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NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Altamont Environmental, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Marta A. VanDussen, EIT Phone: (828) 281-3350

E-mail: mvandussen@altamontenvironmental.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Jackson County Municipal Solid Waste Landfill	US Highway 441 Dillsboro, NC 28725	50-02	.1600	October 26-27, 2011

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☐ Detection Monitoring ☐ Assessment Monitoring ☒ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☒ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☒ Corrective action data (specify) Natural Attenuation Parameters
☐ Other(specify)

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Christopher F. Gilbert, P.E. Project Engineer (828) 281-3350

Facility Representative Name (Print) Title (Area Code) Telephone Number

Signature 09/11/2012 Date

Affix NC Licensed/ Professional ~~Geologist~~ ENGINEER Seal

NORTH CAROLINA PROFESSIONAL SEAL 030224 ENGINEER CHRISTOPHER F GILBERT

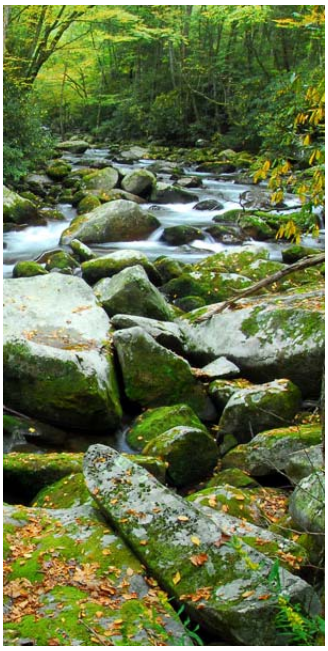
231 Haywood Street, Asheville, North Carolina 28801

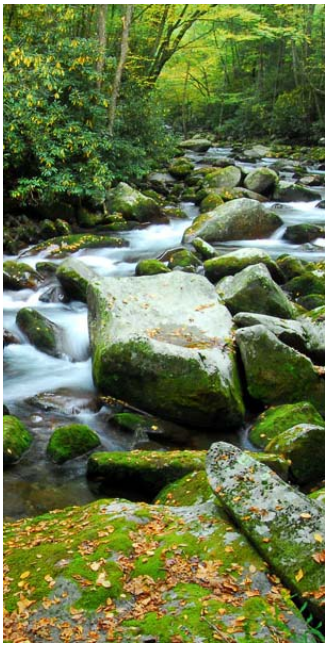
Facility Representative Address

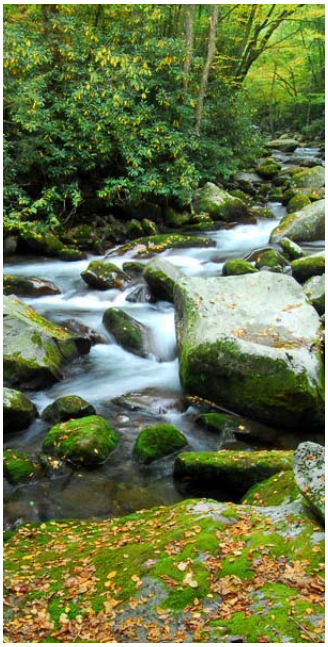
C-2185

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009







ALTAMONT ENVIRONMENTAL, INC.

ENGINEERING & HYDROGEOLOGY

Fall 2011 Semiannual Water Quality Monitoring Report

Jackson County Municipal Solid Waste Landfill Permit # 50-02

September 11, 2012

Prepared for
Jackson County Solid Waste Department
Project Number 2040.3021

Prepared by
Altamont Environmental, Inc.
231 Haywood Street
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NORTH CAROLINA PROFESSIONAL SEAL 030224 ENGINEER CHRISTOPHER F. GILBERT

Christopher F. Gilbert, P.E.
Project Engineer

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1.0 Introduction

The Jackson County Solid Waste Department maintains a closed Municipal Solid Waste Landfill (MSWLF) located approximately 0.75 miles west of Dillsboro, North Carolina, on the northeast side of Old Dillsboro Road (Old U.S. Highway 74; Figure 1). The water quality monitoring at the landfill is governed by the North Carolina Department of Environment and Natural Resources (DENR), Division of Waste Management (DWM), Solid Waste Section (SWS), under Permit No. 50-02 issued to Jackson County. The landfill permit requires semiannual monitoring of groundwater and surface water quality.

Over time, groundwater quality monitoring indicated persistent low-level exceedances of constituents in groundwater samples. In response to the continued exceedances of analyzed constituents, the following recent activities have occurred:

- September 7, 2010—An Assessment of Corrective Measures (ACM) report was submitted to the DENR DWM SWS. The ACM stated that volatile organic compounds (VOCs) and metals have been historically detected in excess of the North Carolina groundwater quality standards. Individual metals are not persistently detected over time and, historically, elevated turbidity levels in the samples may have affected the results. Therefore, the ACM suggested that the objective of the remedy focus on VOCs. The ACM evaluated several potential remedies.
- November 12, 2010—Based on the ACM report, the SWS requested a remedy to restore groundwater quality and effectively reduce contamination.
- May 13, 2011—Following advertisement and solicitation for public comment on the assessment of corrective measures, a Corrective Action Permit Modification application was submitted. The Corrective Action Permit Modification application indicated that the selected remedy was leachate removal and monitoring of natural attenuation parameters.
- June 2, 2011—The SWS approved the selected remedy. The SWS requested the preparation of a Corrective Action Plan (CAP).
- June 30, 2011—A CAP was submitted to the SWS (Altamont 2011). Based upon the property currently owned by Jackson County relative to monitoring locations, the CAP established a compliance and review boundary for the closed landfill by referencing the North Carolina Administrative Code (NCAC), Title 15A, Subchapter 2L.0107. The CAP offered a remedy to restore groundwater quality and effectively reduce contamination for VOC constituents in excess of groundwater quality standards outside the compliance boundary. The CAP offered implementation of the remedy in a three-phase approach over a five-year time span. Implementation will utilize wells associated with an existing landfill gas extraction system. Dedicated pumps will be installed into each of the landfill gas extraction wells and leachate will be disposed of in the Tuckaseegee Water & Sewer Authority collection system. In addition to leachate extraction, groundwater natural attenuation parameters will be monitored and natural attenuation process will be evaluated.
- September 1, 2011—The CAP was approved by the SWS. After five years, the corrective actions discussed in the CAP shall be evaluated and reviewed. If VOC concentrations are not reduced, contingency plans may be required.
- June 30, 2012—The first phase of CAP implementation was completed. The leachate extraction pumps were acquired.
- September 1, 2012—The second phase of CAP implementation was completed. The leachate extraction pumps were installed in 10 Landfill Gas (LFG) extraction wells and leachate extraction was initiated. The third and final phase of CAP implementation will involve the replacement of the temporary collection tank (from which the leachate is pumped and hauled for disposal) with a

permanent connection to the Tuckaseegee Water & Sewer Authority (tentatively scheduled for completion in July 2013).

This report serves as the second semiannual water quality monitoring report for 2011 and as a first report following approval of the Corrective Action Plan. This report provides an evaluation of groundwater and surface water quality and describes initiation of establishing monitoring of natural attenuation. The water quality monitoring network is presented on Figure 2. The generalized groundwater flow direction in the upper parts of the underlying aquifer system (Figure 3) is also provided in the report along with information concerning the replacement of monitoring well MW-05 with MW-05R.

The water samples are collected from selected monitoring points during the spring and again in the fall of each year. The analytical suites associated with the current sampling event (Table 1) are as follows:

- Appendix II VOCs
- Appendix II Metals
- Appendix II Chlorinated Pesticides
- Cyanide and Sulfide
- Monitored Natural Attenuation (MNA) Parameters: Alkalinity, chloride, ethane, ethene, ferrous iron, methane, nitrate, sulfate, sulfide, and total organic carbon (TOC)

The fall 2011 sampling event was conducted and is being reported in accordance with requirements stipulated in the North Carolina DENR Solid Waste Management Rules codified under Title 15A Subchapter 13B of the North Carolina Administrative Code (15A NCAC 13B).

2.0 Semiannual Monitoring

2.1 Groundwater and Surface Water Sampling

The closed MSWLF monitoring wells (MW-01, MW-02, MW-03, MW-04, MW-05, MW-06, and MW-07), surface water sample locations (SW-01 and SW-02), and two domestic water wells (DW-01 and DW-02) were sampled on October 26 and 27, 2011 by Altamont Environmental, Inc. (Altamont). The monitoring wells, domestic water wells, and surface water sample locations are depicted on Figure 2.

2.1.1 Monitoring Well Purging and Sampling Methods

Prior to sampling the monitoring wells, the static water level was gauged in each well and an initial round of field parameters consisting of pH, specific conductivity, dissolved oxygen (DO), turbidity, temperature, and oxidation reduction potential (ORP) was measured. Static water level measurements and field parameter data are included in Table 2. Well sampling logs are included in Appendix A.

Altamont personnel used a bladder pump or disposable bailer at each monitoring well to purge the well and collect a groundwater sample. Total depth, condition of the casing, and the groundwater recharge rate determined the purging and sample collection method employed at each monitoring well.

2.1.1.1 Monitoring Well MW-05

The casing of monitoring well MW-05 was bent and the downhole pump used for the low-flow sampling could not be lowered to the appropriate depth to collect a groundwater sample. Recently, Altamont has utilized smaller disposable polyethylene bailers to collect samples from the well. During this event, the bailers were unable to be lowered into the well; therefore, Altamont personnel were not able to collect a groundwater sample from this well for the Fall 2011 sampling event. A replacement monitoring well was installed on January 26, 2012 to replace MW-05. Installation details are in Section 5.3.

2.1.1.2 Remaining Monitoring Wells

A bladder pump and low-flow techniques were used to purge and sample the remaining monitoring wells, MW-01, MW-02, MW-03, MW-04, MW-06, and MW-07. The monitoring wells were purged using low-flow techniques in accordance with the procedures described in the US Environmental Protection Agency's (EPA's) *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (EPA 1996). During purging, the pH, specific conductivity, dissolved oxygen, ORP, turbidity, and temperature were measured and recorded approximately every three minutes. Well purging continued until these parameters generally stabilized for three consecutive readings. The required stabilization criteria were as follows:

- pH values within +/- 0.1 unit
- Specific conductivity values within +/- 5 percent
- Temperature, dissolved oxygen, and turbidity values within +/- 10 percent
- ORP values within +/- 10 millivolts

Once the parameters had stabilized, a groundwater sample was collected using laboratory-supplied sample bottles by a technician wearing a new pair of nitrile gloves.

2.1.2 Surface Water Sampling Methods

Surface water samples SW-01 and SW-02 were collected at designated locations from the Tuckaseegee River, which is adjacent to the landfill to the southwest. Surface water sample SW-01 is representative of

surface water quality upstream of the landfill; SW-02 is representative of surface water quality downstream from the landfill. One round of field parameters, consisting of temperature, pH, specific conductivity, DO, ORP, and turbidity, were measured and recorded at each surface-water sampling location prior to collecting the sample (Table 2). The surface water samples were collected in laboratory-provided sample containers by a technician wearing a new pair of nitrile gloves.

2.2 Sample Handling, Documentation, and Analysis

Field parameters and additional observations pertaining to the MSWLF sampling locations are provided on sampling logs (Appendix A). Following sample collection, each groundwater and surface water sample was immediately placed on ice in a sample cooler for transport to Pace Analytical Laboratories (Pace), a North Carolina certified laboratory located in Asheville, North Carolina. The groundwater samples collected from the monitoring wells were analyzed for the following parameters:

- Appendix II Metals using EPA Methods 6010, 6020, and 7470
- Appendix II VOCs using EPA Method 8260
- Appendix II Chlorinated Pesticides using EPA 8151
- Cyanide and Sulfide using Standard Method SM4500-CN-E and SM4500-S2D, respectively
- Additional Natural Attenuation Parameters:
    - Alkalinity using Standard Method 2320B
    - Ferrous iron using Standard Method 3500-Fe D#4
    - Sulfide using Standard Method 4500-S2D
    - Sulfate using EPA Method 300.0
    - Nitrate using EPA Method 353.2
    - Chloride using Standard Method 4500-Cl-E
    - Cyanide using Standard Method 4500-CN-E
    - Total organic carbon using Standard Method 5310B
    - Ethane, ethene, and methane using RSK 175 Air Space

The surface water samples were analyzed for abovementioned parameters except for additional natural attenuation parameters.

The domestic well groundwater samples were analyzed for VOCs using EPA Method 524.2.

Proper chain-of-custody documentation procedures were followed during collection and transportation of each sample (Appendix B). A trip blank was included in the sample cooler and analyzed for VOCs. The reports of laboratory analysis reports are provided in Appendix B. Laboratory analyses performed on the samples are summarized in Table 1.

3.0 Findings

3.1 Analytical Results

The laboratory analytical results and field parameters data for the groundwater samples (from monitoring wells MW-01 through MW-07), surface water samples (SW-01 and SW-02), and domestic well samples (DW-01 and DW-02) collected at the landfill are included in Appendices A and B in hard copy and also in Appendix C, in the Electronic Data Deliverable (EDD) format specified by the Solid Waste Section of the DWM in a memorandum dated October 27, 2006 and its addendum dated February 23, 2007.

