	0.05 U
7/25/2012	XX	GW301X565	0.003 U	0.005 U	0.7	0.006	11.8	0.0006 U	14.9	0.05 U	4.5	0.05 U
10/24/2012	XX	GW301X5CG	0.003 U	0.005 U	0.6	0.006	10.3	0.0006 U	16.7	0.32	4.3	0.05 U
10/24/2012	XD	GWDP4X5DE	0.003 U	0.005 U	0.6	0.008	10	0.0006 U	17.1	0.31	4.4	0.05 U
4/22/2013	XX	GW301X5H7	!	!	!	!	!	!	!	!	!	!
7/31/2013	XX	GW301X63C		0.005 U	0.7	0.01	10.4	0.0006 U	19.2	0.54	4.8	0.05
10/30/2013	XX	GW301X665		0.005 U	0.6	0.006	10.1	0.0006 U	19.3	0.13	4.7	0.05 U
10/30/2013	XD	GWDP1X666		0.005 U	0.6	0.008	10.2	0.0006 U	18.7	0.15	4.7	0.05 U
MW-302												
5/6/2004	XX	GW302X009	0.001 J	0.002 U	0.8	0.003 J	4.6	0.0002 J	55	0.15	2.6	0.03 J
7/27/2004	XX	GW302XHD1	0.022	0.002 U	1.2	0.001 J	3.5	0.0002 U	60	0.05 J	2.8	0.02 U
10/25/2004	XX	GW302X07C			0.8	0.002 J	4.3		60	0.02 J	2.9	0.02 J
5/10/2005	XX	GW302X13D	0.01 U	0.004 J	0.9	0.004	5	0.0002 U	55	0.53	2.6	0.02 U
7/27/2005	XX	GW302X171	0.001 U	0.002 U	0.7	0.001 J	4.7	0.0002 U	48	0.09	2.7	0.03 J
9/19/2005	XX	GW302X19J	0.001 J	0.004 J	0.6	0.001 J	5.6	0.0002 U	60	0.11	5	0.02 U
5/23/2006	XX	GW302X1EE	0.002 J	0.002 J	0.8	0.002 J	6	0.0009	46	0.23	2.6	0.02 U
7/24/2006	XX	GW302X1HB	0.001 U	0.002 U	0.4	0.001 U	5.2	0.0013	50	0.4	2.9	0.03 J
9/12/2006	XX	GW302X204	0.001 U	0.006	1	0.001 U	6.8	0.0003 J	60	0.13	3	0.02 J
5/14/2007	XX	GW302X23B	0.001 J	0.002 U	0.8	0.002 J	5.9	0.0002 U	50	0.26	4.4	0.02 J
7/25/2007	XX	GW302X27F	0.001 J	0.002 U	0.7	0.001 U	5.9	0.0002 J	44	0.13	2.5	0.02 J
9/10/2007	XX	GW302X2A5	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE
MW-302R												
5/20/2008	XX	GW302X2DJ	0.003 U	0.003 U	1.2	0.004 J	7.5	0.001 U	36.1	0.19	2.4	0.06
7/29/2008	XX	GW302X2H3	0.001 U	0.002 U	2	0.002 U	7.1	0.0002 U	34.9	0.11	2.4	0.02 U
10/27/2008	XX	GW302X2JD	0.01 U	0.002 U	1	0.002 U	6.6	0.0002 U	39	0.04 J	2.9	0.02 J
4/13/2009	XX	GW302X331	0.001 U	0.002 U	0.7	0.002 U	6.6	0.0002 U	24.1	0.02 U	1.9	0.02 U
7/6/2009	XX	GW302X375	0.001 U	0.002 J	0.8	0.005	9.6	0.0002 U	26.7	0.04 J	1.9	0.02 U
10/27/2009	XX	GW302X3F0	0.001 U	0.002 U	1.4	0.008	22.9	0.0002 U	60.4	0.02 J	4.9	0.02 J
4/26/2010	XX	GW302X3JJ	0.001 U	0.002 U	0.5	0.002 J	6	0.0002 U	17.6	0.02 U	1.4	0.02 J
7/19/2010	XX	GW302X433	0.001 U	0.002 U	1.2	0.014	20.3	0.0002 J	58	0.02 U	4.5	0.02 U
10/18/2010	XX	GW302X467	0.001 U	0.002 U	1.6	0.008	22	0.0002 U	66.2	0.02 U	5.3	0.03 J
4/25/2011	XX	GW302X4A8	0.001 U	0.002 U	0.8	0.009	14.9	0.0002 U	29.4	0.02 U	2.6	0.02 U
7/18/2011	XX	GW302X4E6	0.001 U	0.002 U	1	0.009	20.6	0.0002 J	33.8	0.02 U	3.1	0.02 U
10/24/2011	XX	GW302X4I1	0.002 J	0.002 U	1.2	0.002 U	24.7	0.0006	42.2	0.02 U	3.7	0.02 U
4/23/2012	XX	GW302X52B	0.003 U	0.005 U	0.8	0.005 U	13.2	0.0006 U	26	0.05 U	2.3	0.05 U
7/23/2012	XX	GW302X57A	0.003 U	0.005 U	0.9	0.005 U	18.4	0.0006 U	32.6	0.05 U	2.8	0.05 U
10/22/2012	XX	GW302X5E1	0.003 U	0.005 U	1.2	0.009	28.6	0.0006 U	54.6	0.05 U	4.3	0.05 U
4/22/2013	XX	GW302X5IC	0.003 U	0.005 U	0.7	0.005	11	0.0006 U	21.1	0.05 U	1.8	0.05 U
7/29/2013	XX	GW302X64H		0.005 U	0.8	0.005 U	17.8	0.0006 U	33	0.05 U	3	0.05 U
10/28/2013	XX	GW302X67A		0.005 U	1.1	0.008	20.3	0.0006 U	32.6	0.05 U	2.9	0.05 U
MW-303												
5/6/2004	XX	GW303X00C	0.001 U	0.002 J	0.4	0.003 J	3.9	0.0002 J	4.7	0.03 J	2	0.02 J
7/28/2004	XX	GW303X040	0.001 J	0.002 U	1	0.001 U	4.1	0.0002 U	3.3	0.05 J	1.9	0.02 J
10/26/2004	XX	GW303X07G			0.6	0.001 J	3.3		3.1	0.12	2	0.03 J
10/26/2004	XD	GWDP3X06J			0.6	0.001 J	3.2		3	0.09	2	0.02 J
5/11/2005	XX	GW303X13H	0.01 U	0.002 U	0.4	0.003 J	4.1	0.0002 U	2.8	0.05 J	1.84	0.02 U
8/1/2005	XD	GWDP1X15H	0.001 U	0.002 U	0.4	0.002 J	4.5	0.0002 J	3	0.08	2	0.02 U
8/1/2005	XX	GW303X175	0.001 U	0.002 U	0.4	0.001 J	4.3	0.0002 U	2.9	0.07	2	0.02 U

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(MW-303)			Copper	Nickel	Potassium	Arsenic	Sodium	Cadmium	Calcium	Iron	Magnesium	Manganese					
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L					
Date	Type	Sample ID															
9/19/2005	XX	GW303X1A3	0.002 J	0.002 U	0.5	0.001 J	4	0.0002 J	4.1	0.02 J	1.78	0.02 U					
5/23/2006	XX	GW303X1EI	0.002 J	0.002 U	0.6	0.001 U	4.3	0.0002 J	5.1	0.02 J	2	0.02 U					
7/24/2006	XD	GWDP4X1H4	0.001 U	0.002 U	0.3	0.001 U	3.9	0.0002 U	5.1	0.02 J	2	0.02 U					
7/24/2006	XX	GW303X1HF	0.001 U	0.002 U	0.3	0.001 U	3.7	0.0002 U	4.9	0.02 J	2	0.02 U					
9/12/2006	XX	GW303X208	0.001 U	0.002 U	0.7	0.001 U	4.3	0.0002 U	2.8	0.03 J	2	0.02 U					
5/14/2007	XX	GW303X23F	0.001 J	0.002 U	0.2 J	0.003 J	4.7	0.0002 U	3.7	0.02 J	2.2	0.02 U					
7/25/2007	XD	GWDP4X278	0.002 J	0.002 U	0.4	0.001 U	3.8	0.0002 U	6.6	0.04 J	2.2	0.02 U					
7/25/2007	XX	GW303X27J	0.001 J	0.002 U	0.5	0.001 U	3.6	0.0002 U	6.8	0.04 J	2.1	0.02 U					
9/11/2007	XX	GW303X2A9	0.002 J	0.002 U	0.5	0.001 J	3.1	0.0006	6	0.07	2.1	0.02 J					
9/11/2007	XD	GWDP1X291	0.002 J	0.002 U	0.5	0.001 U	3.2	0.0005 J	5.9	0.08	2.1	0.02 J					
5/19/2008	XX	GW303X2E3	0.003 U	0.003 U	0.5	0.003 U	4.6	0.001 U	9.1	0.02 U	3.8	0.02 U					
7/29/2008	XD	GWDP4X2GG	0.001 J	0.002 U	0.5	0.002 U	4.4	0.0002 U	9	0.02 U	3.9	0.02 U					
7/29/2008	XX	GW303X2H7	0.001 J	0.002 U	0.6	0.002 U	4.6	0.0002 U	9.1	0.02 U	3.9	0.02 U					
10/27/2008	XD	GWDP3X2J0	0.01 U	0.002 U	0.4	0.002 U	4.2	0.0002 U	10.1	0.02 U	4.4	0.02 U					
10/27/2008	XX	GW303X2JH	0.01 U	0.002 U	0.5	0.002 U	4.2	0.0002 U	10.1	0.02 J	4.4	0.02 U					
4/13/2009	XX	GW303X335	0.001 U	0.002 U	0.9	0.002 U	5.8	0.0002 J	15.8	0.02 U	8.1	0.02 U					
7/6/2009	XD	GWDP3X36C	0.006	0.002 J	0.7	0.005	6	0.0002 J	17.1	0.02 U	7.8	0.02 U					
7/6/2009	XX	GW303X379	0.007	0.002 J	0.7	0.005	6.1	0.0002 U	18.2	0.02 U	7.9	0.02 U					
10/28/2009	XX	GW303X3F4	0.001 J	0.002 U	0.7	0.007	5.8	0.0002 U	16.4	0.06	7.5	0.02 U					
4/26/2010	XX	GW303X403	0.001 U	0.002 U	0.7	0.002 J	6	0.0002 U	17.6	0.02 U	7.9	0.02 U					
7/19/2010	XD	GWDP4X42G	0.001 U	0.002 U	0.8	0.01	6.3	0.0002 U	19.1	0.02 U	8.3	0.02 U					
7/19/2010	XX	GW303X437	0.001 J	0.002 U	0.8	0.007	6.5	0.0002 J	19.7	0.02 U	8.2	0.02 U					
10/18/2010	XX	GW303X46B	0.004	0.002 U	0.7	0.006	6.8	0.0002 U	20	0.05	7.4	0.03 J					
4/25/2011	XX	GW303X4AC	0.001 U	0.002 U	0.8	0.012	6.9	0.0002 U	21.1	0.07	9.7	0.02 U					
7/18/2011	XX	GW303X4EA	0.001 U	0.002 U	0.8	0.017	6.7	0.0002 U	18.7	0.04 J	9.2	0.02 J					
7/18/2011	XD	GWDP4X4DJ	0.001 U	0.002 U	0.8	0.02	6.8	0.0002 U	18.8	0.03 J	9.2	0.02 J					
10/24/2011	XX	GW303X4I5	0.001 U	0.002 U	0.9	0.002 U	7.6	0.0002 U	23.3	0.02 U	10.9	0.02 U					
10/24/2011	XD	GWDP4X4HE	0.001 U	0.002 U	0.8	0.002 U	7.2	0.0002 U	22.9	0.02 U	10.2	0.02 U					
4/23/2012	XX	GW303X52F	0.003 U	0.005 U	1	0.005 U	8.5	0.0006 U	25.2	0.07	12.1	0.05 U					
7/24/2012	XX	GW303X57E	!	!	!	!	!	!	!	!	!	!					
MW12-303R																	
10/23/2012	XX	GW303X5EG	0.003 U	0.005 U	1.5	0.005 U	10.4	0.0006 U	16.6	0.1	7.8	0.32					
4/22/2013	XX	GW303X5IG	0.003 U	0.005 U	2.1	0.01	15.9	0.0006 U	21.3	0.05 U	9.5	0.06					
7/29/2013	XX	GW303X651		0.005 U	1.5	0.008	8.8	0.0006 U	24.3	0.05 U	10	0.05 U					
10/28/2013	XX	GW303X67D		0.005 U	1.7	0.015	9.2	0.0006 U	23.7	0.05 U	10.3	0.05 U					
MW-304A																	
7/29/2004	XX	GW304AHD0	0.003	0.002 U	3.2	0.002 J	23	0.0002 U	16	0.03 J	4.8	0.14					
10/27/2004	XX	GW304A07B	0.002 J	0.002 U	1.9	0.001 U	17	0.0002 U	19	0.02 J	5.1	0.2					
5/11/2005	XX	GW304A13C	0.01 U	0.002 U	1.2	0.002 J	3.6	0.0002 U	6.2	0.08	2.3	0.02 U					
7/28/2005	XX	GW304A170	0.001 U	0.002 U	1	0.001 U	3.9	0.0002 U	10	0.02 J	2.5	0.03 J					
9/19/2005	XX	GW304A19I	0.001 U	0.002 U	0.7	0.001 J	4.8	0.0002 U	13	0.04 J	3.3	0.03 J					
5/24/2006	XX	GW304A1ED	0.008	0.002 U	0.6	0.001 J	4.5	0.0014	11	0.1	4.3	0.02 U					
7/25/2006	XX	GW304A1HA	0.002 J	0.002 U	1	0.001 J	4.4	0.0002 U	12	0.09	4.8	0.02 J					
9/12/2006	XX	GW304A203	0.001 U	0.002 U	1	0.001 U	5.6	0.0002 U	13	0.07	3.8	0.02 J					
5/15/2007	XX	GW304A23A	0.009	0.006	0.3	0.003 J	5.8	0.007	6.7	0.08	2.3	0.03 J					
7/24/2007	XX	GW304A27E	0.001 U	0.003 J	1.1	0.001 U	5.6	0.0002 U	12	0.02 J	4.3	0.02 U					
9/11/2007	XX	GW304A2A4	0.001 U	0.004 J	0.9	0.001 U	4.6	0.0002 J	14	0.02 J	3.5	0.02 U					
5/20/2008	XX	GW304A2DI	0.003 U	0.003 U	0.7	0.003 J	3.6	0.001 U	10.7	0.05	2.9	0.02 U					

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(MW-304A) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L					
7/29/2008	XX	GW304A2H2	0.001 U	0.002 U	0.9	0.002 U	4.3	0.0002 U	12.9	0.03 J	3.5	0.02 U					
10/27/2008	XX	GW304A2JC	0.01 U	0.002 U	0.8	0.002 U	6.1	0.0002 U	13.6	0.04 J	3.7	0.02 U					
4/13/2009	XX	GW304A330	0.001 U	0.002 U	1	0.002 U	4.8	0.0002 J	13.8	0.03 J	4	0.02 U					
7/6/2009	XX	GW304A374	0.001 U	0.002 U	0.7	0.003 J	4.2	0.0002 U	12.9	0.03 J	3	0.02 U					
10/27/2009	XX	GW304A3EJ	0.001 U	0.002 U	0.7	0.002 J	3.3	0.0006	14.7	0.02 U	3.7	0.02 U					
4/26/2010	XX	GW304A3JI	0.001 U	0.002 U	0.5	0.002 U	2.9	0.0002 U	9.5	0.02 U	2.4	0.02 U					
7/19/2010	XX	GW304A432	0.001 U	0.002 U	0.7	0.005	3.4	0.0002 U	13.8	0.02 U	3.3	0.02 U					
10/18/2010	XX	GW304A466	0.004	0.002 U	0.7	0.003 J	3.6	0.0002 U	14.5	0.26	3.4	0.09					
4/25/2011	XX	GW304A4A7	0.001 U	0.002 U	0.7	0.004 J	3.2	0.0002 U	10.4	0.02 U	3.1	0.02 U					
7/18/2011	XX	GW304A4E5	0.001 U	0.002 U	0.6	0.005	3.6	0.0007	9.7	0.02 U	2.9	0.02 U					
10/24/2011	XX	GW304A4I0	0.001 U	0.002 U	0.8	0.002 J	5	0.0005 J	12.9	0.02 U	3.6	0.02 U					
4/23/2012	XX	GW304A52A	0.003 U	0.005 U	0.9	0.006	7.1	0.0006 U	13.9	0.05 U	4	0.05 U					
7/23/2012	XX	GW304A579	0.003 U	0.005 U	0.8	0.005 U	4.7	0.0006 U	14.3	0.05 U	3.8	0.05 U					
10/22/2012	XX	GW304A5E0	0.003 U	0.005 U	0.7	0.006	3.7	0.0006 U	11.7	0.05 U	3.5	0.05 U					
4/22/2013	XX	GW304A5IB	0.003 U	0.005 U	0.8	0.005 U	5	0.0006 U	13.8	0.05 U	3.7	0.05 U					
7/29/2013	XX	GW304A64G		0.005 U	0.7	0.005 U	3.7	0.0006 U	14.3	0.05 U	3.8	0.05 U					
10/28/2013	XX	GW304A679		0.005 U	0.8	0.007	4.3	0.0006 U	13.9	0.05 U	3.8	0.05 U					
MW-401A																	
7/29/2004	XX	GW401A059	0.001 J	0.002 U	1.4	0.004	3.6	0.0002 U	12	0.02 J	4.6	0.03 J					
10/27/2004	XD	GWDP4X075	0.002 J	0.002 U	0.9	0.006	3.8	0.0002 U	13	0.08	3.7	0.02 J					
10/27/2004	XX	GW401A071	0.001 J	0.002 U	0.9	0.007	3.7	0.0002 U	13	0.07	3.7	0.03 J					
5/10/2005	XX	GW401A132	0.01 U	0.003 J	0.7	0.004	4.7	0.0002 U	11	0.05 J	3.7	0.02 U					
7/28/2005	XD	GWDP4X16E	0.001 U	0.002 U	0.6	0.003 J	5.1	0.0002 U	13	0.05 J	4.1	0.02 J					
7/28/2005	XX	GW401A16A	0.001 J	0.002 U	0.8	0.002 J	5.2	0.0002 J	13	0.05 J	4	0.03 J					
9/21/2005	XX	GW401A198	0.001 U	0.002 U	0.3	0.005	4.5	0.0002 U	13	0.02 J	3.8	0.02 U					
5/23/2006	XX	GW401A1E3	0.001 U	0.002 U	1	0.009	4.6	0.0005 J	12	0.07	3.8	0.02 U					
7/25/2006	XX	GW401A1H0	0.001 U	0.004 J	0.7	0.005	4.5	0.0006	13	0.03 J	4	0.02 J					
9/12/2006	XX	GW401A1JD	0.001 U	0.002 U	0.8	0.001 U	4.9	0.0002 U	15	0.02 J	4.1	0.02 J					
5/14/2007	XX	GW401A230	0.002 J	0.002 U	0.3	0.005	5.2	0.0023	15	0.05 J	4.1	0.02 J					
7/24/2007	XX	GW401A274	0.003	0.002 U	1.3	0.001 J	4.8	0.0003 J	14	0.04 J	4.5	0.02 U					
9/11/2007	XX	GW401A29E	0.001 J	0.003 J	0.8	0.001 U	3.8	0.0002 U	14	0.02 J	3.8	0.02 U					
5/20/2008	XX	GW401A2D8	0.003 U	0.003 U	0.6	0.003 U	3.6	0.001 U	15.3	0.02 U	4.3	0.02 U					
7/28/2008	XX	GW401A2GC	0.001 U	0.002 U	0.7	0.002 J	3.8	0.0002 U	13.7	0.02 U	3.8	0.02 U					
10/27/2008	XX	GW401A2J2	0.01 U	0.002 U	0.6	0.003 J	3.5	0.0002 U	14.1	0.02 U	4	0.02 U					
4/13/2009	XX	GW401A32A	0.001 U	0.002 U	0.8	0.004 J	3.9	0.0002 U	15.9	0.02 U	4.8	0.02 U					
7/7/2009	XX	GW401A36E	0.001 U	0.002 U	0.6	0.002 U	3.9	0.0002 U	15.4	0.02 J	4.3	0.02 U					
10/28/2009	XX	GW401A3E9	0.001 U	0.002 U	0.6	0.004 J	3.2	0.0005 J	14.5	0.02 U	3.8	0.02 U					
4/27/2010	XX	GW401A3J8	0.001 U	0.002 U	0.7	0.002 J	3.5	0.0002 U	14.5	0.02 U	3.9	0.02 U					
7/20/2010	XX	GW401A42C	0.001 U	0.002 U	0.7	0.006	3.6	0.0002 U	14.6	0.02 U	4	0.02 U					
10/20/2010	XX	GW401A45G	0.001 U	0.002 U	0.7	0.004 J	4	0.0002 U	15.8	0.02 U	3.8	0.02 U					
4/25/2011	XX	GW401A49H	0.001 U	0.002 U	0.8	0.005	4	0.0002 U	14.9	0.02 U	4.5	0.02 U					
7/18/2011	XX	GW401A4DF	0.001 U	0.002 U	0.7	0.009	3.7	0.0015	14.3	0.02 U	4	0.02 U					
10/24/2011	XX	GW401A4HA	0.001 U	0.002 U	0.7	0.005	3.8	0.0002 U	14.3	0.02 U	4.2	0.02 U					
4/23/2012	XX	GW401A520	0.003 U	0.005 U	0.8	0.007	4	0.0006 U	12.9	0.05 U	4.3	0.05 U					
7/23/2012	XX	GW401A56J	0.003 U	0.005 U	0.7	0.005 U	3.5	0.0006 U	12.1	0.05 U	3.9	0.05 U					
10/22/2012	XX	GW401A5DA	0.003 U	0.005 U	0.7	0.005 U	4	0.0006 U	13	0.05 U	4.4	0.05 U					
4/22/2013	XX	GW401A5I1	0.003 U	0.005 U	0.7	0.005	4	0.0006 U	13.7	0.05 U	3.9	0.05 U					
7/29/2013	XX	GW401A646		0.005 U	0.6	0.005 U	3.3	0.0006 U	14.7	0.05 U	4.1	0.05 U					
10/28/2013	XX	GW401A66J		0.005 U	0.7	0.009	3.7	0.0006 U	14	0.05 U	4	0.05 U					

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MW-401B

(MW-401B) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
7/29/2004	XD	GWDP4X05D	0.001 J	0.002 J	3.4	0.003 J	18	0.0002 U	70	1.22	21	2.9
7/29/2004	XX	GW401B05A	0.001 J	0.002 J	3.2	0.004	18	0.0002 U	70	1.18	21	2.9
10/27/2004	XX	GW401B072	0.001 J	0.002 U	3.1	0.005	23	0.0002 U	90	8.2	24	2.9
5/10/2005	XX	GW401B133	0.01 U	0.004 J	2.1	0.004	23	0.0002 U	55	19	18	0.92
5/10/2005	XD	GWDP4X136	0.01 U	0.003 J	2	0.004	24	0.0002 U	60	19.5	17.5	0.93
7/27/2005	XX	GW401B16B	0.001 J	0.002 J	2	0.006	24	0.0002 U	75	10.5	23	0.8
9/21/2005	XD	GWDP4X19C	0.002 J	0.003 J	1.7	0.005	30	0.0002 U	105	9.5	33	0.72
9/21/2005	XX	GW401B199	0.002 J	0.003 J	1.9	0.004	33	0.0002 U	100	9.6	36	0.69
5/23/2006	XX	GW401B1E4	0.001 U	0.002 J	1.8	0.008	26	0.0002 J	50	7.1	15	0.29
5/23/2006	XD	GWDP4X1E7	0.001 U	0.002 J	1.9	0.01	25	0.0002 U	49	6.7	14.5	0.31
7/25/2006	XX	GW401B1H1	0.005	0.005	2.3	0.006	30	0.0002 U	50	3.8	15.5	0.32
9/12/2006	XX	GW401B1JE	0.001 J	0.002 J	2.1	0.005	29	0.0002 U	50	4	14	0.32
9/12/2006	XD	GWDP3X1JB	0.001 U	0.002 J	2.2	0.004	28	0.0002 U	50	4.1	14.5	0.33
5/14/2007	XX	GW401B231	0.001 U	0.002 J	0.9	0.009	19.6	0.0002 U	39	3.7	12	0.28
5/14/2007	XD	GWDP4X234	0.001 U	0.002 U	0.8	0.01	18.8	0.0002 J	36	3.8	11.5	0.29
7/24/2007	XX	GW401B275	0.002 J	0.002 U	1.8	0.002 J	21	0.0004 J	42	4	12	0.26
9/11/2007	XX	GW401B29F	0.001 U	0.002 J	1.8	0.006	27	0.0002 J	48	4.1	13.5	0.26
9/11/2007	XD	GWDP4X29I	0.001 U	0.003 J	1.8	0.005	26	0.0002 J	49	4	13.5	0.25
5/20/2008	XX	GW401B2D9	0.003 U	0.003 U	1.2	0.009	15.9	0.001 U	39.8	2.05	11.6	0.22
5/20/2008	XD	GWDP4X2DC	0.003 U	0.003 U	1.2	0.01	15.2	0.001 U	39.3	2.08	11.6	0.22
7/28/2008	XX	GW401B2GD	0.001 U	0.002 J	1.5	0.008	16.3	0.0002 U	41.3	2.63	11.5	0.22
10/27/2008	XD	GWDP4X2J6	0.01 U	0.002 U	1.5	0.005	16.1	0.0002 U	42.7	2.62	12.6	0.17
10/27/2008	XX	GW401B2J3	0.01 U	0.002 U	1.5	0.005	16.1	0.0002 U	42	2.63	12.7	0.17
4/13/2009	XD	GWDP4X32E	0.001 U	0.002 U	1.1	0.013	10.1	0.0002 U	30.3	0.89	9	0.12
4/13/2009	XX	GW401B32B	0.001 U	0.002 U	1.1	0.014	10.6	0.0002 J	31.1	1.08	9.6	0.14
7/7/2009	XX	GW401B36F	0.001 U	0.002 U	1.3	0.005	13.2	0.0002 U	37	1.23	10.6	0.19
10/28/2009	XX	GW401B3EA	0.001 U	0.003 J	1.4	0.016	13.6	0.0007	40.6	1.98	11.2	0.2
10/28/2009	XD	GWDP3X3E7	0.001 U	0.002 U	1.4	0.016	13.3	0.0004 J	39.6	2.21	10.9	0.2
4/27/2010	XX	GW401B3J9	0.001 U	0.002 U	1	0.012	9.8	0.0002 U	29	0.71	8	0.13
4/27/2010	XD	GWDP4X3JC	0.001 U	0.002 U	1	0.013	10.4	0.0002 U	30.3	0.71	8.5	0.13
7/20/2010	XD	GWDP3X42A	0.001 U	0.002 U	1.4	0.021	14.6	0.0002 U	40.4	1.92	11.2	0.19
7/20/2010	XX	GW401B42D	0.001 U	0.002 U	1.3	0.023	12.9	0.0002 U	37.2	1.91	10.2	0.18
10/20/2010	XX	GW401B45H	0.001 U	0.002 U	1.5	0.011	15.6	0.0002 U	38.5	2.09	10.8	0.17
10/20/2010	XD	GWDP4X460	0.001 U	0.002 U	1.5	0.012	15.3	0.0002 U	37.6	2.11	10.1	0.16
4/25/2011	XD	GWDP4X4A1	0.001 U	0.002 U	1.1	0.019	10.3	0.0002 U	25.2	0.41	8.1	0.07
4/25/2011	XX	GW401B49I	0.001 U	0.002 U	1.1	0.016	10.5	0.0002 U	25.9	0.4	8.3	0.07
7/18/2011	XD	GWDP1X4D2	0.001 U	0.002 U	1.1	0.022	11.9	0.0022	27.2	0.54	8.8	0.15
7/18/2011	XX	GW401B4DG	0.001 U	0.002 U	1.1	0.021	11.5	0.0019	26.8	0.54	8.9	0.15
10/24/2011	XX	GW401B4HB	0.001 U	0.002 U	1.3	0.006	13.4	0.0002 U	33.7	1.1	10.1	0.16
4/23/2012	XD	GWDP4X524	0.003 U	0.005 U	1.2	0.015	11.7	0.0006 U	24.6	0.23	9	0.05
4/23/2012	XX	GW401B521	0.003 U	0.005 U	1.1	0.017	10.9	0.0006 U	25.3	0.19	8.3	0.05
7/23/2012	XD	GWDP1X566	0.003 U	0.005 U	1.1	0.014	10.8	0.0006 U	26.5	0.5	8.4	0.16
7/23/2012	XX	GW401B570	0.003 U	0.005 U	1.1	0.011	11.4	0.0006 U	29.9	0.63	8.8	0.16
10/22/2012	XX	GW401B5DB	0.003 U	0.005 U	1.4	0.016	14.7	0.0006 U	34.5	0.99	11	0.2
4/22/2013	XX	GW401B5I2	0.003 U	0.005 U	1.1	0.013	12.9	0.0006 U	28.9	0.39	8.7	0.18
4/22/2013	XD	GWDP4X5I5	0.003 U	0.005 U	1.1	0.012	12.5	0.0006 U	29.4	0.36	8.7	0.17
7/29/2013	XX	GW401B647		0.005 U	0.9	0.022	10	0.0006 U	28.8	0.51	8.4	0.22
7/29/2013	XD	GWDP1X63D		0.005 U	1	0.02	10.9	0.0006 U	31.4	0.59	9.4	0.21

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(MW-401B) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L					
10/28/2013	XX	GW401B670		0.005 U	1.5	0.027	14.9	0.0006 U	35.1	1.72	10.8	0.28					
10/28/2013	XD	GWDP4X673		0.005 U	1.5	0.03	15.2	0.0006 U	37.4	1.61	10.3	0.28					
MW-402A																	
7/29/2004	XX	GW402A05B	0.001 J	0.003 J	1.3	0.016	8	0.0002 U	10	0.02 J	2.9	0.03 J					
10/27/2004	XX	GW402A073	0.001 J	0.002 U	0.5	0.016	8.2	0.0002 U	10	0.02 J	3	0.02 U					
5/11/2005	XX	GW402A134	0.01 U	0.002 J	0.7	0.012	11	0.0002 U	7.7	0.08	2.7	0.02 U					
8/1/2005	XX	GW402A16C	0.001 U	0.002 U	0.7	0.015	9.7	0.0002 U	10	0.03 J	2.7	0.02 U					
9/21/2005	XX	GW402A19A	0.003	0.002 U	0.5	0.015	9.2	0.0002 U	10	0.03 J	2.7	0.02 U					
5/23/2006	XX	GW402A1E5	0.001 U	0.002 U	0.8	0.028	9.8	0.0002 U	8.9	0.02 J	2.7	0.02 U					
7/26/2006	XX	GW402A1H2	0.001 U	0.002 U	0.8	0.02	9.4	0.0002 U	9	0.02 J	2.8	0.02 J					
9/12/2006	XX	GW402A1JF	0.001 U	0.002 U	0.8	0.015	10.5	0.0002 U	10	0.02 J	2.9	0.02 J					
5/15/2007	XX	GW402A232	0.001 J	0.003 J	0.3	0.015	9.9	0.0002 U	10	0.03 J	3	0.02 J					
7/25/2007	XX	GW402A276	0.001 U	0.002 U	0.8	0.014	9.7	0.0002 J	10	0.05 J	2.9	0.02 U					
9/12/2007	XX	GW402A29G	0.001 U	0.008	0.7	0.013	9.2	0.0002 U	11	0.02 J	2.7	0.02 U					
5/20/2008	XX	GW402A2DA	0.003 U	0.003 U	0.5	0.016	8.7	0.001 U	12.2	0.02 U	3.2	0.02 U					
7/28/2008	XX	GW402A2GE	0.001 U	0.002 U	0.6	0.015	7.9	0.0002 U	10.6	0.02 U	2.6	0.02 U					
10/27/2008	XX	GW402A2J4	0.01 U	0.002 U	0.5	0.015	8	0.0002 U	10.8	0.02 U	2.9	0.02 U					
4/14/2009	XX	GW402A32C	0.001 U	0.002 U	0.6	0.016	9.2	0.0002 U	12.3	0.02 U	3.2	0.02 U					
7/8/2009	XX	GW402A36G	0.001 U	0.002 J	0.6	0.012	8.4	0.0002 U	11.4	0.02 U	2.8	0.02 U					
10/28/2009	XX	GW402A3EB	0.001 U	0.002 J	0.6	0.019	8.2	0.0003 J	12.3	0.02 U	3.1	0.02 U					
4/27/2010	XX	GW402A3JA	0.001 U	0.002 U	0.6	0.016	8	0.0002 U	11	0.02 U	2.8	0.02 U					
7/21/2010	XX	GW402A42E	0.001 U	0.002 U	0.6	0.017	7.8	0.0002 U	10.8	0.02 U	2.8	0.02 U					
10/20/2010	XX	GW402A45I	0.001 U	0.002 U	0.7	0.017	10.3	0.0002 U	13.8	0.02 U	3.2	0.02 U					
4/27/2011	XX	GW402A49J	0.001 U	0.002 U	0.6	0.024	7.8	0.001	10.5	0.02 U	2.7	0.02 U					
7/20/2011	XX	GW402A4DH	0.001 U	0.002 U	0.7	0.025	8.1	0.0017	10.7	0.02 U	2.8	0.02 U					
10/26/2011	XX	GW402A4HC	0.003	0.002 J	0.6	0.023	8.2	0.0025	11	0.02 U	2.8	0.02 U					
4/24/2012	XX	GW402A522	0.003 U	0.005 U	0.6	0.019	7.8	0.0006 U	10.7	0.05 U	2.9	0.05 U					
7/25/2012	XX	GW402A571	0.003 U	0.005 U	0.6	0.021	8.6	0.0006 U	11.3	0.05 U	2.9	0.05 U					
10/24/2012	XX	GW402A5DC	0.003 U	0.005 U	0.6	0.017	8.5	0.0006 U	11.1	0.05 U	3.1	0.05 U					
4/22/2013	XX	GW402A5I3	0.003 U	0.005 U	0.7	0.021	9.1	0.0006 U	10.7	0.05 U	3	0.05 U					
7/31/2013	XX	GW402A648		0.005 U	0.6	0.024	7.7	0.0006 U	11.8	0.05 U	3.1	0.05 U					
10/30/2013	XX	GW402A671		0.005 U	0.6	0.02	8.2	0.0006 U	12.1	0.05 U	3	0.05 U					
MW-402B																	
7/29/2004	XX	GW402B05C	0.001 J	0.002 U	1.4	0.014	7.9	0.0002 U	16	0.03 J	5.5	0.04 J					
10/27/2004	XX	GW402B074	0.001 J	0.002 U	0.9	0.015	8.5	0.0002 U	15	0.02 U	4.8	0.03 J					
5/11/2005	XX	GW402B135	0.01 U	0.002 J	0.9	0.014	12	0.0002 U	14	0.05 J	4.9	0.02 J					
8/1/2005	XX	GW402B16D	0.001 J	0.002 U	0.7	0.014	9.8	0.0002 U	16	0.07	5.1	0.02 J					
9/21/2005	XD	GWDP3X196	0.004	0.002 J	0.4	0.012	10	0.0002 U	15	0.02 J	4.9	0.02 J					
9/21/2005	XX	GW402B19B	0.003	0.002 U	0.5	0.014	11	0.0002 U	15	0.03 J	4.9	0.02 J					
5/23/2006	XX	GW402B1E6	0.001 U	0.002 U	0.8	0.02	9.2	0.0002 U	15	0.02 J	4.9	0.02 J					
7/26/2006	XX	GW402B1H3	0.001 U	0.002 U	0.8	0.017	9.1	0.0002 U	15	0.02 J	5.2	0.02 J					
9/12/2006	XX	GW402B1JG	0.001 U	0.002 J	0.7	0.016	10.3	0.0002 U	16	0.02 J	5.3	0.02 J					
5/15/2007	XX	GW402B233	0.001 J	0.002 U	0.4	0.014	9.6	0.0002 U	14	0.02 J	5.2	0.04 J					
7/25/2007	XX	GW402B277	0.001 U	0.002 U	0.8	0.013	9.3	0.0003 J	15	0.05 J	5.2	0.02 J					
9/12/2007	XX	GW402B29H	0.001 U	0.002 U	2.2	0.01	9	0.0002 J	16	0.02 U	4.8	0.02 U					
5/20/2008	XX	GW402B2DB	0.003 U	0.003 U	0.5	0.012	8.3	0.001 U	16.3	0.02 U	5.4	0.02 U					
7/28/2008	XX	GW402B2GF	0.001 U	0.002 U	0.6	0.012	7.9	0.0002 U	14.5	0.02 J	4.7	0.02 J					
10/27/2008	XX	GW402B2J5	0.01 U	0.002 U	0.6	0.014	7.8	0.0002 U	14.8	0.02 U	5.1	0.02 J					

(MW-402B) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
4/14/2009	XX	GW402B32D	0.001 U	0.002 U	0.6	0.015	8.4	0.0002 U	15.5	0.02 U	5.1	0.02 J
7/8/2009	XX	GW402B36H	0.001 U	0.002 U	0.7	0.013	8.7	0.0003 J	15.7	0.02 J	5.1	0.02 J
10/28/2009	XX	GW402B3EC	0.001 U	0.002 J	0.7	0.02	8.3	0.0005 J	16.9	0.03 J	5.5	0.02 J
4/27/2010	XX	GW402B3JB	0.001 U	0.002 U	0.6	0.017	7.8	0.0002 U	14.5	0.02 U	4.8	0.02 J
7/21/2010	XX	GW402B42F	0.001 U	0.002 U	0.7	0.018	7.6	0.0002 U	14.5	0.02 U	4.8	0.02 J
10/20/2010	XX	GW402B45J	0.001 U	0.002 U	0.8	0.018	9.2	0.0002 U	17.2	0.02 U	5.1	0.02 U
4/27/2011	XX	GW402B4A0	0.001 U	0.002 U	0.6	0.022	7.9	0.0006	14.2	0.02 U	4.8	0.02 J
7/20/2011	XX	GW402B4DI	0.001 U	0.002 U	0.7	0.023	7.8	0.0012	13.2	0.02 U	4.7	0.02 J
10/26/2011	XX	GW402B4HD	0.001 U	0.002 U	0.7	0.016	8.1	0.0007	15	0.02 U	4.8	0.02 U
4/24/2012	XX	GW402B523	0.003 U	0.005 U	0.7	0.018	8.1	0.001	13.6	0.05 U	4.9	0.05 U
7/25/2012	XX	GW402B572	0.003 U	0.005 U	0.7	0.017	8.1	0.0006 U	15	0.05 U	4.9	0.05 U
10/24/2012	XX	GW402B5DD	0.003 U	0.005 U	0.6	0.02	8.1	0.0006 U	13.9	0.05 U	5.1	0.05 U
4/22/2013	XX	GW402B5I4	0.003 U	0.005 U	0.6	0.019	8.4	0.0006 U	13.2	0.05 U	4.7	0.05 U
7/31/2013	XX	GW402B649		0.005 U	0.6	0.024	7.6	0.0006 U	14.9	0.05 U	5	0.05 U
10/30/2013	XX	GW402B672		0.005 U	0.6	0.019	8.1	0.0006 U	15.5	0.05 U	4.9	0.05 U
P-04-02												
2/5/2004	XX	GWXXXX03E			3.5	0.009	73		11	1.32	4.7	0.09
2/11/2004	XX	GWXXXX03C			2	0.004	52		15	0.64	4.8	0.1
5/5/2004	XX	GWXXXX00E			1.8	0.004	21		21	0.04 J	6.3	0.12
7/26/2004	XX	GWXXXX042			1.6	0.006	19		26	0.17	7.2	0.09
10/25/2004	XX	GWXXXX07I			1.4	0.006	19		25	0.18	7.1	0.12
5/9/2005	XX	GWXXXX13J	0.01 U	0.002 U	1.6	0.004	12	0.0005 J	25	0.04 J	7.3	0.02 J
7/27/2005	XX	GWXXXX177	0.001 J	0.002 U	1.3	0.005	12	0.0002 U	26	0.02 U	7.7	0.05
9/22/2005	XX	GWXXXX1A5	0.003	0.002 U	1.2	0.004	11	0.0002 U	26	0.09	7.4	0.1
5/22/2006	XX	GWXXXX1F0	0.001 U	0.002 U	1.4	0.005	9.7	0.0002 J	24	0.06	7.3	0.02 U
7/24/2006	XX	GWXXXX1HH	0.001 U	0.002 U	1.1	0.001 J	9.1	0.0002 U	24	0.05 J	7.5	0.04 J
9/11/2006	XX	GWXXXX20A	0.003	0.002 J	1.2	0.007	9.7	0.0002 J	26	0.09	7.8	0.02 U
5/14/2007	XX	GWXXXX23H	0.001 U	0.002 U	1.4	0.005	9.6	0.0002 U	27	0.02 U	7.8	0.02 J
7/23/2007	XX	GWXXXX281	0.001 U	0.002 U	1.5	0.001 U	8.3	0.0002 U	23	0.06	7.4	0.02 U
9/10/2007	XX	GWXXXX2AB	0.002 J	0.003 J	1.5	0.002 J	8.2	0.0003 J	28	0.02 J	7.2	0.02 U
5/21/2008	XX	GWXXXX2E5	0.004 J	0.003 U	1.5	0.006 J	7.8	0.001 U	25	0.07	7.6	0.02 U
7/30/2008	XX	GWXXXX2H9	0.001 U	0.002 U	1.3	0.002 U	7.1	0.0002 U	23	0.03 J	6.9	0.02 U
10/29/2008	XX	GWXXXX2JJ	0.01 U	0.002 U	1.4	0.003 J	6.7	0.0002 J	23.8	0.02 J	7.5	0.02 U
4/13/2009	XX	GWXXXX337	0.001 U	0.002 U	1.5	0.004 J	7.4	0.0002 J	26.2	0.02 U	8.3	0.02 U
7/6/2009	XX	GWXXXX37B	0.001 J	0.002 J	1.4	0.009	7.7	0.0006	25.9	0.07	7.5	0.02 U
10/27/2009	XX	GWXXXX3F6	0.001 U	0.002 U	1.3	0.005	7.1	0.0002 U	25.5	0.02 J	7.7	0.02 U
4/26/2010	XX	GWXXXX405	0.002 J	0.002 U	1.1	0.009	6.5	0.0002 U	22.6	0.02 U	6.5	0.02 U
7/21/2010	XX	GWXXXX439	0.001 U	0.002 U	1.3	0.009	6.6	0.0002 U	23.6	0.02 U	7	0.02 U
10/20/2010	XX	GWXXXX46D	0.001 U	0.002 U	1.4	0.009	7.6	0.0002 U	27	0.02 U	7.4	0.02 U
4/27/2011	XX	GWXXXX4AE	0.001 U	0.002 U	1.2	0.01	6.6	0.0005 J	22.4	0.02 U	6.7	0.02 U
7/20/2011	XX	GWXXXX4EC	0.001 U	0.002 U	1.3	0.012	6.7	0.0002 U	22.8	0.02 U	6.9	0.02 U
10/26/2011	XX	GWXXXX4I7	!	!	!	!	!	!	!	!	!	!
4/25/2012	XX	GWXXXX588	0.003 U	0.005 U	1.6	0.005	11.4	0.0006 U	16	0.27	4.6	0.05 U
4/25/2012	XX	GWXXXX52H	0.003	0.005 U	1.7	0.007	11.2	0.0006 U	16.3	1.43	5.1	0.07
7/25/2012	XX	GWXXXX57G	0.004	0.005 U	1.6	0.005 U	17.6	0.0006 U	23.8	0.52	6.9	0.05
10/24/2012	XX	GWXXXX5E7	0.004	0.005 U	1.7	0.005	25.8	0.0006 U	16.9	0.24	4.1	0.16
4/22/2013	XX	GWXXXX5II	!	!	!	!	!	!	!	!	!	!
P-04-04												

SEVEE & MAHER ENGINEERS, INC.
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(P-04-04) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L					
2/5/2004	XX	GWXXXX03F			4.6	0.004	73		11	0.93	4.8	0.12					
2/11/2004	XX	GWXXXX03D			1.7	0.006	25		23	0.05 J	6.1	0.09					
5/6/2004	XX	GWXXXX00F			2	0.004	14		26	0.02 J	5.5	0.06					
7/26/2004	XX	GWXXXX043			2.2	0.002 J	12		27	0.06	6	0.02 J					
10/25/2004	XX	GWXXXX07J			2	0.004	11		26	0.03 J	5.7	0.02 U					
5/9/2005	XX	GWXXXX140	0.01 U	0.002 U	2	0.003 J	7.8	0.0002 U	24	0.04 J	5.5	0.02 U					
7/27/2005	XX	GWXXXX178	0.001 U	0.002 U	1.4	0.003 J	6.7	0.0002 U	24	0.04 J	5.8	0.02 U					
9/22/2005	XX	GWXXXX1A6	0.003	0.002 J	1.9	0.003 J	6.1	0.0002 U	23	0.04 J	5.4	0.02 J					
5/22/2006	XX	GWXXXX1F1	0.001 U	0.002 U	1.7	0.004	6.3	0.0004 J	21	0.07	5.4	0.02 U					
7/24/2006	XX	GWXXXX1HI	0.001 U	0.002 U	1.5	0.001 J	5.6	0.0002 U	22	0.02 J	5.5	0.02 J					
9/11/2006	XX	GWXXXX20B	0.001 U	0.002 U	1.5	0.009	6.2	0.0002 J	23	0.11	5.6	0.02 J					
5/14/2007	XX	GWXXXX23I	0.015	0.002 U	0.9	0.006	6	0.0002 U	24	0.02 J	5.6	0.02 U					
7/23/2007	XX	GWXXXX282	0.001 U	0.002 U	1.5	0.002 J	4.7	0.0002 U	20	0.05 J	5.2	0.02 U					
9/10/2007	XX	GWXXXX2AC	0.001 J	0.003 J	1.5	0.004	4.8	0.0002 J	24	0.02 J	5.1	0.02 U					
5/21/2008	XX	GWXXXX2E6	0.003 U	0.003 U	1.5	0.006 J	4.6	0.001 U	22.7	0.02 J	5.6	0.02 U					
7/30/2008	XX	GWXXXX2HA	0.001 U	0.002 U	1.4	0.002 J	4.1	0.0002 U	20.2	0.02 J	4.9	0.02 U					
10/29/2008	XX	GWXXXX300	0.01 U	0.002 U	1.5	0.005	4.8	0.0004 J	58.1	0.02 J	5.8	0.02 U					
4/13/2009	XX	GWXXXX338	0.001 U	0.002 U	1.6	0.005	4.2	0.0002 J	22.7	0.02 U	5.7	0.02 U					
7/6/2009	XX	GWXXXX37C	0.001 U	0.002 U	1.4	0.008	4.2	0.0002 J	22.9	0.02 U	5.3	0.02 U					
10/27/2009	XX	GWXXXX3F7	0.001 U	0.002 U	1.4	0.005	3.9	0.0002 U	22.2	0.02 U	5.4	0.02 U					
4/26/2010	XX	GWXXXX406	0.001 U	0.002 U	1.3	0.007	3.9	0.0002 U	20.5	0.02 U	4.8	0.02 U					
7/21/2010	XX	GWXXXX43A	0.001 U	0.002 U	1.4	0.008	3.9	0.0002 U	21.4	0.02 U	5.3	0.02 U					
10/20/2010	XX	GWXXXX46E	0.001 U	0.002 U	1.6	0.008	4.5	0.0002 U	24	0.02 U	5.5	0.02 U					
4/27/2011	XX	GWXXXX4AF	0.001 U	0.002 U	1.3	0.011	4	0.0005 J	20.9	0.02 U	5	0.02 U					
7/20/2011	XX	GWXXXX4ED	0.001 U	0.002 U	1.3	0.01	3.7	0.0002 U	20.8	0.02 U	5.1	0.02 U					
10/26/2011	XX	GWXXXX4I8	0.001 U	0.002 U	1.4	0.002 U	3.7	0.0002 U	22	0.02 U	5.2	0.02 U					
4/25/2012	XX	GWXXXX52I	0.003 U	0.005 U	1.3	0.008	4.1	0.0006 U	18.3	0.05 U	5.1	0.05 U					
7/25/2012	XX	GWXXXX57H	0.003 U	0.005 U	1.3	0.005	4.2	0.0006 U	21.2	0.05 U	5.2	0.05 U					
10/24/2012	XX	GWXXXX5E8	0.003 U	0.005 U	1.3	0.01	4.2	0.0006 U	19.9	0.05 U	5.8	0.05 U					
4/24/2013	XX	GWXXXX5IJ	0.003	0.005 U	1.4	0.011	4.1	0.0006 U	21.7	0.05 U	5.3	0.05 U					
7/31/2013	XX	GWXXXX654		0.005 U	1.2	0.012	3.7	0.0006 U	22	0.05 U	5.5	0.05 U					
10/30/2013	XX	GWXXXX67E		0.005 U	1.2	0.008	3.6	0.0006 U	21.7	0.05 U	5.2	0.05 U					
P-206A																	
7/31/2013	XX	GW206A64I		I	I	I	I	I	I	I	I	I					
10/28/2013	XX	GW206A67B		0.005 U	1.3	0.01	8.4	0.0006 U	11.1	4.26	3.5	0.2					
PWS10-1																	
4/26/2010	XX	GWPWS13IJ	0.001 U	0.034	1.9	0.008	7.6	0.0002 U	17	2.25	4.5	0.18					
7/19/2010	XX	GWPWS1423	0.009	0.02	2.8	0.015	9.6	0.0002 U	35.2	30.3	12.2	0.72					
10/18/2010	XX	GWPWS1457	0.001 U	0.002 U	1.5	0.009	9.1	0.0002 U	34.6	0.63	9	0.05					
4/25/2011	XX	GWPWS1498	0.001 U	0.002 U	1	0.013	7.6	0.0002 U	18.4	2.97	7.5	0.1					
7/18/2011	XX	GWPWS14D6	0.003	0.002 J	1.4	0.007	8.7	0.0016	23.9	5.09	7.7	0.56					
10/24/2011	XX	GWPWS14H1	0.006	0.002 U	1.1	0.002 U	6.7	0.0002 U	20.7	4.27	6.9	0.35					
4/23/2012	XX	GWPWS151B	0.003 U	0.005 U	0.6	0.007	7.9	0.0006 U	16.3	0.48	5.1	0.07					
7/23/2012	XX	GWPWS156A	0.003 U	0.005 U	0.5	0.005 U	5.1	0.0006 U	9.8	3.47	3.2	0.4					
10/22/2012	XX	GWPWS15D1	0.003 U	0.005 U	0.4	0.006	6.4	0.0006 U	13.2	2.61	5.3	0.1					
4/22/2013	XX	GWPWS15HC	0.003 U	0.005 U	1.8	0.011	10	0.0006 U	30.9	1.35	9.3	0.09					
7/29/2013	XX	GWPWS163H		0.005 U	1.3	0.005 U	7.2	0.0006 U	18.9	4.66	6.3	0.31					
10/28/2013	XX	GWPWS166A		0.005 U	0.7	0.005 U	5.6	0.0006 U	9.5	1.56	3.4	0.09					

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(PWS10-2)			Copper	Nickel	Potassium	Arsenic	Sodium	Cadmium	Calcium	Iron	Magnesium	Manganese					
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L					
Date	Type	Sample ID															
PWS10-2																	
4/26/2010	XX	GWPWS23J0	0.001 U	0.002 U	0.5	0.004 J	3.7	0.0002 U	6.9	1.03	1.5	0.02 U					
7/19/2010	XX	GWPWS2424	0.001 U	0.002 U	0.4	0.005	4.5	0.0002 U	10.2	2.54	2.9	0.05					
10/18/2010	XX	GWPWS2458	0.001 U	0.002 U	0.6	0.006	3.9	0.0002 U	9.7	0.35	2.4	0.02 U					
4/25/2011	XX	GWPWS2499	0.002 J	0.007	1.1	0.002 U	3.2	0.0003 J	6.1	3.06	1.9	0.03 J					
7/18/2011	XX	GWPWS24D7	0.001 J	0.002 U	0.7	0.003 J	5.1	0.0014	15.2	0.9	3.9	0.43					
10/24/2011	XX	GWPWS24H2	0.013	0.003 J	1.1	0.002 U	2.8	0.0002 U	12.3	2.09	2.8	0.07					
4/23/2012	XX	GWPWS251C	0.003 U	0.005 U	0.3 U	0.005 U	4.2	0.0006 U	5.7	1.48	1.6	0.05 U					
7/23/2012	XX	GWPWS256B	0.003 U	0.005 U	0.4	0.005 U	4.6	0.0006 U	8.1	1.55	2.7	0.07					
10/22/2012	XX	GWPWS25D2	0.003	0.005 U	0.8	0.005 U	2.9	0.0006 U	6.6	0.32	1.4	0.05					
4/22/2013	XX	GWPWS25HD	0.003 U	0.005 U	0.3 U	0.005 U	4.4	0.0006 U	9.2	2.34	3.1	0.05 U					
7/29/2013	XX	GWPWS263I		0.005 U	0.5	0.005 U	5.1	0.0006 U	13.9	2.42	3.2	0.05 U					
10/28/2013	XX	GWPWS266B		0.005 U	0.8	0.005 U	3.2	0.0006 U	8.9	6.07	1.9	0.44					
PWS10-3																	
4/26/2010	XX	GWPWS33J1	0.001 U	0.002 U	0.7	0.003 J	3.8	0.0002 U	25	0.34	3.6	0.02 J					
7/19/2010	XX	GWPWS3425	0.001 J	0.002 U	0.9	0.004 J	4.2	0.0002 U	17	20.8	4.3	0.72					
10/18/2010	XX	GWPWS3459	0.001 U	0.002 U	0.3	0.005	5.8	0.0002 U	7.4	2.26	2.4	0.11					
4/25/2011	XX	GWPWS349A	0.001 U	0.002 U	0.2 J	0.011	3.9	0.0002 U	17.8	1.69	3.4	0.05					
7/18/2011	XX	GWPWS34D8	0.002 J	0.002 U	1.3	0.004 J	4.6	0.001	12.9	3.85	3.5	1.48					
10/24/2011	XX	GWPWS34H3	0.007	0.002 U	0.1 J	0.002 U	2.5	0.0002 U	10.6	4.95	2.4	0.09					
4/23/2012	XX	GWPWS351D	0.003 U	0.005 U	0.3 U	0.005 U	3.5	0.0006 U	5.1	0.64	2.3	0.05 U					
7/23/2012	XX	GWPWS356C	0.003 U	0.005 U	0.3	0.005 U	4.2	0.0006 U	6.2	1.54	2.3	0.12					
10/22/2012	XX	GWPWS35D3	0.003	0.005 U	0.3 U	0.005 U	3.2	0.0006 U	4.4	3.07	1.7	0.15					
4/22/2013	XX	GWPWS35HE	0.003 U	0.005 U	0.4	0.005 U	3.9	0.0006 U	4.9	1.42	1.8	0.05					
7/29/2013	XX	GWPWS363J		0.005 U	1.1	0.005	5.6	0.0006 U	13.3	11.4	3.9	0.51					
10/28/2013	XX	GWPWS366C		0.005 U	0.5	0.006	4.5	0.0006 U	6.2	1.53	2.3	0.09					
SW-1																	
5/3/2004	XX	SWXX1X018			2.6	0.006	8.1		6.3	0.23	1.99	0.03 J					
7/27/2004	XX	SWXX1X04E			2	0.006	4.4		7.3	3.3	2.4	0.75					
10/26/2004	XX	SWXX1X069			1.7	0.005	4.6		4.8	0.63	1.77	0.06					
5/10/2005	XX	SWXX1X12A	0.01 U	0.002 U	0.2 J	0.002 J	6.8	0.0002 U	3.1	0.21	1.19	0.02 U					
7/28/2005	XX	SWXX1X15I	0.001 J	0.002 J	2.4	0.004	6.4	0.0002 U	6.8	5	2.4	0.4					
9/20/2005	XX	SWXX1X18G	0.001 J	0.004 J	5	0.001 J	5.4	0.0002 U	11	3.5	2.9	0.23					
5/24/2006	XX	SWXX1X1DB	0.002 J	0.003 J	1.4	0.004	8.4	0.0003 J	25	0.56	4.5	0.04 J					
7/26/2006	XX	SWXX1X1G8	0.003	0.002 U	0.5	0.007	4.1	0.0002 U	7.6	2.5	2.3	0.33					
7/26/2006	XD	SWDP2X1GE	0.002 J	0.002 U	0.6	0.007	4.2	0.0002 U	7.6	2.3	2.3	0.32					
9/13/2006	XX	SWXX1X1J1	0.002 J	0.002 J	2.7	0.001 J	10.6	0.0002 U	48	1.16	8.7	0.16					
5/15/2007	XX	SWXX1X228	0.002 J	0.002 J	0.5	0.004	6.5	0.0002 U	8.4	0.72	2.3	0.05					
5/15/2007	XD	SWDP2X22E	0.002 J	0.002 U	0.5	0.004	7.1	0.0003 J	9.2	0.74	2.6	0.04 J					
7/24/2007	XD	SWDP2X26I	0.002 J	0.002 U	0.5	0.001 U	7.5	0.0003 J	10	1.18	2.7	0.03 J					
7/24/2007	XX	SWXX1X26C	0.003	0.002 U	0.6	0.001 J	7.6	0.0002 J	10	1.16	2.7	0.03 J					
9/11/2007	XX	SWXX1X292	0.001 J	0.003 J	1	0.001 J	6.2	0.0004 J	11	1.27	2.7	0.06					
5/21/2008	XD	SWDP2X2D2	0.003 U	0.003 U	0.6	0.003 J	6.8	0.001 U	8.5	1.96	2.3	0.09					
5/21/2008	XX	SWXX1X2CG	0.003 U	0.003 U	0.6	0.003 J	6.7	0.001 U	8.6	1.97	2.3	0.1					
7/29/2008	XX	SWXX1X2G0	I	I	I	I	I	I	I	I	I	I					
10/28/2008	XX	SWXX1X2IA	0.01 U	0.002 U	0.4	0.002 U	3.8	0.0005 J	6.9	0.57	2.1	0.03 J					
4/14/2009	XX	SWXX1X31I	0.0001 U	0.002 U	0.8	0.002 U	7.1	0.00002 U	9.4	0.1	2.2	0.02 U					
7/7/2009	XX	SWXX1X362	0.0001 U	0.002 U	0.1 J	0.002 U	5.3	0.00002 U	5.4	1.31	1.7	0.1					

SUMMARY REPORT

Metal (part 1 of 1)

SEVEE & MAHER ENGINEERS, INC.
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(SW-1) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
10/27/2009	XX	SWXX1X3DH	0.0001 U	0.002 U	0.2 J	0.002 U	3.6	0.00002 U	3.9	0.35	1.4	0.02 J
4/28/2010	XX	SWXX1X3IG	0.0001 J	0.002 U	0.5	0.002 U	5.3	0.00003 J	6.9	0.56	2.1	0.05
7/20/2010	XX	SWXX1X420	0.0075	0.01	2.9	0.008	8.4	0.00002 U	33.7	19.4	10.7	0.49
10/19/2010	XX	SWXX1X454	0.0001 U	0.002 U	0.2 J	0.002 U	5.4	0.00002 U	6.4	0.4	2.1	0.02 U
4/26/2011	XX	SWXX1X495	0.0001 U	0.004 J	0.5	0.005	5	0.00002 U	5.4	0.32	1.7	0.02 U
7/19/2011	XX	SWXX1X4D3	0.0001 U	0.005	1.5	0.009	8.4	0.00002 U	26.2	10.9	7.4	1.1
10/25/2011	XX	SWXX1X4GI	0.0001 U	0.002 U	0.3	0.002 U	4.5	0.00002 J	7.5	0.53	2	0.02 J
4/24/2012	XX	SWXX1X518	0.0003 U	0.005 U	1	0.005 U	5.1	0.00006 U	5.4	0.23	1.8	0.05 U
7/24/2012	XX	SWXX1X567	0.0003 U	0.005 U	0.8	0.01	5	0.00006 U	10.6	2.32	3.6	0.25
10/23/2012	XX	SWXX1X5CI	0.0027	0.005 U	1.1	0.005 U	4.1	0.00019	11.6	0.3	2.6	0.05
4/23/2013	XX	SWXX1X5H9	0.0003 U	0.005 U	1	0.005 U	6.3	0.00006 U	5.2	0.24	1.9	0.05 U
7/30/2013	XX	SWXX1X63E		0.005 U	0.4	0.005 U	3.6	0.00006	9.6	2.92	3.2	0.12
10/29/2013	XX	SWXX1X667		0.005 U	0.4	0.005 U	4.3	0.00006 U	7.2	0.57	2.7	0.05 U
SW-2												
5/3/2004	XX	SWXX2X019			0.9	0.004	7.3		5.4	0.39	1.4	0.08
7/27/2004	XX	SWXX2X04F			0.5	0.004	4.9		7.1	0.78	2.3	0.05
7/27/2004	XD	SWDP2X050			0.7	0.005	4.9		6.8	0.77	2.4	0.07
10/26/2004	XX	SWXX2X06A			0.4	0.001 J	6.1		4.7	0.37	1.9	0.03 J
5/10/2005	XX	SWXX2X12B	0.01 J	0.002 U	0.3	0.002 J	7.5	0.0002 U	3.2	0.2	1.33	0.02 U
5/10/2005	XD	SWDP2X12G	0.01 U	0.002 U	0.3	0.003 J	7.6	0.0002 U	3.1	0.21	1.32	0.02 U
7/28/2005	XX	SWXX2X15J	0.001 U	0.002 U	0.6	0.001 U	4.2	0.0002 U	5.3	0.47	2	0.07
9/20/2005	XX	SWXX2X18H	0.003	0.002 U	0.3	0.007	4.6	0.0002 U	5.8	0.75	1.92	0.08
5/24/2006	XD	SWDP2X1DH	0.001 J	0.002 U	0.4	0.001 U	7.2	0.0002 U	5.5	0.27	1.6	0.02 J
5/24/2006	XX	SWXX2X1DC	0.001 J	0.002 U	0.3	0.003 J	7.1	0.0002 U	5.4	0.28	1.61	0.02 J
7/26/2006	XX	SWXX2X1G9	0.002 J	0.002 U	0.5	0.007	3.9	0.0002 U	5.5	2.5	1.94	0.18
9/13/2006	XD	SWDP2X1J7	0.001 U	0.002 U	0.4	0.001 U	5	0.0002 U	4.5	1.64	2.8	0.18
9/13/2006	XX	SWXX2X1J2	0.001 U	0.002 J	0.3	0.001 J	4.9	0.0002 U	4.5	1.63	2.8	0.17
5/15/2007	XX	SWXX2X229	0.002 J	0.003 J	0.3	0.002 J	6.4	0.0002 U	5	0.68	1.71	0.05
7/24/2007	XX	SWXX2X26D	0.001 J	0.002 U	0.6	0.001 J	6.9	0.0003 J	10	1.26	2.4	0.12
9/11/2007	XD	SWDP2X298	0.002 J	0.002 U	1.4	0.001 U	5.3	0.0003 J	10	1.28	2.6	0.2
9/11/2007	XX	SWXX2X293	0.001 J	0.002 U	1.4	0.001 J	5.3	0.0004 J	10	1.29	2.6	0.19
5/21/2008	XX	SWXX2X2CH	0.003 U	0.003 U	0.8	0.003 J	7	0.001 U	5	1.51	1.8	0.09
7/29/2008	XX	SWXX2X2G1	0.001 U	0.002 U	0.6	0.002 U	5.5	0.0002 U	6.3	1.37	2.3	0.14
10/28/2008	XX	SWXX2X2IB	0.01 U	0.002 U	0.3	0.002 U	3.3	0.0002 U	4.6	0.38	1.9	0.02 J
10/28/2008	XD	SWDP2X2IG	0.01 U	0.002 U	0.4	0.002 U	3.4	0.0002 U	4.7	0.41	1.9	0.03 J
4/14/2009	XX	SWXX2X31J	0.0001 U	0.002 U	0.6	0.002 U	5.7	0.00002 U	2.8	0.37	1.1	0.04 J
7/7/2009	XX	SWXX2X363	0.0001 U	0.002 U	0.1 U	0.004 J	5.2	0.00003 J	4.2	0.68	1.5	0.06
7/7/2009	XD	SWDP2X368	0.0001 U	0.002 U	0.1 J	0.002 J	4.8	0.00004 J	4.1	0.76	1.5	0.06
10/27/2009	XX	SWXX2X3DI	0.0024	0.006	0.3	0.002 U	3.5	0.00002 U	7	0.14	2.1	0.02 U
4/28/2010	XD	SWDP2X3J2	0.0001 U	0.002 U	0.5	0.005	5.4	0.00002 U	4.6	0.32	1.7	0.04 J
4/28/2010	XX	SWXX2X3IH	0.0001 U	0.002 U	0.5	0.003 J	5.3	0.00002 J	4.5	0.31	1.7	0.04 J
7/20/2010	XD	SWDP2X426	0.0001 J	0.002 U	0.5	0.002 J	4.1	0.00002 U	5.7	0.67	2.1	0.06
7/20/2010	XX	SWXX2X421	0.0001 J	0.002 U	0.6	0.002 J	4.1	0.00002 U	5.9	0.68	2.1	0.06
10/19/2010	XD	SWDP2X45A	0.0001 U	0.002 U	0.1 J	0.002 U	5.5	0.00002 U	5.7	0.44	2	0.02 J
10/19/2010	XX	SWXX2X455	0.0001 U	0.002 U	0.1 J	0.002 U	5.6	0.00002 U	5.8	0.44	2.1	0.02 J
4/26/2011	XX	SWXX2X496	0.0001 U	0.003 J	0.4	0.006	5.7	0.00002 U	3.8	0.17	1.4	0.02 U
4/26/2011	XD	SWDP2X49B	0.0001 U	0.002 J	0.3	0.006	5.4	0.00002 U	3.6	0.17	1.3	0.02 U
7/19/2011	XX	SWXX2X4D4	0.0001 U	0.003 J	0.6	0.002 U	4.4	0.00002 U	8.2	1.17	2.7	0.03 J
7/19/2011	XD	SWDP2X4D9	0.0001 U	0.003 J	0.6	0.002 J	4.2	0.00002 U	7.5	1.23	2.6	0.03 J

(SW-2) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
10/25/2011	XX	SWXX2X4GJ	0.0001 U	0.002 U	0.2 J	0.002 U	4.8	0.00002 U	5.3	0.32	1.7	0.02 U
10/25/2011	XD	SWDP2X4H4	0.0001 U	0.002 U	0.2 J	0.002 U	4.9	0.00002 U	5.4	0.31	1.8	0.02 U
4/24/2012	XD	SWDP2X51E	0.0003 U	0.005 U	1.2	0.005 U	11.3	0.00006 U	6.3	0.27	2.6	0.05 U
4/24/2012	XX	SWXX2X519	0.0003 U	0.005 U	1.2	0.005 U	11.1	0.00006 U	6.1	0.26	2.5	0.05 U
7/24/2012	XX	SWXX2X568	0.0004	0.005 U	0.3	0.005 U	4.1	0.00007	6.1	1.41	2.5	0.09
10/23/2012	XX	SWXX2X5CJ	0.0011	0.005 U	0.9	0.005 U	2.9	0.0002	3.9	0.31	1.6	0.05 U
10/23/2012	XD	SWDP2X5D4	0.001	0.005 U	0.9	0.005 U	2.8	0.00017	4	0.34	1.6	0.05 U
4/23/2013	XD	SWDP2X5HF	0.0003 U	0.005 U	1.1	0.005	6.4	0.00006 U	4.1	0.16	1.8	0.05 U
4/23/2013	XX	SWXX2X5HA	0.0003 U	0.005 U	1.2	0.005 U	6.7	0.00006 U	4.2	0.2	1.8	0.05 U
7/30/2013	XX	SWXX2X63F		0.005 U	0.3 U	0.005 U	3.2	0.00006	6.6	1.1	2.3	0.05
10/29/2013	XX	SWXX2X668		0.005 U	0.3	0.005 U	4.2	0.00006 U	5.3	0.32	2.2	0.05 U
10/29/2013	XD	SWDP2X66D		0.005 U	0.3	0.005 U	3.8	0.00006 U	5	0.32	2.1	0.05 U
SW-3												
5/3/2004	XX	SWXX3X01A			1.1	0.004	6.3		5.2	0.53	1.45	0.18
5/3/2004	XD	SWDP2X01E			1.1	0.002 J	6.6		4.7	0.57	1.43	0.19
7/27/2004	XX	SWXX3X04G			0.9	0.003 J	5		10	3.5	2.7	0.42
10/26/2004	XX	SWXX3X06B			1.6	0.001 J	3.6		5	1.7	1.89	0.25
10/26/2004	XD	SWDP2X06F			1.6	0.002 J	3.6		5.1	1.68	1.89	0.25
5/10/2005	XX	SWXX3X12C	0.01 U	0.002 U	0.4	0.003 J	4.9	0.0002 U	3.2	0.3	0.97	0.02 J
7/28/2005	XD	SWDP2X164	0.001 J	0.002 U	1	0.001 J	5.3	0.0002 U	6.4	1.95	1.9	0.25
7/28/2005	XX	SWXX3X160	0.001 J	0.002 U	1	0.002 J	5.2	0.0002 U	6.2	1.97	2	0.26
9/20/2005	XD	SWDP2X192	0.002 J	0.002 U	1.2	0.002 J	4.3	0.0002 U	8.1	1.82	1.82	0.17
9/20/2005	XX	SWXX3X18I	0.003	0.002 U	1.4	0.003 J	4	0.0002 U	7.8	1.78	1.8	0.17
5/24/2006	XX	SWXX3X1DD	0.001 U	0.002 U	0.8	0.001 U	5.1	0.0002 U	5.6	0.54	1.24	0.07
7/26/2006	XX	SWXX3X1GA	0.002 J	0.002 U	0.6	0.003 J	3.2	0.0002 U	5.9	1.36	1.44	0.17
9/13/2006	XX	SWXX3X1J3	0.001 U	0.002 U	0.7	0.001 J	4.4	0.0002 U	5.2	1.53	2	0.12
5/15/2007	XX	SWXX3X22A	0.003	0.002 J	0.8	0.002 J	2.9	0.0002 U	6.3	0.69	1.65	0.17
7/24/2007	XX	SWXX3X26E	0.001 J	0.002 U	0.7	0.002 J	5	0.0003 J	10	1.75	2.1	0.23
9/11/2007	XX	SWXX3X294	0.001 U	0.002 U	1.5	0.001 U	5.2	0.0002 J	11	1.3	2.3	0.2
5/21/2008	XX	SWXX3X2CI	0.003 U	0.003 J	0.6	0.003 U	5.8	0.001 U	7.3	0.99	2.1	0.2
7/29/2008	XX	SWXX3X2G2	0.001 U	0.002 U	0.4	0.002 U	4.8	0.0002 U	9	1.12	2.4	0.06
10/28/2008	XX	SWXX3X2IC	0.01 U	0.002 U	0.5	0.002 U	3.8	0.0002 U	6.6	0.48	1.9	0.02 J
4/14/2009	XX	SWXX3X320	0.0001 U	0.002 U	0.5	0.002 J	6.3	0.00005 J	3.8	0.2	1.2	0.02 U
7/7/2009	XX	SWXX3X364	0.0001 U	0.002 U	0.2 J	0.002 U	3.9	0.00002 U	6	1.14	1.5	0.07
10/27/2009	XX	SWXX3X3DJ	0.0001 U	0.002 U	0.4	0.002 U	2.9	0.00002 U	4.1	0.39	1.2	0.02 J
4/28/2010	XX	SWXX3X3II	0.0001 U	0.002 U	0.5	0.002 U	4.9	0.00002 U	6.4	0.6	1.7	0.08
7/20/2010	XX	SWXX3X422	0.0001 J	0.002 U	0.4	0.004 J	3.6	0.00002 U	11.2	1.34	2.7	0.28
10/19/2010	XX	SWXX3X456	0.0001 U	0.002 U	0.4	0.002 U	4.4	0.00002 U	7.8	0.28	1.9	0.02 U
4/26/2011	XX	SWXX3X497	0.0001 U	0.003 J	0.4	0.003 J	5.5	0.00002 U	4.7	0.21	1.3	0.02 J
7/19/2011	XX	SWXX3X4D5	0.0001 U	0.003 J	0.2 J	0.003 J	4.3	0.00002 U	10.1	1.03	2.6	0.21
10/25/2011	XX	SWXX3X4H0	0.0001 U	0.002 U	0.4	0.002 U	4.1	0.00002 U	6.8	0.54	1.7	0.03 J
4/24/2012	XX	SWXX3X51A	0.0003 U	0.005 U	0.7	0.005 U	2.9	0.00006 U	4.3	0.26	1.2	0.05 U
7/24/2012	XD	SWDP2X56D	0.0003 U	0.005 U	0.5	0.005 U	5.2	0.00006 U	7.5	1.17	3	0.42
7/24/2012	XX	SWXX3X569	0.0003 U	0.005 U	0.5	0.005	5.4	0.00006 U	10.1	1.34	3	0.46
10/23/2012	XX	SWXX3X5D0	0.0003 U	0.005 U	0.7	0.005 U	2.4	0.00006 U	4.3	0.36	1.2	0.05 U
4/23/2013	XX	SWXX3X5HB	0.0003 U	0.005 U	0.7	0.005 U	4.7	0.00006 U	4.8	0.17	1.6	0.05 U
7/30/2013	XX	SWXX3X63G		0.005 U	0.3 U	0.005 U	3.1	0.00006 U	8.4	0.8	2.2	0.07
7/30/2013	XD	SWDP2X640		0.005 U	0.3 U	0.005 U	3.1	0.00006 U	8.6	0.79	2.2	0.07
10/29/2013	XX	SWXX3X669		0.005 U	0.5	0.005 U	4.5	0.00006 U	7.5	0.46	2.6	0.05

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(SW-DP1) Date	Type	Sample ID	Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L
SW-DP1												
5/3/2004	XX	SWDP1X01H			25	0.003 J	17		34	0.11	5.9	0.06
7/27/2004	XX	SWDP1X053			19	0.003 J	25		40	0.2	7.6	0.03 J
10/26/2004	XX	SWDP1X06H			4.7	0.004	6.3		32	0.05 J	6.5	0.02 J
5/10/2005	XX	SWDP1X12I	0.01 U	0.003 J	3.7	0.003 J	3.7	0.0002 U	13	0.85	2.2	0.06
7/28/2005	XX	SWDP1X166	0.001 J	0.002 U	2.7	0.001 U	3.1	0.0002 U	15	0.72	2.8	0.09
9/20/2005	XX	SWDP1X194	0.001 U	0.002 J	3.7	0.003 J	4.5	0.0005 J	29	1.37	2.9	0.12
5/24/2006	XX	SWDP1X1DJ	0.001 J	0.002 J	3.8	0.004	6.7	0.0002 J	33	0.37	4	0.19
7/26/2006	XX	SWDP1X1GG	0.003	0.003 J	3.1	0.012	9	0.0002 J	27	1.4	4.1	0.88
9/13/2006	XX	SWDP1X1J9	0.001 U	0.002 U	2.6	0.001 J	5.3	0.0002 U	24	0.64	4.4	0.05
5/15/2007	XX	SWDP1X22G	0.003	0.002 J	2.8	0.002 J	6.5	0.0002 J	28	0.18	4.4	0.03 J
7/24/2007	XX	SWDP1X270	0.012	0.002 U	2.1	0.002 J	4.2	0.0004 J	18	0.38	2.5	0.09
9/11/2007	XX	SWDP1X29A	0.001 U	0.002 U	1.7	0.001 U	3.3	0.0008	14	0.1	1.8	0.02 J
5/21/2008	XX	SWDP1X2D4	0.003 U	0.003 U	1.2	0.003 U	6.6	0.001 U	17.2	0.26	4.9	0.05
7/29/2008	XX	SWDP1X2G8	0.001 J	0.002 U	1.5	0.002 U	3.5	0.0002 U	12.1	0.18	1.9	0.02 J
10/28/2008	XX	SWDP1X2II	0.01 U	0.002 U	1.8	0.002 U	4.4	0.0002 J	20.7	0.49	4	0.04 J
4/14/2009	XX	SWDP1X326	0.0019	0.002 U	1.9	0.002 U	5.6	0.00002 U	26.9	0.36	4.7	0.08
7/7/2009	XX	SWDP1X36A	0.0001 U	0.002 U	1.1	0.002 U	2.6	0.00002 U	15.9	0.14	2	0.04 J
10/27/2009	XX	SWDP1X3E5	0.0022	0.002 U	1.8	0.002 U	2.9	0.00002 U	17.7	0.33	1.9	0.02 J
4/28/2010	XX	SWDP1X3J4	0.0001 J	0.002 U	1.7	0.002 U	5.4	0.00002 U	22.4	0.1	3.3	0.06
7/20/2010	XX	SWDP1X428	0.0001 J	0.002 U	0.4	0.002 U	2.3	0.00002 U	12.5	0.18	1.6	0.05
10/19/2010	XX	SWDP1X45C	0.0001 U	0.002 U	1.4	0.002 U	2.8	0.00002 U	15.9	0.15	1.4	0.02 J
4/26/2011	XX	SWDP1X49D	0.0001 U	0.003 J	1.4	0.005	3.1	0.00002 U	15.5	0.16	2.5	0.03 J
7/19/2011	XX	SWDP1X4DB	0.0001 U	0.002 U	1.7	0.009	3	0.00002 U	21.8	0.06	2.8	0.09
10/25/2011	XX	SWDP1X4H6	0.016	0.002 U	1.5	0.002 U	1.9	0.00002 U	15.5	0.25	1.9	0.03 J
4/24/2012	XX	SWDP1X51G	0.0003 U	0.005	1.9	0.005 U	2.1	0.00006 U	13.9	2.94	2.3	0.13
7/24/2012	XX	SWDP1X56F	0.0003 U	0.005 U	2.4	0.005	3.6	0.00006 U	20.6	0.17	4.2	0.11
10/23/2012	XX	SWDP1X5D6	0.0082	0.005 U	1.3	0.005 U	1.2	0.00016	10.4	1.93	1.4	0.21
4/23/2013	XX	SWDP1X5HH	0.0003 U	0.005 U	2.7	0.005	4.9	0.00006 U	27.8	0.42	3.4	0.13
7/30/2013	XX	SWDP1X642		0.005 U	0.9	0.007	1.4	0.00006	11	0.27	1.1	0.1
10/29/2013	XX	SWDP1X66F		0.005 U	1.8	0.005	3.5	0.00006 U	24.2	0.24	3.6	0.21
SW-DP5												
4/23/2013	XX	SWDP5X60I	0.0003 U	0.005 U	1.9	0.005 U	4.7	0.00006 U	22.4	0.32	1.8	0.06
7/30/2013	XX	SWDP5X65H		0.005 U	1	0.006	1.9	0.00007	14.4	0.33	0.8	0.05 U
10/29/2013	XX	SWDP5X686		D	D	D	D	D	D	D	D	D
SW-DP6												
10/27/2009	XX	SWDP6X3G6	0.005	0.003 J	2.1	0.002 J	2.5	0.00002 U	11.3	3.05	2.2	0.07
4/28/2010	XX	SWDP6X3J5	0.0018	0.002 U	1.5	0.011	6.3	0.00002 J	29.8	1.52	3.8	0.96
7/20/2010	XX	SWDP6X429	0.0001 U	0.002 U	2.9	0.006	6.7	0.00002 U	31	1.02	3.5	0.36
10/19/2010	XX	SWDP6X45D	0.0001 U	0.002 U	2.3	0.002 U	3.4	0.00002 U	24.6	0.42	2.5	0.08
4/26/2011	XX	SWDP6X49E	0.0001 U	0.003 J	1.9	0.003 J	6.4	0.00002 U	19.1	0.28	1.9	0.06
7/19/2011	XX	SWDP6X4DC	0.0001 U	0.002 U	3.2	0.009	7.5	0.00002 U	63.3	0.12	7.3	0.09
10/25/2011	XX	SWDP6X4H7	0.0022	0.002 U	2.4	0.002 U	6	0.00002 U	39.4	0.17	4	0.06
4/24/2012	XX	SWDP6X51H	0.0003 U	0.005 U	1.6	0.005 U	3.8	0.00006 U	14.1	0.1	1.9	0.05 U
7/24/2012	XX	SWDP6X56G	0.0003 U	0.005 U	3.4	0.006	2.2	0.00006 U	11	1.32	2.5	0.79
10/23/2012	XX	SWDP6X5D7	0.006	0.005	1.9	0.005 U	1.4	0.00006 U	6.6	2.63	1.9	0.16
4/23/2013	XX	SWDP6X5HI	0.0003 U	0.005 U	1.6	0.005 U	3	0.00006 U	5.6	1.39	1.3	0.05
7/30/2013	XX	SWDP6X643		0.005 U	1.1	0.005 U	1.8	0.00006 U	10.2	0.31	1.4	0.05

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(SW-DP6)			Copper mg/L	Nickel mg/L	Potassium mg/L	Arsenic mg/L	Sodium mg/L	Cadmium mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L					
Date	Type	Sample ID															
10/29/2013	XX	SWDP6X66G		0.005 U	1.1	0.005 U	1.9	0.00006 U	10.6	0.23	1.6	0.05 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.
D - The sampling location was dry.
DE - Decommissioned Location
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 below reporting limit.
U - Not Detected above the reported sample detection limit.

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(DP-4)			Dibromomethane	Dibromochloromethane	Chloromethane	Chloroform	Chloroethane	Chlorobenzene	Carbon Tetrachloride	Bromomethane	Bromoform	Bromodichloromethane	Bromochloromethane	Benzene	1,2-Dichlorobenzene	1,2-Dibromoethane	1,2-Dibromo-3-Chloropropane
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
DP-4																	
7/26/2004	XX	GWXXXX041	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	GWXXXX1A4	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/22/2006	XX	GWXXXX1EJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GWXXXX23G	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/19/2008	XX	GWXXXX2E4	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GWXXXX336	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
4/26/2010	XX	GWXXXX404	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	GWXXXX4AD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2012	XX	GWXXXX52G	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 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	2 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	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LF-UD-1																	
7/28/2004	XX	LFUD1X05E	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LFUD1X19D	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LFUD1X1E8	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LFUD1X235	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD1X2DD	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFUD1X32F	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
4/27/2010	XX	LFUD1X3JD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD1X4A2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD1X525	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD1X5I6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LF-UD-2																	
7/28/2004	XX	LFUD2X05F	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LFUD2X19E	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LFUD2X1E9	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LFUD2X236	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD2X2DE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFUD2X32G	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
4/27/2010	XX	LFUD2X3JE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD2X4A3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD2X526	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD2X5I7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LF-UD-3A,B																	
5/16/2007	XX	LFUD3X246	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD3X2EE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFXXXX33F	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
4/27/2010	XX	LFXXXX40C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFXXXX4B1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX534	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J5	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-4																	
4/15/2009	XX	LFXXXX34A	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
4/27/2010	XX	LFXXXX40E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6

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

(LF-UD-4) Date	Type	Sample ID	Dibromomethane ug/L	Dibromochloromethane ug/L	Chloromethane ug/L	Chloroform ug/L	Chloroethane ug/L	Chlorobenzene ug/L	Carbon Tetrachloride ug/L	Bromomethane ug/L	Bromoform ug/L	Bromodichloromethane ug/L	Bromochloromethane ug/L	Benzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dibromoethane ug/L	1,2-Dibromo-3-Chloropropane ug/L
4/26/2011	XX	LFXXXX4B3	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
4/24/2012	XX	LFXXXX536	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LF-UD-5and6																	
4/26/2011	XX	LFXXXX4B4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX537	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LFXXXX5J7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LF-UD-6																	
4/26/2011	XX	LFUD6X4B6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD6X539	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LFUD6X5J9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LF-UD-7																	
4/24/2012	XX	LFUD7X53A	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD7X5JA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8																	
4/23/2013	XX	LFUD8X5JD	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LP-UD-1																	
7/28/2004	XX	LPUD1X05G	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
9/21/2005	XX	LPUD1X19F	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
5/24/2006	XX	LPUD1X1EA	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
5/16/2007	XX	LPUD1X237	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
5/20/2008	XX	LPUD1X2DF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/15/2009	XX	LPUD1X32H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/27/2010	XX	LPUD1X3JF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LPUD1X527	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-2																	
7/28/2004	XX	LPUD2X05H	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LPUD2X19G	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LPUD2X1EB	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LPUD2X238	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LPUD2X2DG	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LPUD2X32I	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
4/27/2010	XX	LPUD2X3JG	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LPUD2X4A5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LPUD2X528	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LPUD2X5I9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-204																	
5/4/2004	XX	GW204X008	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
7/27/2004	XX	GW204X03G	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	GW204X1A0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	GW204X1EF	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GW204X23C	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	GW204X2E0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

(MW-204) Date	Type	Sample ID	Dibromomethane ug/L	Dibromochloromethane ug/L	Chloromethane ug/L	Chloroform ug/L	Chloroethane ug/L	Chlorobenzene ug/L	Carbon Tetrachloride ug/L	Bromomethane ug/L	Bromoform ug/L	Bromodichloromethane ug/L	Bromochloromethane ug/L	Benzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dibromoethane ug/L	1,2-Dibromo-3-Chloropropane ug/L
4/13/2009	XX	GW204X332	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
4/28/2010	XX	GW204X400	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	GW204X4A9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	GW204X52C	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	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	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-401B																	
7/29/2004	XX	GW401B05A	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
7/29/2004	XD	GWDP4X05D	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
10/27/2004	XX	GW401B072	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	GW401B199	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XD	GWDP4X19C	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	GW401B1E4	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XD	GWDP4X1E7	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GW401B231	2 U	2 U	2 U	2 U	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XD	GWDP4X234	2 U	2 U	2 U	2 U	3	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	GW401B2D9	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XD	GWDP4X2DC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GW401B32B	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
4/13/2009	XD	GWDP4X32E	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
4/27/2010	XX	GW401B3J9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XD	GWDP4X3JC	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	GW401B49I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XD	GWDP4X4A1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	GW401B521	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/23/2012	XD	GWDP4X524	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 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	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XD	GWDP4X5I5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
P-04-02																	
7/26/2004	XX	GWXXXX042	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/22/2005	XX	GWXXXX1A5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/22/2006	XX	GWXXXX1F0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GWXXXX23H	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	GWXXXX2E5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GWXXXX337	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
4/26/2010	XX	GWXXXX405	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	GWXXXX4AE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	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	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XX	GWXXXX5II	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
QCBT																	
5/4/2004	XX	BTXXXX00H	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
6/9/2004	XX	BTXXXX035	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
7/26/2004	XX	BTXXXX046	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
10/27/2004	XX	BTXXXX060	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1/17/2005	XX	BTXXXX111	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
3/9/2005	XX	BTXXXX11E	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
3/21/2005	XX	BTXXXX142	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/11/2005	XX	BTXXXX121	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
7/25/2005	XX	BTXXXX17G	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

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(QCBT)			Dibromomethane	Dibromochloromethane	Chloromethane	Chloroform	Chloroethane	Chlorobenzene	Carbon Tetrachloride	Bromomethane	Bromoform	Bromodichloromethane	Bromochloromethane	Benzene	1,2-Dichlorobenzene	1,2-Dibromoethane	1,2-Dibromo-3-Chloropropane
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
7/27/2005	XX	BTXXXX187	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	BTXXXX1A7	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	BTXXXX1AI	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/22/2005	XX	BTXXXX1AJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4/19/2006	XX	BTXXXX1FE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/22/2006	XX	BTXXXX1F2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	BTXXXX1FD	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	BTXXXX1ID	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
7/25/2006	XX	BTXXXX1HJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/13/2006	XX	BTXXXX20C	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	BTXXXX23J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/15/2007	XX	BTXXXX244	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	BTXXXX245	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
7/24/2007	XX	BTXXXX283	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
9/11/2007	XX	BTXXXX2AD	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/19/2008	XX	BTXXXX2EC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	BTXXXX2ED	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
7/29/2008	XX	BTXXXX2HB	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
10/29/2008	XX	BTXXXX301	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
4/13/2009	XX	BTXXXX33D	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
4/15/2009	XX	BTXXXX33E	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
7/7/2009	XX	BTXXXX37H	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
10/28/2009	XX	BTXXXX3AJ	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
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 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	2 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	2 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	2 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	2 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	2 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	2 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	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	5 U	0.5 U	2.5 U	0.75 U	1 U	0.5 U	0.5 U	1 U	2 U	0.5 U	2.5 U	0.5 U	2.5 U	2 U	2.5 U
10/29/2013	XX	BTXXXX68C	2 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	0.5 U	2 U	1 U	1 U	2 U	2 U
10/29/2013	XX	BTXXXX69H		2 U	5 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U		1 U	1 U		

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(QCBT)			Dibromomethane	Dibromochloromethane	Chloromethane	Chloroform	Chloroethane	Chlorobenzene	Carbon Tetrachloride	Bromomethane	Bromoform	Bromodichloromethane	Bromochloromethane	Benzene	1,2-Dichlorobenzene	1,2-Dibromoethane	1,2-Dibromo-3-Chloropropane
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

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

! - The sampling location was damaged or destroyed.
D - The sampling location was dry.
F12 - Pipe under water, no sample taken.
F6 - No flow. Sample not taken.
H2 - Waterlevel higher than pipes. See LF-COMP for readings
U - Not Detected above the reported sample detection limit.

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(DP-4) Date	Type	Sample ID	trans-1,3-Dichloropropene ug/L	trans-1,2-Dichloroethene ug/L	Styrene ug/L	Methylene Chloride ug/L	Methyl Ethyl Ketone ug/L	Ethylbenzene ug/L	cis-1,3-Dichloropropene ug/L	cis-1,2-Dichloroethene ug/L	Carbon Disulfide ug/L	Acetone ug/L	1,4-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,2-Dichloroethane ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L
DP-4																	
7/26/2004	XX	GWXXXX041	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	GWXXXX1A4	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/22/2006	XX	GWXXXX1EJ	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GWXXXX23G	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/19/2008	XX	GWXXXX2E4	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GWXXXX336	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/26/2010	XX	GWXXXX404	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	GWXXXX4AD	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2012	XX	GWXXXX52G	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/24/2013	XX	GWXXXX5IH	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-COMP																	
4/24/2012	XX	LFXXXX53B	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-UD-1																	
7/28/2004	XX	LFUD1X05E	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LFUD1X19D	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LFUD1X1E8	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LFUD1X235	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD1X2DD	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFUD1X32F	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/27/2010	XX	LFUD1X3JD	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD1X4A2	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD1X525	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD1X5I6	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-UD-2																	
7/28/2004	XX	LFUD2X05F	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LFUD2X19E	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LFUD2X1E9	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LFUD2X236	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD2X2DE	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFUD2X32G	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/27/2010	XX	LFUD2X3JE	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD2X4A3	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD2X526	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD2X5I7	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-UD-3A,B																	
5/16/2007	XX	LFUD3X246	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD3X2EE	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFXXXX33F	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/27/2010	XX	LFXXXX40C	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFXXXX4B1	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX534	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J5	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-4																	
4/15/2009	XX	LFXXXX34A	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/27/2010	XX	LFXXXX40E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6

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(LF-UD-4) Date	Type	Sample ID	trans-1,3-Dichloropropene ug/L	trans-1,2-Dichloroethene ug/L	Styrene ug/L	Methylene Chloride ug/L	Methyl Ethyl Ketone ug/L	Ethylbenzene ug/L	cis-1,3-Dichloropropene ug/L	cis-1,2-Dichloroethene ug/L	Carbon Disulfide ug/L	Acetone ug/L	1,4-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,2-Dichloroethane ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L
4/26/2011	XX	LFXXXX4B3	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
4/24/2012	XX	LFXXXX536	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J6	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-UD-5and6																	
4/26/2011	XX	LFXXXX4B4	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX537	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LFXXXX5J7	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-UD-7																	
4/24/2012	XX	LFUD7X53A	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD7X5JA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8																	
4/23/2013	XX	LFUD8X5JD	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
LP-UD-1																	
7/28/2004	XX	LPUD1X05G	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
9/21/2005	XX	LPUD1X19F	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
5/24/2006	XX	LPUD1X1EA	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
5/16/2007	XX	LPUD1X237	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
5/20/2008	XX	LPUD1X2DF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/15/2009	XX	LPUD1X32H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/27/2010	XX	LPUD1X3JF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LPUD1X527	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-2																	
7/28/2004	XX	LPUD2X05H	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LPUD2X19G	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LPUD2X1EB	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LPUD2X238	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LPUD2X2DG	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LPUD2X32I	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/27/2010	XX	LPUD2X3JG	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LPUD2X4A5	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LPUD2X528	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LPUD2X5I9	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
MW-204																	
5/4/2004	XX	GW204X008	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
7/27/2004	XX	GW204X03G	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	GW204X1A0	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	GW204X1EF	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GW204X23C	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	GW204X2E0	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GW204X332	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/28/2010	XX	GW204X400	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	GW204X4A9	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	GW204X52C	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/24/2013	XX	GW204X5ID	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U

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(MW-401B)			trans-1,3-Dichloropropene	trans-1,2-Dichloroethene	Styrene	Methylene Chloride	Methyl Ethyl Ketone	Ethylbenzene	cis-1,3-Dichloropropene	cis-1,2-Dichloroethene	Carbon Disulfide	Acetone	1,4-Dichlorobenzene	1,2-Dichloropropane	1,2-Dichloroethane	1,1-Dichloroethene	1,1-Dichloroethane
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
MW-401B																	
7/29/2004	XX	GW401B05A	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
7/29/2004	XD	GWDP4X05D	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
10/27/2004	XX	GW401B072	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	GW401B199	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XD	GWDP4X19C	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	GW401B1E4	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XD	GWDP4X1E7	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GW401B231	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XD	GWDP4X234	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	GW401B2D9	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XD	GWDP4X2DC	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GW401B32B	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/13/2009	XD	GWDP4X32E	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/27/2010	XX	GW401B3J9	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XD	GWDP4X3JC	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	GW401B49I	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XD	GWDP4X4A1	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	GW401B521	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/23/2012	XD	GWDP4X524	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XX	GW401B5I2	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XD	GWDP4X5I5	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
P-04-02																	
7/26/2004	XX	GWXXXX042	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/22/2005	XX	GWXXXX1A5	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/22/2006	XX	GWXXXX1F0	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GWXXXX23H	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	GWXXXX2E5	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GWXXXX337	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/26/2010	XX	GWXXXX405	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	GWXXXX4AE	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2012	XX	GWXXXX52H	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XX	GWXXXX5II	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
QCBT																	
5/4/2004	XX	BTXXXX00H	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
6/9/2004	XX	BTXXXX035	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
7/26/2004	XX	BTXXXX046	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
10/27/2004	XX	BTXXXX060	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
1/17/2005	XX	BTXXXX111	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
3/9/2005	XX	BTXXXX11E	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
3/21/2005	XX	BTXXXX142	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/11/2005	XX	BTXXXX121	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
7/25/2005	XX	BTXXXX17G	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
7/27/2005	XX	BTXXXX187	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	BTXXXX1A7	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	BTXXXX1AI	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/22/2005	XX	BTXXXX1AJ	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
4/19/2006	XX	BTXXXX1FE	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U

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(QCBT) Date	Type	Sample ID	trans-1,3-Dichloropropene ug/L	trans-1,2-Dichloroethene ug/L	Styrene ug/L	Methylene Chloride ug/L	Methyl Ethyl Ketone ug/L	Ethylbenzene ug/L	cis-1,3-Dichloropropene ug/L	cis-1,2-Dichloroethene ug/L	Carbon Disulfide ug/L	Acetone ug/L	1,4-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,2-Dichloroethane ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L
5/22/2006	XX	BTXXXX1F2	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	BTXXXX1FD	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	BTXXXX1ID	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
7/25/2006	XX	BTXXXX1HJ	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/13/2006	XX	BTXXXX20C	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	BTXXXX23J	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/15/2007	XX	BTXXXX244	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	BTXXXX245	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
7/24/2007	XX	BTXXXX283	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
9/11/2007	XX	BTXXXX2AD	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/19/2008	XX	BTXXXX2EC	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	BTXXXX2ED	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
7/29/2008	XX	BTXXXX2HB	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U
10/29/2008	XX	BTXXXX301	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/13/2009	XX	BTXXXX33D	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/15/2009	XX	BTXXXX33E	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
7/7/2009	XX	BTXXXX37H	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
10/28/2009	XX	BTXXXX3AJ	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	14	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/24/2012	XX	BTXXXX533	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/25/2012	XX	BTXXXX538	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	0.5 U	0.75 U	1 U	3 U	5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	2.5 U	1.8 U	0.5 U	0.5 U	0.75 U
10/29/2013	XX	BTXXXX68C	2 U	2 U	1 U	5 U	10 U	1 U	2 U	2 U	5 U	10 U	1 U	2 U	2 U	1 U	2 U
10/29/2013	XX	BTXXXX69H	2 U	2 U	1 U	5 U	10 U	1 U	2 U	2 U		50 U	1 U	2 U	2 U	1 U	2 U

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(QCBT)			trans-1,3-Dichloropropene	trans-1,2-Dichloroethene	Styrene	Methylene Chloride	Methyl Ethyl Ketone	Ethylbenzene	cis-1,3-Dichloropropene	cis-1,2-Dichloroethene	Carbon Disulfide	Acetone	1,4-Dichlorobenzene	1,2-Dichloropropane	1,2-Dichloroethane	1,1-Dichloroethene	1,1-Dichloroethane
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

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

! - The sampling location was damaged or destroyed.
D - The sampling location was dry.
F12 - Pipe under water, no sample taken.
F6 - No flow. Sample not taken.
H2 - Waterlevel higher than pipes. See LF-COMP for readings
U - Not Detected above the reported sample detection limit.