As stipulated in the DWM documents referenced above, all laboratory analytical results were reported and appropriately qualified. Non-detections (non-detects), which are values reported by the laboratory as below method detection limits (MDLs), are tabulated on the Table 2 and EDD at MDL levels, and are qualified with the "U" qualifier. The MDL is the minimum concentration of a substance that can be measured and reported by a laboratory with 99 percent confidence that the constituent concentration is greater than zero. All detections (values above the MDL) were compared to constituent-specific Solid Waste Section Limits (SWSLs) established by DENR. The SWSL is defined as the lowest concentration of a constituent in a sample that can be quantitatively determined with suitable precision and accuracy. A "J" qualifier is used for parameters that are detected at estimated concentrations greater than the MDL but less than the laboratory's method reporting limit (MRL). The MRL is the minimum concentration of a target analyte that can be accurately determined by the referenced method. If the reported concentration is greater than the laboratory MDL and less than the SWSL, the analytical result is qualified as estimated, and is flagged with a "*J*" qualifier (italicized J-flag). In addition to non-detects, detected concentrations of constituents below the applicable SWSLs are included in Table 2. They are not, however, reported in the text of this report, unless they exceed their applicable North Carolina water quality standards (defined below).

Detected concentrations of constituents in groundwater samples were compared to the applicable North Carolina groundwater quality standards. For most constituents, this standard is the 2L Standard, from 15A NCAC 2L.0202. Detected concentrations of analytes in groundwater with no established 2L Standard were compared either to the interim maximum allowable concentrations (IMACs) for Class GA and GSA groundwater (in accordance with 15A NCAC 02L .0202 [c]) or Groundwater Protection Standards (GWPS), pursuant to 15A NCAC 13B.1634.

Detections of analytes in surface-water samples were compared to 15A NCAC 2B surface-water quality standards (2B Standards).

Table 2 presents the summary of detected compounds only. Table 3 presents all analytical results that were above the applicable SWSLs. Table 4 presents only the concentrations of analytes detected in groundwater and/or surface water samples that exceeded their respective 2L Standards (including IMACs, if applicable), GWPSs, or 2B Standards.

In the EDD (Appendix C) the identification of a well ("WELL ID") consists of the name of the well prefaced by the un-hyphenated permit number for the facility. For example, monitoring well MW-01 is identified on the tables as 5002-MW01. In the tables and figures, however, the identification of a well consists of the name of the well without the permit number associated with the facility.

3.1.1 Groundwater Monitoring Wells

Analytical results for groundwater samples collected from the monitoring wells are discussed below.

3.1.1.1 Appendix II Metals

Six metals were detected in the groundwater samples collected from one or more of the monitoring wells. Three metals (barium, cobalt, and zinc) were detected in samples collected from one or more of the monitoring wells at concentrations above the associated SWSLs (Tables 2 and 3).

Two metals (cobalt and thallium) were detected in samples collected from one or more of the monitoring wells at concentrations above their associated groundwater quality standards (Tables 2 and 4).

3.1.1.2 Appendix II VOCs

Eleven VOCs were detected in the groundwater samples collected from one or more of the monitoring wells (Table 2).

Six VOCs (1,1-dichloroethane, 1,4-dichlorobenzene, benzene, chlorobenzene, cis-1,2-dichloroethene, and trichloroethene) were detected at concentrations above their respective SWSLs (Tables 2 and 3).

Five VOCs (1,1-dichloroethane, 1,4-dichlorobenzene, benzene, tetrachloroethene, and vinyl chloride) were detected at concentrations above their respective 2L Standards (Table 4). Concentration versus time graphs were created for samples from those monitoring wells that had VOC concentrations over their 2L Standards. The graphs are shown on Figures 4 through 14.

3.1.1.3 Appendix II Chlorinated Herbicides

No Appendix II herbicides were detected in any of the monitoring wells at concentrations exceeding their associated SWSLs or water quality standards.

3.1.1.4 Natural Attenuation Parameters

Groundwater samples collected from all monitoring wells were analyzed for additional parameters as follows: ethane, ethene, methane, alkalinity, chloride, cyanide, iron (ferrous), nitrogen, sulfate, sulfide, and TOC. Ethane, ethene, and sulfide were not detected in any of the samples. The remaining parameters were detected in one or more monitoring wells' groundwater samples. The results will be used as part of the baseline results for the CAP and will be further evaluated in a separate report after four sampling events have been conducted.

3.1.1.5 Field Parameters

The pH readings were obtained on October 26 and 27, 2011 for the groundwater samples. The pH readings obtained from samples collected from wells MW-01 (5.57 Standard Units [SU]), MW-02 (5.44 SU), MW-03 (4.52 SU), MW-04 (5.39 SU), MW-06 (5.40 SU) and MW-07 (6.01 SU) were outside the acceptable pH range of 6.5 to 8.5 SU specified in 15A NCAC 02L .0202[c].

3.1.2 Surface Water

The following statements summarize analytical results in the two surface water samples collected during the October 2011 sampling event.

3.1.2.1 Appendix II Metals

Two metals were detected in the surface water samples collected from one or both surface water locations (Table 2).

One metal, zinc, was detected in the downstream surface water sample location SW-02 at a concentration that exceeded the SWSL. However, it was below the 2B Standard.

No other metals were detected at concentrations that exceeded their respective SWSLs or 2B Standards in either of the surface water samples (Table 3).

3.1.2.2 Appendix II VOCs

VOCs were not detected in either of the surface water samples (SW-01 and SW-02).

3.1.2.3 Appendix II Chlorinated Herbicides

No Appendix II herbicides were detected in either of the surface water samples at concentrations exceeding their associated SWSLs or water quality standard.

3.1.2.4 Cyanide and Sulfide

Cyanide and sulfide were measured in both surface water samples and were not detected above their method detection limits.

3.1.2.5 Field Parameters

The pH readings were obtained on October 27, 2011 for surface water samples. The pH reading measured in sample SW-01 was above the 2B Standard range established at 6.0 SU to 9.0 SU. The pH reading measured in the SW-02 sample was within the 2B Standard range.

Turbidity was measured at 0.00 nephelometric turbidity units (NTU) in both surface water samples and the 2B standard for turbidity is established at 50/25 NTU.

Dissolved oxygen was measured in SW-01 above the established 2B Standard (the 2B Standard indicates “not less than 5.0 mg/L”). Dissolved oxygen measured in SW-02 was below 5.0 mg/L and does not comply with this standard.

2B Standards do not exist for the remaining field parameters measured in surface water samples.

3.1.3 Domestic Wells

Analytical results for groundwater samples collected from the domestic wells are discussed below.

3.1.3.1 VOCs

No VOCs were detected in any of the domestic well groundwater samples (DW-01 and DW-02).

4.0 Hydrogeology

Groundwater quality in the saprolite and bedrock is monitored at the MSWLF. Three bedrock monitoring wells, MW-01, MW-02, and MW-06, are located in the northern and northwestern portions of the site (Figure 3 and Table 5). As discussed previously, a new bedrock monitoring well (MW-07) has been installed (Figure 3) to the southwest of the landfill. These four bedrock wells were used to determine bedrock flow directions in fall 2011.

Monitoring wells MW-03, MW-04, and MW-05 (Figure 3), located in the central, southwest, and southern parts of the landfill, are completed in the saprolite (including partially weathered rock [PWR]) water-bearing zone). Water-level data collected from these monitoring wells (Table 5) indicate that groundwater flow direction in the saprolite and PWR is generally to the southwest, toward the Tuckaseegee River (Figure 3).

5.0 Summary

The second semiannual water quality monitoring event of 2011 was conducted on October 26 and 27, 2011 at the Jackson County MSWLF. Tables 2, 3, and 4 of this report, Pace Analytical Reports found in Appendix B, and the EDD in Appendix C provide detailed analytical results and field data summarizing the groundwater and surface water quality at the landfill.

5.1 Groundwater Quality

5.1.1 Metals

Two metals (cobalt and thallium) were detected at concentrations above their respective water quality standards (more specifically the interim maximum allowable concentration or IMAC) in the groundwater samples collected from one or more of the monitoring wells during the fall 2011 water quality monitoring event.

Cobalt was detected in five groundwater samples at concentrations ranging between 5.7 µg/L (the lowest) detected in MW-07 to 146 µg/L (the highest) in MW-06, exceeding its IMAC of 1 µg/L.

Thallium was only detected in the groundwater sample collected from monitoring well MW-01 at a concentration of 0.53 *J* µg/L in excess of its IMAC (0.2 µg/L). Historically, thallium has been detected above its water quality standard in the MW-01 groundwater monitoring well.

The turbidity was measured at 0.00 NTUs for all of the wells.

5.1.2 VOCs

Five VOCs (1,1-dichloroethane, 1,4-dichlorobenzene, benzene, tetrachloroethene, and vinyl chloride) were detected at concentrations above their respective 2L Standards.

Two VOCs, 1,1-dichloroethane and tetrachloroethene, were found only in the MW-01 groundwater sample and the last time their exceedance or detection was noted was in April 2010 sampling event.

1,4-dichlorobenzene was detected in four monitoring wells (MW-01,MW-03, MW-04, and MW-06) and the detected concentrations appear to have increased since the April 2011 sampling event. Though the concentrations have slightly increased, they remain similar in concentrations to samples collected from these wells in October 2010.

Benzene was detected in four groundwater samples (MW-01, MW-03, MW-05, and MW-06) during this sampling event, showing a slight increase in detected concentrations in almost all monitoring wells compared to the last sampling event. Overall the historical benzene concentration trends in MW-03, MW-05, and MW-06 have been relatively stable and slightly over the 2L Standard. Monitoring well MW-01 has been showing a consistent decrease in benzene concentration since April 2007.

Vinyl chloride was detected above its 2L Standard in three groundwater samples (MW-04, MW-06, and MW-07). In April 2011, this constituent was not present in groundwater.

A review of historical groundwater data indicates that four volatile organic compounds (1,1-dichloroethane, 1,4-dichlorobenzene, benzene, and vinyl chloride) have been detected at comparable concentrations for the past several years. Historical surface water samples from the Tuckaseegee River, which likely receives discharge from the saprolite groundwater-bearing zone, have consistently shown no detections of these compounds, or any other VOCs.

5.1.3 Other Constituents

Chlorinated herbicides were not detected in any of the samples collected from the monitoring wells.

The pH results obtained for all sampled wells were outside the acceptable pH range established as 2L Standard. Although the results were outside the acceptable range, they appear to be consistent with historic pH readings and ranges that may be expected to be naturally occurring in the region.

Some natural attenuation parameters were detected in groundwater samples collected from one or more of the monitoring wells at various concentrations. Further evaluation of these parameters will be conducted in the future monitoring events. Natural attenuation parameters are being obtained as part of the corrective action plan. After four sampling events have been conducted, the parameters will be evaluated further.

No VOCs were found in the groundwater samples collected from the two domestic water wells.

5.2 Surface Water

Zinc was the only metal detected in the downstream sample at concentration in excess of SWSL, still below its 2B Standard. Remaining metals (except barium, which was detected below standards), VOCs, chlorinated herbicides, cyanide and sulfide were not detected in the surface water samples collected from either SW-01 (upstream of the landfill) or SW-02 (downstream of the landfill) locations.

On the basis of these data it appears that the groundwater likely discharging from under the landfill into the Tuckaseegee River is not impacting the surface water quality in the Tuckaseegee River with regard to metals and VOCs.

The pH reading measured in the SW-01 sample was outside the 2B Standard pH range.

5.3 Replacement Monitoring Well MW-05R

Altamont completed the replacement monitoring well installation on January 26, 2012. A North Carolina certified well driller, NYEG Drilling LLC (North Carolina Certification No. NCWC 4097-B) of Greenville, South Carolina, installed the saprolite monitoring well under the direct supervision and oversight of Altamont.

A 7-inch diameter boring was drilled with a Geoprobe 7720DT auger rig using a 3.25-inch hollow stem auger. The boring was drilled to a depth of 54 feet below ground surface (ft-bgs).

MW-05R is located at the base of the closed landfill, adjacent to MW-05. Soils encountered consisted mostly of moist brownish grey silty clay. Lithology is described in more detail in the Lithologic Log included as Appendix D.

MW-05R was completed with a 10-foot section of 2-inch-diameter 0.01-inch slot PVC screen between 44 and 54 ft-bgs. The screen was installed to bracket the same water bearing zone that monitoring well MW-05 encompassed. The screen was connected to a 2-inch diameter schedule 80 PVC riser and installed in the borehole to about 3 feet above the ground surface. Sand was placed in the borehole annulus to 2 feet above the screen, followed by 3 feet of hydrated bentonite, with neat cement grout to the ground surface. The surface completion was enclosed within a locking steel “stick-up” vault. Well construction details are described on the Lithologic Log and provided on the Well Construction Record included as Appendices D and E, respectively.

Monitoring well MW-05 was properly abandoned upon completion of monitoring well MW-05R. The well was abandoned by pumping neat cement into the well casing and cutting the “stick-up” vault flush with the ground surface. A Well Abandonment Record is included as Appendix F.

6.0 Future Activities

Altamont will continue to monitor the water quality on a semiannual basis at the Jackson County Municipal Solid Waste landfill. The sampling event conducted subsequent to the event described in this report was conducted on April 11 and 12, 2012. During the April 2012 event, the newly installed monitoring well MW-05R was sampled as a component of the water quality monitoring network at the landfill. The next semiannual sampling event is scheduled for October 2012.

Based on the approved corrective action remedy, a leachate extraction system was partially installed in June through September 2012 (the final phase may be installed in July 2013). In addition to groundwater and surface water monitoring, the October 2012 report will include VOC analysis of the extracted leachate. The leachate sample analysis, along with available leachate removal volume measurements, will be used to estimate the mass of VOC extracted by the active-portion of the approved corrective action remedy.

7.0 References

Altamont Environmental, Inc. June 30, 2011. *Corrective Action Plan.*

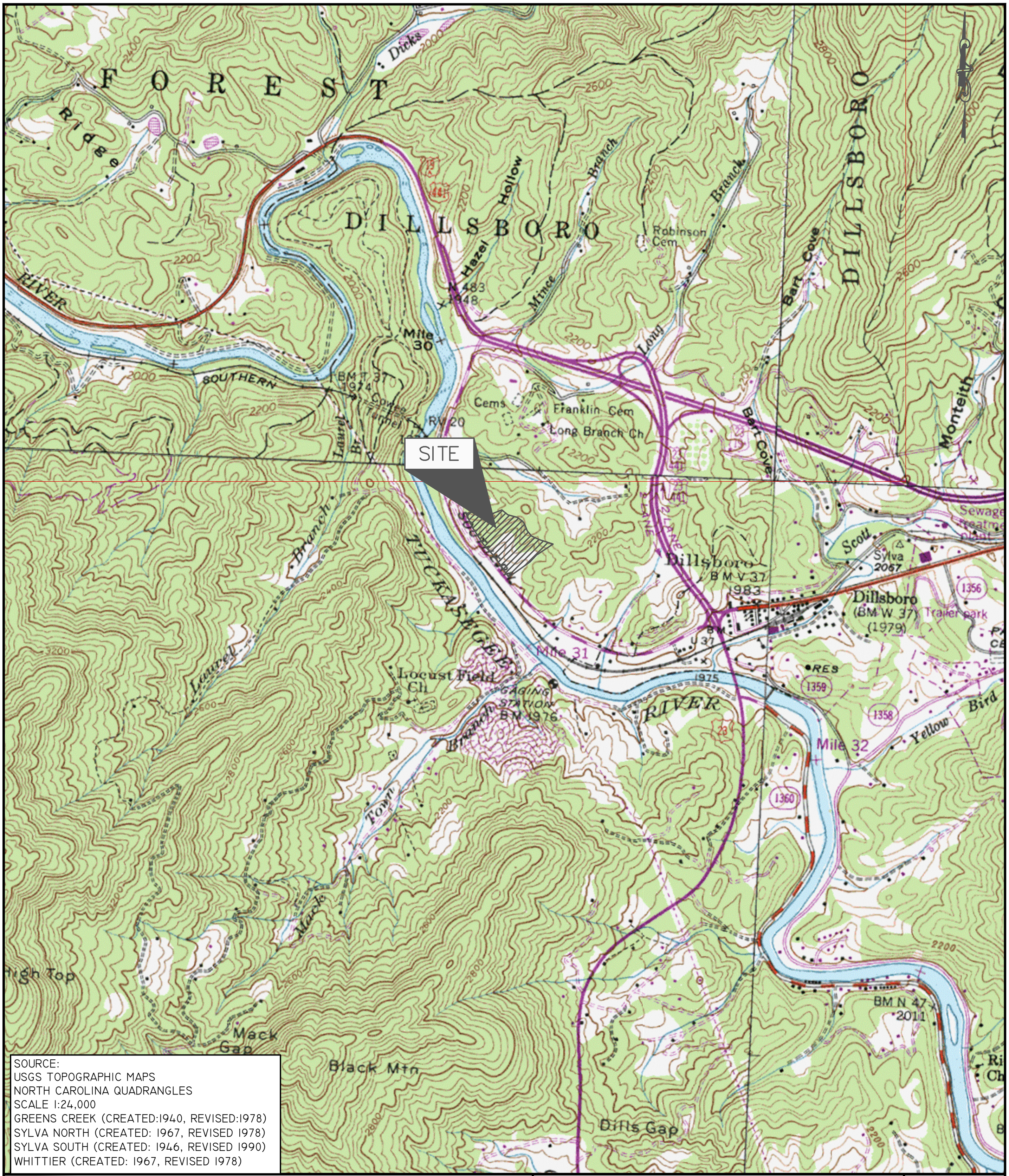
North Carolina Department of Environment and Natural Resources (DENR) Division of Waste Management (DWM) Solid Waste Section (SWS). 2006. Memorandum to SW Director/County Manager/Consultant/Laboratory, *Re: New Guidelines for Electronic Submittal of Environmental Monitoring Data,* dated October 27, 2006.

DENR DWM SWS, February 23, 2007. *Addendum to October 27, 2006, NC SWS Memorandum Regarding New Guidelines for Electronic Submittal of Environmental Data*

DENR DWM SWS. Rev 4-08. *Solid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling.*

U. S. Environmental Protection Agency (EPA). 1996. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, OSWER, EPA/540/S-95/504.

FIGURES



SOURCE:
USGS TOPOGRAPHIC MAPS
NORTH CAROLINA QUADRANGLES
SCALE 1:24,000
GREENS CREEK (CREATED:1940, REVISED:1978)
SYLVA NORTH (CREATED: 1967, REVISED 1978)
SYLVA SOUTH (CREATED: 1946, REVISED 1990)
WHITTIER (CREATED: 1967, REVISED 1978)

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SITE LOCATION MAP

JACKSON COUNTY MUNICIPAL
SOLID WASTE LANDFILL

JACKSON COUNTY, NORTH CAROLINA

FIGURE
1

DRAWN BY: MARTA VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: JACKSON COUNTY
DATE: 01/04/2012

SCALE (FEET)
1000 0 1000 2000

P:\JACKSON COUNTY\DILLSBORO GW\FIGURES\CAD\2011\FALL/FIGURE 1

LEGEND:

MW-01	MONITORING WELL LOCATION
SW-1	SURFACE WATER SAMPLE LOCATION
DW-01	APPROXIMATE DOMESTIC WATER SUPPLY WELL LOCATION
PMW-01	PRIVATE MONITORING WELL LOCATION
SPRING-NW	SPRING LOCATION
FOWLER	PROPERTY OWNER SURNAME

NOTES:

1. TOPOGRAPHIC CONTOURS WERE ACQUIRED FROM A McGILL ASSOCIATES DRAWING AND ARE FOR REPRESENTATIVE PURPOSES ONLY.
2. LOCATIONS OF DOMESTIC WATER SUPPLY WELLS DW-01 AND DW-02 ARE APPROXIMATE.

REV.	DATE	DESCRIPTION	BY	CHK	APV
12	05-24-11	UPDATE	MAV		
11	11-02-09	UPDATE	KRM	APM	
10	06-01-09	UPDATE	MAV		
9	06-09-08	UPDATE	KRM	JDH	
8	01-24-08	UPDATE	KRM	JDH	
7	11-03-06	NEW TITLE BLOCK	JK	CFG	
...	...	...	...	...	
2	05-13-02	UPDATE	SEK	JSM	
1	11-12-01	ORIGINAL	JMC	JPM	

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DRAWN BY: MARTA VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: JACKSON COUNTY
DATE: 01/04/2012

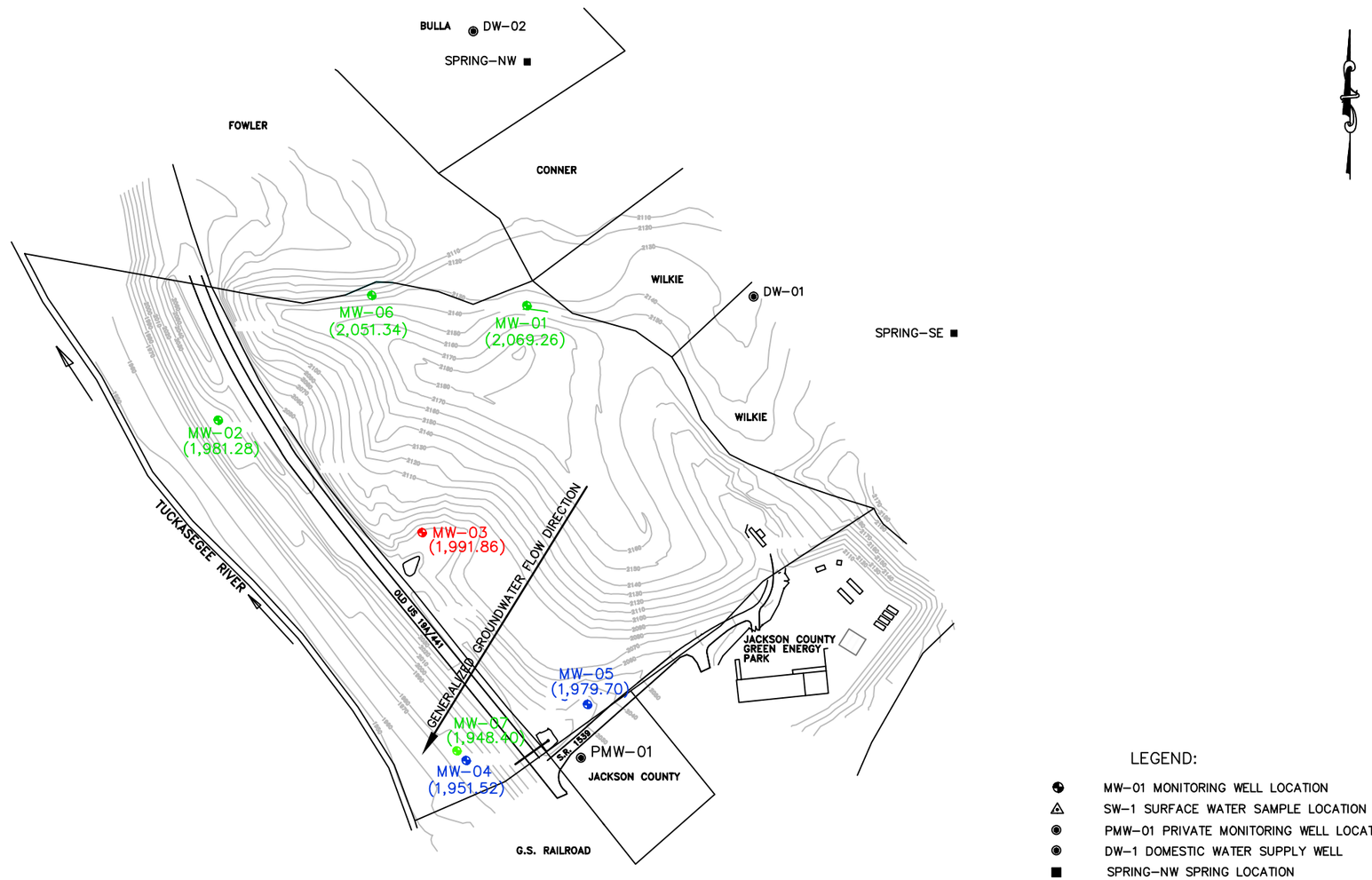
SCALE (FEET)
150 0 150 300

MONITORING WELL LOCATION MAP

JACKSON COUNTY MUNICIPAL SOLID WASTE LANDFILL
JACKSON COUNTY, NORTH CAROLINA

FIGURE 2

P:\JACKSON COUNTY\DILLSBORO GW\FIGURES\CAD\FALL\FIGURE 2



LEGEND:

- MW-01 MONITORING WELL LOCATION
- SW-1 SURFACE WATER SAMPLE LOCATION
- PMW-01 PRIVATE MONITORING WELL LOCATION
- DW-1 DOMESTIC WATER SUPPLY WELL
- SPRING-NW SPRING LOCATION
- (2066.53) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL ON OCTOBER 26 OR 27, 2011
- FOWLER PROPERTY OWNER SURNAME
- SAPROLITE MONITORING WELL LOCATION
- PARTIALLY WEATHERED ROCK MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION

NOTES:

1. TOPOGRAPHIC CONTOURS ARE OBTAINED FROM McGILL ASSOCIATES AND ARE FOR REPRESENTATIVE PURPOSES ONLY.
2. GROUNDWATER FLOW DIRECTION BASED ON GROUNDWATER ELEVATIONS IN FEET IN MONITORING WELLS MW-03, MW-04, AND MW-05 CALCULATED BASED ON DEPTH TO WATER MEASURED ON OCTOBER 26 AND 27, 2011.
3. GROUNDWATER ELEVATIONS AND FLOW DIRECTION ARE UPDATED ON A SEMIANNUAL BASIS EVERY APRIL AND OCTOBER FOLLOWING THE SAMPLE COLLECTION EVENTS.