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(DP-4)			Vinyl Chloride	Trichlorofluoromethane	Trichloroethene	Toluene	Tetrachloroethene	o-Xylene	m,p-Xylene	Acrylonitrile	4-Methyl-2-Pentanone	2-Hexanone	1,2,3-Trichloropropane	1,1,2-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane
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
DP-4																	
7/26/2004	XX	GWXXXX041	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	GWXXXX1A4	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/22/2006	XX	GWXXXX1EJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GWXXXX23G	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/19/2008	XX	GWXXXX2E4	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GWXXXX336	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	1 U
4/26/2010	XX	GWXXXX404	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	0.5 U	0.5 U
4/25/2011	XX	GWXXXX4AD	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	0.5 U	0.5 U
4/25/2012	XX	GWXXXX52G	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	1 U
4/24/2013	XX	GWXXXX5IH	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	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	10 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-UD-1																	
7/28/2004	XX	LFUD1X05E	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LFUD1X19D	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LFUD1X1E8	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LFUD1X235	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD1X2DD	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFUD1X32F	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	1 U
4/27/2010	XX	LFUD1X3JD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD1X4A2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD1X525	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD1X5I6	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	1 U
LF-UD-2																	
7/28/2004	XX	LFUD2X05F	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LFUD2X19E	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LFUD2X1E9	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LFUD2X236	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD2X2DE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFUD2X32G	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	1 U
4/27/2010	XX	LFUD2X3JE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFUD2X4A3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD2X526	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD2X5I7	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	1 U
LF-UD-3A,B																	
5/16/2007	XX	LFUD3X246	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LFUD3X2EE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LFXXXX33F	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	1 U
4/27/2010	XX	LFXXXX40C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LFXXXX4B1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX534	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J5	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-4																	
4/15/2009	XX	LFXXXX34A	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	1 U
4/27/2010	XX	LFXXXX40E	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6

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(LF-UD-4)			Vinyl Chloride	Trichlorofluoromethane	Trichloroethene	Toluene	Tetrachloroethene	o-Xylene	m,p-Xylene	Acrylonitrile	4-Methyl-2-Pentanone	2-Hexanone	1,2,3-Trichloropropane	1,1,2-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane
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
4/26/2011	XX	LFXXXX4B3	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12	F12
4/24/2012	XX	LFXXXX536	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFXXXX5J6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-UD-5and6																	
4/26/2011	XX	LFXXXX4B4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX537	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LFXXXX5J7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
LF-UD-7																	
4/24/2012	XX	LFUD7X53A	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2	H2
4/23/2013	XX	LFUD7X5JA	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LF-UD-8																	
4/23/2013	XX	LFUD8X5JD	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	1 U
LP-UD-1																	
7/28/2004	XX	LPUD1X05G	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
9/21/2005	XX	LPUD1X19F	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
5/24/2006	XX	LPUD1X1EA	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
5/16/2007	XX	LPUD1X237	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
5/20/2008	XX	LPUD1X2DF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/15/2009	XX	LPUD1X32H	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/27/2010	XX	LPUD1X3JF	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/24/2012	XX	LPUD1X527	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6	F6
LP-UD-2																	
7/28/2004	XX	LPUD2X05H	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	LPUD2X19G	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	LPUD2X1EB	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	LPUD2X238	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	LPUD2X2DG	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/15/2009	XX	LPUD2X32I	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	1 U
4/27/2010	XX	LPUD2X3JG	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LPUD2X4A5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LPUD2X528	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
4/23/2013	XX	LPUD2X5I9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
MW-204																	
5/4/2004	XX	GW204X008	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
7/27/2004	XX	GW204X03G	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	GW204X1A0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	GW204X1EF	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GW204X23C	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	GW204X2E0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GW204X332	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	1 U
4/28/2010	XX	GW204X400	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	0.5 U	0.5 U
4/26/2011	XX	GW204X4A9	0.5 U	0.5 U	0.5 U	0.63 J	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	0.5 U	0.5 U
4/24/2012	XX	GW204X52C	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	1 U
4/24/2013	XX	GW204X5ID	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	1 U

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(MW-401B)			Vinyl Chloride	Trichlorofluoromethane	Trichloroethene	Toluene	Tetrachloroethene	o-Xylene	m,p-Xylene	Acrylonitrile	4-Methyl-2-Pentanone	2-Hexanone	1,2,3-Trichloropropane	1,1,2-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane
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
MW-401B																	
7/29/2004	XX	GW401B05A	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
7/29/2004	XD	GWDP4X05D	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
10/27/2004	XX	GW401B072	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	GW401B199	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XD	GWDP4X19C	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	GW401B1E4	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XD	GWDP4X1E7	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GW401B231	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XD	GWDP4X234	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XX	GW401B2D9	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/20/2008	XD	GWDP4X2DC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GW401B32B	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	1 U
4/13/2009	XD	GWDP4X32E	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	1 U
4/27/2010	XX	GW401B3J9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XD	GWDP4X3JC	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	GW401B49I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XD	GWDP4X4A1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	GW401B521	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
4/23/2012	XD	GWDP4X524	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 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	10 U	10 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XD	GWDP4X5I5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
P-04-02																	
7/26/2004	XX	GWXXXX042	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/22/2005	XX	GWXXXX1A5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/22/2006	XX	GWXXXX1F0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	GWXXXX23H	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	GWXXXX2E5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/13/2009	XX	GWXXXX337	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	1 U
4/26/2010	XX	GWXXXX405	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	0.5 U	0.5 U
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	5 U	5 U	0.5 U	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	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
4/22/2013	XX	GWXXXX5II	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
QCBT																	
5/4/2004	XX	BTXXXX00H	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
6/9/2004	XX	BTXXXX035	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
7/26/2004	XX	BTXXXX046	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
10/27/2004	XX	BTXXXX060	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
1/17/2005	XX	BTXXXX111	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
3/9/2005	XX	BTXXXX11E	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
3/21/2005	XX	BTXXXX142	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/11/2005	XX	BTXXXX121	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
7/25/2005	XX	BTXXXX17G	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
7/27/2005	XX	BTXXXX187	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/20/2005	XX	BTXXXX1A7	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/21/2005	XX	BTXXXX1AI	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/22/2005	XX	BTXXXX1AJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
4/19/2006	XX	BTXXXX1FE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U

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(QCBT)			Vinyl Chloride	Trichlorofluoromethane	Trichloroethene	Toluene	Tetrachloroethene	o-Xylene	m,p-Xylene	Acrylonitrile	4-Methyl-2-Pentanone	2-Hexanone	1,2,3-Trichloropropane	1,1,2-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane
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
5/22/2006	XX	BTXXXX1F2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/23/2006	XX	BTXXXX1FD	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/24/2006	XX	BTXXXX1ID	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
7/25/2006	XX	BTXXXX1HJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/13/2006	XX	BTXXXX20C	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/14/2007	XX	BTXXXX23J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/15/2007	XX	BTXXXX244	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/16/2007	XX	BTXXXX245	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
7/24/2007	XX	BTXXXX283	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
9/11/2007	XX	BTXXXX2AD	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/19/2008	XX	BTXXXX2EC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
5/21/2008	XX	BTXXXX2ED	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
7/29/2008	XX	BTXXXX2HB	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
10/29/2008	XX	BTXXXX301	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	1 U
4/13/2009	XX	BTXXXX33D	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	1 U
4/15/2009	XX	BTXXXX33E	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	1 U
7/7/2009	XX	BTXXXX37H	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	1 U
10/28/2009	XX	BTXXXX3AJ	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	1 U
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 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	10 U	10 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	10 U	10 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	10 U	10 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	10 U	10 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	10 U	10 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	10 U	10 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	10 U	10 U	1 U	1 U	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	1 U	2.5 U	0.5 U	0.75 U	0.5 U	1 U	1 U	5 U	5 U	5 U	5 U	0.75 U	0.5 U	0.5 U	0.5 U
10/29/2013	XX	BTXXXX68C	2 U	5 U	2 U	1 U	2 U	1 U	1 U	20 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U
10/29/2013	XX	BTXXXX69H	2 U	5 U	2 U	1 U	2 U	1 U	1 U	50 U	10 U	10 U		2 U	2 U	2 U	

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(QCBT)			Vinyl Chloride	Trichlorofluoromethane	Trichloroethene	Toluene	Tetrachloroethene	o-Xylene	m,p-Xylene	Acrylonitrile	4-Methyl-2-Pentanone	2-Hexanone	1,2,3-Trichloropropane	1,1,2-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane
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

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

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(DP-4) Date	Type	Sample ID	Vinyl Acetate ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L												
DP-4																	
7/26/2004	XX	GWXXXX041	15 U	2 U	2 U												
9/20/2005	XX	GWXXXX1A4	15 U	2 U	2 U												
5/22/2006	XX	GWXXXX1EJ	15 U	2 U	2 U												
5/14/2007	XX	GWXXXX23G	15 U	2 U	2 U												
5/19/2008	XX	GWXXXX2E4	15 U	2 U	2 U												
4/13/2009	XX	GWXXXX336	1 U	1 U	1 U												
4/26/2010	XX	GWXXXX404	0.5 U	0.5 U	0.5 U												
4/25/2011	XX	GWXXXX4AD	0.5 U	0.5 U	0.5 U												
4/25/2012	XX	GWXXXX52G	2 U	1 U	1 U												
4/24/2013	XX	GWXXXX5IH	1 U	1 U	1 U												
LF-COMP																	
4/24/2012	XX	LFXXXX53B	1 U	1 U	1 U												
LF-UD-1																	
7/28/2004	XX	LFUD1X05E	15 U	2 U	2 U												
9/21/2005	XX	LFUD1X19D	15 U	2 U	2 U												
5/24/2006	XX	LFUD1X1E8	15 U	2 U	2 U												
5/16/2007	XX	LFUD1X235	15 U	2 U	2 U												
5/20/2008	XX	LFUD1X2DD	15 U	2 U	2 U												
4/15/2009	XX	LFUD1X32F	1 U	1 U	1 U												
4/27/2010	XX	LFUD1X3JD	0.5 U	0.5 U	0.5 U												
4/26/2011	XX	LFUD1X4A2	0.5 U	0.5 U	0.5 U												
4/24/2012	XX	LFUD1X525	H2	H2	H2												
4/23/2013	XX	LFUD1X5I6	1 U	1 U	1 U												
LF-UD-2																	
7/28/2004	XX	LFUD2X05F	15 U	2 U	2 U												
9/21/2005	XX	LFUD2X19E	15 U	2 U	2 U												
5/24/2006	XX	LFUD2X1E9	15 U	2 U	2 U												
5/16/2007	XX	LFUD2X236	15 U	2 U	2 U												
5/20/2008	XX	LFUD2X2DE	15 U	2 U	2 U												
4/15/2009	XX	LFUD2X32G	1 U	1 U	1 U												
4/27/2010	XX	LFUD2X3JE	0.5 U	0.5 U	0.5 U												
4/26/2011	XX	LFUD2X4A3	0.5 U	0.5 U	0.5 U												
4/24/2012	XX	LFUD2X526	H2	H2	H2												
4/23/2013	XX	LFUD2X5I7	1 U	1 U	1 U												
LF-UD-3A,B																	
5/16/2007	XX	LFUD3X246	15 U	2 U	2 U												
5/20/2008	XX	LFUD3X2EE	15 U	2 U	2 U												
4/15/2009	XX	LFXXXX33F	1 U	1 U	1 U												
4/27/2010	XX	LFXXXX40C	0.5 U	0.5 U	0.5 U												
4/26/2011	XX	LFXXXX4B1	0.5 U	0.5 U	0.5 U												
4/24/2012	XX	LFXXXX534	H2	H2	H2												
4/23/2013	XX	LFXXXX5J5	F6	F6	F6												
LF-UD-4																	
4/15/2009	XX	LFXXXX34A	1 U	1 U	1 U												
4/27/2010	XX	LFXXXX40E	F6	F6	F6												

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(LF-UD-4) Date	Type	Sample ID	Vinyl Acetate ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/26/2011	XX	LFXXXX4B3	F12	F12	F12
4/24/2012	XX	LFXXXX536	H2	H2	H2
4/23/2013	XX	LFXXXX5J6	1 U	1 U	1 U
LF-UD-5and6					
4/26/2011	XX	LFXXXX4B4	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFXXXX537	1 U	1 U	1 U
4/23/2013	XX	LFXXXX5J7	1 U	1 U	1 U
LF-UD-6					
4/26/2011	XX	LFUD6X4B6	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LFUD6X539	1 U	1 U	1 U
4/23/2013	XX	LFUD6X5J9	1 U	1 U	1 U
LF-UD-7					
4/24/2012	XX	LFUD7X53A	H2	H2	H2
4/23/2013	XX	LFUD7X5JA	F6	F6	F6
LF-UD-8					
4/23/2013	XX	LFUD8X5JD	1 U	1 U	1 U
LP-UD-1					
7/28/2004	XX	LPUD1X05G	D	D	D
9/21/2005	XX	LPUD1X19F	D	D	D
5/24/2006	XX	LPUD1X1EA	D	D	D
5/16/2007	XX	LPUD1X237	F6	F6	F6
5/20/2008	XX	LPUD1X2DF	F6	F6	F6
4/15/2009	XX	LPUD1X32H	F6	F6	F6
4/27/2010	XX	LPUD1X3JF	F6	F6	F6
4/26/2011	XX	LPUD1X4A4	F6	F6	F6
4/24/2012	XX	LPUD1X527	F6	F6	F6
4/23/2013	XX	LPUD1X5I8	F6	F6	F6
LP-UD-2					
7/28/2004	XX	LPUD2X05H	15 U	2 U	2 U
9/21/2005	XX	LPUD2X19G	15 U	2 U	2 U
5/24/2006	XX	LPUD2X1EB	15 U	2 U	2 U
5/16/2007	XX	LPUD2X238	15 U	2 U	2 U
5/20/2008	XX	LPUD2X2DG	15 U	2 U	2 U
4/15/2009	XX	LPUD2X32I	1 U	1 U	1 U
4/27/2010	XX	LPUD2X3JG	0.5 U	0.5 U	0.5 U
4/26/2011	XX	LPUD2X4A5	0.5 U	0.5 U	0.5 U
4/24/2012	XX	LPUD2X528	2 U	1 U	1 U
4/23/2013	XX	LPUD2X5I9	1 U	1 U	1 U
MW-204					
5/4/2004	XX	GW204X008	15 U	2 U	2 U
7/27/2004	XX	GW204X03G	15 U	2 U	2 U
9/20/2005	XX	GW204X1A0	15 U	2 U	2 U
5/23/2006	XX	GW204X1EF	15 U	2 U	2 U
5/14/2007	XX	GW204X23C	15 U	2 U	2 U
5/21/2008	XX	GW204X2E0	15 U	2 U	2 U

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(MW-204) Date	Type	Sample ID	Vinyl Acetate ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
4/13/2009	XX	GW204X332	1 U	1 U	1 U
4/28/2010	XX	GW204X400	0.5 U	0.5 U	0.5 U
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
4/24/2013	XX	GW204X5ID	1 U	1 U	1 U
MW-401B					
7/29/2004	XX	GW401B05A	15 U	2 U	2 U
7/29/2004	XD	GWDP4X05D	15 U	2 U	2 U
10/27/2004	XX	GW401B072	15 U	2 U	2 U
9/21/2005	XX	GW401B199	15 U	2 U	2 U
9/21/2005	XD	GWDP4X19C	15 U	2 U	2 U
5/23/2006	XX	GW401B1E4	15 U	2 U	2 U
5/23/2006	XD	GWDP4X1E7	15 U	2 U	2 U
5/14/2007	XX	GW401B231	15 U	2 U	2 U
5/14/2007	XD	GWDP4X234	15 U	2 U	2 U
5/20/2008	XX	GW401B2D9	15 U	2 U	2 U
5/20/2008	XD	GWDP4X2DC	15 U	2 U	2 U
4/13/2009	XX	GW401B32B	1 U	1 U	1 U
4/13/2009	XD	GWDP4X32E	1 U	1 U	1 U
4/27/2010	XX	GW401B3J9	0.5 U	0.5 U	0.5 U
4/27/2010	XD	GWDP4X3JC	0.5 U	0.5 U	0.5 U
4/25/2011	XX	GW401B49I	0.5 U	0.5 U	0.5 U
4/25/2011	XD	GWDP4X4A1	0.5 U	0.5 U	0.5 U
4/23/2012	XX	GW401B521	2 U	1 U	1 U
4/23/2012	XD	GWDP4X524	2 U	1 U	1 U
4/22/2013	XX	GW401B5I2	1 U	1 U	1 U
4/22/2013	XD	GWDP4X5I5	1 U	1 U	1 U
P-04-02					
7/26/2004	XX	GWXXXX042	15 U	2 U	2 U
9/22/2005	XX	GWXXXX1A5	15 U	2 U	2 U
5/22/2006	XX	GWXXXX1F0	15 U	2 U	2 U
5/14/2007	XX	GWXXXX23H	15 U	2 U	2 U
5/21/2008	XX	GWXXXX2E5	15 U	2 U	2 U
4/13/2009	XX	GWXXXX337	1 U	1 U	1 U
4/26/2010	XX	GWXXXX405	0.5 U	0.5 U	0.5 U
4/27/2011	XX	GWXXXX4AE	0.5 U	0.5 U	0.5 U
4/25/2012	XX	GWXXXX52H	2 U	1 U	1 U
4/22/2013	XX	GWXXXX5II	!	!	!
QCBT					
5/4/2004	XX	BTXXXX00H	15 U	2 U	2 U
6/9/2004	XX	BTXXXX035	15 U	2 U	2 U
7/26/2004	XX	BTXXXX046	15 U	2 U	2 U
10/27/2004	XX	BTXXXX060	15 U	2 U	2 U
1/17/2005	XX	BTXXXX111	15 U	2 U	2 U
3/9/2005	XX	BTXXXX11E	15 U	2 U	2 U
3/21/2005	XX	BTXXXX142	15 U	2 U	2 U
5/11/2005	XX	BTXXXX121	15 U	2 U	2 U
7/25/2005	XX	BTXXXX17G	15 U	2 U	2 U

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(QCBT) Date	Type	Sample ID	Vinyl Acetate ug/L	trans-1,4-Dichloro-2-butene ug/L	Iodomethane ug/L
7/27/2005	XX	BTXXXX187	15 U	2 U	2 U
9/20/2005	XX	BTXXXX1A7	15 U	2 U	2 U
9/21/2005	XX	BTXXXX1AI	15 U	2 U	2 U
9/22/2005	XX	BTXXXX1AJ	15 U	2 U	2 U
4/19/2006	XX	BTXXXX1FE	15 U	2 U	2 U
5/22/2006	XX	BTXXXX1F2	15 U	2 U	2 U
5/23/2006	XX	BTXXXX1FD	15 U	2 U	2 U
5/24/2006	XX	BTXXXX1ID	15 U	2 U	2 U
7/25/2006	XX	BTXXXX1HJ	15 U	2 U	2 U
9/13/2006	XX	BTXXXX20C	15 U	2 U	2 U
5/14/2007	XX	BTXXXX23J	15 U	2 U	2 U
5/15/2007	XX	BTXXXX244	15 U	2 U	2 U
5/16/2007	XX	BTXXXX245	15 U	2 U	2 U
7/24/2007	XX	BTXXXX283	15 U	2 U	2 U
9/11/2007	XX	BTXXXX2AD	15 U	2 U	2 U
5/19/2008	XX	BTXXXX2EC	15 U	2 U	2 U
5/21/2008	XX	BTXXXX2ED	15 U	2 U	2 U
7/29/2008	XX	BTXXXX2HB	15 U	2 U	2 U
10/29/2008	XX	BTXXXX301	1 U	1 U	1 U
4/13/2009	XX	BTXXXX33D	1 U	1 U	1 U
4/15/2009	XX	BTXXXX33E	1 U	1 U	1 U
7/7/2009	XX	BTXXXX37H	1 U	1 U	1 U
10/28/2009	XX	BTXXXX3AJ	1 U	1 U	1 U
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	2 U	1 U	1 U
4/24/2012	XX	BTXXXX533	2 U	1 U	1 U
4/25/2012	XX	BTXXXX538	2 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U	1.5
10/23/2012	XX	BTXXXX5C8	1 U	1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	5 U	2.5 U	5 U
10/29/2013	XX	BTXXXX68C	10 U	5 U	5 U
10/29/2013	XX	BTXXXX69H	10 U		

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

(QCBT)			Vinyl Acetate	trans-1,4-Dichloro-2-butene	Iodomethane
Date	Type	Sample ID	ug/L	ug/L	ug/L

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

! - The sampling location was damaged or destroyed.
D - The sampling location was dry.
F12 - Pipe under water, no sample taken.
F6 - No flow. Sample not taken.
H2 - Waterlevel higher than pipes. See LF-COMP for readings
U - Not Detected above the reported sample detection limit.

SEVEE & MAHER ENGINEERS, INC.
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(MW12-303R) Date	Type	Sample ID	Methane ug/L
MW12-303R			
7/29/2013	XX	GW303X651	6.6 U
MW-223A			
7/30/2013	XX	GW223A63A	6.6 U
MW-223B			
7/30/2013	XX	GW223B64J	40.6
10/29/2013	XX	GW223B67C	9.2
MW-302R			
7/29/2013	XX	GW302X64H	6.6 U
MW-304A			
7/29/2013	XX	GW304A64G	6.6 U

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

Leachate Locations

SUMMARY REPORT
Leachate - Field Data

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

(LT-C4L) Date	Type	Sample ID	Specific Conductance µmhos/cm @25°C	pH Standard Units	Temperature Degrees Celcius	Corrected Eh mV	Dissolved Oxygen mg/L	Alkalinity (CaCO3) (field) mg/L	Turbidity (field) NTU
LT-C4L									
4/15/2009	XX	LTC4LX325	29800	7.1	18.6	95	D2	D3	1100 >
7/7/2009	XX	LTC4LX369	20000 >	7.6	17.8	217	8	D3	400
10/28/2009	XX	LTC4LX3E4	24300	7.3	17.6	102	D2	D3	230
4/28/2010	XX	LTC4LX3J3	23200	7.3	17.7	145	2	1813	170
7/20/2010	XX	LTC4LX427	23400	6.9	21.8	33	D2	D3	D3
10/19/2010	XX	LTC4LX45B	28300	7.1	19.6	113	2	1313	20
4/27/2011	XX	LTC4LX49C	18420	6.9	17.4	109		1563	8.4
7/19/2011	XX	LTC4LX4DA	30700	7	28.3	115	2	1688	44
10/26/2011	XX	LTC4LX4H5	15850	7.1	18.3	100	1	750	6.1
4/24/2012	XX	LTC4LX51F	11470	6.7	15.7	-27	2	688	14.9
7/24/2012	XX	LTC4LX56E	25300	6.8	24.8	-93	3	D3	D3
10/23/2012	XX	LTC4LX5D5	19800	6.9	17.3	-33	D2	D3	D3
4/23/2013	XX	LTC4LX5HG	18590	7.1	17.1	92	1	1500	18.9
LT-C4LR									
7/30/2013	XX	LTC4LX641	23400	6.7	23.6	44	D2	D3	D3
10/29/2013	XX	LTC4LX66E	24100	6.8	11.3	92	D2	D3	D3

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

D3 - Sample too dark to take reading.

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - Inorganics (part 1 of 2)

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

(LT-C4L) Date	Type	Sample ID	Total Kjeldahl Nitrogen mg/L	Ammonia (N) mg/L	Nitrate (N) mg/L	Phosphate Phosphorus mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L	Sulfate mg/L	Sulfide mg/L	Ca-mg Hardness (CaCO3) mg/L	Bicarbonate (CaCO3) mg/L	Alkalinity (CaCO3) mg/L	Organic Carbon mg/L	Biochemical Oxygen Demand mg/L		
LT-C4L																	
4/15/2009	XX	LTC4LX325	630	318	10 U		19657	145	143 J	11	6212	3290	3290	1970	4050		
7/7/2009	XX	LTC4LX369	740	708	30 U	1.1	19816	230	342 J	7		2830		1670	2360		
10/28/2009	XX	LTC4LX3E4	810	624	20 U	0.88	14060	52	120 U	1.5		2750		475	677		
4/28/2010	XX	LTC4LX3J3	910	697	20 U		15180	59	120 U	0.44	2856	3210	3210	474	1000 U		
7/20/2010	XX	LTC4LX427	880	714	20 U	1.2	15250	38	120 U	2.5		3360		366	139		
10/19/2010	XX	LTC4LX45B	790	666	5.6 J	0.76	16940	44	63	1.1		2700		307	152		
4/27/2011	XX	LTC4LX49C	500	74	6 U		10570	5	72 J	0.18	1831	2280	2280	184	39		
7/19/2011	XX	LTC4LX4DA	810	666	10 U	0.92	14820	44	60 U	0.3		2800		270	45		
10/26/2011	XX	LTC4LX4H5	510	442	5 U	0.59	8250	11	64.6 J	3.7		1400		182	47		
4/24/2012	XX	LTC4LX51F	290	274	15 U		6080	108	133	1.6	1941	1370	1370	935	1120 G		
7/24/2012	XX	LTC4LX56E	710	742	6 U	0.77	15210	106	50.2	3		3630		2120	3090		
10/23/2012	XX	LTC4LX5D5	490	459	17.9	0.46	14570	36	213	16		2740		1740	3190		
4/23/2013	XX	LTC4LX5HG	697	574	30 U		10700	34	200 U	2.3	2424	2950	2950	935	1750		
LT-C4LR																	
7/30/2013	XX	LTC4LX641	742	630	1210	1.39	15050	625	400 U	78		3700		2560	4850		
10/29/2013	XX	LTC4LX66E	880	840	5	0.79	17400	140	10.4	5.6		3980		2450	855		

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

G - Greater than specified amount.

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

U - Not Detected above the reported sample detection limit.

SUMMARY REPORT

Leachate - Inorganics (part 2 of 2)

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

(LT-C4L)			Chemical Oxygen Demand	Chloride	Bromide	Cyanide	Tannin & Lignins (Tannic Acid)
Date	Type	Sample ID	mg/L	mg/L	mg/L	ug/L	mg/L
LT-C4L							
4/15/2009	XX	LTC4LX325	6640	10100	92.3	0.009	
7/7/2009	XX	LTC4LX369	4684	21500			97
10/28/2009	XX	LTC4LX3E4	2822	17400			44
4/28/2010	XX	LTC4LX3J3	2429	18000	188	0.007	
7/20/2010	XX	LTC4LX427	2108	19900			53
10/19/2010	XX	LTC4LX45B	2340	18700			52
4/27/2011	XX	LTC4LX49C	1740	5910	23.3	0.006	
7/19/2011	XX	LTC4LX4DA	959	10300			3.6
10/26/2011	XX	LTC4LX4H5	1420	4300			24
4/24/2012	XX	LTC4LX51F	2960	2560	32.7	5 U	
7/24/2012	XX	LTC4LX56E	6700	6350			67
10/23/2012	XX	LTC4LX5D5	5900	9880			84
4/23/2013	XX	LTC4LX5HG	3280	5610	73.3	5	
LT-C4LR							
7/30/2013	XX	LTC4LX641	8110	24300	38.8		480
10/29/2013	XX	LTC4LX66E	8080	5970	95		102

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

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FOR: Juniper Ridge Landfill

SUMMARY REPORT

Leachate - Metal (part 1 of 2)

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

(LT-C4L) Date	Type	Sample ID	Aluminum mg/L	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Calcium mg/L	Chromium mg/L	Cobalt mg/L	Copper mg/L	Iron mg/L	Lead mg/L	Magnesium mg/L	Manganese mg/L
LT-C4L																
4/15/2009	XX	LTC4LX325	0.55	0.065	0.093	1.3	0.001 U	0.006	1759	0.072	0.02 J	0.036	42.8	0.024	442	8.5
7/7/2009	XX	LTC4LX369			0.112			0.001 U	1387			0.009	43.3		514	5
10/28/2009	XX	LTC4LX3E4			0.075			0.0015	687			0.022	26.3		386	2.77
4/28/2010	XX	LTC4LX3J3	0.429	0.005	0.107	1.873	0.0002 U	0.001	565	0.065	0.014	0.004	20.9	0.068	351	2.18
7/20/2010	XX	LTC4LX427			0.099			0.0009	520			0.007	11.9		378	2.08
10/19/2010	XX	LTC4LX45B			0.113			0.004	658			0.01 J	16.8		415	1.8
4/27/2011	XX	LTC4LX49C	0.201	0.018	0.085	1.469	0.0002 U	0.0032	344	0.024	0.012	0.011	9.61	0.002 J	236	2.45
7/19/2011	XX	LTC4LX4DA			0.121			0.012	469			0.005 U	12.7		372	2.3
10/26/2011	XX	LTC4LX4H5			0.059			0.0099	305			0.008	19.7		205	2.24
4/24/2012	XX	LTC4LX51F	0.25	0.025 U	0.07	0.915	0.003 U	0.005	482	0.025	0.05 U	0.015 U	63	0.015 U	179	23.6
7/24/2012	XX	LTC4LX56E			0.11			0.003 U	845			0.056	82		466	26
10/23/2012	XX	LTC4LX5D5			0.177			0.004	934			0.024	45.3		433	14
4/23/2013	XX	LTC4LX5HG	0.223	0.005 U	0.102	1.285	0.0006 U	0.0013	474	0.038	0.014	0.017	30.3	0.003 U	301	8.03
LT-C4LR																
7/30/2013	XX	LTC4LX641			0.137			0.0146	958			0.065	179		433	23.4
10/29/2013	XX	LTC4LX66E			0.16			0.004	860			0.018	100		532	16.7

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

SUMMARY REPORT

Leachate - Metal (part 2 of 2)

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

(LT-C4L) Date	Type	Sample ID	Mercury mg/L	Nickel mg/L	Potassium mg/L	Selenium mg/L	Silver mg/L	Sodium mg/L	Thallium mg/L	Vanadium mg/L	Zinc mg/L	Tin mg/L					
LT-C4L																	
4/15/2009	XX	LTC4LX325	0.0002 U	0.153	1619	0.01 U	0.055	2212	0.005 U	0.02 U	0.604	0.12					
7/7/2009	XX	LTC4LX369		0.119	1801			2454									
10/28/2009	XX	LTC4LX3E4		0.091	1775			2612									
4/28/2010	XX	LTC4LX3J3	0.0002 U	0.106	1982	0.021	0.0003 J	2448	0.012	0.025	0.053	0.014 J					
7/20/2010	XX	LTC4LX427		0.101	1659			2130									
10/19/2010	XX	LTC4LX45B		0.078	1779			2265									
4/27/2011	XX	LTC4LX49C	0.0002 U	0.061	1135	0.016	0.0007 J	1520	0.001 U	0.017	0.011	0.005 U					
7/19/2011	XX	LTC4LX4DA		0.079	1806			2590									
10/26/2011	XX	LTC4LX4H5		0.03	1066			1580									
4/24/2012	XX	LTC4LX51F	0.0005 U	0.045	714	0.025	0.005 U	1024	0.02 U	0.05 U	0.155	0.075 U					
7/24/2012	XX	LTC4LX56E		0.122	1719			2337									
10/23/2012	XX	LTC4LX5D5		0.084	1100			1842									
4/23/2013	XX	LTC4LX5HG	0.0005 U	0.079	1237	0.01	0.001 U	1844	0.004 U	0.01	0.016	0.019					
LT-C4LR																	
7/30/2013	XX	LTC4LX641		0.304	1234			1910									
10/29/2013	XX	LTC4LX66E		0.23	1622			2290									

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

SUMMARY REPORT

Leachate - Voas Part 1 of 4

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

(LT-C4L) Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L
LT-C4L																	
4/15/2009	XX	LTC4LX325	50 U	50 U	50 U	50 U	250 U	3880	50 U	50 U	50 U	50 U	50 U	50 U	11700	50 U	50 U
7/7/2009	XX	LTC4LX369	25 U	25 U	25 U	25 U	125 U	4020	25 U	25 U	25 U	25 U	25 U	25 U	9080	25 U	25 U
10/28/2009	XX	LTC4LX3E4	10 U	10 U	10 U	10 U	50 U	764	10 U	10 U	10 U	10 U	10 U	10 U	2570	10 U	10 U
4/28/2010	XX	LTC4LX3J3	2.5 U	5 U	2.5 U	2.5 U	25 U	444	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3.8 J	1360	2.5 U	2.5 U
7/20/2010	XX	LTC4LX427	2.5 U	5 U	2.5 U	2.5 U	25 U	365	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.8	25 U	2.5 U	2.5 U
10/19/2010	XX	LTC4LX45B	0.5 U	1 U	0.75 J	0.5 U	5 U	475	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	604	0.5 U	0.5 U
4/27/2011	XX	LTC4LX49C	5 U	10 U	5 U	5 U	50 U	100 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U
7/19/2011	XX	LTC4LX4DA	0.5 U	1 U	0.5 U	0.5 U	5 U	136	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	12	0.5 U	0.5 U
10/26/2011	XX	LTC4LX4H5	0.5 U	1 U	0.7 J	0.5 U	5 U	117	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	97	0.5 U	0.5 U
4/24/2012	XX	LTC4LX51F	5 U	10 U	5 U	5 U	25 U	974	5 U	5 U	5 U	5 U	5 U	10	3440	5 U	5 U
7/24/2012	XX	LTC4LX56E	5 U	10 U	5 U	5 U	25 U	2460	5 U	5 U	5 U	5 U	5 U	5 U	9540	5 U	5 U
10/23/2012	XX	LTC4LX5D5	25 U	50 U	25 U	25 U	125 U	2710	25 U	25 U	25 U	25 U	25 U	25 U	7490	25 U	25 U
4/23/2013	XX	LTC4LX5HG	25 U	50 U	25 U	25 U	125 U	1310	25 U	25 U	25 U	25 U	25 U	25 U	4110	25 U	25 U
LT-C4LR																	
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
QCBT																	
4/13/2009	XX	BTXXXX33D	1 U	1 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
4/15/2009	XX	BTXXXX33E	1 U	1 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
7/7/2009	XX	BTXXXX37H	1 U	1 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
10/28/2009	XX	BTXXXX3AJ	1 U	1 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
4/26/2010	XX	BTXXXX40A	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	1 U	0.5 U	0.5 U	5 U	14	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	1 U	0.5 U	0.5 U	5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/24/2012	XX	BTXXXX533	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/25/2012	XX	BTXXXX538	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	2 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	2.5 U	1 U	1 U	1 U	3 U	5 U	5 U	0.5 U	0.75 U	0.75 U	0.75 U	0.5 U	5 U	0.5 U	0.5 U
10/29/2013	XX	BTXXXX68C	2 U	2 U	2 U	5 U	5 U	10 U	5 U	1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U
10/29/2013	XX	BTXXXX69H	5 U	2 U	2 U	5 U	5 U	50 U		1 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U

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

(QCBT) Date	Type	Sample ID	Chloromethane ug/L	Bromomethane ug/L	Vinyl Chloride ug/L	Chloroethane ug/L	Methylene Chloride ug/L	Acetone ug/L	Carbon Disulfide ug/L	1,1-Dichloroethene ug/L	1,1-Dichloroethane ug/L	trans-1,2-Dichloroethene ug/L	Chloroform ug/L	1,2-Dichloroethane ug/L	Methyl Ethyl Ketone ug/L	1,1,1-Trichloroethane ug/L	Carbon Tetrachloride ug/L

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

E - Compound exceeded upper level of calibration range and required dilution.

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

U - Not Detected above the reported sample detection limit.

SUMMARY REPORT

Leachate - Voas Part 2 of 4

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

(LT-C4L)			Vinyl Acetate	Bromodichloromethane	1,2-Dichloropropane	cis-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1,1,2-Trichloroethane	Benzene	trans-1,3-Dichloropropene	Bromoform	4-Methyl-2-Pentanone	2-Hexanone	Tetrachloroethene	1,1,2,2-Tetrachloroethane	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
LT-C4L																	
4/15/2009	XX	LTC4LX325	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	500 U	500 U	50 U	50 U	50 U
7/7/2009	XX	LTC4LX369	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	289	250 U	25 U	25 U	25 U
10/28/2009	XX	LTC4LX3E4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	10 U	10 U	13
4/28/2010	XX	LTC4LX3J3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4.4 J	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	15
7/20/2010	XX	LTC4LX427	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4.6 J	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	15
10/19/2010	XX	LTC4LX45B	0.5 U	0.5 U	0.81 J	0.5 U	0.5 U	0.5 U	0.5 U	5	0.5 U	0.72 J	38	5 U	0.5 U	0.5 U	18
4/27/2011	XX	LTC4LX49C	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	11
7/19/2011	XX	LTC4LX4DA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.2	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	7.4
10/26/2011	XX	LTC4LX4H5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.6	0.5 U	0.5 U	7.8 J	5 U	0.5 U	0.5 U	13
4/24/2012	XX	LTC4LX51F	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	13
7/24/2012	XX	LTC4LX56E	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	55	50 U	5 U	5 U	6.8
10/23/2012	XX	LTC4LX5D5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	250 U	250 U	25 U	25 U	25 U
4/23/2013	XX	LTC4LX5HG	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	250 U	250 U	25 U	25 U	25 U
LT-C4LR																	
7/30/2013	XX	LTC4LX641	500 U	50 U	180 U	50 U	50 U	50 U	75 U	50 U	50 U	200 U	500 U	500 U	50 U	50 U	75 U
10/29/2013	XX	LTC4LX66E	2000 U	100 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	400 U	2000 U	2000 U	200 U	200 U	200 U
QCBT																	
4/13/2009	XX	BTXXXX33D	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
4/15/2009	XX	BTXXXX33E	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
7/7/2009	XX	BTXXXX37H	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
10/28/2009	XX	BTXXXX3AJ	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
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/24/2012	XX	BTXXXX533	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/25/2012	XX	BTXXXX538	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	5 U	0.5 U	1.8 U	0.5 U	0.5 U	0.5 U	0.75 U	0.5 U	0.5 U	2 U	5 U	5 U	0.5 U	0.5 U	0.75 U
10/29/2013	XX	BTXXXX68C	10 U	0.5 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U
10/29/2013	XX	BTXXXX69H	10 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	10 U	10 U	2 U	2 U	1 U

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

(QCBT)			Vinyl Acetate	Bromodichloromethane	1,2-Dichloropropane	cis-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1,1,2-Trichloroethane	Benzene	trans-1,3-Dichloropropene	Bromoform	4-Methyl-2-Pentanone	2-Hexanone	Tetrachloroethene	1,1,2,2-Tetrachloroethane	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

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

SUMMARY REPORT

Leachate - Voas Part 3 of 4

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

(LT-C4L)			Chlorobenzene	Ethylbenzene	Styrene	o-Xylene	m,p-Xylene	Trichlorofluoromethane	cis-1,2-Dichloroethene	Bromochloromethane	Dibromomethane	1,2-Dibromoethane	1,1,1,2-Tetrachloroethane	1,2,3-Trichloropropane	1,2-Dibromo-3-Chloropropane	Acrylonitrile	trans-1,4-Dichloro-2-butene
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-C4L																	
4/15/2009	XX	LTC4LX325	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
7/7/2009	XX	LTC4LX369	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
10/28/2009	XX	LTC4LX3E4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4/28/2010	XX	LTC4LX3J3	2.5 U	5.9	2.5 U	3.1 J	7.2	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
7/20/2010	XX	LTC4LX427	2.5 U	5.5	2.5 U	3.7 J	8.5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
10/19/2010	XX	LTC4LX45B	0.5 U	7.9	1.4 J	5.3	12	0.5 U	1.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
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	5 U	5 U
7/19/2011	XX	LTC4LX4DA	0.5 U	3.8	0.5 U	2.5	5.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	LTC4LX4H5	0.5 U	6.7	1	4.2	9.5	0.5 U	0.7 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	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	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	5 U
10/23/2012	XX	LTC4LX5D5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4/23/2013	XX	LTC4LX5HG	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
LT-C4LR																	
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	500 U	250 U
10/29/2013	XX	LTC4LX66E	200 U	200 U	200 U	200 U	200 U	1000 U	200 U	200 U	200 U	400 U	200 U	200 U	400 U	4000 U	1000 U
QCBT																	
4/13/2009	XX	BTXXXX33D	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
4/15/2009	XX	BTXXXX33E	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
7/7/2009	XX	BTXXXX37H	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
10/28/2009	XX	BTXXXX3AJ	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
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	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	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	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	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	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	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	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	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	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	20 U	5 U
10/29/2013	XX	BTXXXX69H	2 U	1 U	1 U	1 U	1 U	5 U	2 U							50 U	

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

(QCBT)			Chlorobenzene	Ethylbenzene	Styrene	o-Xylene	m,p-Xylene	Trichlorofluoromethane	cis-1,2-Dichloroethene	Bromochloromethane	Dibromomethane	1,2-Dibromoethane	1,1,1,2-Tetrachloroethane	1,2,3-Trichloropropane	1,2-Dibromo-3-Chloropropane	Acrylonitrile	trans-1,4-Dichloro-2-butene
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

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

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

(LT-C4L) Date	Type	Sample ID	Iodomethane ug/L	1,4-Dichlorobenzene ug/L	1,2-Dichlorobenzene ug/L
LT-C4L					
4/15/2009	XX	LTC4LX325	50 U	28 U	28 U
7/7/2009	XX	LTC4LX369	25 U	25 U	25 U
10/28/2009	XX	LTC4LX3E4	10 U	10 U	10 U
4/28/2010	XX	LTC4LX3J3	2.5 U	2.5 U	2.5 U
7/20/2010	XX	LTC4LX427	2.5 U	2.5 U	2.5 U
10/19/2010	XX	LTC4LX45B	0.5 U	1.3	0.5 U
4/27/2011	XX	LTC4LX49C	5 U	2 U	2 U
7/19/2011	XX	LTC4LX4DA	0.5 U	0.69 J	0.5 U
10/26/2011	XX	LTC4LX4H5	0.5 U	1.1	0.5 U
4/24/2012	XX	LTC4LX51F	5 U	5 U	5 U
7/24/2012	XX	LTC4LX56E	35	5 U	5 U
10/23/2012	XX	LTC4LX5D5	25 U	25 U	25 U
4/23/2013	XX	LTC4LX5HG	25 U	25 U	25 U
LT-C4LR					
7/30/2013	XX	LTC4LX641	500 U	250 U	250 U
10/29/2013	XX	LTC4LX66E	1000 U	200 U	200 U
QCBT					
4/13/2009	XX	BTXXXX33D	1 U	1 U	1 U
4/15/2009	XX	BTXXXX33E	1 U	1 U	1 U
7/7/2009	XX	BTXXXX37H	1 U	1 U	1 U
10/28/2009	XX	BTXXXX3AJ	1 U	1 U	1 U
4/26/2010	XX	BTXXXX40A	0.5 U	0.5 U	0.5 U
4/27/2010	XX	BTXXXX40B	0.5 U	0.5 U	0.5 U
4/28/2010	XX	BTXXXXHG1	0.5 U	0.5 U	0.5 U
7/20/2010	XX	BTXXXX43F	0.5 U	0.5 U	0.5 U
10/19/2010	XX	BTXXXX46I	0.5 U	0.5 U	0.5 U
4/25/2011	XX	BTXXXX4AJ	0.5 U	0.5 U	0.5 U
4/26/2011	XX	BTXXXX4B0	0.5 U	0.5 U	0.5 U
4/27/2011	XX	BTXXXX4B5	0.5 U	0.5 U	0.5 U
7/19/2011	XX	BTXXXX4F3	0.5 U	0.5 U	0.5 U
10/26/2011	XX	BTXXXX4G8	0.5 U	0.5 U	0.5 U
4/23/2012	XX	BTXXXX532	1 U	1 U	1 U
4/24/2012	XX	BTXXXX533	1 U	1 U	1 U
4/25/2012	XX	BTXXXX538	1 U	1 U	1 U
7/24/2012	XX	BTXXXX585	1.5	1 U	1 U
10/23/2012	XX	BTXXXX5C8	1 U	1 U	1 U
4/22/2013	XX	BTXXXX5J3	1 U	1 U	1 U
4/23/2013	XX	BTXXXX5J4	1 U	1 U	1 U
4/24/2013	XX	BTXXXX5J8	1 U	1 U	1 U
7/30/2013	XX	BTXXXX65D	5 U	2.5 U	2.5 U
10/29/2013	XX	BTXXXX68C	5 U	1 U	1 U
10/29/2013	XX	BTXXXX69H		1 U	1 U

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

(QCBT)			Iodomethane	1,4-Dichlorobenzene	1,2-Dichlorobenzene
Date	Type	Sample ID	ug/L	ug/L	ug/L

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 10:09
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Pesticides, Herbicides and PCB's (part 1 of 4)

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

(LT-C4L) Date	Type	Sample ID	Aldrin ug/L	alpha-BHC ug/L	beta-BHC ug/L	delta-BHC ug/L	gamma-BHC (Lindane) ug/L	Chlordane (technical) ug/L	Chlorobenzilate ug/L	4,4'-DDD ug/L	4,4'-DDE ug/L	4,4'-DDT ug/L	Diallate ug/L	Dieldrin ug/L	Endosulfan I ug/L	Endosulfan II ug/L	Endosulfan Sulfate ug/L
LT-C4L																	
4/15/2009	XX	LTC4LX325	0.047 U	0.047 U	0.047 U	0.047 U	0.055	0.47 U	57 U	0.094 U	0.094 U	0.094 U	57 U	0.094 U	0.047 U	0.094 U	0.094 U
4/28/2010	XX	LTC4LX3J3	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.47 U	9 U	0.094 U	0.094 U	0.094 U	9 U	0.094 U	0.047 U	0.094 U	0.094 U
4/27/2011	XX	LTC4LX49C	0.007 U	0.0065 U	0.0059 U	0.012 U	0.0068 U			0.0085 U	0.0046 U	0.0084 U		0.0061 U	0.006 U	0.0054 U	0.0063 U
4/24/2012	XX	LTC4LX51F	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.47 U	9.5 U	0.094 U	0.094 U	0.094 U	9.5 U	0.094 U	0.047 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	0.48 U	110 U	0.097 U	0.097 U	0.097 U	110 U	0.097 U	0.048 U	0.097 U	0.097 U

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 10:09
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Pesticides, Herbicides and PCB's (part 2 of 4)

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

(LT-C4L) Date	Type	Sample ID	Endrin ug/L	Endrin Aldehyde ug/L	Heptachlor ug/L	Heptachlor Epoxide ug/L	Isodrin ug/L	Kepone ug/L	Methoxychlor ug/L	Toxaphene ug/L	Aroclor-1016 ug/L	Aroclor-1221 ug/L	Aroclor-1232 ug/L	Aroclor-1242 ug/L	Aroclor-1248 ug/L	Aroclor-1254 ug/L	Aroclor-1260 ug/L
LT-C4L																	
4/15/2009	XX	LTC4LX325	0.094 U	0.094 U	0.047 U	0.047 U	57 U	71 U	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
4/28/2010	XX	LTC4LX3J3	0.094 U	0.094 U	0.047 U	0.047 U	9 U	24 U	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
4/27/2011	XX	LTC4LX49C	0.0079 U	0.0058 U	0.0075 U	0.43			0.0079 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
4/24/2012	XX	LTC4LX51F	0.094 U	0.094 U	0.047 U	0.047 U	9.5 U	24 U	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
4/23/2013	XX	LTC4LX5HG	0.097 U	0.097 U	0.048 U	0.048 U	110 U	280 U	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

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 10:09
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Pesticides, Herbicides and PCB's (part 3 of 4)

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

(LT-C4L)			Dimethoate	Disulfoton	Famphur	Methyl Parathion	Parathion	Phorate	Thionazin	o,o,o-Triethylphosphorothioate	2,4-Dichlorophenoxyacetic Acid	2,4,5,-T	2,4,5-Trichlorophenoxypropionic	alpha-Chlordane	gamma-Chlordane		
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		
LT-C4L																	
4/15/2009	XX	LTC4LX325	28 U	28 U	71 U	28 U	71 U	28 U	57 U	57 U	14 U	14 U	14 U				
4/28/2010	XX	LTC4LX3J3	9 U	9 U	28 U	9 U	24 U	9 U	19 U	9 U	2.8 U	2.8 U	2.8 U				
4/27/2011	XX	LTC4LX49C									0.28 U	0.5 U	0.19 U	0.0072 U	0.0057 U		
4/24/2012	XX	LTC4LX51F	9.5 U	9.5 U	28 U	9.5 U	24 U	9.5 U		9.5 U	2.8 U	2.8 U	2.8 U				
4/23/2013	XX	LTC4LX5HG	110 U	110 U	340 U	110 U	280 U	110 U	230 U	110 U	2.9 U	2.9 U	2.9 U				

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 10:09
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Pesticides, Herbicides and PCB's (part 4 of 4)

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

(LT-C4L) Date	Type	Sample ID	Dalapon ug/L	Dicamba ug/L	Dichloroprop ug/L	MCPA ug/L	MCPP ug/L	2,4-DB ug/L	Endrin Ketone ug/L	o o-diethyl-o-2-pyridyl phosphorothioate ug/L
LT-C4L										
4/27/2011	XX	LTC4LX49C	0.31 U	0.14 U	0.26 U	32 U	48 U	0.51 U	0.0074 U	
4/24/2012	XX	LTC4LX51F								19 U

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 09:47
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA (part 1 of 8)

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

(LT-C4L) Date	Type	Sample ID	Acenaphthene ug/L	Acenaphthylene ug/L	Acetophenone ug/L	2-Acetylaminofluorene ug/L	4-Aminobiphenyl ug/L	Anthracene ug/L	Benzo(a)Anthracene ug/L	Benzo(b)Fluoranthene ug/L	Benzo(k)Fluoranthene ug/L	Benzo(g,h,i)perylene ug/L	Benzo(a)Pyrene ug/L	Benzyl Alcohol ug/L	4-Bromophenyl-phenylether ug/L		
LT-C4L																	
4/15/2009	XX	LTC4LX325	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	57 U	28 U		
4/28/2010	XX	LTC4LX3J3	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	19 U	9 U		
4/27/2011	XX	LTC4LX49C	2 J	1 U				2 U	1 U	1 U	2 U	1 U	1 U		2 U		
4/24/2012	XX	LTC4LX51F	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U		
4/23/2013	XX	LTC4LX5HG	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	230 U	110 U		

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 09:47

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA (part 2 of 8)

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

(LT-C4L)

Date	Type	Sample ID	Butylbenzylphthalate ug/L	2-sec-Butyl-4-6-dinitrophenol (Dinoseb) ug/L	4-Chloroaniline ug/L	Bis(2-Chloroethoxy)methane ug/L	Bis(2-Chloroethyl)ether ug/L	Bis(2-Chloroisopropyl)ether ug/L	4-Chloro-3-Methylphenol ug/L	2-Chloronaphthalene ug/L	2-Chlorophenol ug/L	4-Chlorophenyl-phenylether ug/L	Chrysene ug/L	Dibenz(a,h)Anthracene ug/L	Dibenzofuran ug/L	Di-n-butylphthalate ug/L	1,2-Dichlorobenzene ug/L
LT-C4L																	
4/15/2009	XX	LTC4LX325	28 U	24 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U
7/7/2009	XX	LTC4LX369															25 U
10/28/2009	XX	LTC4LX3E4															10 U
4/28/2010	XX	LTC4LX3J3	9 U	4.7 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	2.5 U
7/20/2010	XX	LTC4LX427															2.5 U
10/19/2010	XX	LTC4LX45B															0.5 U
4/27/2011	XX	LTC4LX49C	2 U	0.21 U	2 U	2 U	2 U	2 U	4 J	3 U	3 U	2 U	2 U	2 U	2 U	2 U	2 U
7/19/2011	XX	LTC4LX4DA															0.5 U
10/26/2011	XX	LTC4LX4H5															0.5 U
4/24/2012	XX	LTC4LX51F	9.5 U	4.8 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	5 U
7/24/2012	XX	LTC4LX56E															5 U
10/23/2012	XX	LTC4LX5D5															25 U
4/23/2013	XX	LTC4LX5HG	110 U	4.8 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	25 U

Notes:

TYPE - Sample Type Qualifier where D = Duplicate Sample.

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 09:47
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA (part 3 of 8)

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

(LT-C4L)

Date	Type	Sample ID	1,3-Dichlorobenzene ug/L	1,4-Dichlorobenzene ug/L	3,3-Dichlorobenzidine ug/L	2,4-Dichlorophenol ug/L	2,6-Dichlorophenol ug/L	Diethylphthalate ug/L	p-(Dimethylamino)azobenzene ug/L	7,12-Dimethylbenz(a)anthracene ug/L	3,3`-Dimethylbenzidine ug/L	2,4-Dimethylphenol ug/L	Dimethylpthalate ug/L	1,3-Dinitrobenzene (m-Dinitrobenzene) ug/L	4,6-Dinitro-2-methylphenol ug/L	2,4-Dinitrophenol ug/L	
LT-C4L																	
4/15/2009	XX	LTC4LX325	28 U	28 U	28 U	28 U	28 U	28 U	57 U	28 U	57 U	28 U	28 U	28 U	71 U	71 U	
7/7/2009	XX	LTC4LX369		25 U													
10/28/2009	XX	LTC4LX3E4		10 U													
4/28/2010	XX	LTC4LX3J3	9 U	2.5 U	9 U	9 U	9 U	9 U	9 U	9 U	24 U	9 U	9 U	9 U	24 U	24 U	
7/20/2010	XX	LTC4LX427		2.5 U													
10/19/2010	XX	LTC4LX45B		1.3													
4/27/2011	XX	LTC4LX49C	2 U	2 U	1 U	3 U		2 J				4 U	2 U		2 U	1 U	
7/19/2011	XX	LTC4LX4DA		0.69 J													
10/26/2011	XX	LTC4LX4H5		1.1													
4/24/2012	XX	LTC4LX51F	9.5 U	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	9.5 U	9.5 U	24 U	24 U	
7/24/2012	XX	LTC4LX56E		5 U													
10/23/2012	XX	LTC4LX5D5		25 U													
4/23/2013	XX	LTC4LX5HG	110 U	25 U	110 U	110 U	110 U	110 U	110 U	110 U	280 U	110 U	110 U	110 U	280 U	280 U	

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 09:48

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA (part 4 of 8)

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

(LT-C4L)

Date	Type	Sample ID	2,4-Dinitrotoluene ug/L	2,6-Dinitrotoluene ug/L	Di-n-octylphthalate ug/L	Bis(2-Ethylhexyl)phthalate ug/L	Ethyl methanesulfonate ug/L	Fluoranthene ug/L	Fluorene ug/L	Hexachlorobenzene ug/L	Hexachlorobutadiene ug/L	Hexachlorocyclopentadiene ug/L	Hexachloroethane ug/L	Hexachloropropene ug/L	Indeno(1,2,3-c,d)Pyrene ug/L		
LT-C4L																	
4/15/2009	XX	LTC4LX325	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U	28 U		
4/28/2010	XX	LTC4LX3J3	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U		
4/27/2011	XX	LTC4LX49C	2 U	2 U	2 U	2 U		2 U	2 U	2 U	2 U	1 U	2 U		2 U		
4/24/2012	XX	LTC4LX51F	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U		
4/23/2013	XX	LTC4LX5HG	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U		

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 09:48
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA (part 5 of 8)

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

(LT-C4L) Date	Type	Sample ID	Isophorone ug/L	Isosafrole ug/L	Methapyrilene ug/L	3-Methylcholanthrene ug/L	Methyl methanesulfonate ug/L	2-Methylnaphthalene ug/L	2-Methylphenol ug/L	3&4-Methylphenol ug/L	Naphthalene ug/L	1-Naphthaleneamine (1-Naphthylamine) ug/L	2-Naphthaleneamine (2-Naphthylamine) ug/L	1,4-Naphthoquinone ug/L	2-Nitroaniline ug/L	Carbazole ug/L	
LT-C4L																	
4/15/2009	XX	LTC4LX325	28 U	57 U	71 U	28 U	57 U	28 U	28 U	2800	300	28 U	28 U	28 U	71 U		
4/28/2010	XX	LTC4LX3J3	9 U	9 U	9 U	9 U	9 U	9 U	9 U	450	10	9 U	9 U	9 U	24 U		
4/27/2011	XX	LTC4LX49C	2 U					3 U	10	23	6 J				2 U	2 U	
4/24/2012	XX	LTC4LX51F	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	24 U	24 U		
4/23/2013	XX	LTC4LX5HG	110 U	110 U	280 U	110 U	110 U	110 U	110 U	1000	110 U	110 U	110 U	280 U	280 U		

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

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

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 09:48
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA (part 6 of 8)

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

(LT-C4L)

Date	Type	Sample ID	3-Nitroaniline ug/L	4-Nitroaniline ug/L	Nitrobenzene ug/L	2-Nitrophenol ug/L	4-Nitrophenol ug/L	5-Nitro-o-toluidine ug/L	N-Nitrosodiethylamine ug/L	N-Nitrosodimethylamine ug/L	N-Nitrosodi-n-butylamine ug/L	N-Nitroso-di-n-propylamine ug/L	N-Nitrosodiphenylamine ug/L	N-Nitrosomethylethylamine ug/L	N-Nitrosopiperidine ug/L		
LT-C4L																	
4/15/2009	XX	LTC4LX325	71 U	71 U	28 U	28 U	71 U	57 U	57 U	57 U	28 U	28 U	28 U	28 U	28 U		
4/28/2010	XX	LTC4LX3J3	24 U	24 U	9 U	9 U	24 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U		
4/27/2011	XX	LTC4LX49C	1 U	2 U	3 U	2 U	2 U					2 U	4 U				
4/24/2012	XX	LTC4LX51F	24 U	24 U	9.5 U	9.5 U	24 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U		
4/23/2013	XX	LTC4LX5HG	280 U	280 U	110 U	110 U	280 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U		

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 09:48
FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA (part 7 of 8)

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

(LT-C4L)

Date	Type	Sample ID	N-Nitrosopyrrolidine ug/L	Pentachlorobenzene ug/L	Pentachloronitrobenzene ug/L	Pentachlorophenol ug/L	Phenacetin ug/L	Phenanthrene ug/L	Phenol ug/L	p-Phenylenediamine ug/L	Pronamide ug/L	Pyrene ug/L	1,2,4,5-Tetrachlorobenzene ug/L				
LT-C4L																	
4/15/2009	XX	LTC4LX325	28 U	28 U	28 U	71 U	28 U	28 U	410 E	28 U	28 U	28 U	28 U				
4/28/2010	XX	LTC4LX3J3	9 U	9 U	9 U	24 U	9 U	9 U	70	9 U	9 U	9 U	9 U				
4/27/2011	XX	LTC4LX49C				2 U		2 U	13			2 U					
4/24/2012	XX	LTC4LX51F	9.5 U	9.5 U	9.5 U	24 U	9.5 U	9.5 U	9.5 U	24 U	9.5 U	9.5 U	9.5 U				
4/23/2013	XX	LTC4LX5HG	110 U	110 U	110 U	280 U	110 U	110 U	140	280 U	110 U	110 U	110 U				

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

E - Compound exceeded upper level of calibration range and required dilution.

U - Not Detected above the reported sample detection limit.

REPORT PREPARED: 3/17/2014 09:48

FOR: Juniper Ridge Landfill

SUMMARY REPORT

Semi-VOA (part 8 of 8)

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

(LT-C4L)

Date	Type	Sample ID	2,3,4,6-Tetrachlorophenol ug/L	O-Toluidine ug/L	1,2,4-Trichlorobenzene ug/L	2,4,5-Trichlorophenol ug/L	2,4,6-Trichlorophenol ug/L	1,3,5-Trinitrobenzene (sym-Trinitrobenzene) ug/L	Safrole ug/L
LT-C4L									
4/15/2009	XX	LTC4LX325	28 U	28 U	28 U	71 U	28 U	28 U	28 U
4/28/2010	XX	LTC4LX3J3	9 U	24 U	9 U	24 U	9 U	9 U	9 U
4/27/2011	XX	LTC4LX49C			2 U	3 U	3 U		
4/24/2012	XX	LTC4LX51F	9.5 U	24 U	9.5 U	24 U	9.5 U	9.5 U	9.5 U
4/23/2013	XX	LTC4LX5HG	110 U	280 U	110 U	280 U	110 U	110 U	110 U

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

Blank Cells appear when a parameter was not analyzed.

Concentration Qualifier Notes:

U - Not Detected above the reported sample detection limit.

APPENDIX B

2013 WATER QUALITY EVALUATION SHEETS AND BOX & WHISKER PLOTS

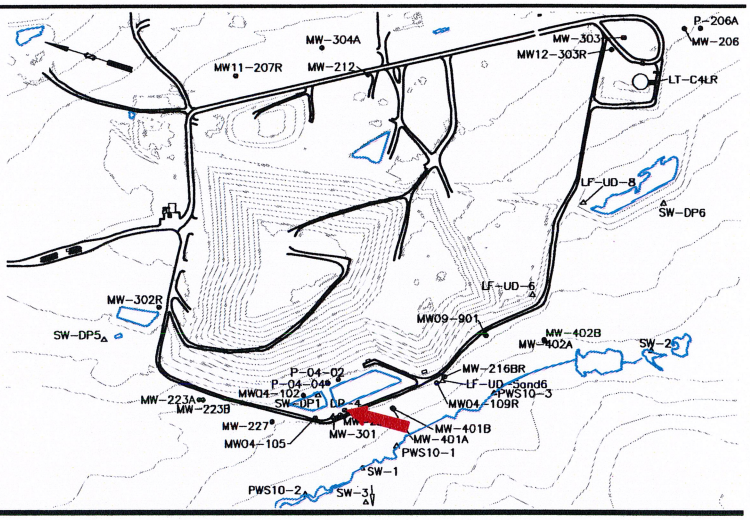
DP-4

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

DP-4 is located downgradient of the landfill and 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

	2013				Historical			
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Water Level Elevation (Feet)		154.99		154.47	152.18	to 156.12	150	± 0.17	28
Dissolved Oxygen (mg/L)		1		0.8	0.6	to 6	2.1	± 0.32	28
Bromide (mg/L)		0.12			No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		293		273	100	to 965	360	± 28	28
pH (Standard Units)		6.5		5.8	5.6	to 7.3	6.6	± 0.07	28
Alkalinity (CaCO3) (field) (mg/L)		70		70	50	to 290	130	± 11	27
Arsenic (mg/L)		**0.011**			0.001 U	to 0.016	0.0056	± 0.000	28
Cadmium (mg/L)		0.0006 U			0.0002 U	to 0.0012	0.00044	± 6E-05	24
Calcium (mg/L)		29.5			19	to 105	37	± 3	28
Iron (mg/L)		0.89			0.22	to 5.1	0.97	± 0.18	28
Magnesium (mg/L)		8.2			5.2	to 24	10	± 0.8	28
Manganese (mg/L)		**1.81**			0.77	to 4.5	1.8	± 0.14	28
Nickel (mg/L)		0.005 U			0.002 U	to 0.007	0.0036	± 0.000	24
Potassium (mg/L)		1.3			1	to 4.5	1.6	± 0.14	28
Sodium (mg/L)		10.8			7.3	to 74	19	± 3.5	28
Total Kjeldahl Nitrogen (mg/L)		0.349			0.26	to 110	5.2	± 4.1	27
Nitrate (N) (mg/L)		↑ 0.3 U			0.1 U	to 0.2	0.14	± 0.01	28
Total Dissolved Solids (mg/L)		195			165	to 575	240	± 16	28
Total Suspended Solids (mg/L)		75			4 U	to 1490	210	± 64	28
Sulfate (mg/L)		19.3			5.7	to 113	17	± 4	28
Bicarbonate (CaCO3) (mg/L)		80			77	to 301	140	± 10	28
Organic Carbon (mg/L)		2 U			0.9	to 8.1	2.9	± 0.31	28
Chemical Oxygen Demand (mg/L)		10 U			3 U	to 18	7.1	± 0.9	28
Chloride (mg/L)		30.8			5.5	to 72.9	21	± 3.3	28
Turbidity (field) (NTU)		10		3.9	0.6	to 36.2	9.3	± 1.7	28
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U			0.2 U	to 1.1	0.28	± 0.04	27

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

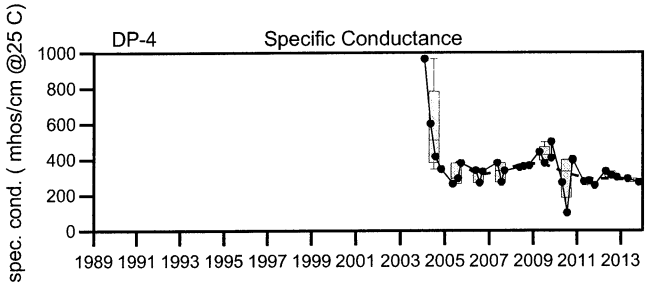
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

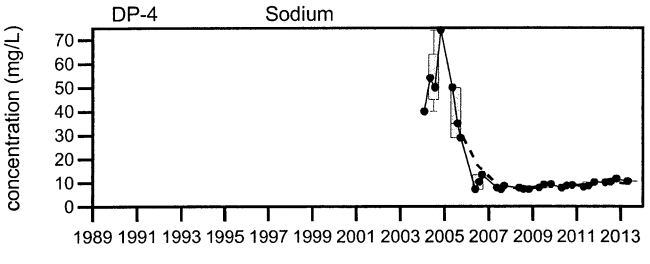
Comments

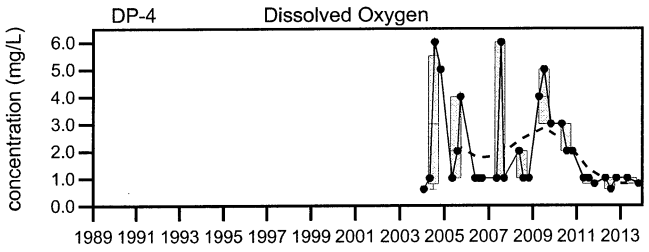
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

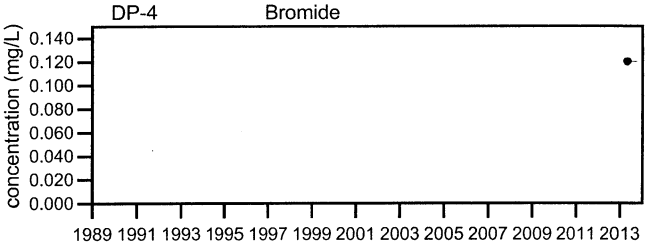
Data Group: 199
Printed: 3/18/2014 13:05

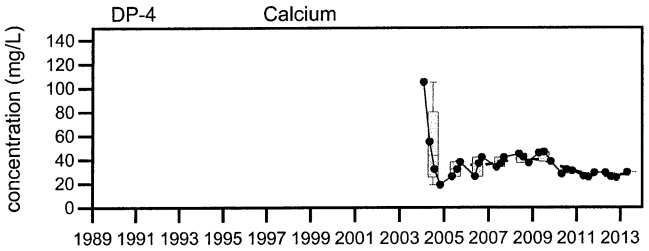
SME
Sewee & Maher Engineers, Inc.

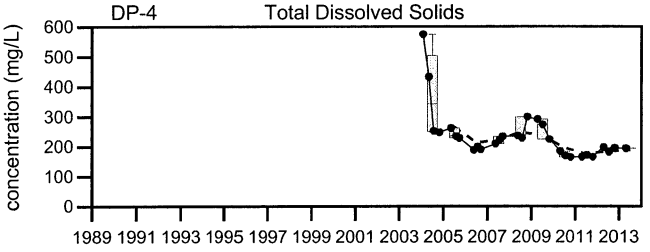


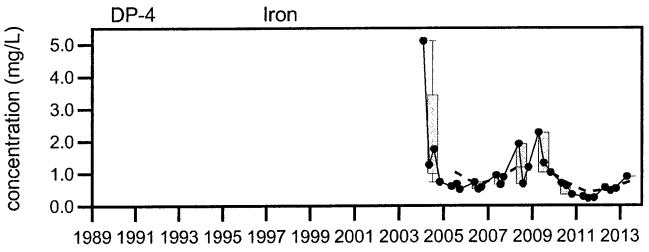


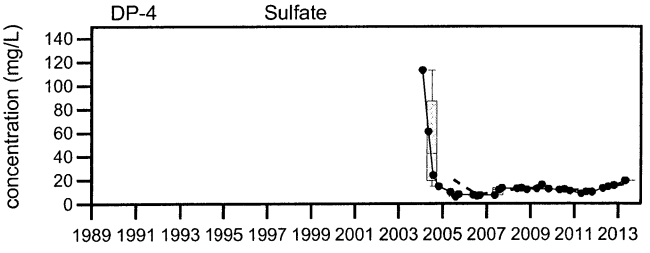


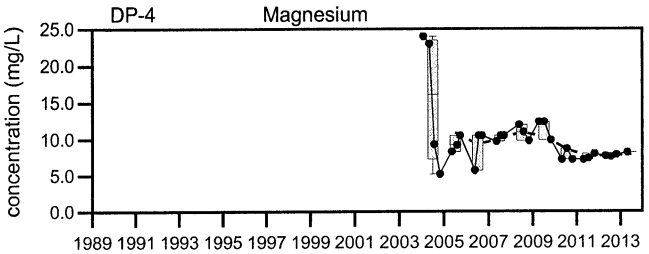


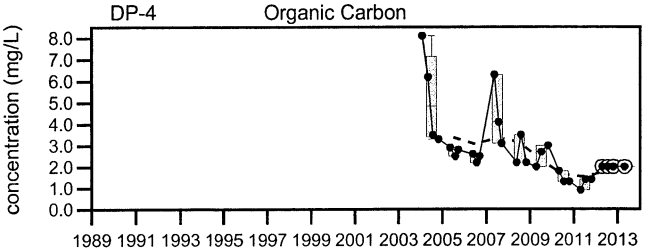


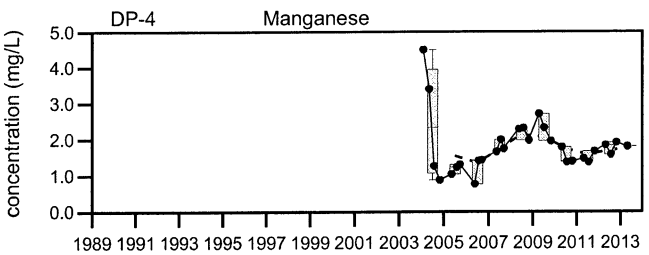


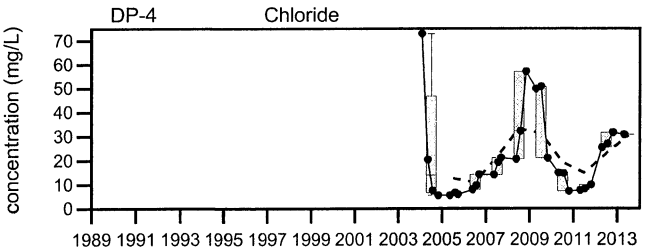


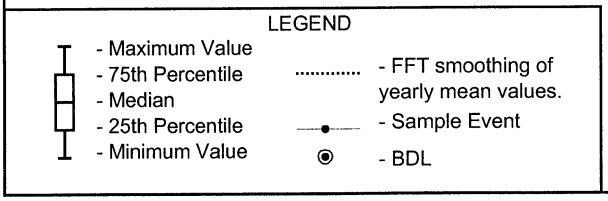












Juniper Ridge Landfill

DP-4

Sevee & Maher Engineers, Inc.

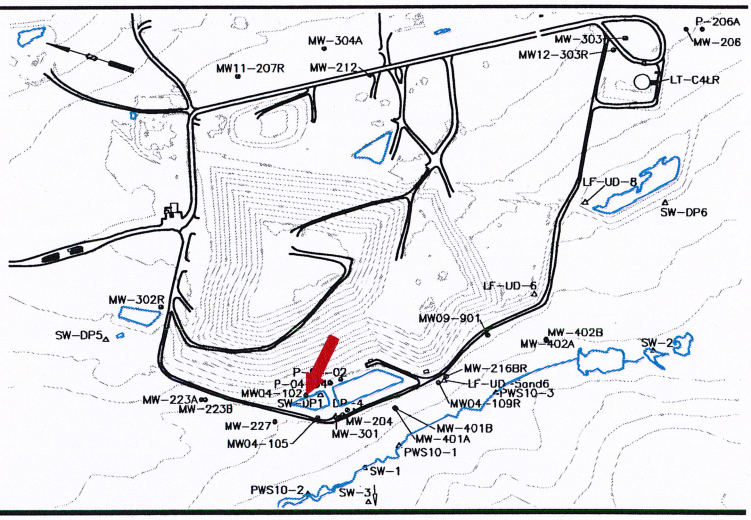
MW04-102

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Screen Interval: **10 ft. to 15 ft.**

Sampled: **3 Times Annually**

Sampled Since: **01/18/2005**

Material Screened: **Overburden**

Well Condition: **Good**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	Historical n
Water Level Elevation (Feet)		164.42	163.72	163.12	162.22	165.42	160	0.17	25
Dissolved Oxygen (mg/L)		3	3	↓ 1	2	6	3.3	0.21	25
Bromide (mg/L)		↑ 0.1 U	↑ 0.1 U	↑ 0.1 U	0.03 U	0.03 U	0.03	0	4
Specific Conductance (µmhos/cm @25°C)		220	227	207	193	249	220	3.2	25
pH (Standard Units)		↑ 8.4	7.8	↑ 8.3	7.1	8.2	7.8	0.06	25
Alkalinity (CaCO3) (field) (mg/L)		85	100	100	40	170	97	6.4	25
Arsenic (mg/L)		↑ 0.008	↑ **0.017**	↑ **0.013**	0.001 U	0.006	0.003	0.000	25
Cadmium (mg/L)		0.0006 U	0.0008	0.0006 U	0.0002 U	0.001	0.00038	6E-05	25
Calcium (mg/L)		24.2	27.5	25.6	23.5	31.2	26	0.35	25
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	0.13	0.041	0.006	25
Magnesium (mg/L)		7	7.4	7.1	6.4	8.1	7.1	0.09	25
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	0.09	0.029	0.004	25
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	0.012	0.0031	0.000	25
Potassium (mg/L)		1.6	1.5	2.1	1.2	3.2	1.9	0.09	25
Sodium (mg/L)		7.1	7	8.2	6.4	11	8	0.24	25
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.646	0.5 U	0.3 U	3.8	0.59	0.15	25
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.1 U	0.3	0.16	0.02	25
Total Dissolved Solids (mg/L)		143	134	137	116	148	130	1.9	25
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	5	4	0.04	25
Sulfate (mg/L)		13.2	9.1	9.1	6.7	14	9.4	0.36	25
Bicarbonate (CaCO3) (mg/L)		100	102	101	73	109	100	1.3	25
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5	5.3	1.6	0.22	25
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U	↑ 10 U	3 U	9	4.3	0.51	25
Chloride (mg/L)		2.4	1.2	2.5	1 U	3.5	1.9	0.14	25
Turbidity (field) (NTU)		0.9	0.8	1.2	0	3.8	0.86	0.2	25
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	0.25	0.2	0.002	21

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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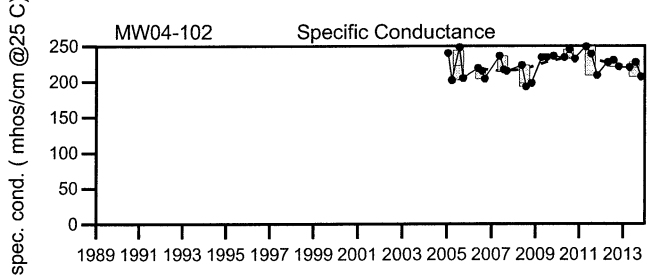
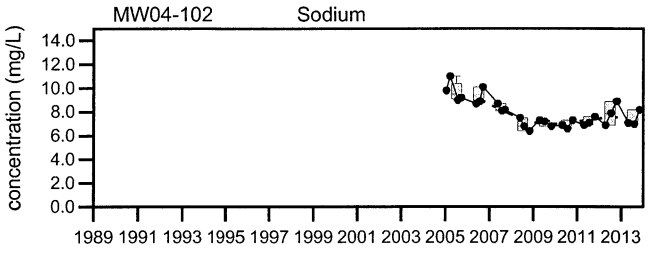
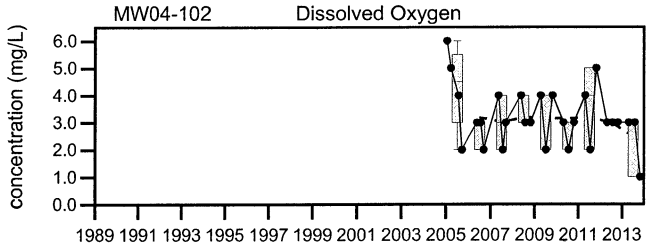
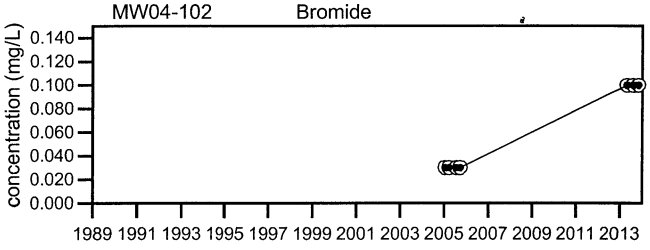
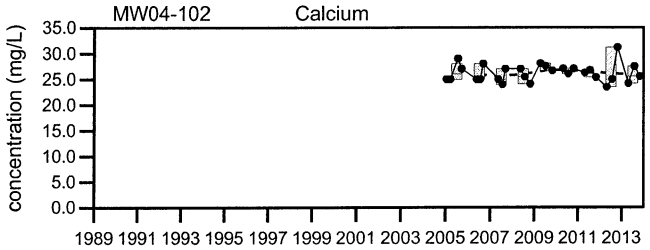
Sewee & Mather Engineers, Inc.

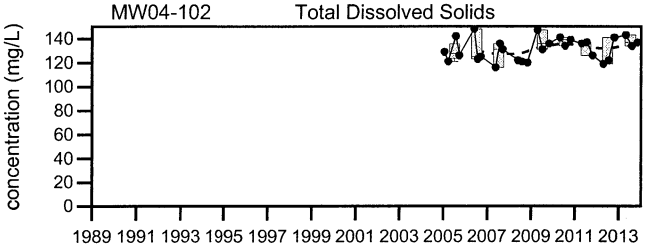


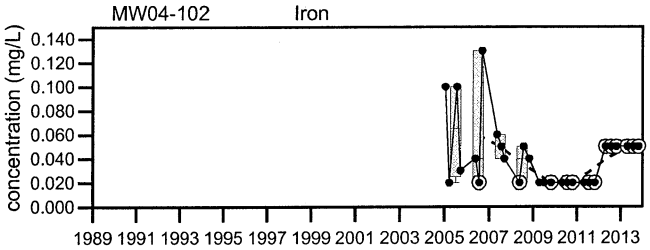


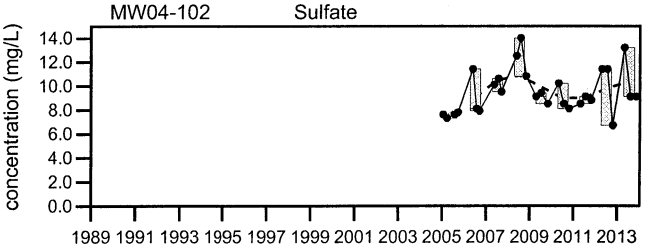


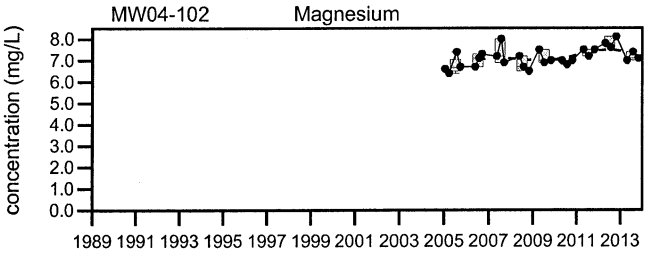


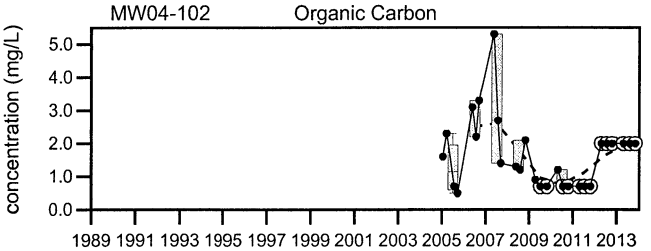


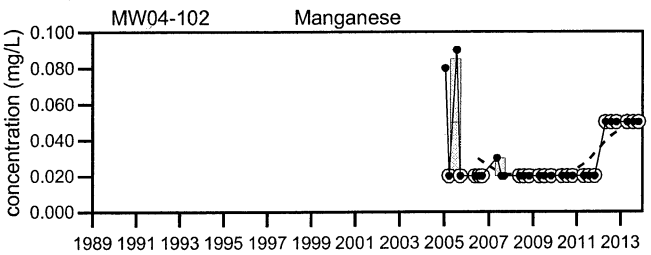


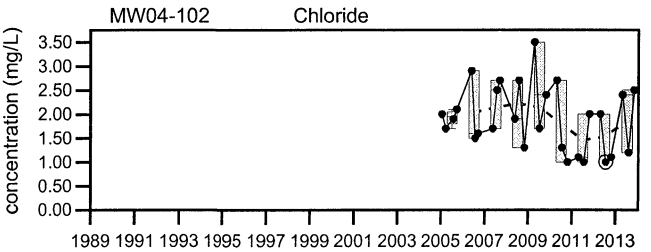


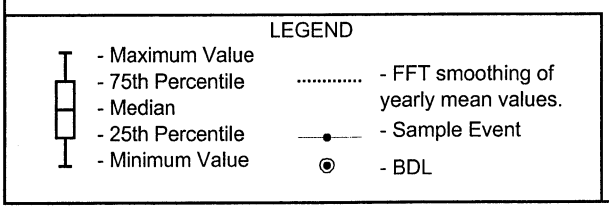












Juniper Ridge Landfill

MW04-102

Sevee & Maher Engineers, Inc.

MW04-105

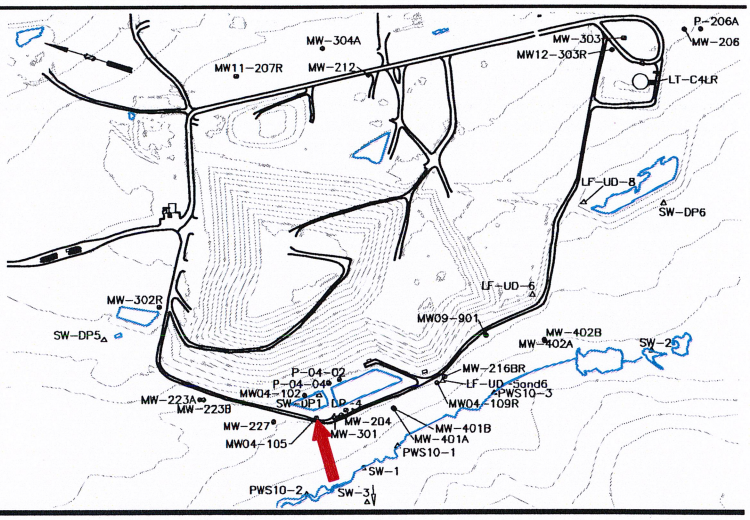
Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW04-105 monitors groundwater in the overburden downgradient of the landfill and Stormwater Detention Pond-1.

Screen Interval:	**14.8 ft. to 19.8 ft.**
Sampled:	**1 Time Annually(field parameters only)**
Sampled Since:	**01/17/2005**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**



Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	Historical n
Water Level Elevation (Feet)		158.04		157.16	156.99	159.79	160	0.14	25
Dissolved Oxygen (mg/L)		1		0.6	0.4	4	1.5	0.22	25
Bromide (mg/L)		↑ 0.1 U			0.03 U	0.05	0.035	0.005	4
Specific Conductance (µmhos/cm @25°C)		249		286	217	703	390	23	25
pH (Standard Units)		6.8		6.7	6.1	7.7	6.9	0.08	25
Alkalinity (CaCO3) (field) (mg/L)		90		125	70	240	150	10	25
Arsenic (mg/L)		**0.012**			0.001 U	0.014	0.0045	0.000	25
Cadmium (mg/L)		0.0006 U			0.0002 U	0.0021	0.00044	9E-05	25
Calcium (mg/L)		25.9			22.7	75	42	3.1	25
Iron (mg/L)		0.05 U			0.02 U	0.11	0.046	0.005	25
Magnesium (mg/L)		9.1			8.4	30	15	1.1	25
Manganese (mg/L)		0.05 U			0.02 U	0.98	0.16	0.05	25
Nickel (mg/L)		↑ 0.005 U			0.002 U	0.004	0.0026	0.000	25
Potassium (mg/L)		1.3			1.3	2.8	1.7	0.08	25
Sodium (mg/L)		↓ 8.4			8.7	32	18	1.2	25
Total Kjeldahl Nitrogen (mg/L)		0.3 U			0.3 U	1	0.44	0.04	25
Nitrate (N) (mg/L)		↑ 0.3 U			0.1 U	0.2	0.13	0.01	25
Total Dissolved Solids (mg/L)		162			141	432	240	17	25
Total Suspended Solids (mg/L)		4 U			4 U	5	4	0.04	25
Sulfate (mg/L)		5.5			4.2	115	27	6.7	25
Bicarbonate (CaCO3) (mg/L)		111			100	225	160	7	25
Organic Carbon (mg/L)		2 U			0.8	7.5	2.8	0.32	25
Chemical Oxygen Demand (mg/L)		10 U			3 U	12	6.1	0.65	25
Chloride (mg/L)		7.7			2.9	30.9	11	1.2	25
Turbidity (field) (NTU)		↑ 3		1.2	0	1.8	0.64	0.13	25
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U			0.2 U	0.22	0.2	0.001	21

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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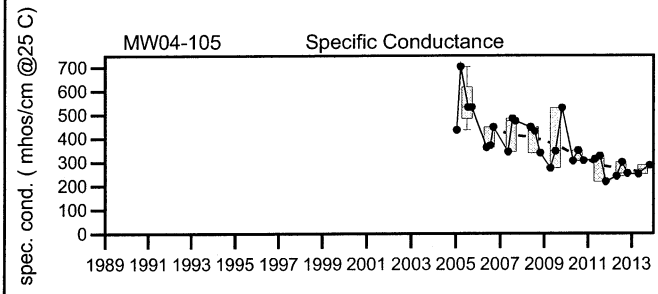
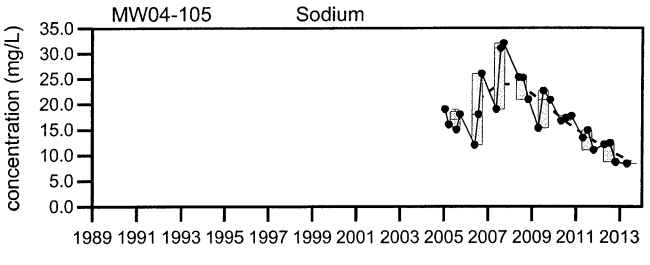
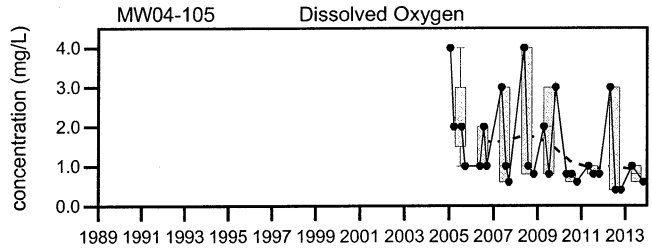
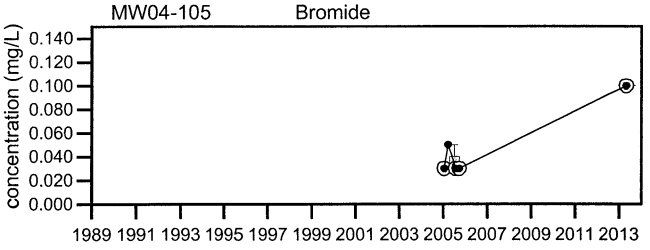
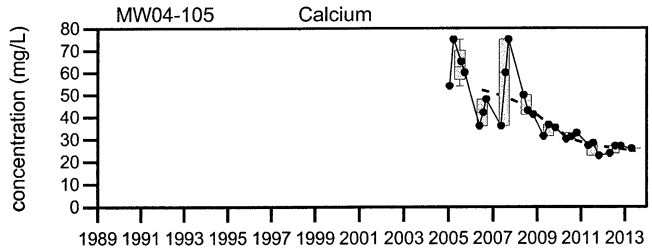
Sevee & Maher Engineers, Inc.

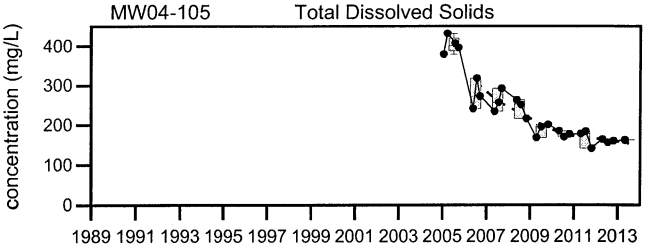


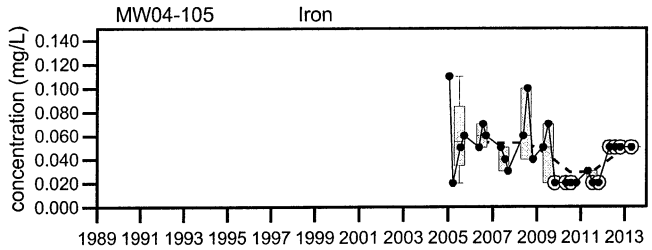


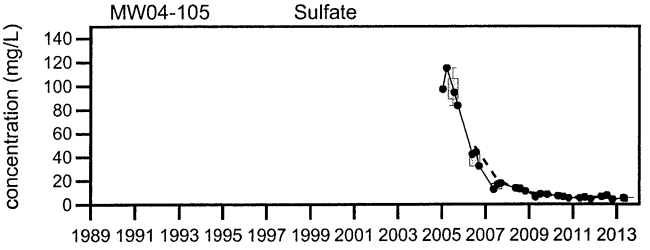


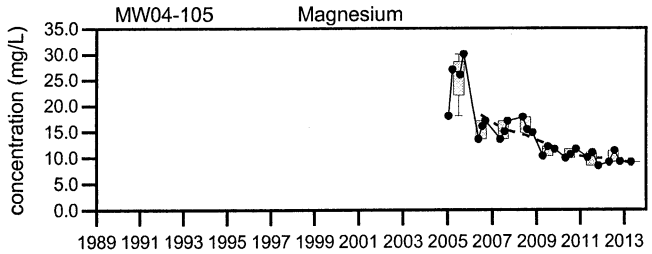


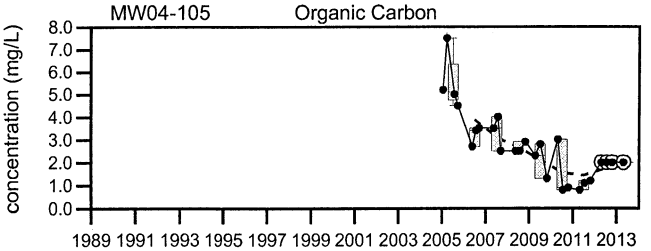


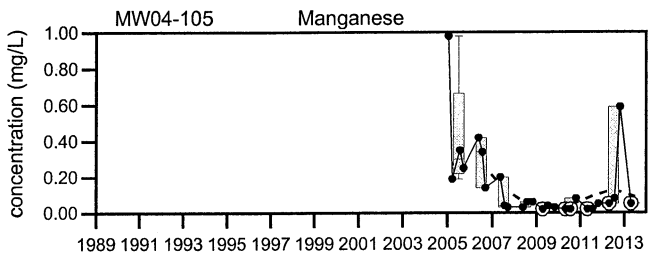


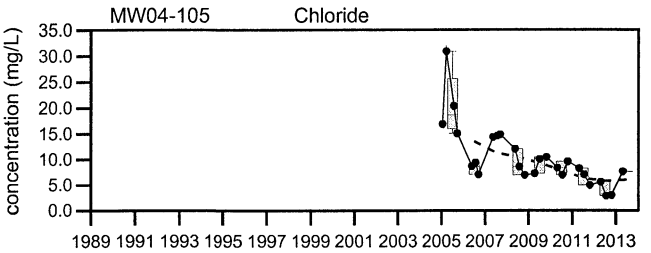


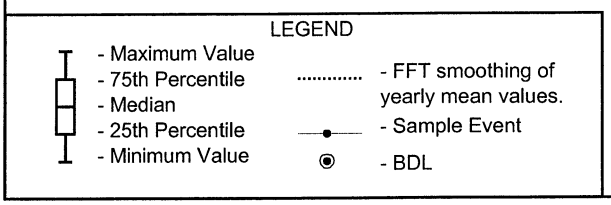












Juniper Ridge Landfill

MW04-105

Sevee & Maher Engineers, Inc.

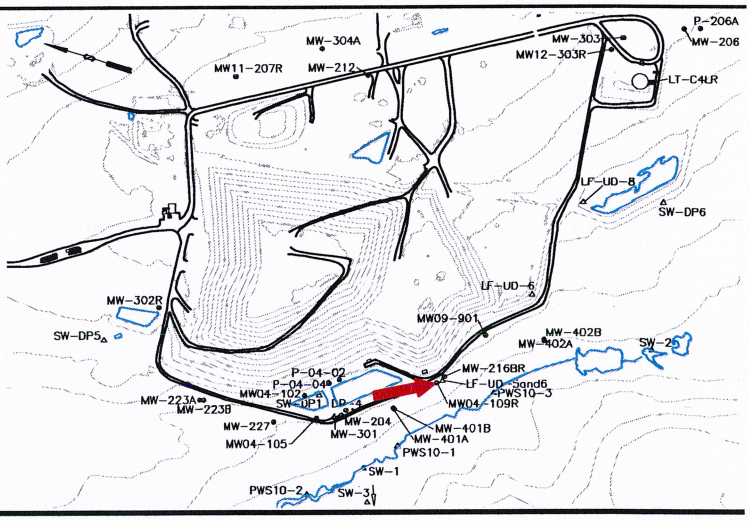
MW04-109R

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW04-109R is located to the south of Cell #5 of the expansion landfill and near Manhole #5. This well monitors water quality within the overburden downgradient of the landfill.



Screen Interval:	**15 ft. to 20 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**12/08/2009**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		153.45	153.21	152.72	152.64	to	153.98	150	±	0.15	10
Dissolved Oxygen (mg/L)		1	0.6	0.6	0.3	to	1	0.53	±	0.08	10
Bromide (mg/L)		0.17	0.14	0.16	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		390	414	397	382	to	550	440	±	16	10
pH (Standard Units)		6.8	6.6	↓ 6.3	6.5	to	7.9	6.8	±	0.14	10
Alkalinity (CaCO3) (field) (mg/L)		165	180	220	105	to	240	160	±	13	10
Arsenic (mg/L)		**0.017**	**0.016**	**0.015**	0.002 U	to	0.033	0.014	±	0.003	10
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.0006	0.0004	±	7E-05	10
Calcium (mg/L)		54.1	62.5	58.5	50.3	to	77.2	60	±	2.7	10
Iron (mg/L)		↑ 0.05 U	↑ 0.05 U	↑ 0.05 U	0.02 U	to	0.03	0.03	±	0.005	10
Magnesium (mg/L)		↓ 9.7	10.8	10.9	10.1	to	14.3	12	±	0.43	10
Manganese (mg/L)		0.05 U	0.1	0.15	0.02	to	0.15	0.05	±	0.01	10
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.005 U	0.0029	±	0.000	10
Potassium (mg/L)		2	↓ 1.8	1.9	1.9	to	2.5	2.2	±	0.05	10
Sodium (mg/L)		9	↓ 8.2	8.4	8.3	to	10.6	9.5	±	0.22	10
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.444	0.5 U	0.3 U	to	0.59	0.33	±	0.03	10
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.1 U	to	0.3 U	0.16	±	0.03	10
Total Dissolved Solids (mg/L)		245	242	259	227	to	310	260	±	8.4	10
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	4 U	4	±	0	10
Sulfate (mg/L)		8.7	8.6	7.7	2.6	to	15.2	7.5	±	1.1	10
Bicarbonate (CaCO3) (mg/L)		190	195	206	184	to	233	210	±	5.7	10
Organic Carbon (mg/L)		2 U	2 U	2 U	1.2	to	2.9	1.8	±	0.17	10
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U	↑ 10 U	3 U	to	5	5.4	±	1	10
Chloride (mg/L)		6.5	7.7	6.3	2.3	to	15.9	7.6	±	1.2	10
Turbidity (field) (NTU)		0.3	0.2	0.2	0	to	2.9	0.71	±	0.29	10
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.2 U	0.2	±	2E-09	10

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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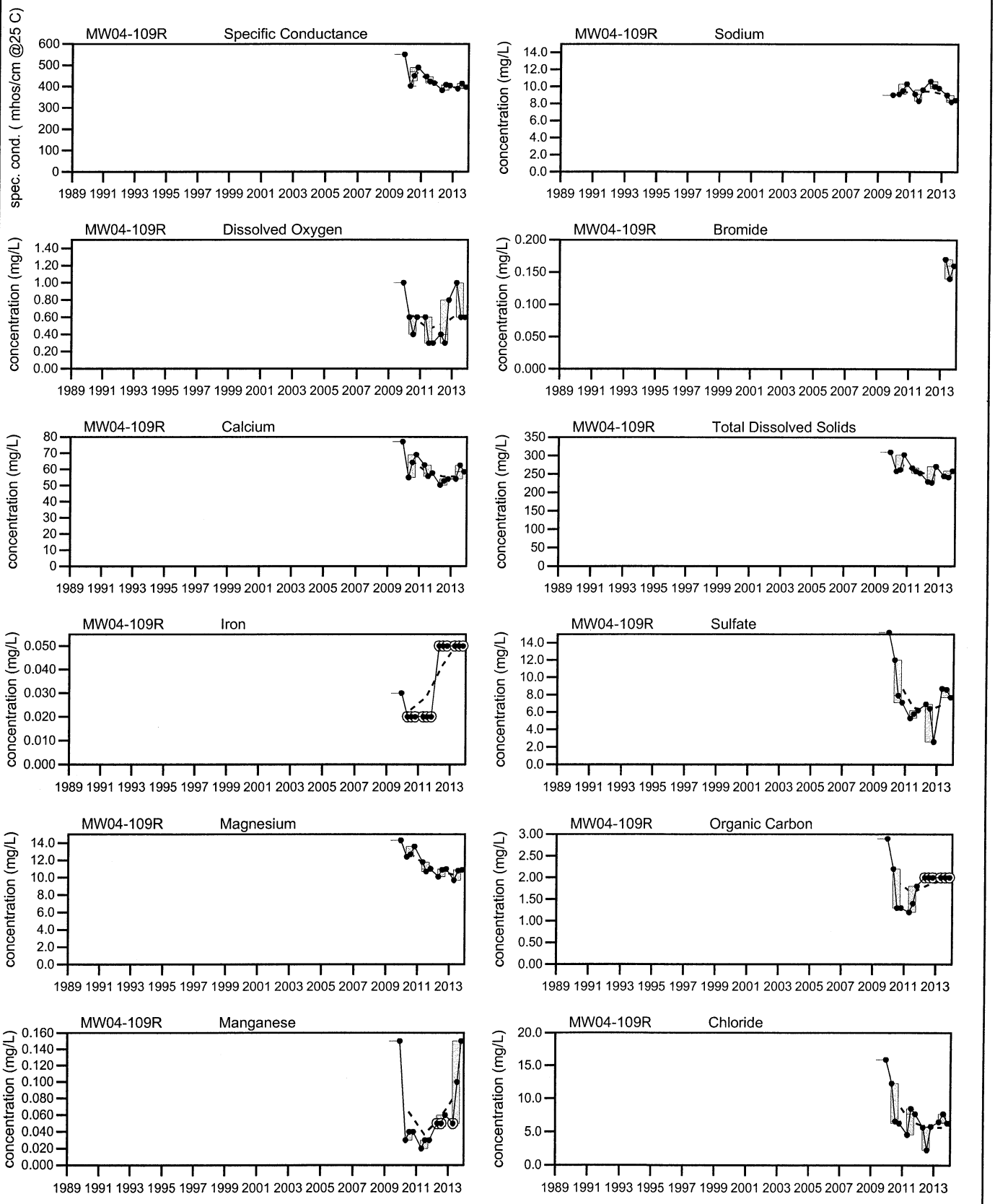
Printed: 3/18/2014 13:05

SME Sevee & Maher Engineers, Inc.



Juniper Ridge Landfill

MW04-109R

Sevee & Maher Engineers, Inc.

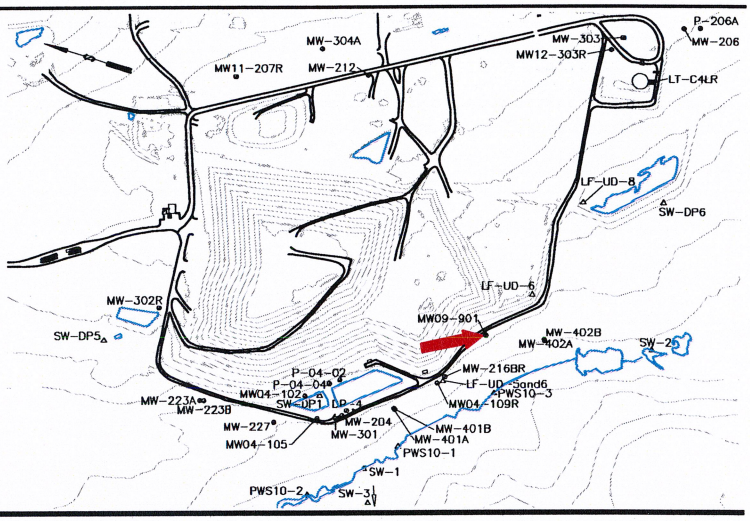
MW09-901

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Screen Interval: **15 ft. to 20 ft.**

Sampled: **3 Times Annually**

Sampled Since: **12/08/2009**

Material Screened: **Overburden**

Well Condition: **Good**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	Historical n
Water Level Elevation (Feet)		155.68	155.16	154.47	154.3	157.15	160	0.31	10
Dissolved Oxygen (mg/L)		↑ 4	↑ 4	2	0.6	3	1.8	0.26	10
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		↓ 178	197	195	189	300	240	14	10
pH (Standard Units)		8.4	7.7	↓ 7.3	7.4	8.4	7.9	0.11	10
Alkalinity (CaCO3) (field) (mg/L)		65	80	85	50	120	85	6.9	10
Arsenic (mg/L)		0.009	0.01	0.009	0.002 U	0.013	0.0065	0.001	10
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	0.0006	0.00033	6E-05	10
Calcium (mg/L)		19.1	21.8	22.5	18.8	29.6	24	1.3	10
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	0.18	0.049	0.02	10
Magnesium (mg/L)		5.4	5.9	6.1	5.4	8	6.5	0.25	10
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	0.39	0.083	0.04	10
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	0.003	0.003	0.000	10
Potassium (mg/L)		1.7	↓ 1.5	1.7	1.6	2.6	2.1	0.11	10
Sodium (mg/L)		↓ 5.1	↓ 4.9	5.9	5.2	17.4	8	1.2	10
Total Kjeldahl Nitrogen (mg/L)		0.3 U	↑ 0.52	↑ 0.5 U	0.3 U	0.3 U	0.3	1E-09	10
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.1 U	0.3 U	0.16	0.03	10
Total Dissolved Solids (mg/L)		116	110	116	103	193	130	9.2	10
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	4	4	0	10
Sulfate (mg/L)		10.8	10.7	9.2	7	27.4	12	1.9	10
Bicarbonate (CaCO3) (mg/L)		81	80	85	75	110	92	4.1	10
Organic Carbon (mg/L)		↑ 2 U	↑ 2 U	↑ 2 U	0.7 U	1.9	1.4	0.19	10
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	3 U	12	5.4	1.2	10
Chloride (mg/L)		2.5	2	2.7	1 U	5.1	2.4	0.43	10
Turbidity (field) (NTU)		↓ 0.1	0.4	1.4	0.3	10.1	2.6	0.9	10
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2	2E-09	10

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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Comments

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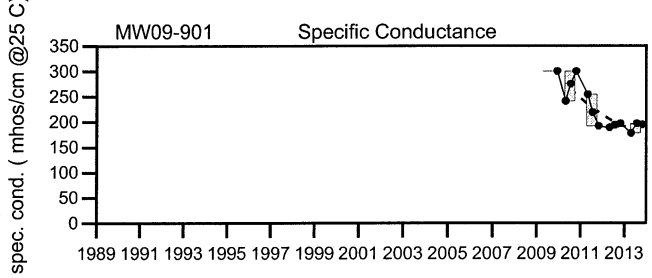
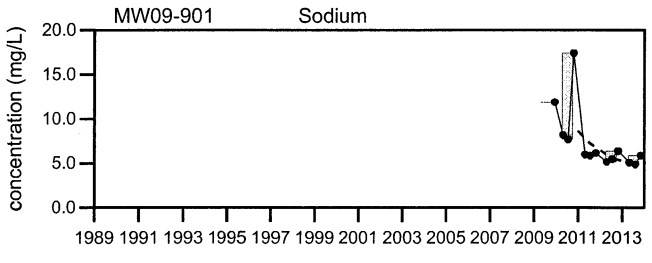
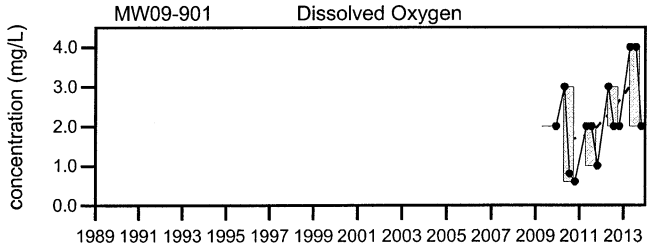
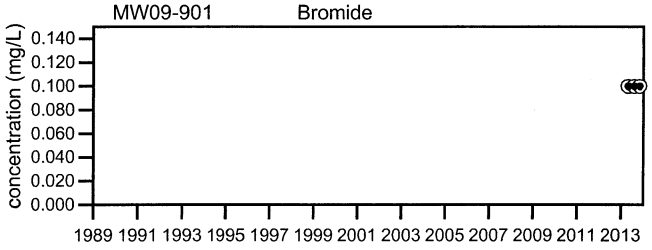
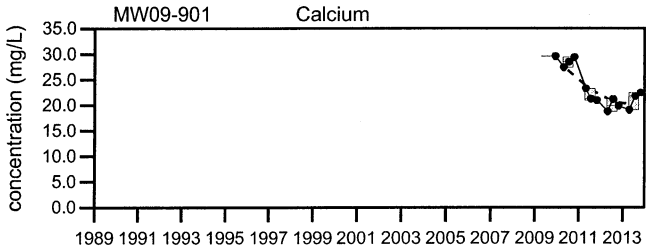
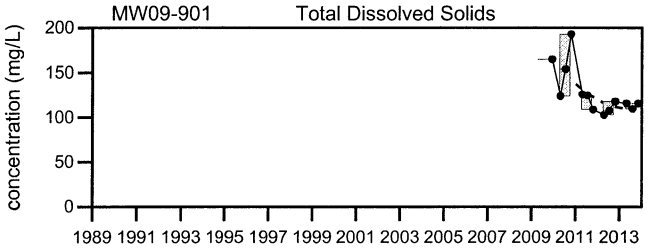


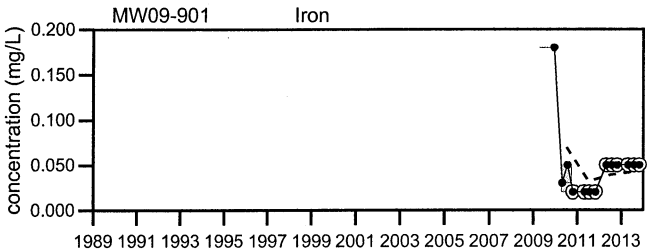


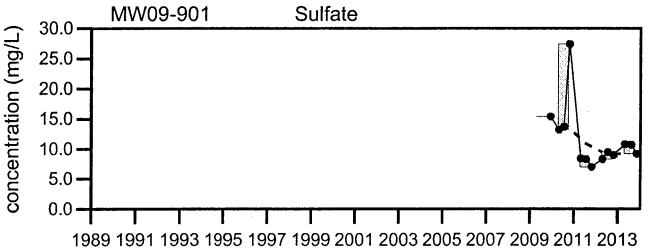


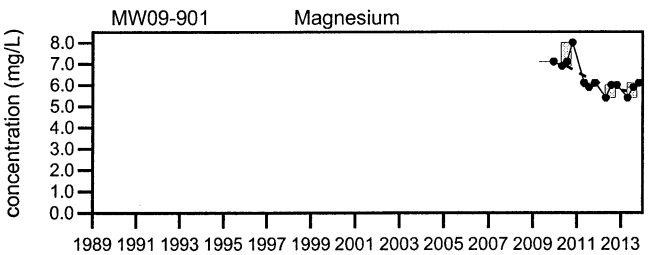


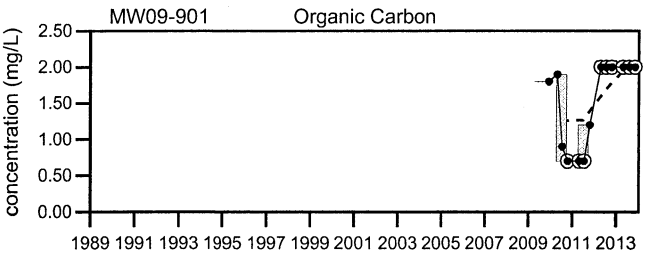


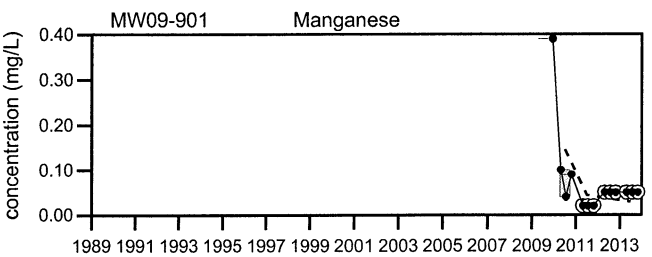


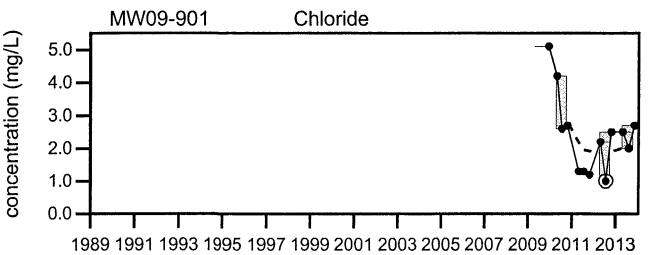


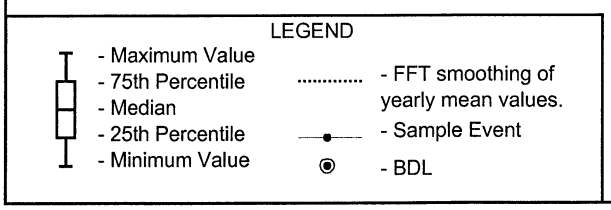












Juniper Ridge Landfill

MW09-901

Sevee & Maher Engineers, Inc.

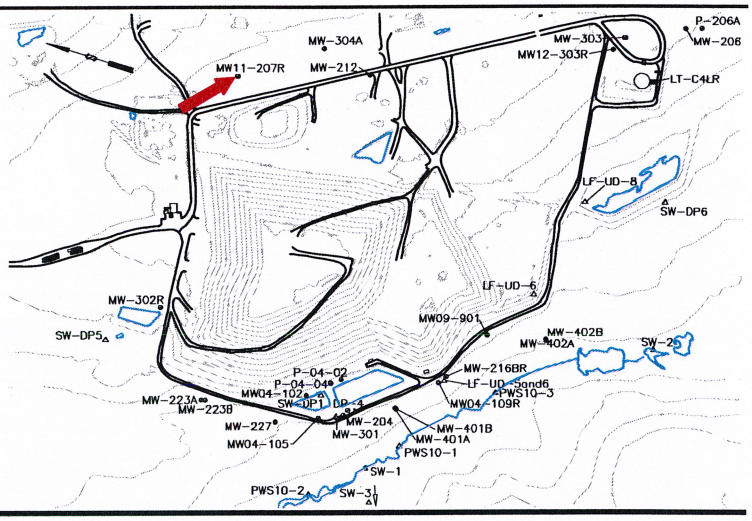
MW11-207R

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW11-207R monitors bedrock groundwater quality upgradient of the landfill. This well replaced MW-207.



Screen Interval:	**39.5 ft. to 44.5 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**07/20/2011**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		206.93	203.16	↓ 200.59	203.03	to	208.56	200	±	1.3	4
Dissolved Oxygen (mg/L)		6	↑ 8	6	5	to	6	5.4	±	0.24	5
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		83	88	↓ 82	83	to	103	89	±	3.6	5
pH (Standard Units)		8	7.9	↑ 8.2	7.7	to	8.1	7.9	±	0.08	5
Alkalinity (CaCO3) (field) (mg/L)		40	↑ 45	40	25	to	40	34	±	2.9	5
Arsenic (mg/L)		0.005 U	0.005 U	0.007	0.004	to	0.008	0.0054	±	0.000	5
Cadmium (mg/L)		↑ 0.0006 U	↑ 0.0006 U	↑ 0.0006 U	0.0002 U	to	0.0005	0.0005	±	8E-05	5
Calcium (mg/L)		8.1	9	8.7	7.9	to	9.3	8.4	±	0.24	5
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.05 U	0.038	±	0.007	5
Magnesium (mg/L)		2.8	2.9	3	2.6	to	3.3	2.9	±	0.12	5
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.05 U	0.038	±	0.007	5
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.005 U	0.0038	±	0.000	5
Potassium (mg/L)		0.5	0.4	0.5	0.4	to	0.5	0.48	±	0.02	5
Sodium (mg/L)		3.8	↓ 3.1	3.7	3.3	to	3.9	3.6	±	0.1	5
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.551	0.5 U	0.3 U	to	0.93	0.46	±	0.12	5
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.2	to	0.2	0.26	±	0.02	5
Total Dissolved Solids (mg/L)		70	69	↑ 75	61	to	72	68	±	1.9	5
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	4 U	4	±	0	5
Sulfate (mg/L)		↑ 2.1	↑ 2 U	↑ 2 U	1	to	1.3	1.7	±	0.21	5
Bicarbonate (CaCO3) (mg/L)		39	40	39	36	to	42	39	±	1.1	5
Organic Carbon (mg/L)		2 U	2 U	2 U	0.7 U	to	2 U	1.5	±	0.32	5
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	3 U	to	10 U	7.2	±	1.7	5
Chloride (mg/L)		↑ 2.8	↑ 2.6	↑ 3.8	1.3	to	2.1	1.8	±	0.18	5
Turbidity (field) (NTU)		↓ 0.5	↓ 0.2	1.6	1.6	to	3	2.1	±	0.28	5
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.2 U	0.2	±	2E-09	5

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

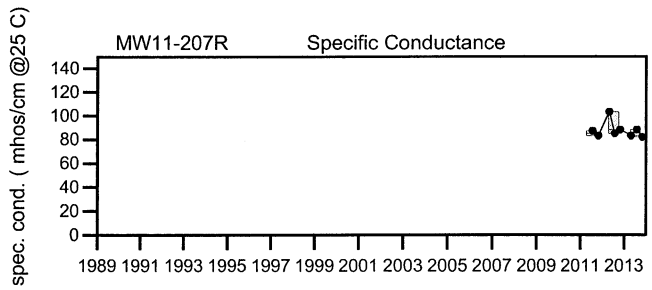
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

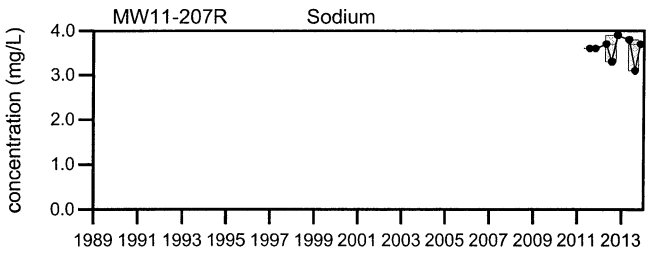
Comments

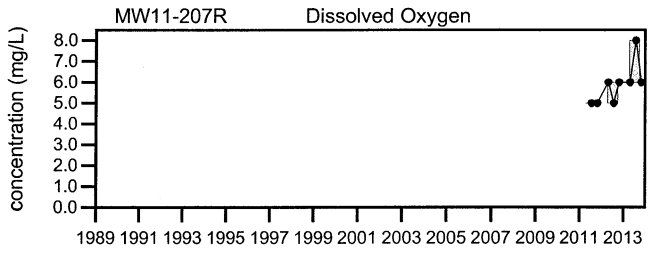
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

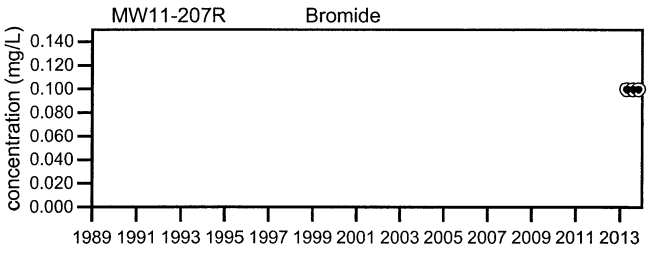
Data Group: 199
Printed: 3/18/2014 13:05

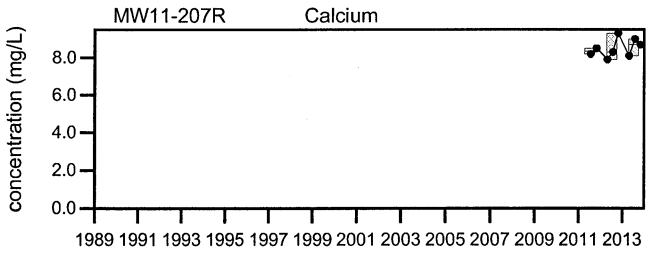
SME
Sowle & Maher Engineers, Inc.

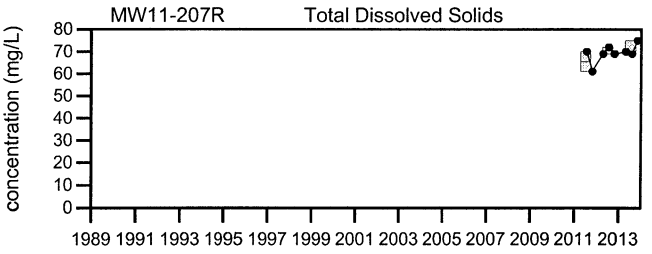


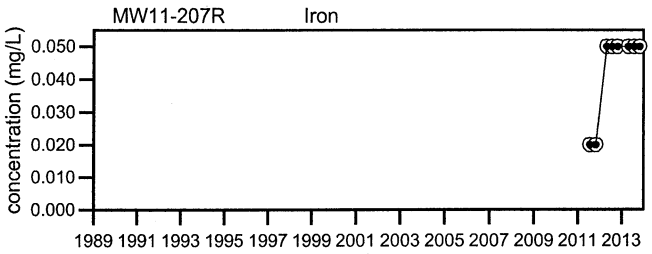


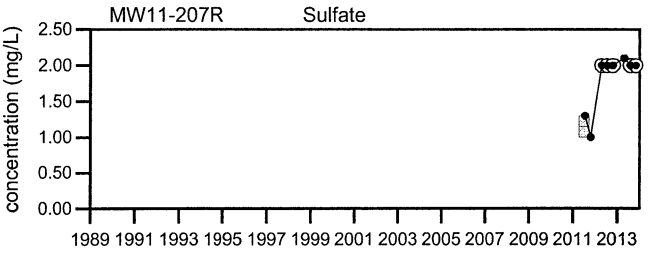


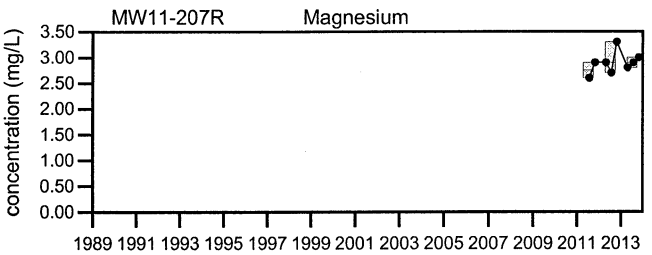


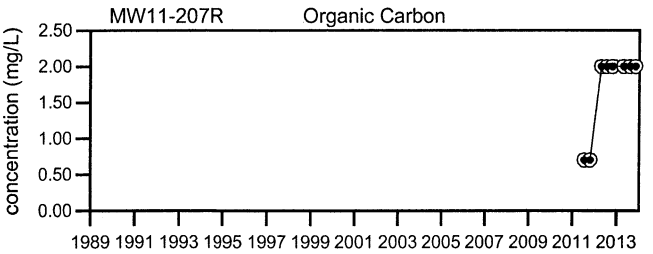


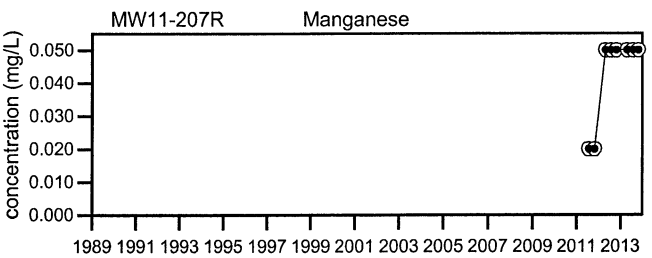


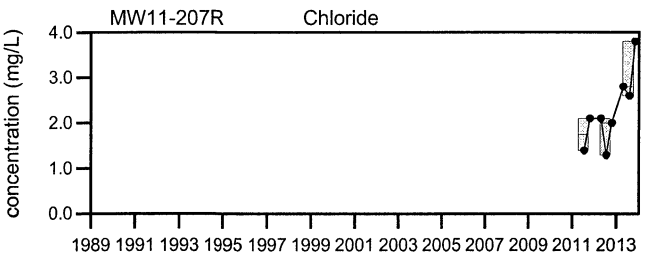


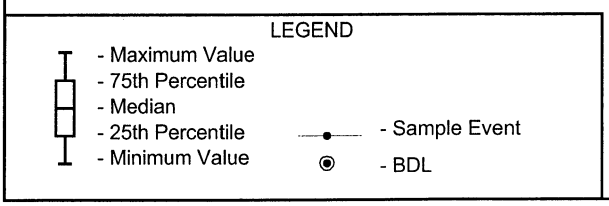












Juniper Ridge Landfill

MW11-207R

Sevee & Maher Engineers, Inc.

MW12-303R

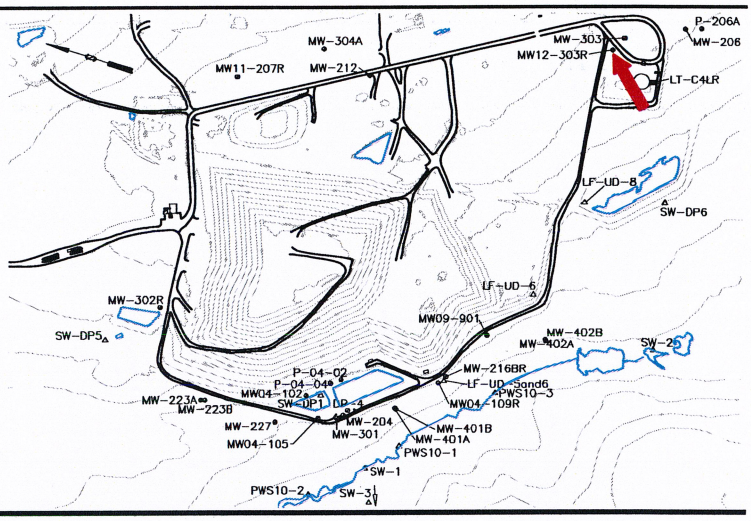
Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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

Screen Interval:	**30.4 ft. to 40.4 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**10/23/12**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**



Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Max	Mean	SE	n
Water Level Elevation (Feet)		183.37			No historical data for Water Level Elevation.				
Dissolved Oxygen (mg/L)		2	↓ 1	↓ 1	2	to 2	2	± 0	1
Bromide (mg/L)		0.22	0.3	0.42	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		↑ 254	↑ 253	↑ 223	189	to 189	190	± 0	1
pH (Standard Units)		↓ 6.7	↓ 6.6	↓ 6.5	7	to 7	7	± 0	1
Alkalinity (CaCO3) (field) (mg/L)		↑ 110	↑ 105	↑ 140	80	to 80	80	± 0	1
Arsenic (mg/L)		↑ 0.01	↑ 0.008	↑ **0.015**	0.005 U	to 0.005 U	0.005	± 0	1
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0006 U	to 0.0006 U	0.0006	± 0	1
Calcium (mg/L)		↑ 21.3	↑ 24.3	↑ 23.7	16.6	to 16.6	17	± 0	1
Iron (mg/L)		↓ 0.05 U	↓ 0.05 U	↓ 0.05 U	0.1	to 0.1	0.1	± 0	1
Magnesium (mg/L)		↑ 9.5	↑ 10	↑ 10.3	7.8	to 7.8	7.8	± 0	1
Manganese (mg/L)		↓ 0.06	↓ 0.05 U	↓ 0.05 U	0.32	to 0.32	0.32	± 0	1
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.005 U	to 0.005 U	0.005	± 0	1
Potassium (mg/L)		↑ 2.1	1.5	↑ 1.7	1.5	to 1.5	1.5	± 0	1
Sodium (mg/L)		↑ 15.9	↓ 8.8	↓ 9.2	10.4	to 10.4	10	± 0	1
Total Kjeldahl Nitrogen (mg/L)		0.3 U	↑ 0.673	↑ 0.5 U	0.3 U	to 0.3 U	0.3	± 0	1
Nitrate (N) (mg/L)		0.3 U	↑ 0.5	↑ 0.5	0.3 U	to 0.3 U	0.3	± 0	1
Total Dissolved Solids (mg/L)		↑ 159	↑ 195	↑ 158	143	to 143	140	± 0	1
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to 4 U	4	± 0	1
Sulfate (mg/L)		↑ 7.6	4.2	↓ 2.8	4.2	to 4.2	4.2	± 0	1
Bicarbonate (CaCO3) (mg/L)		↑ 114	↑ 113	↑ 111	92	to 92	92	± 0	1
Organic Carbon (mg/L)		2 U	2 U	2 U	2 U	to 2 U	2	± 0	1
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	10 U	to 10 U	10	± 0	1
Chloride (mg/L)		↑ 6.6	↑ 8	↑ 8.4	4.9	to 4.9	4.9	± 0	1
Turbidity (field) (NTU)		↓ 2	↓ 0.9	↓ 2.4	9.3	to 9.3	9.3	± 0	1
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to 0.2 U	0.2	± 0	1

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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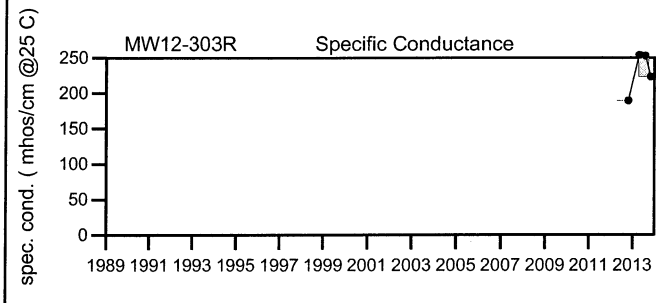
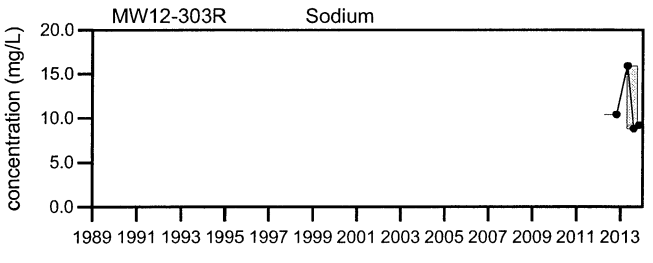
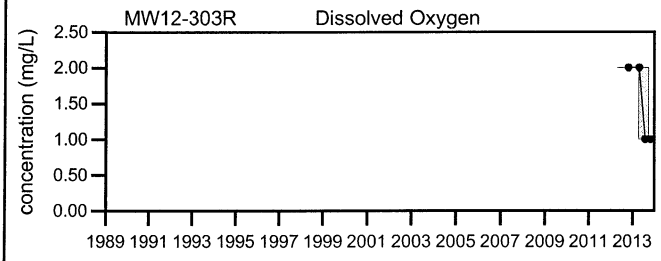
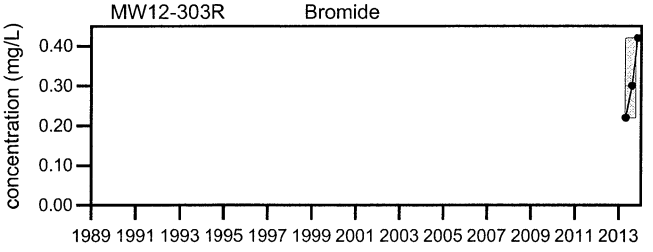
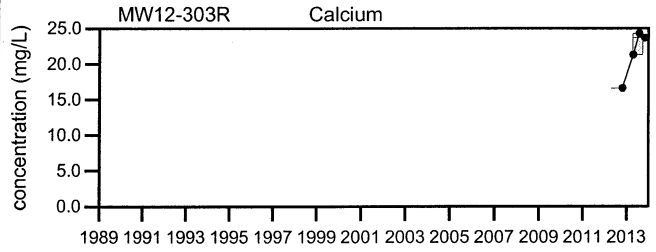
SME
Sowle & Maher Engineers, Inc.

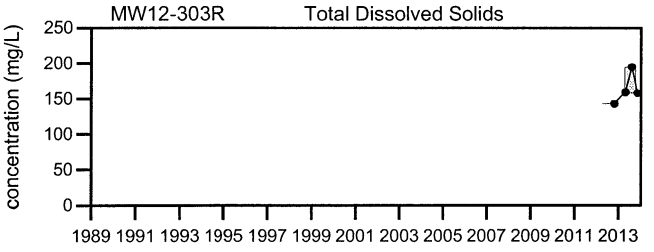


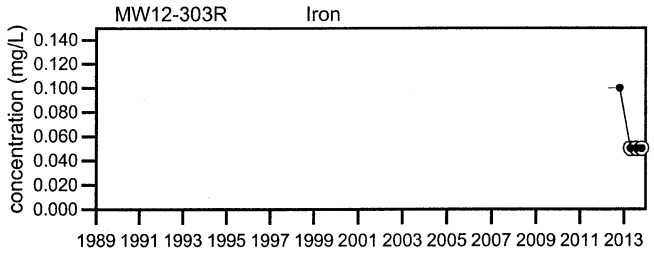


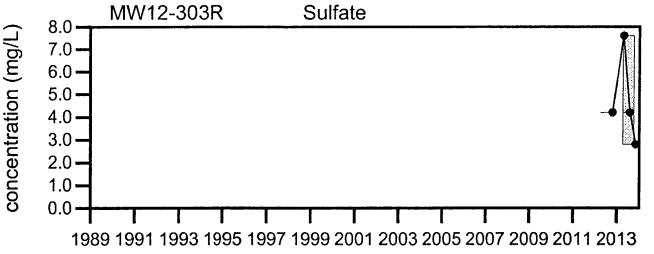


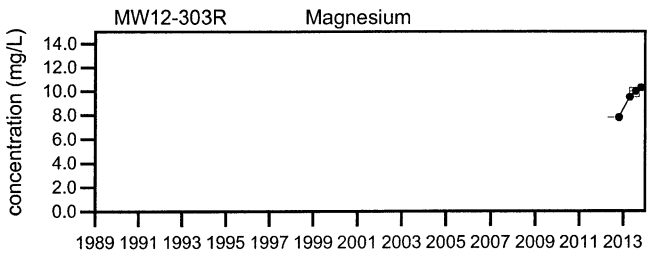


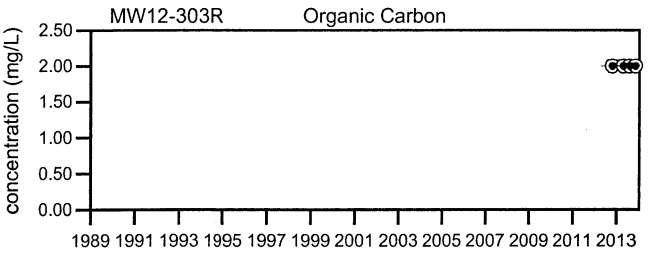


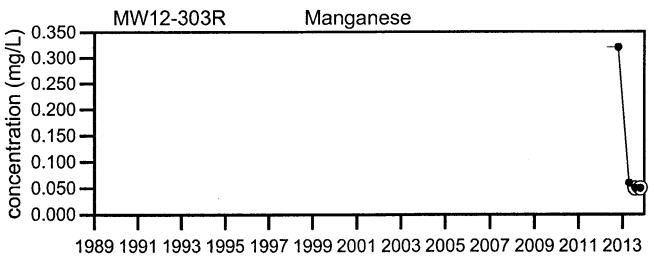


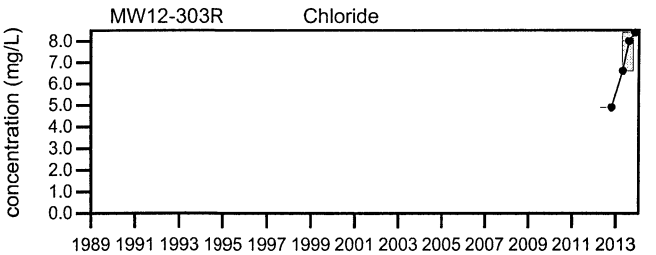


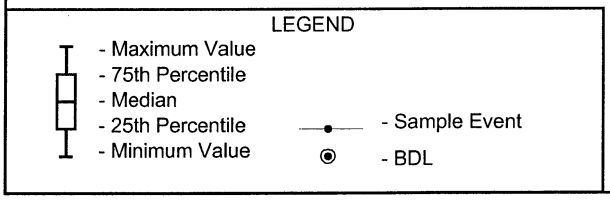












Juniper Ridge Landfill

MW12-303R

Sevee & Maher Engineers, Inc.

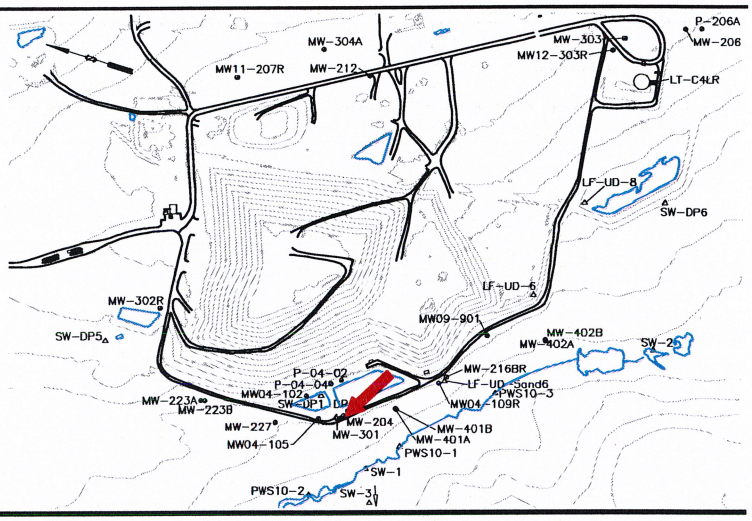
MW-204

Juniper Ridge Landfill

annual stats 2013 minus leachate

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

	2013				Historical			
Indicator Parameters	Q1	Q2	Q3	Q4	Min to Max	Mean ± SE	n
Water Level Elevation (Feet)		155.53		154.8	150.53 to 161.5	160 ± 0.24	73
Dissolved Oxygen (mg/L)		1		0.6	0.4 to 5.2	1.6 ± 0.15	54
Bromide (mg/L)		↑ 0.1 U			0.03 U to 0.03 U	0.03 ± 0	2
Specific Conductance (µmhos/cm @25°C)		185		185	100 to 340	190 ± 6.2	76
pH (Standard Units)		6.7		6	5.7 to 9.2	6.8 ± 0.07	76
Alkalinity (CaCO3) (field) (mg/L)		60		80	50 to 140	96 ± 4.5	27
Arsenic (mg/L)		0.008			0.001 U to 0.01	0.0036 ± 0.000	28
Cadmium (mg/L)		0.0006 U			0.0002 U to 0.0006	0.0017 ± 0.000	38
Calcium (mg/L)		19.6			2.7 to 39	23 ± 0.76	62
Iron (mg/L)		0.05 U			0.008 to 2.4	0.11 ± 0.04	68
Magnesium (mg/L)		6			3.9 to 12	6.7 ± 0.22	62
Manganese (mg/L)		0.05 U			0.002 to 1.2	0.064 ± 0.02	68
Nickel (mg/L)		↑ 0.005 U			0.002 U to 0.004	0.0025 ± 0.000	26
Potassium (mg/L)		0.9			0.9 to 3.3	1.2 ± 0.09	28
Sodium (mg/L)		6.8			4 to 10.6	6.1 ± 0.17	68
Total Kjeldahl Nitrogen (mg/L)		0.381			0.15 U to 4	0.69 ± 0.13	39
Nitrate (N) (mg/L)		0.3 U			0.05 U to 0.3	0.12 ± 0.01	40
Total Dissolved Solids (mg/L)		134			61 to 220	130 ± 3.6	68
Total Suspended Solids (mg/L)		↑ 5			4 U to 4 U	4 ± 0	28
Sulfate (mg/L)		6.2			2.5 to 42.5	8.5 ± 0.75	68
Bicarbonate (CaCO3) (mg/L)		77			72 to 110	88 ± 1.8	28
Organic Carbon (mg/L)		2 U			0.4 to 17	2.4 ± 0.35	68
Chemical Oxygen Demand (mg/L)		10 U			2 U to 240	13 ± 3.9	68
Chloride (mg/L)		5.5			1 U to 8.8	4.5 ± 0.34	68
Turbidity (field) (NTU)		5.5		1.7	0 to 31	2.7 ± 0.83	53
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U			0.2 U to 0.5	0.21 ± 0.009	36

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

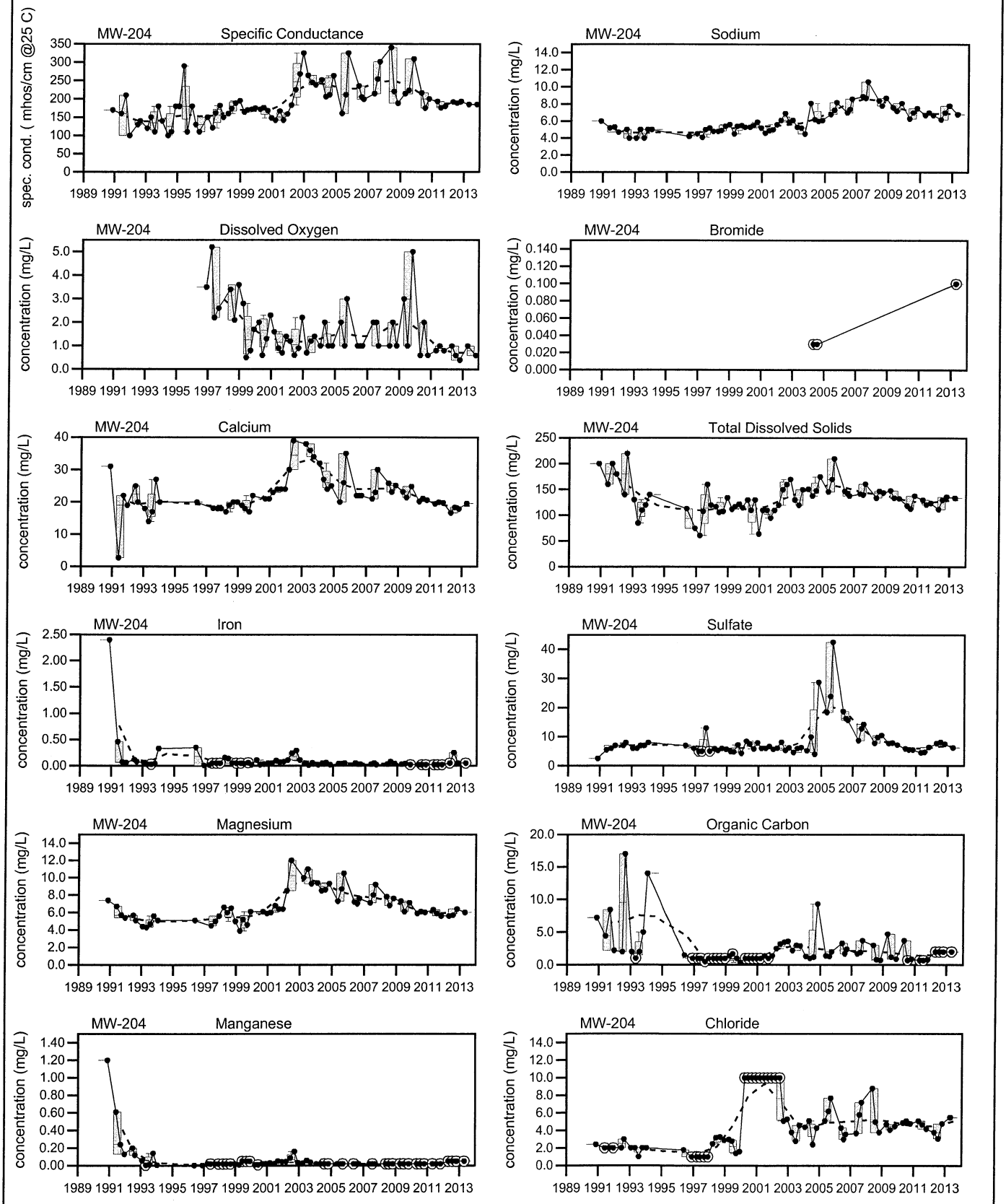
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

Data Group: 199
Printed: 3/18/2014 13:05

SME
Sevee & Maher Engineers, Inc.



Juniper Ridge Landfill

MW-204

Sevee & Maher Engineers, Inc.

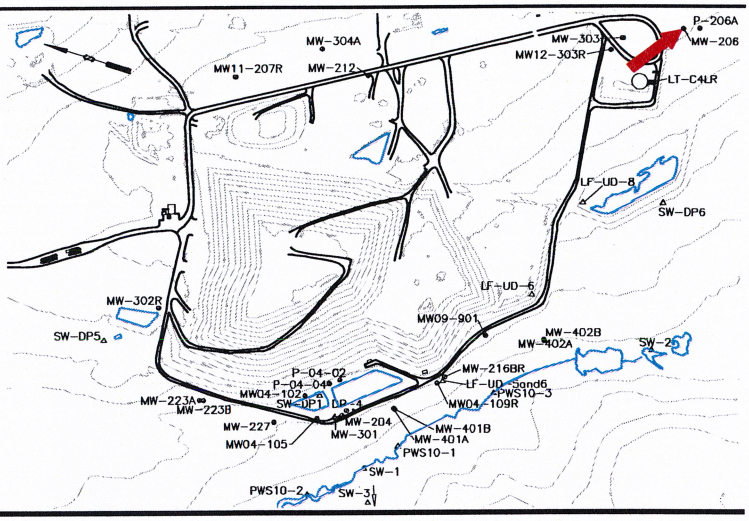
MW-206

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Screen Interval:	**15 ft. to 20 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**04/27/93**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		199.87	197.89	196.62	186.1	to	201.59	200	±	0.45	64
Dissolved Oxygen (mg/L)		6	8	6	2	to	10.9	6.6	±	0.29	53
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		141	146	135	89	to	187	140	±	2.4	67
pH (Standard Units)		8.1	7.7	7.9	6.2	to	8.6	7.8	±	0.06	67
Alkalinity (CaCO3) (field) (mg/L)		65	65	60	30	to	125	77	±	3.7	27
Arsenic (mg/L)		0.008	0.008	**0.013**	0.001	to	0.015	0.006	±	0.000	27
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.0011	0.0011	±	0.000	29
Calcium (mg/L)		14.5	15.7	16	13	to	27.2	16	±	0.28	54
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.012	to	1.2	0.16	±	0.03	60
Magnesium (mg/L)		4.8	4.7	4.9	2.7	to	6.9	4.5	±	0.08	54
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.003	to	0.32	0.03	±	0.005	60
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	to	0.003	0.0025	±	0.000	24
Potassium (mg/L)		0.8	0.6	0.9	0.3	to	2.5	0.92	±	0.08	27
Sodium (mg/L)		5.1	4.1	5.2	3.7	to	25	5.8	±	0.34	60
Total Kjeldahl Nitrogen (mg/L)		0.311	0.684	0.5 U	0.15 U	to	2.4	0.65	±	0.12	32
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.05 U	to	0.27	0.13	±	0.01	32
Total Dissolved Solids (mg/L)		88	88	95	30	to	190	89	±	3.4	60
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	12	4.9	±	0.4	27
Sulfate (mg/L)		2.8	2.2	2.3	0.2	to	4.6	2	±	0.18	60
Bicarbonate (CaCO3) (mg/L)		66	66	70	58	to	80	69	±	0.73	27
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	9	1.6	±	0.19	60
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	2 U	to	23	6.9	±	0.63	60
Chloride (mg/L)		2.4	2	2.4	0.8	to	2.7	2.9	±	0.42	60
Turbidity (field) (NTU)		0.9	0.9	1.5	0	to	40	2.1	±	0.86	52
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.2 U	0.2	±	5E-10	32

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

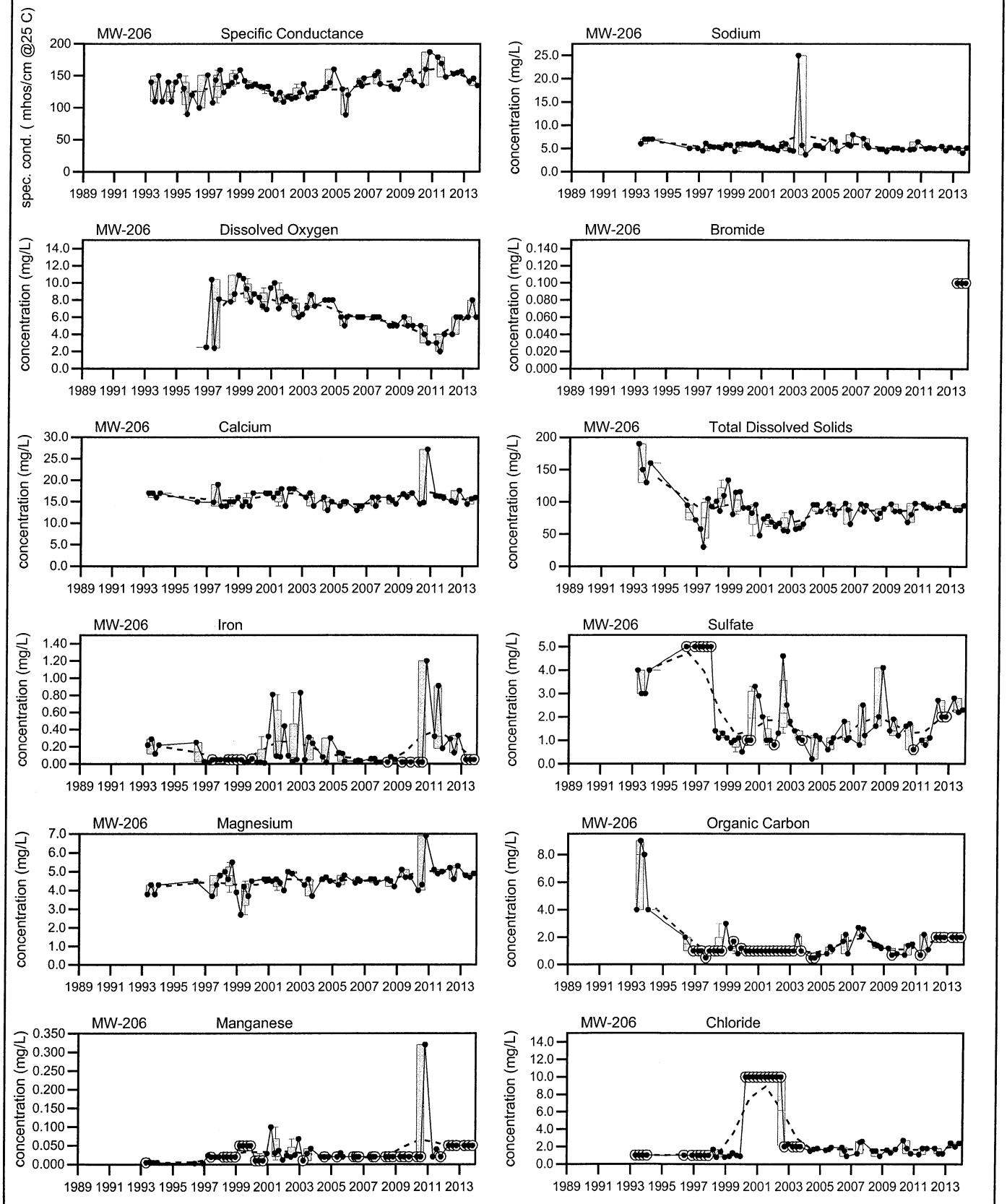
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

Data Group: 199
Printed: 3/18/2014 13:05

SME Sevee & Maher Engineers, Inc.



Juniper Ridge Landfill

MW-206

Sevee & Maher Engineers, Inc.

P-206A

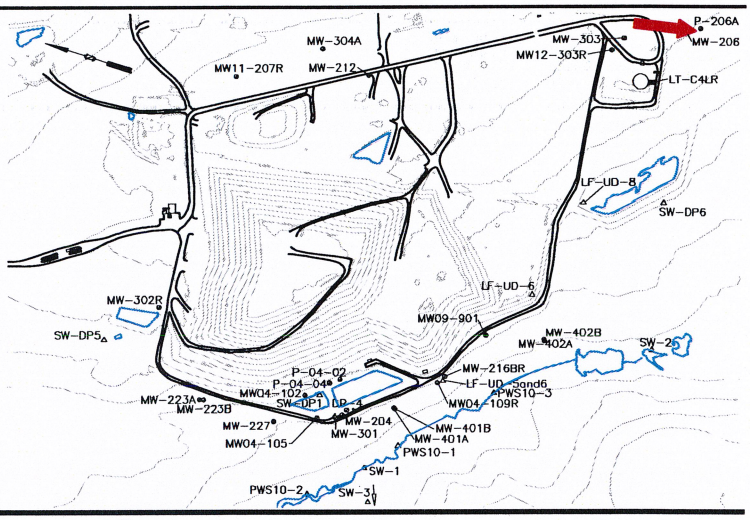
Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

P-206A monitors bedrock water quality upgradient of the landfill.

Screen Interval:	**85.5 ft. to 90.5 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**7/31/2013**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Grab**



Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Max	Mean	SE	n
Water Level Elevation (Feet)			182.81	181.61	No historical data for Water Level Elevation.				
Dissolved Oxygen (mg/L)			4	3	No historical data for Dissolved Oxygen.				
Bromide (mg/L)			I		No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)			120	126	No historical data for Specific Conductance.				
pH (Standard Units)			7.6	7.3	No historical data for pH.				
Alkalinity (CaCO3) (field) (mg/L)			50	50	No historical data for Alkalinity (CaCO3) (field).				
Arsenic (mg/L)			I	0.01	No historical data for Arsenic.				
Cadmium (mg/L)			I	0.0006 U	No historical data for Cadmium.				
Calcium (mg/L)			I	11.1	No historical data for Calcium.				
Iron (mg/L)			I	4.26	No historical data for Iron.				
Magnesium (mg/L)			I	3.5	No historical data for Magnesium.				
Manganese (mg/L)			I	0.2	No historical data for Manganese.				
Nickel (mg/L)			I	0.005 U	No historical data for Nickel.				
Potassium (mg/L)			I	1.3	No historical data for Potassium.				
Sodium (mg/L)			I	8.4	No historical data for Sodium.				
Total Kjeldahl Nitrogen (mg/L)			I		No historical data for Total Kjeldahl Nitrogen.				
Nitrate (N) (mg/L)			I	0.3 U	No historical data for Nitrate (N).				
Total Dissolved Solids (mg/L)			I		No historical data for Total Dissolved Solids.				
Total Suspended Solids (mg/L)			I		No historical data for Total Suspended Solids.				
Sulfate (mg/L)			I	2 U	No historical data for Sulfate.				
Bicarbonate (CaCO3) (mg/L)			I		No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)			I		No historical data for Organic Carbon.				
Chemical Oxygen Demand (mg/L)			I		No historical data for Chemical Oxygen Demand.				
Chloride (mg/L)			I	4.3	No historical data for Chloride.				
Turbidity (field) (NTU)			8.1	9.3	No historical data for Turbidity (field).				
Tannin & Lignins (Tannic Acid) (mg/L)			I		No historical data for Tannin & Lignins (Tannic Acid).				

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

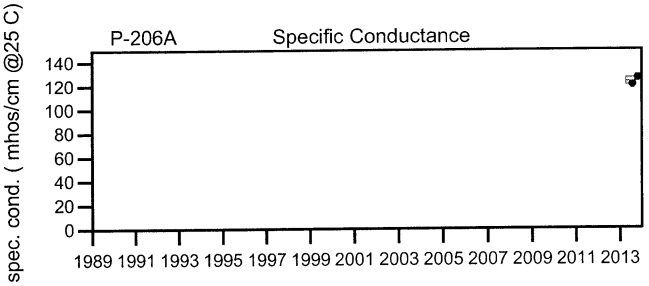
Comments

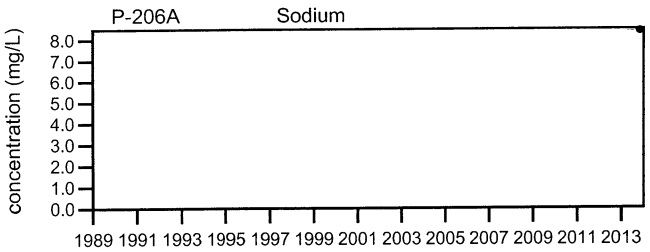
Q3= JULY Q4= OCTOBER

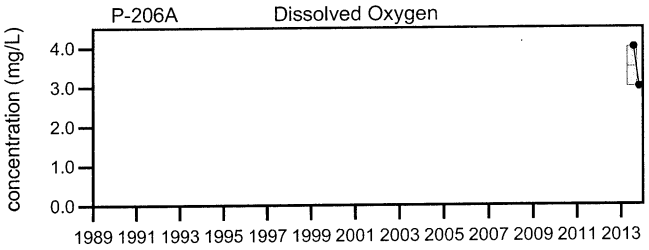
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed HD= water above pipe invert

Data Group: 199
Printed: 3/20/2014 10:08

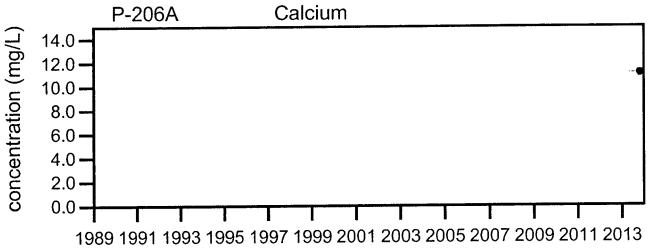
SME
Sewee & Maher Engineers, Inc.







No data for Bromide at P-206A



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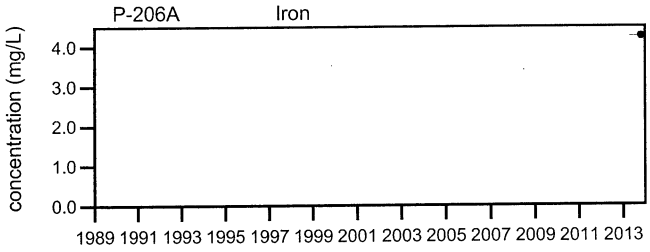
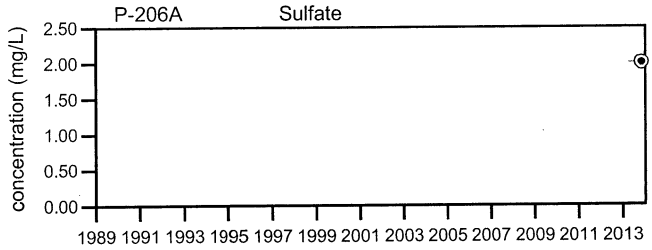
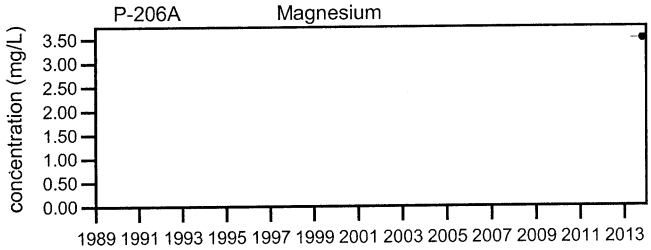
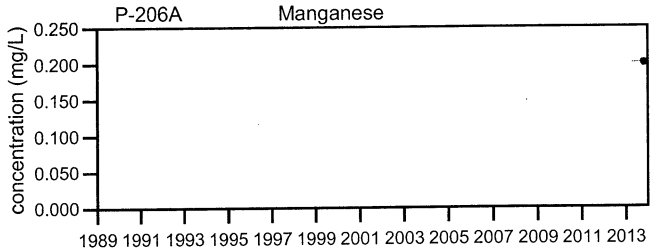
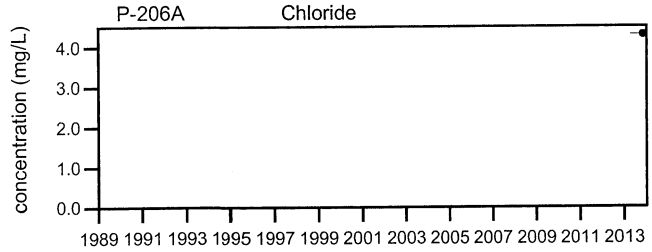


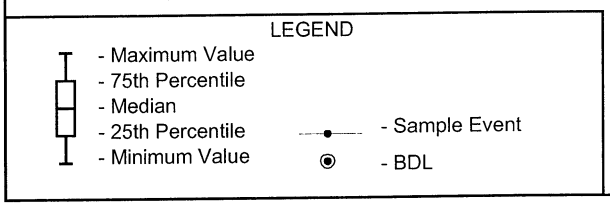




No data for Organic Carbon at P-206A







Juniper Ridge Landfill

P-206A

Sevee & Maher Engineers, Inc.

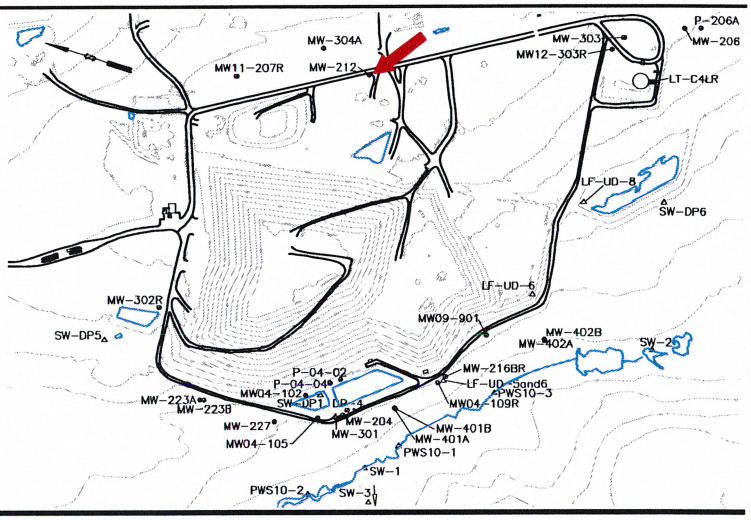
MW-212

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW-212 monitors the overburden groundwater upgradient of the landfill.



Screen Interval:	**12 ft. to 17 ft.**
Sampled:	**Removed from program during 2013.**
Sampled Since:	**11/13/90**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2013				Historical			
Indicator Parameters	Q1	Q2	Q3	Q4	Min Max	Mean SE	n
Dissolved Oxygen (mg/L)		D			3.9 to 10.1	6.8 ± 0.47	21
Bromide (mg/L)		D			0.03 U to 0.03 U	0.03 ± 0	1
Specific Conductance (µmhos/cm @25°C)		D			20 to 289	100 ± 12	34
pH (Standard Units)		D			5.4 to 8.1	6.7 ± 0.11	34
Alkalinity (CaCO3) (field) (mg/L)		D			20 to 65	36 ± 4.3	11
Arsenic (mg/L)		D			0.001 U to 0.009	0.0035 ± 0.000	11
Cadmium (mg/L)		D			0.0002 U to 0.006	0.0017 ± 0.000	17
Calcium (mg/L)		D			2.1 to 23	7.9 ± 1.1	27
Iron (mg/L)		D			0.01 to 1.77	0.15 ± 0.06	29
Magnesium (mg/L)		D			0 to 4.6	1.7 ± 0.19	27
Manganese (mg/L)		D			0.003 to 0.16	0.036 ± 0.006	29
Nickel (mg/L)		D			0.002 U to 0.002	0.0021 ± 9E-05	11
Potassium (mg/L)		D			0.2 to 1.4	0.72 ± 0.1	11
Sodium (mg/L)		D			2.6 to 45	9.4 ± 1.9	29
Total Kjeldahl Nitrogen (mg/L)		D			0.15 U to 3.1	0.8 ± 0.22	15
Nitrate (N) (mg/L)		D			0.06 to 0.72	0.18 ± 0.05	16
Total Dissolved Solids (mg/L)		D			9 to 160	72 ± 7.1	28
Total Suspended Solids (mg/L)		D			4 U to 5	4.1 ± 0.09	11
Sulfate (mg/L)		D			1.9 to 51	8.3 ± 1.8	28
Bicarbonate (CaCO3) (mg/L)		D			12.5 to 53	28 ± 4.2	11
Organic Carbon (mg/L)		D			0.5 U to 12	2.3 ± 0.49	28
Chemical Oxygen Demand (mg/L)		D			2 U to 34	8.3 ± 1.5	28
Chloride (mg/L)		D			0.6 to 47.2	6.8 ± 2	28
Turbidity (field) (NTU)		D			0 to 7.1	1.6 ± 0.45	21
Tannin & Lignins (Tannic Acid) (mg/L)		D			0.2 U to 0.33	0.21 ± 0.009	15

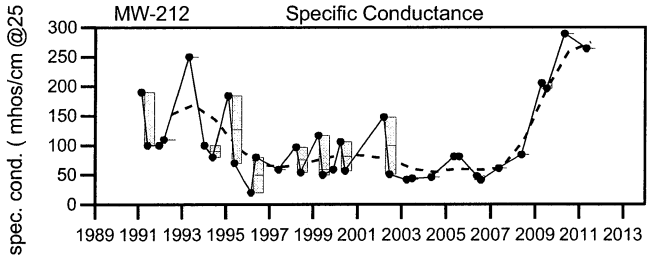
underlined/bold - values exceed a regulatory standard listed below.

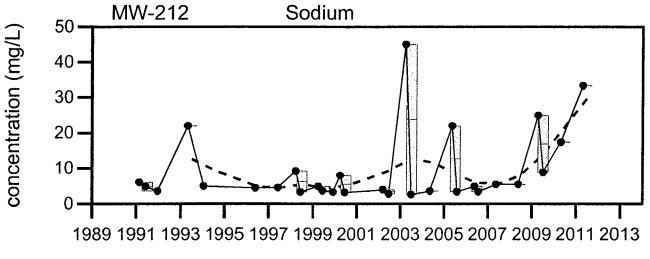
Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

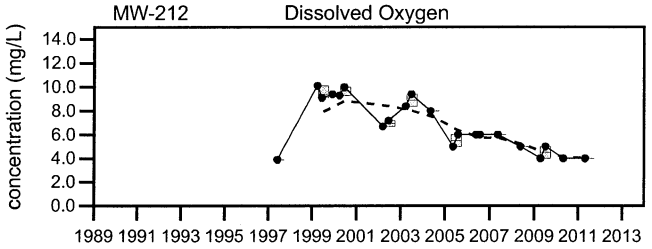
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

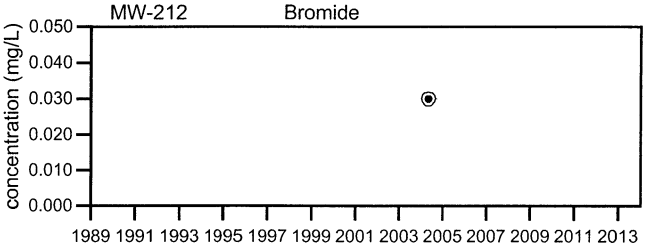
Comments

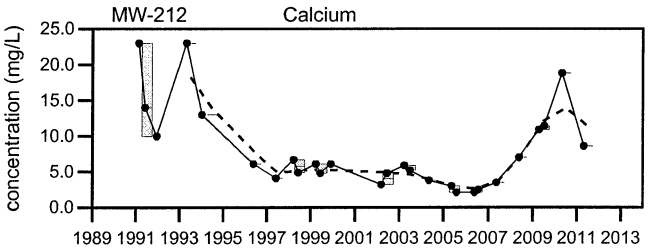
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

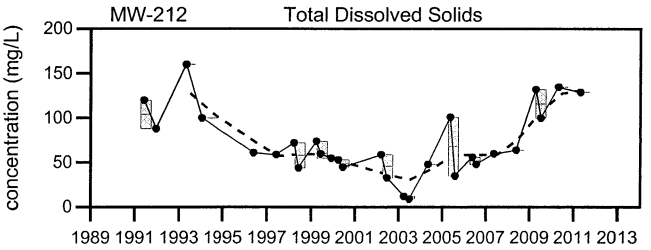


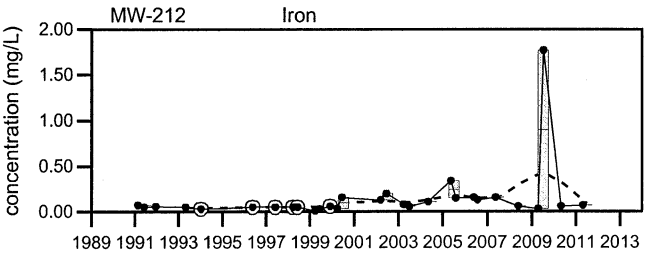


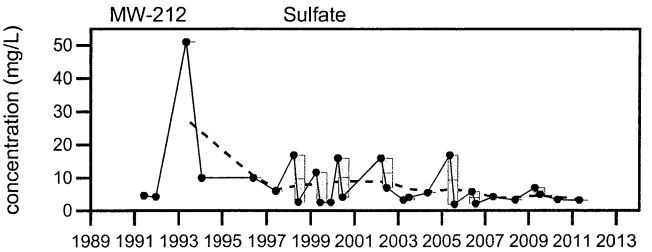


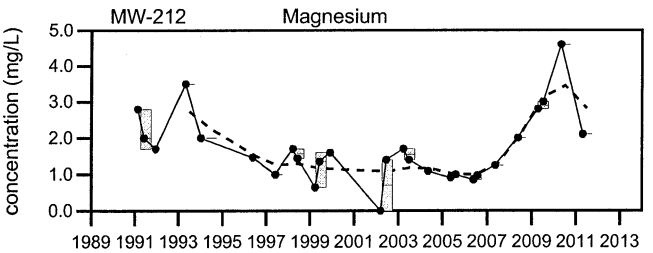


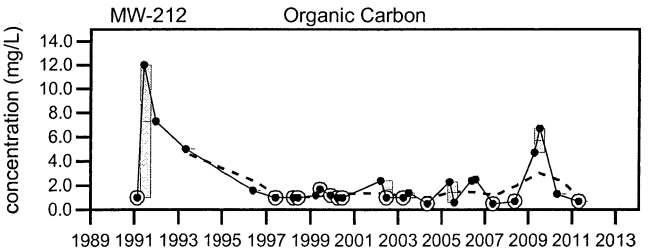


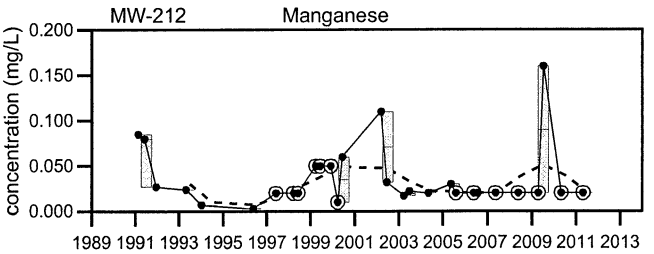


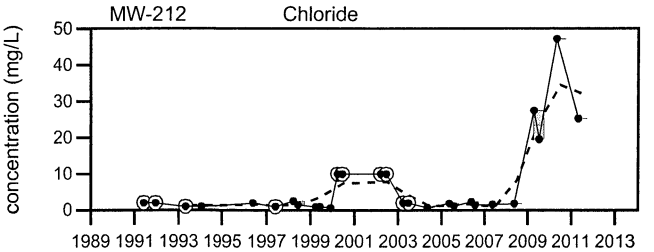


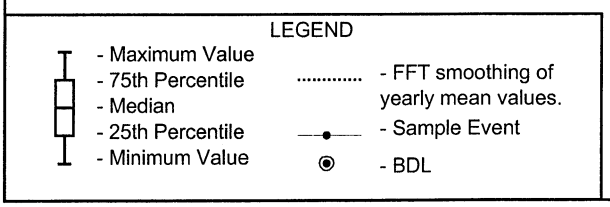












Juniper Ridge Landfill

MW-212

Sevee & Maher Engineers, Inc.

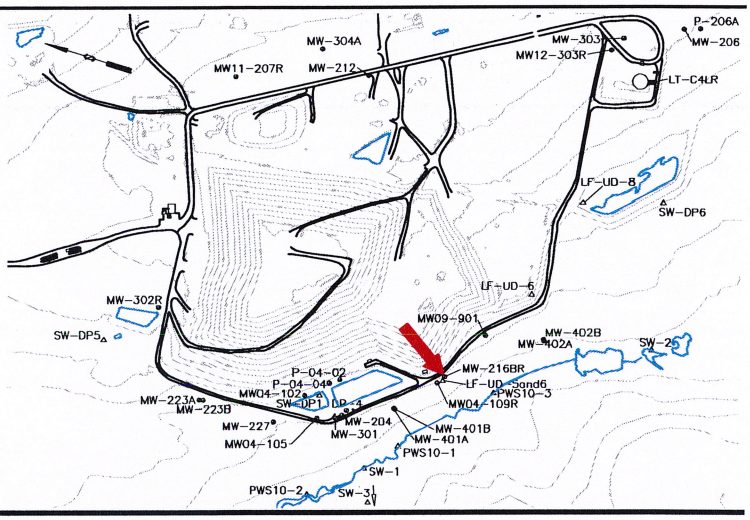
MW-216BR

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW-216BR is located to the south of Cell #5 of the expansion landfill and near Manhole #5. This well monitors water quality within the overburden downgradient of the landfill.



Screen Interval:	**14.6 ft. to 19.6 ft.**
Sampled:	**Removed from program during 2013.**
Sampled Since:	**12/08/2009**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		153.9	153.61		152.93	to	154.4	150	±	0.17	10
Dissolved Oxygen (mg/L)		0.4	0.6		0.3	to	0.6	0.43	±	0.03	10
Bromide (mg/L)		0.18	0.2		No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		312	329		278	to	415	350	±	16	10
pH (Standard Units)		6.3	6.2		5.9	to	8	6.6	±	0.18	10
Alkalinity (CaCO3) (field) (mg/L)		135	145		70	to	200	120	±	13	10
Arsenic (mg/L)		**0.019**	**0.015**		0.004	to	0.021	0.012	±	0.002	10
Cadmium (mg/L)		0.0006 U	0.0006 U		0.0002 U	to	0.0008	0.00039	±	7E-05	10
Calcium (mg/L)		32	36.1		24	to	43.8	34	±	2.3	10
Iron (mg/L)		↓ 0.05 U	↓ 0.08		0.09	to	0.25	0.18	±	0.02	10
Magnesium (mg/L)		13.1	13.7		8.8	to	18.2	13	±	1.1	10
Manganese (mg/L)		0.07	0.06		0.06	to	0.68	0.16	±	0.06	10
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U		0.002 U	to	0.002	0.0029	±	0.000	10
Potassium (mg/L)		1.8	1.5		1.5	to	2.4	1.9	±	0.09	10
Sodium (mg/L)		↓ 9.2	↓ 8.1		10.6	to	18.8	14	±	0.78	10
Total Kjeldahl Nitrogen (mg/L)		0.3 U	↑ 0.565		0.3 U	to	0.43	0.32	±	0.01	10
Nitrate (N) (mg/L)		0.3 U	0.3 U		0.1 U	to	0.3 U	0.16	±	0.03	10
Total Dissolved Solids (mg/L)		209	206		174	to	245	210	±	8.5	10
Total Suspended Solids (mg/L)		4 U	4 U		4 U	to	4 U	4	±	0	10
Sulfate (mg/L)		↑ 9.1	↑ 8.7		2 U	to	8	5	±	0.57	10
Bicarbonate (CaCO3) (mg/L)		145	147		117	to	190	150	±	9.2	10
Organic Carbon (mg/L)		2 U	2 U		0.7 U	to	2.5	1.6	±	0.2	10
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U		3 U	to	7	5.8	±	1	10
Chloride (mg/L)		7.3	9.1		5.5	to	15.3	9.3	±	0.8	10
Turbidity (field) (NTU)		0.3	0.1		0	to	2.6	0.67	±	0.26	10
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U		0.2 U	to	0.2 U	0.2	±	2E-09	10

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

Data Group: 199
Printed: 3/20/2014 10:08

SME
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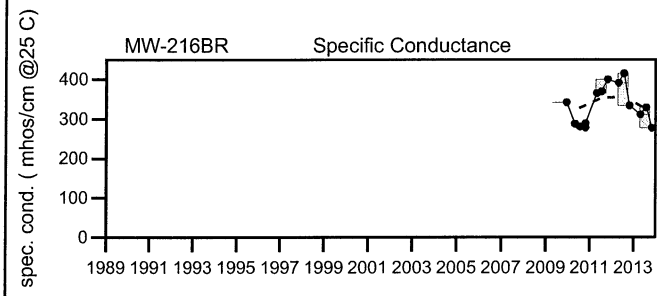
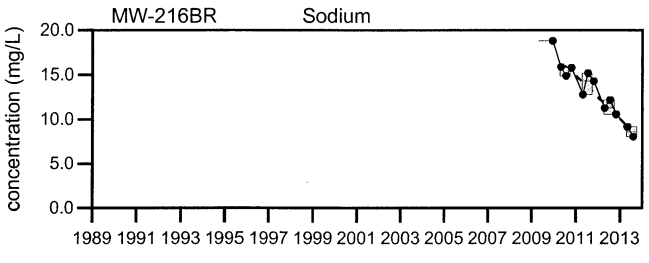
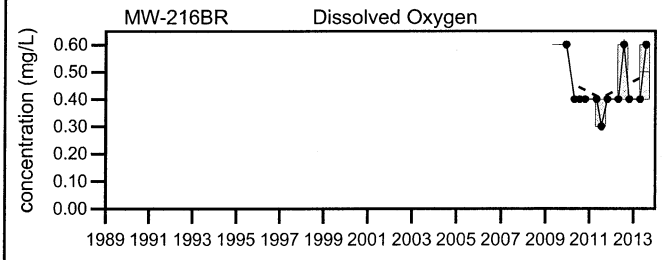
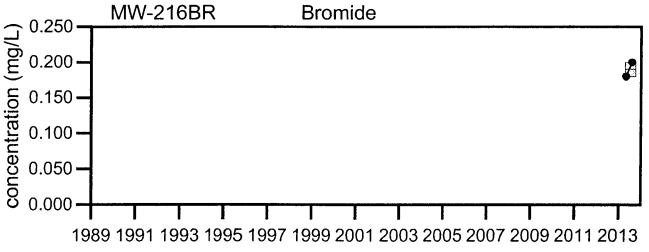
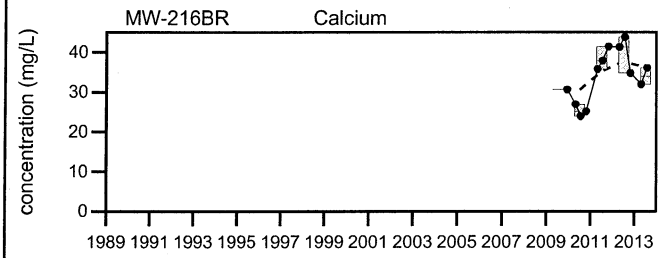
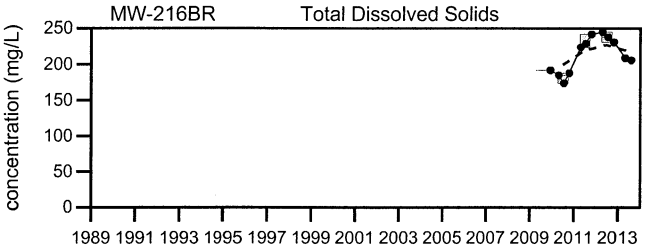


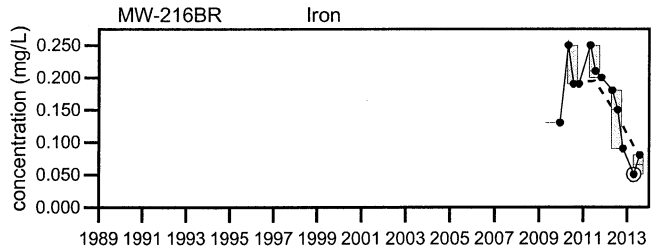


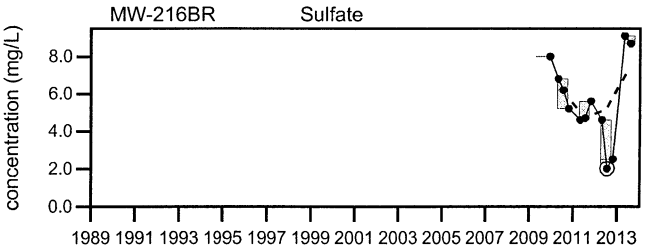


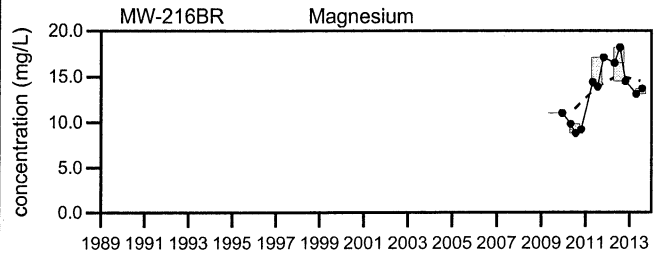


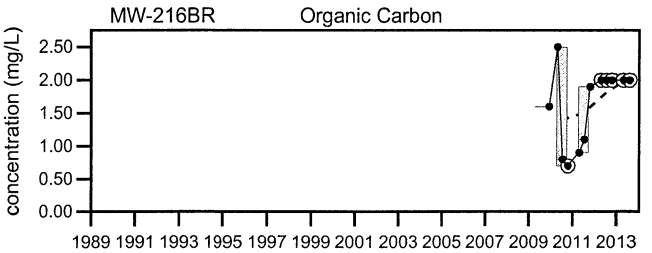


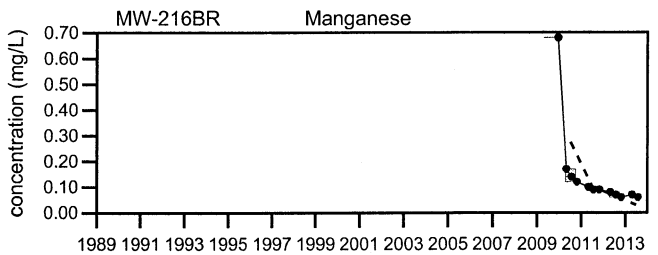


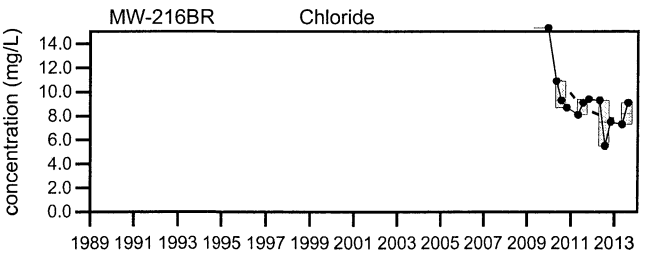


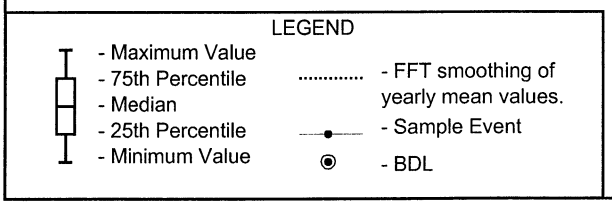












Juniper Ridge Landfill

MW-216BR

Sevee & Maher Engineers, Inc.

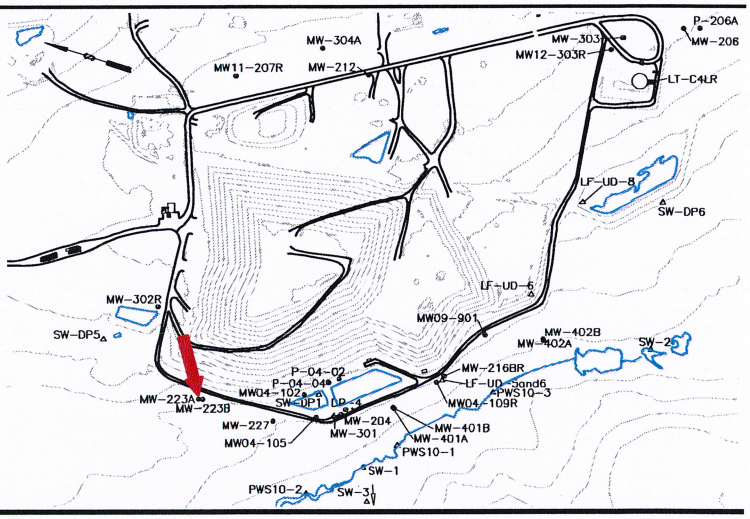
MW-223A

Juniper Ridge Landfill

annual stats 2013 minus leachate

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

	2013				Historical			
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Water Level Elevation (Feet)		176.23	175.45	174.59	169.83	to 176.31	170	± 0.14	66
Dissolved Oxygen (mg/L)		1	1	↓ 0.8	1	to 9.4	3.9	± 0.32	52
Bromide (mg/L)		0.2	0.15	0.22	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		↑ 439	↑ 454	↑ 420	79	to 400	200	± 9	69
pH (Standard Units)		7.6	7.6	7.6	6.1	to 8.4	7.4	± 0.04	69
Alkalinity (CaCO3) (field) (mg/L)		180	180	180	65	to 200	110	± 6.2	28
Arsenic (mg/L)		↑ **0.012**	0.01	↑ **0.013**	0.001 U	to 0.011	0.0035	± 0.000	27
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to 0.0006	0.0015	± 0.000	33
Calcium (mg/L)		↑ 68.1	↑ 73.8	↑ 74.1	23	to 61.5	33	± 1.5	57
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.005	to 120	2	± 2	61
Magnesium (mg/L)		8	7.7	↑ 9.1	2.3	to 8.2	3.8	± 0.18	57
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.001	to 4	0.085	± 0.07	61
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to 0.008	0.0028	± 0.000	24
Potassium (mg/L)		0.9	0.7	0.8	0.4	to 1.3	0.68	± 0.04	27
Sodium (mg/L)		4.7	4	4.7	1.8	to 9.8	3.4	± 0.12	61
Total Kjeldahl Nitrogen (mg/L)		0.323	0.556	0.5 U	0.15 U	to 0.8	0.34	± 0.02	36
Nitrate (N) (mg/L)		0.3 U	↑ 0.5	0.4	0.05 U	to 0.4	0.15	± 0.02	36
Total Dissolved Solids (mg/L)		↑ 275	↑ 266	↑ 278	36	to 262	130	± 6.3	61
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to 4 U	4	± 0	27
Sulfate (mg/L)		↑ 9	↑ 9.3	↑ 8.6	2.9	to 7.8	5	± 0.14	61
Bicarbonate (CaCO3) (mg/L)		↑ 168	↑ 168	↑ 176	86	to 155	110	± 4.7	27
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to 3.4	1.2	± 0.08	61
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	2 U	to 18	6.2	± 0.55	61
Chloride (mg/L)		↑ 34.9	↑ 45.2	↑ 36.8	1 U	to 25.4	6.5	± 0.93	61
Turbidity (field) (NTU)		0.5	0.1	0.3	0	to 999	25	± 20	50
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to 0.25	0.2	± 0.001	36

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

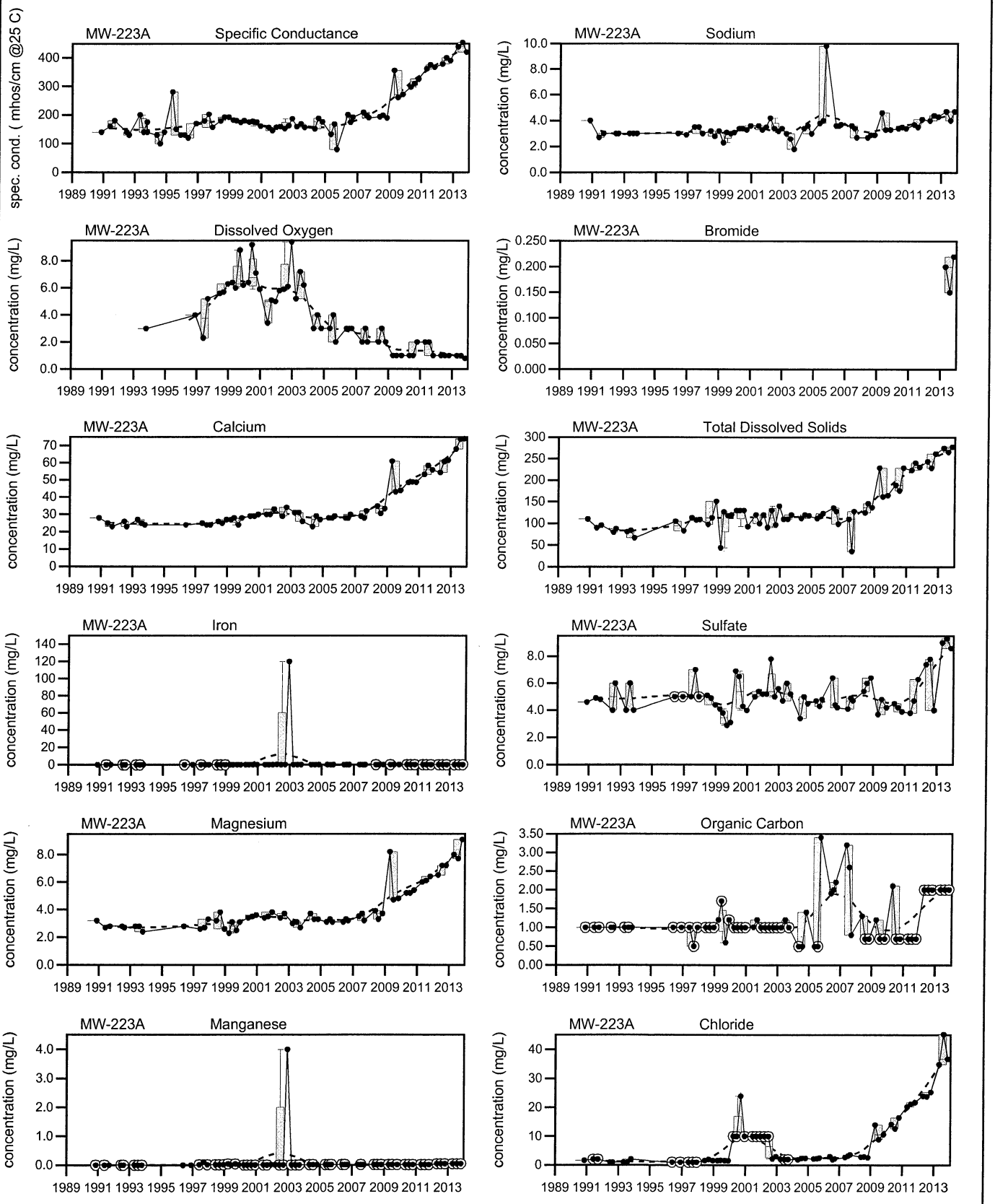
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

Data Group: 199
Printed: 3/18/2014 13:05

SME
Sevee & Maher Engineers, Inc.



Juniper Ridge Landfill

MW-223A

Sevee & Maher Engineers, Inc.

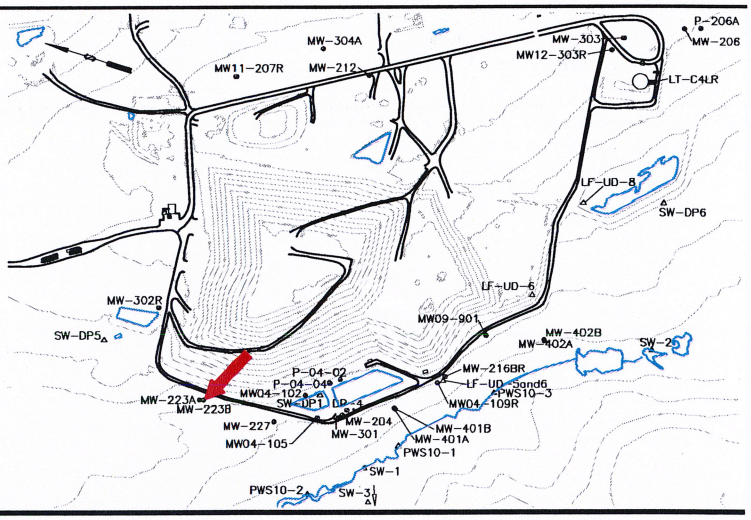
MW-223B

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW-223B monitors the overburden water quality downgradient of the landfill.



Screen Interval:	**12.6 ft. to 17.6 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**11/12/90**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

	2013				Historical			
Indicator Parameters	Q1	Q2	Q3	Q4	Min to Max	Mean ± SE	n
Water Level Elevation (Feet)		173.75	173.16	172.63	169.03 to 175.24	170 ± 0.14	65
Dissolved Oxygen (mg/L)		1	2	0.8	0.4 to 7.6	1.9 ± 0.22	51
Bromide (mg/L)		↑ 0.16	↑ 0.16	↑ 0.2	0.03 to 0.06	0.045 ± 0.02	2
Specific Conductance (µmhos/cm @25°C)		↑ 344	↑ 363	336	100 to 343	200 ± 8.3	68
pH (Standard Units)		7.3	7.8	7.5	6.3 to 8.2	7.2 ± 0.04	68
Alkalinity (CaCO3) (field) (mg/L)		95	125	140	60 to 180	100 ± 5.6	27
Arsenic (mg/L)		0.009	0.008	0.008	0.001 U to 0.013	0.004 ± 0.000	27
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U to 0.0025	0.0015 ± 0.000	35
Calcium (mg/L)		41.3	↑ 46.2	↑ 44.3	16 to 41.9	27 ± 1.1	57
Iron (mg/L)		0.06	0.12	0.09	0.009 to 0.58	0.12 ± 0.02	61
Magnesium (mg/L)		↑ 11.1	↑ 11.3	↑ 11.5	3.7 to 11	6.4 ± 0.29	57
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.001 U to 0.16	0.03 ± 0.003	61
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U to 0.004	0.0025 ± 0.000	26
Potassium (mg/L)		0.7	0.7	0.8	0.3 to 2	0.78 ± 0.07	27
Sodium (mg/L)		4.7	4.3	4.9	2.1 to 5.2	3.9 ± 0.08	61
Total Kjeldahl Nitrogen (mg/L)		0.597	0.493	0.5 U	0.15 U to 1.5	0.48 ± 0.07	36
Nitrate (N) (mg/L)		0.3 U	↑ 0.5	0.4	0.05 U to 0.4	0.16 ± 0.02	36
Total Dissolved Solids (mg/L)		201	185	202	67 to 330	130 ± 6.3	61
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U to 4	4 ± 0	27
Sulfate (mg/L)		5.6	5.7	5.5	2.2 to 10	4.3 ± 0.15	61
Bicarbonate (CaCO3) (mg/L)		124	119	125	92 to 140	110 ± 2.8	27
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U to 8	1.6 ± 0.16	61
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	2 U to 30	6.7 ± 0.69	61
Chloride (mg/L)		32.6	42.9	34.3	1 U to 50	6.8 ± 1.1	61
Turbidity (field) (NTU)		0.2	0.4	0.1	0 to 83	2.7 ± 1.7	49
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U to 0.37	0.21 ± 0.005	34

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
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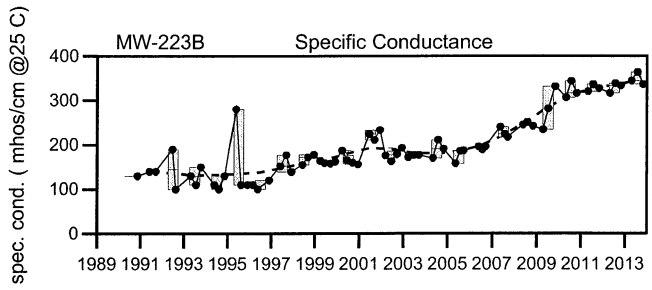
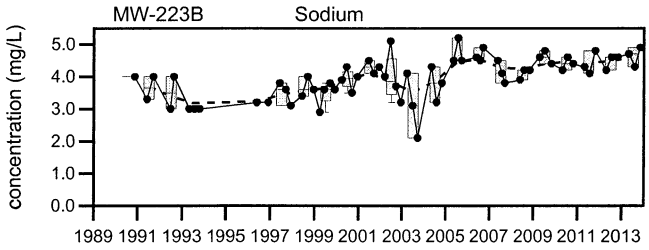
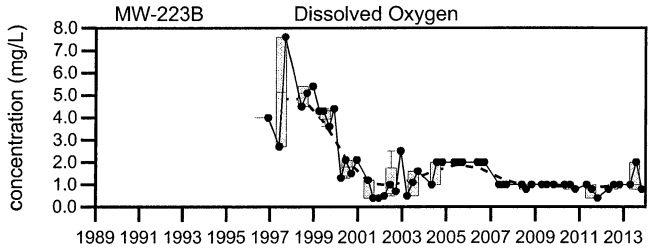
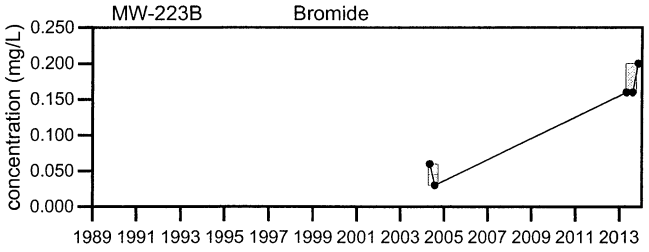
Data Group: 199
Printed: 3/18/2014 13:05

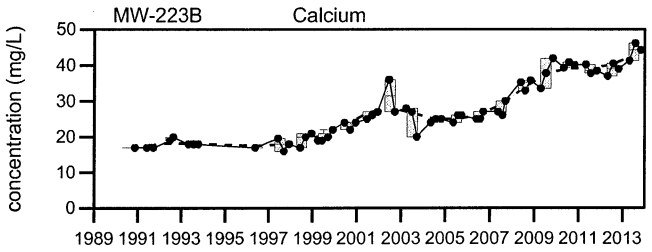
SME Sevee & Maher Engineers, Inc.

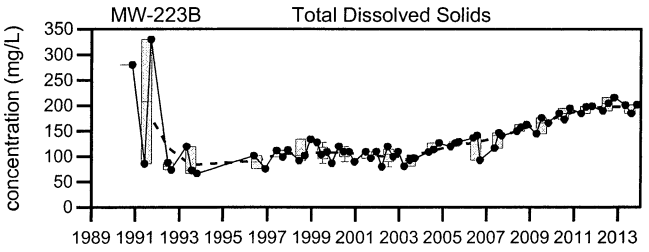


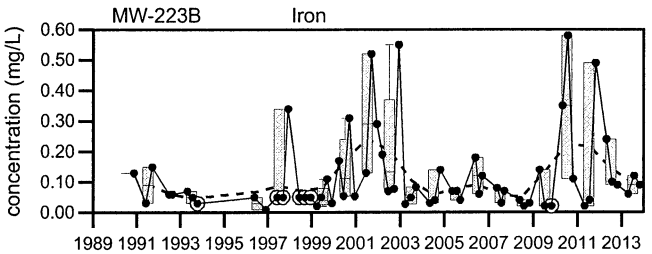


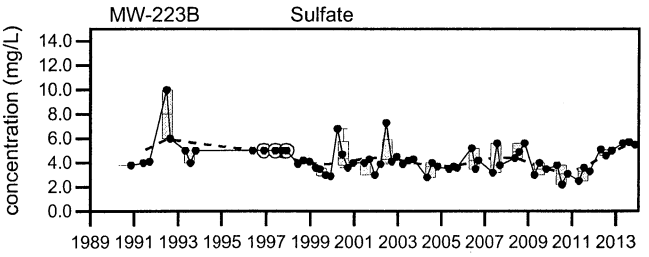


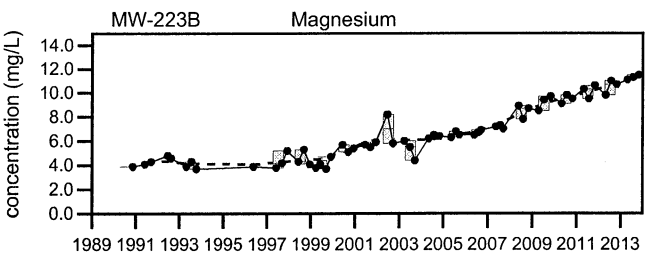


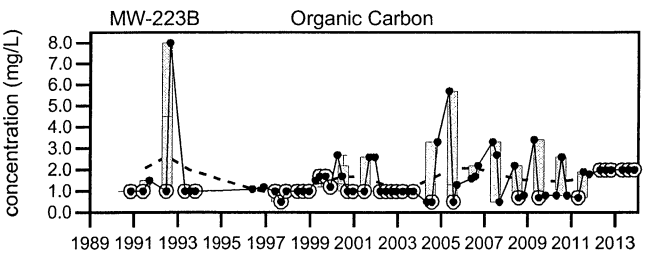


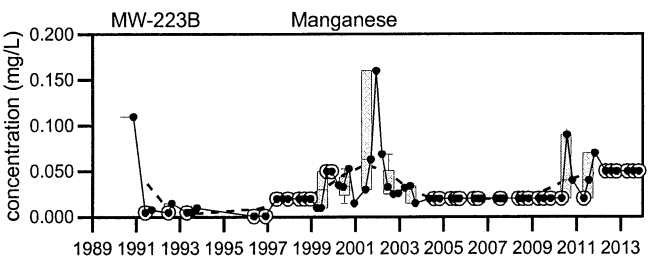


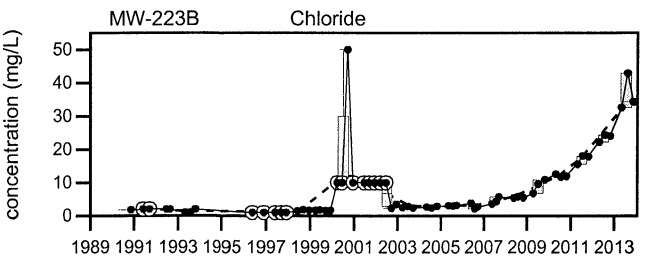


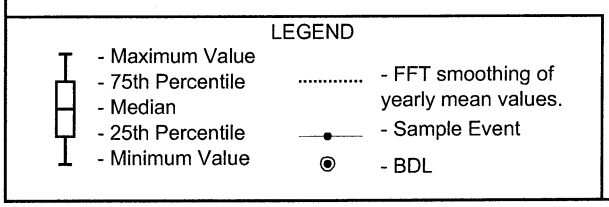












Juniper Ridge Landfill

MW-223B

Sevee & Maher Engineers, Inc.

MW-227

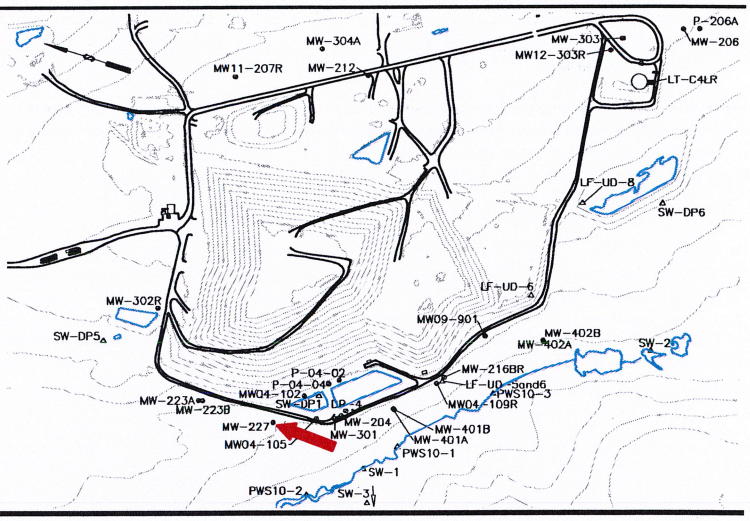
Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW-227 monitors water quality in the overburden downgradient of the landfill.

Screen Interval:	**15 ft. to 20 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**11/13/90**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**



Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		159.9	159.84	159.58	149.5	to	161.09	160	±	0.28	67
Dissolved Oxygen (mg/L)		1	0.8	1	0.3	to	8.7	2.3	±	0.24	53
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		189	192	177	90	to	310	180	±	3.4	70
pH (Standard Units)		8.5	↑ 8.9	8.4	6.2	to	8.7	8	±	0.06	70
Alkalinity (CaCO3) (field) (mg/L)		85	85	80	50	to	150	83	±	4.9	27
Arsenic (mg/L)		**0.018**	**0.017**	**0.017**	0.007	to	0.019	0.012	±	0.000	27
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.0026	0.0016	±	0.000	34
Calcium (mg/L)		22.1	22.8	21	16	to	25	22	±	0.23	58
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.008	to	0.65	0.077	±	0.01	64
Magnesium (mg/L)		5.5	5.5	5.5	3.6	to	5.9	5.2	±	0.06	58
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.004	to	0.17	0.026	±	0.003	64
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	to	0.004	0.0025	±	0.000	24
Potassium (mg/L)		1.1	0.8	1	0.6	to	1.6	1	±	0.03	27
Sodium (mg/L)		5.4	4.7	5.5	3.1	to	11	6.7	±	0.16	64
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.635	0.5 U	0.15 U	to	1	0.35	±	0.03	37
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.05 U	to	0.2	0.11	±	0.01	37
Total Dissolved Solids (mg/L)		118	103	114	59	to	222	110	±	3.4	64
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	4	4	±	0	27
Sulfate (mg/L)		14.4	11.5	11	1.3	to	14.4	11	±	0.33	64
Bicarbonate (CaCO3) (mg/L)		81	77	79	75	to	89	79	±	0.59	27
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	42	2.4	±	0.68	64
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	2 U	to	430	16	±	6.9	64
Chloride (mg/L)		2.4	2	2.5	1 U	to	22.9	3.3	±	0.5	64
Turbidity (field) (NTU)		0.2	0.3	0.7	0	to	962	20	±	19	51
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.45	0.21	±	0.008	37

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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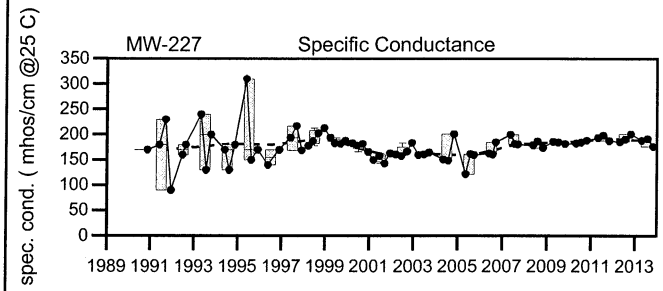
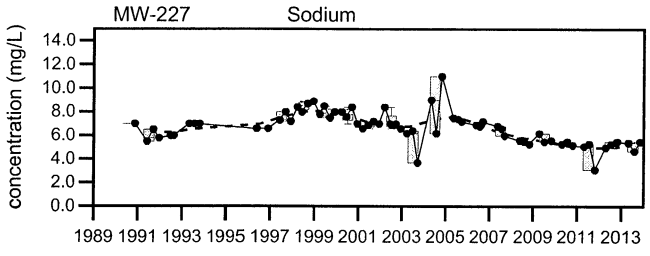
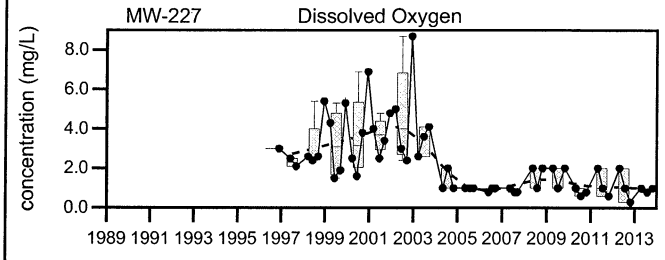
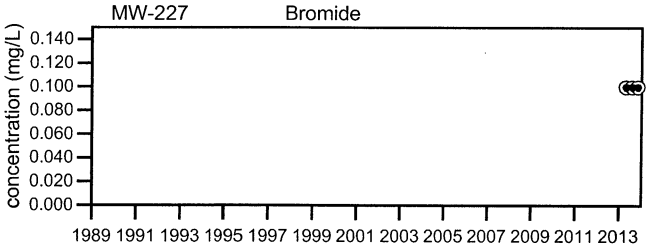
Printed: 3/18/2014 13:05

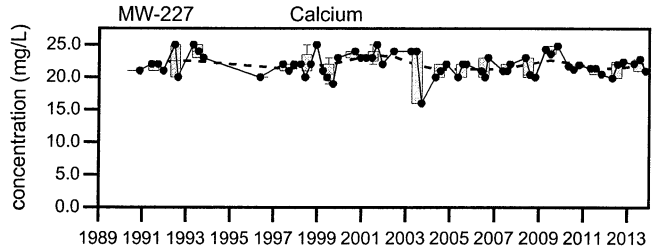
SME
Sevee & Maher Engineers, Inc.