REV.	DATE	DESCRIPTION	BY	CHK	APV
6	06-18-11	UPDATE	MVD	AKB	CFG
5	11-11-09	UPDATE	KRM	APM	
4	06-01-09	UPDATE	MAV	JDH	
3	06-09-08	UPDATE	KM	JDH	
2	10-30-06	NEW TITLE BLOCK	JK	JDH	
1	11-12-01	ORIGINAL	JMC	JPM	

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DRAWN BY: MARTA VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: JACKSON COUNTY
DATE: 01/04/2012

SCALE (FEET)
150 0 150 300

GENERALIZED GROUNDWATER FLOW DIRECTION

SAPROLITE AND PARTIALLY WEATHERED BEDROCK ZONES

JACKSON COUNTY MUNICIPAL SOLID WASTE LANDFILL
JACKSON COUNTY, NORTH CAROLINA

FIGURE 3

P:\JACKSON COUNTY\DILLSBORO GW\FIGURES\CAD\2011\FALL\FIGURE 3

Figure 4
Hydrograph and Benzene Concentration vs. Time
Monitoring Well MW-1
Jackson Co. Closed Landfill

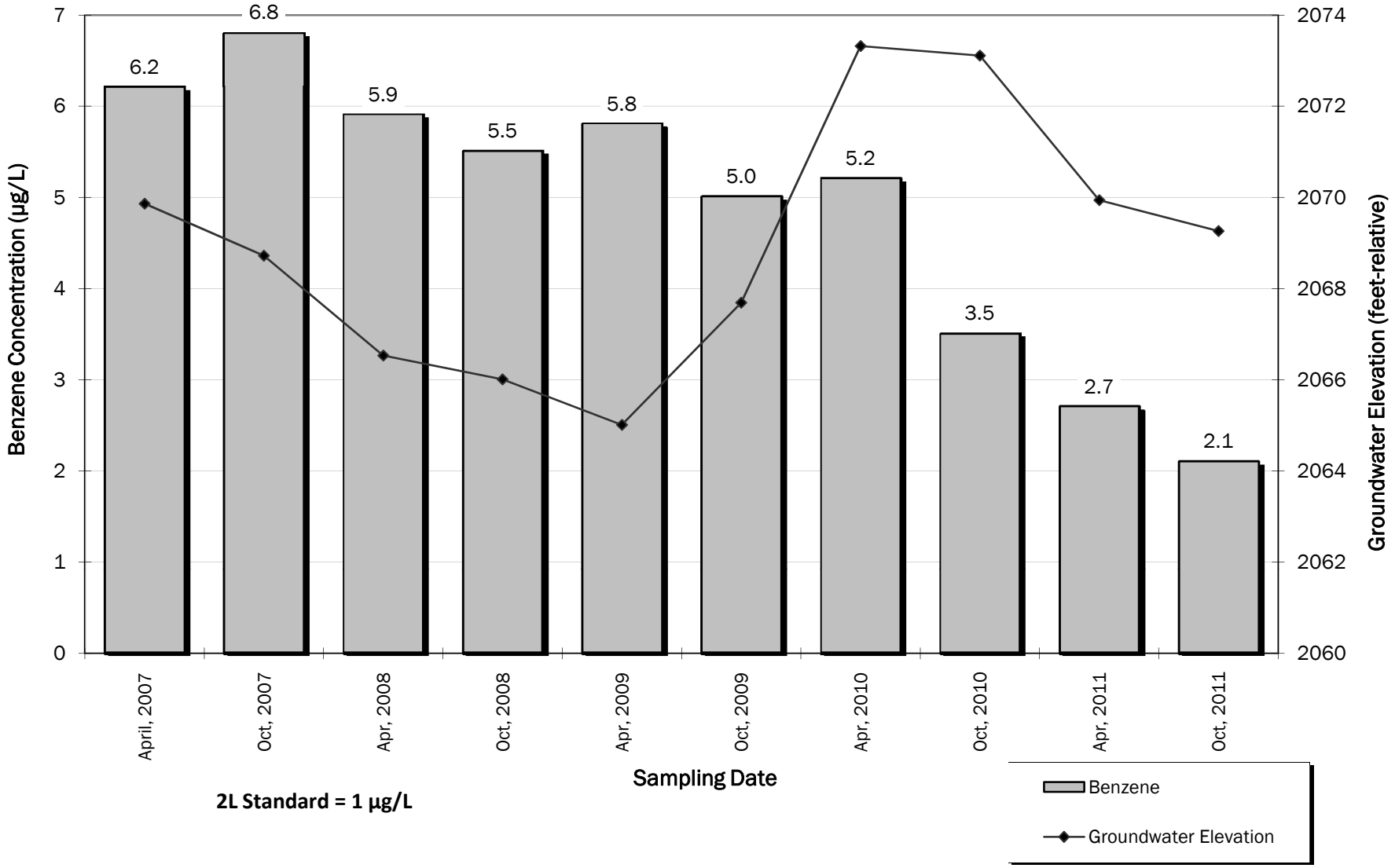

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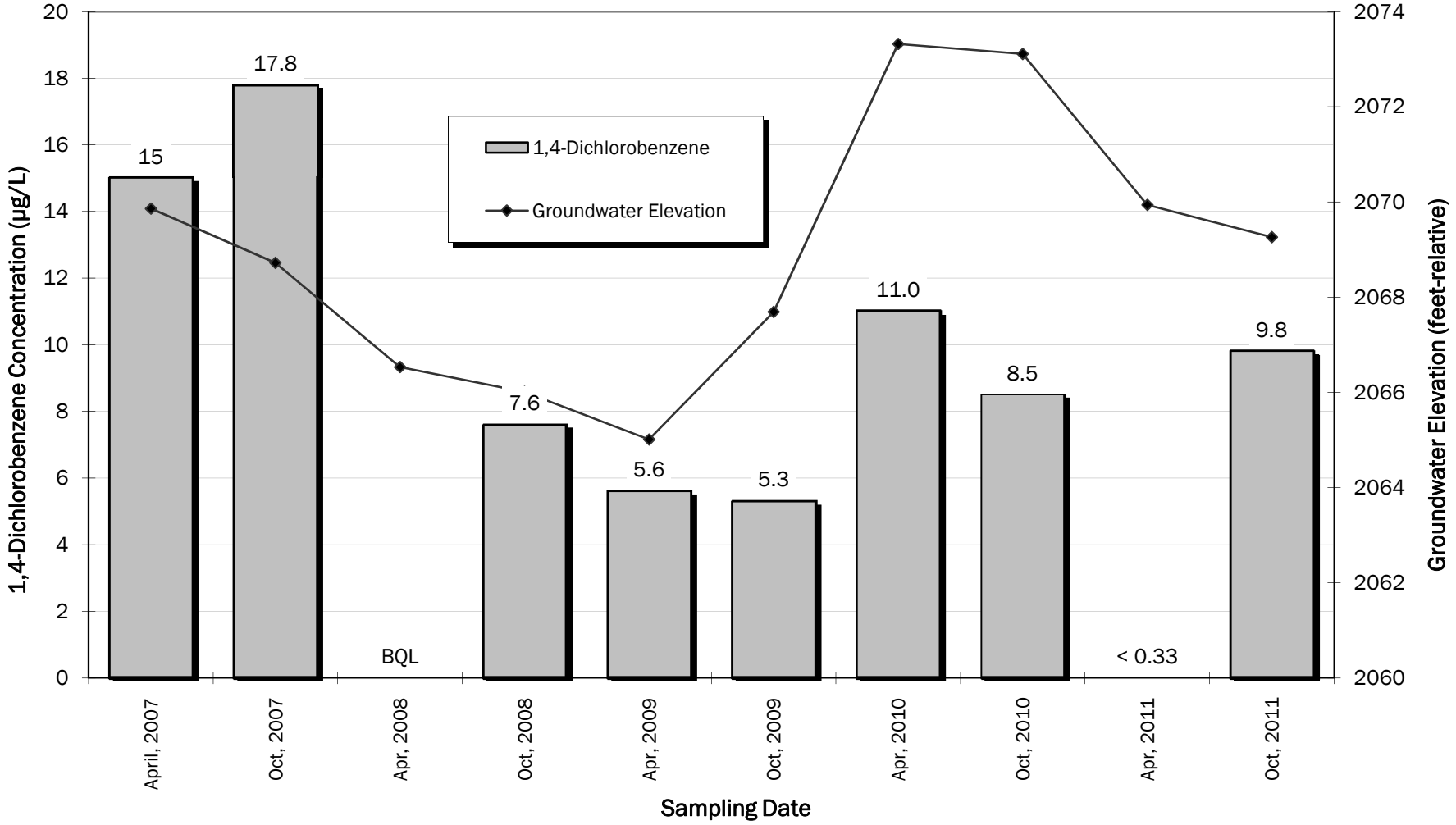
Figure 5
Hydrograph and 1,4-Dichlorobenzene Concentration vs. Time
Monitoring Well MW-1
Jackson Co. Closed Landfill



2L Standard = 6 µg/L

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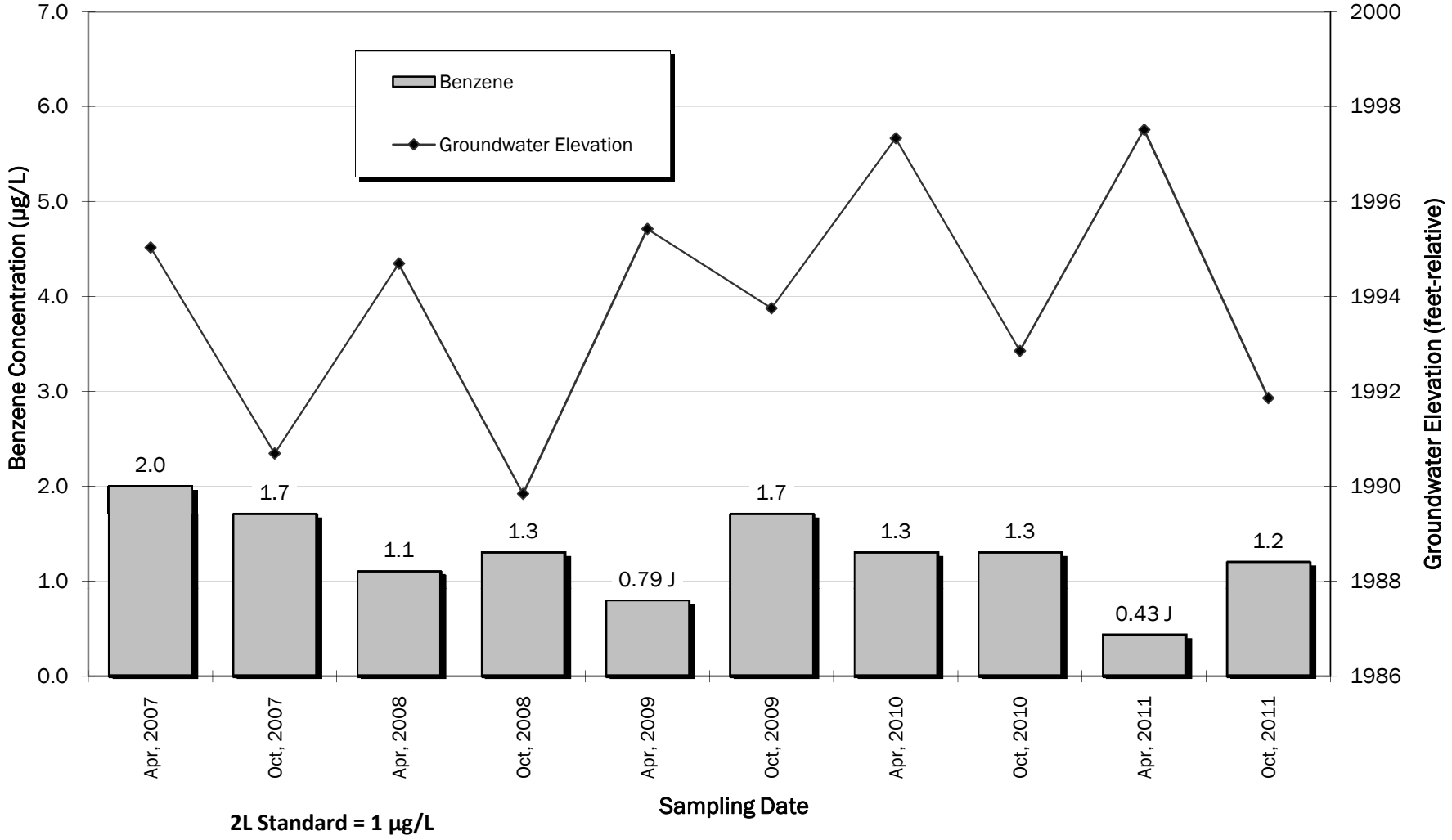
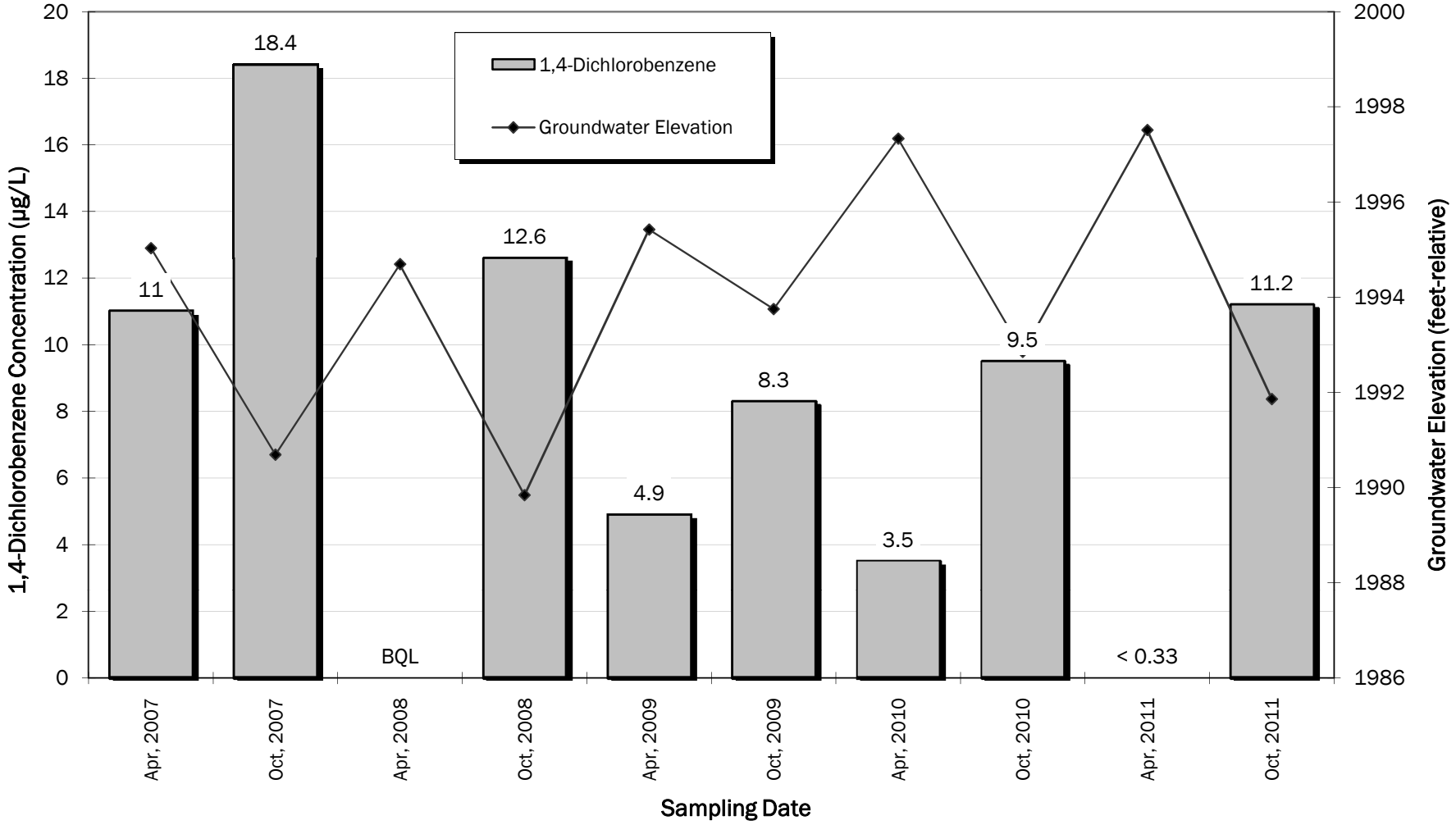
Figure 6
Hydrograph and Benzene Concentration vs. Time
Monitoring Well MW-3
Jackson Co. Closed Landfill