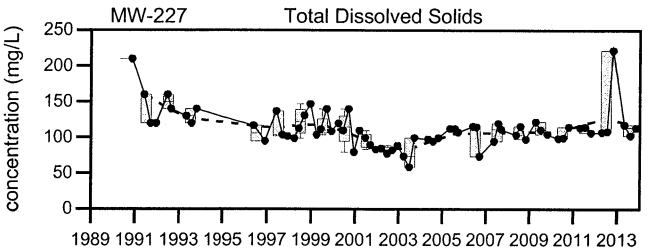


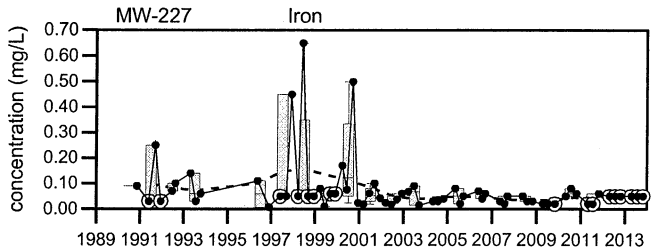


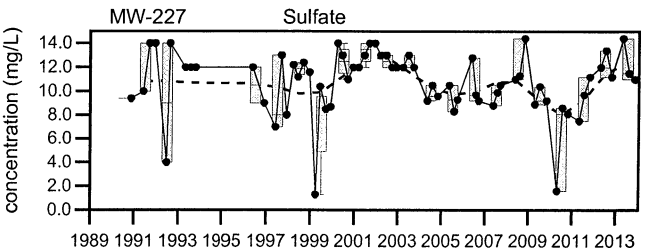


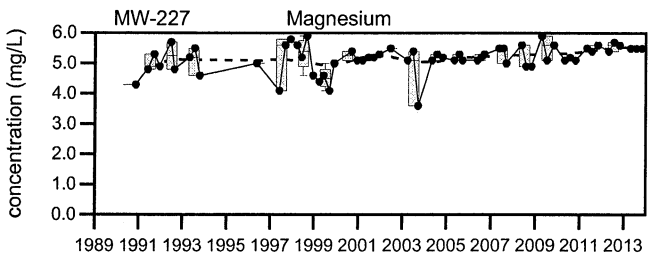


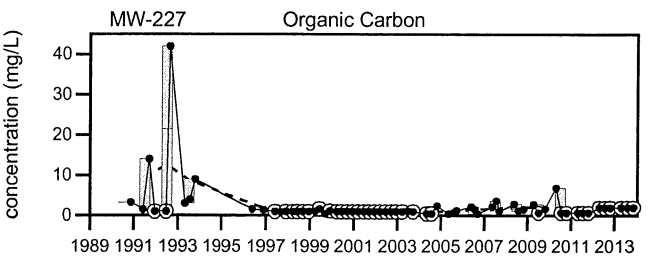


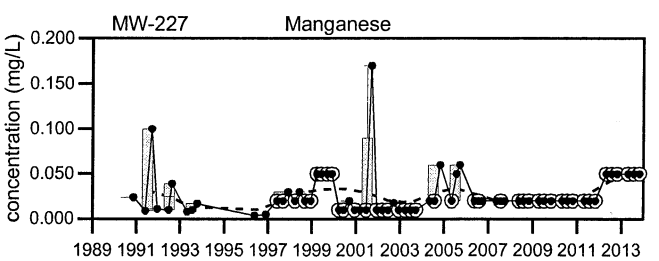


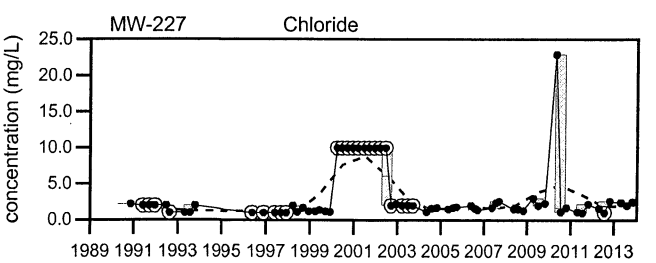


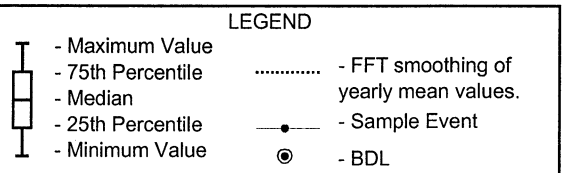












Juniper Ridge Landfill

MW-227

Sevee & Maher Engineers, Inc.

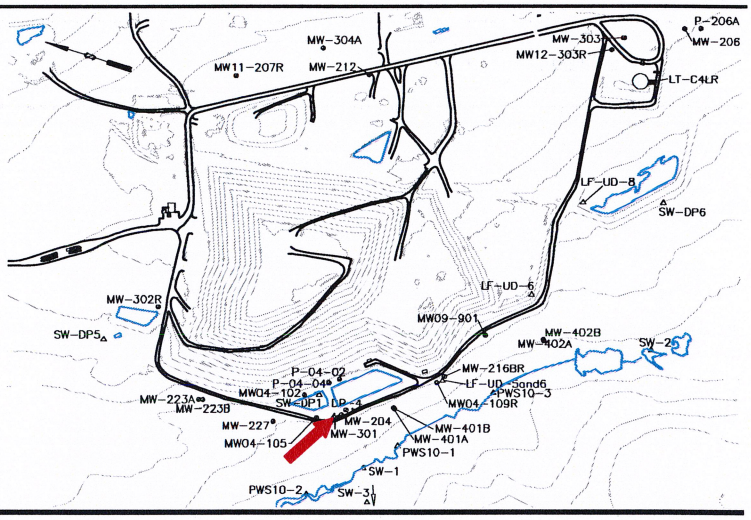
MW-301

Juniper Ridge Landfill

annual stats 2013 minus leachate

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

	2013				Historical			
Indicator Parameters	Q1	Q2	Q3	Q4	Min	Max	Mean	SE	n
Water Level Elevation (Feet)			165.87	165.81	161.16	to 166.36	160	± 0.31	47
Dissolved Oxygen (mg/L)		!	↓ 0.4	0.6	0.6	to 5.5	2.7	± 0.23	49
Bromide (mg/L)		!	0.1 U	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		!	209	198	82	to 340	170	± 5.4	51
pH (Standard Units)		!	↓ 6.3	7	7	to 8.36	7.9	± 0.05	51
Alkalinity (CaCO3) (field) (mg/L)		!	60	70	45	to 120	79	± 4.1	27
Arsenic (mg/L)		!	0.01	0.006	0.001	to 0.012	0.0046	± 0.000	27
Cadmium (mg/L)		!	0.0006 U	0.0006 U	0.0002 U	to 0.0006	0.00032	± 4E-05	24
Calcium (mg/L)		!	19.2	19.3	14.9	to 31.4	18	± 0.38	47
Iron (mg/L)		!	0.54	0.13	0.011	to 1.59	0.16	± 0.04	51
Magnesium (mg/L)		!	4.8	4.7	2.5	to 5.7	4.3	± 0.07	47
Manganese (mg/L)		!	0.05	0.05 U	0.001	to 0.05	0.024	± 0.002	51
Nickel (mg/L)		!	↑ 0.005 U	↑ 0.005 U	0.002 U	to 0.002	0.0024	± 0.000	24
Potassium (mg/L)		!	0.7	0.6	0.5	to 1.2	0.78	± 0.03	27
Sodium (mg/L)		!	10.4	10.1	6.8	to 14.2	10	± 0.3	51
Total Kjeldahl Nitrogen (mg/L)		!	0.543	0.5 U	0.15 U	to 0.6	0.36	± 0.02	27
Nitrate (N) (mg/L)		!	0.3 U	0.3 U	0.1 U	to 0.7	0.14	± 0.03	27
Total Dissolved Solids (mg/L)		!	136	130	66	to 160	110	± 2.6	51
Total Suspended Solids (mg/L)		!	11	4	4 U	to 21	6.6	± 0.98	27
Sulfate (mg/L)		!	14.6	11.9	4.9	to 15.1	11	± 0.38	51
Bicarbonate (CaCO3) (mg/L)		!	76	76	72	to 91	76	± 0.82	27
Organic Carbon (mg/L)		!	2 U	2 U	0.5 U	to 5.7	1.3	± 0.12	51
Chemical Oxygen Demand (mg/L)		!	10 U	10 U	2 U	to 12	5.8	± 0.54	51
Chloride (mg/L)		!	2.3	3.1	1 U	to 6	3.1	± 0.43	51
Turbidity (field) (NTU)		!	6.2	3.2	0	to 18	2.1	± 0.56	48
Tannin & Lignins (Tannic Acid) (mg/L)		!	↑ 1 U	0.2 U	0.2 U	to 0.21	0.2	± 0.000	27

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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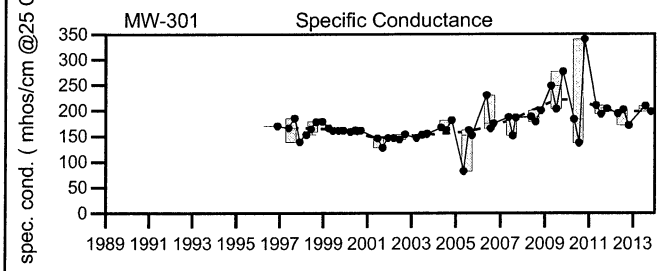
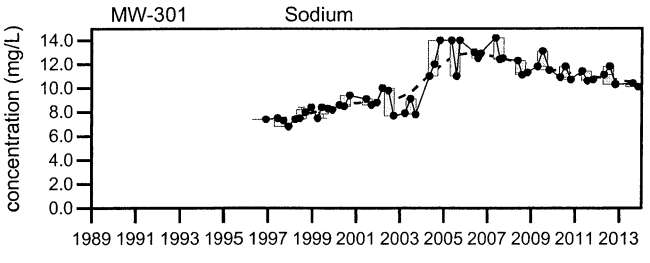
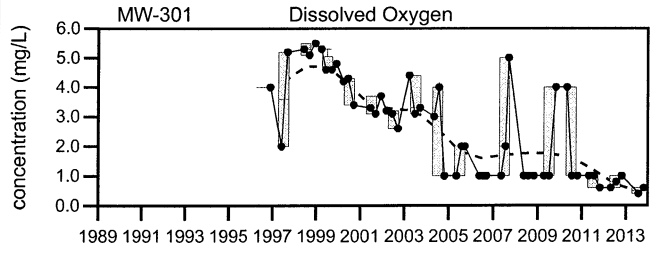
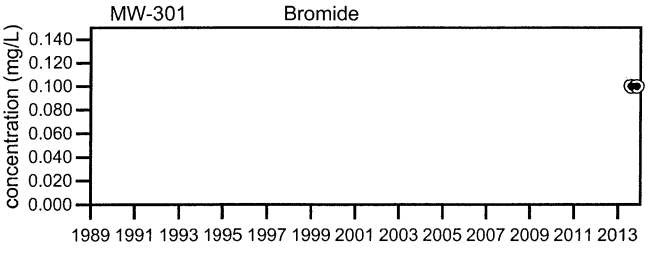
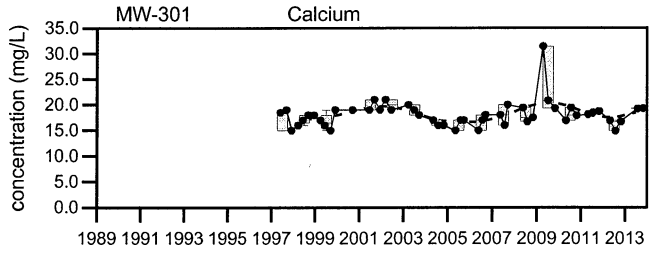
SME
Sevee & Maher Engineers, Inc.

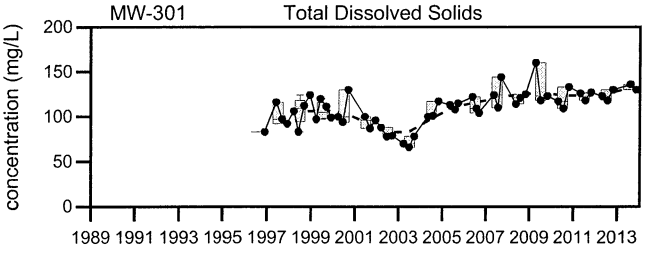


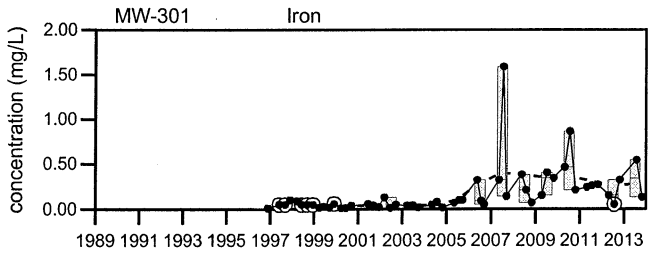


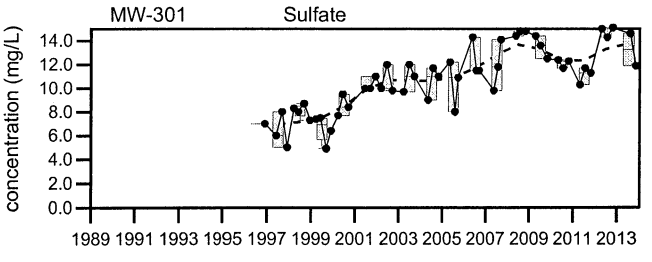


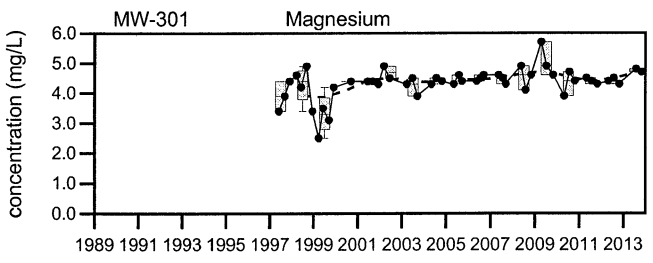


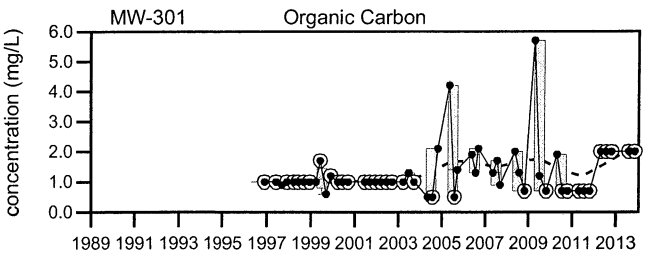


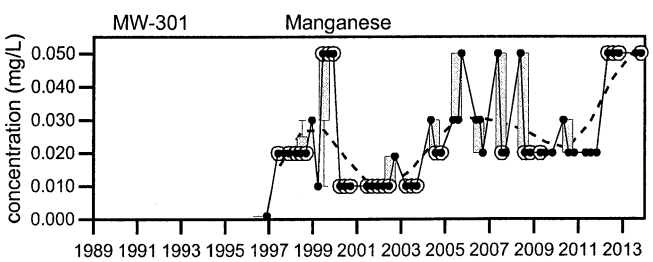


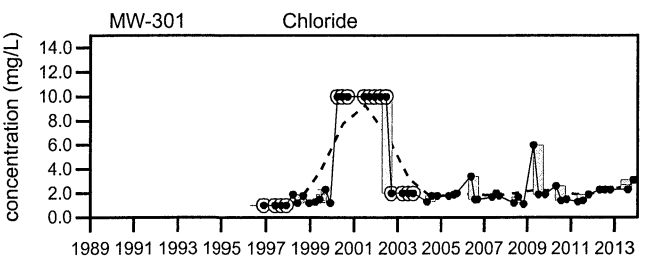


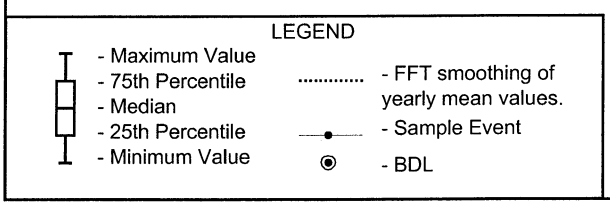












Juniper Ridge Landfill

MW-301

Sevee & Maher Engineers, Inc.

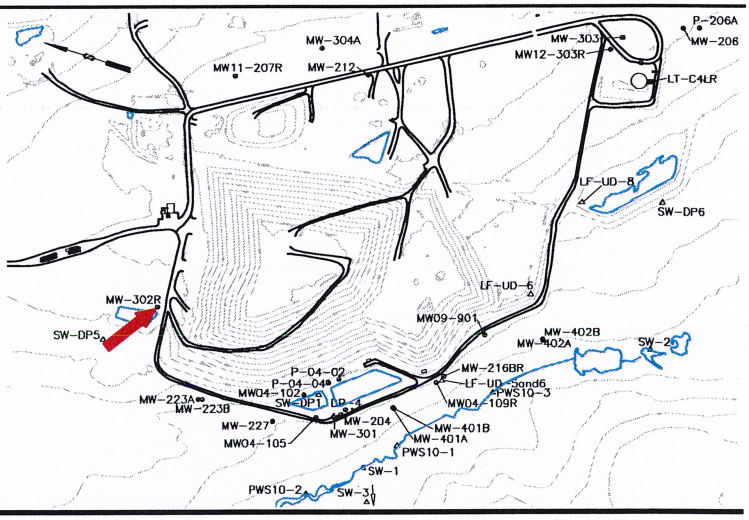
MW-302R

Juniper Ridge Landfill

annual stats 2013 minus leachate

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

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		199.71	198.47	192.71	190.95	to	202.74	200	±	0.77	15
Dissolved Oxygen (mg/L)		4	↑ 5	2	1	to	4	2.5	±	0.27	15
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		205	350	341	167	to	502	330	±	30	15
pH (Standard Units)		6.7	6.5	6.5	6	to	6.9	6.5	±	0.08	15
Alkalinity (CaCO3) (field) (mg/L)		180	80	180	60	to	345	150	±	20	15
Arsenic (mg/L)		0.005	0.005 U	0.008	0.002 U	to	0.014	0.0057	±	0.000	15
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.0006	0.00036	±	7E-05	15
Calcium (mg/L)		21.1	33	32.6	17.6	to	66.2	39	±	3.8	15
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.19	0.046	±	0.01	15
Magnesium (mg/L)		1.8	3	2.9	1.4	to	5.3	3.1	±	0.31	15
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.06	0.029	±	0.004	15
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	to	0.002	0.0027	±	0.000	15
Potassium (mg/L)		0.7	0.8	1.1	0.5	to	2	1.1	±	0.1	15
Sodium (mg/L)		11	17.8	**20.3**	6	to	28.6	15	±	2	15
Total Kjeldahl Nitrogen (mg/L)		0.3 U	↑ 0.68	0.5 U	0.3 U	to	0.64	0.38	±	0.03	15
Nitrate (N) (mg/L)		0.3 U	0.6	0.6	0.1 U	to	1.6	0.47	±	0.12	15
Total Dissolved Solids (mg/L)		120	234	199	78	to	327	210	±	19	15
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	4	4	±	0	15
Sulfate (mg/L)		11.7	17.9	16	5.6	to	28.8	14	±	1.8	15
Bicarbonate (CaCO3) (mg/L)		46	53	57	44	to	116	70	±	6.1	15
Organic Carbon (mg/L)		2 U	2 U	2 U	0.7 U	to	3.1	1.4	±	0.18	15
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U	↑ 10 U	3 U	to	5	4.5	±	0.74	15
Chloride (mg/L)		24.5	↑ 77.1	55.8	12.8	to	66.1	41	±	4.7	15
Turbidity (field) (NTU)		2.5	0.4	1.3	0	to	3.1	1.1	±	0.24	15
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.2 U	0.2	±	8E-10	15

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

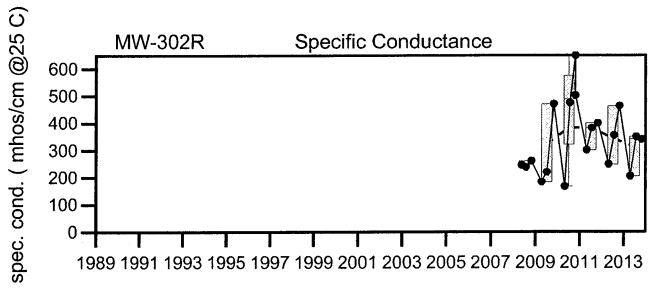
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

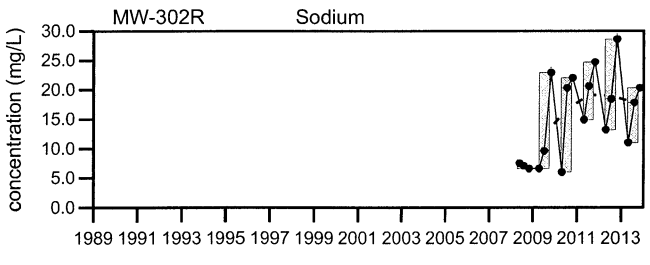
Comments

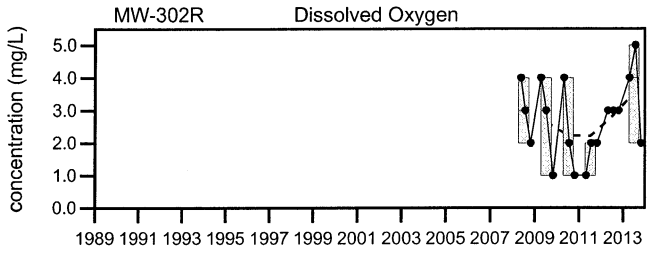
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

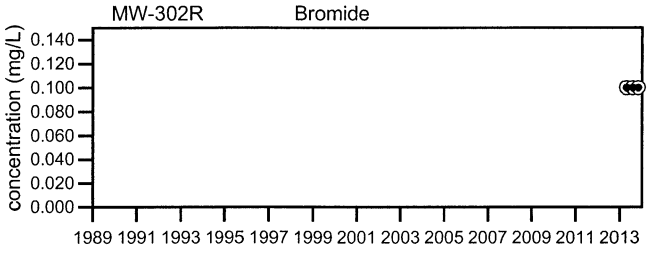
Data Group: 199
Printed: 3/18/2014 13:05

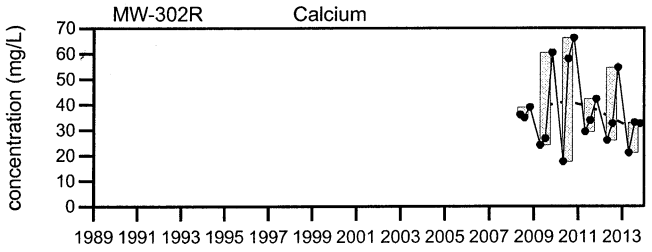
SME
Sevee & Maher Engineers, Inc.

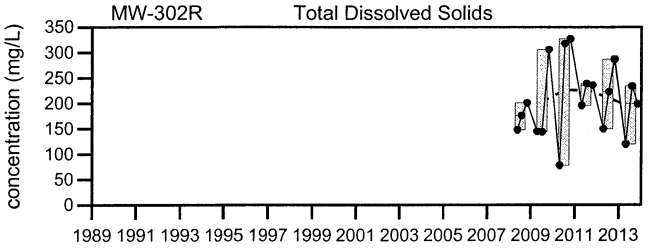


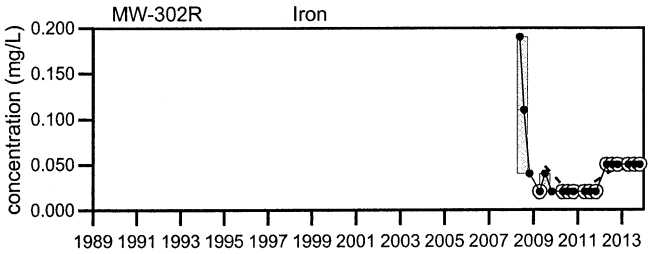


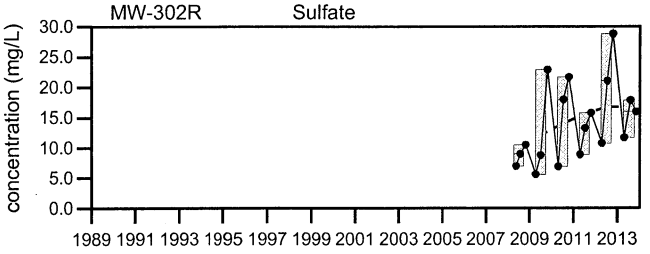


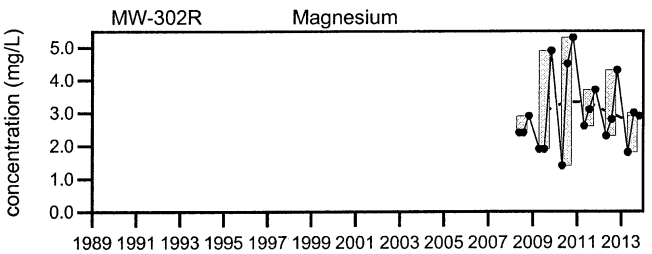


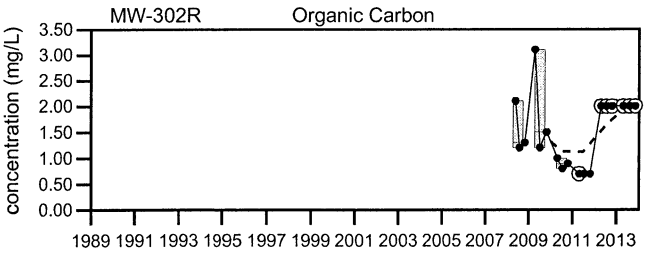


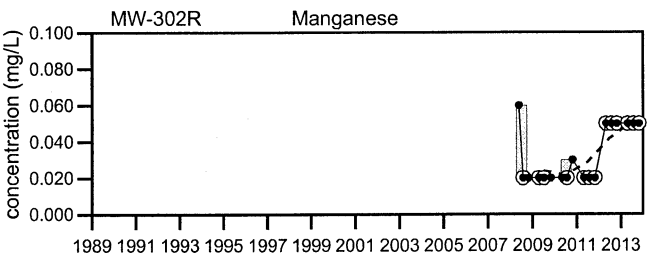


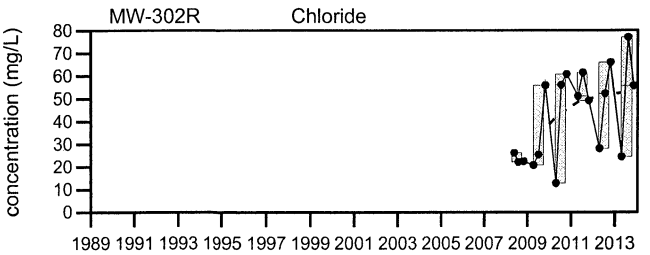


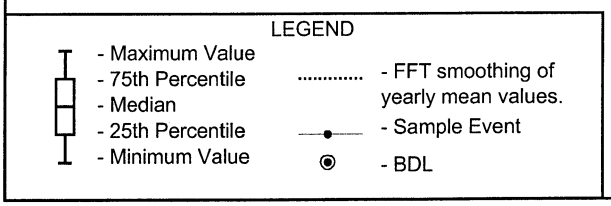












Juniper Ridge Landfill

MW-302R

Sevee & Maher Engineers, Inc.

MW-304A

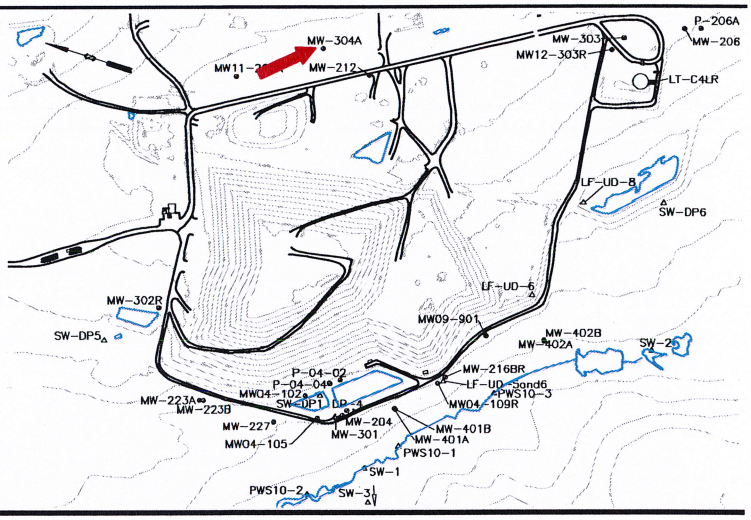
Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW-304A monitors the water quality in the upper portion of the bedrock upgradient of the landfill.

Screen Interval:	**29.5 ft. to 39.5 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**07/29/04**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**



Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		187.66	187.85	187.16	184.5	to	194.32	190	±	0.43	26
Dissolved Oxygen (mg/L)		4	5	4	2	to	6	4.2	±	0.18	26
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		131	138	123	58	to	207	120	±	6.1	26
pH (Standard Units)		7	6.9	7	6.3	to	7.8	7	±	0.07	26
Alkalinity (CaCO3) (field) (mg/L)		50	55	50	20	to	100	56	±	3.7	26
Arsenic (mg/L)		0.005 U	0.005 U	↑ 0.007	0.001 U	to	0.006	0.0026	±	0.000	26
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.007	0.00063	±	0.000	26
Calcium (mg/L)		13.8	14.3	13.9	6.2	to	19	12	±	0.53	26
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.26	0.049	±	0.01	26
Magnesium (mg/L)		3.7	3.8	3.8	2.3	to	5.1	3.5	±	0.15	26
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.2	0.039	±	0.008	26
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.006	0.0027	±	0.000	26
Potassium (mg/L)		0.8	0.7	0.8	0.3	to	3.2	0.93	±	0.11	26
Sodium (mg/L)		5	3.7	4.3	2.9	to	23	5.6	±	0.87	26
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.685	0.5 U	0.15 U	to	1.2	0.49	±	0.08	26
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.1 U	to	0.2	0.14	±	0.01	26
Total Dissolved Solids (mg/L)		82	87	85	54	to	130	78	±	3.3	26
Total Suspended Solids (mg/L)		4 U	4 U	5	4 U	to	259	15	±	9.8	26
Sulfate (mg/L)		6.7	6.3	5.4	1.5	to	8.8	3.4	±	0.3	26
Bicarbonate (CaCO3) (mg/L)		52	57	52	37	to	92	51	±	2.3	26
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	4	1.3	±	0.17	26
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	3 U	to	10	4.6	±	0.52	26
Chloride (mg/L)		3.1	2.9	3.2	1	to	3.5	2.2	±	0.13	26
Turbidity (field) (NTU)		0.2	0.3	1.9	0	to	9.2	1.2	±	0.39	26
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.45	0.21	±	0.01	24

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

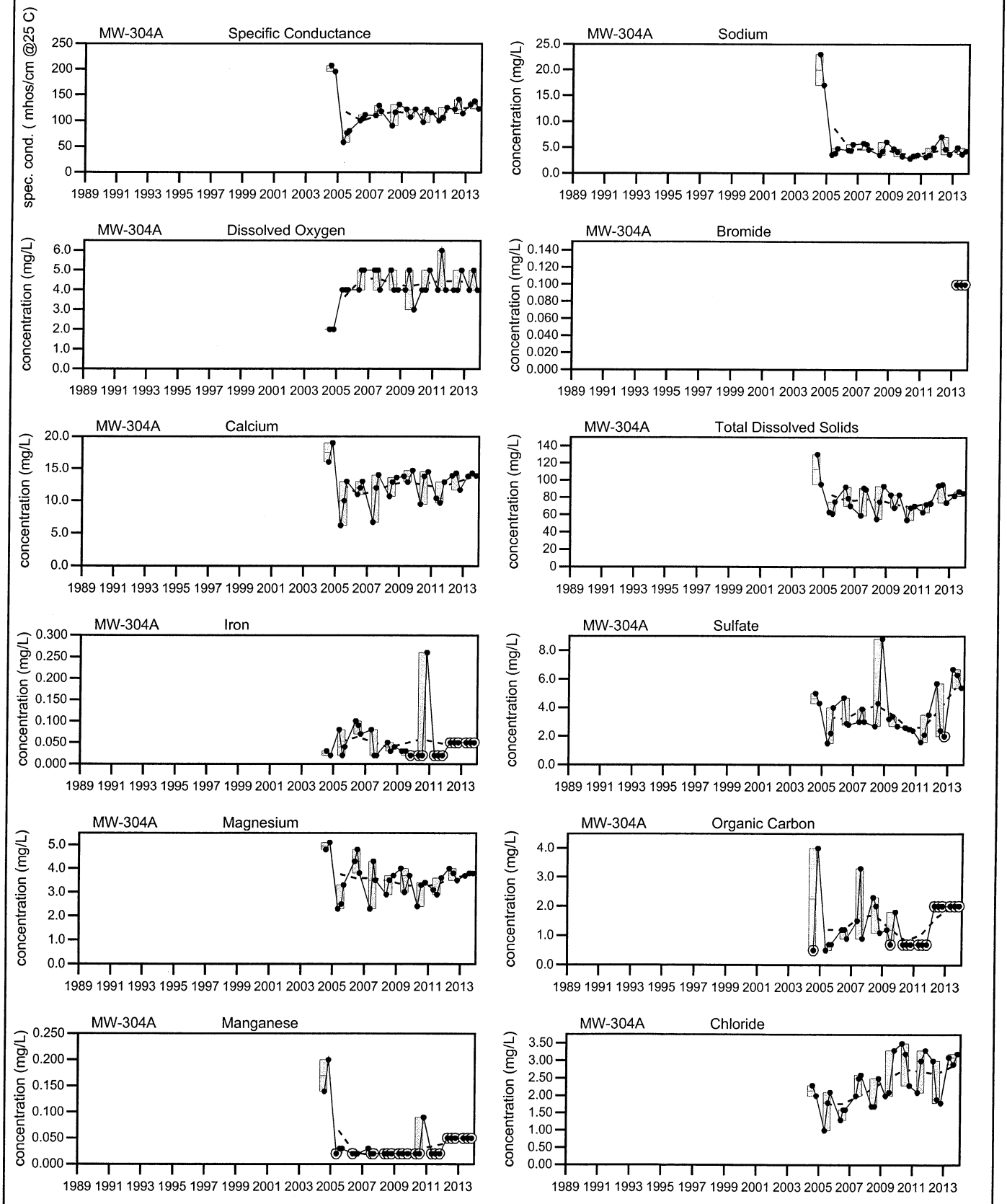
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

Data Group: 199
Printed: 3/18/2014 13:05

SME
Sowee & Maher Engineers, Inc.



Juniper Ridge Landfill

MW-304A

Sevee & Maher Engineers, Inc.

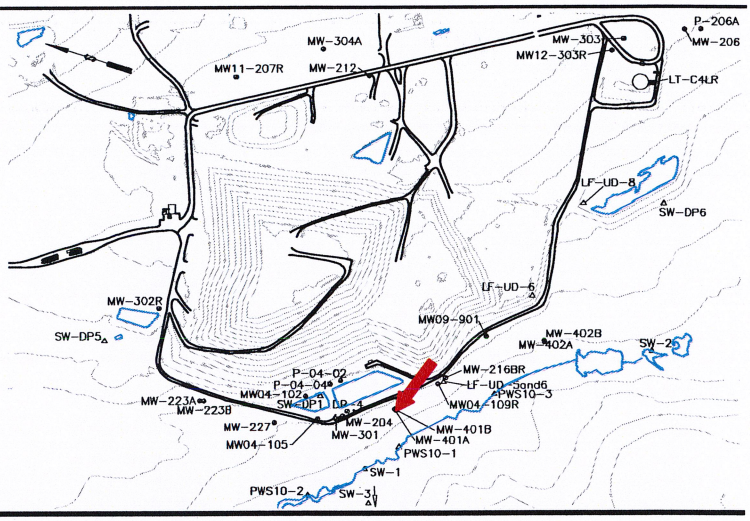
MW-401A

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Screen Interval:	**98.8 ft. to 108.8 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**07/29/04**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	SE	n
Water Level Elevation (Feet)		153.93	151.23	150.73	148.6	to	155.96	150	± 0.41	26
Dissolved Oxygen (mg/L)		5	6	5	3	to	6	5	± 0.2	26
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.					
Specific Conductance (µmhos/cm @25°C)		123	124	140	73	to	191	120	± 4.3	26
pH (Standard Units)		7.9	7.2	↓ 6.8	7.1	to	8.5	8	± 0.07	26
Alkalinity (CaCO3) (field) (mg/L)		45	45	45	45	to	140	75	± 4.3	26
Arsenic (mg/L)		0.005	0.005 U	0.009	0.001 U	to	0.009	0.0042	± 0.000	26
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.0023	0.00045	± 1E-04	26
Calcium (mg/L)		13.7	14.7	14	11	to	15.9	14	± 0.25	26
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.07	0.032	± 0.003	26
Magnesium (mg/L)		3.9	4.1	4	3.7	to	4.8	4.1	± 0.06	26
Manganese (mg/L)		↑ 0.05 U	↑ 0.05 U	↑ 0.05 U	0.02 U	to	0.03	0.025	± 0.002	26
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	to	0.004	0.0025	± 0.000	26
Potassium (mg/L)		0.7	0.6	0.7	0.3	to	1.4	0.75	± 0.05	26
Sodium (mg/L)		4	3.3	3.7	3.2	to	5.2	4.1	± 0.11	26
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.572	0.5 U	0.3 U	to	1.1	0.43	± 0.04	26
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.1 U	to	0.3	0.13	± 0.01	26
Total Dissolved Solids (mg/L)		85	86	87	68	to	116	88	± 2	26
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	4 U	4	± 0	26
Sulfate (mg/L)		↑ 4.9	4.3	4.3	2 U	to	4.7	3	± 0.14	26
Bicarbonate (CaCO3) (mg/L)		58	57	57	51	to	64	57	± 0.57	26
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	6.3	1.8	± 0.3	26
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U	↑ 10 U	3 U	to	9	4.3	± 0.49	26
Chloride (mg/L)		2.4	2.2	2.8	1	to	3.2	1.7	± 0.1	26
Turbidity (field) (NTU)		1.4	1.6	0.2	0	to	4.9	0.55	± 0.22	26
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.41	0.21	± 0.009	24

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
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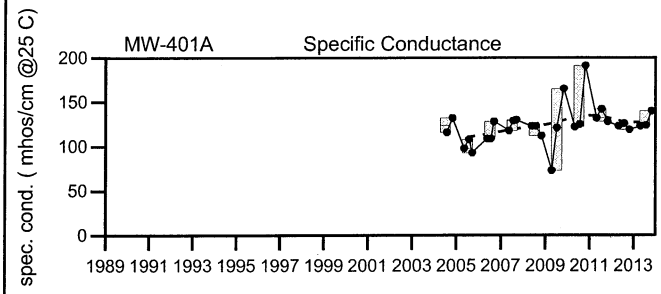
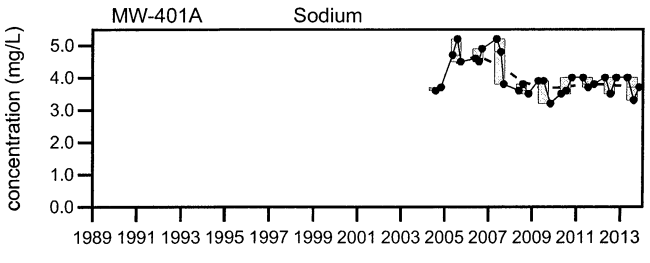
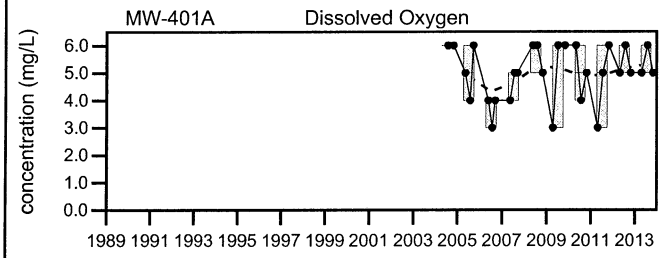
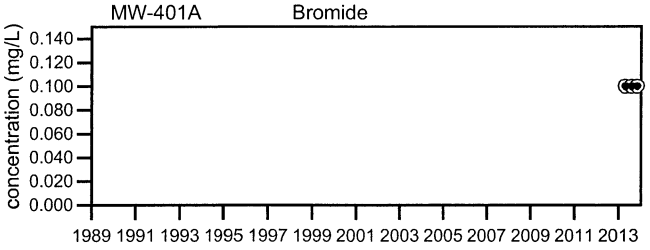
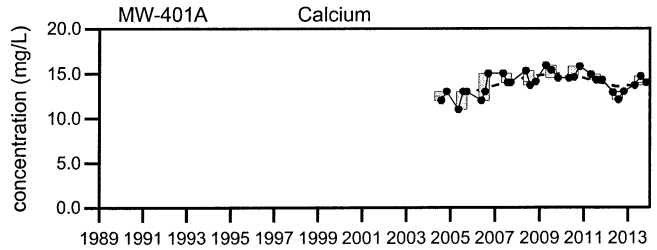
SME
Sowee & Maher Engineers, Inc.

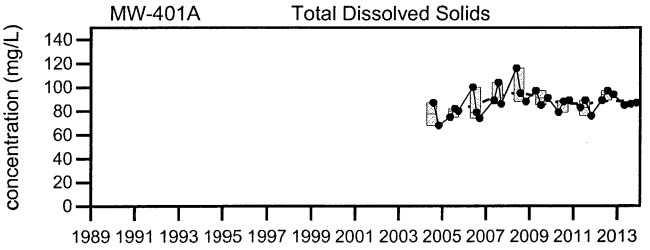


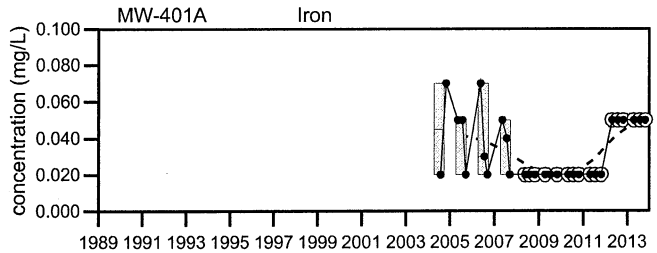


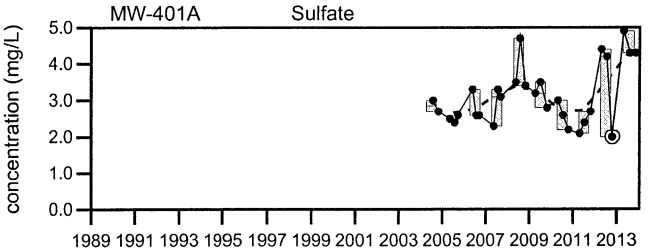


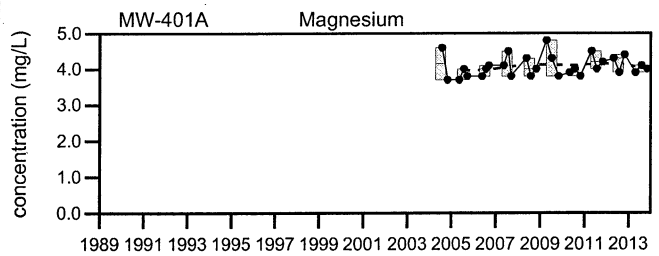


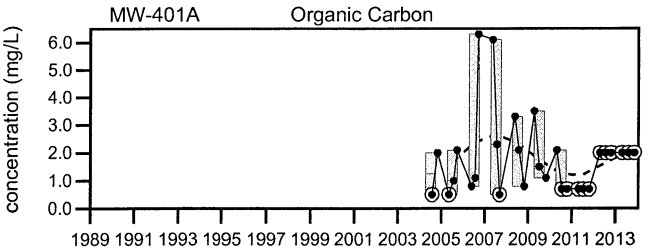


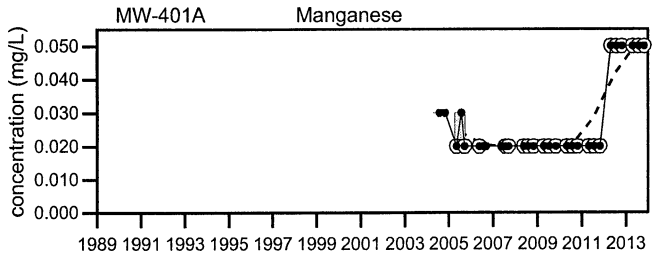


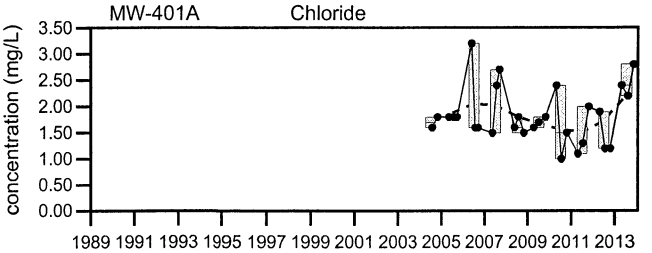


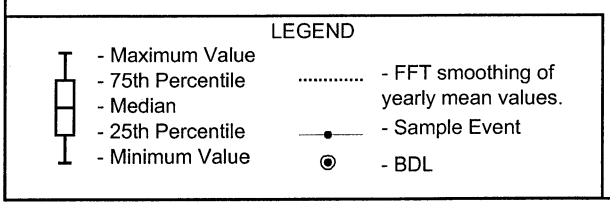












Juniper Ridge Landfill

MW-401A

Sevee & Maher Engineers, Inc.

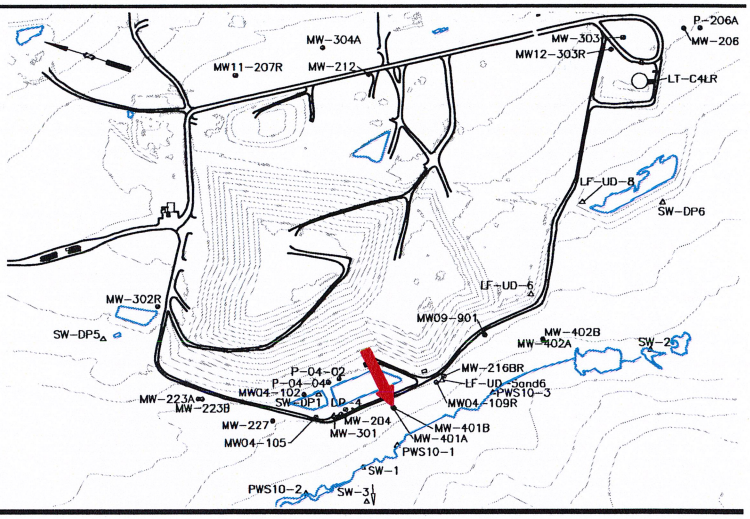
MW-401B

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Screen Interval: **10 ft. to 20 ft.**

Sampled: **3 Times Annually**

Sampled Since: **07/29/04**

Material Screened: **Overburden**

Well Condition: **Good**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		150.62	150.38	150.12	148.47	to	150.97	150	±	0.12	26
Dissolved Oxygen (mg/L)		0.8	0.4	0.6	0.3	to	5	1	±	0.18	26
Bromide (mg/L)		0.1	0.1 U	0.22	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		262	238	376	180	to	699	400	±	26	26
pH (Standard Units)		6.8	7.1	6.5	5.9	to	7.5	6.7	±	0.07	26
Alkalinity (CaCO3) (field) (mg/L)		90	95	100	60	to	335	170	±	15	26
Arsenic (mg/L)		**0.013**	**0.022**	↑ **0.027**	0.002	to	0.023	0.0096	±	0.001	26
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.0019	0.00037	±	7E-05	26
Calcium (mg/L)		28.9	28.8	35.1	25.3	to	100	45	±	3.7	26
Iron (mg/L)		0.39	0.51	1.72	0.19	to	19	3.7	±	0.83	26
Magnesium (mg/L)		8.7	8.4	10.8	8	to	36	14	±	1.2	26
Manganese (mg/L)		0.18	0.22	0.28	0.05	to	2.9	0.48	±	0.15	26
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.005	0.0027	±	0.000	26
Potassium (mg/L)		1.1	0.9	1.5	0.9	to	3.2	1.6	±	0.12	26
Sodium (mg/L)		12.9	10	14.9	9.8	to	33	18	±	1.3	26
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.528	0.5 U	0.24	to	3.2	0.52	±	0.11	26
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.1 U	to	0.2	0.13	±	0.01	26
Total Dissolved Solids (mg/L)		172	156	212	142	to	488	250	±	17	26
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	36	6.3	±	1.3	26
Sulfate (mg/L)		13.2	11.4	13	8	to	69.2	24	±	3	26
Bicarbonate (CaCO3) (mg/L)		122	↓ 108	139	116	to	245	160	±	8	26
Organic Carbon (mg/L)		2 U	2 U	2 U	0.7 U	to	4.6	2.6	±	0.25	26
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	3 U	to	17	5.8	±	0.69	26
Chloride (mg/L)		12.5	13	16.3	7.1	to	40.5	18	±	2	26
Turbidity (field) (NTU)		1.1	1.4	0.3	0	to	4.5	1.4	±	0.25	26
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	3.6	0.48	±	0.16	24

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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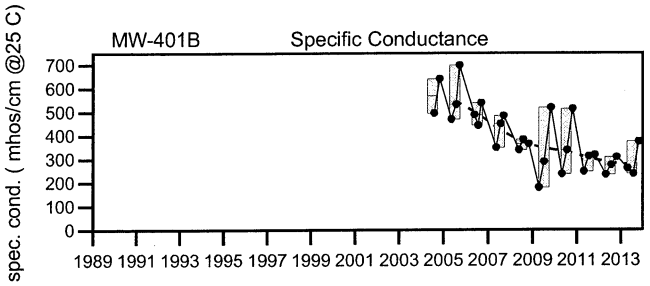
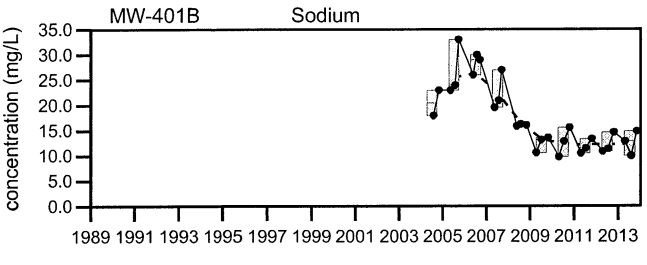
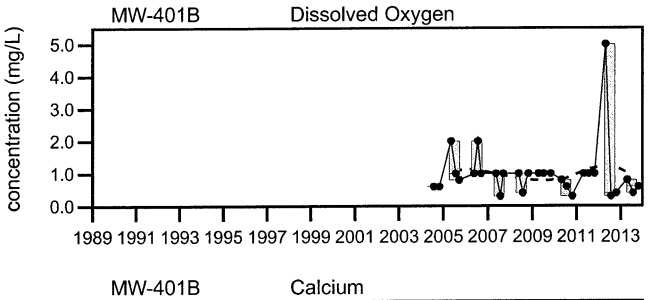
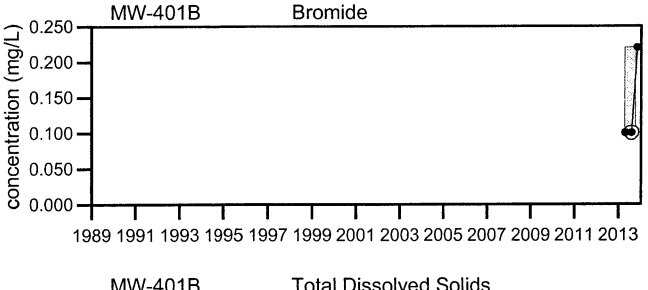
Printed: 3/18/2014 13:05

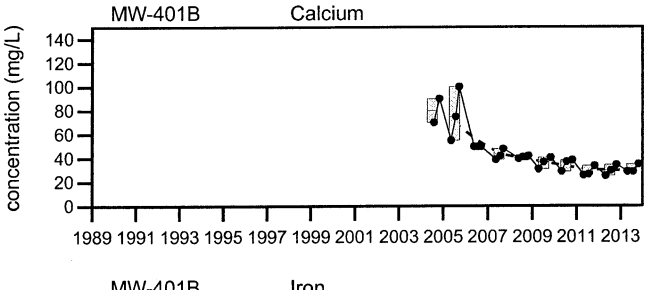
SME
Sovee & Maher Engineers, Inc.

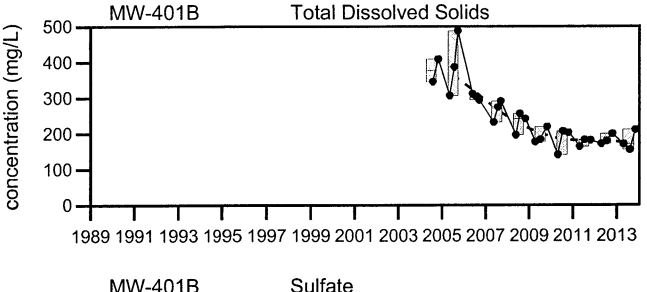


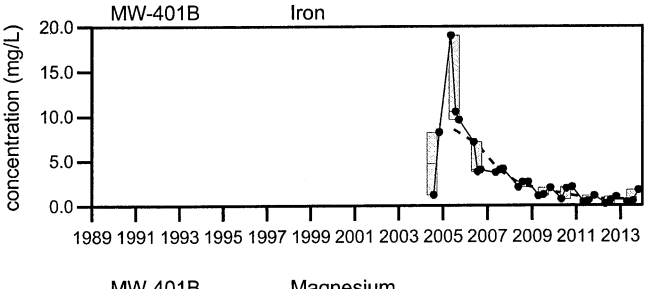


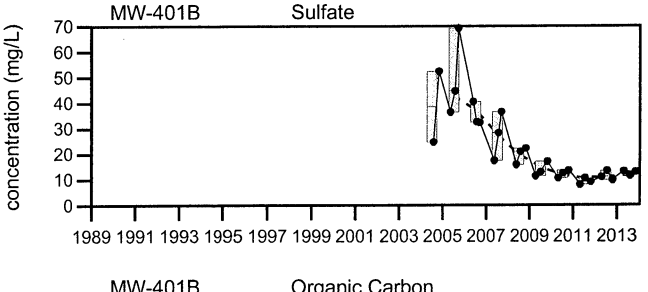


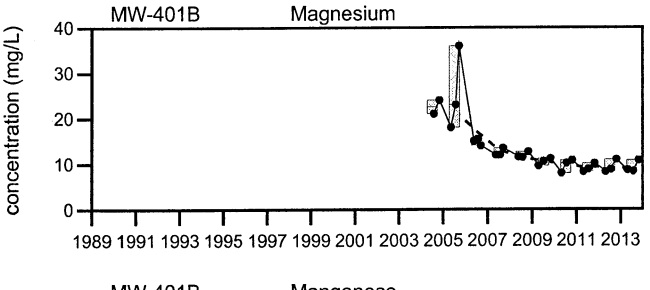


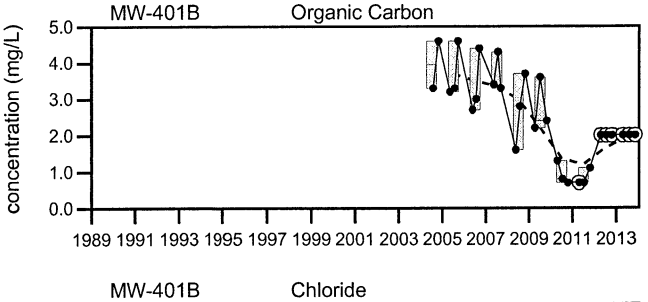


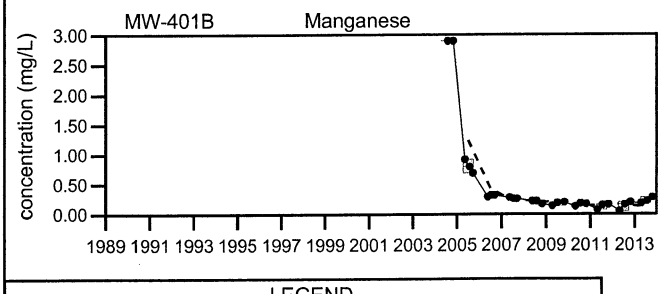


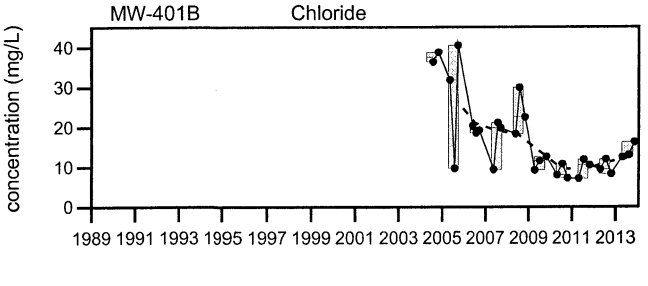


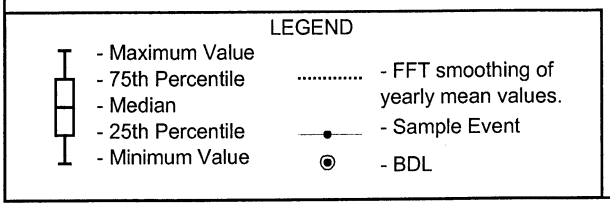












Juniper Ridge Landfill

MW-401B

Sevee & Maher Engineers, Inc.

MW-402A

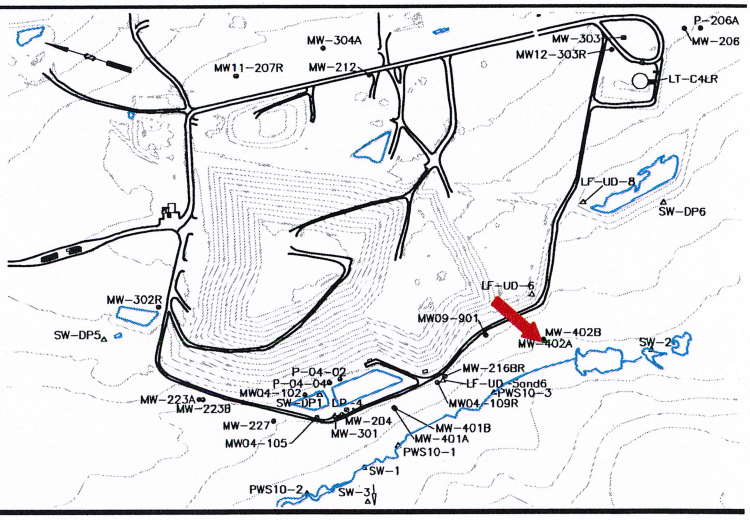
Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

MW-402A monitors water quality within the bedrock downgradient of the landfill.

Screen Interval:	**95.5 ft. to 105.5 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**07/29/04**
Material Screened:	**Bedrock**
Well Condition:	**Good**
Sampling Method:	**Low Flow**



Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	SE	n
Water Level Elevation (Feet)		↓ 152.07	152.15		152.15	to	152.2	150	± 0.02	3
Dissolved Oxygen (mg/L)		3	5	5	3	to	6	4.5	± 0.19	26
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.					
Specific Conductance (µmhos/cm @25°C)		138	125	141	104	to	197	130	± 4.1	26
pH (Standard Units)		9.2	8.3	8.1	7.3	to	9.5	8.1	± 0.11	26
Alkalinity (CaCO3) (field) (mg/L)		50	↓ 25	30	30	to	135	57	± 4	26
Arsenic (mg/L)		**0.021**	**0.024**	**0.02**	0.012	to	0.028	0.017	± 0.000	26
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.0025	0.00046	± 0.000	26
Calcium (mg/L)		10.7	11.8	12.1	7.7	to	13.8	11	± 0.24	26
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.08	0.028	± 0.003	26
Magnesium (mg/L)		3	3.1	3	2.6	to	3.2	2.9	± 0.03	26
Manganese (mg/L)		↑ 0.05 U	↑ 0.05 U	↑ 0.05 U	0.02 U	to	0.03	0.024	± 0.002	26
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.008	0.0027	± 0.000	26
Potassium (mg/L)		0.7	0.6	0.6	0.3	to	1.3	0.65	± 0.03	26
Sodium (mg/L)		9.1	↓ 7.7	8.2	7.8	to	11	8.9	± 0.18	26
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.3 U	0.5 U	0.15 U	to	1	0.39	± 0.04	26
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.1 U	to	0.1	0.12	± 0.01	26
Total Dissolved Solids (mg/L)		↑ 99	81	89	58	to	94	79	± 1.6	26
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	4 U	4	± 0	26
Sulfate (mg/L)		↑ 9.3	7	7.2	3	to	7.4	5.1	± 0.24	26
Bicarbonate (CaCO3) (mg/L)		51	53	51	46	to	56	52	± 0.47	26
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	8.1	1.7	± 0.31	26
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U	↑ 10 U	3 U	to	7	4.2	± 0.46	26
Chloride (mg/L)		2.5	1.3	1.8	0.8	to	3.1	1.8	± 0.1	26
Turbidity (field) (NTU)		0.5	0.6	0.3	0	to	3.7	0.46	± 0.17	26
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.24	0.2	± 0.002	24

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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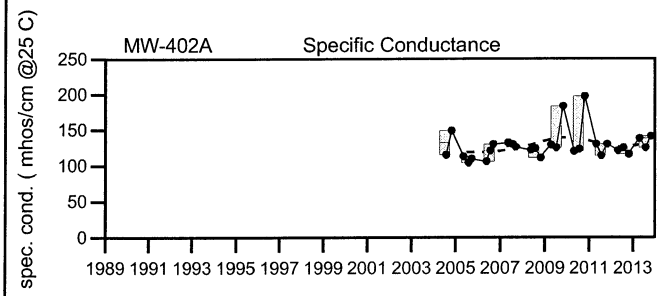
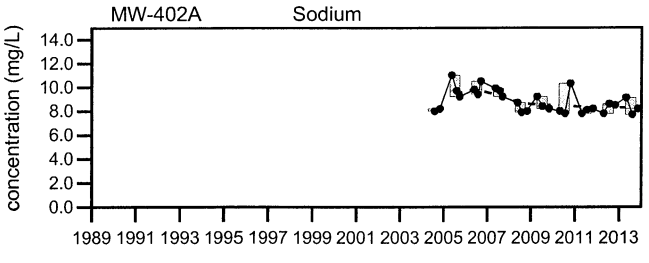
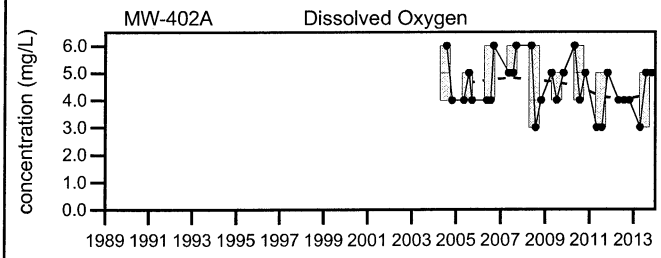
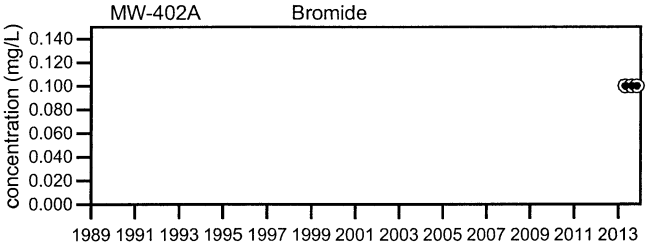
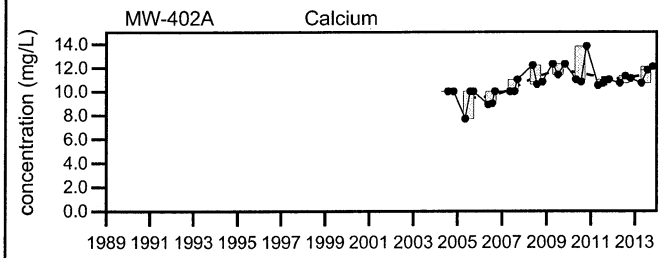
SME
Sevee & Maher Engineers, Inc.

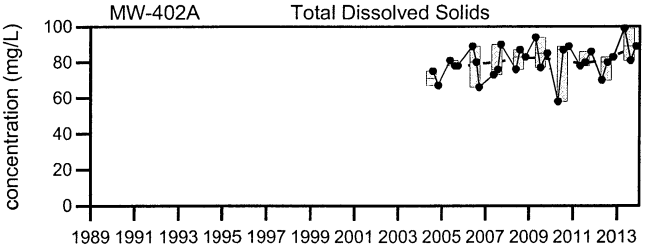


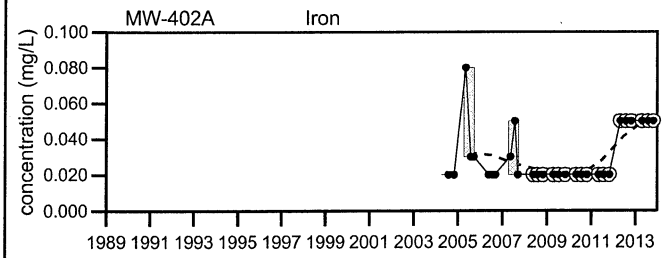


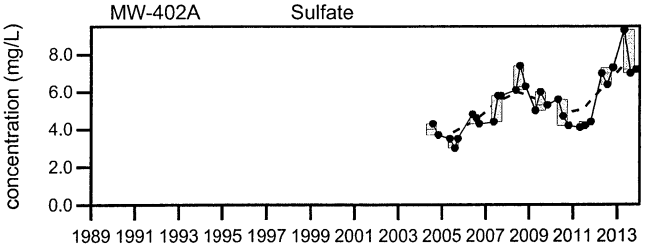


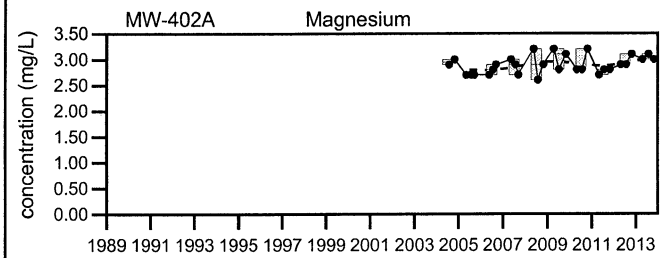


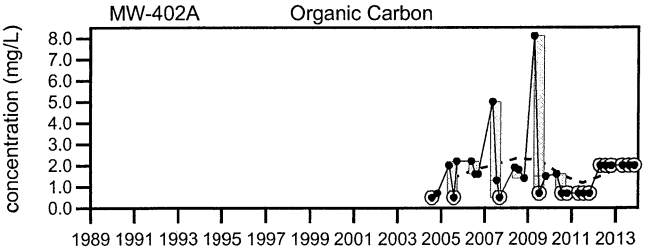


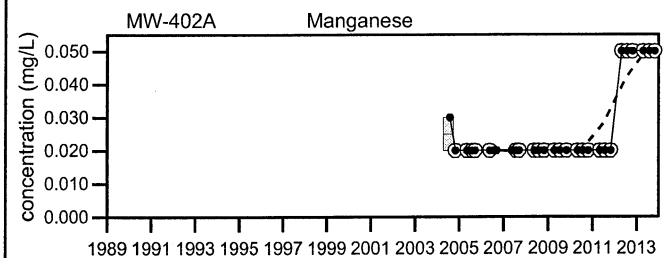


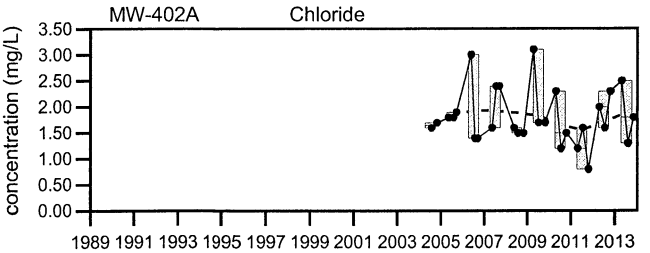


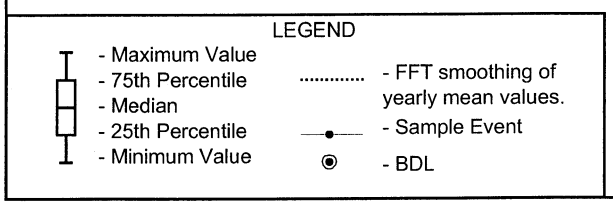












Juniper Ridge Landfill

MW-402A

Sevee & Maher Engineers, Inc.

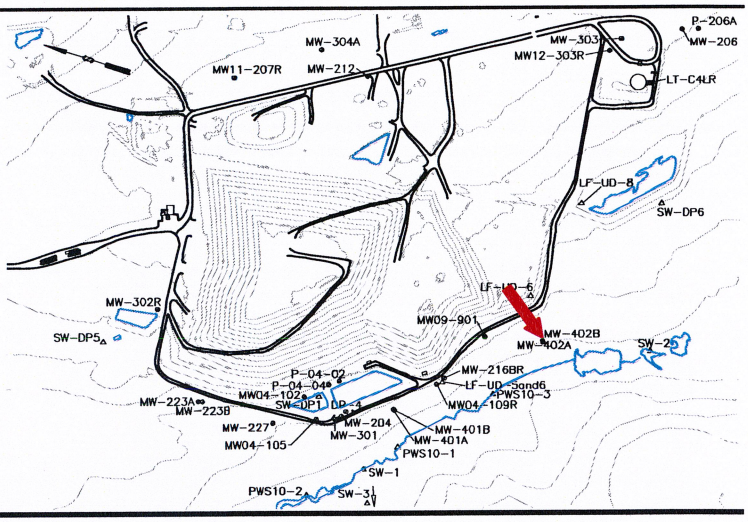
MW-402B

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Screen Interval:	**12 ft. to 22 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**07/29/04**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		149.74	148.82	148.94	147.44	to	150.56	150	±	0.15	26
Dissolved Oxygen (mg/L)		0.3	0.3	0.3	0.2	to	2	0.85	±	0.09	26
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		152	147	174	96	to	246	150	±	5.3	26
pH (Standard Units)		↑ 9.2	8.2	8.7	7	to	9.1	8.3	±	0.11	26
Alkalinity (CaCO3) (field) (mg/L)		60	40	35	35	to	135	72	±	4.4	26
Arsenic (mg/L)		**0.019**	↑ **0.024**	**0.019**	0.01	to	0.023	0.016	±	0.000	26
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to	0.0012	0.00038	±	6E-05	26
Calcium (mg/L)		13.2	14.9	15.5	13.2	to	17.2	15	±	0.19	26
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.07	0.029	±	0.003	26
Magnesium (mg/L)		4.7	5	4.9	4.7	to	5.5	5	±	0.05	26
Manganese (mg/L)		↑ 0.05 U	↑ 0.05 U	↑ 0.05 U	0.02 U	to	0.04	0.025	±	0.002	26
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	to	0.002	0.0024	±	0.000	26
Potassium (mg/L)		0.6	0.6	0.6	0.4	to	2.2	0.77	±	0.07	26
Sodium (mg/L)		8.4	7.6	8.1	7.6	to	12	8.8	±	0.21	26
Total Kjeldahl Nitrogen (mg/L)		0.3 U	0.3 U	0.5 U	0.21	to	0.61	0.36	±	0.02	26
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.1 U	to	0.1	0.12	±	0.01	26
Total Dissolved Solids (mg/L)		100	92	102	64	to	124	94	±	2.2	26
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	5	4	±	0.04	26
Sulfate (mg/L)		9	8.6	8.4	2.3	to	44.9	9.1	±	1.5	26
Bicarbonate (CaCO3) (mg/L)		60	68	67	34	to	79	66	±	1.5	26
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	5.2	1.6	±	0.24	26
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U	↑ 10 U	3 U	to	6	4.1	±	0.46	26
Chloride (mg/L)		2.5	1.4	1.9	1	to	26.5	2.8	±	0.95	26
Turbidity (field) (NTU)		0.9	0.4	0.3	0	to	3.5	0.66	±	0.22	26
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.26	0.2	±	0.003	24

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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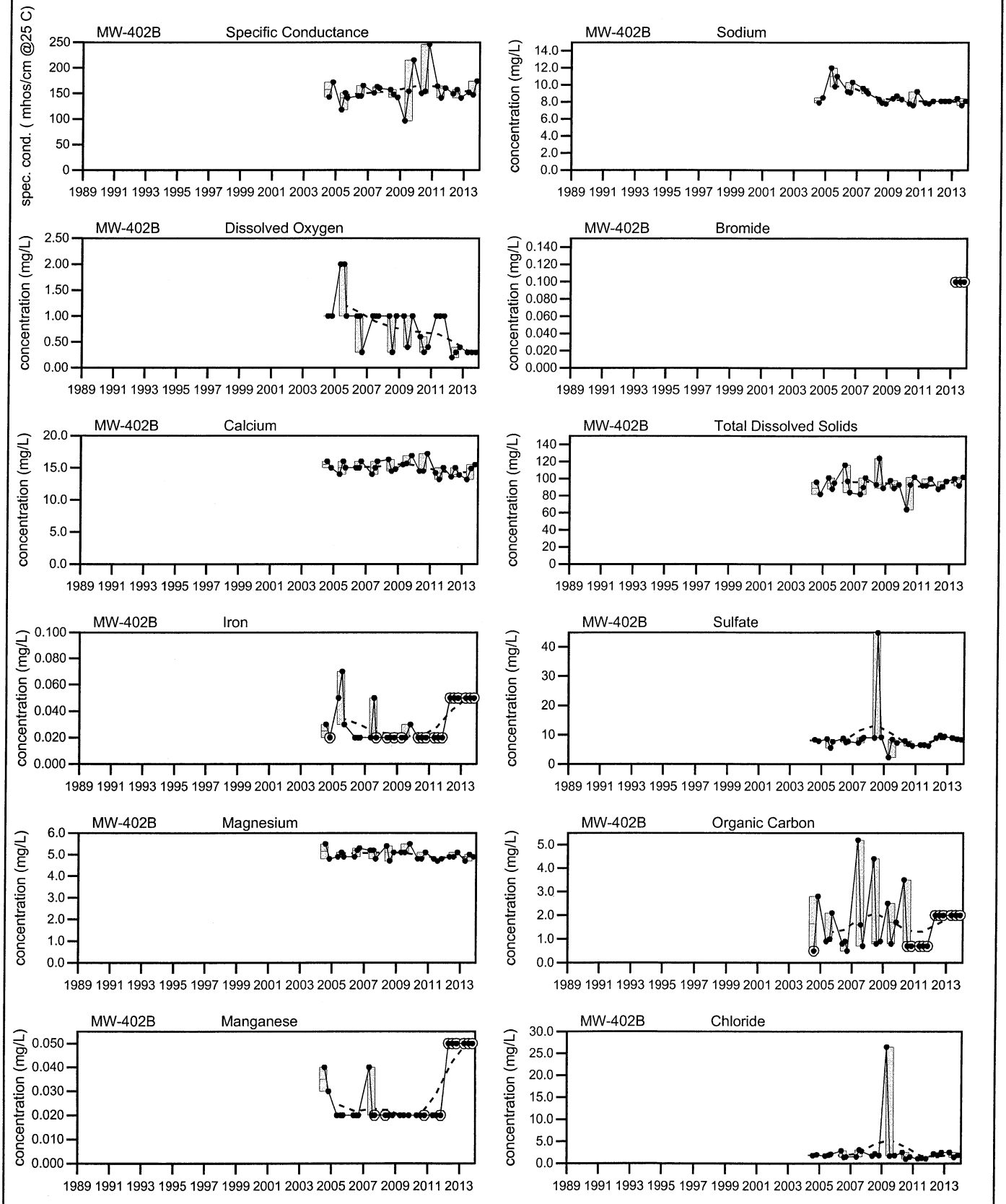
SME
Sevee & Maher Engineers, Inc.



Juniper Ridge Landfill

MW-402B

Sevee & Maher Engineers, Inc.

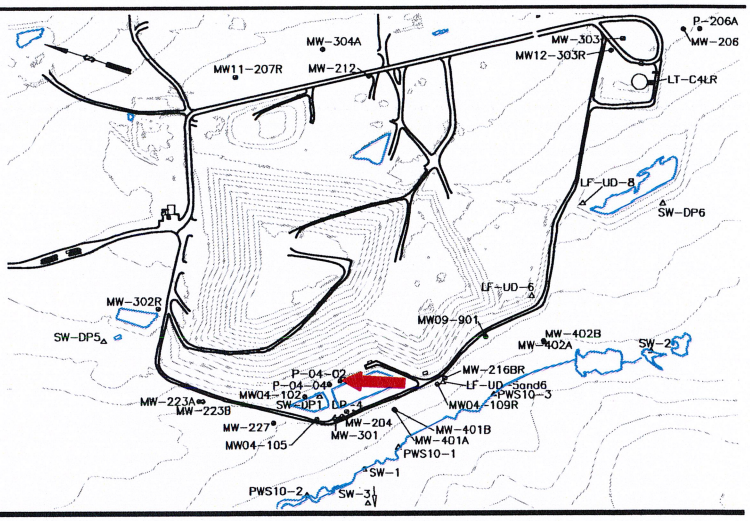
P-04-02

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

P-04-02 monitors the water quality in the overburden downgradient of the landfill, between the leachate pond and landfill toe.



Screen Interval:	**32.11 ft. to 37.11 ft.**
Sampled:	**Removed from program during 2013.**
Sampled Since:	**02/05/04**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)		!			1	to 6	2.3	± 0.28	28
Bromide (mg/L)		!			No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		!			166	to 414	230	± 9	28
pH (Standard Units)		!			6.2	to 8.5	7.5	± 0.1	28
Alkalinity (CaCO3) (field) (mg/L)		!			50	to 175	99	± 5.7	26
Arsenic (mg/L)		!			0.001 U	to 0.012	0.0056	± 0.000	29
Cadmium (mg/L)		!			0.0002 U	to 0.0006	0.00035	± 5E-05	24
Calcium (mg/L)		!			11	to 28	23	± 0.77	29
Iron (mg/L)		!			0.02 U	to 1.43	0.19	± 0.07	29
Magnesium (mg/L)		!			4.1	to 8.3	6.8	± 0.2	29
Manganese (mg/L)		!			0.02 U	to 0.16	0.048	± 0.008	29
Nickel (mg/L)		!			0.002 U	to 0.003	0.0026	± 0.000	24
Potassium (mg/L)		!			1.1	to 3.5	1.5	± 0.08	29
Sodium (mg/L)		!			6.5	to 73	14	± 2.7	29
Total Kjeldahl Nitrogen (mg/L)		!			0.22	to 0.73	0.45	± 0.04	26
Nitrate (N) (mg/L)		!			0.1 U	to 0.3	0.18	± 0.02	28
Total Dissolved Solids (mg/L)		!			113	to 275	150	± 6.8	28
Total Suspended Solids (mg/L)		!			4 U	to 21	5.5	± 0.72	28
Sulfate (mg/L)		!			8.9	to 29	14	± 0.96	28
Bicarbonate (CaCO3) (mg/L)		!			63	to 178	100	± 3.5	28
Organic Carbon (mg/L)		!			0.5 U	to 11.9	2.6	± 0.54	28
Chemical Oxygen Demand (mg/L)		!			3 U	to 30	6.4	± 1.4	28
Chloride (mg/L)		!			1	to 8.8	2.6	± 0.38	28
Turbidity (field) (NTU)		!			0	to 80.6	7.3	± 3.6	28
Tannin & Lignins (Tannic Acid) (mg/L)		!			0.2 U	to 1.7	0.31	± 0.07	26

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

Data Group: 199
Printed: 3/18/2014 13:05

SME
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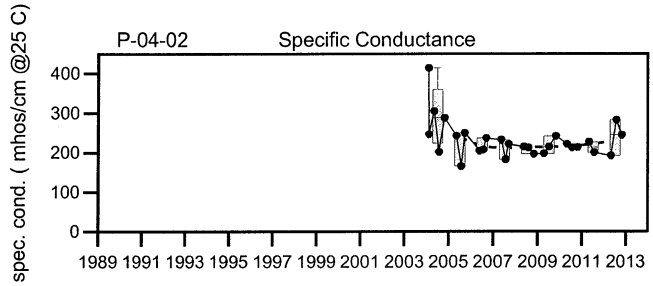
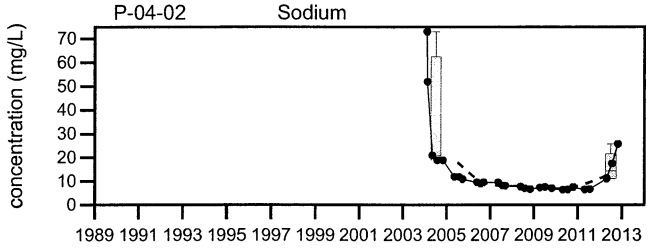
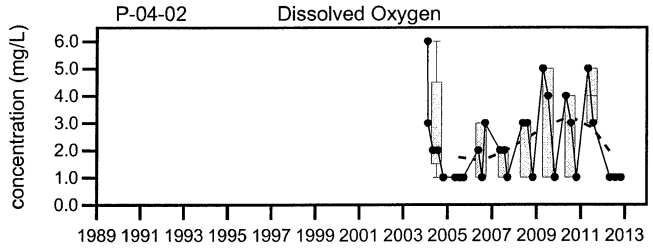
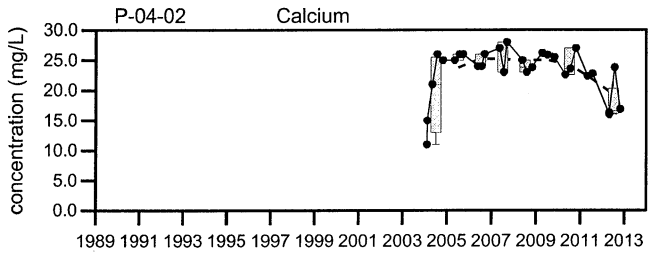
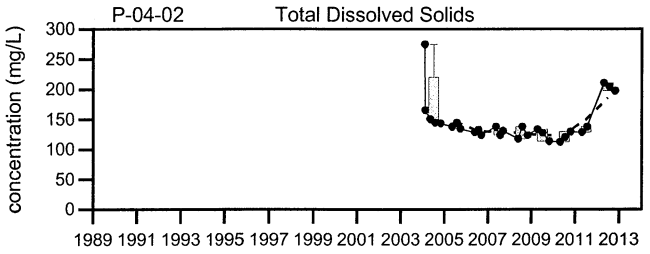


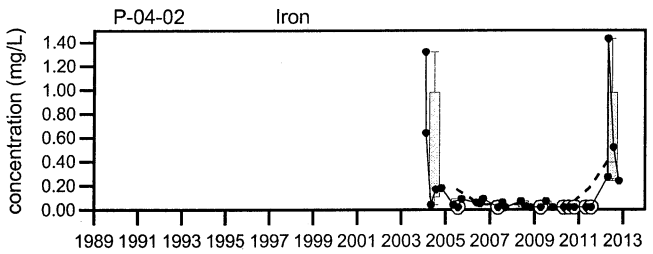


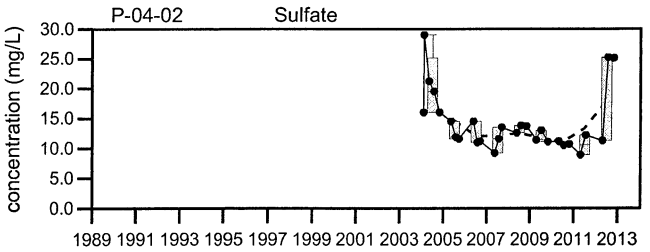


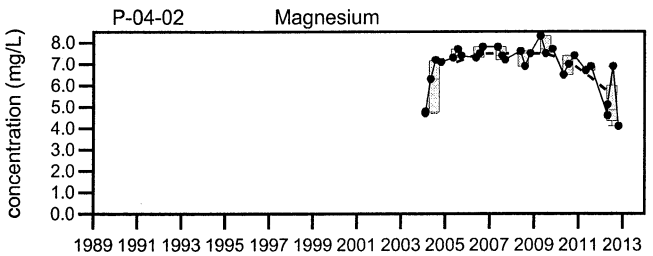
No data for Bromide at P-04-02

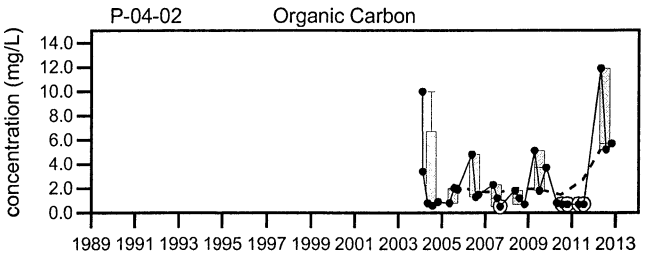


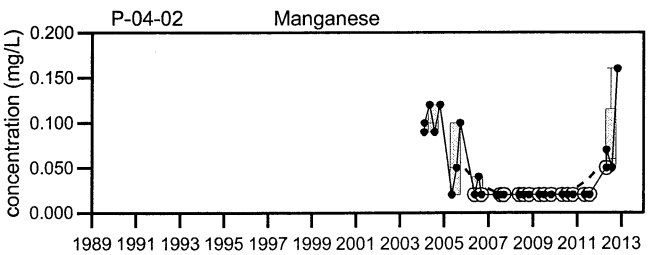


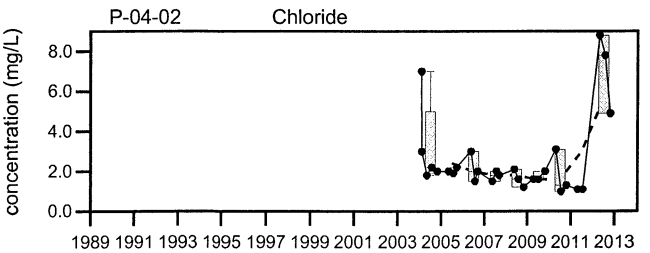












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

P-04-02

Sevee & Maher Engineers, Inc.

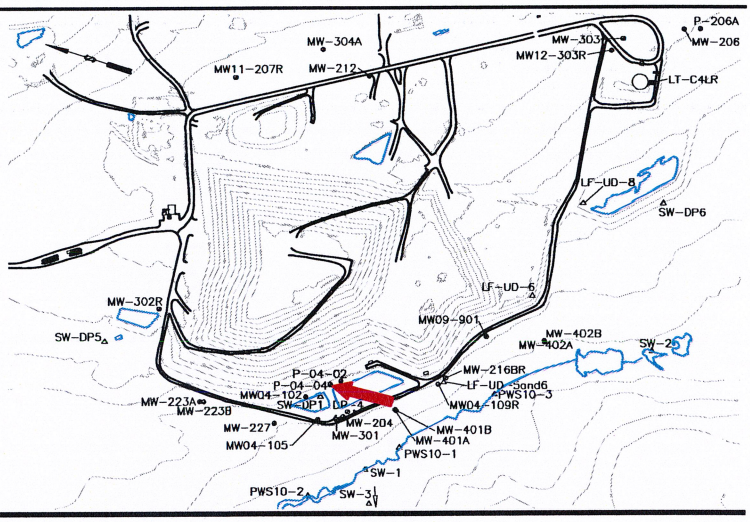
P-04-04

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

P-04-02 monitors the water quality in the overburden downgradient of the landfill, between the leachate pond and landfill toe.



Screen Interval:	**27.21 ft. to 32.21 ft.**
Sampled:	**3 Times Annually**
Sampled Since:	**02/05/04**
Material Screened:	**Overburden**
Well Condition:	**Good**
Sampling Method:	**Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Water Level Elevation (Feet)		160.3	160.13	159.24	140.18	to	161.85	160	±	0.85	29
Dissolved Oxygen (mg/L)		5	4	3	1	to	6	3.5	±	0.28	29
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		178	175	194	148	to	405	190	±	9.3	29
pH (Standard Units)		8.3	8.1	7.9	6.2	to	8.4	7.7	±	0.08	29
Alkalinity (CaCO3) (field) (mg/L)		90	50	↓ 35	40	to	150	84	±	5.8	27
Arsenic (mg/L)		**0.011**	↑ **0.012**	0.008	0.001	to	0.011	0.0053	±	0.000	29
Cadmium (mg/L)		↑ 0.0006 U	↑ 0.0006 U	↑ 0.0006 U	0.0002 U	to	0.0005	0.00031	±	4E-05	24
Calcium (mg/L)		21.7	22	21.7	11	to	58.1	23	±	1.4	29
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.93	0.065	±	0.03	29
Magnesium (mg/L)		5.3	5.5	5.2	4.8	to	6.1	5.4	±	0.06	29
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to	0.12	0.03	±	0.005	29
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	to	0.003	0.0025	±	0.000	24
Potassium (mg/L)		1.4	1.2	1.2	0.9	to	4.6	1.6	±	0.12	29
Sodium (mg/L)		4.1	3.7	↓ 3.6	3.7	to	73	8.7	±	2.4	29
Total Kjeldahl Nitrogen (mg/L)		0.479	0.613	0.5 U	0.17	to	0.7	0.4	±	0.03	27
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.1 U	to	2.5	0.26	±	0.08	29
Total Dissolved Solids (mg/L)		115	100	115	92	to	287	120	±	6.4	29
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to	21	4.7	±	0.59	29
Sulfate (mg/L)		9.2	7.8	7.7	5.5	to	28.8	9.9	±	1	29
Bicarbonate (CaCO3) (mg/L)		80	76	76	72	to	153	84	±	2.9	29
Organic Carbon (mg/L)		2 U	2 U	2 U	0.5 U	to	3.8	1.3	±	0.14	29
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	3 U	to	13	4.2	±	0.51	29
Chloride (mg/L)		1.3	1.4	1.8	0.9	to	7.2	1.9	±	0.21	29
Turbidity (field) (NTU)		0.4	1.2	0.8	0	to	162	6.7	±	5.6	29
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to	0.2 U	0.2	±	0	27

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

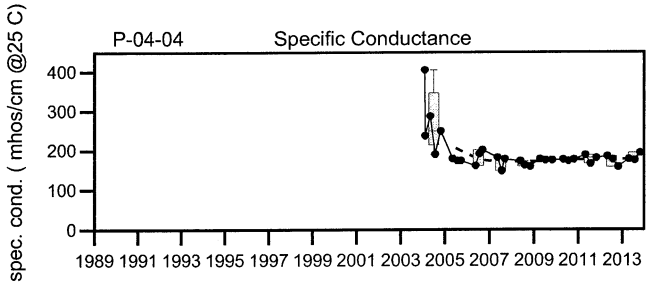
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

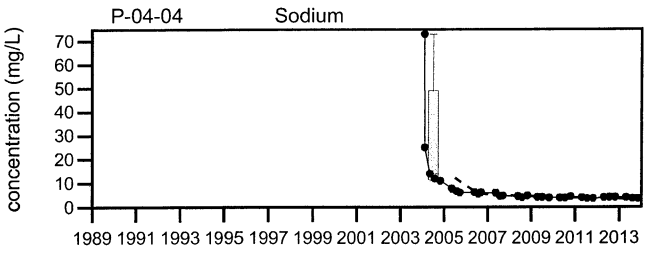
Comments

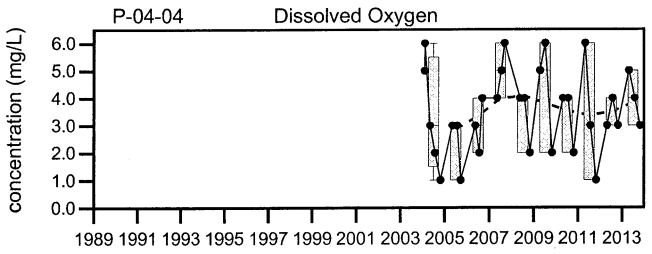
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

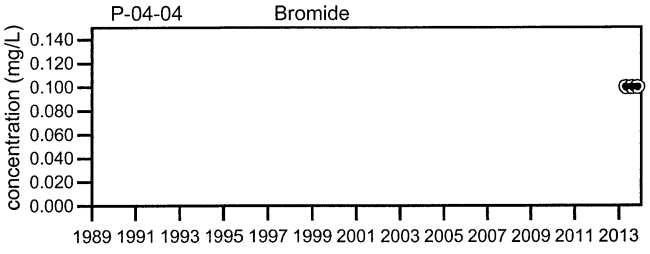
Data Group: 199
Printed: 3/18/2014 13:05

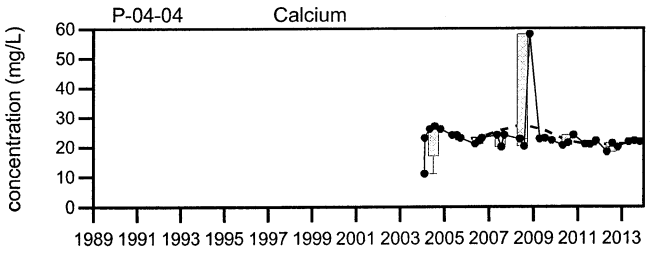
SME Sowee & Maher Engineers, Inc.

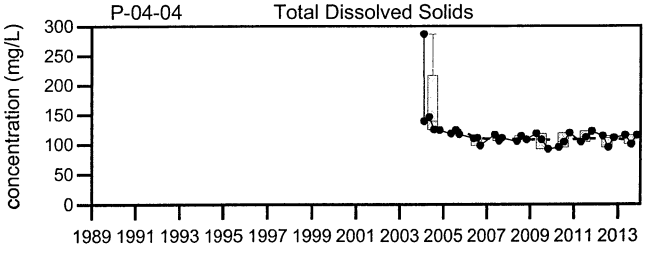


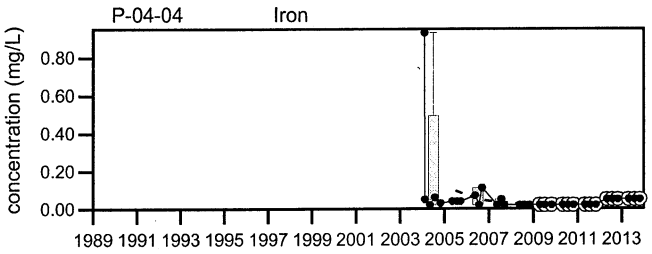


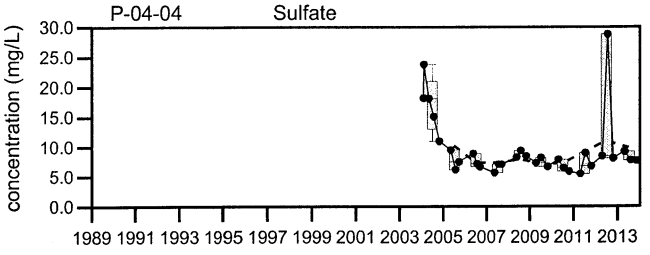


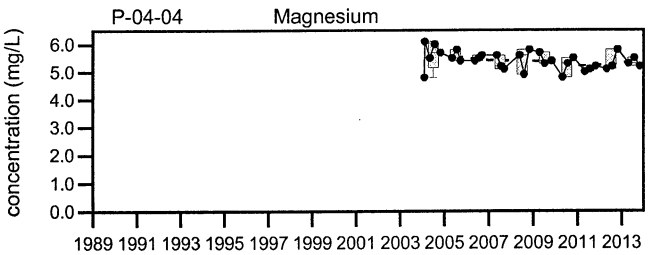


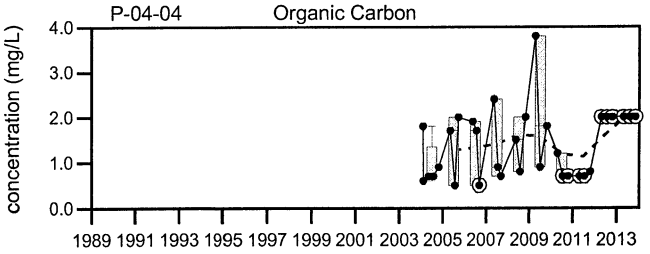


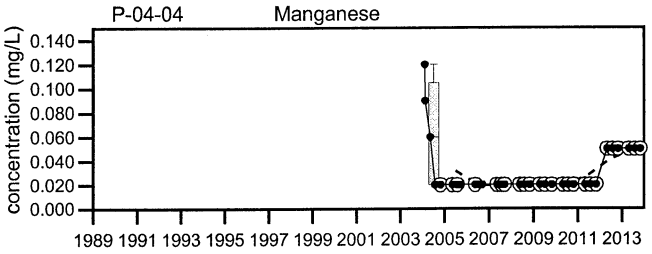


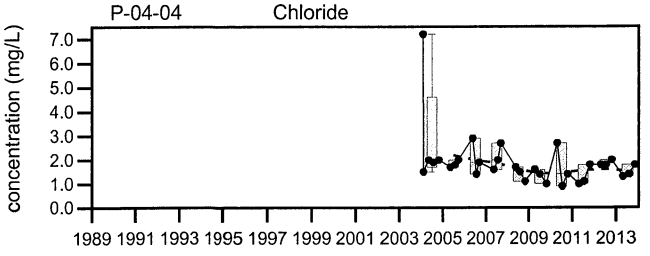


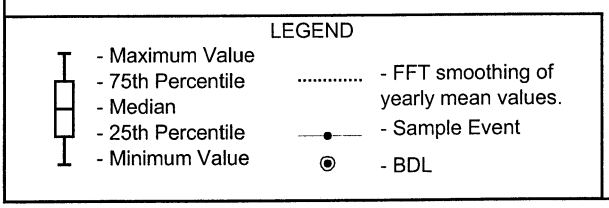












Juniper Ridge Landfill

P-04-04

Sevee & Maher Engineers, Inc.

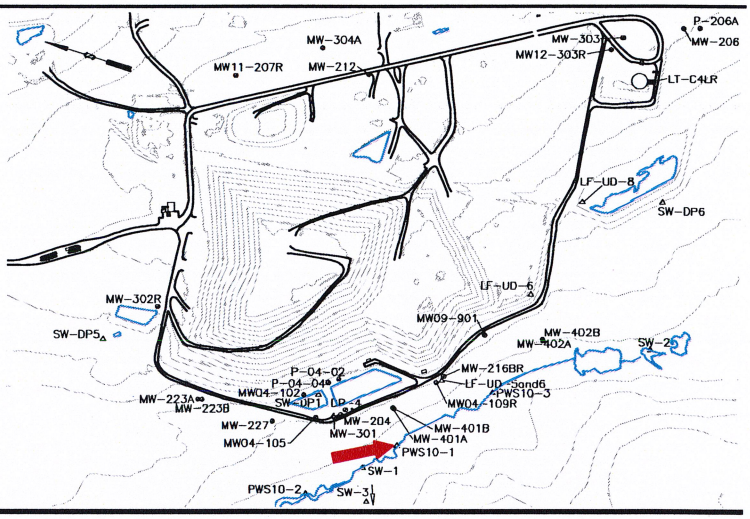
PWS10-1

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

PWS-1 is a pore water sampling location along the unnamed tributary to Pushaw stream. PWS-1 is downgradient of the landfill.



Screen Interval:

Sampled: **3 Times Annually**

Sampled Since: **04/26/2010**

Material Screened:

Well Condition: **NA**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)		1	1	4	0.3	to 5	1.7	± 0.49	9
Bromide (mg/L)		0.1	0.1 U	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		278	207	119	104	to 438	220	± 36	9
pH (Standard Units)		↓ 5.7	↓ 5.5	6.3	5.8	to 6.5	6.1	± 0.08	9
Alkalinity (CaCO3) (field) (mg/L)		50	75	25	10	to 200	76	± 22	9
Arsenic (mg/L)		**0.011**	0.005 U	0.005 U	0.002 U	to 0.015	0.008	± 0.001	9
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to 0.0016	0.00049	± 0.000	9
Calcium (mg/L)		30.9	18.9	↓ 9.5	9.8	to 35.2	21	± 2.9	9
Iron (mg/L)		1.35	4.66	1.56	0.48	to 30.3	5.8	± 3.1	9
Magnesium (mg/L)		9.3	6.3	3.4	3.2	to 12.2	6.8	± 0.9	9
Manganese (mg/L)		0.09	0.31	0.09	0.05	to 0.72	0.28	± 0.08	9
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to 0.034	0.0086	± 0.004	9
Potassium (mg/L)		1.8	1.3	0.7	0.4	to 2.8	1.2	± 0.26	9
Sodium (mg/L)		↑ 10	7.2	5.6	5.1	to 9.6	7.6	± 0.47	9
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.1 U	to 0.5	0.19	± 0.05	9
Phosphate Phosphorus (mg/L)		0.06	↑ 0.32	0.06	0.03	to 0.26	0.11	± 0.02	9
Total Dissolved Solids (mg/L)		↑ 177	148	↓ 90	104	to 176	140	± 7.5	9
Total Suspended Solids (mg/L)		4 U	95	25	4 U	to 786	100	± 85	9
Sulfate (mg/L)		3.1	2 U	2.5	1	to 10	3.3	± 0.98	9
Bicarbonate (CaCO3) (mg/L)		113	82	45	41	to 125	78	± 9.4	9
Organic Carbon (mg/L)		↓ 4.5	12.6	9.8	7.5	to 19.7	11	± 1.3	9
Chemical Oxygen Demand (mg/L)		20	46	33	20	to 58	34	± 3.6	9
Chloride (mg/L)		↑ 16.4	8.9	7	3.5	to 14.6	9.7	± 1.1	9
Turbidity (field) (NTU)		3.2	12.6	5.7	2.1	to 20	7.2	± 2.1	9
Tannin & Lignins (Tannic Acid) (mg/L)		↓ 0.75	2.6	5 U	1	to 5	2.1	± 0.44	9

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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Comments

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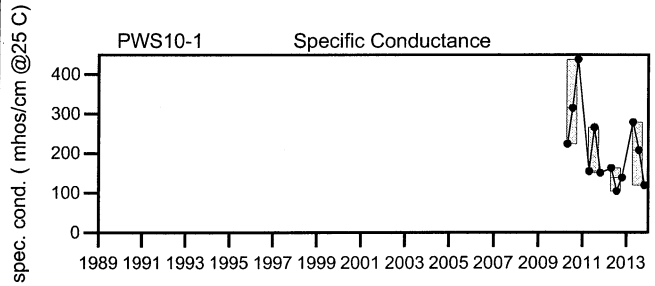
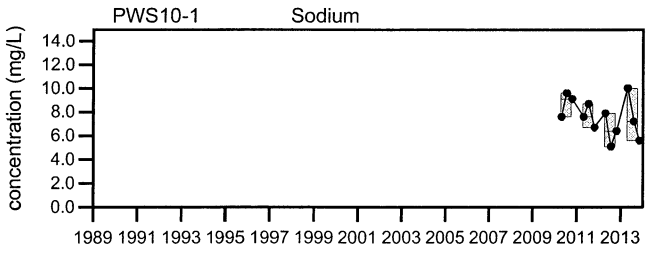
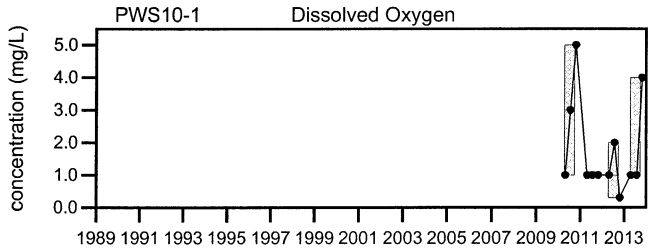
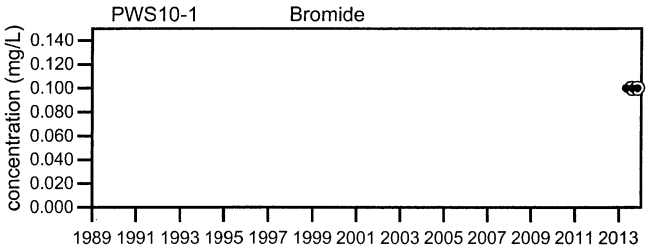
Data Group: 199
Printed: 3/18/2014 13:05

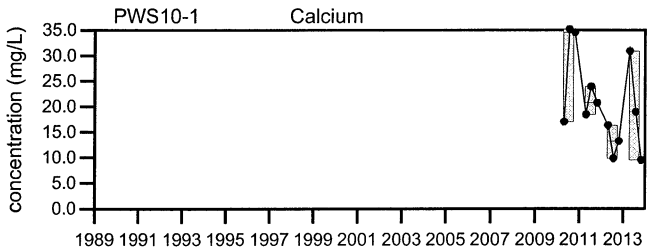
SME
Sevee & Maher Engineers, Inc.

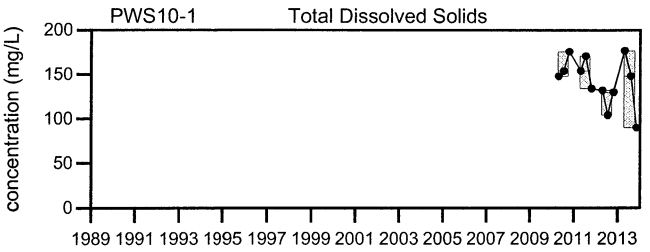


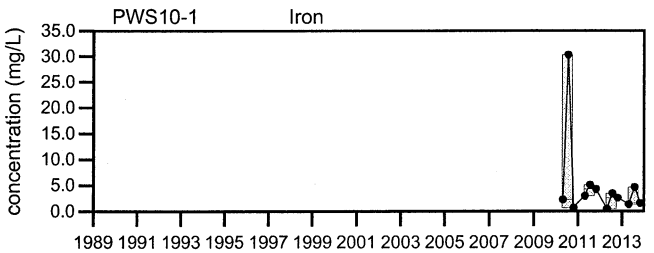


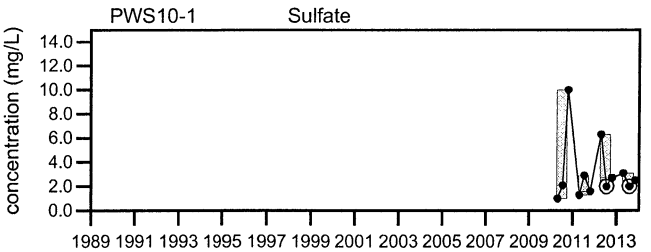


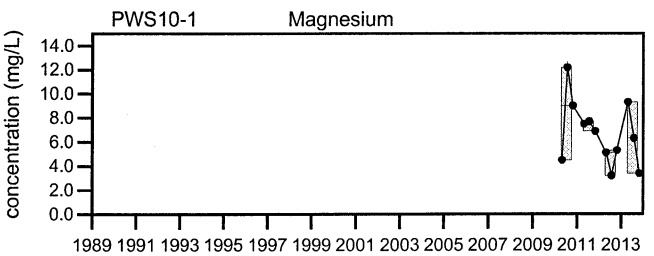


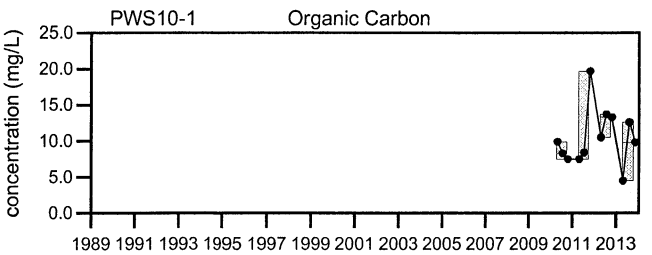


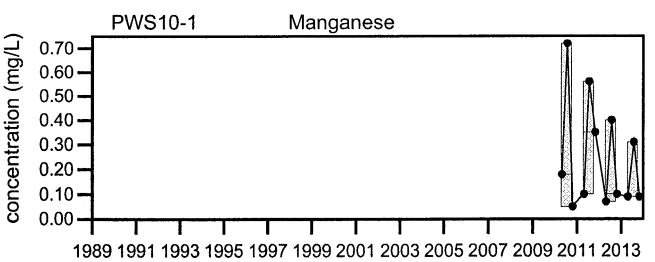


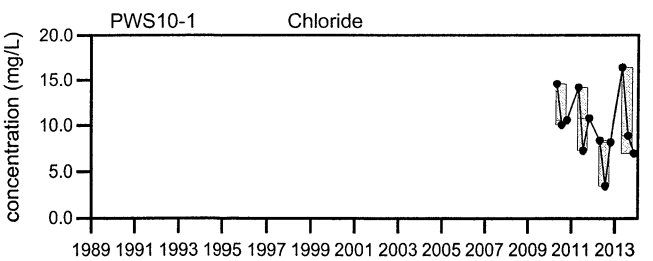


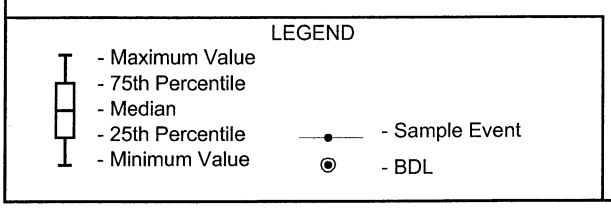












Juniper Ridge Landfill

PWS10-1

Sevee & Maher Engineers, Inc.

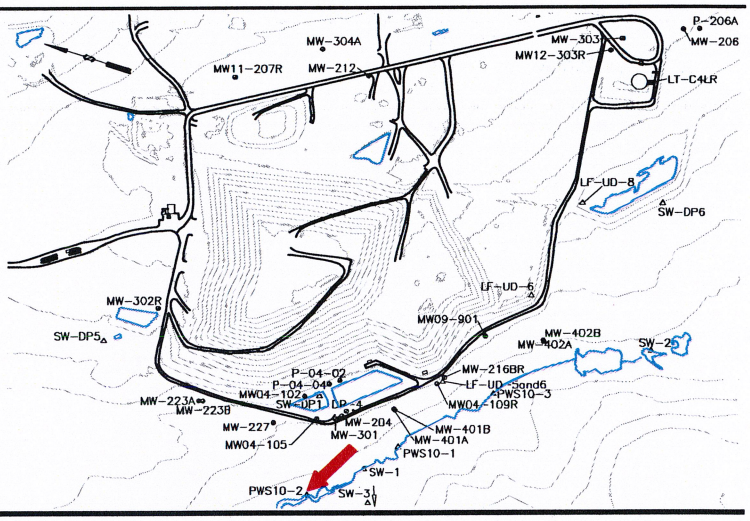
PWS10-2

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

PWS-2 is a pore water sampling location along the unnamed tributary to Pushaw stream. PWS-2 is downgradient of the landfill.



Screen Interval:

Sampled: **3 Times Annually**

Sampled Since: **04/26/2010**

Material Screened:

Well Condition: **NA**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	n
Dissolved Oxygen (mg/L)		3	1	5	1	8	3.3	0.83	9
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		100	127	107	66	157	100	11	9
pH (Standard Units)		↓ 5.5	↓ 5.4	↑ 6.7	5.6	6.6	5.9	0.12	9
Alkalinity (CaCO3) (field) (mg/L)		15	30	15	15	135	43	12	9
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	0.006	0.0041	0.000	9
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	0.0014	0.00048	0.000	9
Calcium (mg/L)		9.2	13.9	8.9	5.7	15.2	9	1.1	9
Iron (mg/L)		2.34	2.42	↑ **6.07**	0.32	3.06	1.5	0.32	9
Magnesium (mg/L)		3.1	3.2	1.9	1.4	3.9	2.3	0.27	9
Manganese (mg/L)		0.05 U	0.05 U	↑ 0.44	0.02 U	0.43	0.088	0.04	9
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	0.007	0.0037	0.000	9
Potassium (mg/L)		0.3 U	0.5	0.8	0.3 U	1.1	0.66	0.1	9
Sodium (mg/L)		4.4	5.1	3.2	2.8	5.1	3.9	0.27	9
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.1 U	0.4	0.19	0.04	9
Phosphate Phosphorus (mg/L)		0.04 U	0.05	↑ 0.1	0.02	0.08	0.038	0.006	9
Total Dissolved Solids (mg/L)		82	↑ 111	78	59	107	79	5	9
Total Suspended Solids (mg/L)		5	62	43	4 U	182	32	20	9
Sulfate (mg/L)		3.8	2 U	4.3	1.6	8.4	4.3	0.9	9
Bicarbonate (CaCO3) (mg/L)		30	28	28	9.3	62	26	5.8	9
Organic Carbon (mg/L)		↓ 6.4	11.8	↓ 5.5	7.3	14.7	10	0.77	9
Chemical Oxygen Demand (mg/L)		26	↑ 55	29	18	40	29	2.7	9
Chloride (mg/L)		8.4	↑ 19.8	5.1	3.2	12.6	6.4	1	9
Turbidity (field) (NTU)		2.5	3.1	6.2	1.6	6.5	3.5	0.55	9
Tannin & Lignins (Tannic Acid) (mg/L)		1.1	1.8	2.5 U	1 U	5.1	2	0.43	9

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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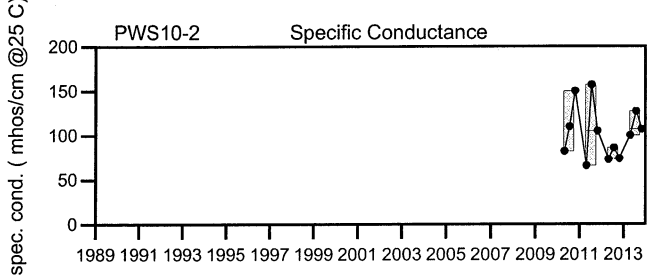
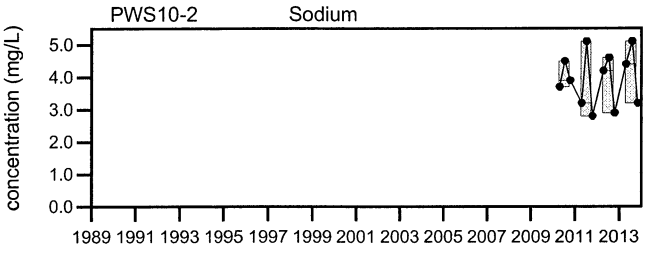
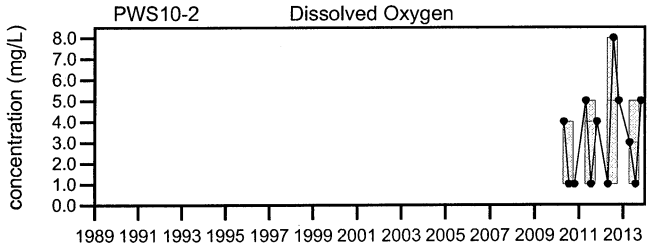
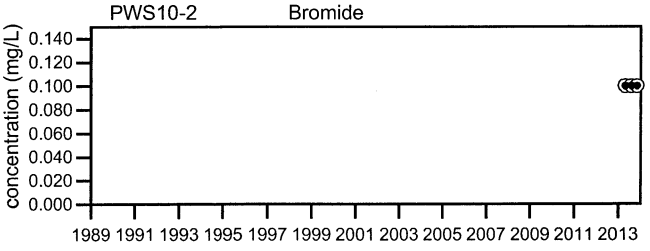
Printed: 3/18/2014 13:05

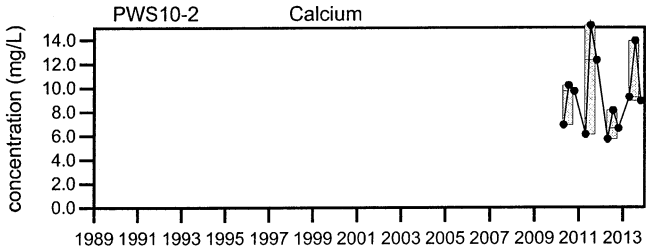
SME Sewee & Maher Engineers, Inc.

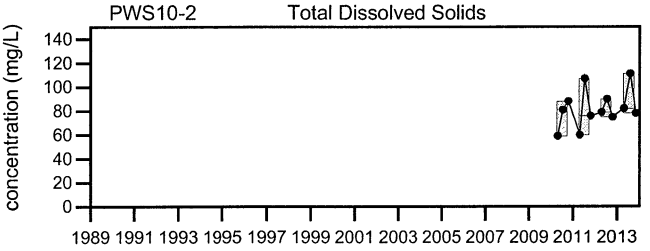


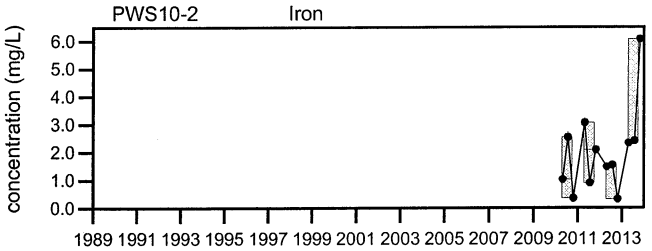


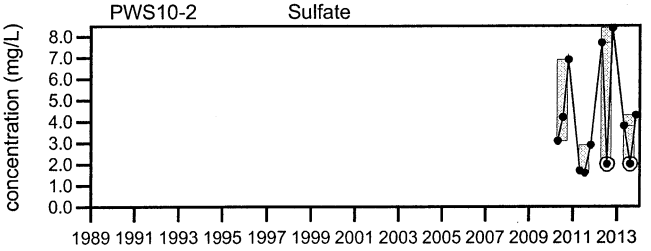


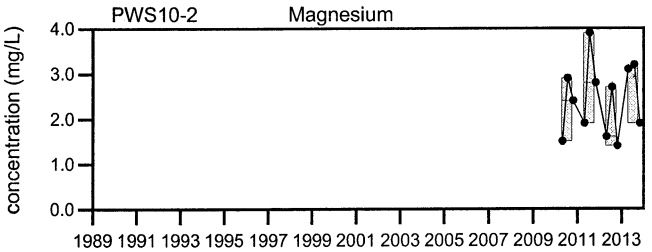


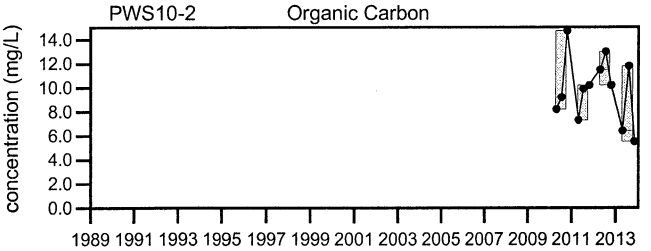


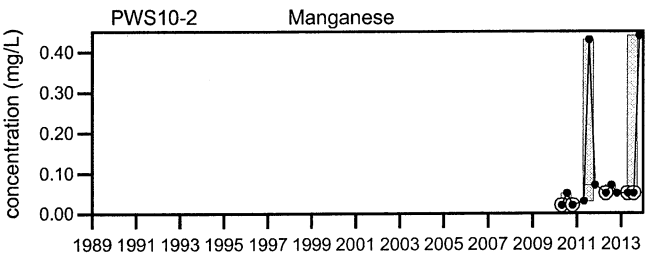


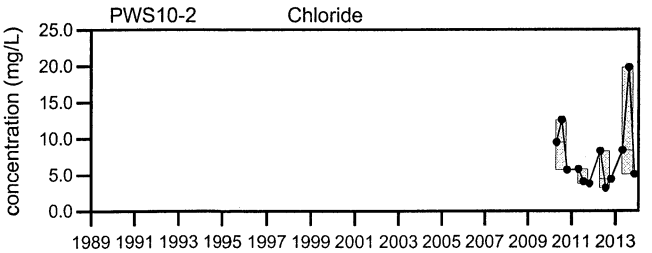


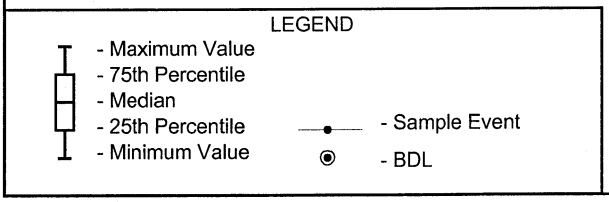












Juniper Ridge Landfill

PWS10-2

Sevee & Maher Engineers, Inc.

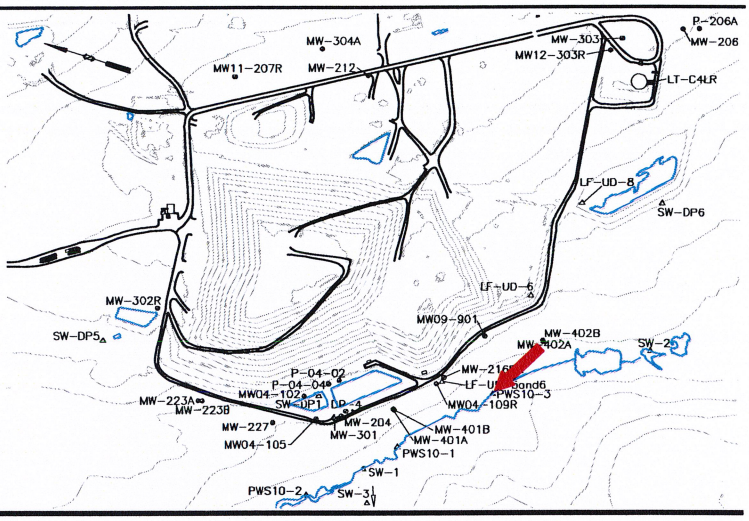
PWS10-3

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

PWS-3 is a pore water sampling location along the unnamed tributary to Pushaw stream. PWS-3 is downgradient of the landfill.



Screen Interval:

Sampled: **3 Times Annually**

Sampled Since: **04/26/2010**

Material Screened:

Well Condition: **NA**

Sampling Method: **Low Flow**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)		↑ 5	1	4	0.8	to 4	2.3	± 0.42	9
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		62	180	80	59	to 222	130	± 21	9
pH (Standard Units)		↓ 5	5.5	6.6	5.3	to 7	5.9	± 0.18	9
Alkalinity (CaCO3) (field) (mg/L)		15	90	20	15	to 145	67	± 16	9
Arsenic (mg/L)		0.005 U	0.005	0.006	0.002 U	to 0.011	0.0049	± 0.000	9
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to 0.001	0.00042	± 1E-04	9
Calcium (mg/L)		4.9	13.3	6.2	4.4	to 25	12	± 2.3	9
Iron (mg/L)		1.42	**11.4**	1.53	0.34	to 20.8	4.3	± 2.1	9
Magnesium (mg/L)		1.8	3.9	2.3	1.7	to 4.3	2.9	± 0.28	9
Manganese (mg/L)		0.05	**0.51**	0.09	0.02	to 1.48	0.31	± 0.16	9
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to 0.005 U	0.003	± 0.000	9
Potassium (mg/L)		0.4	1.1	0.5	0.1	to 1.3	0.49	± 0.13	9
Sodium (mg/L)		3.9	5.6	4.5	2.5	to 5.8	4	± 0.31	9
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.1 U	to 0.5	0.2	± 0.05	9
Phosphate Phosphorus (mg/L)		0.08	↑ 0.5	0.08	0.03	to 0.48	0.13	± 0.05	9
Total Dissolved Solids (mg/L)		72	↑ 141	73	66	to 124	99	± 5.9	9
Total Suspended Solids (mg/L)		8	39	29	4 U	to 101	31	± 11	9
Sulfate (mg/L)		2	2 U	2 U	0.6 U	to 6.3	2.5	± 0.64	9
Bicarbonate (CaCO3) (mg/L)		21	56	22	11.8	to 87	42	± 9.3	9
Organic Carbon (mg/L)		11	↑ 21.6	11.9	2.1	to 19.3	12	± 2	9
Chemical Oxygen Demand (mg/L)		46	62	43	11	to 251	72	± 24	9
Chloride (mg/L)		4.1	5.4	6.2	1.7	to 7.7	3.4	± 0.59	9
Turbidity (field) (NTU)		5.6	5.9	8.1	3.5	to 18.3	6.5	± 1.5	9
Tannin & Lignins (Tannic Acid) (mg/L)		1.6	↑ 5.2	2.5 U	0.45	to 4.6	2.4	± 0.46	9

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

Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed.

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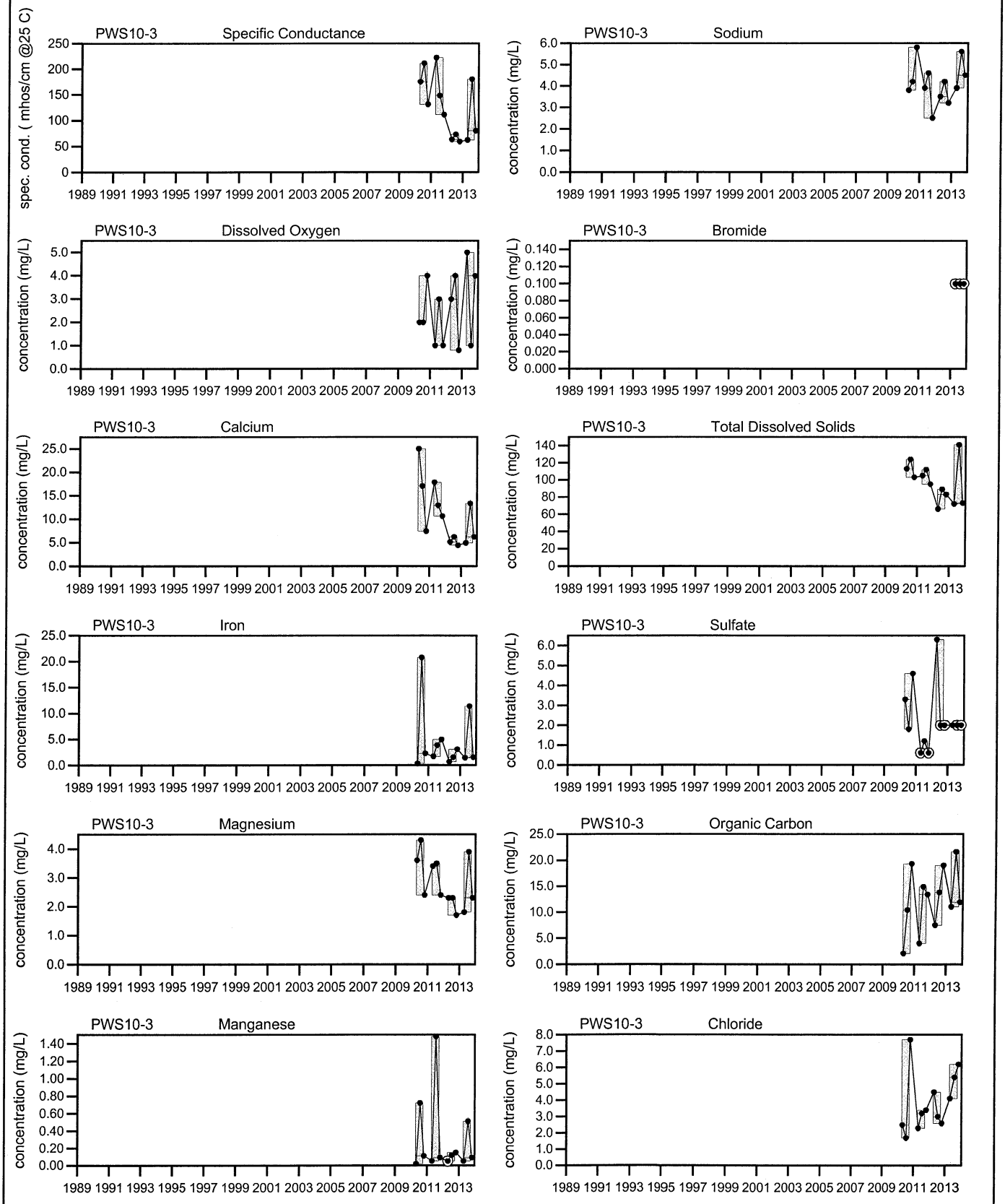
Printed: 3/18/2014 13:05

SME Sevee & Maher Engineers, Inc.



Juniper Ridge Landfill

PWS10-3

Sevee & Maher Engineers, Inc.

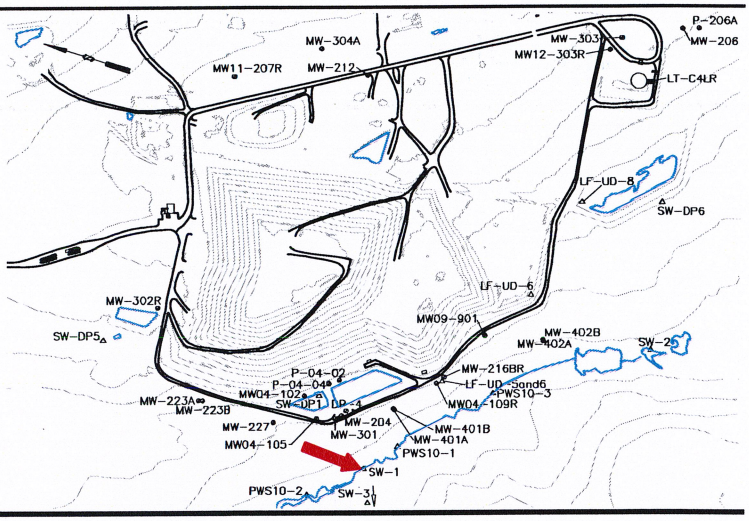
SW-1

Juniper Ridge Landfill

annual stats 2013 minus leachate

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

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Dissolved Oxygen (mg/L)		6	6	6	0.6	to	13.2	4.8	±	0.32	66
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)		80	83	99	10	to	345	96	±	7	68
pH (Standard Units)		6.6	6.5	7.2	5.8	to	8.1	6.9	±	0.07	68
Alkalinity (CaCO3) (field) (mg/L)		15	25	20	10	to	135	45	±	6.1	25
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001	to	0.01	0.0039	±	0.000	26
Cadmium (mg/L)		0.00006	0.00006	0.00006	0.00002 U	to	0.0005	0.0017	±	0.000	35
Calcium (mg/L)		5.2	9.6	7.2	3.1	to	48	9.7	±	1	56
Iron (mg/L)		0.24	**2.92**	0.57	0.1	to	19.4	2.1	±	0.4	61
Magnesium (mg/L)		1.9	3.2	2.7	0.21	to	10.7	2.7	±	0.22	56
Manganese (mg/L)		0.05 U	0.12	0.05 U	0.001	to	4.8	0.23	±	0.08	61
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to	0.01	0.0032	±	0.000	23
Potassium (mg/L)		1	0.4	0.4	0.1	to	5	1.2	±	0.22	26
Sodium (mg/L)		6.3	3.6	4.3	2.9	to	12	5.6	±	0.24	61
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.05 U	to	0.3	0.1	±	0.01	38
Phosphate Phosphorus (mg/L)		0.04 U	0.05	0.04 U	0.01 U	to	0.81	0.087	±	0.02	38
Total Dissolved Solids (mg/L)		60	81	73	30	to	230	85	±	4.6	61
Total Suspended Solids (mg/L)		4 U	41	4 U	4 U	to	1490	74	±	57	26
Sulfate (mg/L)		3.1	2 U	2.2	0.2	to	17	3.1	±	0.36	61
Bicarbonate (CaCO3) (mg/L)		15.3	34	30	10.6	to	148	38	±	7.1	26
Organic Carbon (mg/L)		7.4	16.8	10.1	5.2	to	34	12	±	0.55	61
Biochemical Oxygen Demand (mg/L)		4 U	3 U	1 U	1 U	to	12	4.7	±	0.34	38
Chemical Oxygen Demand (mg/L)		23	46	38	15	to	752	60	±	13	61
Chloride (mg/L)		12.7	5.1	6.2	1 U	to	22.7	7.3	±	0.53	61
Turbidity (field) (NTU)		3.6	2.3	1.5	0	to	175	6.7	±	3.7	47
Tannin & Lignins (Tannic Acid) (mg/L)		1.4	3.2	2.5 U	0.2 U	to	4.5	2.3	±	0.12	61

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

Applicable Limits:
Chloride MFCCC=230 mg/L, Nickel MFCCC=0.0134 mg/L, Iron MFCCC=1 mg/L, Cadmium MFCCC=0.00008 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.

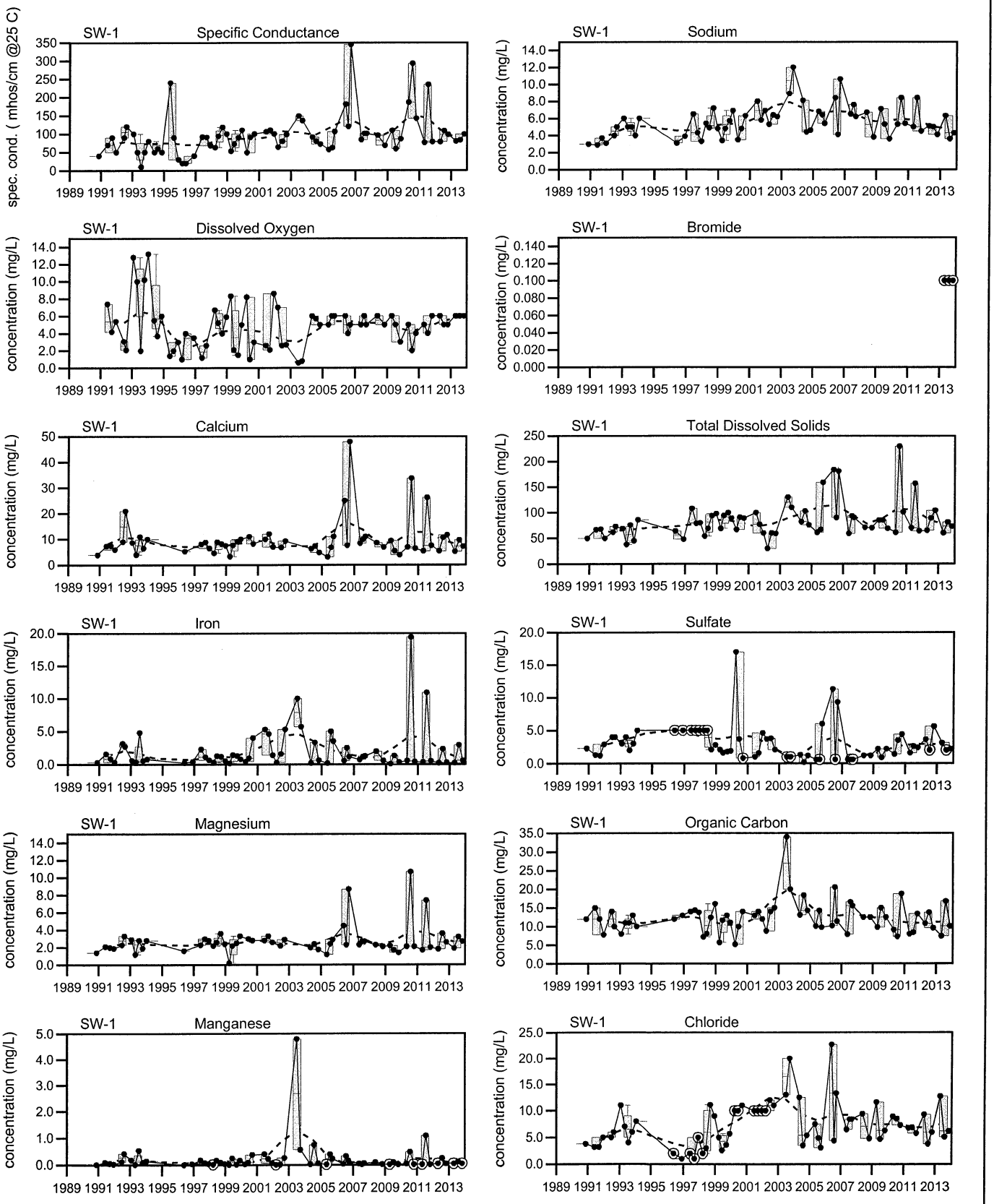
Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed. April 2013 and October 2013 Cadmium results are non-detect above the laboratory reporting limit (0.00006U mg/l).

Data Group: 199

Printed: 3/18/2014 13:05

SME Sewee & Maher Engineers, Inc.



Juniper Ridge Landfill

SW-1

Sevee & Maher Engineers, Inc.

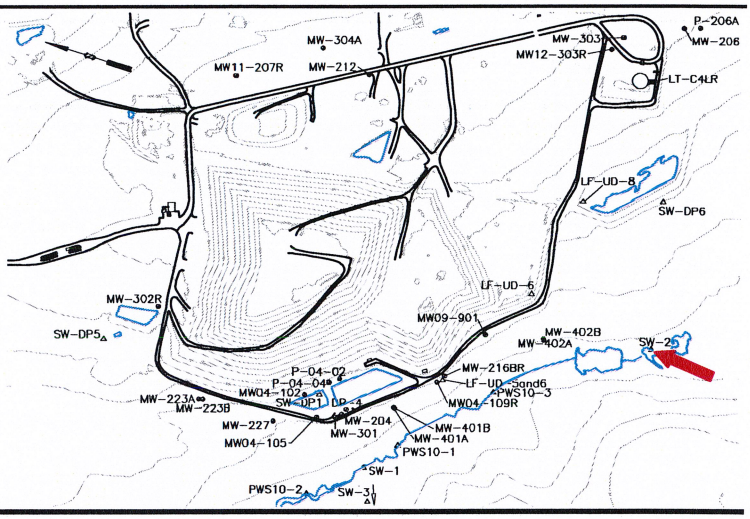
SW-2

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Sampled: **3 Times Annually**

Sampled Since: **11/13/90**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	Historical n
Dissolved Oxygen (mg/L)		5	6	5	0.4	13.7	4.2	0.3	74
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		77	65	82	10	150	73	3	76
pH (Standard Units)		6.4	7	8	5.42	8.4	6.6	0.07	76
Alkalinity (CaCO3) (field) (mg/L)		15	20	20	15	50	29	1.7	27
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U	0.007	0.003	0.000	27
Cadmium (mg/L)		0.00006	0.00006	0.00006	0.00002 U	0.0004	0.0018	0.000	38
Calcium (mg/L)		4.2	6.6	5.3	0.1 U	10	5.8	0.26	62
Iron (mg/L)		0.2	**1.1**	0.32	0.03 U	8.8	1.2	0.15	68
Magnesium (mg/L)		1.8	2.3	2.2	0.1 U	3.7	2	0.08	62
Manganese (mg/L)		0.05 U	0.05	0.05 U	0.003	0.43	0.087	0.009	68
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	0.006	0.0027	0.000	24
Potassium (mg/L)		1.2	0.3 U	0.3	0.1 U	1.4	0.51	0.06	27
Sodium (mg/L)		6.7	3.2	4.2	1 U	14	5.4	0.28	68
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.3 U	0.05 U	2.1	0.15	0.05	41
Phosphate Phosphorus (mg/L)		0.04 U	0.04 U	0.04 U	0.01	0.31	0.048	0.01	41
Total Dissolved Solids (mg/L)		66	74	65	2	119	68	2.5	68
Total Suspended Solids (mg/L)		4 U	4	4 U	4 U	89	10	3.2	27
Sulfate (mg/L)		2 U	2 U	2 U	0.1 U	8	2	0.21	68
Bicarbonate (CaCO3) (mg/L)		13	25	22	8.5	35	19	1.3	27
Organic Carbon (mg/L)		7.6	↑ 24.1	11.8	1 U	22	14	0.55	68
Biochemical Oxygen Demand (mg/L)		4 U	3 U	↓ 1 U	1.7	16	5.1	0.35	40
Chemical Oxygen Demand (mg/L)		29	54	40	9.6	100	43	1.8	68
Chloride (mg/L)		13.6	4.5	6.6	2 U	23	7.7	0.54	68
Turbidity (field) (NTU)		4.1	2.2	1.2	0	10	1.5	0.27	50
Tannin & Lignins (Tannic Acid) (mg/L)		1.5	5 U	2.5 U	0.8	5.4	3	0.12	68

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

Applicable Limits:
Chloride MFCCC=230 mg/L, Nickel MFCCC=0.0134 mg/L, Iron MFCCC=1 mg/L, Cadmium MFCCC=0.00008 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.

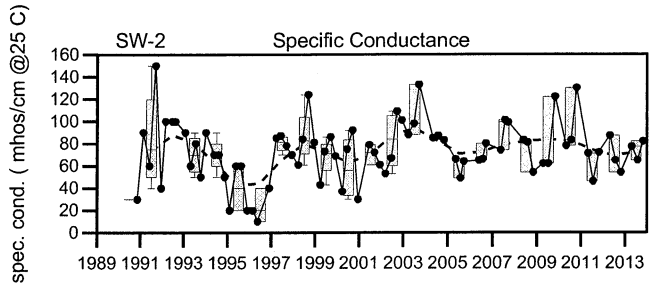
Comments

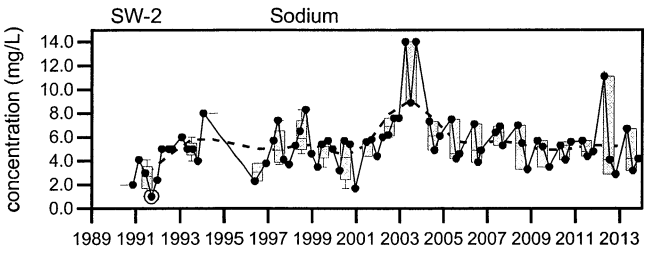
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed. April 2013 and October 2013 Cadmium results are non-detect above the laboratory reporting limit (0.00006U mg/l).

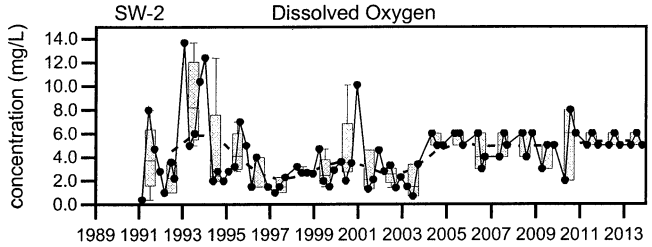
Data Group: 199

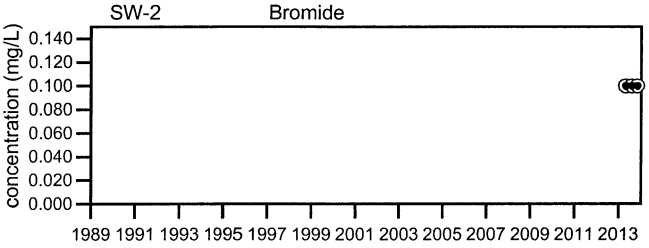
Printed: 3/18/2014 13:05

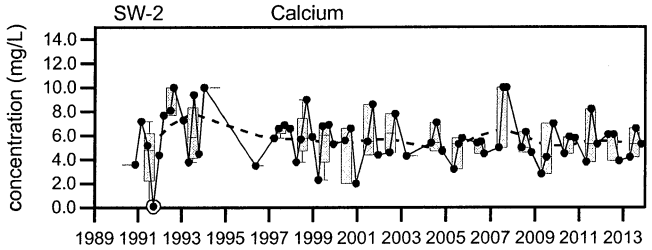
SME
Sewall & Maher Engineers, Inc.

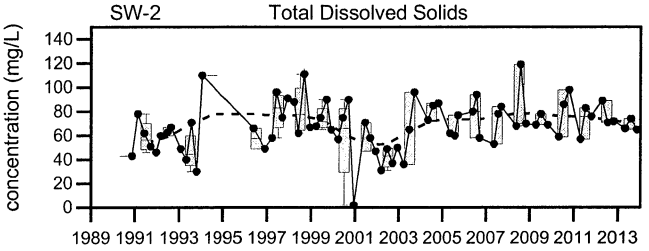


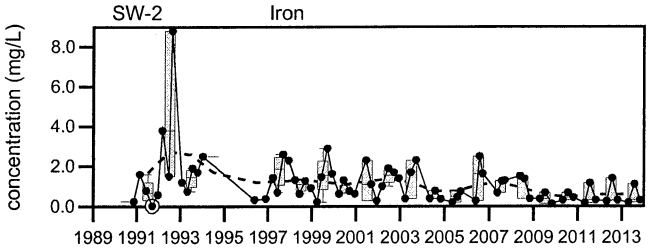


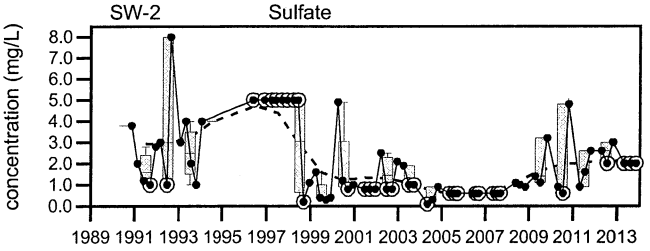


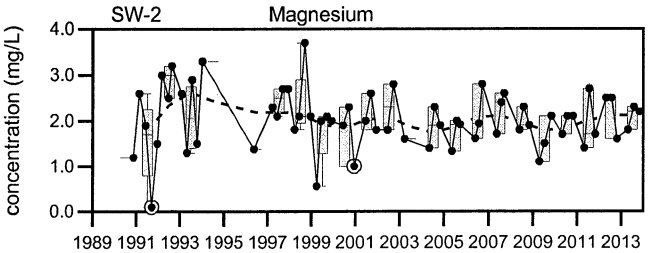


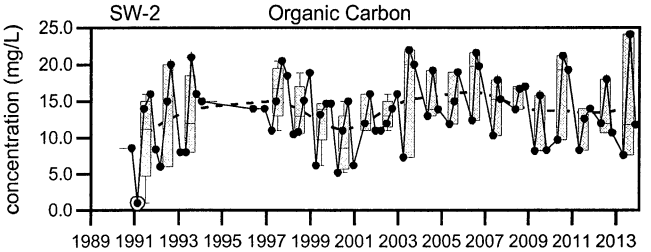


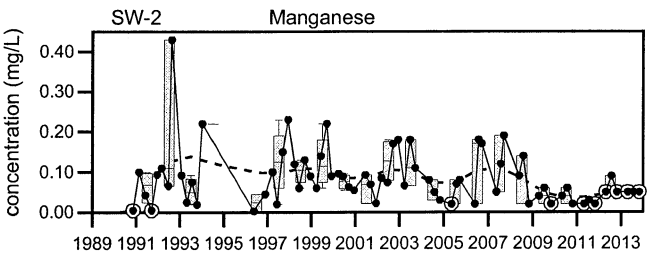


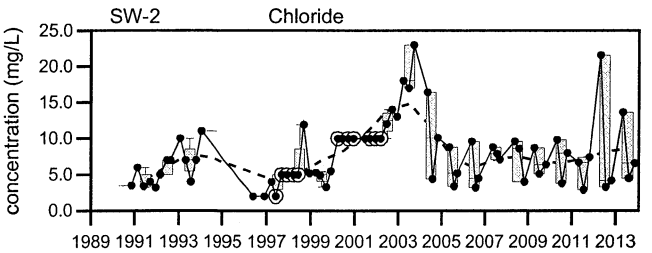


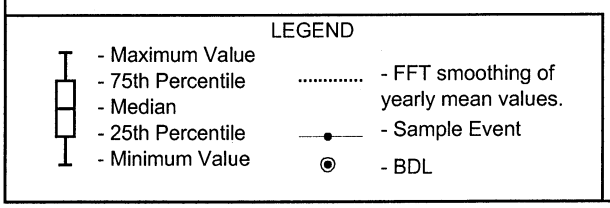












Juniper Ridge Landfill

SW-2

Sevee & Maher Engineers, Inc.

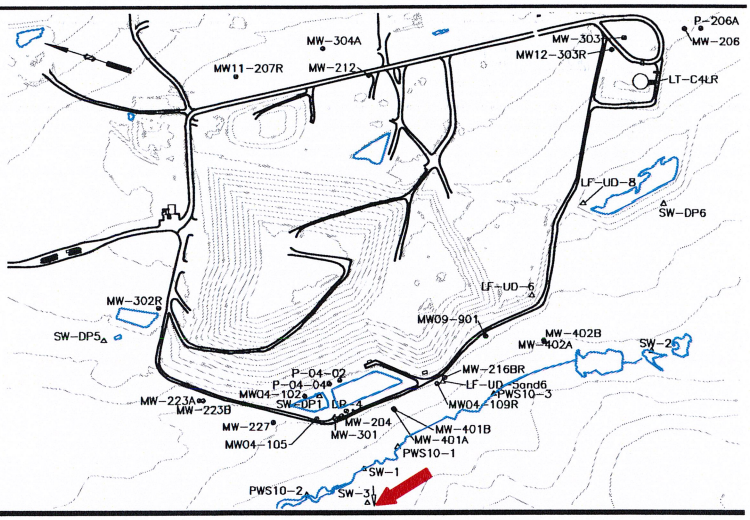
SW-3

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

SW-3 is located downgradient of the landfill and monitors surface water quality in an unnamed tributary of Pushaw Stream.



Sampled: **3 Times Annually**

Sampled Since: **05/26/94**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	SE	n
Dissolved Oxygen (mg/L)		6	6	4	1	12.1	5.5	± 0.32	59
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		71	81	108	20	151	79	± 3.5	60
pH (Standard Units)		6.5	7.9	7.7	5.4	8.2	6.6	± 0.07	60
Alkalinity (CaCO3) (field) (mg/L)		20	25	15	15	100	33	± 3.4	27
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.001 U	0.005	0.0026	± 0.000	27
Cadmium (mg/L)		0.00006	0.00006	0.00006	0.00002 U	0.0003	0.0016	± 0.000	33
Calcium (mg/L)		4.8	8.4	7.5	2.8	11.2	6.8	± 0.28	53
Iron (mg/L)		↓ 0.17	0.8	0.46	0.2	3.5	0.95	± 0.09	60
Magnesium (mg/L)		1.6	2.2	2.6	0.47	3.1	1.9	± 0.08	53
Manganese (mg/L)		0.05 U	0.07	0.05	0.004	1.3	0.15	± 0.03	60
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	0.003	0.0025	± 0.000	24
Potassium (mg/L)		0.7	0.3 U	0.5	0.2	1.6	0.68	± 0.07	27
Sodium (mg/L)		4.7	3.1	4.5	2.4	9.3	4.7	± 0.17	60
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.05 U	0.2	0.11	± 0.01	36
Phosphate Phosphorus (mg/L)		0.04 U	0.04 U	0.04 U	0.01 U	0.4	0.043	± 0.01	36
Total Dissolved Solids (mg/L)		56	67	74	31	210	72	± 3.3	60
Total Suspended Solids (mg/L)		4 U	5	4 U	4 U	16	4.8	± 0.5	27
Sulfate (mg/L)		3.1	2.4	2.7	0.4	35	3.9	± 0.65	60
Bicarbonate (CaCO3) (mg/L)		14.8	28	29	10	40	22	± 1.7	27
Organic Carbon (mg/L)		7	13.7	7.8	5.7	40	13	± 0.6	60
Biochemical Oxygen Demand (mg/L)		4 U	3 U	↓ 1 U	2 U	6 U	5.1	± 0.19	36
Chemical Oxygen Demand (mg/L)		27	39	26	18	61	36	± 1.2	60
Chloride (mg/L)		9.8	5.2	7.7	1 U	12	6	± 0.38	60
Turbidity (field) (NTU)		1.5	1.2	1.2	0	16	1.8	± 0.4	48
Tannin & Lignins (Tannic Acid) (mg/L)		1.3	1.6	1.5	0.5 U	4.7	2.2	± 0.09	60

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

Applicable Limits:
Chloride MFCCC=230 mg/L, Nickel MFCCC=0.0134 mg/L, Iron MFCCC=1 mg/L, Cadmium MFCCC=0.00008 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.

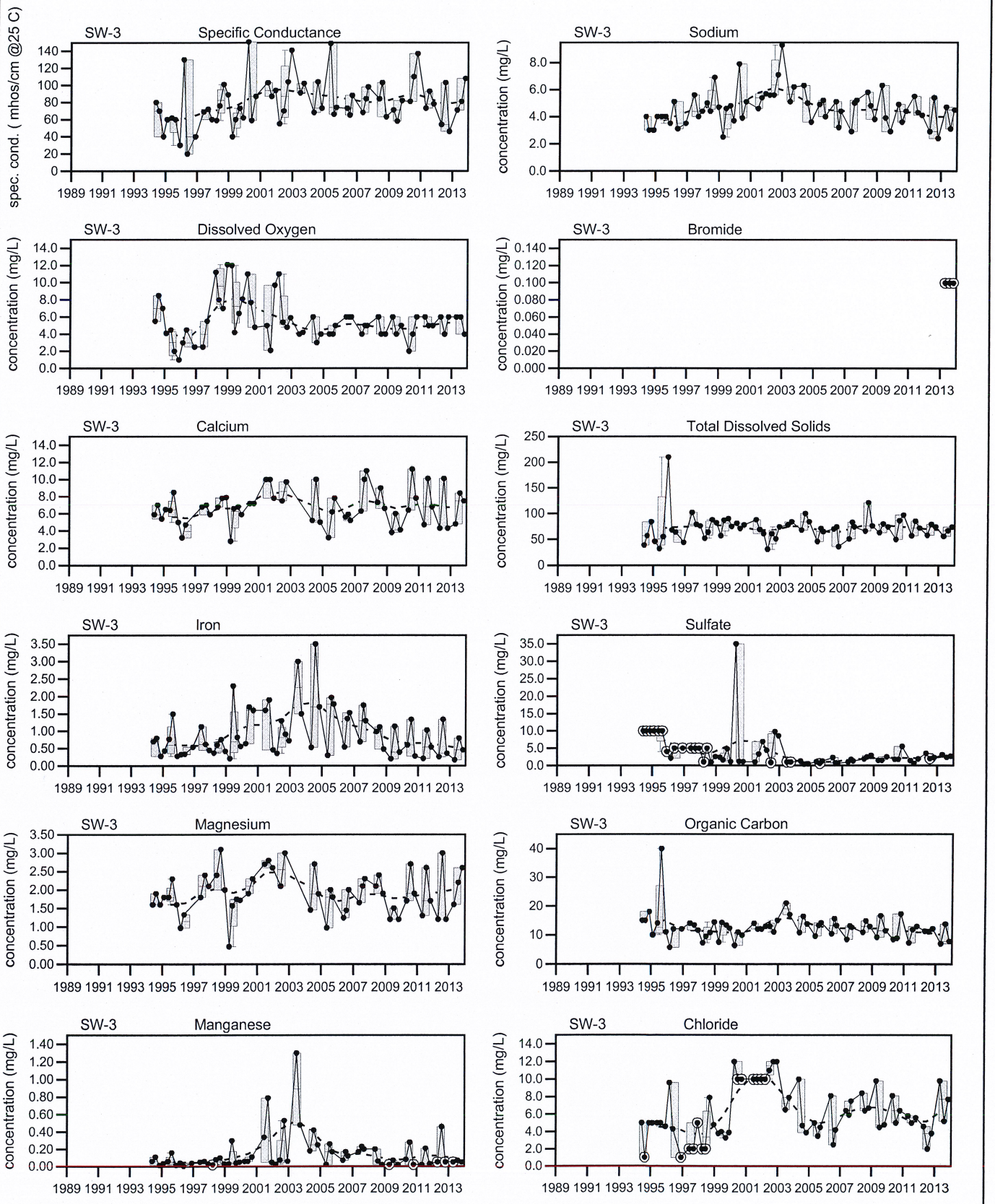
Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed. April 2013, July 2013, and October 2013 Cadmium results are non-detect above the laboratory reporting limit (0.00006U mg/l).

Data Group: 199

Printed: 3/20/2014 10:08

SME
Sewee & Maher Engineers, Inc.



Juniper Ridge Landfill

SW-3

Sevee & Maher Engineers, Inc.

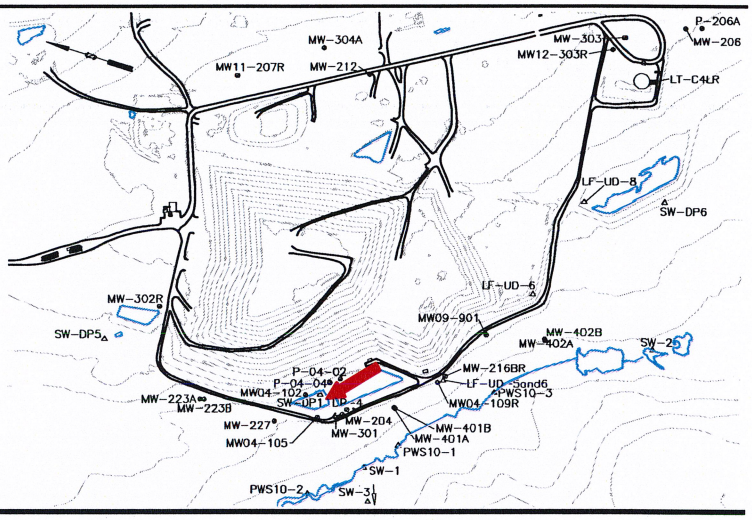
SW-DP1

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

SW-DP1 is located in Detention Pond #1 which is situated to the north of the leachate pond.



Sampled: **3 Times Annually**

Sampled Since: **05/03/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean ± SE	n
Dissolved Oxygen (mg/L)		6	6	6	0.8	8	5.7 ± 0.24	27
Bromide (mg/L)		0.13	0.1 U	0.1 U	No historical data for Bromide.			
Specific Conductance (µmhos/cm @25°C)		195	82	204	66	400	170 ± 14	27
pH (Standard Units)		7.3	6.7	7.4	6.3	9.4	7.6 ± 0.16	27
Alkalinity (CaCO3) (field) (mg/L)		↓ 20	30	↓ 20	25	175	64 ± 7.2	27
Arsenic (mg/L)		0.005	0.007	0.005	0.001 U	0.012	0.0033 ± 0.000	27
Cadmium (mg/L)		0.00006	0.00006	0.00006	0.00002 U	0.0008	0.0002 ± 5E-05	24
Calcium (mg/L)		27.8	11	24.2	10.4	40	21 ± 1.5	27
Iron (mg/L)		0.42	0.27	0.24	0.05	2.94	0.52 ± 0.13	27
Magnesium (mg/L)		3.4	↓ 1.1	3.6	1.4	7.6	3.3 ± 0.31	27
Manganese (mg/L)		0.13	0.1	0.21	0.02	0.88	0.097 ± 0.03	27
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	0.005	0.0025 ± 0.000	24
Potassium (mg/L)		2.7	0.9	1.8	0.4	25	3.6 ± 1	27
Sodium (mg/L)		4.9	1.4	3.5	1.2	25	5.4 ± 0.96	27
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.1 U	0.1	0.12 ± 0.01	27
Phosphate Phosphorus (mg/L)		0.06	0.04 U	0.04	0.01 U	0.15	0.047 ± 0.008	27
Total Dissolved Solids (mg/L)		118	55	90	51	262	110 ± 8.9	27
Total Suspended Solids (mg/L)		12	4 U	12	4 U	115	14 ± 4.7	27
Sulfate (mg/L)		27.4	7.2	9.1	0.2	30	9.7 ± 1.1	27
Bicarbonate (CaCO3) (mg/L)		57	27	69	16	170	59 ± 6.7	27
Organic Carbon (mg/L)		↓ 2 U	2.6	2.8	2.2	13.3	4.8 ± 0.6	27
Chemical Oxygen Demand (mg/L)		10 U	10 U	13	3	45	14 ± 2	27
Chloride (mg/L)		↑ 15.2	4.4	5.5	1.5	12.5	5.9 ± 0.6	27
Turbidity (field) (NTU)		3.1	0.7	1.6	0	28.1	5.2 ± 1.3	27
Tannin & Lignins (Tannic Acid) (mg/L)		0.4 U	0.4 U	0.2 U	0.2 U	2	0.5 ± 0.08	27

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

Applicable Limits:
Chloride MFCCC=230 mg/L, Nickel MFCCC=0.0134 mg/L, Iron MFCCC=1 mg/L, Cadmium MFCCC=0.00008 mg/L, Arsenic MFCCC=0.15 mg/L

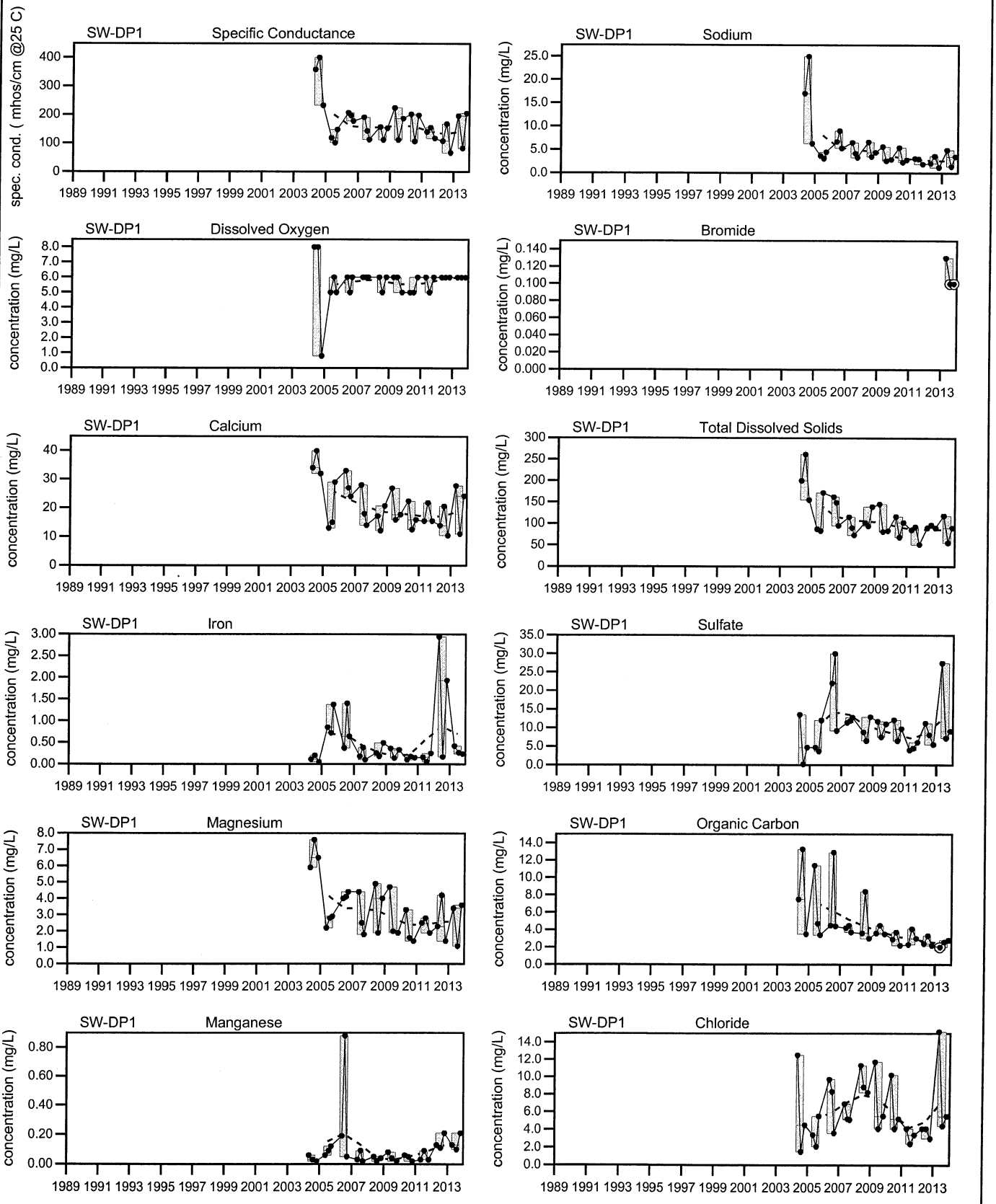
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed. April 2013 and October 2013 Cadmium results are non-detect above the laboratory reporting limit (0.00006U mg/l).

Data Group: 199
Printed: 3/18/2014 13:05

SME Sevee & Maher Engineers, Inc.



Juniper Ridge Landfill

SW-DP1

Sevee & Maher Engineers, Inc.

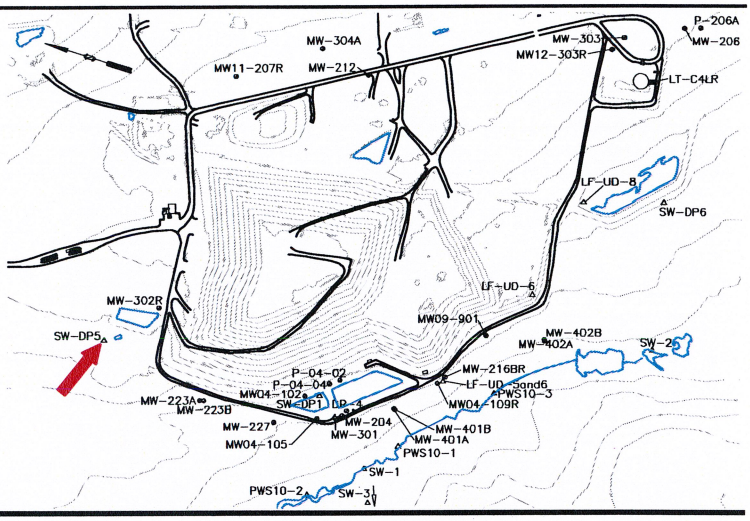
SW-DP5

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

Sample collected from outfall on the west side of detention pond number five.



Screen Interval:

Sampled: **3 Times Annually**

Sampled Since: **4/23/2013**

Material Screened:

Well Condition: **Good**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)		6	6	D	No historical data for Dissolved Oxygen.				
Bromide (mg/L)		0.1 U	0.1 U	D	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)		162	150	D	No historical data for Specific Conductance.				
pH (Standard Units)		7.6	8	D	No historical data for pH.				
Alkalinity (CaCO3) (field) (mg/L)		20	50	D	No historical data for Alkalinity (CaCO3) (field).				
Arsenic (mg/L)		0.005 U	0.006	D	No historical data for Arsenic.				
Cadmium (mg/L)		0.00006	0.00007	D	No historical data for Cadmium.				
Calcium (mg/L)		22.4	14.4	D	No historical data for Calcium.				
Iron (mg/L)		0.32	0.33	D	No historical data for Iron.				
Magnesium (mg/L)		1.8	0.8	D	No historical data for Magnesium.				
Manganese (mg/L)		0.06	0.05 U	D	No historical data for Manganese.				
Nickel (mg/L)		0.005 U	0.005 U	D	No historical data for Nickel.				
Potassium (mg/L)		1.9	1	D	No historical data for Potassium.				
Sodium (mg/L)		4.7	1.9	D	No historical data for Sodium.				
Nitrate (N) (mg/L)		0.3 U	0.3 U	D	No historical data for Nitrate (N).				
Phosphate Phosphorus (mg/L)		0.06	0.05	D	No historical data for Phosphate Phosphorus.				
Total Dissolved Solids (mg/L)		110	71	D	No historical data for Total Dissolved Solids.				
Total Suspended Solids (mg/L)		7	5	D	No historical data for Total Suspended Solids.				
Sulfate (mg/L)		32.1	12.3	D	No historical data for Sulfate.				
Bicarbonate (CaCO3) (mg/L)		37	9	D	No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)		2 U	4.8	D	No historical data for Organic Carbon.				
Chemical Oxygen Demand (mg/L)		10 U	21	D	No historical data for Chemical Oxygen Demand.				
Chloride (mg/L)		10.7	2.3	D	No historical data for Chloride.				
Turbidity (field) (NTU)		2.6	1.5	D	No historical data for Turbidity (field).				
Tannin & Lignins (Tannic Acid) (mg/L)		0.4 U	0.5 U	D	No historical data for Tannin & Lignins (Tannic Acid).				

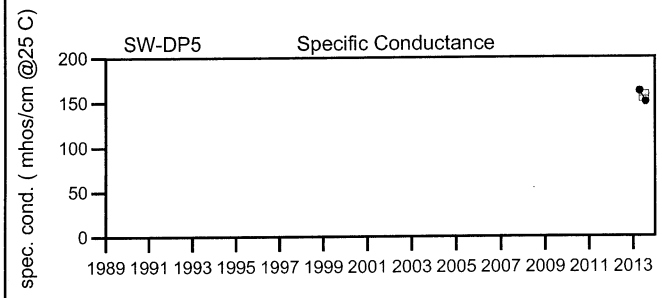
underlined/bold - values exceed a regulatory standard listed below.

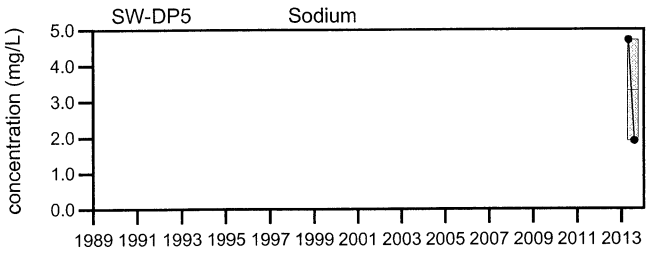
Applicable Limits:
Nitrate (N) MCL=10 mg/L, MEG12=10 mg/L, Sodium MEG12=20 mg/L, Nickel MEG12=0.02 mg/L, Manganese MEG12=0.5 mg/L, Iron MEG12=5 mg/L, Cadmium MCL=0.005 mg/L, MEG12=0.001 mg/L, Arsenic MCL=0.01 mg/L, MEG12=0.01 mg/L

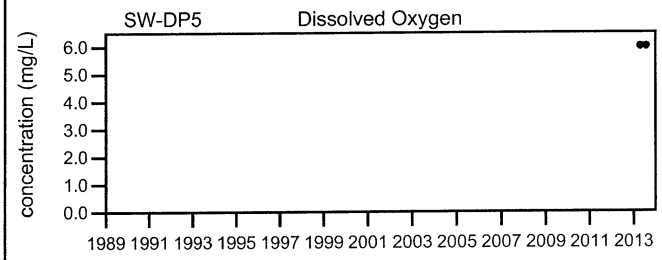
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

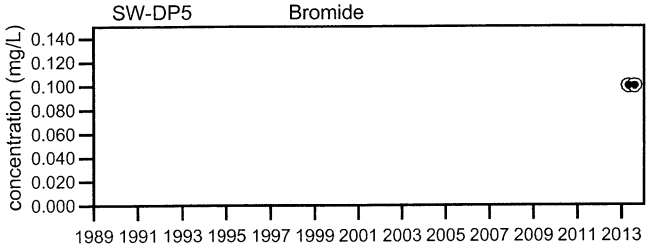
Comments

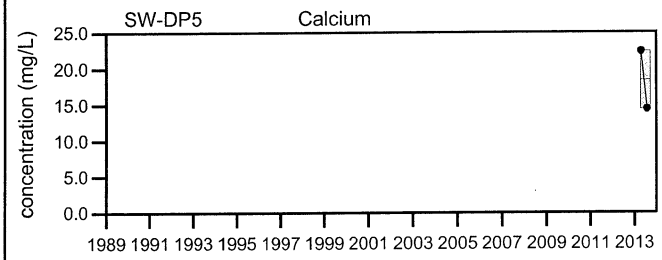
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed. In April 2013 Cadmium results are non-detect above the laboratory reporting limit (0.00006U mg/l).

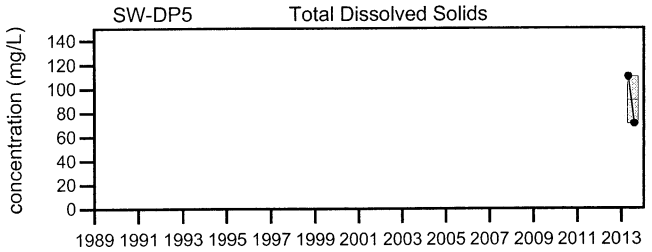


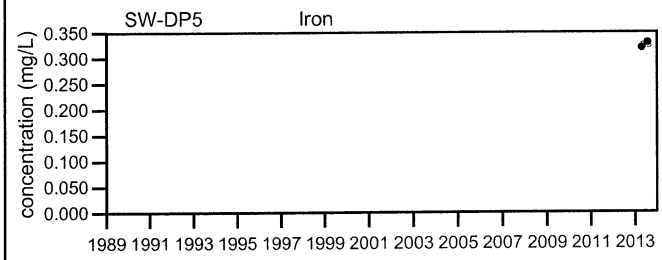


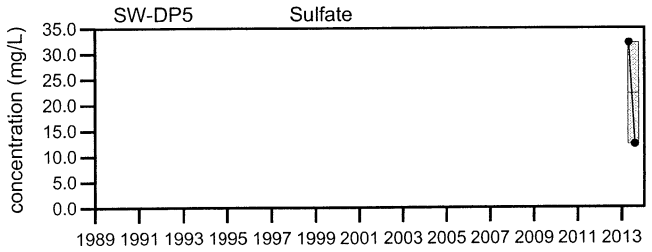


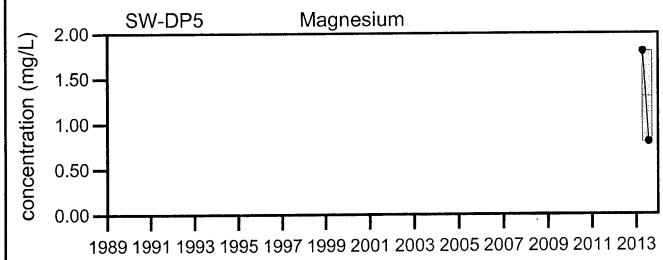


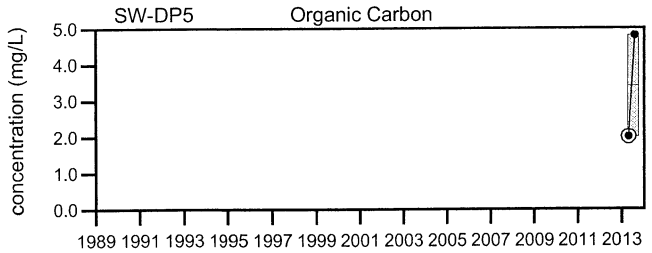


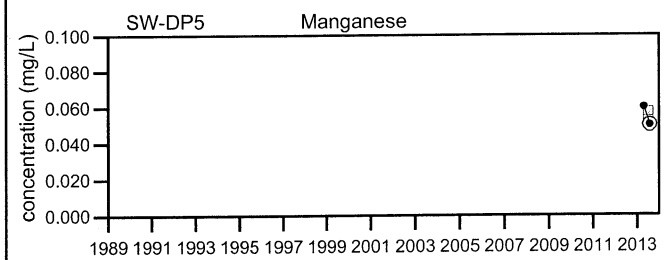


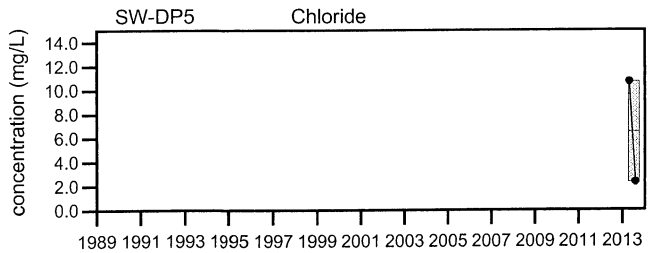


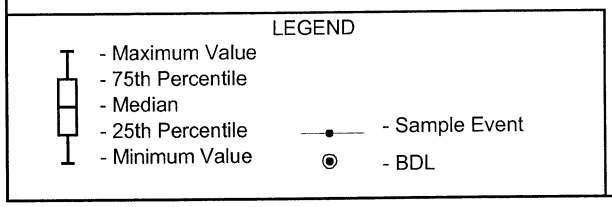












Juniper Ridge Landfill

SW-DP5

Sevee & Maher Engineers, Inc.

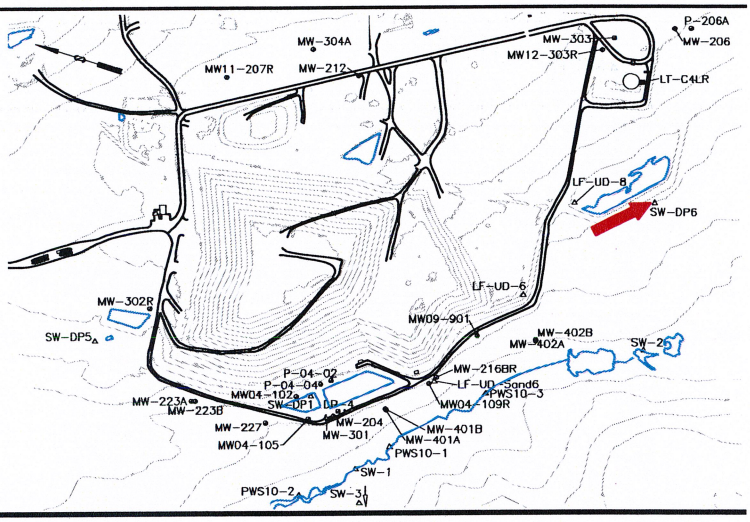
SW-DP6

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

SW-DP6 is located in Detention Pond #6, which is situated to the south of the landfill and west of the leachate storage tank.



Sampled: **3 Times Annually**

Sampled Since: **10/27/2009**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean ± SE	n
Dissolved Oxygen (mg/L)		6	6	5	5	to 6	5.6 ± 0.16	10
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.			
Specific Conductance (µmhos/cm @25°C)		↓ 62	87	113	65	to 427	220 ± 35	10
pH (Standard Units)		6.6	7	7.3	6.3	to 7.5	7 ± 0.16	10
Alkalinity (CaCO3) (field) (mg/L)		15	25	25	15	to 100	56 ± 11	9
Arsenic (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to 0.011	0.0051 ± 0.001	10
Cadmium (mg/L)		↑ 0.00006	↑ 0.00006	↑ 0.00006	0.00002 U	to 0.00002	3.2E-05 ± 6E-06	10
Calcium (mg/L)		↓ 5.6	10.2	10.6	6.6	to 63.3	25 ± 5.4	10
Iron (mg/L)		**1.39**	0.31	0.23	0.1	to 3.05	1.1 ± 0.34	10
Magnesium (mg/L)		↓ 1.3	↓ 1.4	↓ 1.6	1.9	to 7.3	3.2 ± 0.53	10
Manganese (mg/L)		0.05	0.05	0.05 U	0.05 U	to 0.96	0.27 ± 0.11	10
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to 0.005	0.0031 ± 0.000	10
Potassium (mg/L)		1.6	↓ 1.1	↓ 1.1	1.5	to 3.4	2.3 ± 0.21	10
Sodium (mg/L)		3	1.8	1.9	1.4	to 7.5	4.6 ± 0.69	10
Nitrate (N) (mg/L)		↑ 0.3 U	↑ 0.3 U	↑ 0.3 U	0.1 U	to 0.1	0.17 ± 0.03	10
Phosphate Phosphorus (mg/L)		0.07	0.04 U	0.04	0.03	to 0.14	0.07 ± 0.01	10
Total Dissolved Solids (mg/L)		↓ 60	↓ 73	↓ 71	81	to 323	150 ± 23	10
Total Suspended Solids (mg/L)		35	4	4 U	4 U	to 54	14 ± 5.2	10
Sulfate (mg/L)		10.7	20.4	23.2	3.9	to 155	31 ± 14	10
Bicarbonate (CaCO3) (mg/L)		↓ 7.8	↓ 13.1	↓ 12.6	16.8	to 75	43 ± 7.1	10
Organic Carbon (mg/L)		4.4	4.9	3.8	3.1	to 11.9	6.5 ± 1	10
Chemical Oxygen Demand (mg/L)		16	15	15	8	to 37	20 ± 3.3	10
Chloride (mg/L)		7	4.6	4.9	1.1	to 22.3	12 ± 2.4	10
Turbidity (field) (NTU)		3.2	0.8	0.6	0	to 12	4.5 ± 1.1	10
Tannin & Lignins (Tannic Acid) (mg/L)		0.4	0.5 U	0.4 U	0.31	to 0.93	0.78 ± 0.2	10

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

Applicable Limits:
Chloride MFCCC=230 mg/L, Nickel MFCCC=0.0134 mg/L, Iron MFCCC=1 mg/L, Cadmium MFCCC=0.00008 mg/L, Arsenic MFCCC=0.15 mg/L

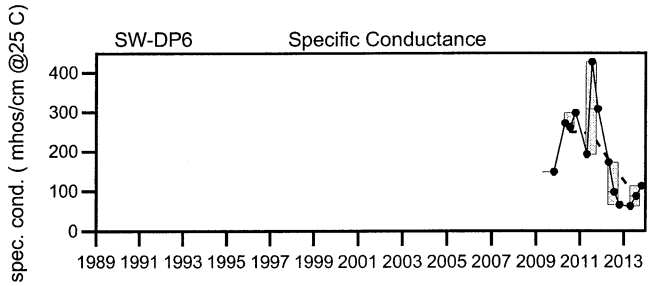
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

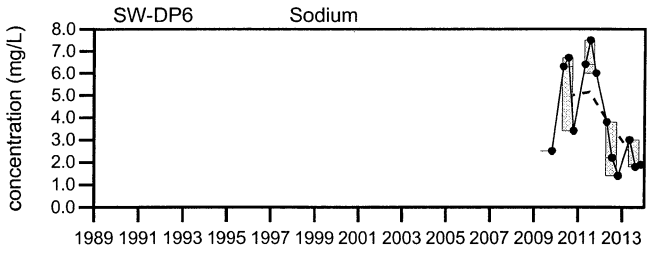
Comments

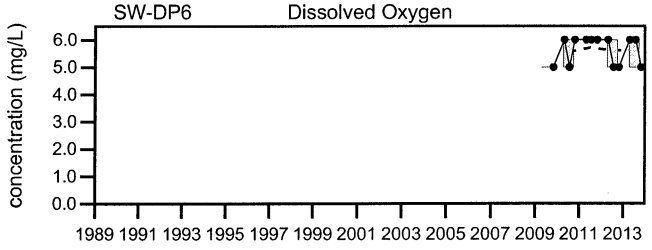
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed != the sampling location was damaged or destroyed. April 2013, July 2013, and October 2013 Cadmium results are non-detect above the laboratory reporting limit (0.00006U mg/l).

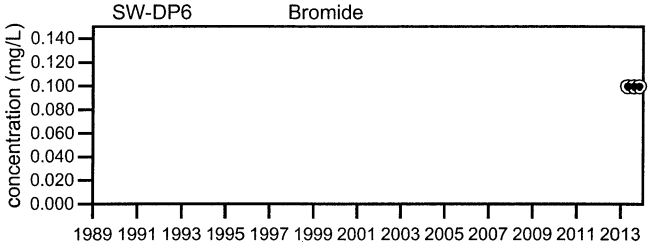
Data Group: 199
Printed: 3/20/2014 10:08

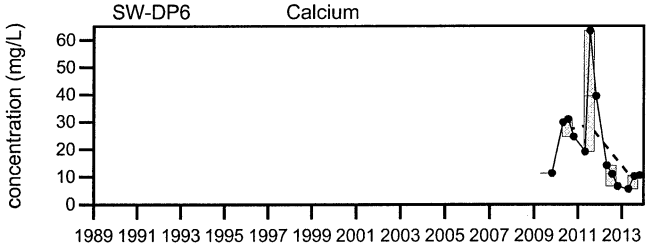
SME
Sevee & Maher Engineers, Inc.

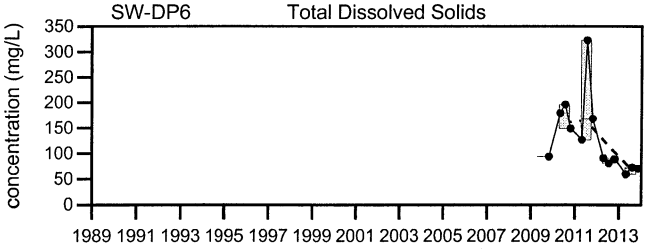


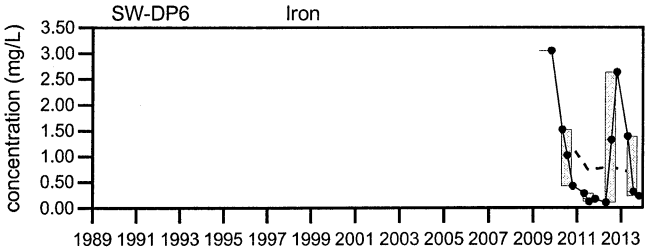


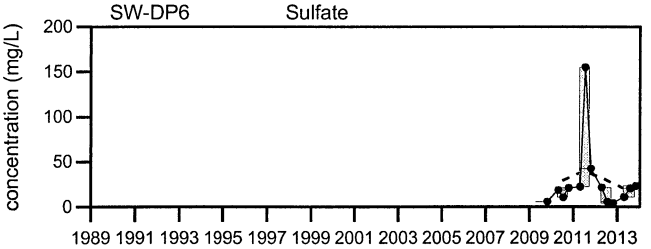


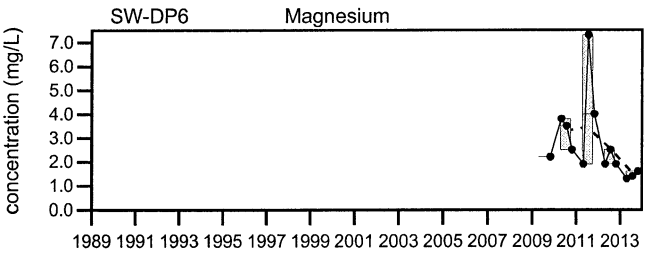


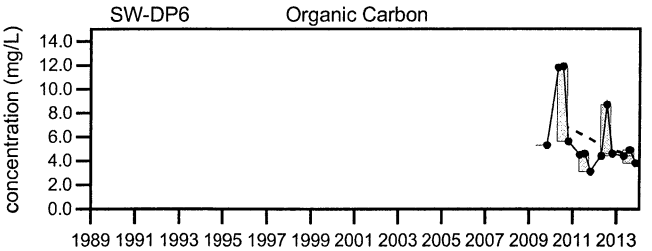


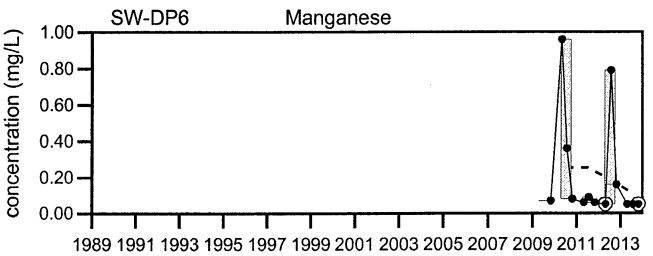


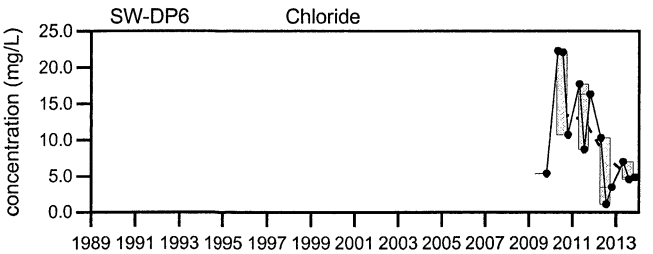


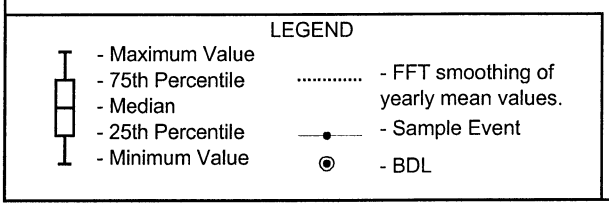












Juniper Ridge Landfill

SW-DP6

Sevee & Maher Engineers, Inc.

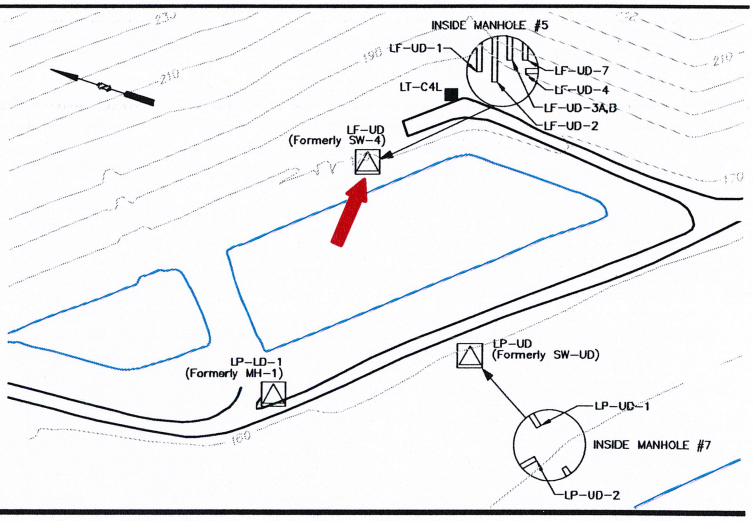
LF-COMP

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

Manhole #5 composite sample



Sampled:

Sampled Since: **See comments below**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	n
Dissolved Oxygen (mg/L)	7	8	8	8	4	8	5.9	0.3	16
Specific Conductance (µmhos/cm @25°C)	306	294	397	370	223	421	360	12	17
pH (Standard Units)	7.5	↑ 8	↑ 8.1	↑ 8.4	6.8	7.7	7.2	0.07	17
Alkalinity (CaCO3) (field) (mg/L)	145	↑ 170	150	↑ 185	80	150	120	5.9	17
Turbidity (field) (NTU)	9.85	0.74	1.48	5.86	0	129.3	11	7.6	17

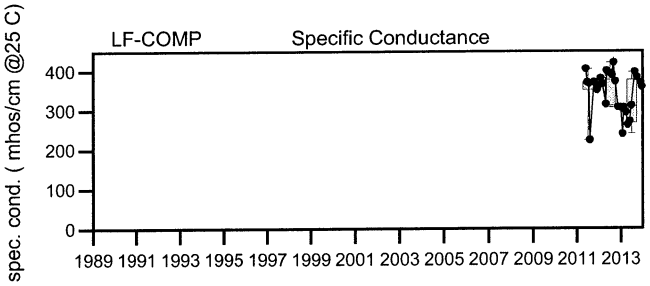
underlined/bold - values exceed a regulatory standard listed below.

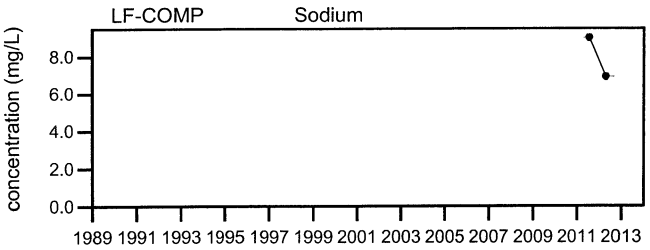
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

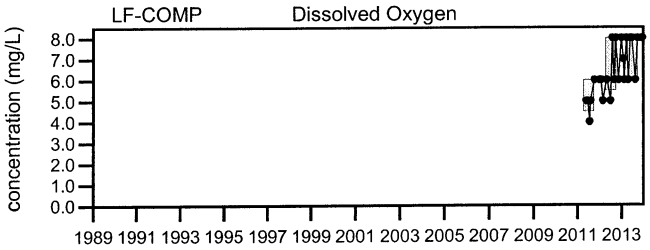
Comments

This location is monitored monthly for field parameters only when the water level is higher than the LF sample location pipes in Manhole #5.

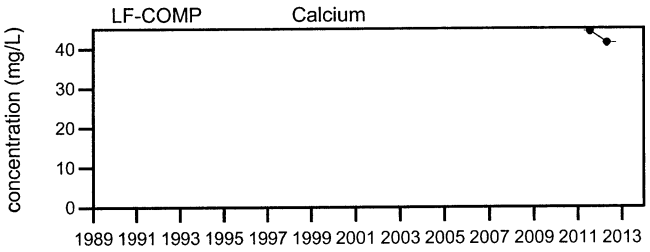
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow.

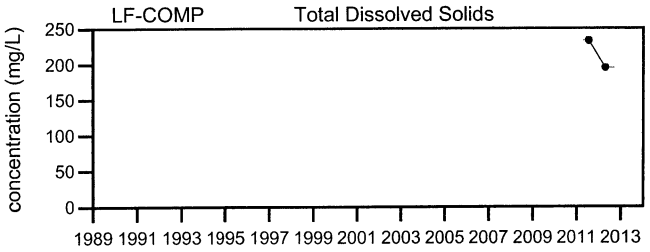


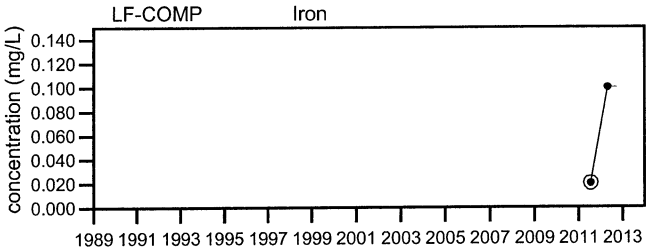


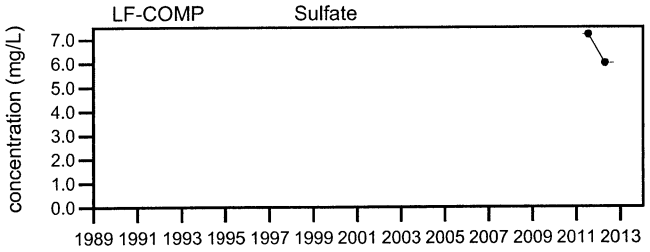


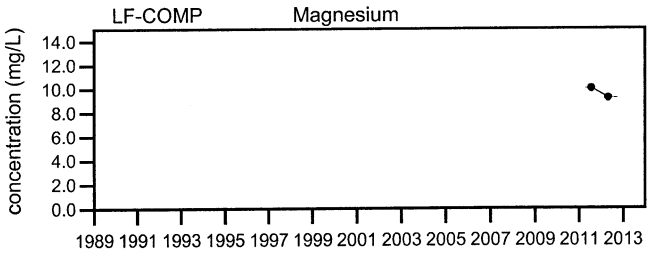
No data for Bromide at LF-COMP

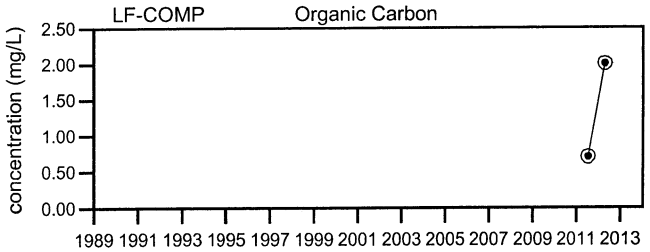


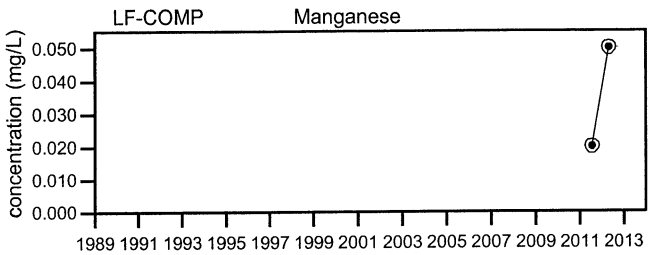


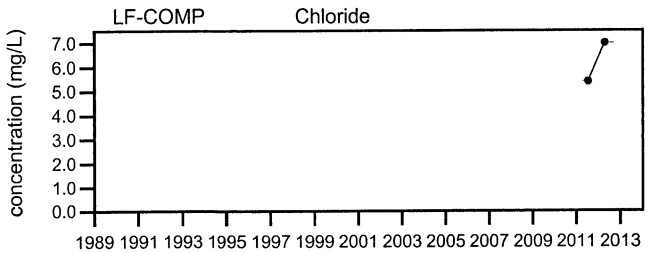


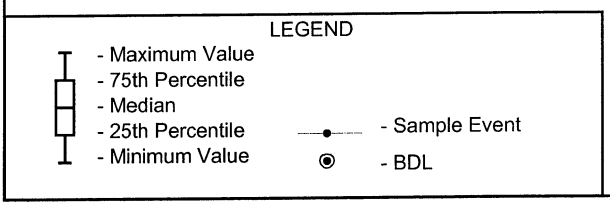












Juniper Ridge Landfill

LF-COMP

Sevee & Maher Engineers, Inc.

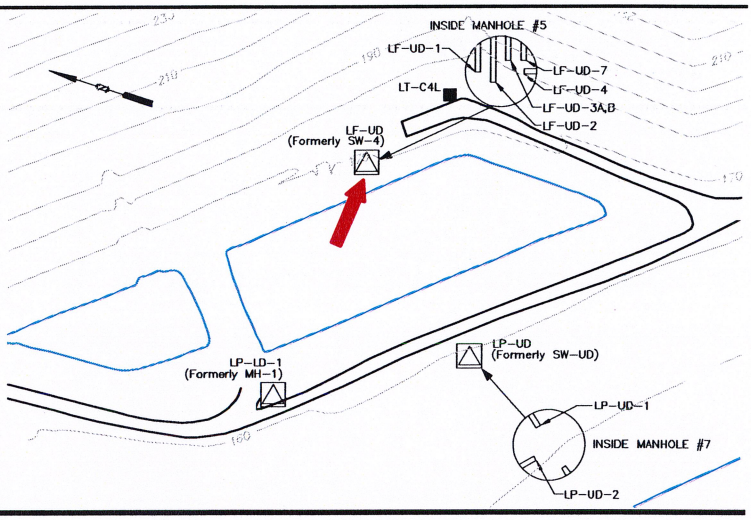
LF-UD-1

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

LF-UD-1 monitors the landfill underdrain from Cell #1 at Manhole #5.



Sampled: **Monthly & 3 Times Annually**

Sampled Since: **07/28/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min		Historical Max	Historical Mean	±	SE	n
Dissolved Oxygen (mg/L)	6	8	8	↑ 10	2	to	8	5.7	±	0.13	77
Bromide (mg/L)		0.16	0.14	F6	No historical data for Bromide.						
Specific Conductance (µmhos/cm @25°C)	298	358	362	317	102	to	611	310	±	9	77
pH (Standard Units)	7.5	8.1	7.9	7.5	6.3	to	8.3	7.2	±	0.06	77
Alkalinity (CaCO3) (field) (mg/L)	145	150	175	160	75	to	485	140	±	6.4	77
Arsenic (mg/L)		0.012	↑ 0.015	F6	0.001	to	0.014	0.0039	±	0.000	19
Cadmium (mg/L)		0.0006 U	0.0006 U	F6	0.0002 U	to	0.001	0.00036	±	7E-05	17
Calcium (mg/L)		44.4	49.7	F6	25	to	53.6	38	±	1.8	19
Iron (mg/L)		0.05 U	0.05 U	F6	0.02 U	to	0.3	0.046	±	0.02	19
Magnesium (mg/L)		10.5	10.8	F6	7.4	to	12.2	9.6	±	0.31	19
Manganese (mg/L)		↑ 0.05 U	↑ 0.05 U	F6	0.02 U	to	0.02	0.022	±	0.002	19
Nickel (mg/L)		0.005 U	0.005 U	F6	0.002 U	to	0.01	0.0028	±	0.000	17
Potassium (mg/L)		3.7	3.2	F6	1.8	to	4.1	2.6	±	0.16	19
Sodium (mg/L)		7.9	7.1	F6	5.8	to	9.4	7.8	±	0.24	19
Nitrate (N) (mg/L)		0.3 U	0.4	F6	0.1	to	0.6	0.31	±	0.03	19
Phosphate Phosphorus (mg/L)		0.04 U	0.04 U	F6	0.01 U	to	0.05	0.017	±	0.002	19
Total Dissolved Solids (mg/L)		230	232	F6	130	to	232	180	±	6.4	19
Total Suspended Solids (mg/L)		4	4 U	F6	4 U	to	40	6.4	±	1.9	19
Sulfate (mg/L)		7.8	9.9	F6	4.1	to	11	7.1	±	0.4	19
Bicarbonate (CaCO3) (mg/L)		164	156	F6	110	to	175	140	±	5.6	19
Organic Carbon (mg/L)		2 U	2 U	F6	0.5 U	to	6.4	1.9	±	0.31	19
Chemical Oxygen Demand (mg/L)		10 U	10 U	F6	3 U	to	14	4.6	±	0.71	19
Chloride (mg/L)		↑ 11.5	↑ 22.5	F6	1.9	to	7.7	3.6	±	0.3	19
Turbidity (field) (NTU)	0.7	1.1	0.9	3.52	0	to	4.9	1.2	±	0.14	77
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	F6	0.2 U	to	0.21	0.24	±	0.04	19

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

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow.

Data Group: 199

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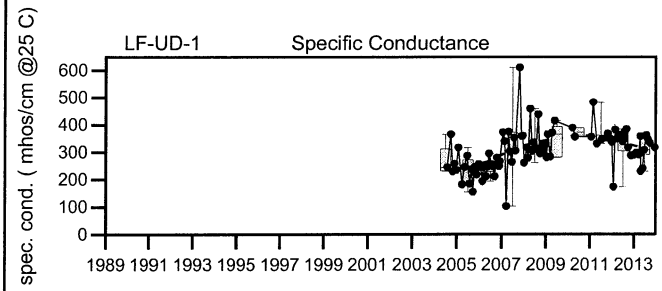
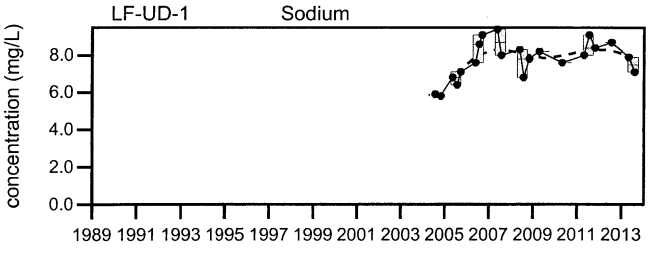
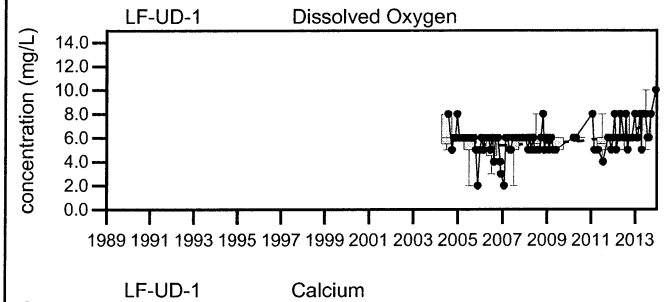
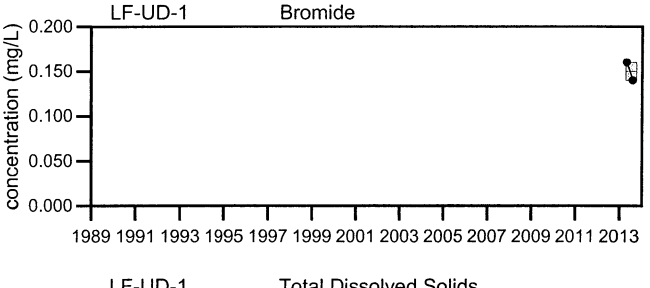
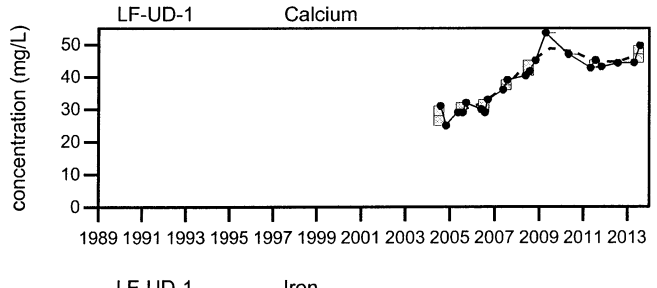
SME
Sevee & Maher Engineers, Inc.