P:\Jackson County\Dillsboro GW\Analytical & Data\Water\2011\Fall\Graphs

Figure 7
Hydrograph and 1,4-Dichlorobenzene Concentration vs. Time
Monitoring Well MW-3
Jackson Co. Closed Landfill



2L Standard = 6 µg/L

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Figure 8
Hydrograph and 1,4-Dichlorobenzene Concentration vs. Time
Monitoring Well MW-4
Jackson Co. Closed Landfill

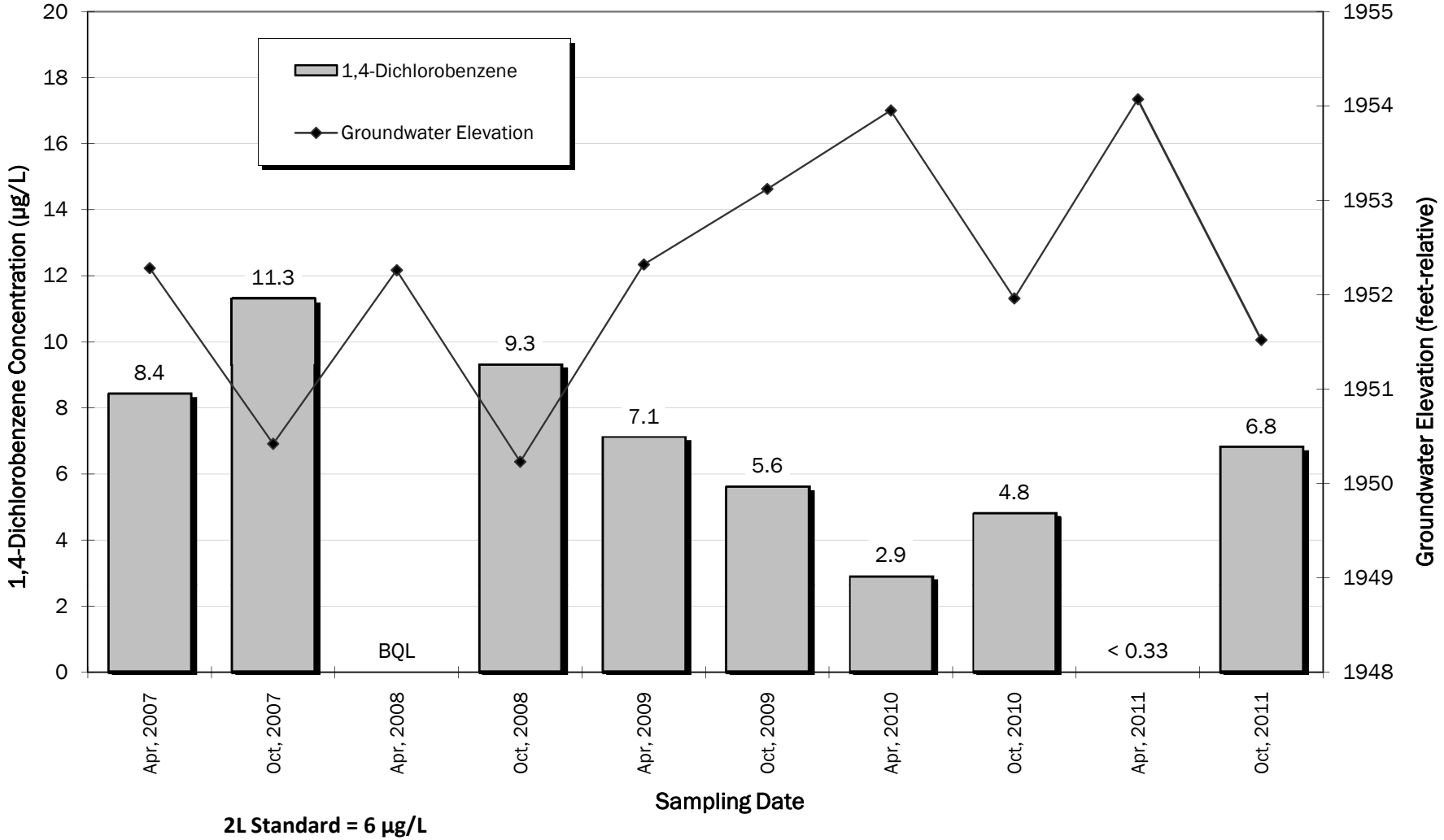

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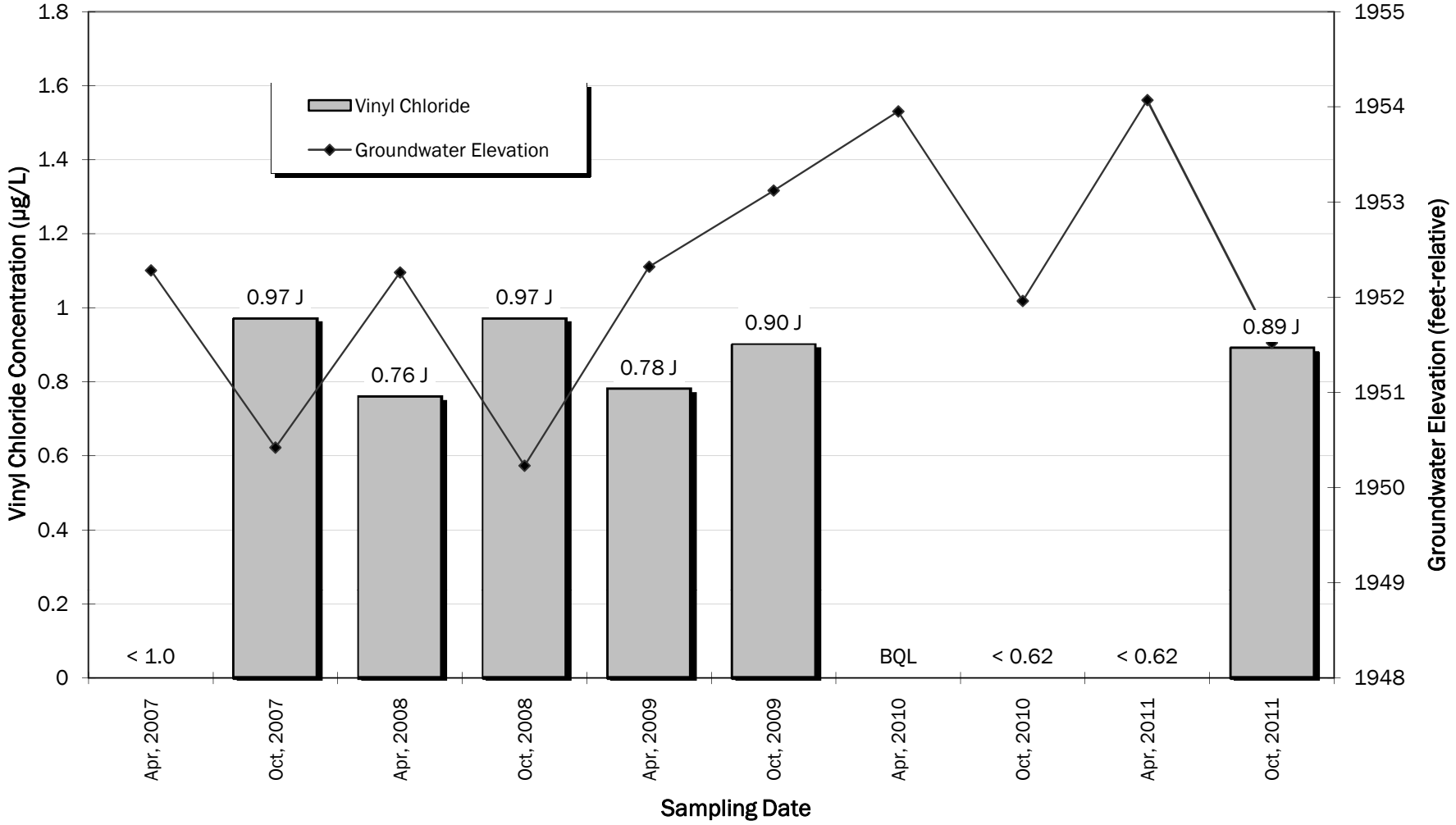
Figure 9
Hydrograph and Vinyl Chloride Concentration vs. Time
Monitoring Well MW-4
Jackson Co. Closed Landfill