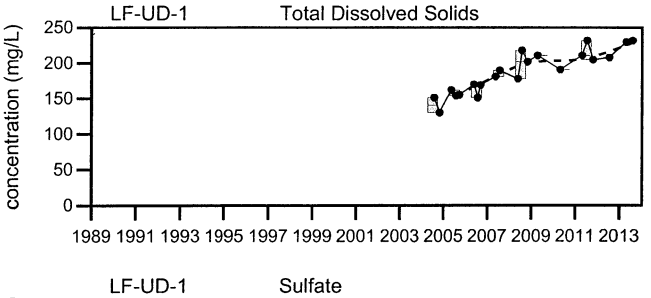


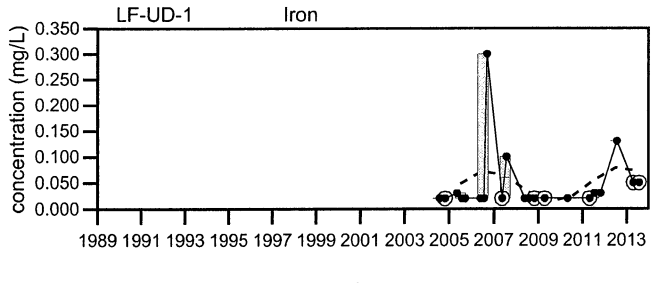


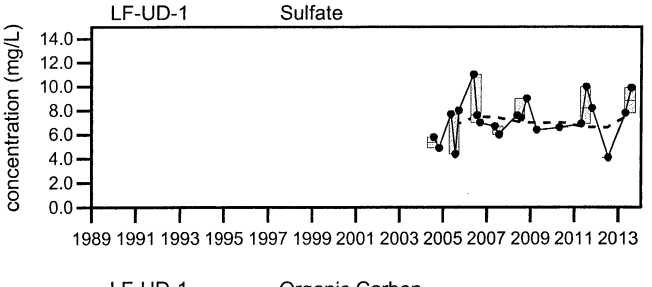


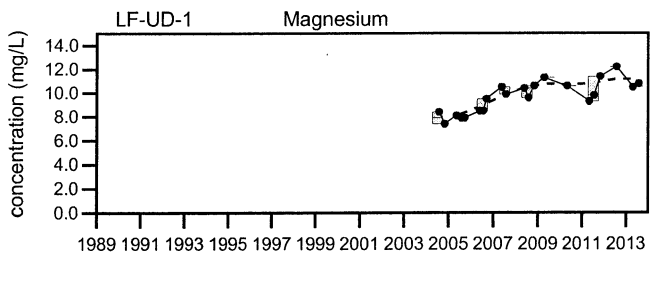


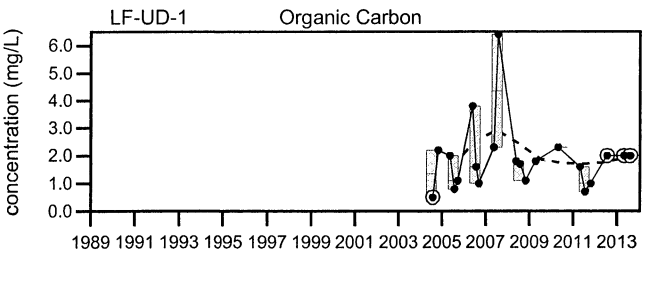


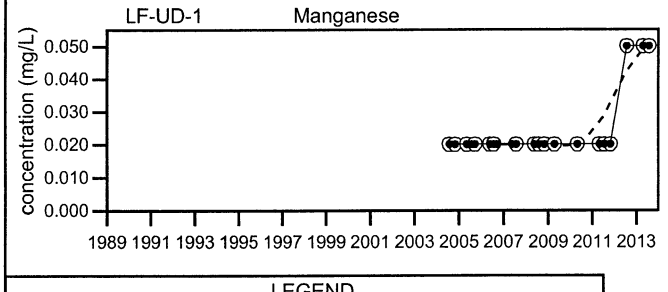


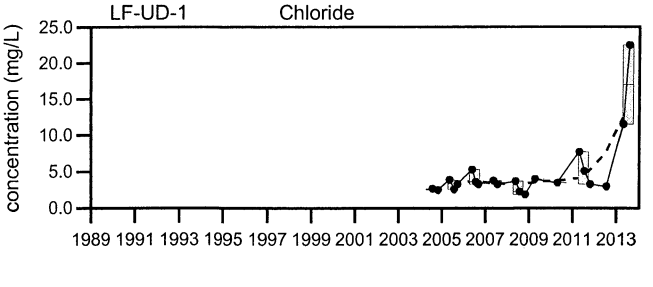


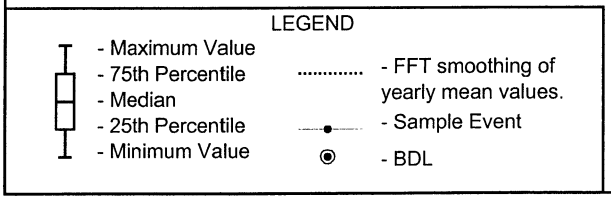












Juniper Ridge Landfill

LF-UD-1

Sevee & Maher Engineers, Inc.

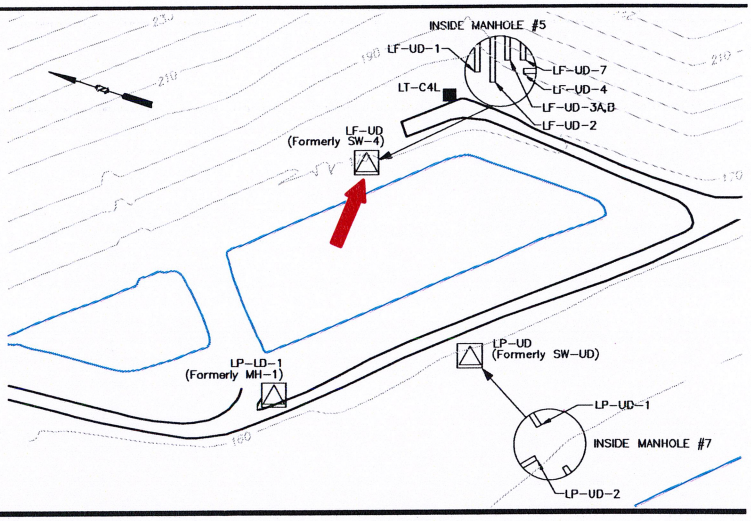
LF-UD-2

Juniper Ridge Landfill

annual stats 2013 minus leachate

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

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	n
Dissolved Oxygen (mg/L)	6	8	8	8	2	9	5.7	0.11	90
Bromide (mg/L)		0.19	0.12	0.18	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)	277	304	348	404	134	709	280	8.2	91
pH (Standard Units)	7.7	8.2	8.2	↑ 8.4	6	8.3	7.5	0.06	91
Alkalinity (CaCO3) (field) (mg/L)	85	90	135	150	35	350	120	4.5	91
Arsenic (mg/L)		0.011	0.012	0.008	0.001 U	0.014	0.0047	0.000	23
Cadmium (mg/L)		↑ 0.0006 U	↑ 0.0006 U	↑ 0.0006 U	0.0002 U	0.0005	0.00031	5E-05	21
Calcium (mg/L)		36.3	40.3	50.5	20	64.3	34	2	23
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	0.18	0.039	0.008	23
Magnesium (mg/L)		9.6	10.3	10.7	6.1	12.3	8.6	0.32	23
Manganese (mg/L)		↑ 0.05 U	↑ 0.05 U	↑ 0.05 U	0.02 U	0.02	0.023	0.002	23
Nickel (mg/L)		↑ 0.005 U	↑ 0.005 U	↑ 0.005 U	0.002 U	0.002	0.0023	0.000	21
Potassium (mg/L)		3	2.6	3.4	1.9	5	2.7	0.14	23
Sodium (mg/L)		6.8	6.2	7.3	5.2	18.1	6.6	0.56	23
Nitrate (N) (mg/L)		0.3 U	0.4	0.4	0.1 U	0.4	0.25	0.02	23
Phosphate Phosphorus (mg/L)		0.04 U	0.04 U	0.04 U	0.01 U	0.66	0.048	0.03	23
Total Dissolved Solids (mg/L)		207	208	228	132	290	170	7.7	23
Total Suspended Solids (mg/L)		4 U	4 U	12	4 U	39	6.9	2	23
Sulfate (mg/L)		4.6	4.8	9.9	2 U	17.5	4.6	0.8	23
Bicarbonate (CaCO3) (mg/L)		134	127	162	92	213	130	5.4	23
Organic Carbon (mg/L)		2 U	2 U	2 U	0.6	12	1.7	0.48	23
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U	↑ 10 U	3 U	7	4.1	0.45	23
Chloride (mg/L)		↑ 18.5	↑ 35.2	↑ 15.3	1.7	12.6	4.2	0.58	23
Turbidity (field) (NTU)	4.1	1	0.63	1.48	0	8.5	1.1	0.16	91
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	0.3	0.2	0.004	23

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

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Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

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Data Group: 199
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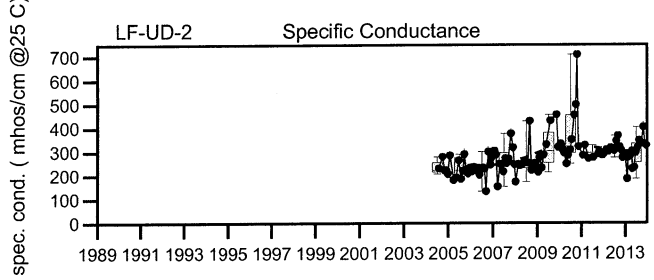
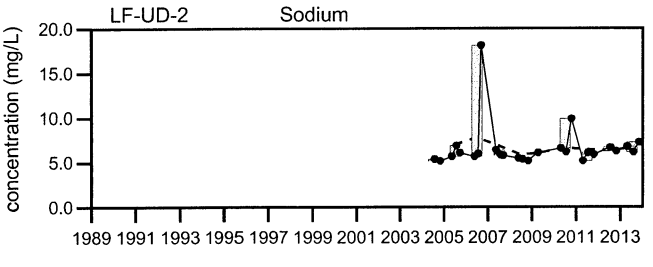
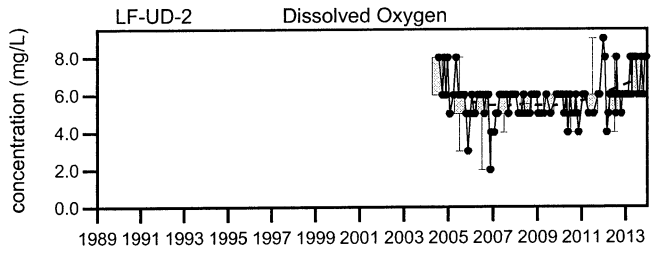
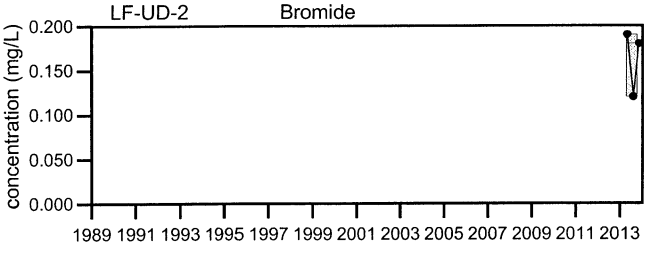
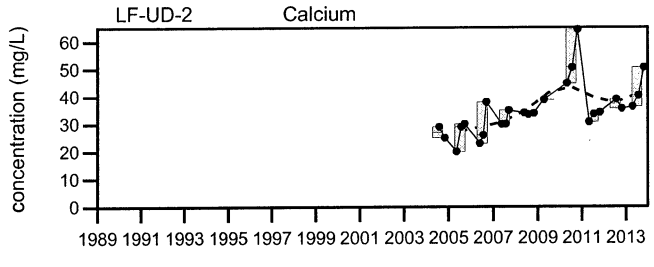
Sevee & Maher Engineers, Inc.

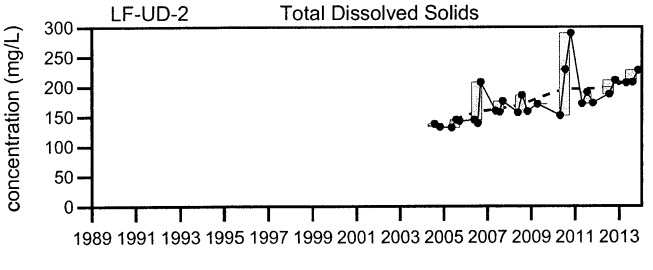


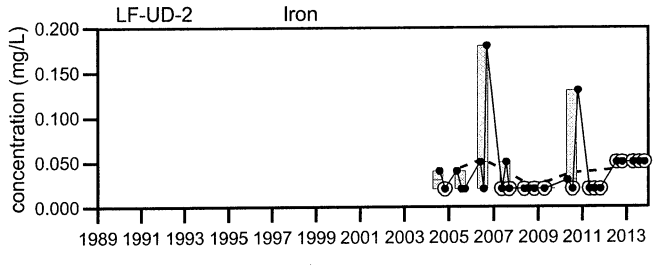


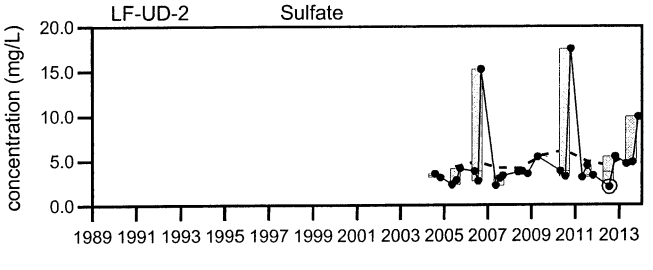


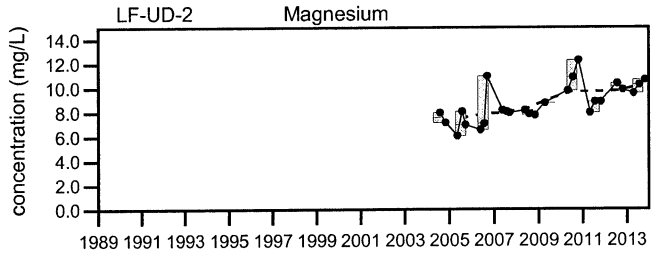


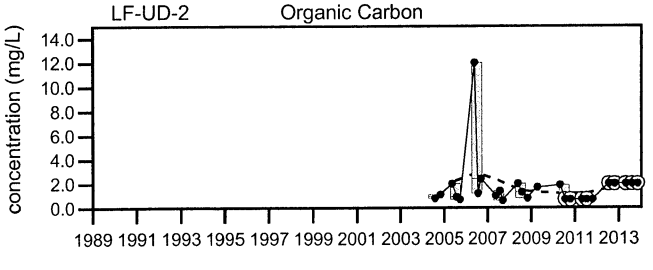


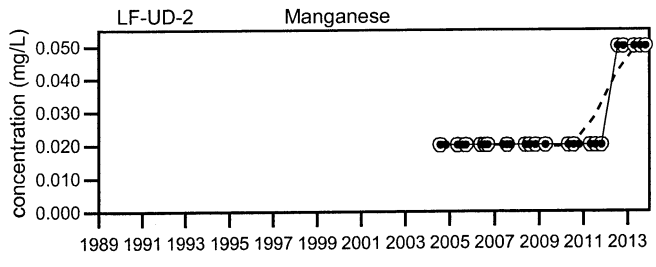


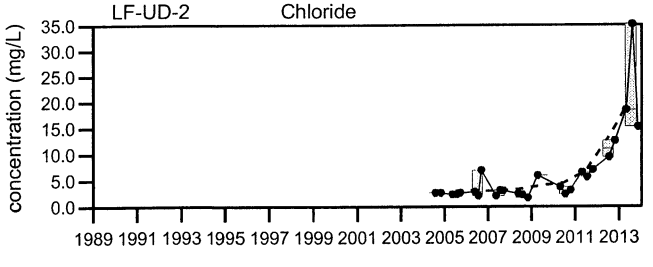


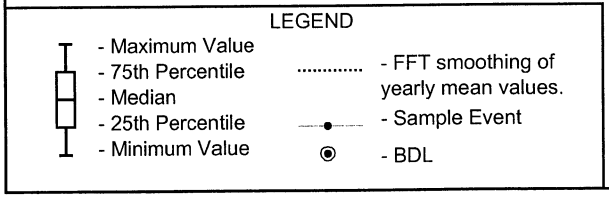












Juniper Ridge Landfill

LF-UD-2

Sevee & Maher Engineers, Inc.

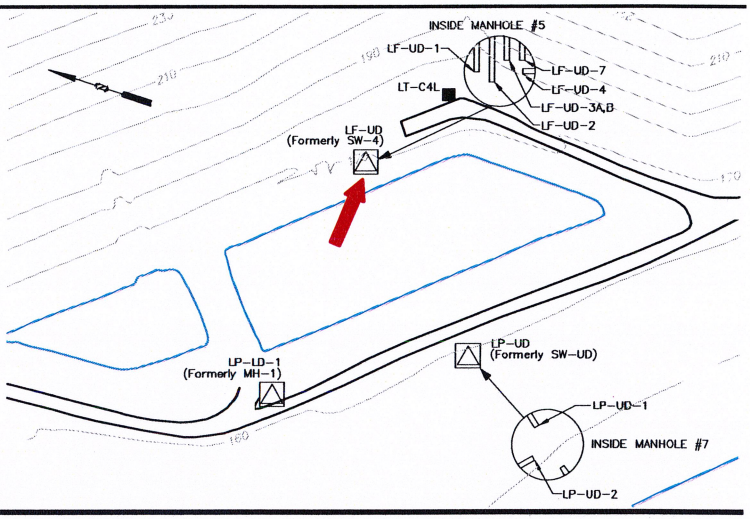
LF-UD-3A,B

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

LF-UD-3A, B monitors the landfill underdrains from cell 3A and cell 3B at Manhole #5.



Sampled: **3 Times Annually**

Sampled Since: **July 2011**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)	H8	H8	H8	H8	4	to 8	5.6	± 0.14	27
Bromide (mg/L)		F6	F6	F6	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)	H8	H8	H8	H8	126	to 565	370	± 19	27
pH (Standard Units)	H8	H8	H8	H8	6.2	to 8.4	7.6	± 0.12	27
Alkalinity (CaCO3) (field) (mg/L)	H8	H8	H8	H8	85	to 475	180	± 17	27
Arsenic (mg/L)		F6	F6	F6	0.003 U	to 0.01	0.0048	± 0.001	5
Cadmium (mg/L)		F6	F6	F6	0.0002 U	to 0.0004	0.00044	± 0.000	5
Calcium (mg/L)		F6	F6	F6	46.4	to 69.9	56	± 4.4	5
Iron (mg/L)		F6	F6	F6	0.02 U	to 0.02 U	0.02	± 1E-10	5
Magnesium (mg/L)		F6	F6	F6	8.2	to 12.5	10	± 0.81	5
Manganese (mg/L)		F6	F6	F6	0.02 U	to 0.12	0.048	± 0.02	5
Nickel (mg/L)		F6	F6	F6	0.002 U	to 0.003 U	0.0022	± 0.000	5
Potassium (mg/L)		F6	F6	F6	1.8	to 3.3	2.4	± 0.31	5
Sodium (mg/L)		F6	F6	F6	6	to 9.5	8	± 0.63	5
Nitrate (N) (mg/L)		F6	F6	F6	0.1	to 1.3	0.6	± 0.2	5
Phosphate Phosphorus (mg/L)		F6	F6	F6	0.01 U	to 0.01	0.01	± 7E-11	5
Total Dissolved Solids (mg/L)		F6	F6	F6	163	to 263	230	± 17	5
Total Suspended Solids (mg/L)		F6	F6	F6	4 U	to 4 U	4	± 0	5
Sulfate (mg/L)		F6	F6	F6	8.3	to 16.3	13	± 1.3	5
Bicarbonate (CaCO3) (mg/L)		F6	F6	F6	123	to 201	160	± 15	5
Organic Carbon (mg/L)		F6	F6	F6	1.2	to 4.8	3.4	± 0.66	5
Chemical Oxygen Demand (mg/L)		F6	F6	F6	3 U	to 10	5.6	± 1.6	5
Chloride (mg/L)		F6	F6	F6	2.4	to 12.6	7.8	± 1.7	5
Turbidity (field) (NTU)	H8	H8	H8	H8	0	to 5	0.9	± 0.2	27
Tannin & Lignins (Tannic Acid) (mg/L)		F6	F6	F6	0.2 U	to 0.24	0.21	± 0.008	5

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

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
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U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed. H2= water level higher than pipes. See LF-COMP for readings.H8=No flow from pipe. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow.

Data Group: 199

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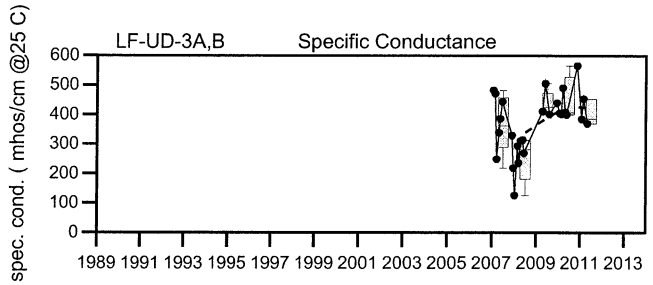
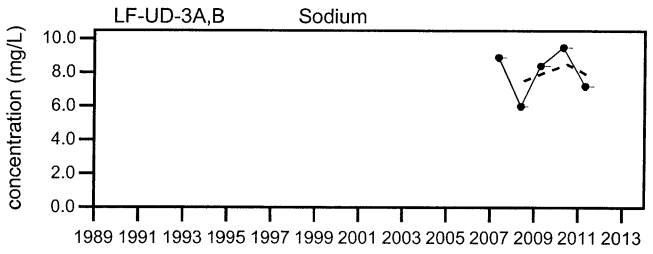
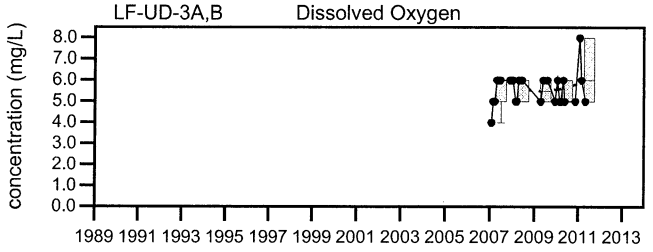
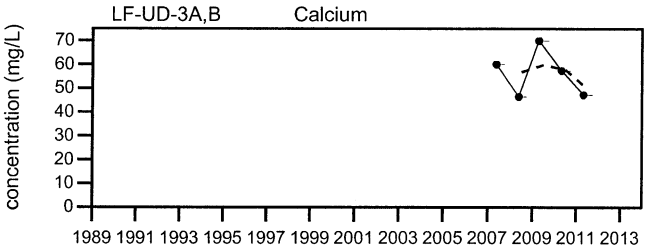
SME Sevee & Maher Engineers, Inc.

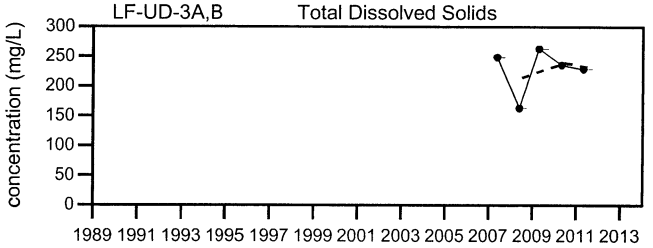


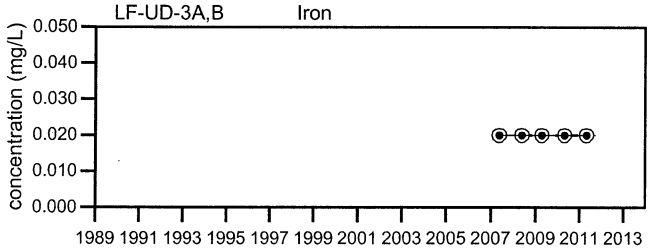


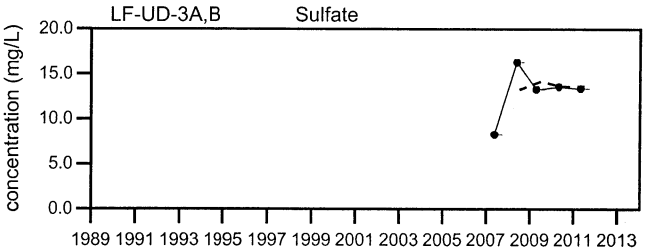


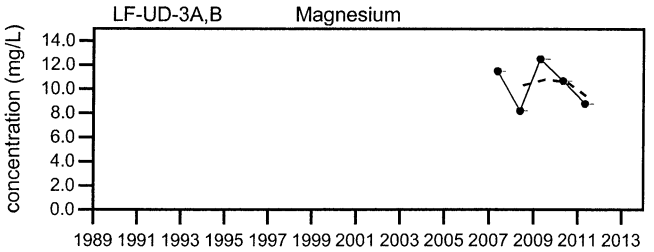
No data for Bromide at LF-UD-3A,B

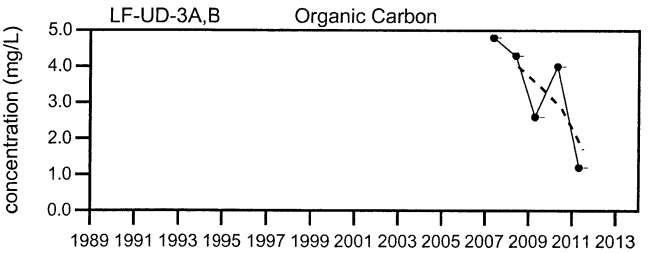


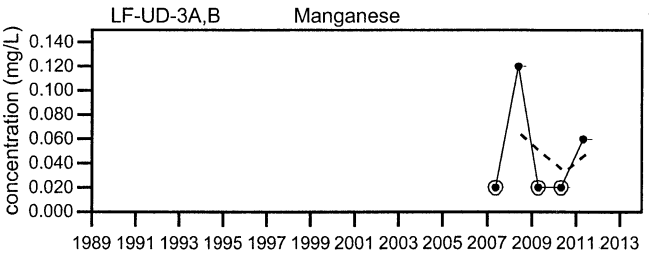


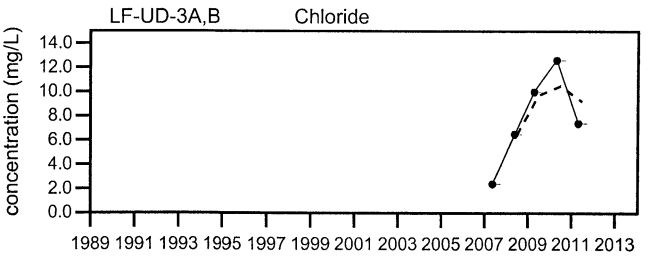


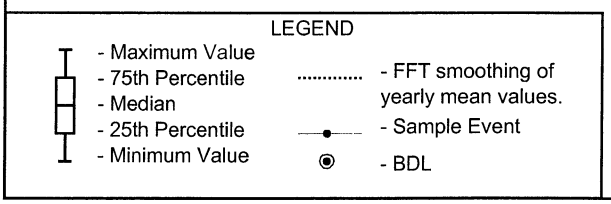












Juniper Ridge Landfill

LF-UD-3A,B

Sevee & Maher Engineers, Inc.

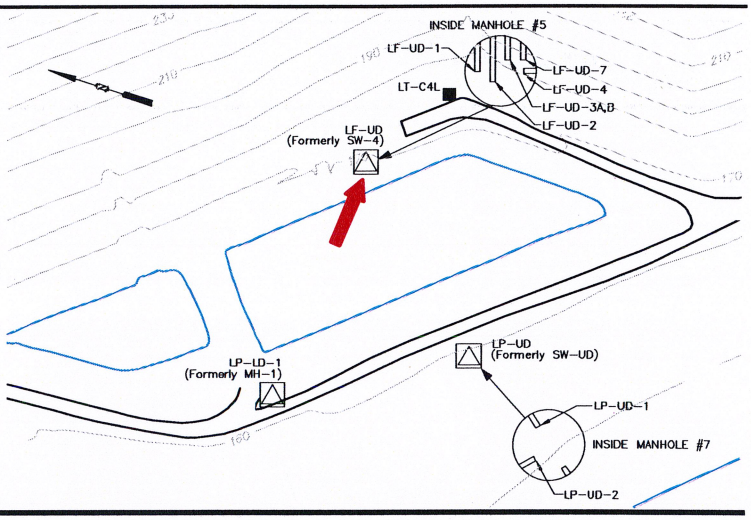
LF-UD-4

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

LF-UD-4 monitors the landfill underdrain from Cell #4 at Manhole #5.



Sampled: **Monthly & 3 Times Annually**

Sampled Since: **03/11/2009**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	n
Dissolved Oxygen (mg/L)	6	8	8	8	4	8	5.6	0.24	19
Bromide (mg/L)		0.14	F6	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)	402	↓ 352	480	440	362	562	430	11	19
pH (Standard Units)	7.3	7.3	8	8.2	6.9	8.3	7.4	0.09	19
Alkalinity (CaCO3) (field) (mg/L)	175	↓ 92	215	210	110	300	170	11	19
Arsenic (mg/L)		↑ 0.012	F6	0.009	0.002	0.011	0.0067	0.003	3
Cadmium (mg/L)		0.0006 U	F6	0.0006 U	0.0002 U	0.0006 U	0.00047	0.000	3
Calcium (mg/L)		↓ 44.8	F6	49.4	48.6	63.5	55	4.5	3
Iron (mg/L)		0.05 U	F6	0.05 U	0.02 U	0.05 U	0.04	0.01	3
Magnesium (mg/L)		↓ 10.6	F6	↓ 10.9	11.1	12.1	12	0.3	3
Manganese (mg/L)		0.05 U	F6	0.05 U	0.02 U	0.05 U	0.04	0.01	3
Nickel (mg/L)		0.005 U	F6	0.005 U	0.002 U	0.005 U	0.004	0.001	3
Potassium (mg/L)		↓ 3.7	F6	↓ 3.4	3.8	5.8	4.8	0.58	3
Sodium (mg/L)		↓ 8.2	F6	↓ 7.4	8.4	10.6	9.7	0.68	3
Nitrate (N) (mg/L)		0.3 U	F6	0.4	0.3 U	0.6	0.4	0.1	3
Phosphate Phosphorus (mg/L)		0.04 U	F6	0.04 U	0.01 U	0.04 U	0.03	0.01	3
Total Dissolved Solids (mg/L)		235	F6	234	206	263	240	17	3
Total Suspended Solids (mg/L)		4 U	F6	4 U	4 U	5	4.3	0.33	3
Sulfate (mg/L)		8.8	F6	11.1	2 U	14.8	8.2	3.7	3
Bicarbonate (CaCO3) (mg/L)		166	F6	168	136	207	170	21	3
Organic Carbon (mg/L)		2 U	F6	2 U	2 U	5.1	3	1	3
Chemical Oxygen Demand (mg/L)		↑ 10 U	F6	↑ 10 U	6	6	8.7	1.3	3
Chloride (mg/L)		↑ 11.8	F6	↑ 13.2	3.1	9	6.7	1.8	3
Turbidity (field) (NTU)	0.43	1.1	0.41	1.67	0	9.1	1.1	0.47	19
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	F6	0.2 U	0.2 U	0.2 U	0.2	0	3

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

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow.

Data Group: 199

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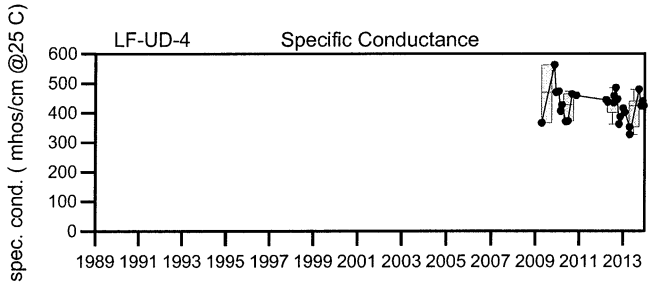
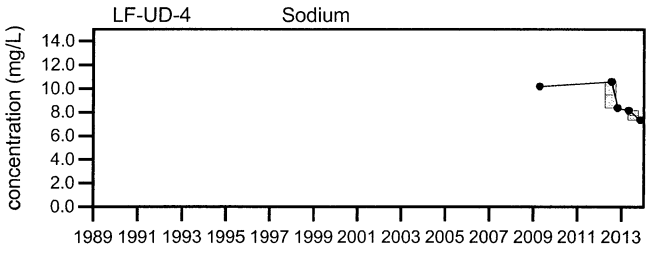
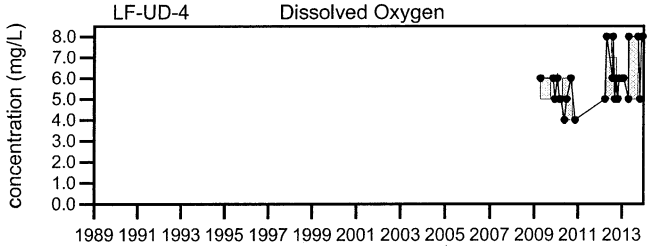
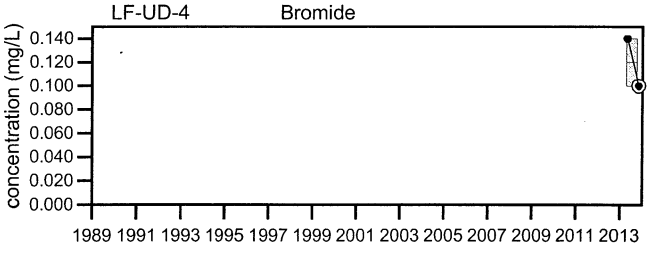
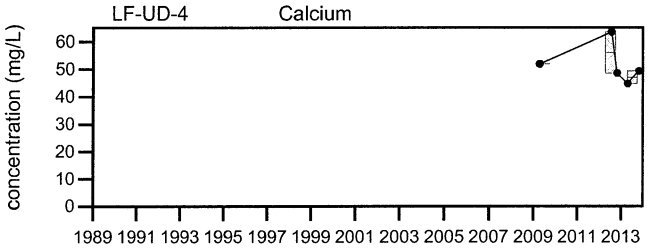
SME Sevee & Maher Engineers, Inc.

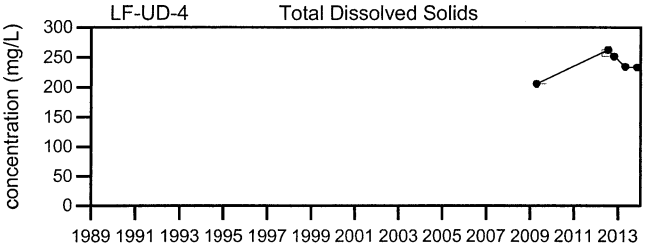


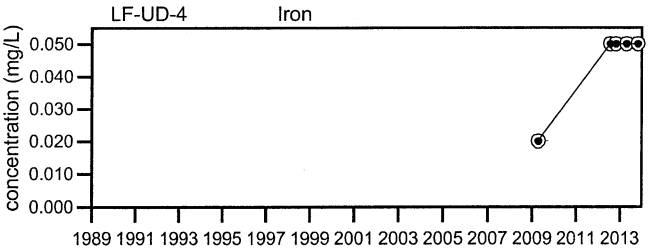


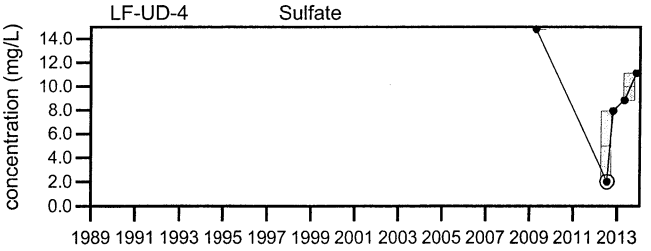


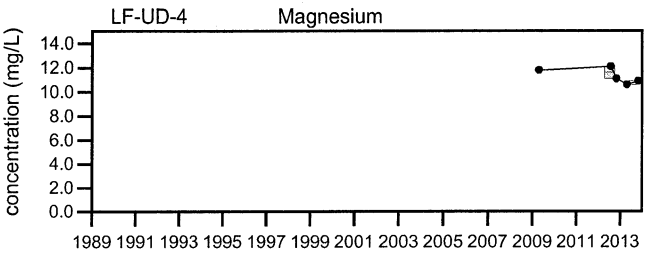


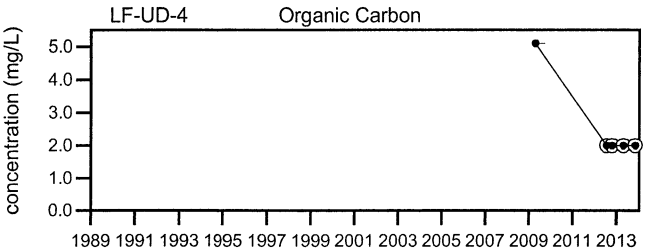


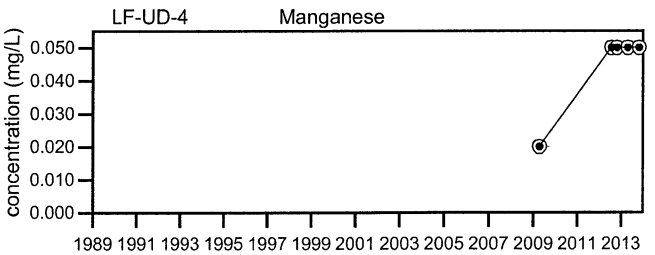


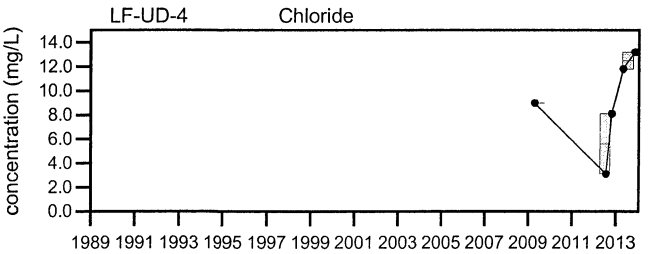


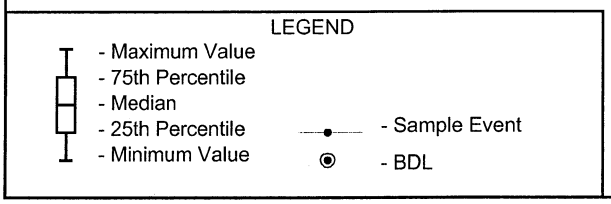












Juniper Ridge Landfill

LF-UD-4

Sevee & Maher Engineers, Inc.

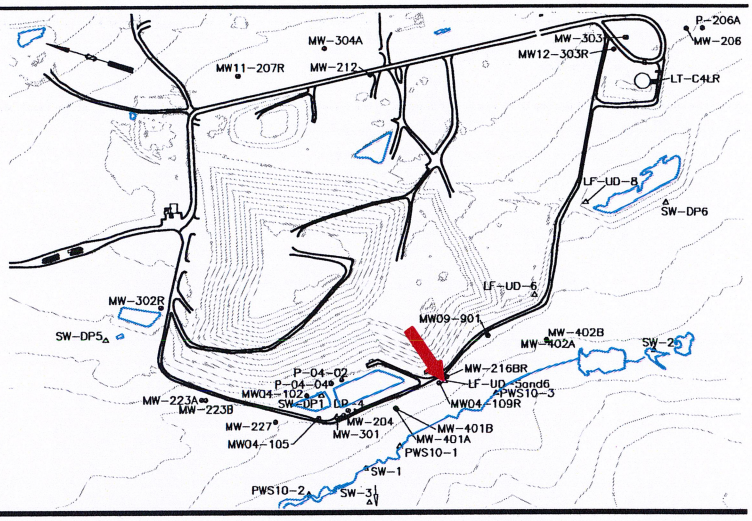
LF-UD-5and6

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

LF-UD-5and6 monitors the landfill underdrain from Cell #5 and Cell #6(composite). This underdrain pipe is located south of MW-216BR.



Sampled: **3 Times Annually and Monthly**

Sampled Since: **July 2011**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean ± SE	n
Dissolved Oxygen (mg/L)	↑ 10	8	8	6	4	to 8	6.3 ± 0.22	32
Bromide (mg/L)		0.11	0.1 U	0.1 U	No historical data for Bromide.			
Specific Conductance (µmhos/cm @25°C)	↓ 177	356	458	453	355	to 652	460 ± 9.4	33
pH (Standard Units)	7.5	8.2	8.1	8.2	6.7	to 8.3	7.5 ± 0.07	33
Alkalinity (CaCO3) (field) (mg/L)	↓ 75	200	175	150	95	to 435	190 ± 14	33
Arsenic (mg/L)		0.009	0.016	0.009	0.007	to 0.017	0.01 ± 0.001	8
Cadmium (mg/L)		↑ 0.0006 U	↑ 0.0006 U	↑ 0.0006 U	0.0002 U	to 0.0004	0.00038 ± 7E-05	8
Calcium (mg/L)		↓ 42.8	↓ 48.5	56.1	52.5	to 71.3	62 ± 2.2	8
Iron (mg/L)		0.05	0.08	0.05 U	0.02 U	to 11.3	1.5 ± 1.4	8
Magnesium (mg/L)		↓ 8.4	↓ 9.4	↓ 11.4	11.6	to 15.4	13 ± 0.47	8
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to 0.25	0.064 ± 0.03	8
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to 0.007	0.0038 ± 0.000	8
Potassium (mg/L)		↓ 4	↓ 3.4	↓ 3.9	4.8	to 7	5.4 ± 0.25	8
Sodium (mg/L)		↓ 6.7	↓ 6.2	7.7	7.1	to 10.2	9.1 ± 0.38	8
Nitrate (N) (mg/L)		0.3 U	0.3 U	0.4	0.1	to 1.1	0.34 ± 0.11	8
Phosphate Phosphorus (mg/L)		0.04 U	0.04 U	0.04 U	0.01	to 0.16	0.055 ± 0.02	8
Total Dissolved Solids (mg/L)		↓ 200	↓ 202	↓ 244	268	to 332	290 ± 7.3	8
Total Suspended Solids (mg/L)		8	4 U	7	4 U	to 154	47 ± 21	8
Sulfate (mg/L)		↓ 11.5	↓ 10.8	↓ 11.8	11.9	to 22	16 ± 1.1	8
Bicarbonate (CaCO3) (mg/L)		↓ 157	↓ 163	200	180	to 238	210 ± 8.1	8
Organic Carbon (mg/L)		2 U	2 U	2 U	1.5	to 2.5	2 ± 0.13	8
Chemical Oxygen Demand (mg/L)		↑ 10 U	↑ 10 U	↑ 10 U	3 U	to 5	6 ± 1.2	8
Chloride (mg/L)		3.6	3.4	3.3	2.5	to 6.2	3.4 ± 0.42	8
Turbidity (field) (NTU)	9.79	2.6	1.7	0.8	0	to 30.88	5.2 ± 1.2	33
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to 3.2	0.58 ± 0.38	8

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

U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow.

Data Group: 199

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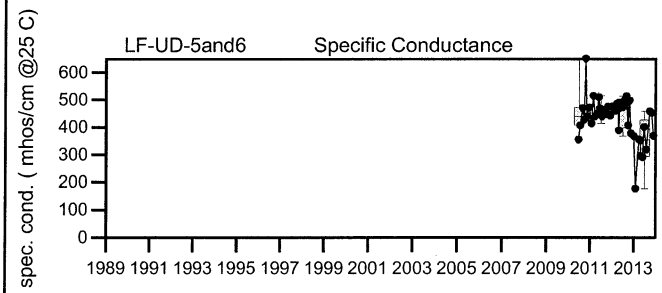
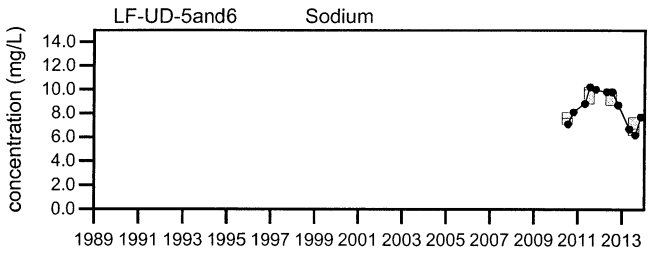
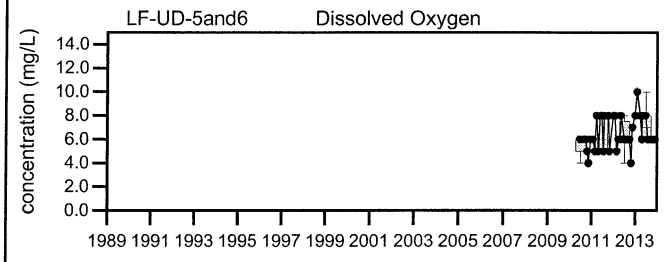
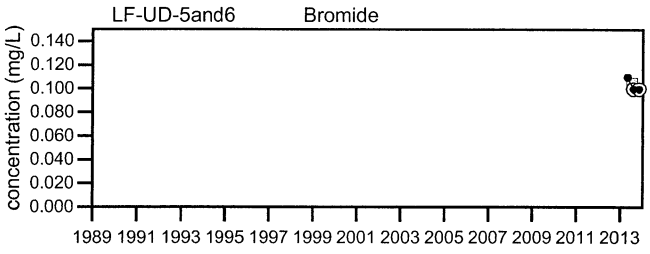
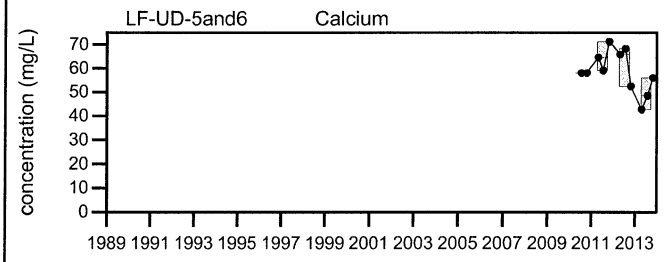
SME Sewee & Maher Engineers, Inc.

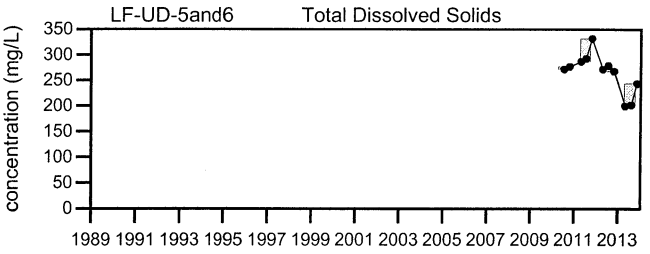


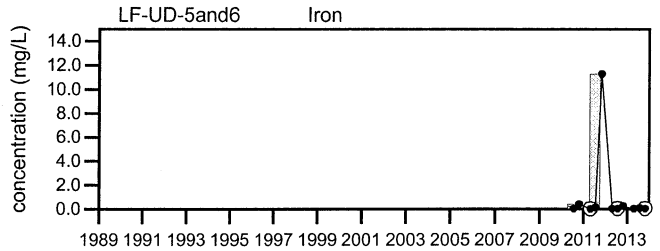


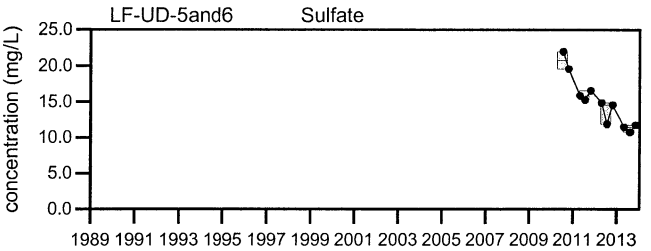


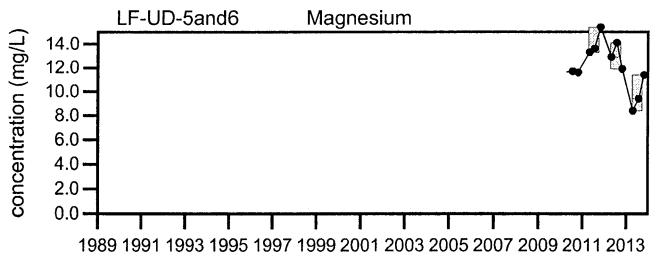


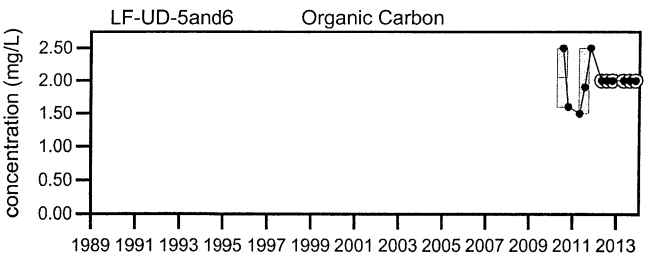


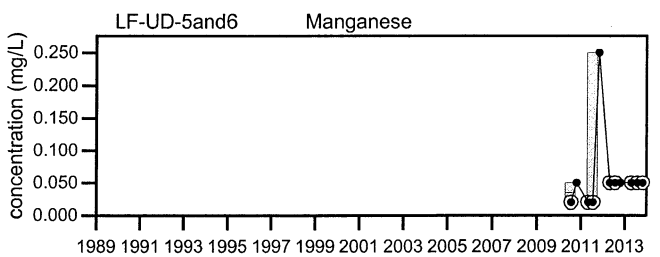


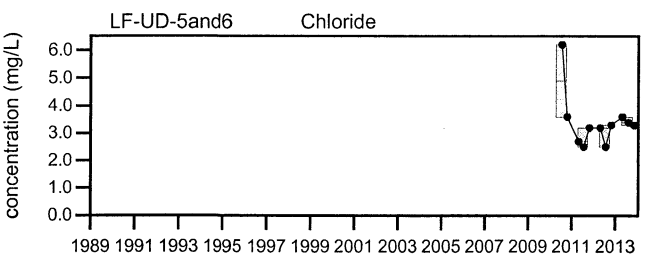


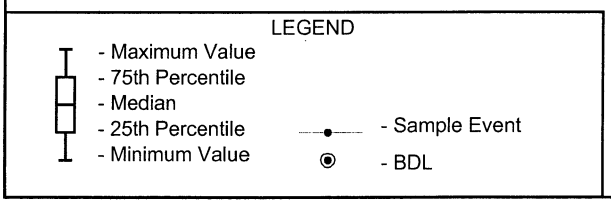












Juniper Ridge Landfill

LF-UD-5and6

Sevee & Maher Engineers, Inc.

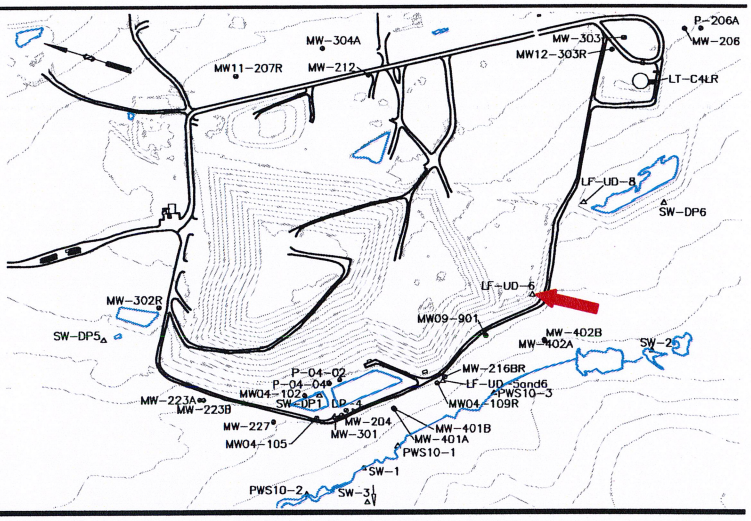
LF-UD-6

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Sampled: **Monthly and 3 Times Annually**

Sampled Since: **02/03/2011**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)	6	8	6	6	4	to 8	5.4	± 0.19	25
Bromide (mg/L)		0.1	0.1 U	0.12	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)	704	572	↑ 919	↑ 913	431	to 773	610	± 17	26
pH (Standard Units)	↑ 7.6	↑ 7.7	7.4	↑ 7.7	6.9	to 7.5	7.2	± 0.03	25
Alkalinity (CaCO3) (field) (mg/L)	250	225	275	300	88	to 490	210	± 17	26
Arsenic (mg/L)		0.015	0.023	0.019	0.003	to 0.025	0.012	± 0.004	6
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to 0.0007	0.00055	± 7E-05	6
Calcium (mg/L)		↓ 62	86.3	85.6	75.7	to 96.4	86	± 3.2	6
Iron (mg/L)		0.05 U	0.05 U	0.06	0.02 U	to 6.28	1.1	± 1	6
Magnesium (mg/L)		↓ 14.7	↑ 24.2	↑ 25.4	15.9	to 23.7	19	± 1.3	6
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to 0.17	0.06	± 0.02	6
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to 0.013	0.0062	± 0.002	6
Potassium (mg/L)		↓ 3.3	↓ 4.3	↓ 4.4	4.7	to 5.9	5.2	± 0.16	6
Sodium (mg/L)		39.7	↑ 74.3	↑ 73.6	7.9	to 64.1	21	± 9	6
Nitrate (N) (mg/L)		0.6	1	↑ 1.2	0.3 U	to 1	0.55	± 0.12	6
Phosphate Phosphorus (mg/L)		0.05	0.04 U	0.04 U	0.01	to 0.17	0.053	± 0.02	6
Total Dissolved Solids (mg/L)		357	554	552	309	to 563	390	± 37	6
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to 102	20	± 16	6
Sulfate (mg/L)		84.9	↑ 143	↑ 116	2 U	to 107	32	± 16	6
Bicarbonate (CaCO3) (mg/L)		↓ 222	338	343	263	to 359	300	± 15	6
Organic Carbon (mg/L)		2 U	3.3	3.1	2 U	to 3.6	3.1	± 0.26	6
Chemical Oxygen Demand (mg/L)		10 U	10 U	↑ 14	3 U	to 10	8	± 1.1	6
Chloride (mg/L)		8.9	↑ 18.2	↑ 14.1	2.1	to 11.6	4.1	± 1.5	6
Turbidity (field) (NTU)	5.3	5	10.3	2.2	0.3	to 27.87	5.8	± 1.6	26
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to 0.33	0.22	± 0.02	6

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

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

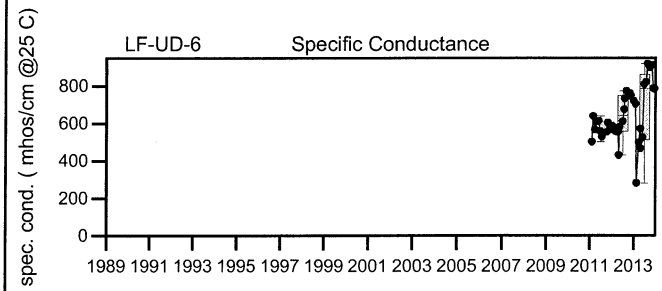
Comments

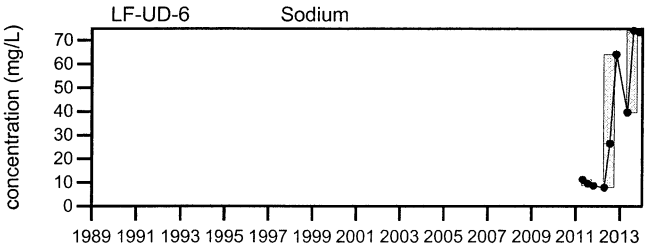
Q2= APRIL Q3= JULY Q4= OCTOBER
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

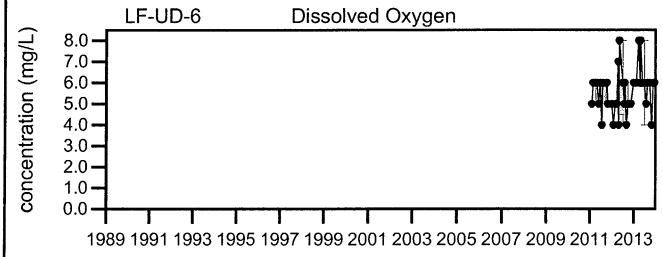
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow.

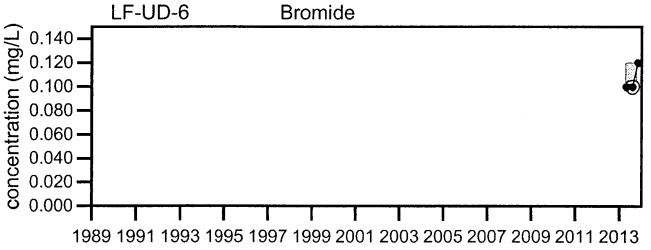
Data Group: 199
Printed: 3/18/2014 13:05

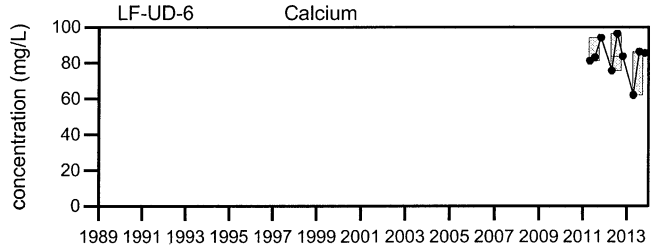
SME
Sovee & Maher Engineers, Inc.

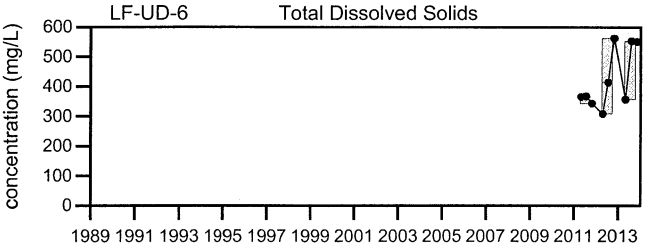


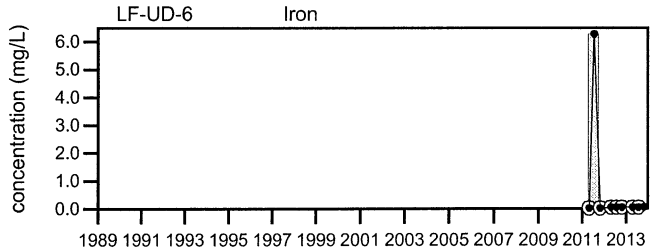


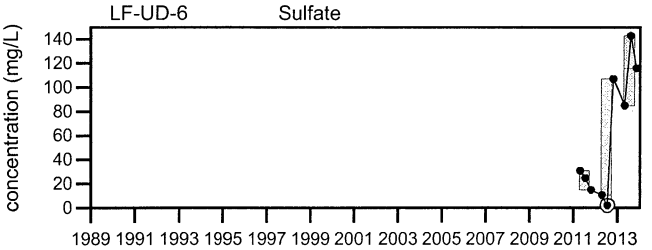


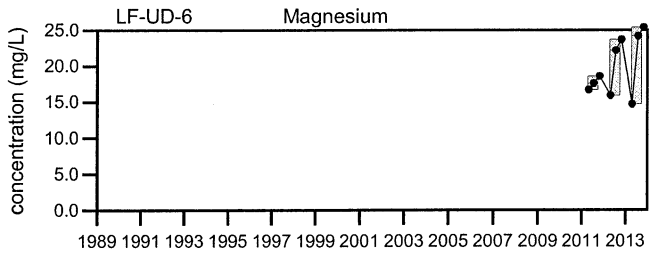


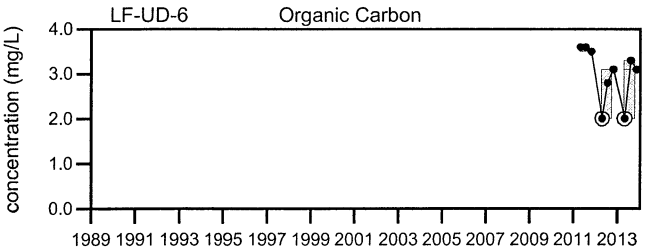


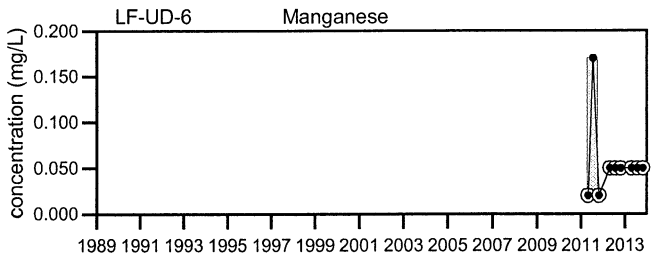


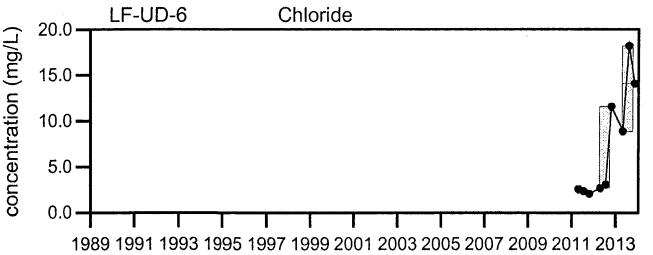


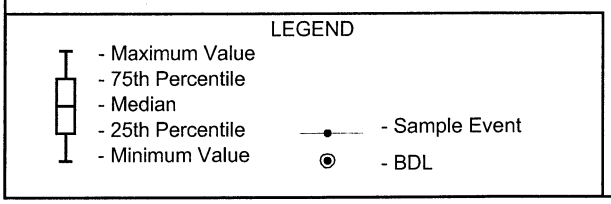












Juniper Ridge Landfill

LF-UD-6

Sevee & Maher Engineers, Inc.

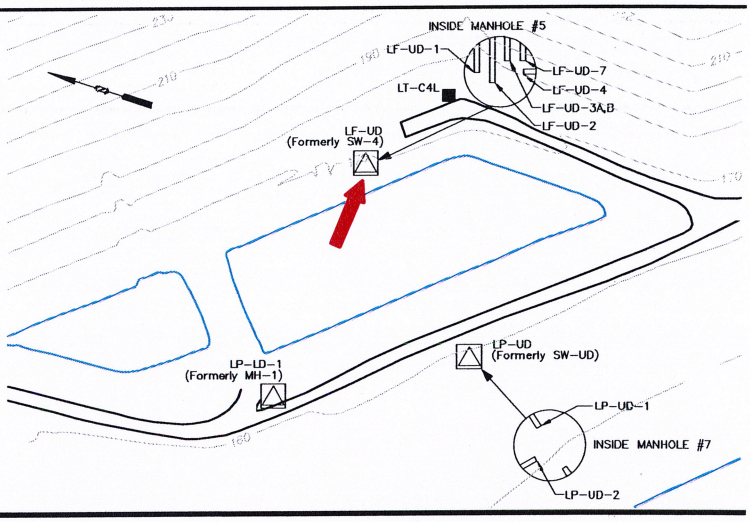
LF-UD-7

Juniper Ridge Landfill

annual stats 2013 minus leachate

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

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)	H8	H8	H8	H8	No historical data for Dissolved Oxygen.				
Bromide (mg/L)		F6	F6	F6	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)	H8	H8	H8	H8	No historical data for Specific Conductance.				
pH (Standard Units)	H8	H8	H8	H8	No historical data for pH.				
Alkalinity (CaCO3) (field) (mg/L)	H8	H8	H8	H8	No historical data for Alkalinity (CaCO3) (field).				
Arsenic (mg/L)		F6	F6	F6	No historical data for Arsenic.				
Cadmium (mg/L)		F6	F6	F6	No historical data for Cadmium.				
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.				
Nickel (mg/L)		F6	F6	F6	No historical data for Nickel.				
Potassium (mg/L)		F6	F6	F6	No historical data for Potassium.				
Sodium (mg/L)		F6	F6	F6	No historical data for Sodium.				
Nitrate (N) (mg/L)		F6	F6	F6	No historical data for Nitrate (N).				
Phosphate Phosphorus (mg/L)		F6	F6	F6	No historical data for Phosphate Phosphorus.				
Total Dissolved Solids (mg/L)		F6	F6	F6	No historical data for Total Dissolved Solids.				
Total Suspended Solids (mg/L)		F6	F6	F6	No historical data for Total Suspended Solids.				
Sulfate (mg/L)		F6	F6	F6	No historical data for Sulfate.				
Bicarbonate (CaCO3) (mg/L)		F6	F6	F6	No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)		F6	F6	F6	No historical data for Organic Carbon.				
Chemical Oxygen Demand (mg/L)		F6	F6	F6	No historical data for Chemical Oxygen Demand.				
Chloride (mg/L)		F6	F6	F6	No historical data for Chloride.				
Turbidity (field) (NTU)	H8	H8	H8	H8	No historical data for Turbidity (field).				
Tannin & Lignins (Tannic Acid) (mg/L)		F6	F6	F6	No historical data for Tannin & Lignins (Tannic Acid).				

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

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

Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken. H8=No flow from pipe. See LF-COMP for readings. F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow.

Data Group: 199

Printed: 3/18/2014 13:05

SME Sowee & Maher Engineers, Inc.

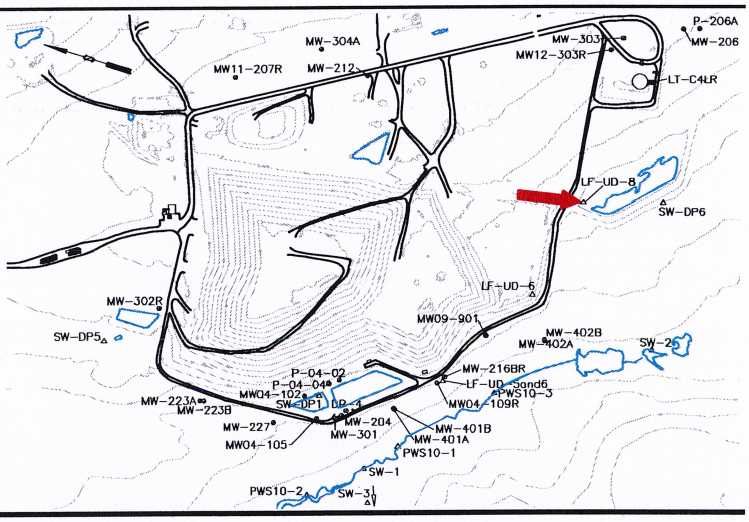
LF-UD-8

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

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



Sampled: **3 Times Annually**

Sampled Since: **4/23/2013**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)	10	8	8	6	No historical data for Dissolved Oxygen.				
Bromide (mg/L)		0.1 U	0.1 U	0.1 U	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)	64	319	363	407	No historical data for Specific Conductance.				
pH (Standard Units)	7.5	8.1	7.1	7.2	No historical data for pH.				
Alkalinity (CaCO3) (field) (mg/L)	50 <	150	140	185	No historical data for Alkalinity (CaCO3) (field).				
Arsenic (mg/L)		0.014	0.013	0.009	No historical data for Arsenic.				
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	No historical data for Cadmium.				
Calcium (mg/L)		39.3	50.1	49.1	No historical data for Calcium.				
Iron (mg/L)		0.05 U	0.05 U	0.05 U	No historical data for Iron.				
Magnesium (mg/L)		9	10.7	11.1	No historical data for Magnesium.				
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	No historical data for Manganese.				
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	No historical data for Nickel.				
Potassium (mg/L)		3.7	3.7	3.7	No historical data for Potassium.				
Sodium (mg/L)		6.9	7.1	7.3	No historical data for Sodium.				
Nitrate (N) (mg/L)		0.9	1.4	0.8	No historical data for Nitrate (N).				
Phosphate Phosphorus (mg/L)		0.04 U	0.04 U	0.04 U	No historical data for Phosphate Phosphorus.				
Total Dissolved Solids (mg/L)		195	216	222	No historical data for Total Dissolved Solids.				
Total Suspended Solids (mg/L)		4 U	4 U	4 U	No historical data for Total Suspended Solids.				
Sulfate (mg/L)		7.3	9.6	8.2	No historical data for Sulfate.				
Bicarbonate (CaCO3) (mg/L)		152	172	180	No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)		2 U	2 U	2 U	No historical data for Organic Carbon.				
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	No historical data for Chemical Oxygen Demand.				
Chloride (mg/L)		3.5	4	3.5	No historical data for Chloride.				
Turbidity (field) (NTU)	24.35	1.2	0.8	0.64	No historical data for Turbidity (field).				
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	No historical data for Tannin & Lignins (Tannic Acid).				

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

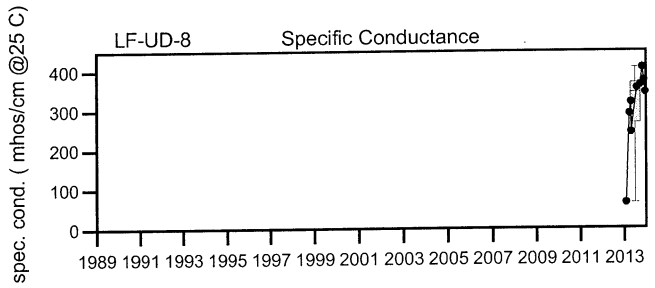
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

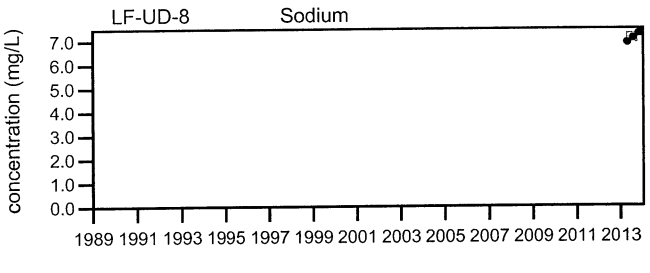
Comments

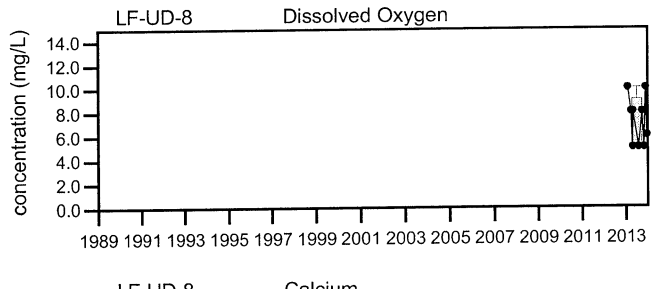
Q2= APRIL Q3= JULY Q4= OCTOBER
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection.
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

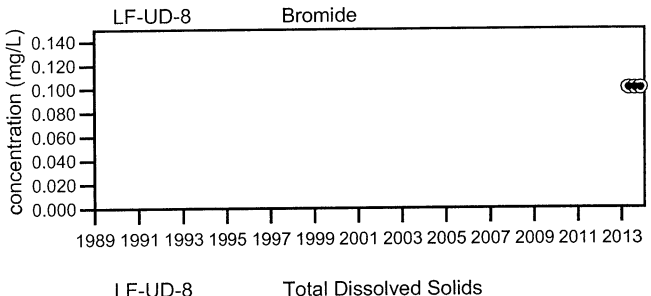
Data Group: 199
Printed: 3/20/2014 10:08

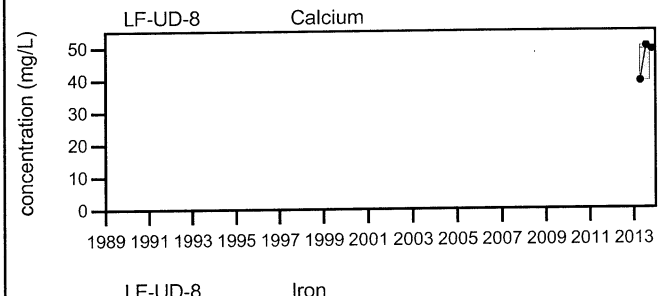
SME Sewee & Maher Engineers, Inc.

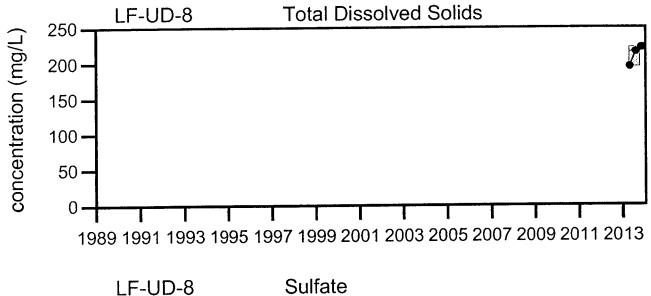


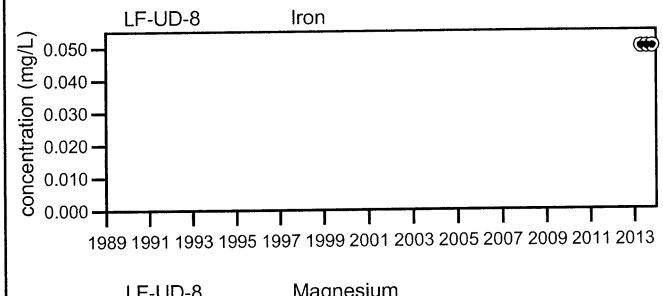


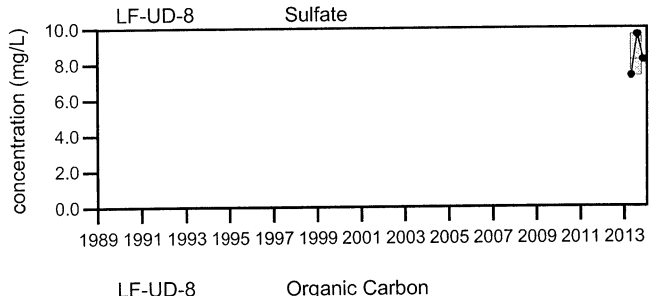


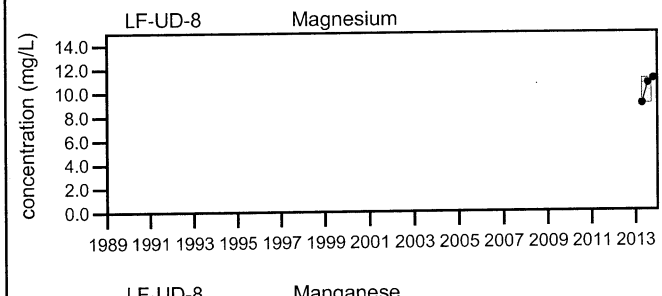


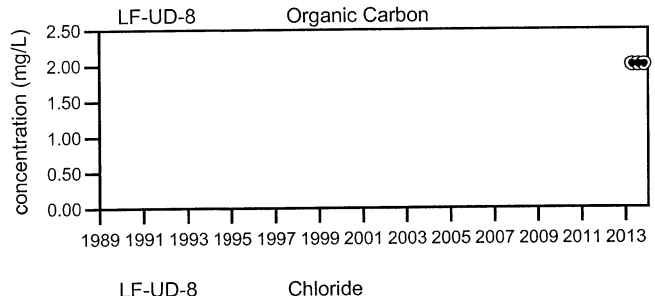


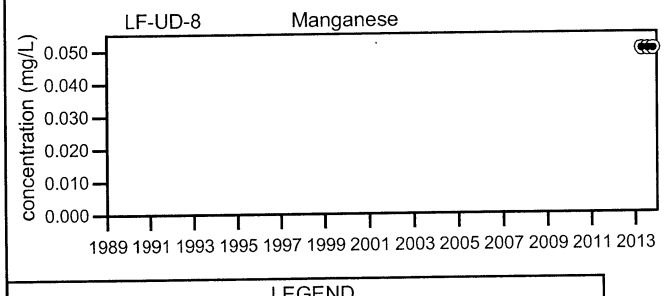


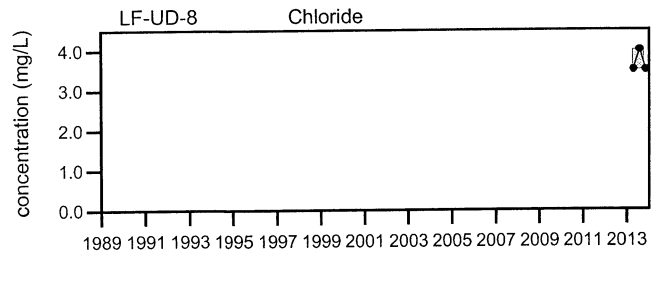


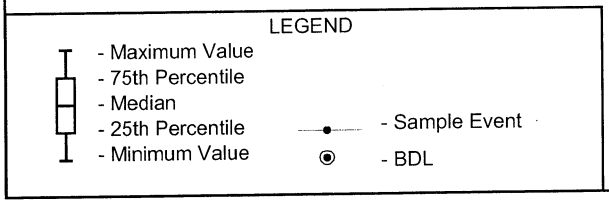












Juniper Ridge Landfill

LF-UD-8

Sevee & Maher Engineers, Inc.

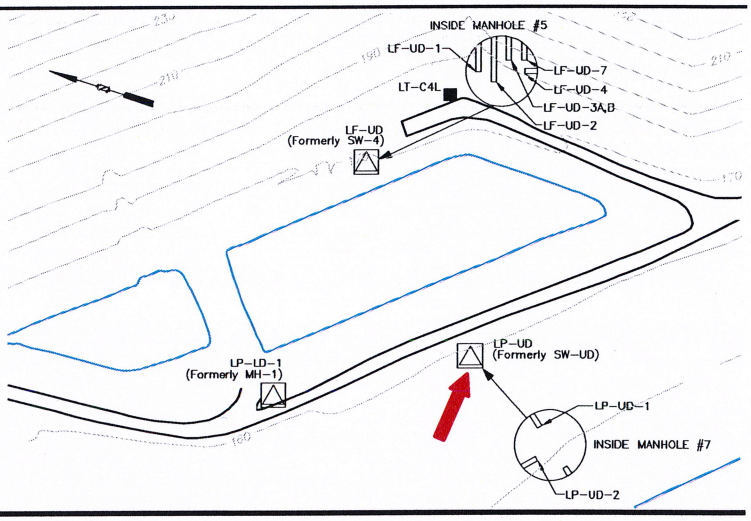
LP-COMP

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

Manhole #7 composite sample



Sampled: **See comments below**

Sampled Since: **10/27/04**

Sampling Method: **Grab**

Chemical Summary

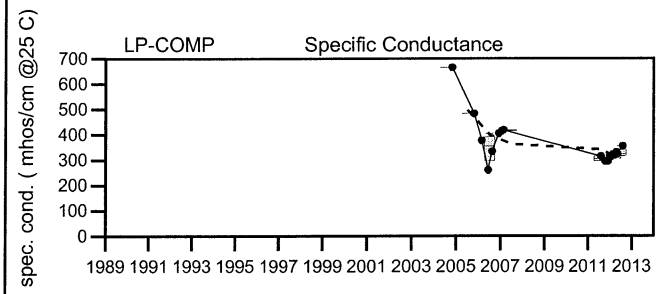
underlined/bold - values exceed a regulatory standard listed below.

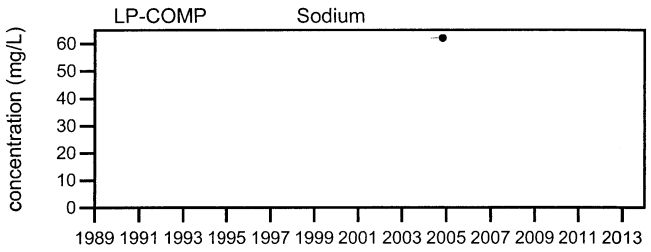
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

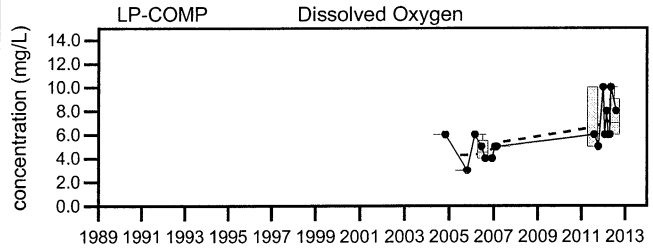
Comments

This location is monitored monthly for field parameters only when the water level is higher than the LP sample location pipes in Manhole #7.

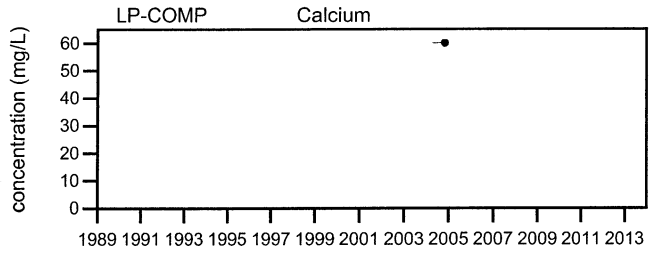
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow.

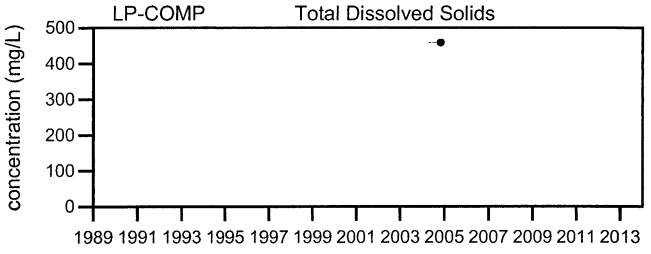


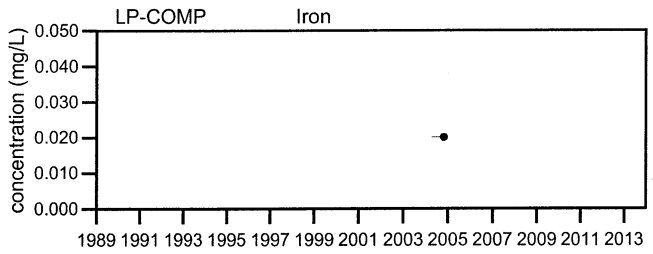


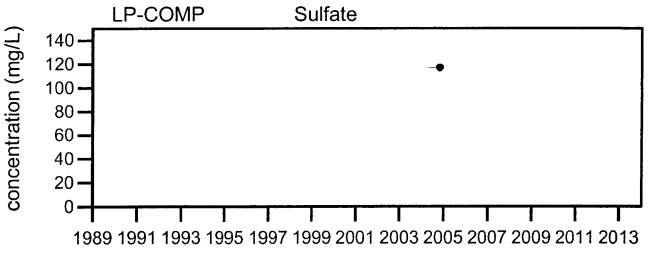


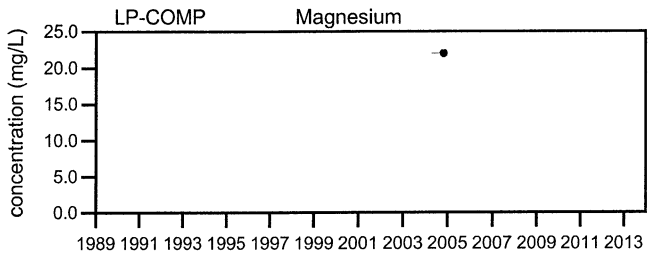
No data for Bromide at LP-COMP

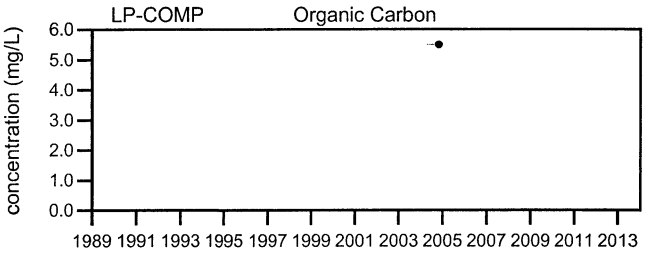


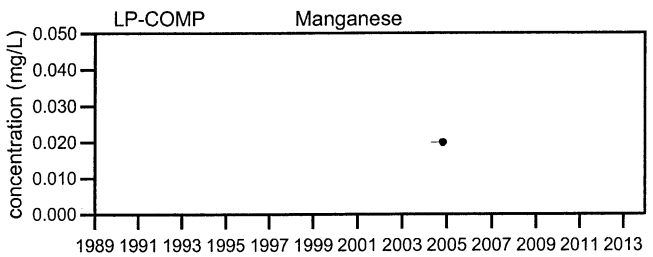


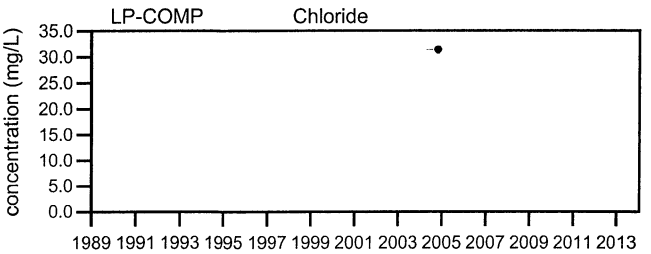












LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- FFT smoothing of yearly mean values.
- Sample Event
- BDL

Juniper Ridge Landfill

LP-COMP

Sevee & Maher Engineers, Inc.

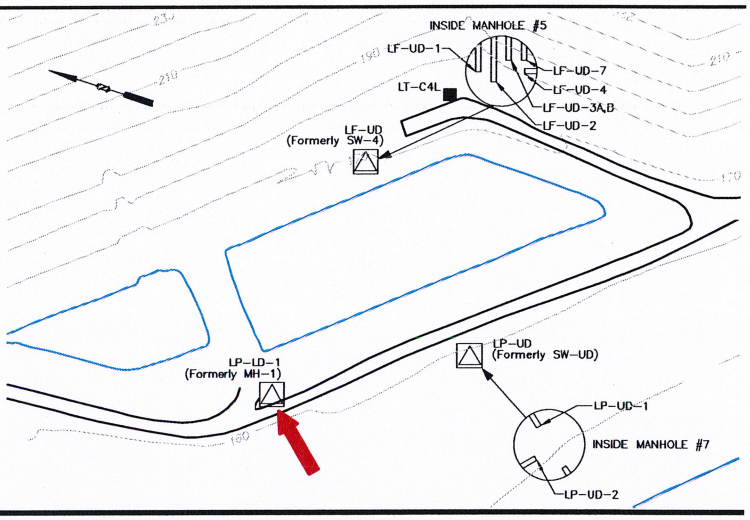
LP-LD-1

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

LP-LD-1 is located at Manhole #1 and monitors the leak detection layer beneath the leachate pond.



Sampled: **Removed from program in 2013.**

Sampled Since: **07/28/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)		6	3		3	to 8	5.2	± 0.11	75
Specific Conductance (µmhos/cm @25°C)		238	191		56	to 944	370	± 25	75
pH (Standard Units)		7.9	7.3		5.8	to 8.6	7.3	± 0.06	75
Alkalinity (CaCO3) (field) (mg/L)		85	65		25	to 425	130	± 10	75
Turbidity (field) (NTU)		1.3	1.3		0	to 25	2.8	± 0.48	75

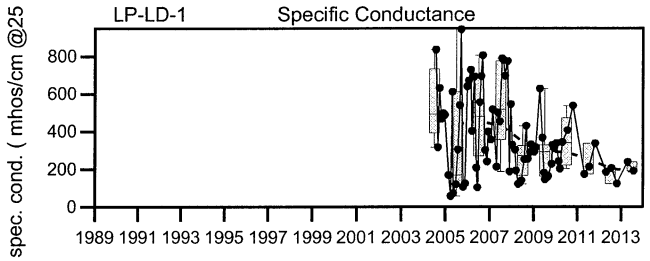
underlined/bold - values exceed a regulatory standard listed below.

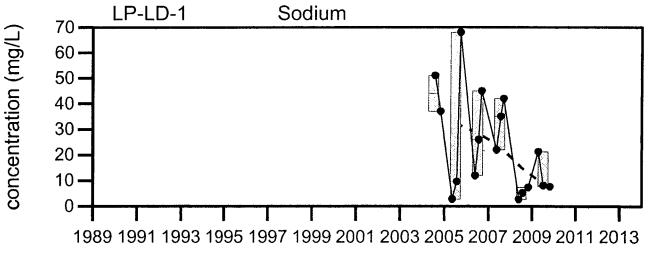
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

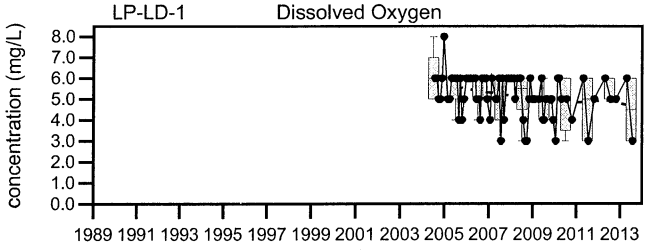
Comments

Q2= APRIL Q3= JULY Q4= OCTOBER
This location is monitored monthly for field parameters only.

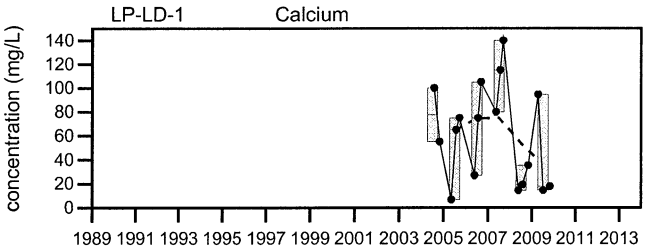
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow. H9=No flow from pipe, See LP-COMP for readings.

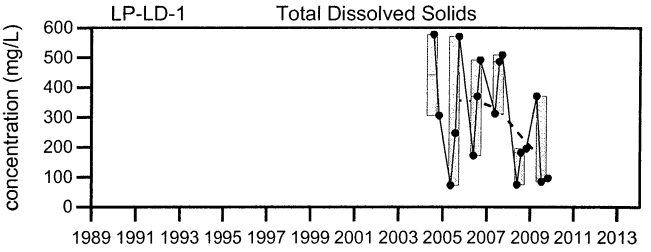


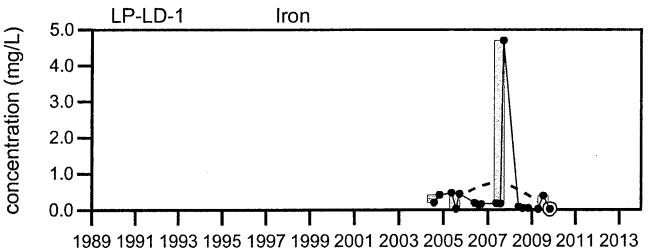


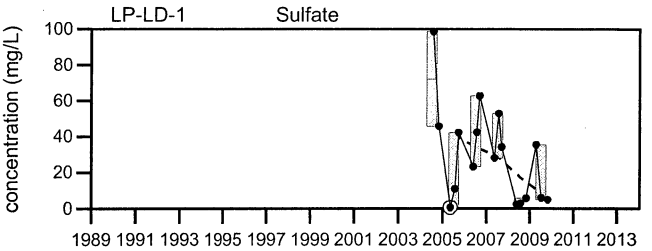


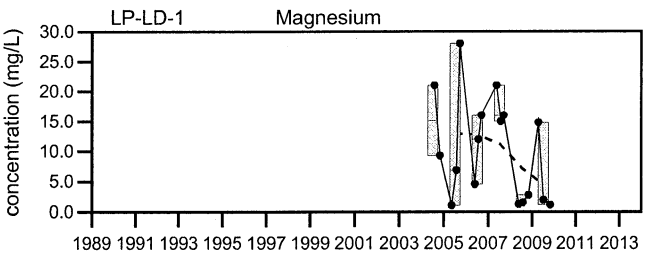
No data for Bromide at LP-LD-1

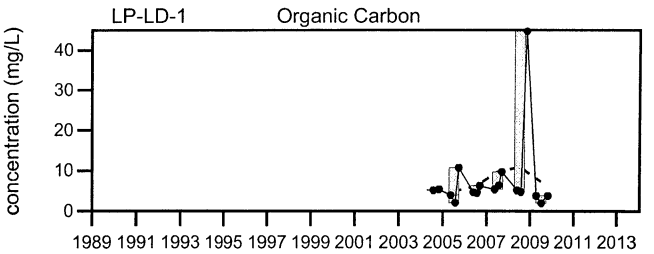


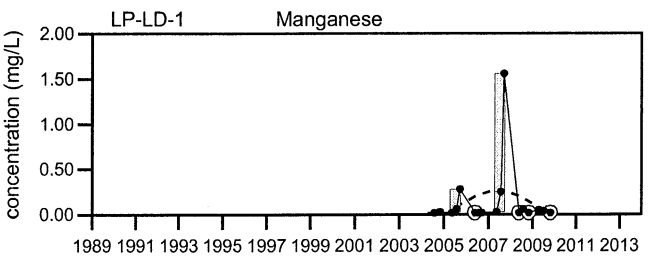


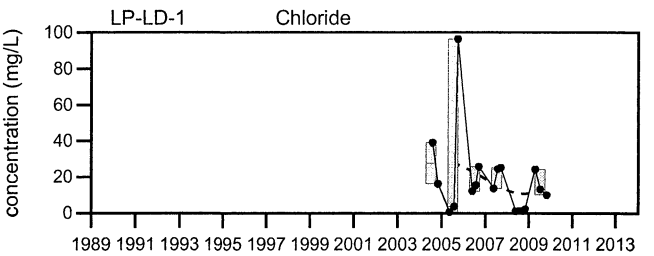


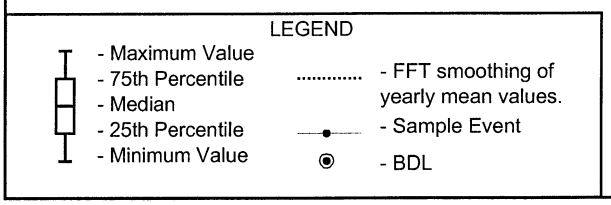












Juniper Ridge Landfill

LP-LD-1

Sevee & Maher Engineers, Inc.

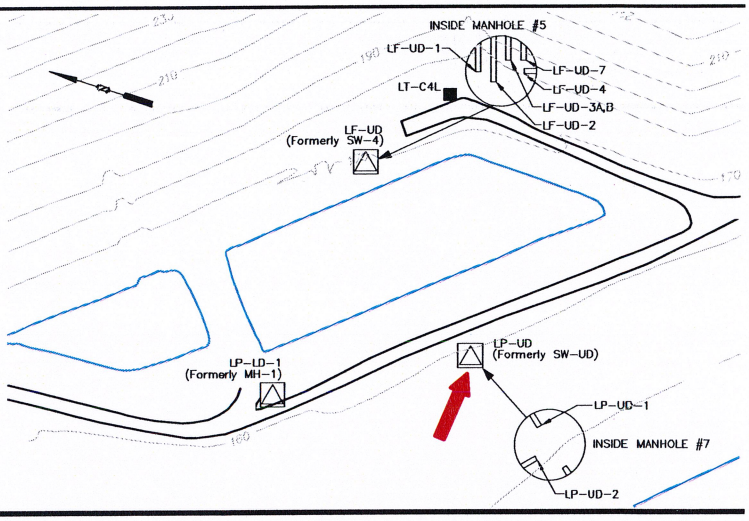
LP-UD-1

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

LP-UD-1 is located at Manhole #7 and monitors the leachate underdrain from the southern end of the leachate pond.



Sampled: **Monthly and 3 Times Annually**

Sampled Since: **07/28/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)	F6	F6	F6	F6	5	to 5	5	± 0	1
Bromide (mg/L)		F6	F6	F6	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)	F6	F6	F6	F6	517	to 517	520	± 0	1
pH (Standard Units)	F6	F6	F6	F6	6.8	to 6.8	6.8	± 0	1
Alkalinity (CaCO3) (field) (mg/L)	F6	F6	F6	F6	125	to 125	130	± 0	1
Arsenic (mg/L)		F6	F6	F6	No historical data for Arsenic.				
Cadmium (mg/L)		F6	F6	F6	No historical data for Cadmium.				
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.				
Nickel (mg/L)		F6	F6	F6	No historical data for Nickel.				
Potassium (mg/L)		F6	F6	F6	No historical data for Potassium.				
Sodium (mg/L)		F6	F6	F6	No historical data for Sodium.				
Nitrate (N) (mg/L)		F6	F6	F6	No historical data for Nitrate (N).				
Phosphate Phosphorus (mg/L)		F6	F6	F6	No historical data for Phosphate Phosphorus.				
Total Dissolved Solids (mg/L)		F6	F6	F6	No historical data for Total Dissolved Solids.				
Total Suspended Solids (mg/L)		F6	F6	F6	No historical data for Total Suspended Solids.				
Sulfate (mg/L)		F6	F6	F6	No historical data for Sulfate.				
Bicarbonate (CaCO3) (mg/L)		F6	F6	F6	No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)		F6	F6	F6	No historical data for Organic Carbon.				
Chemical Oxygen Demand (mg/L)		F6	F6	F6	No historical data for Chemical Oxygen Demand.				
Chloride (mg/L)		F6	F6	F6	No historical data for Chloride.				
Turbidity (field) (NTU)	F6	F6	F6	F6	0	to 0	0	± 0	1
Tannin & Lignins (Tannic Acid) (mg/L)		F6	F6	F6	No historical data for Tannin & Lignins (Tannic Acid).				

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

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

Comments

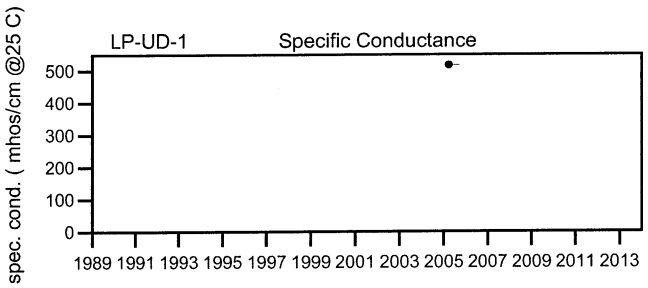
Q2= APRIL Q3= JULY Q4= OCTOBER
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow. H9=No flow from pipe, See LP-COMP for readings.

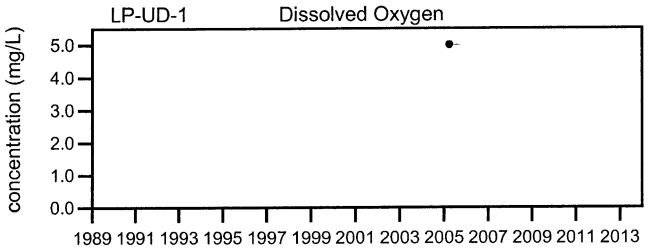
Data Group: 199

Printed: 3/18/2014 13:05

SME Sevee & Maher Engineers, Inc.



No data for Sodium at LP-UD-1



No data for Bromide at LP-UD-1

No data for Calcium at LP-UD-1

No data for Total Dissolved Solids at LP-UD-1

No data for Iron at LP-UD-1

No data for Sulfate at LP-UD-1

No data for Magnesium at LP-UD-1

No data for Organic Carbon at LP-UD-1

No data for Manganese at LP-UD-1

No data for Chloride at LP-UD-1

LEGEND

- Maximum Value
- 75th Percentile
- Median
- 25th Percentile
- Minimum Value
- Sample Event
- BDL

Juniper Ridge Landfill

LP-UD-1

Sevee & Maher Engineers, Inc.

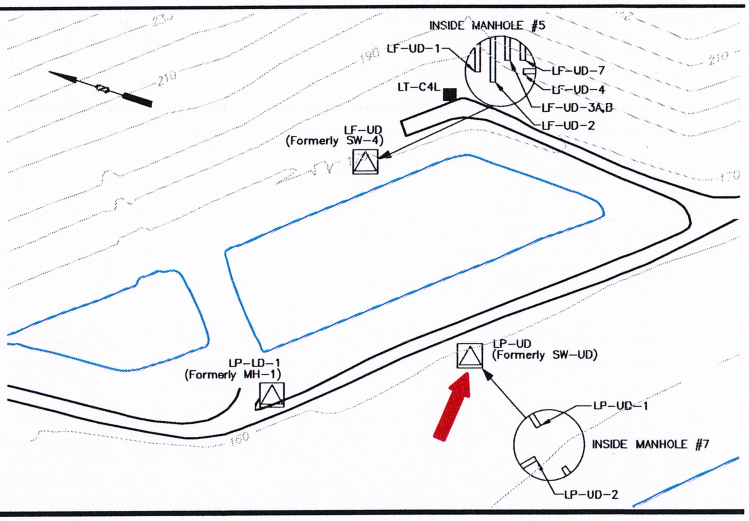
LP-UD-2

Juniper Ridge Landfill

annual stats 2013 minus leachate

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 leachate pond.