2L Standard = 0.03 µg/L

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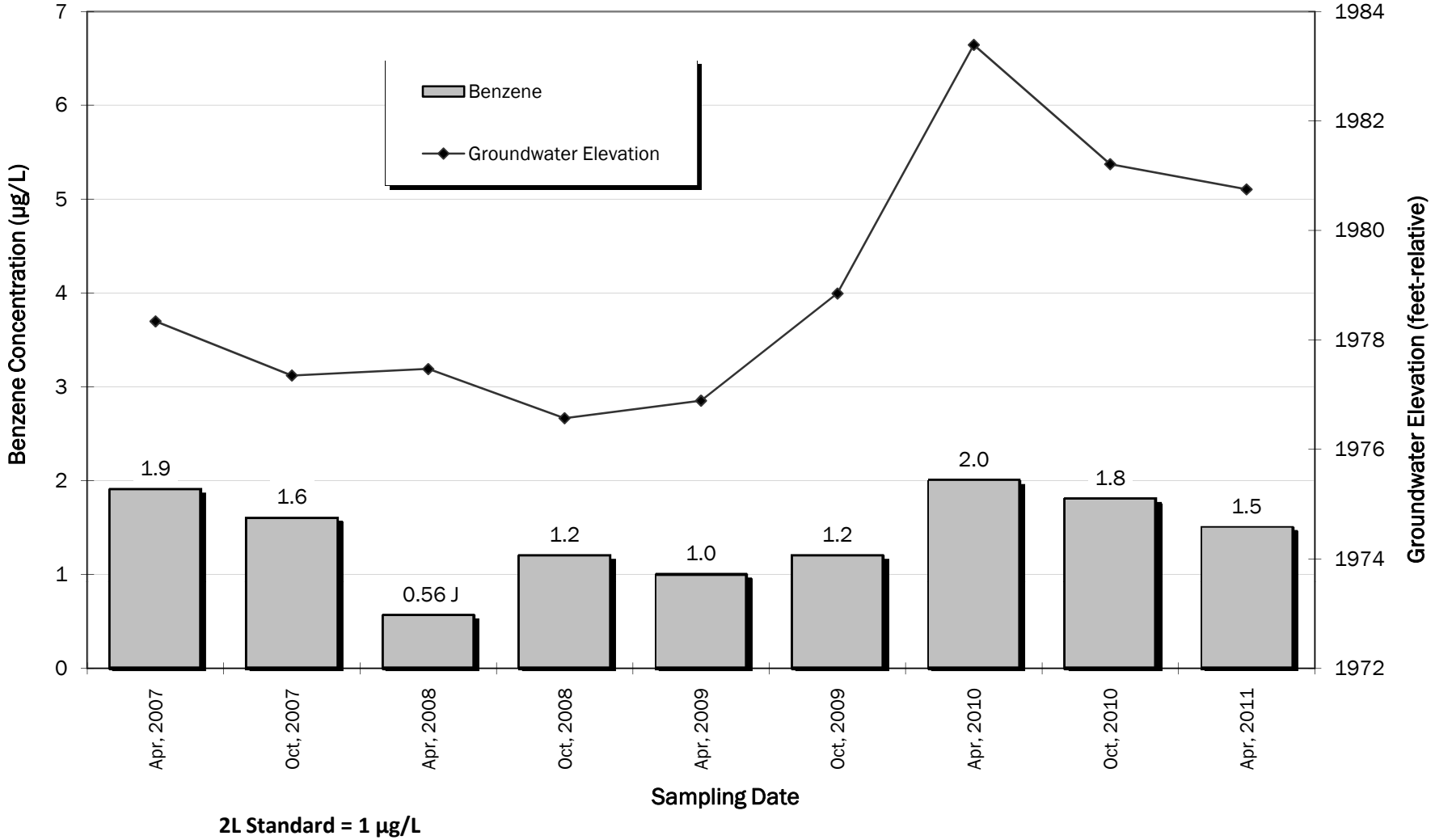
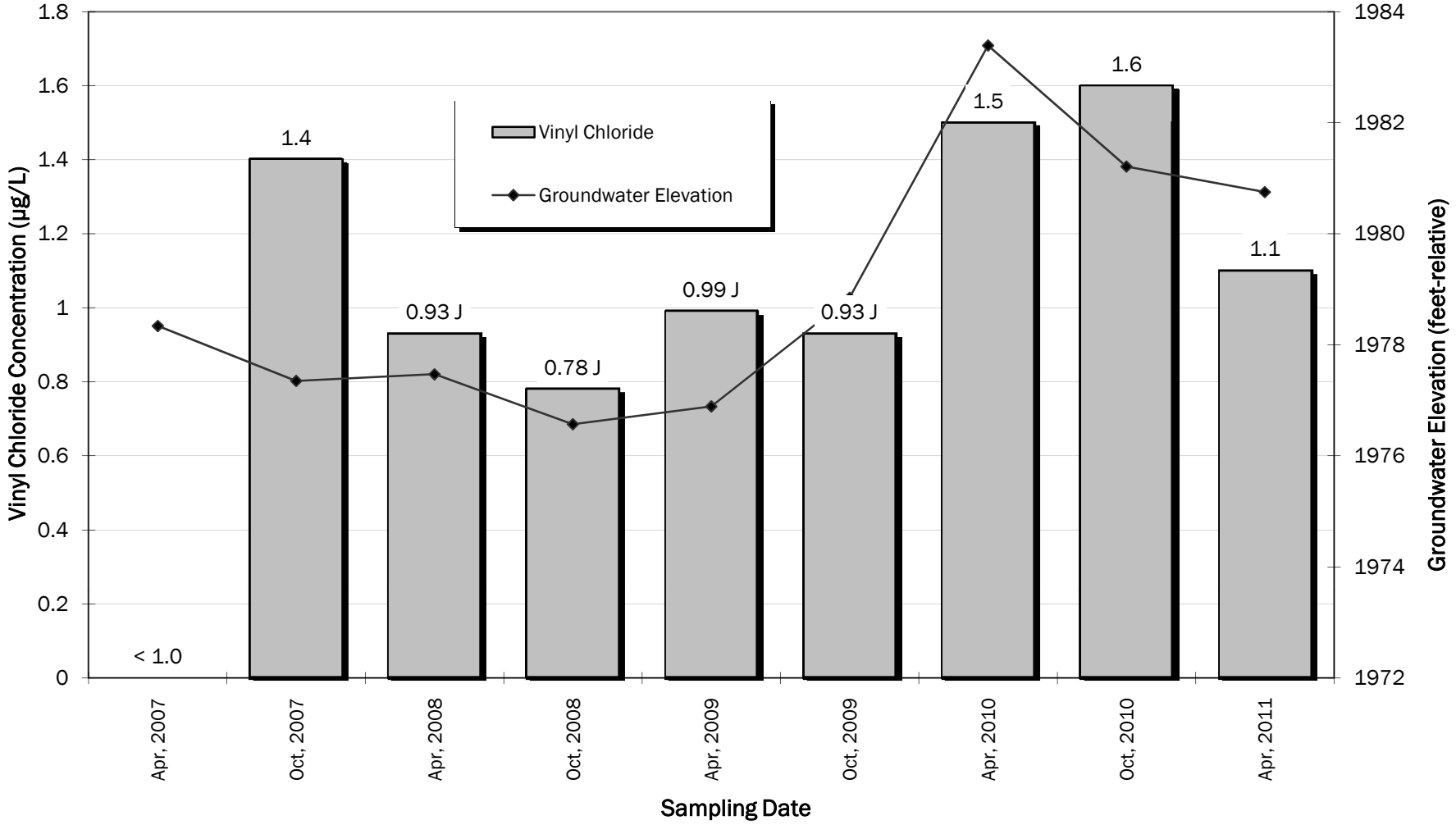
Figure 10
Hydrograph and Benzene Concentration vs. Time
Monitoring Well MW-5
Jackson Co. Closed Landfill



2L Standard = 1 µg/L

P:\Jackson County\Dillsboro GW\Analytical & Data\Water\2011\Fall\Graphs

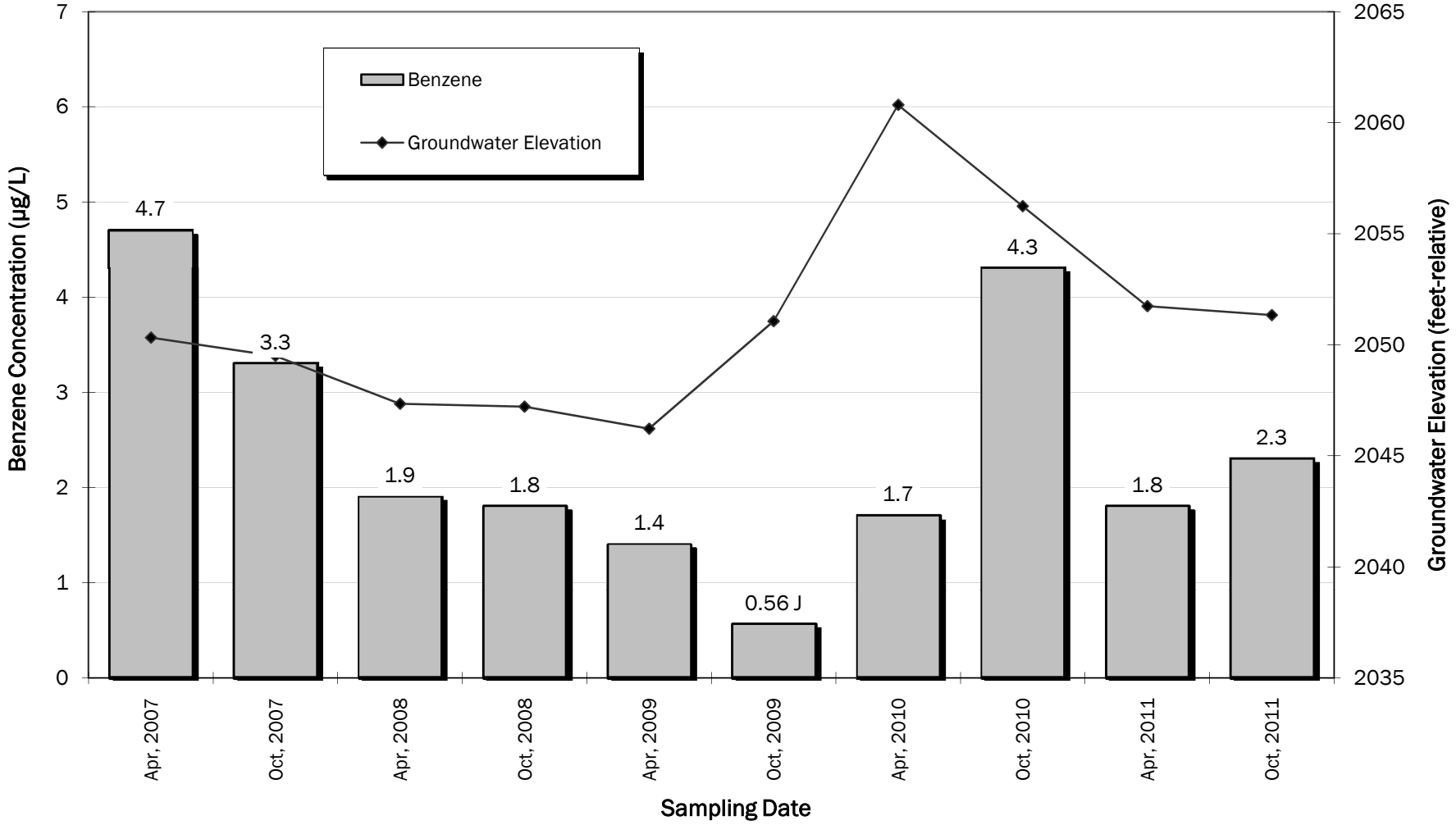
Figure 11
Hydrograph and Vinyl Chloride Concentration vs. Time
Monitoring Well MW-5
Jackson Co. Closed Landfill



2L Standard = 0.03 µg/L

P:\Jackson County\Dillsboro GW\Analytical & Data\Water\2011\Fall\Graphs

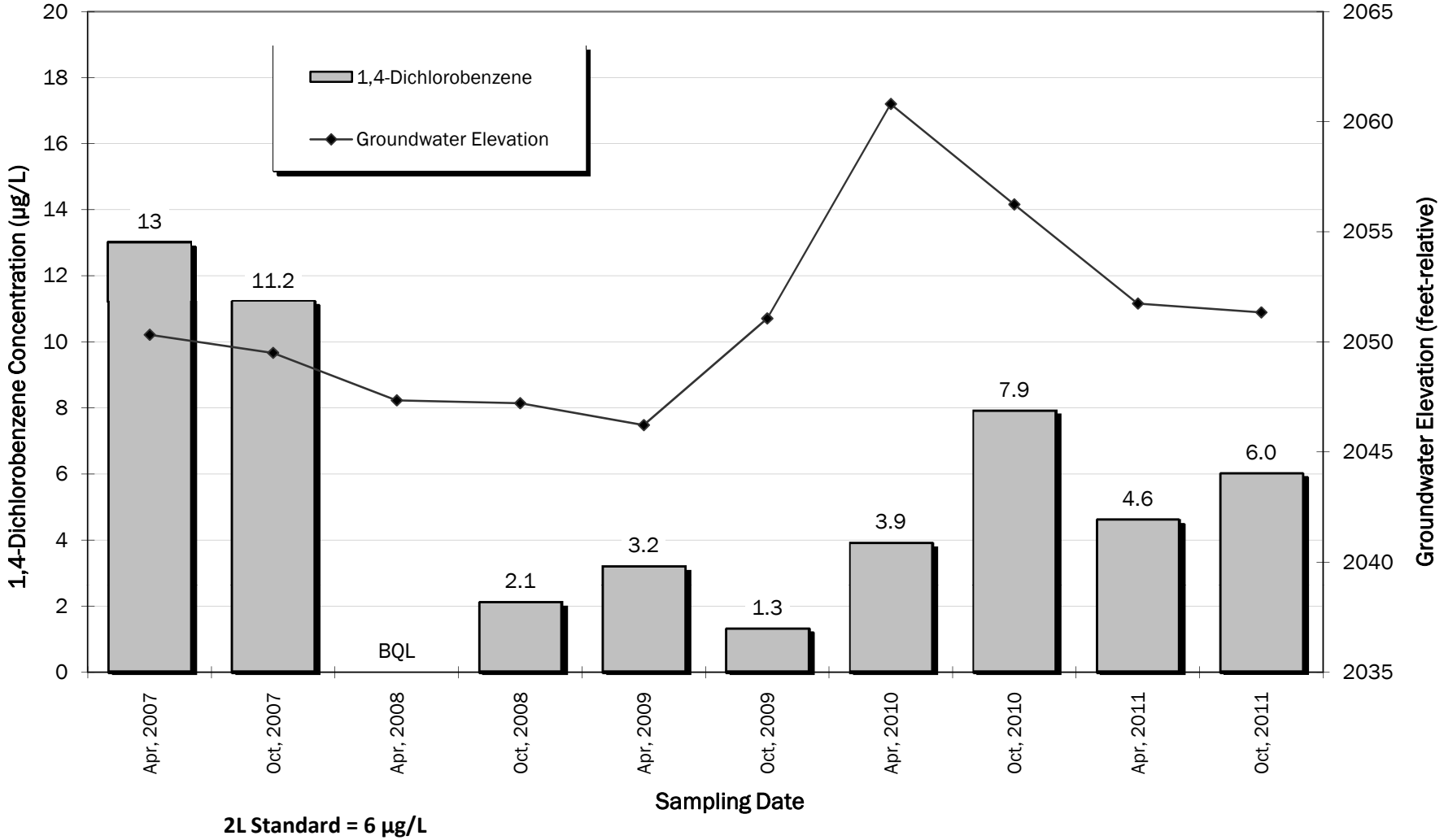
Figure 12
Hydrograph and Benzene Concentration vs. Time
Monitoring Well MW-6
Jackson Co. Closed Landfill



2L Standard = 1 µg/L

P:\Jackson County\Dillsboro GW\Analytical & Data\Water\2011\Fall\Graphs

Figure 13
Hydrograph and 1,4-Dichlorobenzene Concentration vs. Time
Monitoring Well MW-6
Jackson Co. Closed Landfill



2L Standard = 6 µg/L

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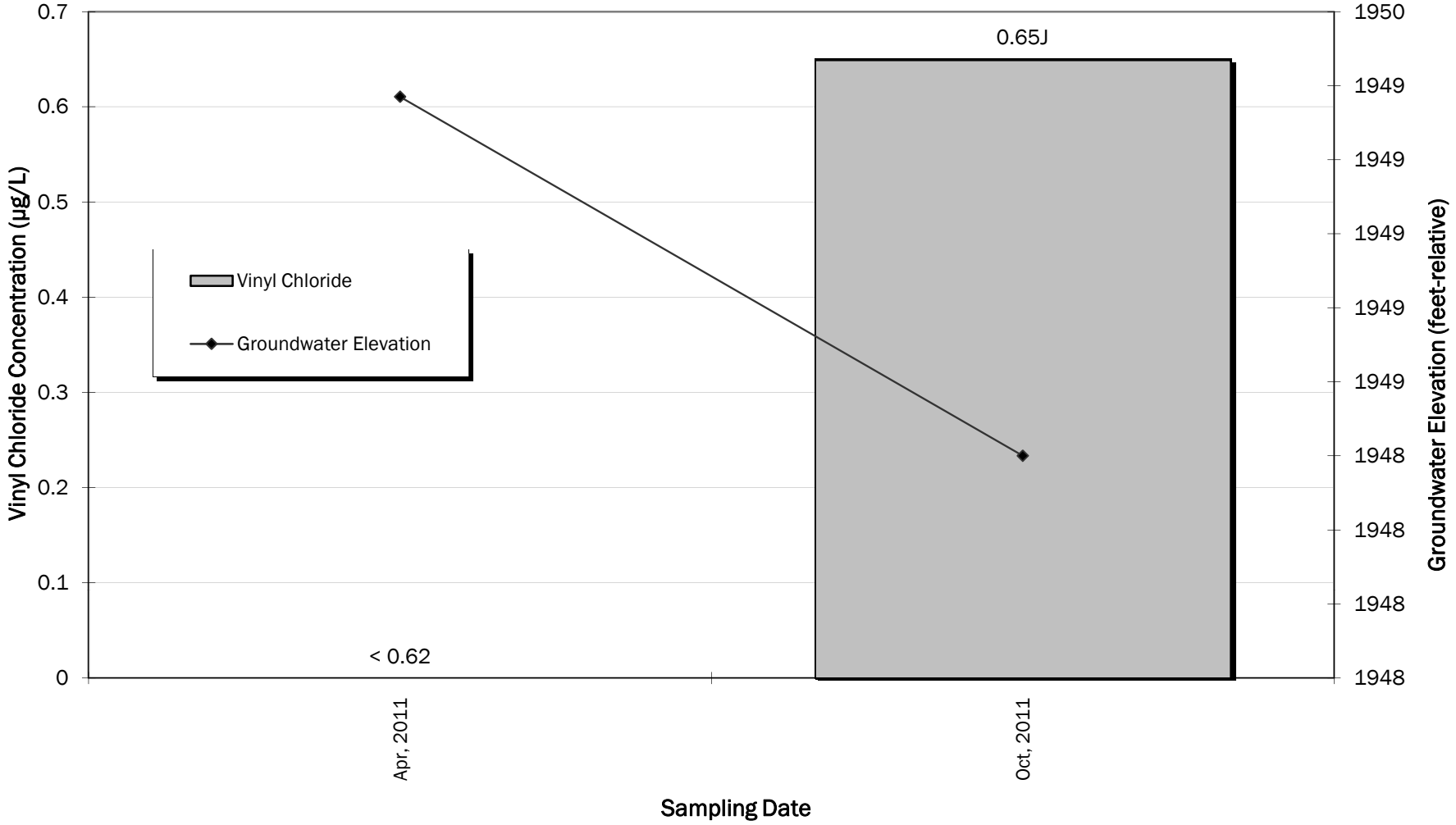
Figure 14
Hydrograph and Vinyl Chloride Concentration vs. Time
Monitoring Well MW-7
Jackson Co. Closed Landfill



2L Standard = 0.03 µg/L

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TABLES

Table 1
Summary of Laboratory Analyses Performed on Samples–October 2011
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

Analysis		Appendix II VOCs	Appendix II Metals	Appendix II Chlorinated Herbicides	Cyanide	Sulfide	Air Headspace	Alkalinity	Chloride	Iron, Ferrous	Sulfate	Nitrogen, Nitrate	TOC	VOCs
Analytical Method		EPA 8260	EPA 6010 EPA 6020 EPA 7470	EPA 8151	SM 4500-CN-E	SM 4500-S2D	RSK 175	SM 2320B	SM 4500-Cl-E	SM 3500-Fe D#4	EPA 300	EPA 353.2	SM 5310B	EPA 524.2
Sample Name	Date Collected													
GROUNDWATER SAMPLES														
MW-01	10/26/2011	X	X	X	X	X	X	X	X	X	X	X	X	
MW-02	10/27/2011	X	X	X	X	X	X	X	X	X	X	X	X	
MW-03	10/26/2011	X	X	X	X	X	X	X	X	X	X	X	X	
MW-04	10/27/2011	X	X	X	X	X	X	X	X	X	X	X	X	
MW-06	10/26/2011	X	X	X	X	X	X	X	X	X	X	X	X	
MW-07	10/27/2011	X	X	X	X	X	X	X	X	X	X	X	X	
DW-01	10/26/2011													X
DW-02	10/26/2011													X
SURFACE WATER SAMPLES														
SW-01	10/27/2011	X	X	X	X	X								
SW-02	10/26/2011	X	X	X	X	X								
QUALITY CONTROL SAMPLE														
TRIP BLANK	10/26/2011	X												

Notes:
1. VOCs = volatile organic compounds
2. Air Headspace = Ethane, Ethene, Methane
3. TOC=Total Organic Carbon
4. Appendix II list includes constituents per 40 CFR Part 258, Appendix II.

Table 2
Summary of Detected Compounds
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

		Metals						VOCs										
	Lab Certification	40 and 530 (Thallium)						12										
	Lab Method	EPA 6010, 6020, 7470						EPA 8260										
	Parameter	Barium	Cobalt	Mercury	Nickel	Thallium	Zinc	1,1-Dichloro ethane	1,2-Dichloro-benzene	1,4-Dichloro-benzene	Benzene	Chloro-benzene	Chloro-ethane	cis-1,2-Dichloroethene	Naphthalene	Tetrachloro-ethene	Trichloro-ethene	Vinyl Chloride
	CAS Number	7440-39-3	7440-48-4	7439-97-6	7440-02-0	7440-28-0	7440-66-6	75-34-3	95-50-1	106-46-7	71-43-2	108-90-7	75-00-3	156-59-2	91-20-3	127-18-4	79-01-6	75-01-4
	SWS ID	15	53	132	152	194	213	75	69	71	16	39	41	78	148	192	201	211
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample Name	Collect Date	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
MW-01	10/26/2011	83.4 J	120	0.10 U	8.1 J	0.53 J	11.7	7.7	0.30 U	9.8	2.1	3.8	0.77 J	10.2	3.9 J	0.78 J	1.0 J	0.62 U
MW-02	10/27/2011	50.5 J	6.9 J	0.10 U	5.2 J	0.12 J	10.0 U	1.2 J	0.30 U	0.33 U	0.25 U	0.23 U	0.54 U	1.4 J	0.24 U	0.46 U	0.47 U	0.62 U
MW-03	10/26/2011	154	74.4	0.10 U	7.4 J	0.051 J	12.5	2.9 J	0.56 J	11.2	1.2	11.1	0.69 J	5.4	0.24 U	0.46 U	0.47 U	0.62 U
MW-04	10/27/2011	88.2 J	5.0 U	0.16 J	5.0 U	0.050 U	10.0 U	0.32 U	0.35 J	6.8	0.89 J	5.4	0.54 U	8.6	0.24 U	0.46 U	0.47 U	0.89 J
MW-06	10/26/2011	85.6 J	146	0.10 U	21.9 J	0.13 J	10.0 U	3.8 J	0.30 U	6.0	2.3	2.2 J	3.8 J	8.4	0.24 U	0.46 U	0.47 U	0.91 J
MW-07	10/27/2011	295	5.7 J	0.10 U	5.0 U	0.050 U	10.0 U	0.71 J	0.35 J	5.0	1.1	6.2	0.54 U	12.5	0.24 U	0.46 U	0.47 U	0.65 J
SW-01	10/27/2011	15.3 J	5.0 U	0.10 U	5.0 U	0.050 U	10.0 U	0.32 U	0.30 U	0.33 U	0.25 U	0.23 U	0.54 U	0.19 U	0.24 U	0.46 U	0.47 U	0.62 U
SW-02	10/26/2011	14.1 J	5.0 U	0.10 U	5.0 U	0.050 U	12.0	0.32 U	0.30 U	0.33 U	0.25 U	0.23 U	0.54 U	0.19 U	0.24 U	0.46 U	0.47 U	0.62 U
TRIP BLANK	10/26/2011	NA	NA	NA	NA	NA	NA	0.32 U	0.30 U	0.33 U	0.25 U	0.23 U	0.54 U	0.19 U	0.24 U	0.46 U	0.47 U	0.62 U
DW-01	10/26/2011	NA	NA	NA	NA	NA	NA	NA	0.25 U	0.25 U	0.25 U	0.25 U	NA	0.25 U	NA	0.25 U	0.25 U	0.25 U
DW-02	10/26/2011	NA	NA	NA	NA	NA	NA	NA	0.25 U	0.25 U	0.25 U	0.25 U	NA	0.25 U	NA	0.25 U	0.25 U	0.25 U
	MDL	5.0	5.0	0.10	5.0	0.050	10.0	0.32	0.30	0.33	0.25	0.23	0.54	0.19	0.24	0.46	0.47	0.62
	MRL	5.0	5.0	0.20	5.0	0.10	10.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	SWSL	100	10	0.2	50	5.5	10	5	5	1	1	3	10	5	10	1	1	1
	2L	700	1	1	100	0.2	1,000	6	20	6	1	50	3,000	70	6	0.7	3	0.03
	IMAC	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	GWPS	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	2B	200,000	4	0.012	88	0.47	50	20,000	470	100	51	140	550	4,900	330	3.3	30	2.4