Sampled: **Monthly and 3 Times Annually**

Sampled Since: **07/28/04**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	Q2	Q3	Q4	Historical Min	Max	Mean	SE	n
Dissolved Oxygen (mg/L)	6	6	8	8	1	to 10	5.7	± 0.12	89
Bromide (mg/L)		0.11	0.1 U	0.11	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)	289	299	337	361	110	to 834	350	± 11	89
pH (Standard Units)	7.7	7.9	7.2	7.6	5.9	to 8	7.1	± 0.04	89
Alkalinity (CaCO3) (field) (mg/L)	130	85	150	125	50	to 350	140	± 5.4	88
Arsenic (mg/L)		0.011	0.011	0.01	0.001 U	to 0.012	0.0039	± 0.000	26
Cadmium (mg/L)		0.0006 U	0.0006 U	0.0006 U	0.0002 U	to 0.0016	0.00038	± 7E-05	24
Calcium (mg/L)		33.9	37.1	36.4	28.8	to 60	37	± 1.5	26
Iron (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to 2.86	0.18	± 0.11	26
Magnesium (mg/L)		10.4	10.8	11.4	7.7	to 21	11	± 0.51	26
Manganese (mg/L)		0.05 U	0.05 U	0.05 U	0.02 U	to 0.36	0.04	± 0.01	26
Nickel (mg/L)		0.005 U	0.005 U	0.005 U	0.002 U	to 0.007	0.0028	± 0.000	24
Potassium (mg/L)		2.3	2.5	↓ 2.2	2.3	to 25	4.4	± 0.88	26
Sodium (mg/L)		8	8.1	7.9	7	to 58	14	± 2	26
Nitrate (N) (mg/L)		0.4	0.6	0.5	0.1	to 2.3	0.39	± 0.08	26
Phosphate Phosphorus (mg/L)		0.04 U	0.04 U	0.04 U	0.01 U	to 0.11	0.022	± 0.005	26
Total Dissolved Solids (mg/L)		185	182	194	151	to 455	220	± 12	26
Total Suspended Solids (mg/L)		4 U	4 U	4 U	4 U	to 73	6.9	± 2.7	26
Sulfate (mg/L)		12.2	12.1	10.4	2.7	to 116	19	± 4.4	26
Bicarbonate (CaCO3) (mg/L)		137	136	153	90	to 228	140	± 5	26
Organic Carbon (mg/L)		2 U	2 U	2 U	0.7 U	to 6.3	1.9	± 0.24	26
Chemical Oxygen Demand (mg/L)		10 U	10 U	10 U	3 U	to 18	5.8	± 0.8	26
Chloride (mg/L)		6.7	7.2	6.2	2.3	to 31.1	9.6	± 1.1	26
Turbidity (field) (NTU)	0.35	1	1.1	0.62	0	to 60	1.9	± 0.68	89
Tannin & Lignins (Tannic Acid) (mg/L)		0.2 U	0.2 U	0.2 U	0.2 U	to 0.29	0.2	± 0.004	26

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

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Comments

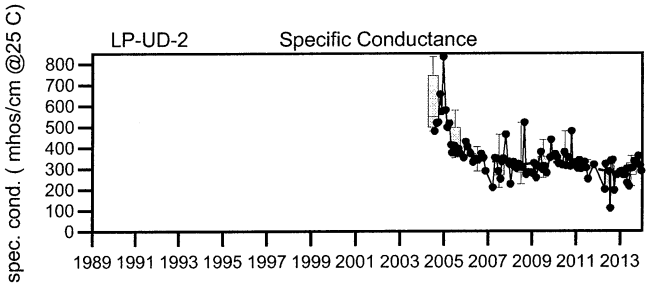
Q2= APRIL Q3= JULY Q4= OCTOBER
This location is monitored triannually for field and lab parameters and monthly for field parameters only.

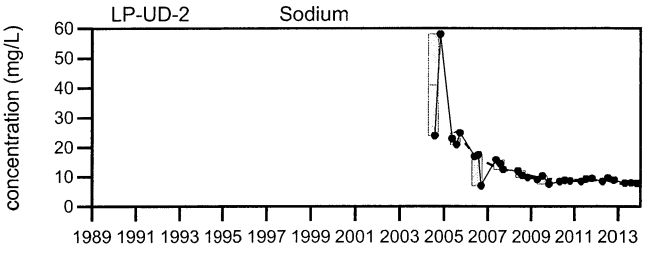
U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed H2= water level higher than pipes. See LF-COMP for readings. F6= No flow.Sample not taken F-12= Pipe under water, no sample taken. G7= Field measurements elevated due to recent cleaning of underdrain pipe. H6= Pipe under water, could not measure flow. H9=No flow from pipe, See LP-COMP for readings.

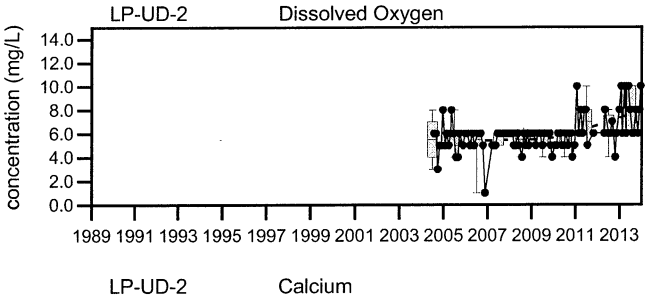
Data Group: 199

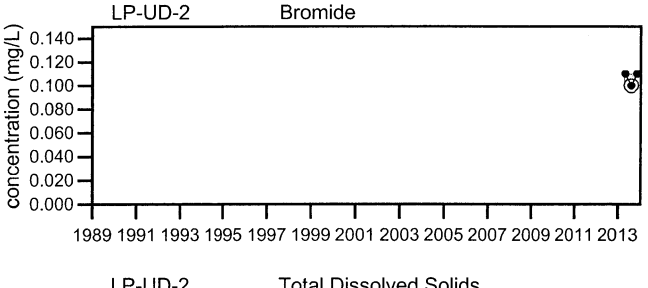
Printed: 3/18/2014 13:05

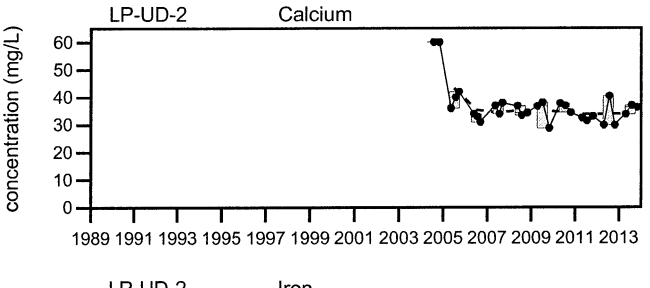
SME Sevee & Maher Engineers, Inc.

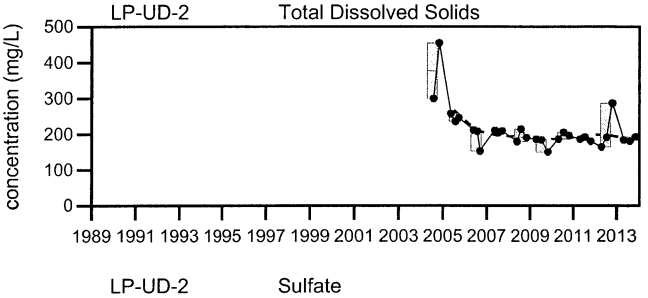


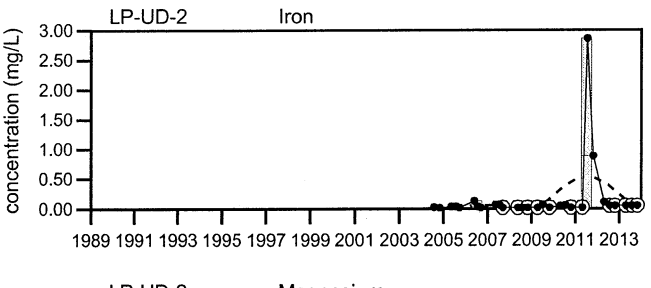


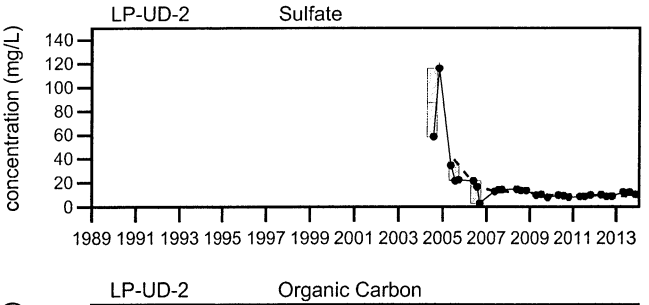


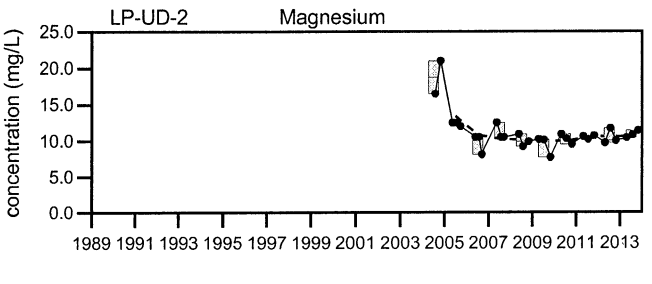


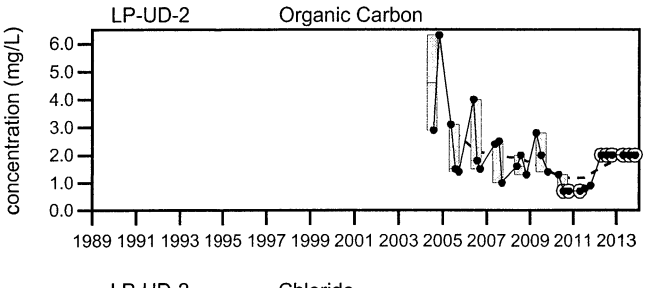


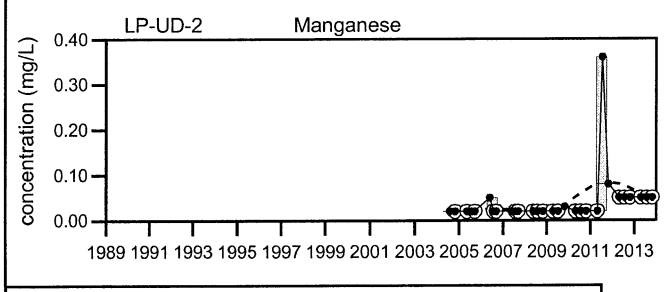


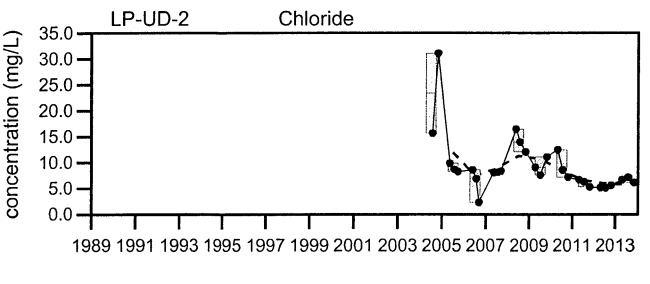


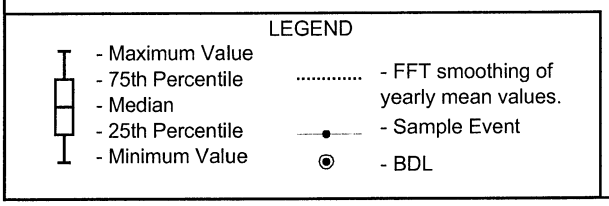












Juniper Ridge Landfill

LP-UD-2

Sevee & Maher Engineers, Inc.

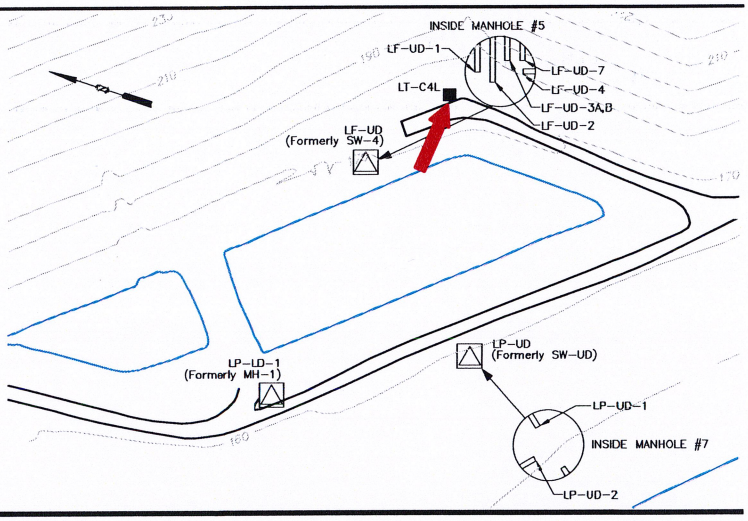
LT-C4L

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

Leachate collection location for cells #1, #2, #3A, #3B, #4 and #7.



Sampled: **Replaced by leach. stor. tank (LT-C4LR) 2013.**

Sampled Since: **4/15/2009**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	n
Dissolved Oxygen (mg/L)		1			1	to 8	2.9	± 0.88	7
Bromide (mg/L)		73.3			23.3	to 188	84	± 38	4
Specific Conductance (µmhos/cm @25°C)		18590			11470	to 30700	23000	± 1700	12
pH (Standard Units)		7.1			6.7	to 7.6	7.1	± 0.07	12
Alkalinity (CaCO3) (field) (mg/L)		1500			688	to 1813	1300	± 200	6
Arsenic (mg/L)		0.102			0.059	to 0.177	0.1	± 0.009	12
Cadmium (mg/L)		0.0013			0.0009	to 0.012	0.0043	± 0.001	12
Calcium (mg/L)		474			305	to 1759	750	± 130	12
Iron (mg/L)		30.3			9.61	to 82	33	± 6.6	12
Magnesium (mg/L)		301			179	to 514	360	± 31	12
Manganese (mg/L)		8.03			1.8	to 26	7.7	± 2.5	12
Nickel (mg/L)		0.079			0.03	to 0.153	0.089	± 0.01	12
Potassium (mg/L)		1237			714	to 1982	1500	± 120	12
Sodium (mg/L)		1844			1024	to 2612	2100	± 140	12
Total Kjeldahl Nitrogen (mg/L)		697			290	to 910	670	± 55	12
Nitrate (N) (mg/L)		↑ 30 U			5 U	to 17.9	14	± 2.3	12
Total Dissolved Solids (mg/L)		10700			6080	to 19816	14000	± 1200	12
Total Suspended Solids (mg/L)		34			5	to 230	73	± 19	12
Sulfate (mg/L)		200 U			50.2	to 342	130	± 24	12
Bicarbonate (CaCO3) (mg/L)		2950			1370	to 3630	2700	± 210	12
Organic Carbon (mg/L)		935			182	to 2120	890	± 220	12
Biochemical Oxygen Demand (mg/L)		1750			39	to 4050	1300	± 420	12
Chemical Oxygen Demand (mg/L)		3280			959	to 6700	3400	± 590	12
Chloride (mg/L)		5610			2560	to 21500	12000	± 1900	12
Turbidity (field) (NTU)		18.9			6.1	to 1100	220	± 120	9

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

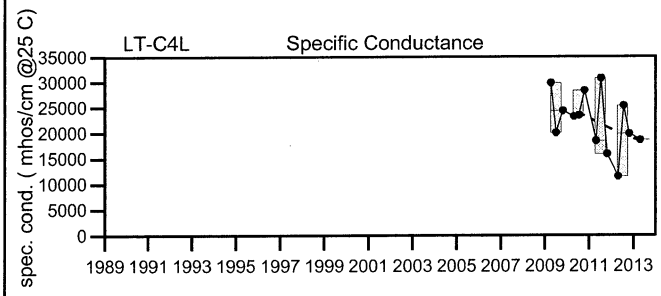
↑ indicates a value greater than the historical maximum value; ↓ indicates a value less than the historical minimum value.

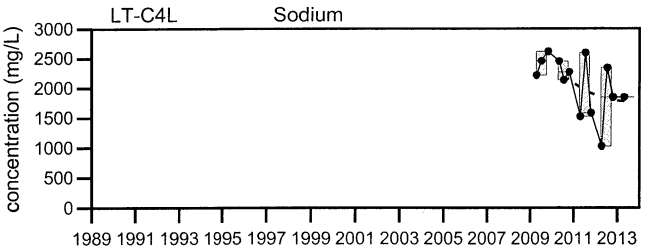
Comments

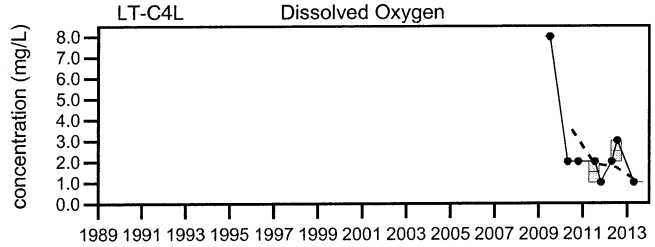
Q2= APRIL
U= sample below PQL or MDL J= estimated quantity D3= Sample too dark to take reading. G= Greater than specified amount.

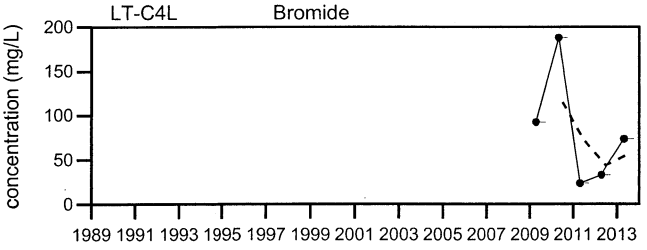
Data Group: 199
Printed: 3/20/2014 10:08

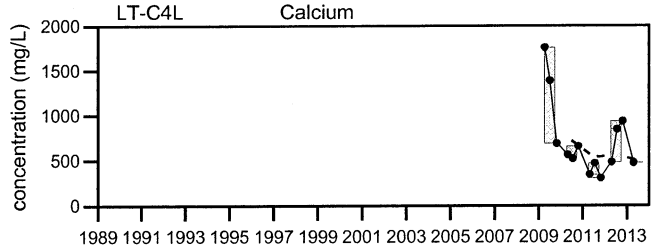
SME
Sevee & Maher Engineers, Inc.

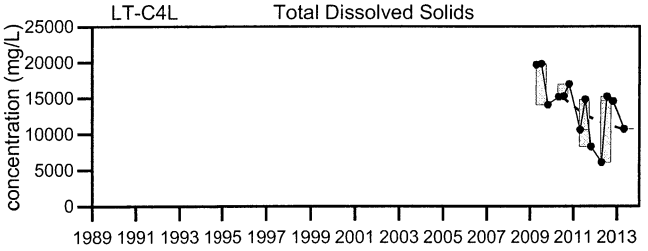


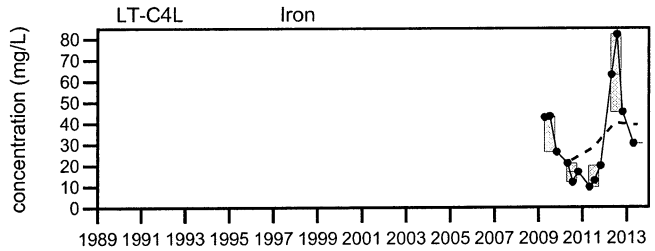


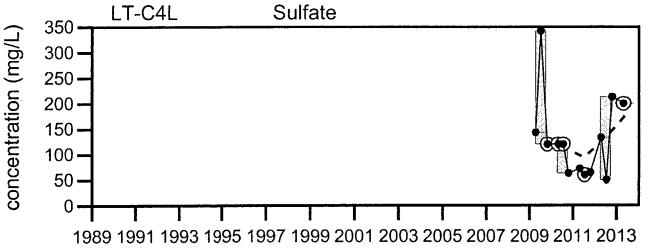


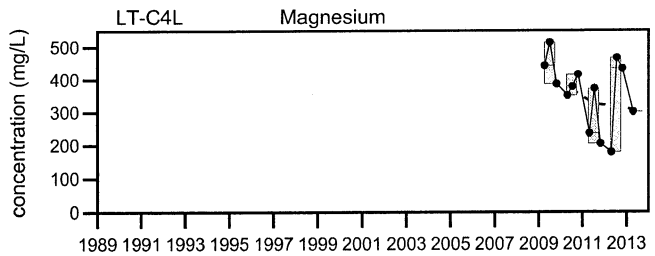


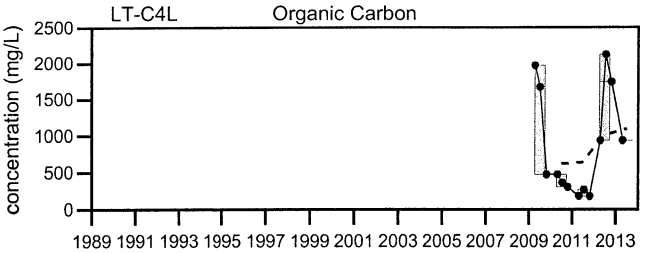


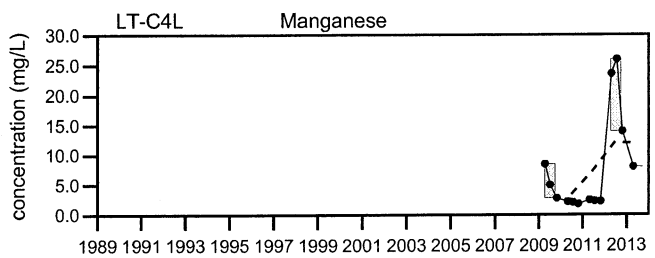


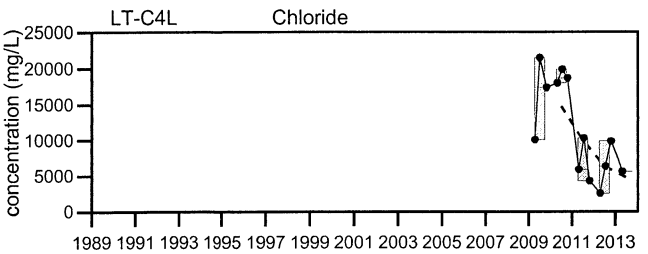


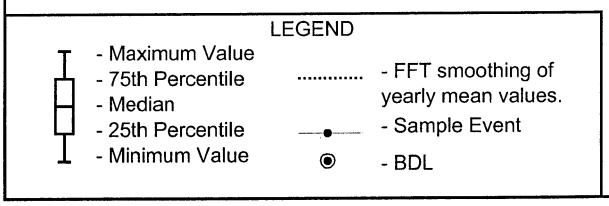












Juniper Ridge Landfill

LT-C4L

Sevee & Maher Engineers, Inc.

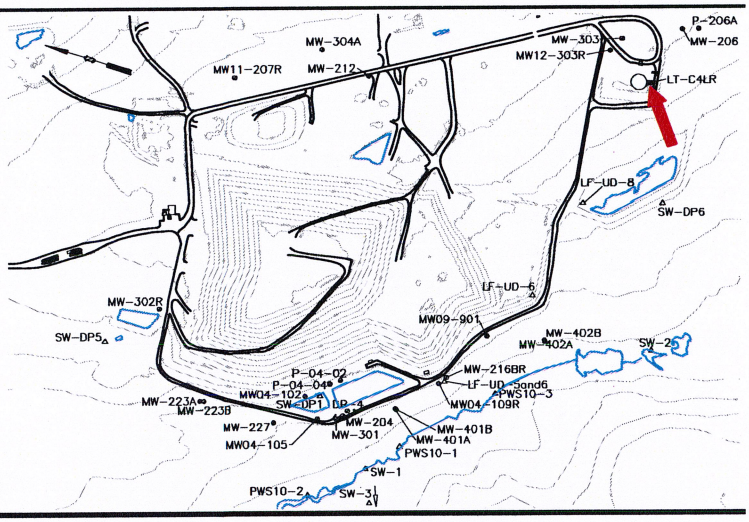
LT-C4LR

Juniper Ridge Landfill

annual stats 2013 minus leachate

Well Description

Leachate collection location at leachate storage tank.



Sampled: **3 Times Annually**

Sampled Since: **07/30/2013**

Sampling Method: **Grab**

Chemical Summary

Indicator Parameters	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Historical Min	Historical Max	Historical Mean	Historical SE	Historical n
Dissolved Oxygen (mg/L)			D2	D2	No historical data for Dissolved Oxygen.				
Bromide (mg/L)			38.8	95	No historical data for Bromide.				
Specific Conductance (µmhos/cm @25°C)			23400	24100	No historical data for Specific Conductance.				
pH (Standard Units)			6.7	6.8	No historical data for pH.				
Alkalinity (CaCO3) (field) (mg/L)			D3	D3	No historical data for Alkalinity (CaCO3) (field).				
Arsenic (mg/L)			0.137	0.16	No historical data for Arsenic.				
Cadmium (mg/L)			0.0146	0.004	No historical data for Cadmium.				
Calcium (mg/L)			958	860	No historical data for Calcium.				
Iron (mg/L)			179	100	No historical data for Iron.				
Magnesium (mg/L)			433	532	No historical data for Magnesium.				
Manganese (mg/L)			23.4	16.7	No historical data for Manganese.				
Nickel (mg/L)			0.304	0.23	No historical data for Nickel.				
Potassium (mg/L)			1234	1622	No historical data for Potassium.				
Sodium (mg/L)			1910	2290	No historical data for Sodium.				
Total Kjeldahl Nitrogen (mg/L)			742	880	No historical data for Total Kjeldahl Nitrogen.				
Nitrate (N) (mg/L)			1210	5	No historical data for Nitrate (N).				
Phosphate Phosphorus (mg/L)			1.39	0.79	No historical data for Phosphate Phosphorus.				
Total Dissolved Solids (mg/L)			15050	17400	No historical data for Total Dissolved Solids.				
Total Suspended Solids (mg/L)			625	140	No historical data for Total Suspended Solids.				
Sulfate (mg/L)			400 U	10.4	No historical data for Sulfate.				
Bicarbonate (CaCO3) (mg/L)			3700	3980	No historical data for Bicarbonate (CaCO3).				
Organic Carbon (mg/L)			2560	2450	No historical data for Organic Carbon.				
Biochemical Oxygen Demand (mg/L)			4850	855	No historical data for Biochemical Oxygen Demand.				
Chemical Oxygen Demand (mg/L)			8110	8080	No historical data for Chemical Oxygen Demand.				
Chloride (mg/L)			24300	5970	No historical data for Chloride.				
Turbidity (field) (NTU)			D3	D3	No historical data for Turbidity (field).				
Tannin & Lignins (Tannic Acid) (mg/L)			480	102	No historical data for Tannin & Lignins (Tannic Acid).				

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

Q3= JULY Q4= OCTOBER

U= sample below PQL or MDL J= estimated quantity D= location dry F= location frozen I=insufficient water for sample collection A=sample location could not be accessed HD= water above pipe invert. D2= Sample too dark to read D.O. reading.

Data Group: 199

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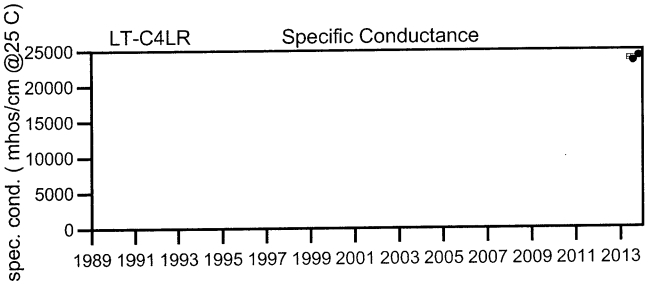
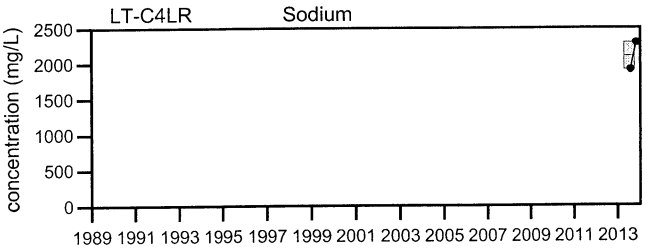
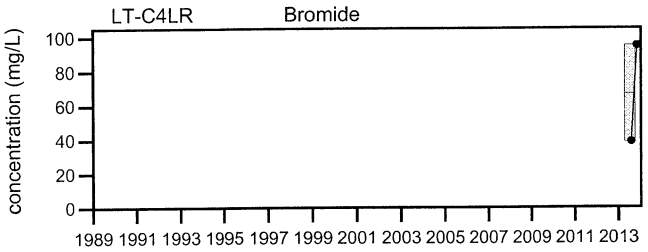
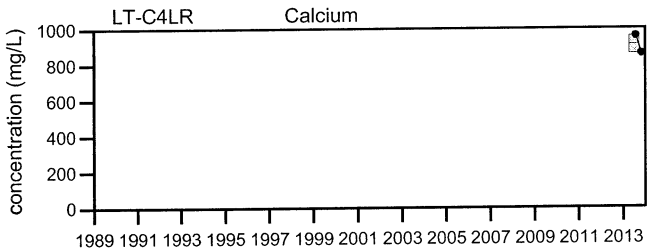
SME Sevee & Maher Engineers, Inc.

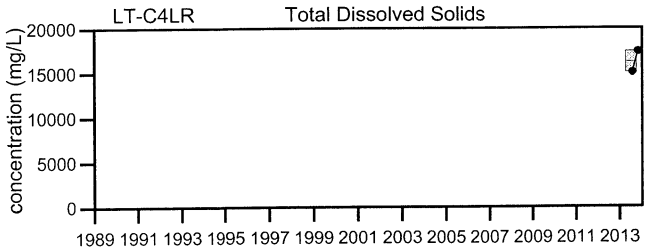


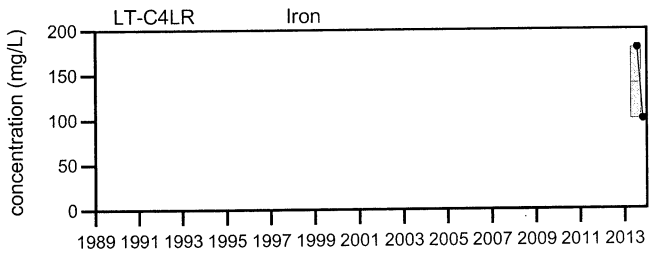


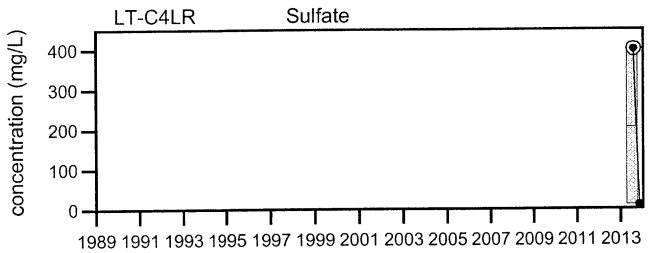
No data for Dissolved Oxygen at LT-C4LR

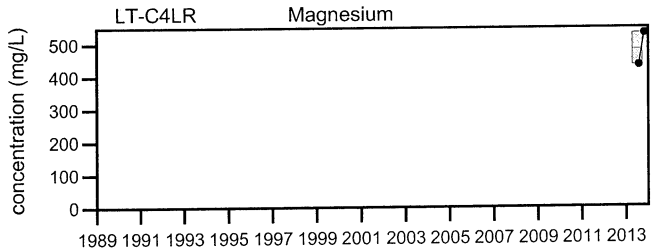


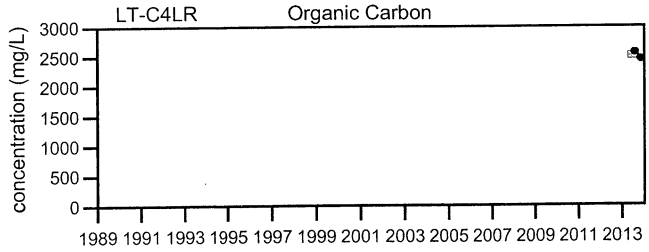


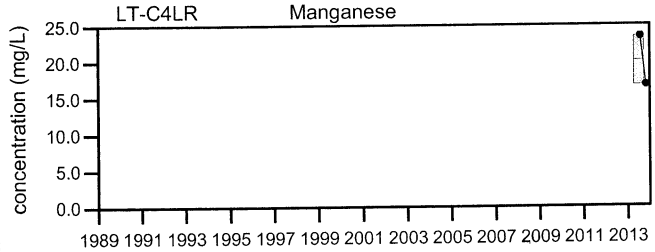


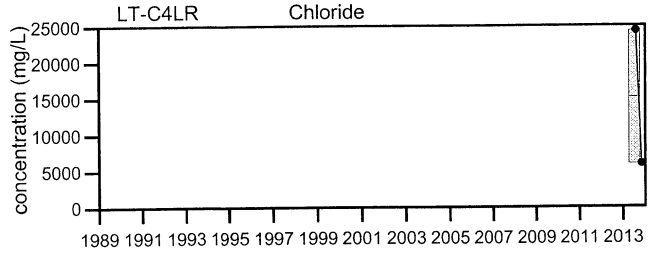


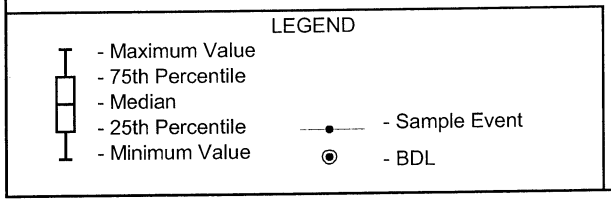












Juniper Ridge Landfill

LT-C4LR

Sevee & Maher Engineers, Inc.

APPENDIX C

MANN-KENDALL TREND ANALYSIS RESULTS

Summary of Mann-Kendall Trend Analysis
95% Confidence (alpha=0.05)
Juniper Ridge Landfill 2013

Location	Increasing Trends		Decreasing Trends		No Trends	
	Trend Analysis 3-yr	Trend Analysis 5-yr	Trend Analysis 3-yr	Trend Analysis 5-yr	Trend Analysis 3-yr	Trend Analysis 5-yr
DP-4	Fe, Mg, Na, TKN, SO4, Cl, TURB	Na		Eh, DO, Ca, Fe, TSS, HCO3, OC	Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Cd, Ca, Mn, K, TDS, TSS, HCO3, ALK (fld), OC, TANNIC, **(Cu, Ni, NH3-N, NO3-N, COD)**	Water Elev., Spec Cond, pH, Temp, As, Cd, Cu, Mg, Mn, Ni, K, TKN, NO3-N, TDS, SO4, ALK (fld), COD, Cl, TURB (fld), TANNIC **(NH3-N)**
LF-COMP [1]	pH, DO, ALK (fld)	Insufficient Data	Temp	Insufficient Data	Spec Cond, Eh, TURB (fld)	Insufficient Data
LF-UD-1	DO	Temp, DO	Spec Cond	Spec Cond, HCO3	pH, Temp, Eh, As, Cd, Ca, Cu, Fe, Mg, Mn, Ni, K, Na, NH3-N, NO3-N, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, COD, Cl, TURB (fld), TANNIC	pH, Eh, As, Cd, Ca, Cu, Fe, Mg, K, Na, NO3-N, P, TDS, TSS, SO4, ALK (fld), OC, COD, Cl, TURB (fld), TANNIC **(Mn, Ni, NH3-N)**
LF-UD-2	Spec Cond, DO, Ca, Mg, Na, NO3-N, TDS, SO4, Cl, TURB (fld)	Temp, Eh, DO, Cl		TURB (fld)	pH, Temp, Eh, As, Cd, K, NH3-N, P, TSS, HCO3, ALK (fld), TANNIC **(Cu, Fe, Mn, Ni, OC, COD)**	Spec Cond, pH, As, Ca, Fe, Mg, K, Na, NO3-N, NH3-N, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, COD, TANNIC **(Cd, Cu, Mn, Ni, NH3-N)**
LF-UD-3A,B	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LF-UD-4	Insufficient Data	DO, ALK (fld)	Insufficient Data	K, Na	Insufficient Data	Spec Cond, pH, Temp, Eh, As, Cd, Ca, Fe, Mg, Mn, Ni, NO3-N, P, TDS, TSS, SO4, HCO3, OC, COD, Cl, TURB (fld), TANNIC
LF-UD-5and6	Cl	Insufficient Data	Spec Cond, Mg, K, Na, TDS, SO4, HCO3, TURB (fld)	Insufficient Data	pH, Temp, Eh, DO, As, Cd, Ca, Cu, Fe, Mn, Ni, NO3-N, P, TSS, ALK (fld), OC, TANNIC **(NH3-N, COD)**	Insufficient Data
LF-UD-6	Spec Cond, pH, Mg, Na, HCO3, ALK (fld), Cl	Insufficient Data	TURB (fld)	Insufficient Data	Temp, Eh, DO, As, Cd, Ca, Cu, Fe, Mn, Ni, K, NO3-N, P, TDS, TSS, SO4, OC, COD, TANNIC **(NH3-N)**	Insufficient Data
LF-UD-7	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LF-UD-8	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LP-COMP	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LP-LD-1 [1]					Spec Cond, pH, Temp, Eh, DO, ALK (fld), TURB (fld)	Spec Cond, pH, Temp, Eh, DO, ALK (fld), TURB (fld)
LP-UD-1	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
LP-UD-2	SO4, TURB (fld)	Temp, Eh, As, HCO3		pH, Cl	Spec Cond, pH, Temp, Eh, DO, As, Cd, Ca, Cu, Fe, Mg, Mn, Ni, K, Na, NO3-N, P, TDS, TSS, HCO3, ALK (fld), COD, Cl, TANNIC **(NH3-N, OC)**	Spec Cond, DO, Cd, Ca, Cu, Fe, Mg, Mn, Ni, K, Na, NO3-N, P, TDS, TSS, SO4, ALK (fld), OC, COD, TURB (fld), TANNIC **(NH3-N)**
LT-C4L	BOD5			pH, Eh, Ni, TDS, TSS, Cl, TURB (fld)	Spec Cond, pH, Temp, Eh, DO, As, Cd, Ca, Cu, Fe, Mg, Mn, Ni, K, Na, TKN, NH3-N, NO3-N, TDS, TSS, SO4, S=, HCO3, ALK (fld), OC, COD, Cl, TURB (fld)	Al, Sb, Spec Cond, Temp, DO, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, K, Se, Ag, Na, Tl, V, Zn, Sn, TKN, NH3-N, NO3-N, SO4, S=, Hard (CaMg), HCO3, ALK, OC, BOD5, COD, Bromide, CN
LT-C4LR	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
MW04-102		As, ALK (fld), TURB (fld)	Spec Cond	Water Elev., Spec cond, Ca	pH, Temp, Water Elev., Eh, DO, As, Ca, Fe, Mg, Ni, K, Na, TKN, TDS, TSS, SO4, HCO3, ALK (fld), Cl, TURB (fld), TANNIC **(Cd, Cu, Mn, NH3-N, NO3-N, OC, COD)**	pH, Temp, Eh, DO, Cu, Mg, K, Na, TKN, NO3-N, TDS, TSS, SO4, HCO3, OC, COD, Cl, TANNIC **(Cd, Fe, Mn, Ni, NH3-N)**

Summary of Mann-Kendall Trend Analysis
95% Confidence (alpha=0.05)
Juniper Ridge Landfill 2013

Location	Increasing Trends		Decreasing Trends		No Trends	
	Trend Analysis 3-yr	Trend Analysis 5-yr	Trend Analysis 3-yr	Trend Analysis 5-yr	Trend Analysis 3-yr	Trend Analysis 5-yr
MW04-105	Mn	TURB (fld)	Na	Spec Cond, Ca, Mg, Na, TDS, SO4, HCO3, Cl	Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Cd, Ca, Fe, Mg, Ni, K, TKN, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, NH3-N, NO3-N, COD)**	Water Elev., pH, Temp, Eh, DO, As, Cd, Cu, Fe, Mn, Ni, K, TKN, NO3-N, TSS, ALK (fld), OC, COD, TANNIC **(NH3-N)**
MW04-109R	Mn, SO4, ALK (fld)		Spec Cond, K	Water Elev., Spec Cond, Mg, K, TDS, OC	pH, Temp, Water Elev., Eh, DO, As, Cd, Ca, Mg, Na, TKN, TDS, TSS, HCO3, OC, COD, Cl, TURB (fld), TANNIC **(Cu, Fe, Ni, NH3-N, NO3-N)**	pH, Temp, Eh, DO, As, Cd, Ca, Fe, Mn, Na, TKN, TSS, SO4, HCO3, ALK (fld), Cl, TURB (fld), TANNIC **(Cu, Ni, NH3-N, NO3-N, COD)**
MW09-901	As		K	Spec Cond, Ca, Mg, K, Na, TDS, HCO3	Spec Cond, pH, Temp, Water Elev., Eh, DO, Cd, Ca, Mg, Ni, Na, TKN, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Fe, Mn, NH3-N, NO3-N, COD)**	Water Elev., pH, Temp, Eh, DO, As, Cd, Fe, Mn, TKN, TSS, SO4, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Ni, NH3-N, NO3-N, COD)**
MW11-207R	DO, Cl	Insufficient Data		Insufficient Data	Spec Cond, pH, Temp, Water Elev., Eh, As, Cd, Ca, Cu, Fe, Mg, Mn, Ni, K, Na, TKN, NH3-N, NO3-N, TDS, TSS, SO4, HCO3, ALK (fld), OC, COD, TURB (fld), TANNIC	Insufficient Data
MW12-303R	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
MW-204		TURB (fld)		Spec Cond, Eh, DO, Ca, HCO3	Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Cd, Ca, Fe, Mg, Ni, K, Na, TKN, TDS, TSS, SO4, HCO3, ALK (fld), Cl, TURB (fld), TANNIC **(Cu, Mn, NH3-N, NO3-N, OC, COD)**	Water Elev., pH, Temp, As, Cd, Fe, Mg, K, Na, TKN, NO3-N, TDS, TSS, SO4, ALK (fld), OC, Cl, TANNIC **(Cu, Mn, Ni, NH3-N, COD)**
MW-206	DO		Spec Cond, Fe, TSS		pH, Temp, Water Elev., Eh, As, Cd, Ca, Cu, Mg, Mn, Ni, K, Na, TKN, TDS, SO4, HCO3, ALK (fld), OC, COD, Cl, TURB (fld), TANNIC **(NH3-N, NO3-N)**	Water Elev., Spec Cond, pH, Temp, Eh, DO, As, Cd, Ca, Fe, Mg, K, Na, TKN, NH3-N, NO3-N, TDS, TSS, SO4, HCO3, ALK (fld), OC, COD, Cl, TURB (fld), TANNIC **(Cu, Mn, Ni)**
MW-212	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
MW-216BR		ALK (fld)	Fe, Mn, Na	pH, Fe, Mn, Na, Cl	Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Cd, Ca, Mg, K, TKN, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Ni, NH3-N, NO3-N, COD)**	Water Elev., Spec Cond, Temp, Eh, DO, As, Ca, Mg, K, TKN, TDS, TSS, SO4, HCO3, OC, COD, TURB (fld), TANNIC **(Cd, Cu, Ni, NH3-N, NO3-N)**
MW-223A	Spec Cond, Ca, Mg, Na, TKN, TDS, SO4, HCO3, Cl	Spec Cond, pH, As, Ca, Mg, K, Na, TDS, SO4, HCO3, ALK (fld,), Cl	DO		pH, Temp, Water Elev., Eh, As, Cd, Cu, K, NH3-N, NO3-N, TSS, ALK (fld), TURB (fld), TANNIC **(Fe, Mn, Ni, OC, COD)**	Water Elev., Temp, Eh, DO, Fe, TKN, NO3-N, TSS, OC, TURB (fld), TANNIC **(Cd, Cu, Mn, Ni, NH3-N, COD)**
MW-223B	Ca, Mg, NO3-N, SO4, ALK (fld), Cl	Spec Cond, pH, Ca, Mg, NO3-N, TDS, SO4, Cl			Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Cd, Cu, Fe, Mn, K, Na, TKN, NH3-N, TDS, TSS, HCO3, OC, COD, TURB (fld), TANNIC **(Ni)**	Water Elev., Temp, Eh, DO, As, Fe, Mn, K, Na, TKN, NH3-N, TSS, HCO3, ALK (fld), OC, TURB (fld), TANNIC **(Cd, Cu, Ni, COD)**

Summary of Mann-Kendall Trend Analysis
95% Confidence (alpha=0.05)
Juniper Ridge Landfill 2013

Location	Increasing Trends		Decreasing Trends		No Trends	
	Trend Analysis 3-yr	Trend Analysis 5-yr	Trend Analysis 3-yr	Trend Analysis 5-yr	Trend Analysis 3-yr	Trend Analysis 5-yr
MW-227		As, SO4, ALK (fld)			Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Cd, Ca, Fe, Mg, K, Na, TKN, TDS, TSS, SO4, HCO3, ALK (fld), Cl, TURB (fld), TANNIC **(Cu, Mn, Ni, NH3-N, NO3-N, OC, COD)**	Water Elev., Spec Cond, pH, Temp, Eh, DO, Ca, Fe, Mg, K, Na, TKN, TDS, TSS, HCO3, OC, Cl, TURB (fld), TANNIC **(Cd, Cu, Mn, Ni, NH3-N, NO3-N, COD)**
MW-301	Cl	TURB (fld)	pH	pH, DO, K, Na	Spec Cond, Water Elev., Temp, Eh, DO, As, Cd, Ca, Fe, Mg, K, Na, TKN, TDS, TSS, SO4, HCO3, ALK (fld), TURB (fld), TANNIC **(Mn, Ni, NO3-N, OC, COD)**	Water Elev., Spec Cond, Temp, Eh, As, Ca, Fe, Mg, TKN, NO3-N, TDS, TSS, SO4, HCO3, ALK (fld), OC, COD, Cl, TANNIC **(Cd, Mn, Ni)**
MW-302R	DO	pH, TURB (fld)			Spec Cond, pH, Temp, Water Elev., Eh, As, Cd, Ca, Cu, Mg, K, Na, TKN, NO3-N, TDS, TSS, SO4, HCO3, ALK (fld), Cl, TURB (fld), TANNIC **(Fe, Mn, Ni, NH3-N, OC, COD)**	Water Elev., Spec Cond, Temp, Eh, DO, As, Ca, Fe, Mg, K, Na, TKN, NO3-N, TDS, TSS, SO4, HCO3, ALK (fld), OC, COD, Cl, TANNIC **(Cd, Cu, Mn, Ni, NH3-N, TURB (fld))**
MW-304A	Ca, TDS	Spec Cond, As, TDS	Water Elev.		Spec Cond, pH, Temp, Eh, DO, As, Cd, Mg, K, Na, TKN, TSS, SO4, HCO3, ALK (fld), Cl, TURB (fld), TANNIC **(Cu, Fe, Mn, Ni, NH3-N, OC, COD)**	Water Elev., pH, Temp, Eh, DO, Cd, Ca, Fe, Mg, K, Na, TKN, NO3-N, TSS, SO4, HCO3, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Mn, Ni, NH3-N, COD)**
MW-401A	Cl		ALK (fld)	pH, Eh, Ca	Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Cd, Ca, Mg, K, Na, TKN, NO3-N, TDS, TSS, SO4, HCO3, TURB (fld), TANNIC **(Cu, Fe, Mn, Ni, NH3-N, OC, COD)**	Water Elev., Spec Cond, Temp, DO, As, Cd, Mg, K, Na, TKN, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Fe, Mn, Ni, NH3-N, NO3-N, COD)**
MW-401B	Mn, SO4, Cl	Temp			Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Cd, Ca, Fe, Mg, K, Na, TKN, TDS, TSS, HCO3, ALK (fld), OC, TURB (fld), TANNIC **(Cu, Ni, NH3-N, NO3-N, COD)**	Water Elev., Spec Cond, pH, Eh, DO, As, Cd, Ca, Fe, Mg, Mn, K, Na, TKN, NO3-N, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Ni, NH3-N, COD)**
MW-402A	Ca, Mg, SO4	As		HCO3	Spec Cond, pH, Temp, Eh, DO, As, Cd, Cu, K, Na, TKN, TDS, TSS, HCO3, ALK (fld), COD, Cl, TURB (fld), TANNIC **(Fe, Mn, Ni, NH3-N, NO3-N, OC)**	Spec Cond, pH, Temp, Eh, DO, Cd, Ca, Mg, K, Na, TKN, TDS, TSS, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Fe, Mn, Ni, NH3-N, NO3-N, COD)**
MW-402B		As	Cd, ALK (fld)	DO	Spec Cond, pH, Temp, Water Elev., Eh, DO, As, Ca, Mg, Mn, K, Na, TKN, TDS, TSS, SO4, HCO3, Cl, TURB (fld), TANNIC **(Cu, Fe, Ni, NH3-N, NO3-N, OC, COD)**	Water Elev., Spec Cond, pH, Temp, Eh, Cd, Ca, Fe, Mg, K, Na, TKN, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Mn, Ni, NH3-N, NO3-N, COD)**
P-04-02	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
P-04-04	Mg	As	Water Elev., ALK (fld)	Water Elev., K	Spec Cond, pH, Temp, Eh, DO, As, Cd, Ca, K, Na, TKN, NO3-N, TDS, TSS, SO4, HCO3, Cl, TURB (fld), TANNIC **(Cu, Fe, Mn, Ni, NH3-N, OC, COD)**	Spec Cond, pH, Temp, Eh, DO, Cd, Ca, Mg, Na, TKN, NH3-N, NO3-N, TDS, TSS, SO4, HCO3, ALK (fld), OC, Cl, TURB (fld), TANNIC **(Cu, Fe, Mn, Ni, COD)**

Summary of Mann-Kendall Trend Analysis
95% Confidence (alpha=0.05)
Juniper Ridge Landfill 2013

Location	Increasing Trends		Decreasing Trends		No Trends	
	Trend Analysis 3-yr	Trend Analysis 5-yr	Trend Analysis 3-yr	Trend Analysis 5-yr	Trend Analysis 3-yr	Trend Analysis 5-yr
PWS10-1		Insufficient Data	ALK (fld)	Insufficient Data	Spec Cond, pH, Temp, Eh, DO, As, Cd, Ca, Cu, Fe, Mg, Mn, K, Na, NO3-N, P, TDS, TSS, SO4, HCO3, OC, COD, Cl, TURB (fld), TANNIC **(Ni, NH3-N)**	Insufficient Data
PWS10-2		Insufficient Data	ALK (fld)	Insufficient Data	Spec Cond, pH, Temp, Eh, DO, As, Cd, Ca, Cu, Fe, Mg, Mn, Ni, K, Na, NO3-N, P, TDS, TSS, SO4, HCO3, OC, COD, Cl, TURB (fld), TANNIC **(NH3-N)**	Insufficient Data
PWS10-3	Cl	Insufficient Data	ALK (fld)	Insufficient Data	Spec Cond, pH, Temp, Eh, DO, As, Cd, Ca, Cu, Fe, Mg, Mn, K, Na, NH3-N, NO3-N, P, TDS, TSS, SO4, HCO3, OC, COD, TURB (fld), TANNIC **(Ni)**	Insufficient Data
SW-1		DO			Spec Cond, pH, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, Ni, K, Na, NO3-N, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, BOD5, COD, Cl, TURB (fld), TANNIC **(Cd, Cu, NH3-N)**	Spec Cond, pH, Temp, Eh, As, Ca, Cu, Fe, Mg, Mn, Ni, K, Na, NH3-N, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, BOD5, COD, Cl, TURB (fld), TANNIC **(Cd, NO3-N)**
SW-2			ALK (fld)		Spec Cond, pH, Temp, Eh, DO, As, Cd, Ca, Fe, Mg, Mn, Ni, K, Na, NO3-N, P, TDS, TSS, SO4, HCO3, OC, BOD5, COD, Cl, TURB (fld), TANNIC **(Cu, NH3-N)**	Spec Cond, pH, Temp, Eh, DO, As, Ca, Cu, Fe, Mg, Mn, Ni, K, Na, NH3-N, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, COD, Cl, TURB (fld), TANNIC **(Cd, NO3-N, BOD5)**
SW-3	pH	pH		Eh	Spec Cond, Temp, Eh, DO, As, Ca, Fe, Mg, Mn, Ni, K, Na, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, BOD5, COD, TURB (fld), TANNIC **(Cd, Cu, NH3-N, NO3-N)**	Spec Cond, Temp, DO, As, Cd, Ca, Fe, Mg, Mn, K, Na, NH3-N, P, TDS, TSS, SO4, HCO3, ALK (fld), OC, BOD5, COD, Cl, TURB (fld), TANNIC **(Cu, Ni, NO3-N)**
SW-DP1	Mn, SO4	As, Mn	ALK (fld)	OC	Spec Cond, pH, Temp, Eh, DO, As, Ca, Cu, Fe, Mg, Ni, K, Na, P, TDS, TSS, HCO3, OC, COD, Cl, TURB (fld), TANNIC **(Cd, NH3-N, NO3-N)**	Spec Cond, pH, Temp, Eh, DO, Ca, Cu, Fe, Mg, K, Na, NH3-N, P, TDS, TSS, SO4, HCO3, ALK (fld), COD, Cl, TURB (fld), TANNIC **(Cd, Ni, NO3-N)**
SW-DP5	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
SW-DP6			Spec Cond, Ca, Mg, K, Na, TDS, HCO3	Spec Cond, Ca, Mg, Mn, Na, TDS, HCO3, OC, Cl	pH, Temp, Eh, DO, As, Cu, Fe, Mn, Ni, P, TSS, SO4, ALK (fld), OC, COD, Cl, TURB (fld), TANNIC **(Cd, NH3-N, NO3-N)**	pH, Temp, Eh, DO, As, Cu, Fe, Ni, K, P, TSS, SO4, ALK (fld), COD, TURB (fld), TANNIC **(Cd, NH3-N, NO3-N)**

Key		
ALK (fld) = Alkalinity (Ca CO3) (field)	ALK = Alkalinity (CaCO3)	BOD5 = Biological Oxygen Demand
COD = Chemical Oxygen Demand	Cl = Chloride	Eh = Corrected Eh
NO3-N = Nitrate (N)	DO = Dissolved Oxygen	NH3-N = Ammonia (N)
pH = pH	HCO3 = Bicarbonate (CaCO3)	P = Phosphate Phosphorus
Spec Cond = Specific Conductance	OC = Organic Carbon	SO4 = Sulfate
Temp = Temperature	S= = Sulfide	TDS = Total Dissolved Solids
TURB (fld) = Turbidity (field)	TANNIC =Tannin & Lignins (Tannic Acid)	TSS = Total Suspended Solids
	TKN = Total Kjeldahl Nitrogen	

Summary of Mann-Kendall Trend Analysis
95% Confidence (alpha=0.05)
Juniper Ridge Landfill 2013

- 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.

Notes:

Parameters in parentheses and bold text were excluded from statistical screen due to all or most data values being non-detect with variable laboratory detection limits. These parameters were identified with statistically significant trends (95% confidence level), but are considered for the purposes of this analysis to have no discernible statistically significant trends.

Footnotes

1. Sufficient data for field parameters only.

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., Nonparametric Statistical Methods, John Wiley Sons, 1999.

APPENDIX D

DETECTED 2013 VOCs, SVOCs, PESTICIDES, HERBICIDES, AND PCBs FOR LEACHATE

REPORT PREPARED: 3/17/2014 10:06
FOR: Juniper Ridge Landfill

CONCENTRATIONS EXCEEDING LABORATORY REPORTING LIMIT

VOA, Semi-VOA, Pesticide, Herbicide, and PCB Hits

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

LOCATION (LT-C4L)	PARAMETER NAME	DATE	CONCENTRATION/ QUALIFIER	UNITS	SAMPLE ID	ANALYTICAL METHOD
LT-C4L						
	Acetone	4/23/2013	1310	ug/L	LTC4LX5HG	SW8260B
	Methyl Ethyl Ketone	4/23/2013	4110	ug/L	LTC4LX5HG	SW8260B
	Phenol	4/23/2013	140	ug/L	LTC4LX5HG	SW8270
	3&4-Methylphenol	4/23/2013	1000	ug/L	LTC4LX5HG	SW8270
LT-C4LR						
	Acetone	7/30/2013	4400	ug/L	LTC4LX641	8260C
		10/29/2013	4000	ug/L	LTC4LX66E	SW8260
	Methyl Ethyl Ketone	7/30/2013	23000 E	ug/L	LTC4LX641	8260C
		10/29/2013	20000	ug/L	LTC4LX66E	SW8260

Concentration Qualifier Notes:

! - The sampling location was damaged or destroyed.
E - Compound exceeded upper level of calibration range and required dilution.
F6 - No flow. Sample not taken.

APPENDIX E

2013 AND HISTORICAL GAS MEASUREMENT DATA

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

	Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
DP-4		DP-4 is located downgradient of the landfill and leachate pond and monitors groundwater quality within the overburden.					
	5/5/2004	0.1 US					
	8/4/2004	0.1 US					
	10/27/2004	0.1 US					
	5/9/2005	0.1		0		20.3	
	8/1/2005	0.1 US		0		20.3	
	9/20/2005	0.1 US		0		20.8	
	12/27/2005	0.1 US		0		21	0
	5/22/2006	0.1 US		0		21.1	0
	7/26/2006	0.1 US		0		20.7	0
	9/11/2006	0.1 US		0		19.7	0
	10/4/2006	0.1 US		0		18.6	0
	5/15/2007	0.1 US		0		20.6	0
	7/25/2007	0.1 US		0		20.2	0
	9/10/2007	0.1 US		0		20.3	0
	5/19/2008	0.1 US		0		21.1	0
	7/29/2008	0.1 US		0		21	0
	10/29/2008	0.1 US		0		M	0
	4/14/2009	0.1 US		0		21	0
	7/6/2009	0.1 US		0		20.6	0
	10/26/2009	0.1 US		0		20.4	0
	4/26/2010	0.1 US		0		19.8	0
	7/19/2010	0.1 US		0		20.4	0
	10/18/2010	0.1 US	0.1 US	0	0	21.2	0
	4/25/2011	0.1 US	0.1 US	0	0	20.7	0
	7/18/2011	0.1 US	0.1 US	0	0	20.3	0
	10/24/2011	0.1 US	0.1 US	0	0	20.8	0
	4/25/2012	0.1 US	0.1 US	0	0	20.4	0
	7/25/2012	0.1 US	0.1 US	0	0	20.7	0
	10/24/2012	0.1 US	0.1 US	0	0	20.9	0
	4/24/2013	0.1 US	0.1 US	0	0	20.8	0
	7/31/2013	0.1 US	0.1 US	0	0	20.5	0
	10/30/2013	0.1 US	0.1 US	0	0	21.1	0
LF-UD		Manhole					
	8/4/2004	0.1 US					
	10/27/2004	0.1 US					
	5/9/2005	0.1		0		20.7	
	8/1/2005	0.1 US		0		19.8	
	9/21/2005	0.1 US		0		20.6	
	12/27/2005	0.1 US		0		20.9	0
	5/22/2006	0.1 US		0		20.5	0
	7/26/2006	0.1 US		0		20	0
	9/11/2006	0.1 US		0		20.5	0
	10/4/2006	0.1 US		0		18.6	0
	5/15/2007	0.1 US		0		20.2	0
	7/25/2007	0.1 US		0		20.3	0
	9/10/2007	0.1 US		0		20.3	0
	5/20/2008	0.1 US		0		21.1	0
	7/28/2008	0.1 US		0		19.9	0
	10/29/2008	0.1 US		0		M	0

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

	Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
LF-UD		Manhole					
	4/15/2009	0.1 US		0		20.4	0
	7/7/2009	0.1 US		0		20.6	0
	10/27/2009	0.1 US		0		20.2	0
	4/27/2010	0.1 US		0		20.5	0
	7/21/2010	0.1 US		0		20.1	0
	10/19/2010	0.1 US	0.1 US	0	0	21	0
	4/26/2011	0.1 US	0.1 US	0	0	20.8	0
	7/19/2011	0.1 US	0.1 US	0	0	19.8	0
	10/26/2011	0.1 US	0.1 US	0	0	20.6	0
	4/24/2012	0.1 US	0.1 US	0	0	20.5	0
	7/24/2012	0.1 US	0.1 US	0	0	20.2	0
	10/23/2012	0.1 US	0.1 US	0	0	21.1	0
	4/23/2013	0.1 US	0.1 US	0	0	20.6	0
	7/30/2013	0.1 US	0.1 US	0	0	20.9	0
	10/29/2013	0.1 US	0.1 US	0	0	20.5	0
LP-LD		Manhole					
	8/4/2004	0.1 US					
	10/27/2004	0.1 US					
	5/9/2005	0.1		0		20.7	
	8/1/2005	0.1 US		0		20.2	
	9/21/2005	0.1 US		0		20.8	
	12/27/2005	0.1 US		0		20.8	0
	5/22/2006	0.1 US		0		20.5	0
	7/26/2006	0.1 US		0		20	0
	9/11/2006	0.1 US		0		20.5	0
	10/4/2006	0.1 US		0		18.6	0
	5/15/2007	0.1 US		0		20.2	0
	7/25/2007	0.1 US		0		20.4	0
	9/10/2007	0.1 US		0		20.3	0
	5/20/2008	0.1 US		0		20.9	0
	7/28/2008	0.1 US		0		20.8	0
	10/29/2008	0.1 US		0		M	0
	4/15/2009	0.1 US		0		19.8	0
	7/7/2009	0.1 US		0		20.6	0
	10/27/2009	0.1 US		0		20.1	0
	4/27/2010	0.1 US		0		20.6	0
	7/19/2010	0.1 US		0		20.4	0
	10/19/2010	0.1 US	0.1 US	0	0	21	0
	4/26/2011	0.1 US	0.1 US	0	0	20.8	0
	7/19/2011	0.1 US	0.1 US	0	0	19.9	0
	10/26/2011	0.1 US	0.1 US	0	0	20.6	0
	4/24/2012	0.1 US	0.1 US	0	0	20.3	0
	7/24/2012	0.1 US	0.1 US	0	0	20.7	0
	10/23/2012	0.1 US	0.1 US	0	0	20.9	0
	4/23/2013	0.1 US	0.1 US	0	0	20.6	0
	7/30/2013	0.1 US	0.1 US	0	0	20.6	0
	10/29/2013	0.1 US	0.1 US	0	0	20.7	0
LP-UD		LP-UD is a composite sample from the leachate pond underdrain.					
	8/4/2004	0.1 US					

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	Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
LP-UD		LP-UD is a composite sample from the leachate pond underdrain.					
	10/27/2004	0.1 US					
	5/9/2005	0.1 US		0		20.7	
	8/1/2005	0.1 US		0		19.8	
	9/21/2005	0.1 US		0		20.8	
	12/27/2005	0.1 US		0		20.8	0
	5/22/2006	0.1 US		0		20.9	0
	7/26/2006	0.1 US		0		20	0
	9/11/2006	0.1 US		0		20.6	0
	10/4/2006	0.1 US		0		18.3	0
	5/15/2007	0.1 US		0		20.2	0
	7/25/2007	0.1 US		0		20.3	0
	9/10/2007	0.1 US		0		20.3	0
	5/20/2008	0.1 US		0		20.9	0
	7/28/2008	0.1 US		0		19.8	0
	10/29/2008	0.1 US		0		M	0
	4/15/2009	0.1 US		0		20.3	0
	7/7/2009	0.1 US		0		20.7	0
	10/27/2009	0.1 US		0		20.1	0
	4/27/2010	0.1 US		0		20.1	0
	7/21/2010	0.1 US		0		20.6	0
	10/19/2010	0.1 US	0.1 US	0	0	21	0
	4/26/2011	0.1 US	0.1 US	0	0	20.8	0
	7/19/2011	0.1 US	0.1 US	0	0	20	0
	10/26/2011	0.1 US	0.1 US	0	0	20.7	0
	4/24/2012	0.1 US	0.1 US	0	0	20.5	0
	7/24/2012	0.1 US	0.1 US	0	0	20.7	0
	10/23/2012	0.1 US	0.1 US	0	0	21.2	0
	4/23/2013	0.1 US	0.1 US	0	0	20.7	0
	7/30/2013	0.1 US	0.1 US	0	0	20.7	0
	10/29/2013	0.1 US	0.1 US	0	0	20.8	0
LT-C4L		Leachate collection location for cells #1, #2, #3A, #3B, #4 and #7.					
	4/14/2009	0.1 US		0		21.2	0
	7/7/2009	0.1 US		0		20.7	0
	10/28/2009	0.1 US		0		20.2	0
	4/27/2010	0.1 US		0		20.5	0
	7/21/2010	0.1 US		0		20.1	0
	10/19/2010	0.1 US	0.1 US	0	0	21.4	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	0	20.7	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
LT-C4LR		Leachate collection location at leachate storage tank.					
	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
MW04-102		MW04-102 monitors groundwater in the overburden downgradient of the landfill and upgradient of Stormwater Detention Pond-1.					

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Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW04-102	MW04-102 monitors groundwater in the overburden downgradient of the landfill and upgradient of Stormwater Detention Pond-1.					
3/25/2005	0.1 US					
7/25/2005	0.1 US		0		20.5	
9/20/2005	0.1 US		4		20.6	
12/27/2005	0.1 US		0		20.7	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		20.4	0
9/11/2006	0.1 US		0		20.7	0
10/4/2006	0.1 US		0		19.8	0
5/15/2007	0.1 US		0		19.8	0
7/25/2007	0.1 US		0		20.5	0
9/10/2007	0.1 US		0		20.3	0
5/20/2008	0.1 US		0		21.2	0
7/29/2008	0.1 US		0		20.8	0
10/27/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		19.7	0
7/7/2009	0.1 US		0		20.6	0
10/27/2009	0.1 US		0		20.7	0
4/27/2010	0.1 US		0		20.8	0
7/21/2010	0.1 US		0		20.1	0
10/19/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	21.1	0
7/19/2011	0.1 US	0.1 US	0	0	20.2	0
10/25/2011	0.1 US	0.1 US	0	0	21	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.2	0
10/22/2012	0.1 US	0.1 US	0	0	21.2	0
4/23/2013	0.1 US	0.1 US	0	0	20.8	0
7/31/2013	0.1 US	0.1 US	0	0	20.7	0
10/28/2013	0.1 US	0.1 US	0	0	20.8	0
MW04-105	MW04-105 monitors groundwater in the overburden downgradient of the landfill and Stormwater Detention Pond-1.					
3/25/2005	0.1 US					
7/25/2005	0.1 US		0		20.1	
9/20/2005	0.1 US		9		20.9	
12/27/2005	0.1 US		0		20.9	0
5/22/2006	0.1 US		0		20.8	0
7/26/2006	0.1 US		0		20.3	0
9/11/2006	0.1 US		0		20.2	0
10/4/2006	0.1 US		0		19.7	0
5/15/2007	0.1 US		0		21.3	0
7/25/2007	0.1 US		0		20.5	0
9/10/2007	0.1 US		0		20.3	0
5/19/2008	0.1 US		0		21	0
7/29/2008	0.1 US		0		20.9	0
10/27/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20	0
7/6/2009	0.1 US		0		19.8	0
10/26/2009	0.1 US		0		20.6	0
4/27/2010	0.1 US		0		20.7	0
7/19/2010	0.1 US		0		20.5	0

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Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW04-105	MW04-105 monitors groundwater in the overburden downgradient of the landfill and Stormwater Detention Pond-1.					
10/18/2010	0.1 US	0.1 US	0	0	21.2	0
4/26/2011	0.1 US	0.1 US	0	0	20.9	0
7/18/2011	0.1 US	0.1 US	0	0	20.2	0
10/25/2011	0.1 US	0.1 US	0	0	21	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.2	0
10/22/2012	0.1 US	0.1 US	0	0	21.1	0
4/24/2013	0.1 US	0.1 US	0	0	20.8	0
7/30/2013	0.1 US	0.1 US	0	0	20.5	0
10/29/2013	0.1 US	0.1 US	0	0	21.5	0
MW04-109	MW04-109 monitors groundwater in the overburden downgradient of the landfill and Stormwater Detention Pond-2.					
3/25/2005	0.1 US					
7/26/2005	0.1 US		0		19.2	
9/20/2005	0.1 US		5		20.9	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		20.8	0
7/26/2006	0.1 US		0		20.5	0
9/11/2006	0.1 US		0		19.5	0
10/4/2006	0.1 US		0		19.8	0
5/15/2007	0.1 US		0		20.1	0
7/25/2007	0.1 US		0		20.6	0
9/10/2007	0.1 US		0		20.3	0
5/19/2008	0.1 US		0		20.9	0
7/29/2008	0.1 US		0		20.9	0
10/28/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		19.9	0
7/6/2009	DE		DE		DE	DE
MW04-109R	MW04-109R is located to the south of Cell #5 of the expansion landfill and near Manhole #5. This well monitors water quality within the overburden downgradient of the landfill.					
4/27/2010	0.1 US		0		20.8	0
7/20/2010	0.1 US		0		20.4	0
10/19/2010	0.1 US	0.1 US	0	0	21.3	0
4/26/2011	0.1 US	0.1 US	0	0	21	0
7/19/2011	0.1 US	0.1 US	0	0	20.4	0
10/25/2011	0.1 US	0.1 US	0	0	20.3	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.4	0
10/23/2012	0.1 US	0.1 US	0	0	21.2	0
4/23/2013	0.1 US	0.1 US	0	0	20.8	0
7/30/2013	0.1 US	0.1 US	0	0	20.4	0
10/29/2013	0.1 US	0.1 US	0	0	21.2	0
MW09-901	MW09-901 is located to the south of Cell #5 and detention pond #2 of the expansion landfill. This well monitors water quality within the overburden downgradient of the landfill.					
4/27/2010	0.1 US		0		20.7	0
7/20/2010	0.1 US		0		20.3	0
10/19/2010	0.1 US	0.1 US	0	0	21.3	0
4/26/2011	0.1 US	0.1 US	0	0	21	0
7/19/2011	0.1 US	0.1 US	0	0	20.2	0
10/25/2011	0.1 US	0.1 US	0	0	21	0

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	Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW09-901		MW09-901 is located to the south of Cell #5 and detention pond #2 of the expansion landfill. This well monitors water quality within the overburden downgradient of the landfill.					
	4/25/2012	0.1 US	0.1 US	0	0	20.3	0
	7/23/2012	0.1 US	0.1 US	0	0	20.3	0
	10/23/2012	0.1 US	0.1 US	0	0	21.1	0
	4/23/2013	0.1 US	0.1 US	0	0	20.7	0
	7/30/2013	0.1 US	0.1 US	0	0	20.8	0
	10/29/2013	0.1 US	0.1 US	0	0	21.2	0
MW11-207R		MW11-207R monitors bedrock groundwater quality upgradient of the landfill. This well replaced MW-207.					
	7/20/2011	0.1 US	0.1 US	0	0	20.2	0
	10/24/2011	0.1 US	0.1 US	0	0	20.8	0
	4/25/2012	0.1 US	0.1 US	0	0	20.3	0
	7/23/2012	0.1 US	0.1 US	0	0	20.1	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	20.6	0
	7/31/2013	0.1 US	0.1 US	0	0	20.7	0
	10/29/2013	0.1 US	0.1 US	0	0	20.8	0
MW12-303R		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.					
	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
MW-204		MW-204 monitors the overburden water quality downgradient from the landfill.					
	5/5/2004	0.1 US					
	8/4/2004	23					
	10/27/2004	0.1 US					
	5/9/2005	0.1		0		20.3	
	8/1/2005	0.1 US		0		20.1	
	9/20/2005	0.1 US		0		20.8	
	12/27/2005	0.1 US		0		20.9	0
	5/22/2006	0.1 US		0		20.9	0
	7/26/2006	0.9		0		19.7	1.7
	9/11/2006	0.1 US		0		18.9	0
	10/4/2006	0.1 US		0		19.1	0
	5/15/2007	0.1 US		0		20.8	0
	7/25/2007	0.1 US		0		20.2	0
	9/10/2007	0.1 US		0		20.4	0
	5/21/2008	0.1 US		0		20.4	0
	7/30/2008	0.8		0		18.7	1.9
	10/28/2008	5.3		0		M	2.9
	4/13/2009	0.1 US		0		20.9	0
	7/6/2009	0.1 US		0		19.7	0
	10/26/2009	0.1 US		0		20.6	0
	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

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Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-204	MW-204 monitors the overburden water quality downgradient from the landfill.					
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
MW-206	MW-206 monitors overburden water quality upgradient of the landfill.					
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		21.6	
8/1/2005	0.1 US		0		20.3	
9/19/2005	0.1 US		5		20.5	
12/27/2005	0.1 US		0		20.7	0
5/22/2006	0.1 US		0		20.8	0
7/26/2006	0.1 US		0		20.4	0
9/11/2006	0.1 US		0		20.3	0
10/4/2006	0.1 US		0		19.2	0
5/15/2007	0.1 US		0		20.1	0
7/25/2007	0.1 US		0		20.6	0
9/10/2007	0.1 US		0		20.2	0
5/20/2008	0.1 US		0		20.1	0
7/29/2008	0.1 US		0		20.9	0
10/27/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20	0
7/6/2009	0.1 US		0		19.7	0
10/28/2009	0.1 US		0		20.7	0
4/26/2010	0.1 US		0		20.4	0
7/19/2010	0.1 US		0		20	0
10/18/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	20.4	0
7/18/2011	0.1 US	0.1 US	0	0	20.5	0
10/24/2011	0.1 US	0.1 US	0	0	20.6	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.2	0
10/22/2012	0.1 US	0.1 US	0	0	21.1	0
4/22/2013	0.1 US	0.1 US	0	0	20.5	0
7/31/2013	0.1 US	0.1 US	0	0	20.6	0
10/28/2013	0.1 US	0.1 US	0	0	20.8	0
MW-207	MW-207 monitors bedrock groundwater quality upgradient of the landfill.					
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		20.2	
8/1/2005	0.1 US		0		20.4	
9/19/2005	0.1 US		0		20.6	
12/27/2005	0.1 US		0		20.6	0
5/22/2006	0.1 US		0		21.1	0
7/26/2006	0.1 US		0		20.6	0

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	Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-207		MW-207 monitors bedrock groundwater quality upgradient of the landfill.					
	9/11/2006	0.1 US		0		19.9	0
	10/4/2006	0.1 US		0		19.2	0
	5/15/2007	0.1 US		0		20.7	0
	7/25/2007	0.1 US		0		20.1	0.5
	9/10/2007	0.1 US		0		20.2	0
	5/19/2008	0.1 US		0		20.4	0
	7/29/2008	0.1 US		0		20.8	0
	10/28/2008	0.1 US		0		M	0
	4/14/2009	0.1 US		0		20.1	0
	7/6/2009	0.1 US		0		19.7	0
	10/26/2009	0.1 US		0		20.6	0
	4/26/2010	0.1 US		0		20.2	0
	7/19/2010	0.1 US		0		20	0
	10/18/2010	0.1 US	0.1 US	0	0	21.1	0
	4/25/2011	0.1 US	0.1 US	0	0	20.2	0
MW-212		MW-212 monitors the overburden groundwater upgradient of the landfill.					
	5/5/2004	0.1 US					
	8/4/2004	0.1 US					
	10/27/2004	0.1 US					
	5/9/2005	0.1 US		0		20.2	
	8/1/2005	0.1 US		0		20.3	
	9/20/2005	0.1 US		0		20.7	
	12/27/2005	0.1 US		0		20.6	0
	5/22/2006	0.1 US		0		21.1	0
	7/26/2006	0.1 US		0		19.5	0.5
	9/11/2006	0.1 US		0		19.8	0
	10/4/2006	0.1 US		0		19.3	0
	5/15/2007	0.1 US		0		22.1	0
	7/25/2007	0.1 US		0		20.6	0
	9/10/2007	0.1 US		0		20.3	0
	5/19/2008	0.1 US		0		20.4	0
	7/29/2008	0.1 US		0		20.8	0
	10/28/2008	0.1 US		0		M	0
	4/14/2009	0.1 US		0		20.2	0
	7/6/2009	0.1		0		19.3	0.6
	10/26/2009	0.1 US		0		20.5	0
	4/26/2010	0.1 US		0		20.3	0
	7/19/2010	0.1 US		0		19.9	0
	10/18/2010	0.1 US	0.1 US	0	0	21	0
	4/25/2011	0.1 US	0.1 US	0	0	19.9	0
	7/18/2011	0.1 US	0.1 US	0	0	20.1	0
	10/24/2011	0.1 US	0.1 US	0	0	17.2	3.6
	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	20.2	0
	10/22/2012	0.1 US	0.1 US	0	0	21	0
	4/22/2013	0.1 US	0.1 US	0	0	20.5	0
MW-216B		MW-216B monitors the overburden water quality downgradient of the landfill.					
	5/5/2004	0.1 US					
	8/4/2004	0.1 US					

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-216B	MW-216B monitors the overburden water quality downgradient of the landfill.					
10/27/2004	0.1 US					
5/9/2005	0.1		0		20.1	
8/1/2005	0.1 US		0		20.3	
9/22/2005	0.1 US		0		20.7	
12/27/2005	A		A		A	A
5/22/2006	0.1 US		0		20.9	0
7/26/2006	0.1 US		0		14.5	7.1
9/11/2006	0.1 US		0		17	6.5
10/4/2006	0.1 US		0		19.5	0
5/15/2007	0.1 US		0		16.5	3.3
7/25/2007	0.1 US		0		15.3	6.7
9/10/2007	0.1 US		0		20.4	0
5/20/2008	0.1 US		0		20.9	0
7/28/2008	0.1 US		0		21.1	0
10/28/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		19.9	0
7/6/2009	DE		DE		DE	DE
MW-216BR	MW-216BR is located to the south of Cell #5 of the expansion landfill and near Manhole #5. This well monitors water quality within the overburden downgradient of the landfill.					
4/27/2010	0.1 US		0		20.7	0
7/20/2010	0.1 US		0		20.3	0
10/19/2010	0.1 US	0.1 US	0	0	21.2	0
4/26/2011	0.1 US	0.1 US	0	0	21	0
7/19/2011	0.1 US	0.1 US	0	0	20.4	0
10/25/2011	0.1 US	0.1 US	0	0	20.4	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.3	0
10/23/2012	0.1 US	0.1 US	0	0	21.2	0
4/23/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	19.8	0
10/29/2013	0.1 US	0.1 US	0	0	21.1	0
MW-223A	MW-223A monitors the bedrock water quality downgradient of the landfill.					
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		20.5	
8/1/2005	0.1 US		0		20.6	
9/21/2005	0.1 US		3		20.9	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		20.3	0
9/11/2006	0.1 US		0		20.5	0
10/4/2006	0.1 US		0		19.4	0
5/15/2007	0.1 US		0		19.9	0
7/25/2007	0.1 US		0		20.6	0
9/10/2007	0.1 US		0		20.4	0
5/20/2008	0.1 US		0		19.8	0
7/30/2008	0.1 US		0		21	0
10/28/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		19.6	0

	Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-223A		MW-223A monitors the bedrock water quality downgradient of the landfill.					
	7/7/2009	0.1 US		0		20.5	0
	10/27/2009	0.1 US		0		20.5	0
	4/27/2010	0.1 US		0		20.7	0
	7/20/2010	0.1 US		0		20.4	0
	10/19/2010	0.1 US	0.1 US	0	0	21.2	0
	4/26/2011	0.1 US	0.1 US	0	0	21.1	0
	7/19/2011	0.1 US	0.1 US	0	0	20.1	0
	10/25/2011	0.1 US	0.1 US	0	0	20.9	0
	4/25/2012	0.1 US	0.1 US	0	0	20.2	0
	7/23/2012	0.1 US	0.1 US	0	0	20.1	0
	10/23/2012	0.1 US	0.1 US	0	0	21.3	0
	4/23/2013	0.1 US	0.1 US	0	0	20.8	0
	7/30/2013	0.1 US	0.1 US	0	0	19.9	0
	10/29/2013	0.1 US	0.1 US	0	0	21.2	0
MW-223B		MW-223B monitors the overburden water quality downgradient of the landfill.					
	5/5/2004	0.1 US					
	8/4/2004	0.1 US					
	10/27/2004	0.1 US					
	5/9/2005	0.1 US		0		20.6	
	8/1/2005	0.1 US		0		20.5	
	9/21/2005	0.1 US		5		20.9	
	12/27/2005	0.1 US		0		20.7	0
	5/22/2006	0.1 US		0		20.7	0
	7/26/2006	0.1 US		0		20.2	0
	9/11/2006	0.1 US		0		20.5	0
	10/4/2006	0.1 US		0		19.3	0
	5/15/2007	0.1 US		0		19.9	0
	7/25/2007	0.1 US		0		20.7	0
	9/10/2007	0.1 US		0		20.4	0
	5/20/2008	0.1 US		0		19.8	0
	7/30/2008	0.1 US		0		21	0
	10/28/2008	0.1 US		0		M	0
	4/14/2009	0.1 US		0		19.4	0
	7/7/2009	0.1 US		0		20.6	0
	10/27/2009	0.1 US		0		20.6	0
	4/27/2010	0.1 US		0		20.7	0
	7/20/2010	0.1 US		0		20.4	0
	10/19/2010	0.1 US	0.1 US	0	0	21.2	0
	4/26/2011	0.1 US	0.1 US	0	0	21.1	0
	7/19/2011	0.1 US	0.1 US	0	0	20	0
	10/25/2011	0.1 US	0.1 US	0	0	20.9	0
	4/25/2012	0.1 US	0.1 US	0	0	20.2	0
	7/23/2012	0.1 US	0.1 US	0	0	20.1	0
	10/23/2012	0.1 US	0.1 US	0	0	21.3	0
	4/23/2013	0.1 US	0.1 US	0	0	20.7	0
	7/30/2013	0.1 US	0.1 US	0	0	20	0
	10/29/2013	0.1 US	0.1 US	0	0	21.2	0
MW-227		MW-227 monitors water quality in the overburden downgradient of the landfill.					
	5/5/2004	0.1 US					

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-227	MW-227 monitors water quality in the overburden downgradient of the landfill.					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		20.5	
8/1/2005	0.1 US		0		20.3	
9/21/2005	0.1 US		0		20.8	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		19.7	0
9/11/2006	0.1 US		0		20.2	0
10/4/2006	0.1 US		0		19.3	0
5/15/2007	0.1 US		0		20.1	0
7/25/2007	0.1 US		0		20.6	0
9/10/2007	0.1 US		0		20.3	0
5/20/2008	0.1 US		0		20.8	0
7/30/2008	0.1 US		0		21.2	0
10/27/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		19.7	0
7/7/2009	0.1 US		0		20.6	0
10/27/2009	0.1 US		0		20.4	0
4/27/2010	0.1 US		0		20.8	0
7/20/2010	0.1 US		0		20.3	0
10/19/2010	0.1 US	0.1 US	0	0	21.3	0
4/26/2011	0.1 US	0.1 US	0	0	20.9	0
7/19/2011	0.1 US	0.1 US	0	0	20.1	0
10/25/2011	0.1 US	0.1 US	0	0	20.8	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.1	0
10/23/2012	0.1 US	0.1 US	0	0	21.2	0
4/23/2013	0.1 US	0.1 US	0	0	20.8	0
7/30/2013	0.1 US	0.1 US	0	0	19.8	0
10/29/2013	0.1 US	0.1 US	0	0	21.4	0
MW-301	MW-301 monitors the water quality within the bedrock downgradient of the landfill.					
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1		0		20.1	
8/1/2005	0.1 US		0		19.9	
9/22/2005	0.1 US		7		20.1	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		21.1	0
7/26/2006	0.1 US		0		20.1	0
9/11/2006	0.1 US		0		20.1	0
10/4/2006	0.1 US		0		19.3	0
5/15/2007	0.1 US		0		20.6	0
7/25/2007	0.1 US		0		19.8	0.01
9/10/2007	0.1 US		0		20.3	0
5/19/2008	0.1 US		0		20.9	0
7/30/2008	0.1 US		0		20.5	0
10/28/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		21.1	0

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Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-301	MW-301 monitors the water quality within the bedrock downgradient of the landfill.					
7/6/2009	0.1 US		0		19.7	0
10/26/2009	0.1 US		0		20.4	0
4/26/2010	0.1 US		0		19.8	0
7/19/2010	0.1 US		0		20.4	0
10/19/2010	0.1 US	0.1 US	0	0	21.2	0
4/27/2011	0.1 US	0.1 US	0	0	20.9	0
7/20/2011	0.1 US	0.1 US	0	0	20.1	0
10/25/2011	0.1 US	0.1 US	0	0	20.1	0
4/25/2012	0.1 US	0.1 US	0	0	20.2	0
7/25/2012	0.1 US	0.1 US	0	0	20.7	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/22/2013	0.1 US	0.1 US	0	0	20.8	0
7/31/2013	0.1 US	0.1 US	0	0	20.5	0
10/30/2013	0.1 US	0.1 US	0	0	21.2	0
MW-302	MW-302 monitors the water quality in the shallow bedrock beside the landfill, but not directly downgradient of the landfill.					
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		21.4	
8/1/2005	0.1 US		0		19.9	
9/19/2005	0.1 US		3		20.7	
12/27/2005	0.1 US		0		20.7	0
5/22/2006	0.1 US		0		20.8	0
7/26/2006	0.1 US		0		20.2	0
9/11/2006	0.1 US		0		21.1	0
10/4/2006	0.1 US		0		19.5	0
5/15/2007	0.1 US		0		22.5	0
7/25/2007	0.1 US		0		20.6	0
9/10/2007	DE		DE		DE	DE
MW-302R	MW-302R monitors the water quality in the shallow bedrock beside the landfill, but not directly downgradient of the landfill.					
5/20/2008	0.1 US		0		21.1	0
7/29/2008	0.1 US		0		20.9	0
10/27/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20.2	0
7/6/2009	0.1 US		0		19.8	0
10/27/2009	0.1 US		0		21	0
4/26/2010	0.1 US		0		20.2	0
7/19/2010	0.1 US		0		20.4	0
10/18/2010	0.1 US	0.1 US	0	0	21	0
4/25/2011	0.1 US	0.1 US	0	0	20.4	0
7/18/2011	0.1 US	0.1 US	0	0	20.5	0
10/24/2011	0.1 US	0.1 US	0	0	20.5	0
4/25/2012	0.1 US	0.1 US	0	0	20.2	0
7/23/2012	0.1 US	0.1 US	0	0	20.3	0
10/22/2012	0.1 US	0.1 US	0	0	21.2	0
4/22/2013	0.1 US	0.1 US	0	0	20.5	0
7/31/2013	0.1 US	0.1 US	0	0	20.7	0
10/28/2013	0.1 US	0.1 US	0	0	21	0

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-303	MW-303 monitors the background overburden water quality at the site upgradient of the landfill. MW-303 was not sampled after the April 2012 round and was replaced with MW12-303R in 2012.					
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		21.4	
8/1/2005	0.1 US		0		20.3	
9/19/2005	0.1 US		0		20.9	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		20.9	0
7/26/2006	0.1 US		0		19.7	0
9/11/2006	0.1 US		0		20.3	0
10/4/2006	0.1 US		0		19.3	0
5/15/2007	0.1 US		0		20.2	0
7/25/2007	0.1 US		0		20.6	0
9/10/2007	0.1 US		0		20.3	0
5/19/2008	0.1 US		0		20.9	0
7/29/2008	0.1 US		0		20.9	0
10/27/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20.1	0
7/6/2009	0.1 US		0		19.6	0
10/28/2009	0.1 US		0		20.6	0
4/26/2010	0.1 US		0		20.1	0
7/19/2010	0.1 US		0		20.3	0
10/18/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	20.4	0
7/18/2011	0.1 US	0.1 US	0	0	20.5	0
10/24/2011	0.1 US	0.1 US	0	0	20.6	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	!	!	!	!	!	!
MW-304A	MW-304A monitors the water quality in the upper portion of the bedrock upgradient of the landfill.					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		21.4	
8/1/2005	0.1 US		0		20.2	
9/19/2005	0.1 US		5		20.5	
12/27/2005	0.1 US		0		20.6	0
5/22/2006	0.1 US		0		21	0
7/26/2006	0.1 US		0		20.8	0
9/11/2006	0.1 US		0		20.7	0
10/4/2006	0.1 US		0		19.4	0
5/15/2007	0.1 US		0		20.1	0
7/25/2007	0.1 US		0		20.7	0
9/10/2007	0.1 US		0		20.4	0
5/20/2008	0.1 US		0		21.2	0
7/29/2008	0.1 US		0		20.9	0
10/27/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20.1	0
7/6/2009	0.1 US		0		19.7	0
10/27/2009	0.1 US		0		20.8	0
4/26/2010	0.1 US		0		19.9	0

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-304A	MW-304A monitors the water quality in the upper portion of the bedrock upgradient of the landfill.					
7/19/2010	0.1 US		0		19.9	0
10/18/2010	0.1 US	0.1 US	0	0	21	0
4/25/2011	0.1 US	0.1 US	0	0	20.3	0
7/18/2011	0.1 US	0.1 US	0	0	20.5	0
10/24/2011	0.1 US	0.1 US	0	0	20.6	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.2	0
10/22/2012	0.1 US	0.1 US	0	0	21.1	0
4/22/2013	0.1 US	0.1 US	0	0	20.6	0
7/31/2013	0.1 US	0.1 US	0	0	20.6	0
10/28/2013	0.1 US	0.1 US	0	0	20.9	0
MW-401A	MW-401A monitors bedrock water quality downgradient of the landfill and leachate pond.					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		21.4	
8/1/2005	0.1 US		0		20.7	
9/21/2005	0.1 US		0		20.8	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		19.7	0
9/11/2006	0.1 US		0		20.3	0
10/4/2006	0.1 US		0		19.9	0
5/15/2007	0.1 US		0		20.1	0
7/25/2007	0.1 US		0		20.5	0
9/10/2007	0.1 US		0		20.3	0
5/20/2008	0.1 US		0		20.9	0
7/28/2008	0.1 US		0		21.2	0
10/29/2008	0.1 US		0		M	0
4/13/2009	0.1 US		0		20.9	0
7/7/2009	0.1 US		0		20.9	0
10/28/2009	0.1 US		0		20.2	0
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	20.5	0
7/18/2011	0.1 US	0.1 US	0	0	20.1	0
10/24/2011	0.1 US	0.1 US	0	0	20.9	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.3	0
10/22/2012	0.1 US	0.1 US	0	0	21.2	0
4/22/2013	0.1 US	0.1 US	0	0	20.5	0
7/29/2013	0.1 US	0.1 US	0	0	20.4	0
10/28/2013	0.1 US	0.1 US	0	0	21.2	0
MW-401B	MW-401B is located downgradient of the landfill and leachate pond and monitors groundwater quality in the overburden.					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		21.4	
8/1/2005	0.1 US		0		20.5	
9/21/2005	0.1 US		8		20.9	

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Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-401B	MW-401B is located downgradient of the landfill and leachate pond and monitors groundwater quality in the overburden.					
12/27/2005	0.1 US		0		20.9	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		19.7	0
9/11/2006	0.1 US		0		20.3	0
10/4/2006	0.1 US		0		19.9	0
5/15/2007	0.1 US		0		20.1	0
7/25/2007	0.1 US		0		20.5	0
9/10/2007	0.1 US		0		20.3	0
5/20/2008	0.1 US		0		20.9	0
7/28/2008	0.1 US		0		21.2	0
10/29/2008	0.1 US		0		M	0
4/13/2009	0.1 US		0		21	0
7/7/2009	0.1 US		0		20.9	0
10/28/2009	0.1 US		0		20.2	0
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21.1	0
4/25/2011	0.1 US	0.1 US	0	0	20.5	0
7/18/2011	0.1 US	0.1 US	0	0	20.1	0
10/24/2011	0.1 US	0.1 US	0	0	20.9	0
4/25/2012	0.1 US	0.1 US	0	0	20.3	0
7/23/2012	0.1 US	0.1 US	0	0	20.4	0
10/22/2012	0.1 US	0.1 US	0	0	21.2	0
4/22/2013	0.1 US	0.1 US	0	0	20.5	0
7/29/2013	0.1 US	0.1 US	0	0	20.4	0
10/28/2013	0.1 US	0.1 US	0	0	21.2	0
MW-402A	MW-402A monitors water quality within the bedrock downgradient of the landfill.					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		20.6	
8/1/2005	0.1 US		0		20.3	
9/21/2005	0.1 US		3		20.6	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		20.8	0
7/26/2006	0.1 US		0		19.5	0
9/11/2006	0.1 US		0		20.3	0
10/4/2006	0.1 US		0		19.4	0
5/15/2007	0.1 US		0		20.2	0
7/25/2007	0.1 US		0		20.6	0
9/10/2007	0.1 US		0		20.3	0
5/20/2008	0.1 US		0		20.9	0
7/28/2008	0.1 US		0		21.1	0
10/29/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		19.4	0
7/8/2009	0.1 US		0		20.5	0
10/28/2009	0.1 US		0		20.1	0
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.3	0
10/20/2010	0.1 US	0.1 US	0	0	21.2	0

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
MW-402A	MW-402A monitors water quality within the bedrock downgradient of the landfill.					
4/27/2011	0.1 US	0.1 US	0	0	20.8	0
7/20/2011	0.1 US	0.1 US	0	0	20.2	0
10/26/2011	0.1 US	0.1 US	0	0	20.8	0
4/24/2012	0.1 US	0.1 US	0	0	20.2	0
7/25/2012	0.1 US	0.1 US	0	0	20.9	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/22/2013	0.1 US	0.1 US	0	0	20.9	0
7/31/2013	0.1 US	0.1 US	0	0	20.9	0
10/30/2013	0.1 US	0.1 US	0	0	20.8	0
MW-402B	MW-402B monitors water quality within the overburden downgradient of the landfill.					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		20.7	
8/1/2005	0.1 US		0		20.3	
9/21/2005	0.1 US		3		20.6	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		19.5	0
9/11/2006	0.1 US		0		20.3	0
10/4/2006	0.1 US		0		19.4	0
5/15/2007	0.1 US		0		20.2	0
7/25/2007	0.1 US		0		20.6	0
9/10/2007	0.1 US		0		20.3	0
5/20/2008	0.1 US		0		20.9	0
7/28/2008	0.1 US		0		21.2	0
10/29/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		19.4	0
7/8/2009	0.1 US		0		20.5	0
10/28/2009	0.1 US		0		20.1	0
4/27/2010	0.1 US		0		20.5	0
7/21/2010	0.1 US		0		20.3	0
10/20/2010	0.1 US	0.1 US	0	0	21.2	0
4/27/2011	0.1 US	0.1 US	0	0	20.8	0
7/20/2011	0.1 US	0.1 US	0	0	20.2	0
10/26/2011	0.1 US	0.1 US	0	0	20.8	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.9	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/22/2013	0.1 US	0.1 US	0	0	20.9	0
7/31/2013	0.1 US	0.1 US	0	0	20.9	0
10/30/2013	0.1 US	0.1 US	0	0	20.8	0
NE Property Line						
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		20.7	
8/1/2005	0.1 US		0		20.1	
9/19/2005	0.1 US		0		20.8	
12/27/2005	0.1 US		0		20.7	0
5/22/2006	0.1 US		0		20.8	0

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
NE Property Line						
7/26/2006	0.1 US		0		19.8	0
9/11/2006	0.1 US		0		20.9	0
10/4/2006	0.1 US		0		19.3	0
5/15/2007	0.1 US		0		20.2	0
7/25/2007	0.1 US		0		20.3	0
9/10/2007	0.1 US		0		20.3	0
5/21/2008	0.1 US		0		20.8	0
7/30/2008	0.1 US		0		20.8	0
10/28/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20.8	0
7/6/2009	0.1 US		0		19.6	0
10/28/2009	0.1 US		0		20.2	0
4/27/2010	0.1 US		0		20.5	0
7/20/2010	0.1 US		0		20.2	0
10/20/2010	0.1 US	0.1 US	0	0	21	0
4/27/2011	0.1 US	0.1 US	0	0	20.8	0
7/20/2011	0.1 US	0.1 US	0	0	20	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.6	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.7	0
10/29/2013	0.1 US	0.1 US	0	0	21.2	0
P-04-02		P-04-02 monitors the water quality in the overburden downgradient of the landfill, between the leachate pond and landfill toe.				
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1		0		20	
8/1/2005	0.1 US		0		20.3	
9/22/2005	0.1 US		6		20.4	
12/27/2005	0.1 US		0		20.8	0
5/22/2006	0.1 US		0		21.3	0
7/26/2006	0.1 US		0		19.9	0
9/11/2006	0.1 US		0		20.3	0
10/4/2006	0.1 US		0		18.5	0
5/15/2007	0.1 US		0		20.5	0
7/25/2007	0.1 US		0		20.1	0
9/10/2007	0.1 US		0		20.3	0
5/21/2008	0.1 US		0		19.9	0
7/30/2008	0.1 US		0		20.6	0
10/29/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		21	0
7/6/2009	0.1 US		0		20.7	0
10/27/2009	0.1 US		0		20.3	0
4/26/2010	0.1 US		0		20	0
7/21/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21.3	0
4/27/2011	0.1 US	0.1 US	0	0	20.8	0

	Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
P-04-02		P-04-02 monitors the water quality in the overburden downgradient of the landfill, between the leachate pond and landfill toe.					
	7/20/2011	0.1 US	0.1 US	0	0	19.9	0
	10/26/2011	0.1 US	0.1 US	0	0	20.6	0
	4/25/2012	0.1 US	0.1 US	0	0	20.4	0
	7/25/2012	0.1 US	0.1 US	0	0	20.9	0
	10/24/2012	0.1 US	0.1 US	0	0	20.9	0
	4/22/2013	!	!	!	!	!	!
P-04-04		P-04-02 monitors the water quality in the overburden downgradient of the landfill, between the leachate pond and landfill toe.					
	5/5/2004	0.1 US					
	8/4/2004	0.1 US					
	10/27/2004	0.1 US					
	5/9/2005	0.1		0		19.9	
	8/1/2005	0.1 US		0		20.4	
	9/22/2005	0.1 US		4		20.6	
	12/27/2005	0.1 US		0		20.8	0
	5/22/2006	0.1 US		0		21.3	0
	7/26/2006	0.1 US		0		19.8	0
	9/11/2006	0.1 US		0		20.3	0
	10/4/2006	0.1 US		0		18.5	0
	5/15/2007	0.1 US		0		20.1	0
	7/25/2007	0.1 US		0		20.1	0
	9/10/2007	0.1 US		0		20.4	0
	5/21/2008	0.1 US		0		20.3	0
	7/30/2008	0.1 US		0		20.8	0
	10/29/2008	0.1 US		0		M	0
	4/14/2009	0.1 US		0		21	0
	7/6/2009	0.1 US		0		20.6	0
	10/27/2009	0.1 US		0		20.3	0
	4/26/2010	0.1 US		0		20	0
	7/21/2010	0.1 US		0		20.2	0
	10/20/2010	0.1 US	0.1 US	0	0	21.3	0
	4/27/2011	0.1 US	0.1 US	0	0	20.8	0
	7/20/2011	0.1 US	0.1 US	0	0	19.9	0
	10/26/2011	0.1 US	0.1 US	0	0	20.6	0
	4/25/2012	0.1 US	0.1 US	0	0	20.4	0
	7/25/2012	0.1 US	0.1 US	0	0	20.9	0
	10/24/2012	0.1 US	0.1 US	0	0	21	0
	4/24/2013	0.1 US	0.1 US	0	0	20.8	0
	7/31/2013	0.1 US	0.1 US	0	0	20.4	0
	10/30/2013	0.1 US	0.1 US	0	0	20.7	0
P-206A							
	7/31/2013	0.1 US	0.1 US	0	0	20.5	0
	10/28/2013	0.1 US	0.1 US	0	0	20.8	0
S Property Line							
	5/5/2004	0.1 US					
	8/4/2004	0.1 US					
	10/27/2004	0.1 US					
	5/9/2005	0.1 US		0		20.7	

Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
S Property Line						
8/1/2005	0.1 US		0		20.4	
9/19/2005	0.1 US		0		20.8	
12/27/2005	0.1 US		0		20.6	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		19.9	0
9/11/2006	0.1 US		0		20.8	0
10/4/2006	0.1 US		0		19.2	0
5/15/2007	0.1 US		0		20.2	0
7/25/2007	0.1 US		0		20.4	0
9/10/2007	0.1 US		0		20.1	0
5/21/2008	0.1 US		0		20.7	0
7/30/2008	0.1 US		0		20.8	0
10/28/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20.7	0
7/6/2009	0.1 US		0		19.6	0
10/28/2009	0.1 US		0		20.2	0
4/27/2010	0.1 US		0		20.6	0
7/20/2010	0.1 US		0		20.2	0
10/20/2010	0.1 US	0.1 US	0	0	21	0
4/27/2011	0.1 US	0.1 US	0	0	20.7	0
7/20/2011	0.1 US	0.1 US	0	0	20	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.6	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.6	0
10/29/2013	0.1 US	0.1 US	0	0	21.2	0
W Property Line A						
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		20.7	
8/1/2005	0.1 US		0		20.1	
9/19/2005	0.1 US		0		20.8	
12/27/2005	0.1 US		0		20.7	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		19.7	0
9/11/2006	0.1 US		0		20.8	0
10/4/2006	0.1 US		0		19.3	0
5/15/2007	0.1 US		0		20.1	0
7/25/2007	0.1 US		0		20.3	0
9/10/2007	0.1 US		0		20.3	0
5/21/2008	0.1 US		0		20.6	0
7/30/2008	0.1 US		0		20.8	0
10/28/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20.7	0
7/6/2009	0.1 US		0		19.6	0
10/28/2009	0.1 US		0		20.1	0
4/27/2010	0.1 US		0		20.5	0

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Date	Methane Equivalent % Vol.	Methane Equivalent (Ambient) % Vol.	Hydrogen Sulfide ppm	Hydrogen Sulfide (Ambient) ppm	Oxygen % Vol.	Carbon Dioxide % Vol.
W Property Line A						
7/20/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21.1	0
4/27/2011	0.1 US	0.1 US	0	0	20.8	0
7/20/2011	0.1 US	0.1 US	0	0	20	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.6	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.7	0
10/29/2013	0.1 US	0.1 US	0	0	21.3	0
W Property Line B						
5/5/2004	0.1 US					
8/4/2004	0.1 US					
10/27/2004	0.1 US					
5/9/2005	0.1 US		0		20.7	
8/1/2005	0.1 US		0		20.3	
9/19/2005	0.1 US		0		20.8	
12/27/2005	0.1 US		0		20.6	0
5/22/2006	0.1 US		0		20.7	0
7/26/2006	0.1 US		0		19.7	0
9/11/2006	0.1 US		0		20.9	0
10/4/2006	0.1 US		0		19.3	0
5/15/2007	0.1 US		0		20	0
7/25/2007	0.1 US		0		20.3	0
9/10/2007	0.1 US		0		20.2	0
5/21/2008	0.1 US		0		20.7	0
7/30/2008	0.1 US		0		20.9	0
10/28/2008	0.1 US		0		M	0
4/14/2009	0.1 US		0		20.6	0
7/6/2009	0.1 US		0		19.7	0
10/28/2009	0.1 US		0		20.1	0
4/27/2010	0.1 US		0		20.5	0
7/20/2010	0.1 US		0		20.1	0
10/20/2010	0.1 US	0.1 US	0	0	21	0
4/27/2011	0.1 US	0.1 US	0	0	20.7	0
7/20/2011	0.1 US	0.1 US	0	0	20	0
10/26/2011	0.1 US	0.1 US	0	0	20.6	0
4/24/2012	0.1 US	0.1 US	0	0	20.5	0
7/25/2012	0.1 US	0.1 US	0	0	20.6	0
10/24/2012	0.1 US	0.1 US	0	0	20.9	0
4/24/2013	0.1 US	0.1 US	0	0	20.7	0
7/30/2013	0.1 US	0.1 US	0	0	20.7	0
10/29/2013	0.1 US	0.1 US	0	0	21.3	0

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Date	Methane Equivalent	Methane Equivalent (Ambient)	Hydrogen Sulfide	Hydrogen Sulfide (Ambient)	Oxygen	Carbon Dioxide
	% 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.
A - The sampling location was Inaccessible
DE - Decommissioned Location
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.

APPENDIX F

2013 AND HISTORICAL FALL SPECIFIC CONDUCTIVITY DATA (EXPANDED LOCATIONS)

SUMMARY REPORT
Conductivity and Water Levels

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(DP-4) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
DP-4				
10/26/2009	409	13.68	155.69	27.05
10/18/2010	401	14.98	154.39	27.1
10/24/2011	256	16.95	152.42	27.06
10/24/2012	302	14.08	155.29	27.06
10/30/2013	273	14.9	154.47	27.06
MW04-101				
10/28/2008	176			
10/27/2009	191	4.1	163.82	23.75
10/18/2010	198	5.1	162.82	23.75
10/25/2011	177	5.7	162.22	23.75
10/22/2012	196	5.45	162.47	23.75
10/28/2013	186	6.42	161.5	23.82
MW04-102				
10/27/2009	236	5.27	164.95	17.84
10/19/2010	232	5.85	164.37	17.97
10/25/2011	209	6.5	163.72	17.85
10/22/2012	221	5.78	164.44	17.98
10/28/2013	207	7.1	163.12	18.05
MW04-104				
10/28/2008	192			
10/27/2009	213	7.3	160.76	28
10/18/2010	229	8	160.06	28
10/25/2011	206	8	160.06	28
10/22/2012	231	7.5	160.56	28
10/29/2013	209	9	159.06	28.05
MW04-105				
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
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
MW09-901				
10/19/2010	300	9.25	155.85	22.75
10/23/2012	197	8.8	156.3	22.73
10/29/2013	195	10.63	154.47	22.8
MW11-207R				
10/24/2011	83	11.5	203.63	44
10/22/2012	88	6.57	208.56	44.2

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(MW11-207R) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/28/2013	82	14.54	200.59	44.11
MW12-303R				
10/23/2012	189	27.47		43.32
10/28/2013	223	27.43		43.38
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
MW-216BR				
10/19/2010	289	5.51	153.89	22.46
10/25/2011	400	5.48	153.92	22.48
10/23/2012	334	5.2	154.2	22.45
10/29/2013	278	6.35	153.05	22.53
MW-223A				
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
MW-223B				
10/27/2009	331	2.65	173.28	19.95
10/19/2010	316	3.45	172.48	20
10/25/2011	327	2.2	173.73	19.93
10/23/2012	333	2.1	173.83	20.05
10/29/2013	336	3.3	172.63	20.07
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
MW-301				
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
MW-302R				
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

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(MW-302R) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
10/28/2013	341	14.15	192.71	32.22
MW-401A				
10/28/2009	165	4.12	152.71	111.98
10/20/2010	191	5.52	151.31	112.1
10/24/2011	128	3.62	153.21	112.02
10/22/2012	119	0.93	155.9	112.02
10/28/2013	140	6.1	150.73	112.04
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
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
MW-402B				
10/28/2009	215	2.98	149.76	25.26
10/20/2010	246	3.4	149.34	25.18
10/26/2011	160	2.95	149.79	25.18
10/24/2012	141	2.9	149.84	25.2
10/30/2013	174	3.8	148.94	25.18
P-04-04				
10/27/2009	175	7.96	161.39	32.21
10/20/2010	177	9	160.35	32.25
10/26/2011	181	9.3	160.05	32.3
10/24/2012	158	8.9	160.45	32.33
10/30/2013	194	10.01	159.24	32.26
P-201A				
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
P-201B				
10/29/2008	146			
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

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(P-201C) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
P-201C				
10/29/2008	136			
10/27/2009	209	2.45	149.74	49.45
10/19/2010	235	2.29	149.9	49.4
10/25/2011	147	2.25	149.94	49.53
10/23/2012	121	F1		42.85
10/30/2013	264	2.2	149.99	68.15
P-201D				
10/29/2008	127			
10/27/2009	325	0.05	151.28	43.15
10/19/2010	220	0.7	150.63	42.4
10/25/2011	143	F1		43.02
10/23/2012	128	3.1	148.23	49.46
10/30/2013	279	2.57	148.76	49.8
P-201E				
10/29/2008	249			
10/27/2009	532	2.2	150.06	Q
10/19/2010	286	F1		71.1
10/25/2011	225	F1		69.8
10/23/2012	135	F1		67.93
10/30/2013	281	1.11	151.15	44.15
P-202A				
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
P-202B				
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
P-206A				
10/28/2013	126	22.9	181.61	93.5
P-209A				
10/29/2008	69			
10/27/2009	93	3.85	174.94	55.95
10/19/2010	282	6.58	172.21	55.9
10/25/2011	124	F1		55.9
10/23/2012	45	F1		55.91
10/29/2013	84	9.3	169.49	56.1

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(P-209B) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet
P-209B				
10/29/2008	100			
10/27/2009	70	4.25	174.57	30.75
10/19/2010	240	6.85	171.97	30.71
10/25/2011	69	0.15	178.67	30.66
10/23/2012	76	F1		30.75
10/29/2013	124	9.4	169.42	30.83
P-209C				
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
P-211A				
10/27/2008	73			
10/27/2009	83	5.5	178.07	25.6
10/18/2010	87	6	177.57	25.6
10/25/2011	140	5.4	178.17	25.6
10/22/2012	176	3.8	179.77	25.62
10/29/2013	215	7.4	176.17	25.63
P-211B				
10/27/2008	115			
10/27/2009	96	6.1	177.87	13.43
10/18/2010	101	6.4	177.57	13.42
10/25/2011	123	6.1	177.87	13.45
10/22/2012	165	4.3	179.67	13.43
10/29/2013	194	7.8	176.17	13.5
P-220A				
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
P-220B				
10/29/2008	157			
10/27/2009	239	F1		22.85
10/18/2010	309	F1		22.85
10/26/2011	202	F1		22.82
10/22/2012	233	F1		22.85
10/28/2013	205	F1	148.05	22.88

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(P-220B) Date	Specific Conductance µmhos/cm @25°C	Water Level Depth Feet	Water Level Elevation Feet	Well Depth Feet

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

Concentration Qualifier Notes:

D - The sampling location was dry.
F1 - Well was flowing
Q - An obstruction prevented the collection of data.

ATTACHMENT G

Landfill Gas Monitoring Evaluation

JUNIPER RIDGE LANDFILL

2013 ANNUAL GAS MONITORING EVALUATION

Operated by NEWSME Landfill Operations, LLC

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1 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 the past year, including a comparison of the past year's results to the previous years' results is provided below.

Regular landfill gas monitoring activities occurred on site during 2013, including: (1) gas composition measurements at collection trenches and wells during well tuning, (2) continuous flow measurements at the gas combustion flare, and (3) gas composition measurements at the gas combustion flare during well-tuning activities.

2 Well Field Activity

During 2013, well field activities included the addition of new infrastructure, as well as discontinuing older infrastructure due to malfunction or construction related activities. Anomalies to the normal operation of the well field were recorded and monitored. A summary of anomalies within the JRL is provided below.

2.1 Active, New, and Discontinued Well Heads

At the beginning of 2013, the JRL well field consisted of 128 active gas collection wells and trenches. During the course of the year, 18 new wells and trenches were installed. These included 11 gas collection trenches and 7 vertical wells. A total of 146 well heads were monitored over the course of the year, and by the end of the year, 142 remained active. A total of 2 gas collection trenches, 1 vertical well and 1 condensate trap were discontinued during 2013. These wells were discontinued due to low methane production over a two year period or longer. Table 2-1 shows all the well heads that were monitored during 2013 and displays their status as of the end of 2013.

2.2 Changes and Anomalies in Well Field

More than 2500 measurements of flow, methane content, and gas temperatures in the JRL well field during 2013 and only four notable changes or anomalies were found in these measurements. These consist of single elevated gas temperature readings over 150 degrees Fahrenheit in gas wells JRGCT509, JRGCT511, JRGCT707, and JR-GW--P. The highest reading measured was 160 degrees Fahrenheit. Subsequent to the single measurements, the temperature values in these wells returned to the normal levels. All four readings were not atypical of temperatures present in construction and demolition debris landfills. The same can be said about JRL historically.

Table 2-1 All Well Heads Monitored at JRL, 2013

Well ID	Well Type	Well Status	Well ID	Well Type	Well Status	Well ID	Well Type	Well Status
JR-CT002	Condensate Trap	Discontinued	JRGCT506	Horizontal	Active	JR-GW-47	Gas Well	Active
JR-GCT09	Horizontal	Discontinued	JRGCT507	Horizontal	Active	JR-GW-48	Gas Well	Active
JR-GW-17	Gas Well	Discontinued	JRGCT508	Horizontal	Active	JR-GW-54	Horizontal	Active
JR-LPC-3	Horizontal	Discontinued	JRGCT509	Horizontal	Active	JR-GW-55	Gas Well	Active
JR7SOUTH	Horizontal	Added in 2013	JRGCT510	Horizontal	Active	JR-GW-56	Gas Well	Active
JRGCT801	Horizontal	Added in 2013	JRGCT511	Horizontal	Active	JR-GW-57	Gas Well	Active
JRGCT802	Horizontal	Added in 2013	JRGCT512	Horizontal	Active	JR-GW--6	Gas Well	Active
JRGCT803	Horizontal	Added in 2013	JRGCT513	Horizontal	Active	JR-GW-64	Gas Well	Active
JRGCT804	Horizontal	Added in 2013	JRGCT514	Horizontal	Active	JR-GW-65	Gas Well	Active
JRGCT805	Horizontal	Added in 2013	JRGCT601	Horizontal	Active	JR-GW-66	Gas Well	Active
JRGCT806	Horizontal	Added in 2013	JRGCT602	Horizontal	Active	JR-GW--7	Gas Well	Active
JRGCT807	Horizontal	Added in 2013	JRGCT603	Horizontal	Active	JR-GW-74	Gas Well	Active
JRGCT808	Horizontal	Added in 2013	JRGCT604	Horizontal	Active	JR-GW-75	Gas Well	Active
JRGCT809	Horizontal	Added in 2013	JRGCT605	Horizontal	Active	JR-GW-82	Gas Well	Active
JRGCT810	Horizontal	Added in 2013	JRGCT606	Horizontal	Active	JR-GW-83	Gas Well	Active
JR-GW-13	Gas Well	Added in 2013	JRGCT607	Horizontal	Active	JR-GW-90	Gas Well	Active
JR-GW-14	Gas Well	Added in 2013	JRGCT608	Horizontal	Active	JR-GW-91	Gas Well	Active
JR-GW-16	Gas Well	Added in 2013	JRGCT609	Horizontal	Active	JR-GW--A	Gas Well	Active
JR-GW-22	Gas Well	Added in 2013	JRGCT610	Horizontal	Active	JR-GW--B	Gas Well	Temp Disct'd
JR-GW-23	Gas Well	Added in 2013	JRGCT701	Horizontal	Active	JR-GW--D	Gas Well	Active
JR-GW-25	Gas Well	Added in 2013	JRGCT702	Horizontal	Active	JR-GW--E	Gas Well	Active
JR-GW-32	Gas Well	Added in 2013	JRGCT703	Horizontal	Active	JR-GW--F	Gas Well	Active
JR-3W-01	Horizontal	Active	JRGCT704	Horizontal	Active	JR-GW-G2	Gas Well	Active
JRGC401A	Horizontal	Active	JRGCT705	Horizontal	Active	JR-GW-H2	Gas Well	Active
JRGC402A	Horizontal	Active	JRGCT706	Horizontal	Active	JR-GW--I	Gas Well	Active
JRGC404A	Horizontal	Active	JRGCT707	Horizontal	Active	JR-GW--J	Gas Well	Active
JRGC405A	Horizontal	Active	JRGCT708	Horizontal	Active	JR-GW--K	Gas Well	Active
JRGC406A	Horizontal	Active	JRGCT709	Horizontal	Active	JR-GW--L	Gas Well	Active
JR-GCT01	Horizontal	Active	JRGCT710	Horizontal	Active	JR-GW--M	Gas Well	Active
JR-GCT18	Horizontal	Active	JR-GW-02	Gas Well	Active	JR-GW--N	Gas Well	Active
JRGCT2A1	Horizontal	Active	JR-GW-03	Gas Well	Active	JR-GW--O	Gas Well	Active
JRGCT2A2	Horizontal	Active	JR-GW-04	Gas Well	Active	JR-GW--P	Gas Well	Active
JRGCT2A3	Horizontal	Active	JR-GW-05	Gas Well	Active	JR-GW--S	Gas Well	Active
JRGCT3A1	Horizontal	Active	JR-GW-09	Gas Well	Active	JR-GW--T	Gas Well	Active
JRGCT3A2	Horizontal	Active	JR-GW-10	Gas Well	Active	JRL7WEST	Horizontal	Active
JRGCT3A3	Gas Well	Active	JR-GW-11	Gas Well	Active	JR-LC--5	Horizontal	Active
JRGCT3A4	Horizontal	Active	JR-GW-12	Gas Well	Active	JR-LC--6	Horizontal	Active
JRGCT3A5	Horizontal	Active	JR-GW-15	Gas Well	Active	JR-LC-SE	Cleanout	Active
JRGCT3B1	Horizontal	Active	JR-GW-18	Gas Well	Active	JR-LC-SW	Cleanout	Active
JRGCT3B2	Horizontal	Active	JR-GW-19	Gas Well	Active	JRLGV401	Horizontal	Active
JRGCT3B3	Horizontal	Active	JR-GW-20	Gas Well	Active	JRLGV402	Horizontal	Active
JRGCT3B4	Horizontal	Active	JR-GW-21	Gas Well	Active	JRLGV403	Horizontal	Active
JRGCT401	Horizontal	Active	JR-GW-24	Gas Well	Active	JRLGV404	Horizontal	Active
JRGCT402	Horizontal	Active	JR-GW-28	Gas Well	Active	JR-LPC-1	Horizontal	Active
JRGCT403	Horizontal	Active	JR-GW-29	Gas Well	Active	JR-LPC-2	Gas Well	Active
JRGCT404	Horizontal	Active	JR-GW-30	Gas Well	Active	JR-LPC-4	Horizontal	Active
JRGCT501	Horizontal	Active	JR-GW-31	Gas Well	Active			
JRGCT502	Horizontal	Active	JR-GW-37	Gas Well	Active			
JRGCT503	Horizontal	Active	JR-GW-38	Gas Well	Active			
JRGCT504	Horizontal	Active	JR-GW-39	Gas Well	Active			
JRGCT505	Horizontal	Active	JR-GW-46	Gas Well	Active			

3 Landfill Gas Composition

During well-tuning activities, the composition of the landfill gas supplied to the flare was measured in concentrations of methane, carbon dioxide, oxygen (CH_4, CO_2, O_2 respectively), and balance gas. During 2013, JRL staff operated the well field with the intent of maintaining a target CH_4 concentration in the range of 40-45% (by volume) and O_2 concentration at satisfactory low level (i.e. < 5%) in the gas supplied to the flare for both odor control and greenhouse gas reduction. Keeping these parameters within these ranges maintains high efficiency in the vacuum system in terms of collecting landfill gas and prevents possible landfill complications associated with O_2 infiltration. Balance gas levels are also monitored as a confirmation of landfill gas collection efficiency and O_2 infiltration prevention. The concentration of CO_2 at the flare is not of great concern, but is measured in addition to the more important levels of CH_4 and O_2.

Since gas composition is measured bi-weekly at the flare, monthly average gas compositions are computed from the bi-weekly measurements. The monthly average concentrations of CH_4 and O_2 are shown in Figure 3-1. The concentration of CH_4 remained within the target range of 40-45% from June to October, with January, February, March, April, May, November, and December experiencing concentrations below 40%. The average CH_4 concentration for 2013 was 39.0%, which was slightly lower, but similarly stable to the 2012 average concentration of 40.6%. O_2 concentrations increased during 2013, averaging 1.3% for the year, slightly higher than the 2012 average of 0.7%. 2013 O_2 concentrations remained below 1% for every month except January, February, March, April, and December. Flare readings recorded in December 2013 contained high O_2 from air infiltration associated with the SulfaTreat® hydrogen sulfide treatment containers located at the flare. Landfill gas is passed through these containers before it reaches the flare to reduce hydrogen sulfide concentrations to meet MEDEP air license requirements.

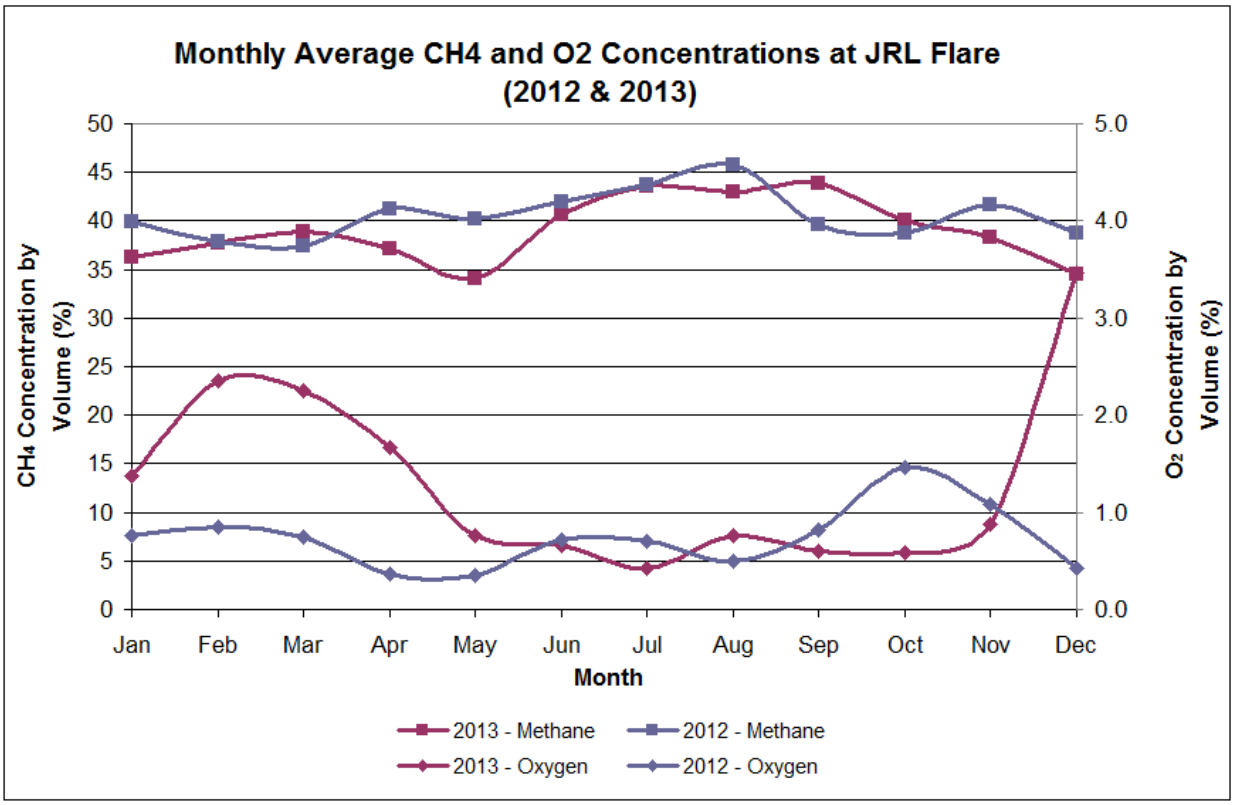

Figure 3-1 Monthly Average Landfill Gas Composition at JRL, 2012 & 2013

4 Landfill Gas Flow

The flow rate of landfill gas supplied to the flare was measured and recorded on a continuous basis. This data has been compiled into total monthly landfill gas flows. The average daily flow rate of landfill gas supplied to the flare at JRL each month during 2013 (and 2012 for comparison) is summarized in Figure 4-1. Table 4-1 shows the data reflected in Figure 4-1 and the total monthly landfill gas flows. The total flow during 2013 was 963 million standard cubic feet (MMSCF), a slight decrease of approximately 3.79% from total flow recorded in 2012.

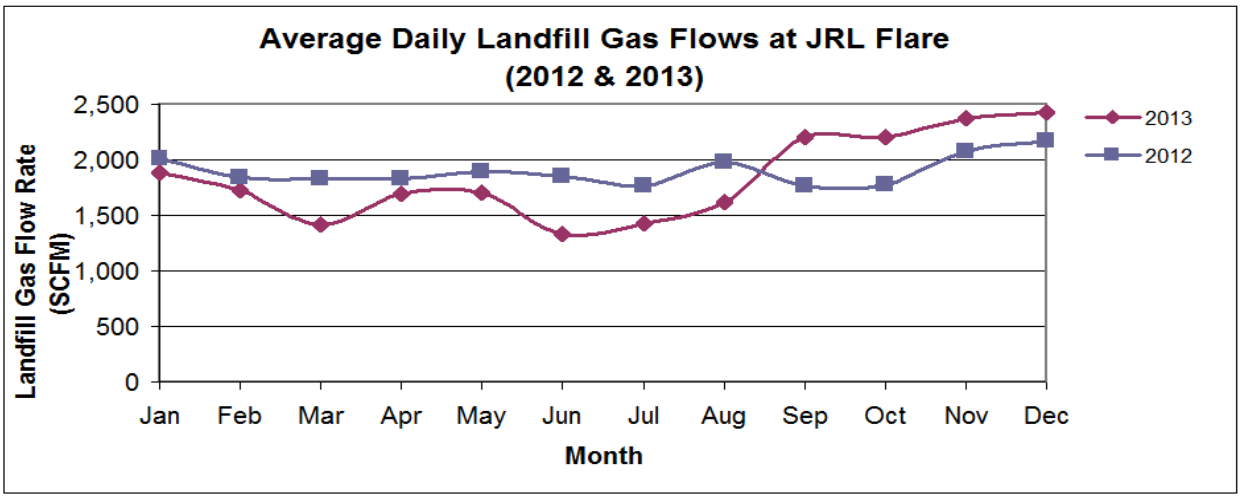

Figure 4-1 Average Landfill Gas Flow Rate at JRL, 2012 & 2013

Table 4-1 Volumetric Flow of Landfill Gas at JRL, 2012 & 2013

		Total Flow (MMSCF)		Average Flow Rate (SCFM)	
	Year	**2013**	**2012**	**2013**	**2012**
Month	**Jan**	84.29	89.60	1,888	2,007
	Feb	69.38	76.99	1,721	1,844
	Mar	63.24	81.83	1,417	1,833
	Apr	73.29	79.06	1,697	1,830
	May	75.95	84.51	1,701	1,893
	Jun	57.40	79.75	1,329	1,846
	Jul	63.75	79.01	1,428	1,770
	Aug	72.39	88.51	1,622	1,983
	Sep	95.03	76.20	2,200	1,764
	Oct	98.07	79.25	2,197	1,775
	Nov	102.34	89.80	2,369	2,079
	Dec	108.33	96.91	2,427	2,171
	Totals	963.45	1001.41		
	Average			1,833	1,900

5 Energy Generated by Methane Combustion

JRL has a candlestick type flare which burns the CH_4 present in the landfill gas. CH_4 has an approximate heating value of 1009 BTU/SCF (BTU per standard cubic foot). Using this, heating value along with the CH_4 concentrations and landfill gas flows shown in the previous sections, the energy generated by the combustion of CH_4 in the JRL flare was calculated for 2013 and compared to the 2012 data as shown in Table 5-1. Figure 5-1 shows the monthly totals of energy generated and Figure 5-2 displays the average daily energy generated.

The total energy generated by combustion at JRL during 2013 was 374,139 MMBTUs, a decrease of 7.98% from 2012 levels. Both flow and methane concentrations decreased from 2012 to 2013, leading to a lower energy generation rate. An increase in total energy generation during August and September occurred, largely due to an increase in methane concentration at the flare. This increase in energy generation is expected to be from well tuning and well field maintenance activities.

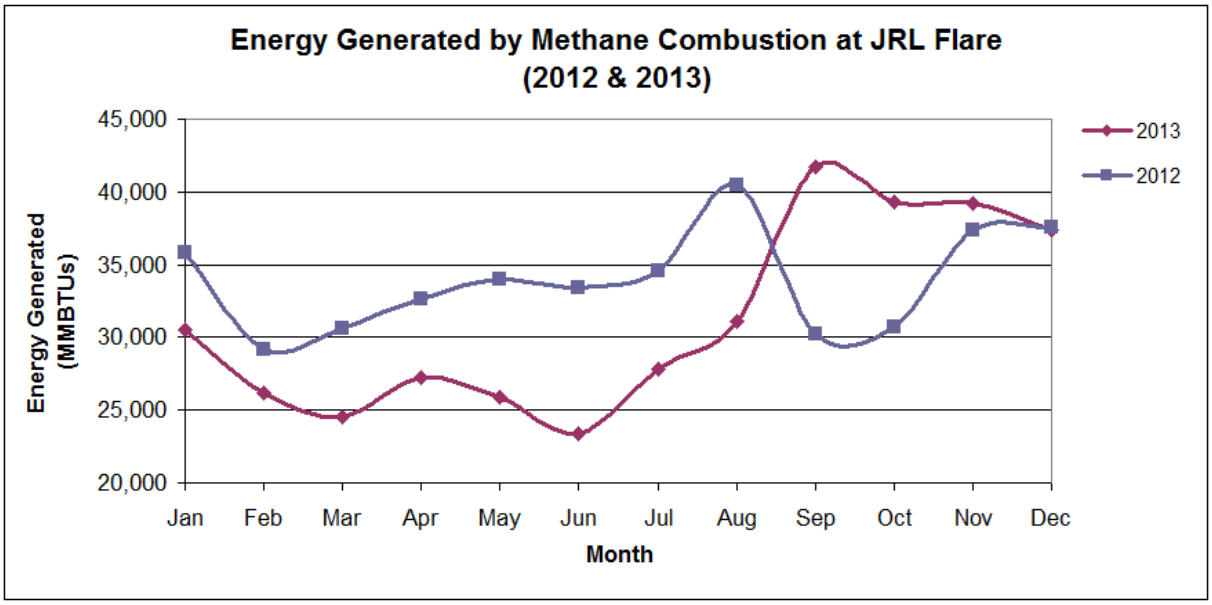

Figure 5-1 Energy Generated by CH_4 Combustion at JRL Flare, 2012 & 2013

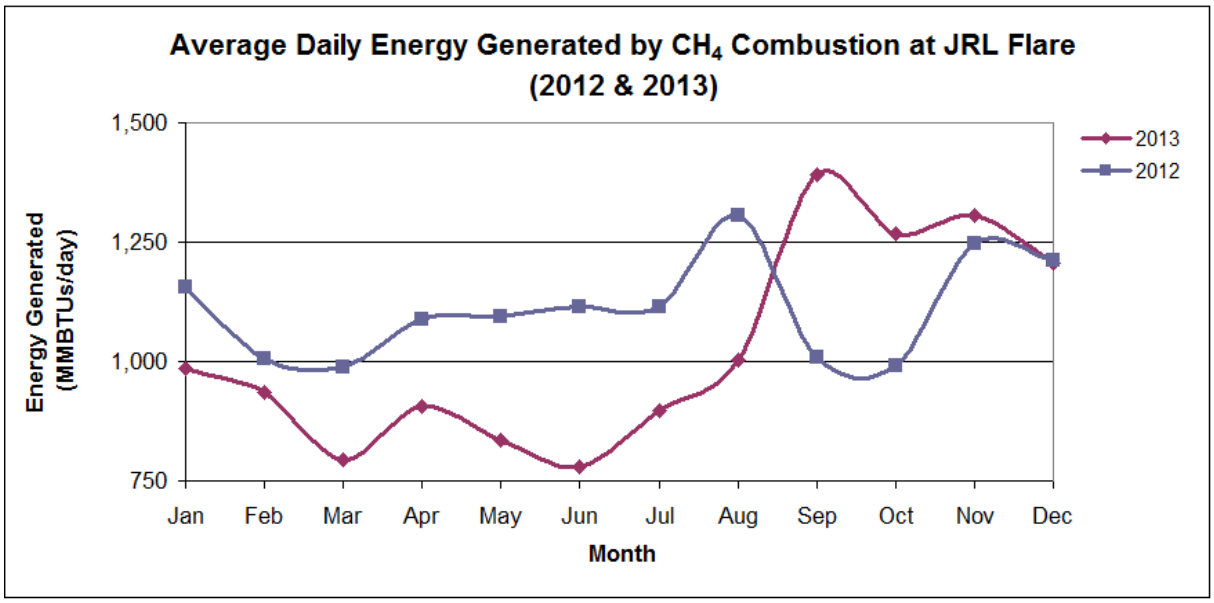

Figure 5-2 Average Daily Energy Generated by CH_4 Combustion at JRL Flare, 2012 & 2013

Table 5-1 Energy Generated by CH_4 Combustion at JRL, 2012 & 2013

		Energy Generated By CH_4 Combustion			
		Monthly Total MMBTUs		Daily Average MMBTUs/day	
	Year	2013	2012	2013	2012
Month	Jan	30,502	35,794	984	1,155
	Feb	26,174	29,157	935	1,005
	Mar	24,575	30,657	793	989
	Apr	27,218	32,647	907	1,088
	May	25,890	33,955	835	1,095
	Jun	23,360	33,435	779	1,114
	Jul	27,785	34,549	896	1,114
	Aug	31,076	40,478	1,002	1,306
	Sep	41,711	30,234	1,390	1,008
	Oct	39,260	30,709	1,266	991
	Nov	39,168	37,407	1,306	1,247
	Dec	37,420	37,581	1,207	1,212
	Totals	374,139	406,602		
	Average			1,025	1,110

6 Summary

The 2013 monitoring data associated with the landfill gas collection and treatment system indicates that the system is operating in accordance with the facility's operating manual. During the course of the year, 18 new wells and trenches were installed. These included 11 gas collection trenches and 7 vertical wells. Also, 2 gas collection trenches, 1 vertical well, and 1 condensate trap were discontinued during 2013.

Overall, average monthly CH_4 concentrations slightly decreased from 2012, remaining within the target range of 40-45% five out of the twelve months and averaging 39.0% for 2013, a decrease of 1.6% from 2012. O_2 concentrations remained low from May to November in 2013, with January, February, March, April and December averaging above 1%. The annual average O_2 concentration in 2013 was 1.3% at the landfill gas combustion flare, a slight increase from the 2012 average of 0.7%.

The total flow of landfill gas at the JRL flare remained largely unchanged from 2012, with a slight decrease in total flow of 3.79%. When comparing the last two years, 2013 month-to-month flow rates from January to the start of August were less than the flow rates recorded in 2012 until Mid-August, where the 2013 flow rates surpassed the flow rates in 2012. The total flow during 2012 was 1001 MMSCF, higher than 2013's total flow of 963 MMSCF. The total energy generated by CH_4 combustion at the JRL flare decreased from 2012 by 7.98%. and generated 374,139 MMBTUs in 2013.

ATTACHMENT H

Landfill Air Monitoring Evaluation

JUNIPER RIDGE LANDFILL

2013 ANNUAL AIR MONITORING EVALUATION

Operated by NEWSME Landfill Operations, LLC

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1. 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 2013 air monitoring results, including a comparison of the 2013 results to the previous year's results. Two types of air monitoring activities occurred at the Juniper Ridge Landfill (JRL) during 2013; (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 JRL operations manual. H_2S monitors are Honeywell® Analytics MDA Single Point Monitors (SPM) utilizing hydrides, EP Chemcassettes® also provided by Honeywell®. Readings were taken at 15 minute intervals and data-logged. Monitors are located at four different locations surrounding the landfill as shown in Figure 1-1. CH_4 scans were completed using a MicroFID® (flame ionizing detector) mobile device and completed once every quarter by taking measurements along an approximate 30 meter spacing grid on the intermediate cover system. Measurements were also collected at cover penetrations in the pattern (i.e. gas collection piping, etc.) and at noticeable punctures of the intermediate cover.

Additionally, odor complaints from the 24-hour JRL odor complaint hotline provide an opportunity to evaluate the effectiveness of odor control measures at the JRL. Odor complaints for 2012 and 2013 are compared.

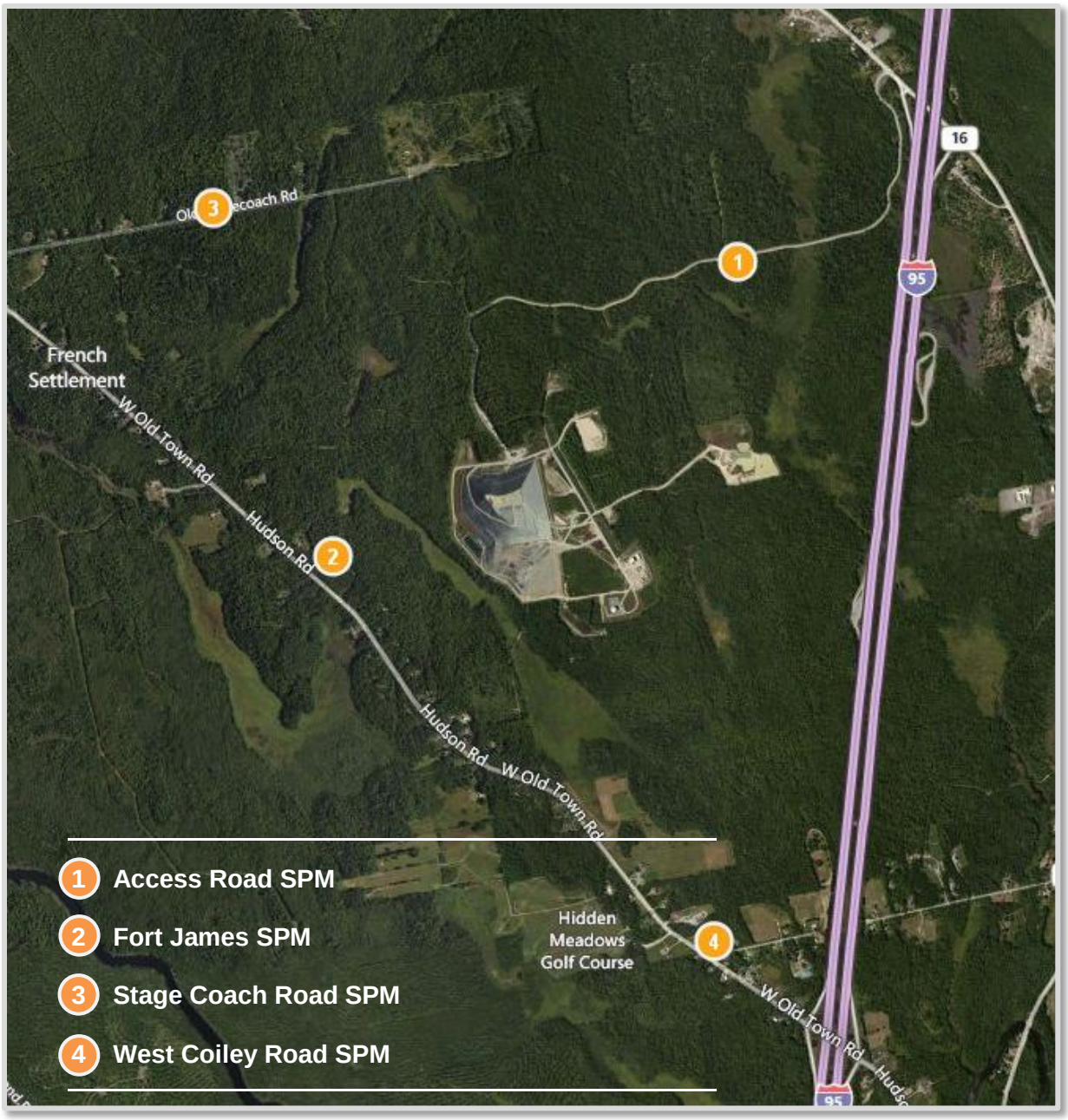

Figure 1-1 Juniper Ridge Landfill H_2S Single Point Monitoring Locations

2. Stationary H_2S Monitoring Results

The Chemcassette® tapes utilized by the 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®.

Readings were taken at 15 minute intervals and data-logged. Raw data, along with associated weather data from the on-site weather station were provided to the MEDEP on a periodic basis. Routine maintenance occurred including Chemcassette® changeouts generally on a 4-6 week basis. An annual factory service was also performed. Records of these activities were submitted to the MEDEP.

The annual average H_2S readings at the Access Road, Fort James, Stage Coach Road, and West Coiley Road SPMs are presented in Figure 2-1. Due to the vast number of non-detect readings (readings below the detection limit of the instruments), the average H_2S values for all four meters were below the detection limit of 2 ppb for both 2012 and 2013. Due to this fact, these average annual readings should be used only for qualitative comparison, and serve as evidence that the average H_2S values are below the quantitation and detection limits of the Chemcassettes®. During 2013, no monthly average reading was above the detection limit, when averaging with non-detect readings or zero readings.

Of the four H_2S SPMs located around the JRL, two locations in 2013 remained relatively similar to the annual average readings obtained in 2012. The annual average readings at Fort James and West Coiley Road SPMs increased slightly from 2012. The 2013 average site wide H_2S level remained very low at 0.6 ppb in comparison to the 0.4 ppb in 2012. Both calculated average readings in 2012 and 2013 were below the detection limit of the instrument. Monthly average readings at these four monitors generally correspond well between 2012 and 2013 values, with average higher H_2S levels occurring during summer months, and lower values

occurring during colder winter months. Monthly average H_2S readings for each location are shown in Figures 2-2 through 2-5 and should be used for comparative analysis only due to their low averages, below the quantitative and detection limits of the instruments.

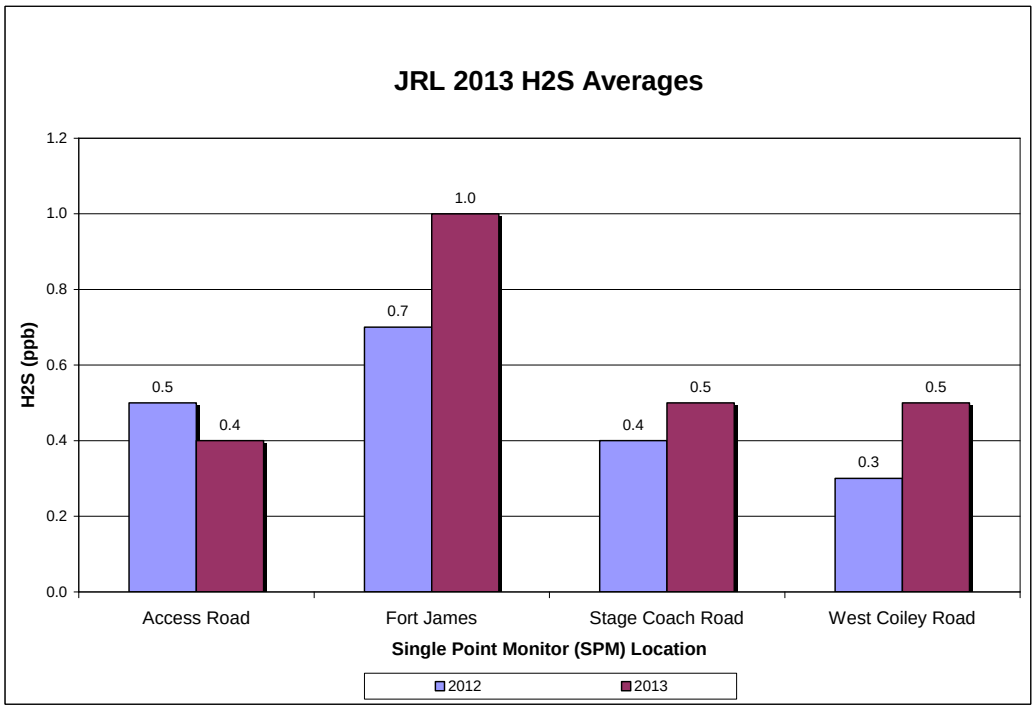

Figure 2-1 Annual average H_2S readings at all four SPM locations for 2012 & 2013

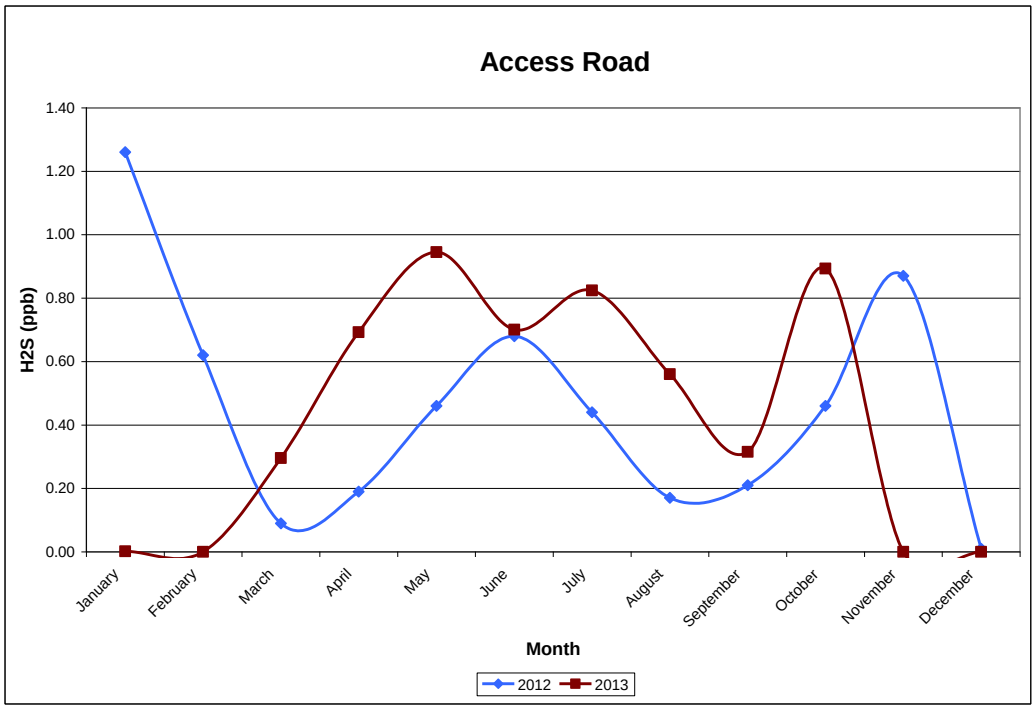

Figure 2-2 Monthly average H2S readings at the Access Road SPM location for 2012 & 2013

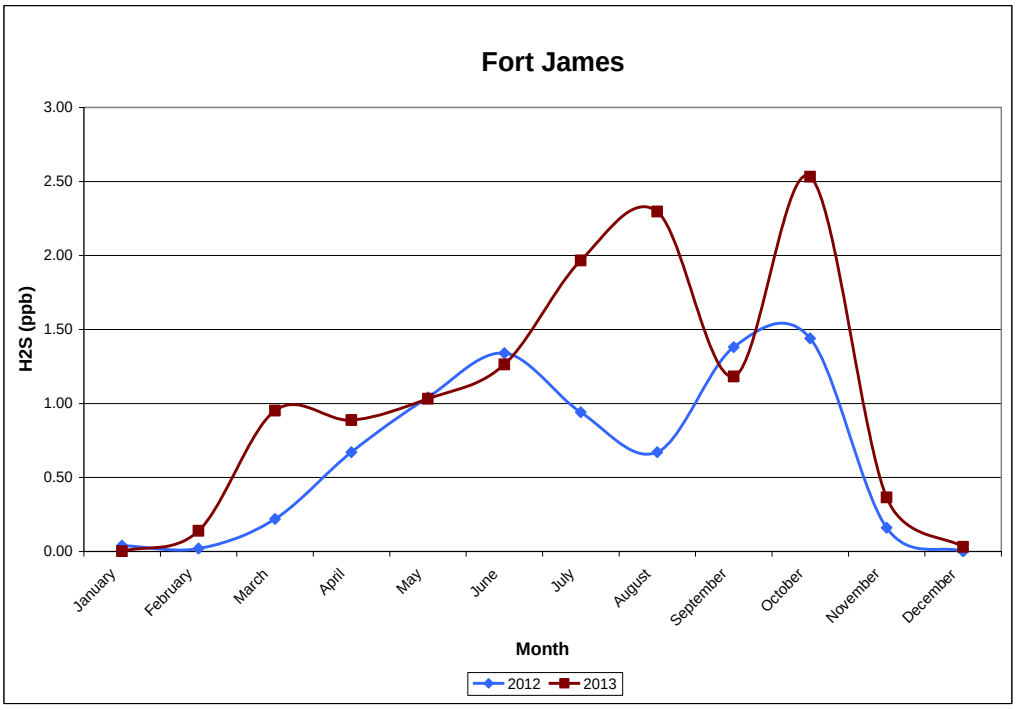

Figure 2-3 Monthly average H2S readings at the Fort James SPM location for 2012 & 2013

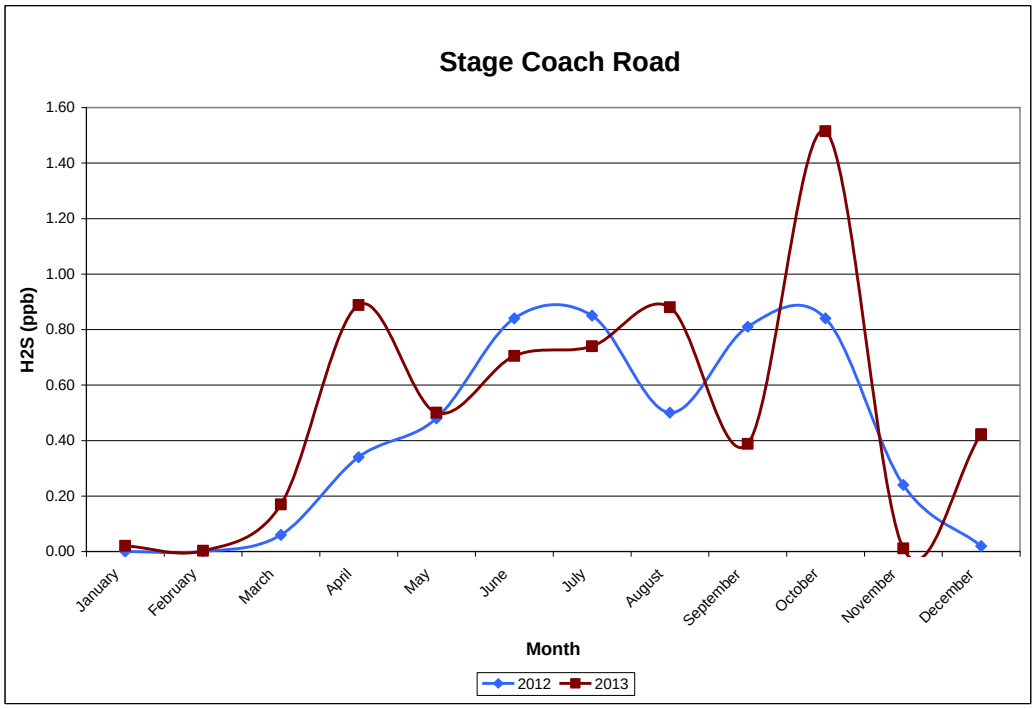

Figure 2-4 Monthly average H2S readings at the Stage Coach Road SPM location for 2012 & 2013

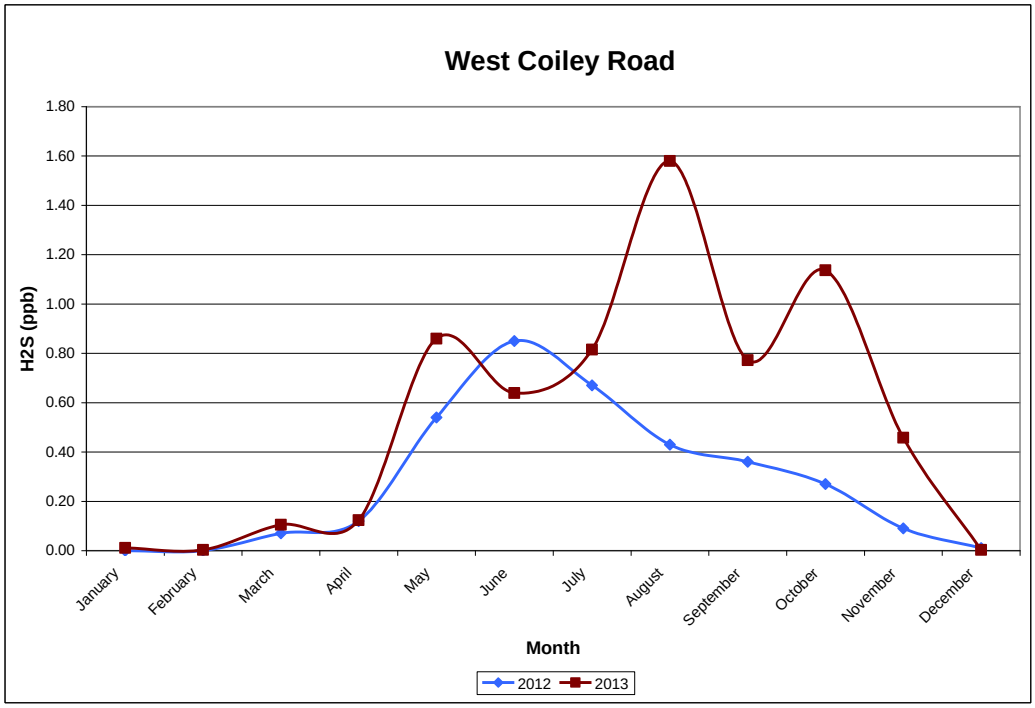

Figure 2-5 Monthly average H2S readings at the West Coiley Road SPM location for 2012 & 2013

During the months of January, April, May, July, August, September, and October 2013, at least one SPM malfunctioned or experienced erroneous readings. Malfunctions included; chemcassette failure, or full expenditure, pump failure, or meter faults. Erroneous readings are identified as readings that either fluctuate between two identical readings, or remain at a single identical reading for more than an 8 hour period of time. Since these readings remain identical for extended periods of time they are likely due to inconsistencies in the Chemcassettes, or faulty Chemcassette feed through the SPM. Data obtained from surrounding SPM's, including an on-site SPM, proved the readings to be erroneous. Diagnosis and maintenance of the malfunctioned SPM or Chemcassette corrected the problem. Table 2-1 below lists the date, duration, and number of each set of readings deemed erroneous following the above criteria. This data was excluded from the data analysis and results provided herein.

Table 2-1 Errors found within SPM readings

Access Road SPM Error Readings			
Start Time	End Time	Number of Readings	Probable Cause
5/27/13 2:45 PM	5/30/13 11:50 AM	275	Chemcassette
7/19/13 8:46 PM	7/20/13 5:31 PM	84	Chemcassette
10/23/13 2:02 PM	10/25/13 11:32 AM	183	Chemcassette

Fort James SPM Error Readings			
Start Time	End Time	Number of Readings	Probable Cause
4/3/13 12:33 PM	4/9/13 12:48 PM	578	SPM
5/27/13 11:30 AM	5/30/13 12:50 PM	292	Chemcassette
8/18/13 10:37 PM	9/4/13 8:13 AM	1575	SPM
10/17/13 1:07 PM	10/25/13 5:32 PM	786	SPM

Stage Coach Road SPM Error Readings			
Start Time	End Time	Number of Readings	Probable Cause
1/17/13 9:56 AM	1/26/13 5:31 AM	846	SPM
1/28/13 8:31 PM	1/29/13 7:31 PM	93	Chemcassette
1/29/13 9:01 PM	1/31/13 8:58 AM	144	Chemcassette
8/31/13 3:13 PM	9/4/13 8:13 AM	357	Chemcassette

West Coiley Road SPM Error Readings			
Start Time	End Time	Number of Readings	Probable Cause
4/21/2013 4:05	4/22/2013 0:20	82	Chemcassette
4/27/2013 4:21	4/27/2013 20:32	64	Chemcassette
4/28/2013 4:17	4/28/2013 21:17	69	Chemcassette

4/29/2013 3:47	4/30/2013 0:02	81	Chemcassette
4/30/2013 4:02	5/1/2013 2:17	90	Chemcassette
5/5/2013 4:22	5/5/2013 19:52	63	Chemcassette
5/19/2013 4:28	5/20/2013 0:28	81	Chemcassette
5/22/2013 3:57	5/23/2013 18:57	157	Chemcassette
7/3/2013 3:54	7/4/2013 3:24	95	Chemcassette
7/9/2013 2:49	7/11/2013 2:49	193	Chemcassette
7/19/2013 12:46	7/21/2013 19:46	221	Chemcassette
8/23/2013 16:52	9/4/2013 13:13	1138	SPM

Due to the low average readings, a comparison was completed on readings above the quantitative limit (4 ppb) and detection limit (2 ppb) for 2012 and 2013. Readings above these levels were compared with total readings taken over the entirety of the year to determine the effective time at which quantifiable and detectable readings occurred. The results are shown in Table 2-2.

Table 2-2 Quantifiable (4 ppb+) and detection (2 ppb+) readings as a percentage of total annual readings

	Access Road		Fort James*		Stage Coach Road		West Coiley Road		**Site Average**		Average Number of Site Readings
Above:	4ppb	2ppb	4ppb	2ppb	4ppb	2ppb	4ppb	2ppb	**4ppb**	**2ppb**	
2012	1.40%	14.70%	8.01%	26.06%	0.10%	15.00%	0.60%	9.90%	**2.53%**	**16.42%**	34,718
2013	0.17%	15.88%	4.85%	29.80%	2.65%	13.69%	1.52%	18.15%	**2.30%**	**19.38%**	32,884
Change**	-707%	7%	-65%	13%	96%	-10%	61%	45%	-10%	15%	

** Readings from August, September, and October were erroneous in 2012, replaced with South SPM readings*
*** Percent Change of Overall Readings*

During 2013, 2.30% of total readings of all four meters were at or above the quantifiable limit of the meters and 19.38% of readings were at or above the detectable limit of the meters. In 2012, 2.53% of readings of meters were at or above the quantifiable limit, and 16.42% of readings were at or above the detectable limit. A decrease in quantifiable readings from 2012 to 2013 of 10% was observed, while an increase of 15% in detectable readings occurred. Both the Stage Coach Road and the West Coiley Road SPMs show an increase in quantifiable readings, while the Access Road and Fort James SPMs show a decrease in quantifiable readings in 2013. The Access Road, Fort James, and West Coiley Road SPMs show an increase in detectable readings, while the Stage Coach Road SPM showed a decrease in detectable readings in 2013. Overall during 2013, quantifiable readings slightly decreased, and detectable readings slightly increased, and measurable readings around the entire site remained low during 2013.

3. Odor Complaints

Complaints recorded via the 24-hour JRL complaint hotline are provided for 2012 and 2013 in Table 3-1 below. Detailed complaint logs were submitted to the MEDEP on a monthly basis during 2013. During 2013, the JRL complaint hotline received a total of eleven landfill related complaints (all were odor related), compared to seven complaints for 2012 (all were odor related). Of these complaints, only three were confirmed as likely coming from the landfill in 2013 as opposed to one confirmed in 2012. The eleven odor related complaints in 2013 occurred over seven different months. Odor complaints were logged as they occurred. Site visits were conducted at the location of the complaints to confirm the validity of the complaints. Close attention was paid to complaints in order to determine operational effectiveness of odor control measures at the landfill and changes were made to these measures as necessary, based on complaints, and summarized in monthly reports submitted to the MEDEP.

Table 3-1 Summary of Complaints at Juniper Ridge Landfill, 2012 & 2013

2012	-OBJECT OF COMPLAINT-							MONTH
MONTH	ODOR	NOISE	LIGHTS	DUST	TRAFFIC	BIRDS	OTHER	TOTAL
JAN.	0	0	0	0	0	0	0	0
FEB.	1	0	0	0	0	0	0	1
MAR.	0	0	0	0	0	0	0	0
APR.	1	0	0	0	0	0	0	1
MAY	0	0	0	0	0	0	0	0
JUN.	0	0	0	0	0	0	0	0
JUL.	0	0	0	0	0	0	0	0
AUG.	1	0	0	0	0	0	0	1
SEP.	1	0	0	0	0	0	0	1
OCT.	1	0	0	0	0	0	0	1
NOV.	1	0	0	0	0	0	0	1
DEC.	1	0	0	0	0	0	0	1
TOTALS	***7***	***0***	***0***	***0***	***0***	***0***	***0***	***7***

** An additional 5 non-enforceable off-site traffic related complaints were received in 2012.*

2013	-OBJECT OF COMPLAINT-							MONTH
MONTH	ODOR	NOISE	LIGHTS	DUST	TRAFFIC	BIRDS	OTHER	TOTAL
JAN.	0	0	0	0	0	0	0	0
FEB.	0	0	0	0	0	0	0	0
MAR.	0	0	0	0	0	0	0	0
APR.	1	0	0	0	0	0	0	1
MAY	0	0	0	0	0	0	0	0
JUN.	1	0	0	0	0	0	0	1
JUL.	1	0	0	0	0	0	0	0
AUG.	2	0	0	0	0	0	0	2
SEP.	4	0	0	0	0	0	0	5
OCT.	1	0	0	0	0	0	0	1
NOV.	0	0	0	0	0	0	0	0
DEC.	1	0	0	0	0	0	0	1
TOTALS	***11***	***0***	***0***	***0***	***0***	***0***	***0***	***11***

** An additional 1 non-enforceable off-site traffic related complaint was received in 2013.*

4. CH_4 Surface Scans

Landfill methane (CH_4) emission surface scans are performed to determine the effectiveness of intermediate landfill cover, and landfill gas collections systems in controlling landfill gas migration. Quarterly surface scans were completed on the landfill intermediate cover at JRL during 2013 in accordance with the JRL Operations Manual. JRL was not subject to the requirements of the New Source Performance Standard (NSPS) for municipal solid waste (MSW) landfills contained in 40 Code of Federal Regulations (CFR) Part 60, Subpart WWW. Copies of the 2013 surface scans are provided in Attachment A and are kept on file in the Environmental Manager's office.

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) mobile device that has a detection limit of 0.5 parts per million (ppm) and a concentration range of 0.5 to 50,000 ppm. During 2013, a total of sixteen exceedances above the 500 ppm level were detected during four surface scans, in comparison to six exceedances that were detected in 2012 during the three scans. A quarterly breakdown is provided in Table 4-1. The majority of these readings above 500 ppm occurred around intermediate cover penetrations primarily around landfill gas collection piping, where boots had been damaged or moved, due to landfill consolidation and settlement. These readings and their locations are documented, copies are provided to the site supervisor, and necessary corrective actions are taken.

Table 4-1 Readings above 500 ppm found during 2012 & 2013 CH_4 Surface Scans

	Q1	Q2	Q3	Q4	TOTAL
2012	NC*	5	1	0	**6**
2013	0	7	8	1	**16**

** Not completed*

A comparison of scans from 2012 and 2013 shows a seasonal fluctuation in readings above 500 ppm as seen in Figure 4-1. This is consistent with typically higher landfill anaerobic activity occurring during the warmer summer months, and less activity occurring during the colder winter months. During 2013, the average methane reading of the sixteen measurements above the 500 ppm level was 1393 ppm, as opposed to 999 ppm during 2012. A quarterly comparison of average values from 2012 and 2013 is provided in Figure 4-2.

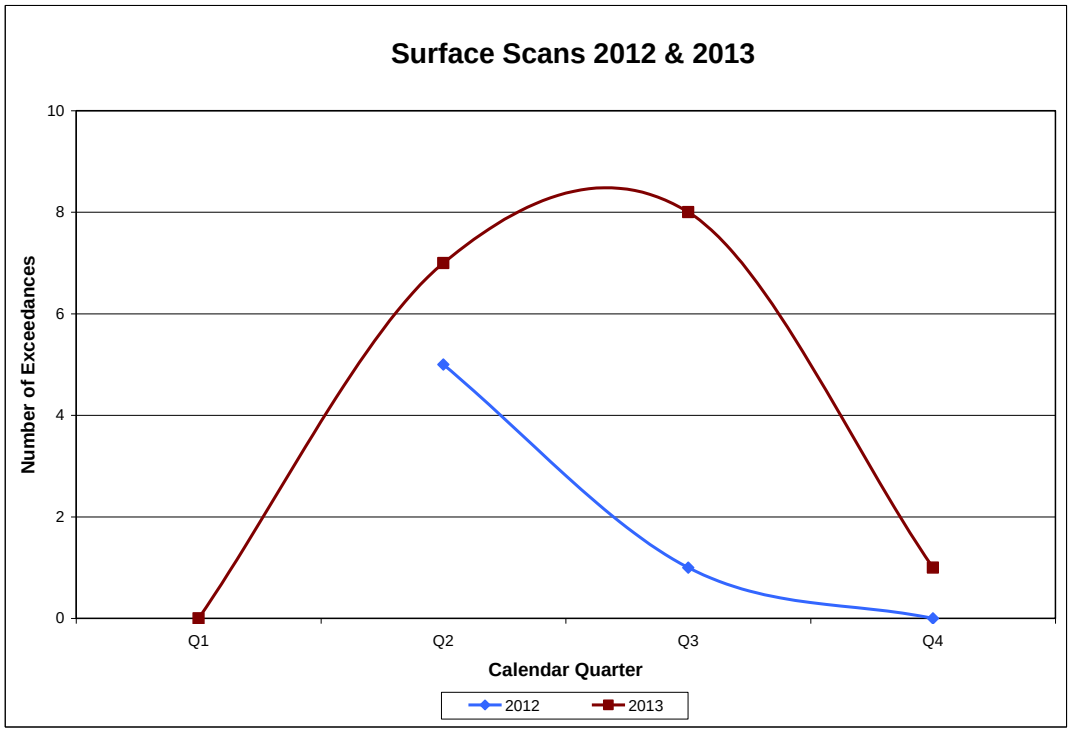

Figure 4-1 Readings above 500 ppm during quarterly CH_4 surface scans for 2012 & 2013

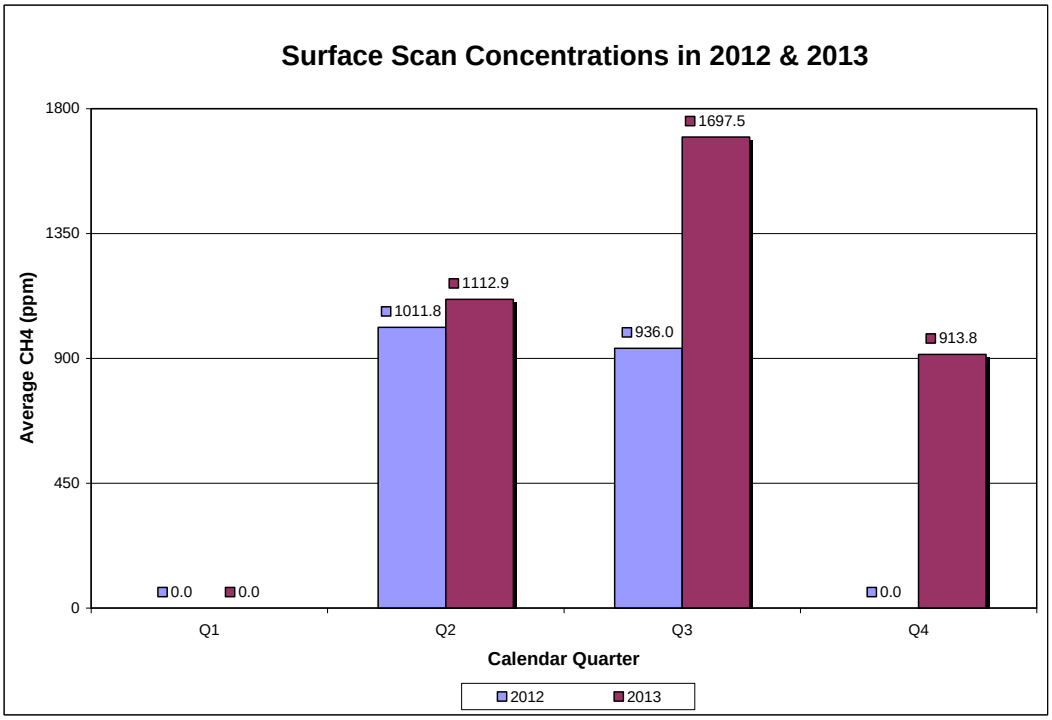

Figure 4-2 Average concentrations during quarterly CH_4 surface scans for 2012 & 2013

5. Summary

In accordance with the Juniper Ridge Landfill (JRL) operations manual, two types of air monitoring activities occurred on site during 2013; (1) hydrogen sulfide H_2S monitoring with stationary continuous monitors and, (2) quarterly methane (CH_4) emission surface scans on the landfill intermediate cover. Additionally, odor complaints from the 24-hour JRL odor complaint hotline provide an opportunity to evaluate the effectiveness of odor control measures at the JRL.

Overall, average monthly and annual H_2S concentrations remained low at the SPM's located around the landfill. A decrease in quantifiable readings (4 ppb or above) from 2012 to 2013 of 10% was observed, while an increase of 15% in detectable readings (2 ppb or above) occurred. Both the Stage Coach Road and the West Coiley Road SPMs show an increase in quantifiable readings, while the Access Road and Fort James SPMs show a decrease in quantifiable readings in 2013. The Access Road, Fort James, and West Coiley Road SPMs all show an increase in detectable readings, while the Stage Coach Road SPM showed a small decrease in detectable readings in 2013. Overall, quantifiable readings slightly decreased, and detectable readings slightly increased during 2013.

Odor-related complaints in 2013 increased from the previous year with a total of eleven odor related complaints occurring during 2013 compared to seven in 2012. Of these complaints, three complaints during 2013 were confirmed as likely coming from the landfill as opposed to only one confirmed in 2012.

Surface scan CH_4 emission results increased from 2012 to 2013 with a total of sixteen readings above 500 ppm found during 2013 during four surface scans, compared with six above that level detected in 2012 during three surface scans. The average concentration of these readings increased from 999 ppm in 2012 to 1393 ppm in 2013. Readings above 500 ppm are infrequent and continue to occur primarily around penetrations in the intermediate cover system for the gas extraction piping and are fixed upon identification. 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.

APPENDIX A

2013 Surface Scan Logs

Surface Scan

Date: 03-18-13 **Site Location:** Juniper Ridge Landfill
Employee: Conner O'Brion **Equipment Used:** Micro FID

Time:	Location Description:	Northing:	Easting:	Exceedence:	Corrective Action:
	NO Exeedances				

Authorized Signature: JeffR **Date:** 03-18-13

Surface Scan

Date: 06-21-13 **Site Location:** Juniper Ridge Landfill
Employee: Conner O'Brion **Equipment Used:** Micro Fid

Time:	Location Description:	Northing:	Easting:	Exceedence:	Corrective Action:
0935	GCT-341 (tear around well boot)	479156.21	926013.41	1080 PPM	Liner needs Repaired
1013	GW-55 (tear around Vacuum Side of boot)	478244.8	925999.4	1147 PPM	Liner needs Repaired
1024	Hole in Liner 20 ft before GW-64	478121.2	925989.9	683 PPM	Liner needs Repaired
1107	GW-64 (Hole in Well Boot	478121.2	925989.9	1500 PPM	Fix Well Boot
1121	Hole about 20-30 ft from GW-83	477822.2	926401.2	1380 PPM	Fix Hole in Liner
1213	Hole in Liner in the Top Corner of Cell 6 (50 ft above GCT609)	478484.16	925803.90	1000 PPM	Fix Hole in Liner
1317	Hole in top Part of cell 2	UNKNOWN	UNKNOWN	1000 PPM	Find and Fix hole on top of cell 2

Authorized Signature: JeffR **Date:** 06-21-13

Surface Scan

Date: 09-25-13 **Site Location:** Juniper Ridge Landfill

Employee: Conner O'Brion **Equipment Used:** Micro FID

Time:	Location Description:	Northing:	Easting:	Exceedence:	Corrective Action:
1445	10 yards from GW-55 (Along berm Steel wire Sticking Out)	478244.8	925979.4	3000 ppm	Sent Doc. to Site Supervisor
1500	GCT-513 (Around boot of well Pipe			1500 ppm	
16000	GCT-3A4 (underneath well boot is torn)	479099.8/2	926063.25	1630 ppm	
1605	15 ft South of GCT-513 (Hole in liner)			800 ppm	
1635	GCT-609 (Boot on Vacuum Side)			3000 ppm	
1637	15 ft South of GCT-609 (Hole in liner)			1600 ppm	
1645	GW-48 (well boot)	478444.00	926214.00	1550 ppm	
1700	GW-A (tear in liner around boot)	479047.90	925582.80	500 ppm	

Authorized Signature: Jeff R **Date:** 09-25-13

Surface Scan

Date: 12/16/13 **Site Location:** Juniper Ridge Landfill

Employee: Kyle Whalley **Equipment Used:** Micro FID

Time:	Location Description:	Northing:	Easting:	Exceedence:	Corrective Action:
11:37a	20 ft SW of Well 65 in cell 5 road	521721.2	4980528	913.8 ppm	Sent Doc to Site Supervisor

Authorized Signature: Jeff R **Date:** 12/16/13

ATTACHMENT I

Geotechnical Monitoring Report

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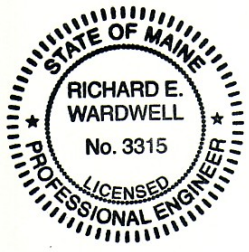
2013 Annual Geotechnical Landfill Inspection Report
Juniper Ridge Landfill
West Old Town, Maine

April 2014

Report to:

BGS/NEWSME Landfill Operations
Hampden, Maine

Casella Waste Systems, Inc.
Saco, Maine



Richard E. Wardwell, P.E., Ph.D.
Bethesda, MD 20815

EXECUTIVE SUMMARY

The 2013 Annual Geotechnical Landfill Inspection Report for the Juniper Ridge Landfill describes the site visit made on October 14, 2013 – one component of the ongoing landfill observations being performed in accordance with the Geotechnical Monitoring Plan (GMP, REW 2007b) as adjusted by changes described in the 2008 and 2010 Geotechnical Monitoring Reports (REW 2008a, 2011a). As stated therein, collection of electronic instrumentation data was curtailed due to logistics associated with the construction of Cell 4 and surveys of the slope displacement monuments (SDMs) and measurements of waste grade elevations at the instrument clusters were terminated to be consistent with the needs of a stable operational landfill and its resources.

During 2013, the geotechnical monitoring at JRL emphasized the routine observations of the landfill surface made during operations combined with an independent geotechnical inspection of the landfill slopes conducted on October 14, 2013. Observational methodology was used to assure that the geotechnical performance of the landfill facility was consistent with design and the goals of the Operations Manual (NEWSME 2010). This report summarizes the annual geotechnical inspection of the landfill and supplements previous Geotechnical Monitoring Reports through 2010 (REW 2005a, 2006, 2007a, 2008a, 2009, 2010a, 2011a), and the landfill inspection reports from the last two years (REW 2012, 2013).

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Figure 1: Site Plan 2

2013 Annual Geotechnical Landfill Inspection Report
Juniper Ridge Landfill Facility
West Old Town, Maine

1. INTRODUCTION

The 2013 Annual Geotechnical Landfill Inspection Report (AGLIR) has been prepared for the State of Maine's Juniper Ridge Landfill (JRL) 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, shown on Figure 1, is based on an aerial topographic survey performed on October 30, 2013. Geotechnical monitoring of this landfill was performed in accordance with the current Geotechnical Monitoring Plan (GMP, REW 2007b), as adjusted by mid-year 2008 modifications related to logistics associated with the construction of Cell 4 (REW 2008a) and modified by the termination of the survey measurements of slope displacement monuments justified in the 2010 GMR (REW, 2011).

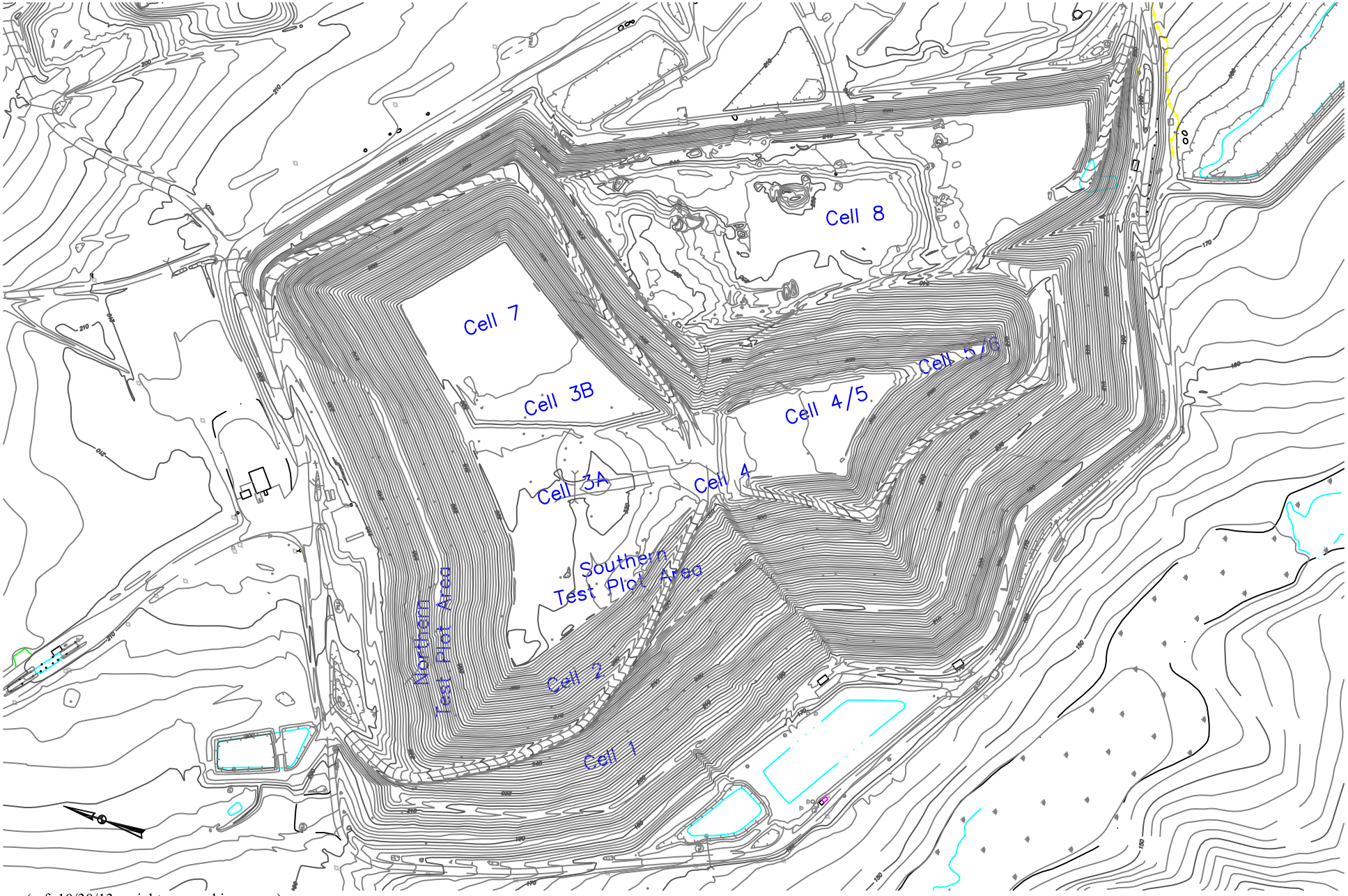
Specific activities in 2013 included photogrammetric topographic surveys of the landfill surface, periodic landfill observations, and an independent geotechnical landfill inspection. This report, presenting the results of the annual inspection made in October, supplements routine landfill observations performed by operational personnel to assure consistency with the Operations Manual (NEWSME 2010) as summarized in the yearly landfill report.

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 (MSW), and other miscellaneous wastes. This section discusses the history of landfill development at the site.

2.1 Fort James Operation

Approximately 68 acres of a 780-acre property was licensed by FJC as a secure landfill, and operated by FJC from 1996 until 2004 when the State of Maine purchased the landfill. During this period, JRL, then called the West Old Town Landfill (WOTL), was used mainly for disposal of combined sludge from FJC's primary and secondary treatment plant in Old Town and fly ash from a biomass boiler at Eastern Paper's mill in Lincoln. Placement of the sludge began in December 1996 along the western portion of Cell 1. By 2001, operations had moved to the east into Cell 2. Details relating to the geotechnical behavior of FJC's sludge during the sequential landfill development is presented in previous reports (REW 2007a,b).



(ref: 10/30/13 aerial topographic survey)

Figure No: 1	Project No: 1749	Title: Site Plan Juniper Ridge Landfill	By: REW Checked: REW	Richard E. Wardwell, P.E., Ph.D. Geotechnical & Groundwater Engineering 7034 Strathmore St., #305 Bethesda, MD 20815
		Project: 2013 Annual Geotechnical Landfill Inspection Report	Date: Mar. 2014	
		Client: State of Maine/NEWSME Landfill Operations LLC, West Old Town, Maine	Scale: 1" = 300'	

2.2 State of Maine Purchase and Operations

In February 2004, the State of Maine, through the State Planning Office (SPO), purchased the landfill from FJC. It selected Casella Waste Systems, Inc. (CWSI) through its subsidiary NEWSME Landfill Operations LLC, to operate the disposal of in-state wastes. Approximately 50,000 tons of sludge were initially brought to the landfill from FJC's Old Town mill before the mill closed in 2006. To improve deposit stability, SPO/NEWSME 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, 2010a, 2011) and annual geotechnical landfill inspection report (REW 2012).

Once the sludge stabilization program was completed by mid-2006, landfill operations moved into the western portion of Cell 3, depositing the mixtures of in-state waste. The remainder of the landfill capacity (i.e. Cells 5 – 8) has been filled with the approved in-state waste streams, which, now and in the future, are estimated to include varying percentages of construction and demolition debris, MSW materials (MSW, front-end process residue, oversized bulky waste, and MSW bypass), MSW incinerator ash, CDD wood fines for cover, contaminated soils, and other miscellaneous waste materials (SME 2013). Based on performance to date, these mixture of wastes are stable at slopes up to 2.5H:1V, but are highly compressible and subject to gas generation. Based on the experience at each site, it is expected the in-state waste mixture will be more stable and less compressible than the waste-stabilized sludge. As a result, the most critical area for stability at JRL is the area underlain by the northern test plot (composed of 60/40 sludge-to-waste ratio), which is located at the north end of Cell 2 (see Figure 1).

2.3 Overview of Geotechnical Monitoring

Historically, the critical stability issues with the landfill related to the papermill sludge previously placed by FJC. With stabilization of all the sludge (by mixing it with stable in-state waste) completed in 2006, the monitoring plan was modified in the 2007 GMP (REW 2007b) to reflect the routine needs associated with other landfills placed on firm soil foundations.

The 2007 GMP revised previous plans to reflect the fact that: 1) the previous sludge at the landfill has been stabilized and confined within the landfill by either the perimeter earthen berms or by the placement of the stable, in-state waste streams, and 2) slope stability and settlement monitoring since 2004 has accumulated a baseline of corroborative data and verified that the actual geotechnical behavior of waste-stabilized sludge in the landfill is consistent with design parameters.

Based on this, the intensity of previous program was modified to represent the monitoring needs associated with current waste mixtures placed in a landfill founded on a firm soil. 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.

Field observations were supplemented since 2007 with slope measurements of the northern slope of Cell 2 that is underlain by the highest percentage of sludge remaining at JRL, i.e. up to 60% sludge mixed with 40% in-state waste. In 2010, this labor intensive survey program to monitor the slope displacement monuments was terminated based on the stable condition of the waste-stabilized sludge measured over the previous three years and the consistency of the observed compression rates with the wealth of data collected from Casella's neighboring facility in Hampden, Maine (see 2010 GMR, REW 2011b).

During 2013, the performance of routine operational observations and the annual geotechnical inspection continued. Specifically, the remaining monitoring plan includes provisions for aerial surveys of the landfill configuration, visual observations to verify satisfactory landfill performance in terms of slope stability and settlement, and a mechanism to notify JRL and MEDEP of possible slope instabilities or detrimental strains in advance of their occurrence. The results from one component of this plan, the independent annual geotechnical landfill inspection, are summarized in the next section.

3. GEOTECHNICAL LANDFILL INSPECTION

Geotechnical monitoring during 2013 included field observations during operations and an independent geotechnical inspection of the landfill relating to waste stability and settlement performance. A description of the landfill observations, the annual inspection, and topographic aerial surveys are discussed herein.

3.1 Landfill Observations

During 2013, corroboration of landfill performance with the design conditions used in the geotechnical analysis were confirmed in the field by monitoring the type, quantity, rate, and location of waste placement in accordance with the Operations Manual (NEWSME 2010), which, in part, is based on the results of geotechnical analyses completed for the landfill design and supported by the revised stability analysis (REW 2005b). Landfill performance was verified by visual site observations of the landfill as described in the Operations Manual and documented in the annual report. As part of this, the landfill surface was observed under the direction of a qualified geotechnical engineer for overall condition, evidence of cracking, localized depressions, erosion, leachate breakout on sideslopes, areas of ponded water, and toe heaving.

3.2 Annual Inspection

To supplement routine observations, an annual geotechnical inspection of the landfill area was performed on October 14, 2013. Geotechnical observations were made to indicate that the waste placement, sideslope construction, cover performance, and other construction/filling practices are consistent with the landfill's Operations Manual. Specifically, the appearance of the landfill slope and configuration was observed by an independent geotechnical engineer with special attention paid to the area of the waste-stabilized sludge along the northwestern slope of Cell 2.

Observation reports, using the checklist presented in the 2007 GMP, were filled out and are included in the Appendix A of this report. A photographic record of the October visit is included in Appendix B.

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 In-Place

- 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. As indicated by the report from the site visit, the waste historically placed in Cells 1 through Cell 7 and the active waste placement in Cell 8 is performing as anticipated. At the time of the inspections, there were no indications of inconsistencies between site activities and the Operations Manual. In 2013, the critical area of the landfill underlain by the previous waste stabilized sludge appears to have behaved as anticipated with no indications of slope instabilities or excessive deformations.

3.3 Surveys

Topographic surveys of the landfill surface were completed in 2013 using aerial photogrammetric methods. A spot check of surface elevations at the end of October 2013 indicates that the waste slope angles are consistent with the project design and Operations Manual. Elevation contours for covered areas were visually examined for depressions, heaving, and ditch slope continuity, and, consistent with site observations, indicate that the landfill is performing as anticipated during design with no noticeable differential settlements or instabilities.

3.4 Modifications to the Geotechnical Monitoring Plan

Based on observations of landfill activities and performance during 2013, there are no proposed changes to the Geotechnical Monitoring Plan beyond those made in 2008 and 2010.

4. SUMMARY

Geotechnical monitoring of the JRL was performed to verify that the field behavior of the facility is consistent with design analyses. This program was modified in 2008 and 2010 to emphasize field observations of landfill activities in assuring consistency with the Operations Manual, and that there were no indications of potential slope instabilities or excessive settlements that might impact the performance of the facility. These modifications were made to address logistic conflicts with cell development and in recognition that the need for electronic waste settlement measurements and surveys of slope movements diminished as the waste elevation of the instrumented area approached its final grade without any discernible deformations.

In accordance with the current GMP (REW 2007b), the routine observations made during landfill operations were supplemented with the annual geotechnical inspection performed on October 14, 2013 and an aerial topographic survey of the facility made on October 30, 2013. The resulting checklist and photographic record from the site visit, included in the Appendices, documents observations that the landfill is performing as anticipated with no excessive deformations, slope movements, unexplained ponded water, or leachate breakouts. Specific site observations made of the northern slope of Cells 1 & 2 (an area of the landfill underlain with waste-stabilized sludge) indicate that this critical portion of the landfill is performing as anticipated during design.

References

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NEWSME (2010), *2010 Operations Manual, West Old Town Landfill*, report prepared NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine.

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REW (2010b), *2009 Geotechnical Monitoring Report, Pine Tree Landfill*, report prepared by R.E. Wardwell, North Bethesda, MD for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, April.

REW (2011a), *2010 Geotechnical Monitoring Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, North Bethesda, MD for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, April.

REW (2011b), *2010 Geotechnical Monitoring Report,* prepared for Pine Tree Landfill by Richard E. Wardwell, North Bethesda, MD, April.

REW (2012), *2011 Geotechnical Landfill Inspection Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, North Bethesda, MD for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, April.

REW (2013), *2012 Geotechnical Landfill Inspection Report, Juniper Ridge Landfill*, report prepared by R.E. Wardwell, North Bethesda, MD for SPO/NEWSME Landfill Operations, Old Town, Maine and Casella Waste Systems, Inc., Saco, Maine, April.

SME (2013), email from Sevee & Maher Engineers, Inc., Cumberland, ME to R.E. Wardwell, North Bethesda, MD entitled “JRL Inspection Report”, Sevee & Maher Engineers, Inc., Cumberland, ME, April 4.

APPENDIX A

Geotechnical Landfill Inspection Form

Table A-1
Checklist: Annual Geotechnical Inspection
2013 Annual Geotechnical Landfill Inspection Report, Juniper Ridge Landfill, West Old Town, Maine

Observation Date: 10/14/13
Monitor Name: R. ET WARDWELL
Weather: SUNNY, 60'S

Observation Area	Sat.	Unsat	Description (location, direction, appearance, etc.)	Proposed Action
Active Area				
location description	–	–	CELL 8	n/a
slope stability	✓	–		
waste lift thickness	✓	–		
active slope angle	✓	–	≈ 2½:1 TO 3:1	
erosion	✓	–		
leachate breakout	✓	–	NONE OBSERVED (ND)	
ponded water	✓	–	N/O	
toe heaving	✓	–	N/O	
overall condition	✓	–	STABLE SLOPE APPEAR.	
Inactive Area (Synthetic)			VEG COVER (LOWER NW SLOPE) GOOD	
location description	–	–	SOIL OVER MOST SLOPES	n/a
slope stability	✓	–	GOOD GRASS COVER OVER LOWER NW/SOUTHERN COVER SLOPES	
cracking	✓	–	N/O	
erosion	✓	–	N/O	
leachate breakout	✓	–	N/O	
ponded water	✓	–	N/O	
toe heaving	✓	–	NO	
overall condition	✓	–	STABLE SLOPE APPEARANCE	
Interim Soil Cover				
location description	–	–	LOWER NORTHWEST SLOPE	n/a
overall surface condition	✓	–	GOOD GRASS COVER	
cracking	✓	–	N/O	
erosion of cover material	✓	–	N/O	
erosion of ditch linings	/	–		
leachate breakout	/	–		
ponded water	–	–	NONE / UNIFORM SLOPES	
toe heaving	/	–	" "	
grass kills	/	–	N/O	
gas venting	/	–	N/O	
overall condition	/	–	GOOD CONDITION	

APPENDIX B

Site Photographs

10/14/13 Site Visit

looking east along northern slope of Cell 1 & 2 (foreground) Cell 3 (background)

northern slope looking west along transition slope between Cell 3 and Cell 1 & 2

crest of northern slope of Cell 1/2, looking easterly along northern slope

at the crest of northern slope looking southwesterly over the top of Cell 7

on the top of southern slope of Cell 7, looking south

south slope of Cell 7 looking east

top of Cell 7 southern slope, looking southwest on landfill top of Cell 3/4 (fore) & Cell 4/5 (aft)

at the crest of eastern interior slope of Cell 5 looking south along the eastern top of Cell 5

at the crest of eastern interior slope of Cell 5, looking south over the top of Cell 6

looking southerly along the top southwesterly slope of Cell 4/5 & Cell 4/6

bottom portion of western slope of Cell 4/5

southwestern slope of Cells 1/2/4, and western slope of Cell 4/5

crest of northwest corner of Cell 1/2 looking down onto northwestern sed pond

crest of nothwest corner of Cell 1/2 looking over the top of Cell 2

SE corner of Cell 7 looking northwesterly along the bottom of NE slope of Cell 7

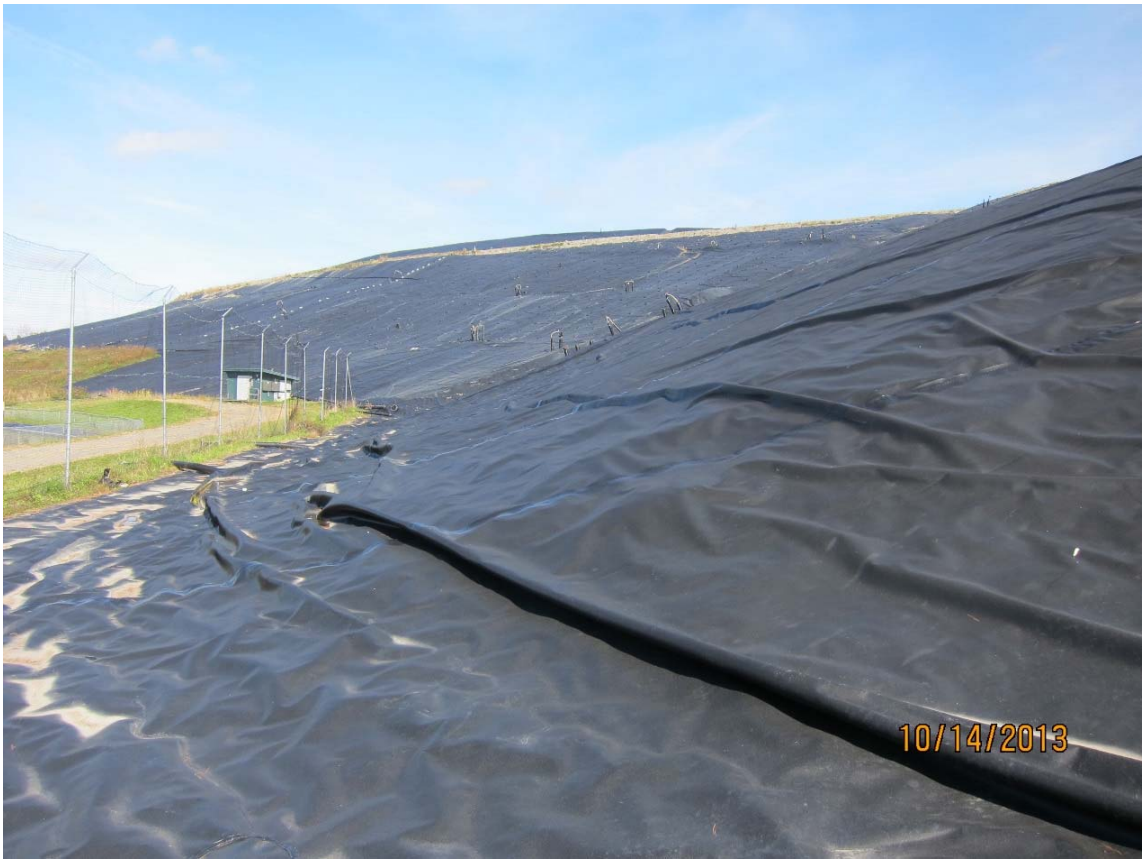
SW corner of Cell 7 looking south over active Cell 8

SE corner of Cell 8 looking northerly along active Cell 8

SW corner of Cell 8 looking southwesterly along lower slope of Cell 4/6

SW corner of Cell 4/6 looking southeasterly along lower slope of Cell 4/6

SW corner of Cell 4/6 looking southeasterly towards lower slope of Cell 4/5



SW point of Cell 4/5 looking northerly along lower westerly slope of Cell 4/5

SW corner of Cell 4 looking northwesterly along lower SW slope of Cell 1/2

ATTACHMENT J

Updated Closure and Post-Closure Cost Estimates

SME
Sevee & Maher Engineers, Inc.

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

April 9, 2014

13076
20130410 JL.doc

Mr. Jeremy Labbe
Environmental Compliance Manager
Pine Tree Landfill
358 Emerson Mill Rd
Hampden, ME 04444

Subject: Update of Opinion of Capital Closure and Post-Closure Costs
For Calendar Year 2014
Juniper Ridge Landfill
Old Town, Maine

Dear Jeremy:

As requested by NEWSME Landfill Operations, LLC (NEWSME), Sevee & Maher Engineers, Inc. (SME) has updated our opinions of capital closure and post-closure costs for the Juniper Ridge Landfill (JRL) in Old Town, Maine for calendar year 2014. The capital closure cost is for those cells that, as of the end of the calendar year 2014, 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, and 8. In total, these landfill cells have approximately 57.3 acres of closure area. Our opinion of the capital closure cost to close the 57.3 acres is $11,094,943. 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 Regulations (SWMRs). The unit costs used to develop the closure cost are from material unit costs obtained for the 2012 Cell 8 construction project at JRL, and similar projects in central Maine adjusted for cover versus cell construction.

The post-closure monitoring and maintenance cost for the site (developed as of December 2014) is $9,977,300 presented in Table 2. The post-closure costs assume a 30-year post-closure period and are presented on a yearly basis in 2013 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 for active gas system modifications assumes the existing gas

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collection system installed as part of landfill operations will be modified to operate during the post-closure period.

2. The final cover of these cells will consist of the components outlined in the current SWMRs. Our opinion of closure costs are based on unit material prices developed from the construction bids for NEWSME's Cell 9 project and other similar projects in the central Maine area adjusted for closure versus cell construction. These costs are also based on our current understanding of site conditions. Actual closure costs will vary and are dependent upon the actual nature and extent of waste placement, timing of closure, and other factors not evident at this time.

3. The post-closure costs include costs for post-closure activities including 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 the cost issues presented in this letter, please feel free to contact us.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Michael S. Booth, P.E.
Project Engineer

Attachments

Table 1 - Opinion of Final Cover Costs for the JRL as of December 2014
Table 2 –Opinion of Post-Closure Monitoring and Maintenance Costs for Juniper Ridge Landfill as developed in Calendar Year 2014

cc: Toni King, NEWSME
Wayne Boyd, NEWSME

TABLE 1

OPINION OF FINAL COVER COSTS FOR JUNIPER RIDGE LANDFILL FOR LANDFILL AREA DEVELOPED AS OF DECEMBER 2014

JUNIPER RIDGE LANDFILL PER-ACRE FINAL COVER COSTS without gas collection (Update 4/2014)				
ITEM	UNIT	QUANT.	UNIT COST[(1)]	TOTAL
Mobilization	L.S.	1	$15,000	$15,000
Erosion Control	L.S.	1	$3,000	$3,000
Active Gas System Modifications	L.S.	1	$21,700	$21,700
Site Grading	L.S.	1	$2,750	$2,750
Drainage Terraces	L.S.	1	$12,000	$12,000
24" compacted clay	C.Y.	3,230	$16.00	$51,680
Texture Membrane	SQ.FT.	43,600	$0.60	$26,160
12" Sand Common Borrow	C.Y.	1,620	$16	$25,920
12" Vegetative Cover	C.Y.	1,620	$20	$32,400
Seed & Mulch	L.S.	1	$2,500	$2,500
Engineer/Const. Monitoring	L.S.	1	$19,000	$19,000
			Total	$212,110

JUNIPER RIDGE LANDFILL PER-ACRE FINAL COVER COSTS w/existing gas collect (Update 4/2014)				
ITEM	UNIT	QUANT.	UNIT COST[(1)]	TOTAL
Mobilization	L.S.	1	$15,000	$15,000
Erosion Control	L.S.	1	$3,000	$3,000
Site Grading	L.S.	1	$2,750	$2,750
Drainage Terraces	L.S.	1	$12,000	$12,000
24" compacted clay	C.Y.	3,230	$16.00	$51,680
Texture Membrane	SQ.FT.	43,600	$0.60	$26,160
12" Sand Common Borrow	C.Y.	1,620	$16	$25,920
12" Vegetative Cover	C.Y.	1,620	$20	$32,400
Seed & Mulch	L.S.	1	$2,500	$2,500
Engineer/Const. Monitoring	L.S.	1	$19,000	$19,000
			Total	$190,410

(1) Unit Cost based upon Third Party Construction cost (Cell 9 bids February 2014) adjusted to reflect the cover construction on 3H to 1V sideslopes.

	Acres	Closure Cost
Area with Existing Gas Collection	48.8	$9,292,008
Area without Gas Collection (Cell 8)	8.5	$1,802,935
	Total	$11,094,943

TABLE 2

OPINION OF POST-CLOSURE MONITORING AND MAINTENANCE COSTS FOR JUNIPER RIDGE LANDFILL
AS DEVELOPED IN CALENDAR YEAR 2014

ITEM	OPINION OF YEARLY COSTS	TOTAL COST FOR 30 YEAR PERIOD	ASSUMPTIONS
Leachate Collection, Transport and Disposal			
A. Electrical Costs to Operate Pump Station	$2,200	$66,000	5 Pump Stations with 2 pumps in the 4 stations, 1 pump in 1 station . Assumes 15 Hp pumps pumping at 100 gpm for 400 hours per year
B. Disposal Costs for Leachate Years 1-30	$39,860	$1,195,800	Leachate generation rate 1.22 inches per year, Total landfill area 57.3 acres, transport costs $0.021/gal
C. Annual Leachate Testing	$3,600	$108,000	Annual cost for pretreatment testing
	Subtotal Total	**$1,369,800**	
Post Closure Water Quality & Methane Gas Monitoring			
A.1 Collect Samples From 20 Wells,7 underdrains,1 leak detection,2 leachate & 8 Surface Waters for 3 Rounds/Year & Methane Measurements From Wells 3 Times per Year	$34,500	$172,500	Assumes 2 rounds detect. monitor para, 1 round extended list for year 1-5
A.2 Collect Samples From 20 Wells,7 underdrains,1 leak detection,2 leachate & 8 Surface Waters for 2 Rounds/Year & Methane Measurements From Wells 2 Times per Year	$23,000	$115,000	Assumes 2 rounds, one detect. monitor para. & one round extended list for years 6-10
A.3 Collect Samples From 20 Wells,7 underdrains,1 leak detection,2 leachate & 8 Surface Waters for 1 Round/Year & Methane Measurements From Wells 1 Time per Year	$11,500	$230,000	Assumes one round extended list for years 11-30
B.1 Analyses of 41 samples 3 Times per Year	$47,300	$236,500	Assumes 20 wells,7 underdrains,1 leak detection,2 leachate, 8 surface, & 3 QA/QC
B.2 Analyses of 41 Sample 2 Times per Year	$31,500	$157,500	Assumes 20 wells,7 underdrains,1 leak detection,2 leachate, 8 surface, & 3 QA/QC
B.3 Analyses of 41 Sample 1 Time per Year	$15,800	$316,000	Assumes 20 wells,7 underdrains,1 leak detection,2 leachate, 8 surface, & 3 QA/QC
B.4 Analyses of Residential wells 1 Time per Year	$6,000	$180,000	Assumes 6 residential well locations
C. Compile Data and Submit to MDEP	$6,000	$180,000	Assumes Report prepared and submitted to MDEP after each sample round
Subtotal Yearly Cost Years 1-5	$93,800		
Subtotal Yearly Cost Years 6-10	$66,500		
Subtotal Yearly Cost Years 11-30	$39,300		
	Subtotal Total	**$1,587,500**	
Landfill Inspection			
A. Monthly Site Walk Over & Report Generation	$10,800	$324,000	Assumes12 hr per month @ $75/hr
Subtotal	**$10,800**	**$324,000**	
Active Landfill Gas Extraction System			
A. Gas Collection Equipment Replacement	$10,000	$300,000	General equipment replacement including well heads, condensate pumps etc.
B. Flare Maintenance	$5,500	$165,000	Replacement of flare parts such as flame arrestor media etc.
C. Electrical and Blower Maintenance	$6,000	$180,000	Routine inspection and maintenance of blower & control system
D. System Operation and Inspection	$5,000	$150,000	General system operation & maintenance
E. Well Tuning	$10,000	$300,000	Well tuning once per month
F. Compliance Monitoring	$5,000	$150,000	
G. Electrical Costs to Operate Blowers, Heat & Control Panel Year 1-15	$77,000	$2,310,000	electricity for blowers assume varying horsepoer requirement as gas decreases @$0.18/kwhr
H. Landfill Gas Treatment Costs	$60,400	$1,812,000	included treatment cost for H2S removal to 1000 ppm using thiopaq system
	Subtotal Total	**$5,367,000**	
Landfill Maintenance			
A. Cover Maintenance Include Annual Mowing & Erosion Repair	$5,900	$177,000	Assumes 3 man crew 7.5 days/ year
B.1 Pump Stations Inspections	$10,400	$312,000	Assumes 4 hr week @ $50 per hour
B.2 Pump Replacement	$4,000	$120,000	Assumes replace 9 onsite pumps every 5 years at $2,222 a piece
C. General Site Maintenance	$5,000	$150,000	Assumes snow plowing 20 storms per year @ $250 per storm
D. Leachate Line Cleaning	$15,000	$450,000	Assumes leachate line cleaning 2 time per years 1-5, once per year 6-10, then every other year, years 11-30 @ $18,000 per cleaning
Subtotal	**$40,300**	**$1,209,000**	
Professional Services			
A. Engineering Services	$4,000	$120,000	General Services
Subtotal	**$4,000**	**$120,000**	
TOTAL		**$9,977,300**	