		Inorganics								Field Parameters	
	Lab Certification	40 and 530 (Methane)								5445 (pH only)	
	Lab Method	SM 2320B	SM 4500-Cl-E	SM 4500-CN-E	SM 3500-Fe D#4	RSK 175	EPA 353.2	EPA 300.0	SM 5310B		
	Parameter	Alkalinity	Chloride	Cyanide	Iron, Ferrous	Methane	Nitrogen, Nitrate	Sulfate	Total Organic Carbon	pH	Turbidity
	CAS Number	SW337	SW301	57-12-5	SW334	74-82-8	SW419	14808-79-8	E-10195	SW320	SW330
	SWS ID	337	301	58	334	456	419	315	357	320	330
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	SU	NTU
Sample Name	Collect Date	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
MW-01	10/26/2011	94,000	5,000 U	5.1 J	5,800	2,060	200 U	5,000 U	12,100	5.57	0.00
MW-02	10/27/2011	38,100	28,500	6.1	500 U	5.0 U	200 U	6,300 J	3,700	5.44	0.00
MW-03	10/26/2011	104,000	46,700	5.0 U	500 U	56.8	410 J	5,000 U	15,000	4.52	0.00
MW-04	10/27/2011	93,200	92,600	5.0 U	500 U	1,410	2,500 J	71,100 J	172,000	5.39	0.00
MW-06	10/26/2011	83,000	5,000 U	6.4 J	10,300	1,170	200 U	5,000 U	13,200	5.40	0.00
MW-07	10/27/2011	250,000	45,400	5.0 U	2,700	1,360	200 U	42,800 J	13,200	6.01	0.01
SW-01	10/27/2011	NA	NA	5.0 U	NA	NA	NA	NA	NA	9.67	0.00
SW-02	10/26/2011	NA	NA	5.0 U	NA	NA	NA	NA	NA	7.34	0.00
DW-01	10/26/2011	NA	NA	NA	NA	NA	NA	NA	NA	6.43	0.00
DW-02	10/26/2011	NA	NA	NA	NA	NA	NA	NA	NA	6.09	0.00
	MDL	5,000	25,000	5.0	500	5.0	200	5,000	0.30	NA	NA
	MRL	5,000	25,000	5.0	500	10.0	200	5,000	1.0	NA	NA
	SWSL	NE	NE	10	NE	NE	10,000	250,000	5	NE	NE
	2L	NE	250,000	70	NE	NE	10,000	250,000	NE	6.5-8.5	NE
	IMAC	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	GWPS	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	2B	NE	230,000	5	NE	NE	NE	NE	NE	6.0-9.0	10

Table 2
Summary of Detected Compounds
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

Notes:

1. Only detected constituents are listed on this table. Please refer to Pace Analytical Report of Laboratory Analysis for further details.
2. "Lab Method" is the analytical method used to analyze the constituents.
3. "CAS NUMBER" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
4. "SWS ID" is the Solid Waste Section Identification Number.
5. "Units" are micrograms per liter (µg/L) for analytical results, Standard Units (SU) for pH and nephelometric turbidity units (NTU) for turbidity.
6. "Collect Date" is the date on which the sample was collected in the field.
7. "Result" is analytical data reported by the laboratory or field data collected by Altamont.
8. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
9. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method. MRL equals PQL values in the Pace Analytical Reports.
10. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
11. "U" is a laboratory data qualifier used for parameters not detected at concentrations above MDL.
12. "J" is a laboratory data qualifier used for parameters detected at estimated concentrations above MDL but below MRL and SWSL.
    An italicized "J" qualifier is assigned by Altamont to reflect a detected concentration that is greater than MRL and MDL but less than the SWSL.
13. "2L" and "IMAC" (Interim Maximum Allowable Concentration) are groundwater standards from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (Amended Eff January 1, 2010).
14. "GWPS" is the Groundwater Protection Standard pursuant to "15A NCAC 13B .1634," DENR. Current standards were obtained from http://portal.ncdenr.org/web/sw/envmonitoringlist (last updated June 13, 2011).
15. "2B" indicates surface water standard per "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2B - Surface Water and Wetland Standards," (last amended on May 1, 2007).
16. "NE" means Not Established. "NA" means Not Applicable. Blank cells indicate that there is no information relevant to the respective row.
17. **Bold** numbers indicate any detection. Grayed cells indicate result in exceedance of the 2L or IMAC standards or greater than or equal to the GWPS (if no 2L or IMAC exist).
18. "NA" means Not Analyzed. "NE" indicates Not Established.

Table 3
Solid Waste Section Limits Exceedances Notification
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

FACILITY PERMIT	WELL ID	CAS NUMBER	SWS ID	PARAMETER	RESULT	UNITS	QUALIFIER	METHOD	MDL	MRL	SWSL	COLLECT DATE
50-02	MW-01	7440-48-4	53	Cobalt	**120**	µg/L		EPA 6010	5	5.0	10	10/26/2011
50-02	MW-01	7440-66-6	213	Zinc	11.7	µg/L		EPA 6010	10	10.0	10	10/26/2011
50-02	MW-01	75-34-3	75	1,1-Dichloroethane	**7.7**	µg/L		EPA 8260	0.32	1.0	5	10/26/2011
50-02	MW-01	106-46-7	71	1,4-Dichlorobenzene	**9.8**	µg/L		EPA 8260	0.33	1.0	1	10/26/2011
50-02	MW-01	71-43-2	16	Benzene	**2.1**	µg/L		EPA 8260	0.25	1.0	1	10/26/2011
50-02	MW-01	108-90-7	39	Chlorobenzene	3.8	µg/L		EPA 8260	0.23	1.0	3	10/26/2011
50-02	MW-01	156-59-2	78	cis-1,2-Dichloroethene	10.2	µg/L		EPA 8260	0.19	1.0	5	10/26/2011
50-02	MW-01	79-01-6	201	Trichloroethene	1.0	µg/L	J	EPA 8260	0.47	1.0	1	10/26/2011
50-02	MW-03	7440-39-3	15	Barium	154	µg/L		EPA 6010	5	5.0	100	10/26/2011
50-02	MW-03	7440-48-4	53	Cobalt	**74.4**	µg/L		EPA 6010	5	5.0	10	10/26/2011
50-02	MW-03	7440-66-6	213	Zinc	12.5	µg/L		EPA 6010	10	10.0	10	10/26/2011
50-02	MW-03	106-46-7	71	1,4-Dichlorobenzene	**11.2**	µg/L		EPA 8260	0.33	1.0	1	10/26/2011
50-02	MW-03	71-43-2	16	Benzene	**1.2**	µg/L		EPA 8260	0.25	1.0	1	10/26/2011
50-02	MW-03	108-90-7	39	Chlorobenzene	11.1	µg/L		EPA 8260	0.23	1.0	3	10/26/2011
50-02	MW-03	156-59-2	78	cis-1,2-Dichloroethene	5.4	µg/L		EPA 8260	0.19	1.0	5	10/26/2011
50-02	MW-04	106-46-7	71	1,4-Dichlorobenzene	**6.8**	µg/L		EPA 8260	0.33	1.0	1	10/27/2011
50-02	MW-04	108-90-7	39	Chlorobenzene	5.4	µg/L		EPA 8260	0.23	1.0	3	10/27/2011
50-02	MW-04	156-59-2	78	cis-1,2-Dichloroethene	8.6	µg/L		EPA 8260	0.19	1.0	5	10/27/2011
50-02	MW-06	7440-48-4	53	Cobalt	**146**	µg/L		EPA 6010	5	5.0	10	10/26/2011
50-02	MW-06	106-46-7	71	1,4-Dichlorobenzene	**6.0**	µg/L		EPA 8260	0.33	1.0	1	10/26/2011
50-02	MW-06	71-43-2	16	Benzene	**2.3**	µg/L		EPA 8260	0.25	1.0	1	10/26/2011
50-02	MW-06	156-59-2	78	cis-1,2-Dichloroethene	8.4	µg/L		EPA 8260	0.19	1.0	5	10/26/2011
50-02	MW-07	7440-39-3	15	Barium	295	µg/L		EPA 6010	5	5.0	100	10/27/2011
50-02	MW-07	106-46-7	71	1,4-Dichlorobenzene	5.0	µg/L		EPA 8260	0.33	1.0	1	10/27/2011
50-02	MW-07	71-43-2	16	Benzene	**1.1**	µg/L		EPA 8260	0.25	1.0	1	10/27/2011
50-02	MW-07	108-90-7	39	Chlorobenzene	6.2	µg/L		EPA 8260	0.23	1.0	3	10/27/2011
50-02	MW-07	156-59-2	78	cis-1,2-Dichloroethene	12.5	µg/L		EPA 8260	0.19	1.0	5	10/27/2011
50-02	SW-02	7440-66-6	213	Zinc	12.0	µg/L		EPA 6010	10	10.0	10	10/26/2011

Table 3
Solid Waste Section Limits Exceedances Notification
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

Notes:

1. "CAS NUMBER" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "RESULT" is the analytical data reported by the laboratory.
4. "UNITS" are micrograms per liter (µg/L) for analytical results.
5. "QUALIFIER" is a data qualifier or "flag". A blank cell indicates that there is no qualifier associated with the reported result.
6. "METHOD" is the analytical method used to analyze the constituents.
7. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
8. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method.
9. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
10. "COLLECT DATE" is the date on which the sample was collected in the field.
11. **Bold** numbers indicate any detection. Grayed cells indicate result in exceedance of the 2L or Interim Maximum Allowable Concentration (IMAC) standards or greater than or equal to the Groundwater Protection Standard (GWPS [if no 2L or IMAC exist]).
12. 2L Standard and IMAC are from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards" DENR (Amended Eff January 1, 2010).
13. GWPS is pursuant to "15A NCAC 13B .1634" DENR. Current standards were obtained from http://portal.ncdenr.org/web/sw/envmonitoringlist (last updated June 13, 2011).

Table 4
Water Quality Standards Exceedances Notification
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

FACILITY PERMIT	WELL ID	CAS NUMBER	SWS ID	PARAMETER	GROUNDWATER QUALITY STANDARD	RESULT	UNITS	QUALIFIER	COLLECT DATE	CAUSE AND SIGNIFICANCE
50-02	MW-01	7440-48-4	53	Cobalt	1	**120**	µg/L		10/26/2011	Possibly naturally occurring. Turbidity of sample at 0.00 NTU.
50-02	MW-01	7440-28-0	194	Thallium	0.2	**0.53**	µg/L	J	10/26/2011	
50-02	MW-01	75-34-3	75	1,1-Dichloroethane	6	**7.7**	µg/L		10/26/2011	Anthropogenic.
50-02	MW-01	106-46-7	71	1,4-Dichlorobenzene	6	**9.8**	µg/L		10/26/2011	
50-02	MW-01	71-43-2	16	Benzene	1	**2.1**	µg/L		10/26/2011	
50-02	MW-01	127-18-4	192	Tetrachloroethene	0.7	**0.78**	µg/L	J	10/26/2011	
50-02	MW-01	SW320	320	pH	6.5 - 8.5	**5.57**	SU		10/26/2011	Consistent with historic measurements.
50-02	MW-02	7440-48-4	53	Cobalt	1	**6.9**	µg/L	J	10/27/2011	Possibly naturally occurring. Turbidity of sample at 0.00 NTU.
50-02	MW-02	SW320	320	pH	6.5 - 8.5	**5.44**	SU		10/27/2011	Consistent with historic measurements.
50-02	MW-03	7440-48-4	53	Cobalt	1	**74.4**	µg/L		10/26/2011	Possibly naturally occurring. Turbidity of sample at 0.00 NTU.
50-02	MW-03	106-46-7	71	1,4-Dichlorobenzene	6	**11.2**	µg/L		10/26/2011	Anthropogenic.
50-02	MW-03	71-43-2	16	Benzene	1	**1.2**	µg/L		10/26/2011	
50-02	MW-03	SW320	320	pH	6.5 - 8.5	**4.52**	SU		10/26/2011	Consistent with historic measurements.
50-02	MW-04	106-46-7	71	1,4-Dichlorobenzene	6	**6.8**	µg/L		10/27/2011	Anthropogenic.
50-02	MW-04	75-01-4	211	Vinyl chloride	0.03	**0.89**	µg/L	J	10/27/2011	
50-02	MW-04	SW320	320	pH	6.5 - 8.5	**5.39**	SU		10/27/2011	Consistent with historic measurements.
50-02	MW-06	7440-48-4	53	Cobalt	1	**146**	µg/L		10/26/2011	Possibly naturally occurring. Turbidity of sample at 0.00 NTU.
50-02	MW-06	106-46-7	71	1,4-Dichlorobenzene	6	**6.0**	µg/L		10/26/2011	Anthropogenic.
50-02	MW-06	71-43-2	16	Benzene	1	**2.3**	µg/L		10/26/2011	
50-02	MW-06	75-01-4	211	Vinyl chloride	0.03	**0.91**	µg/L	J	10/26/2011	
50-02	MW-06	SW320	320	pH	6.5 - 8.5	**5.40**	SU		10/26/2011	Consistent with historic measurements.
50-02	MW-07	7440-48-4	53	Cobalt	1	**5.7**	µg/L	J	10/27/2011	Possibly naturally occurring. Turbidity of sample at 0.01 NTU.
50-02	MW-07	71-43-2	16	Benzene	1	**1.1**	µg/L		10/27/2011	Anthropogenic.
50-02	MW-07	75-01-4	211	Vinyl chloride	0.03	**0.65**	µg/L	J	10/27/2011	
50-02	MW-07	SW320	320	pH	6.5 - 8.5	**6.01**	SU		10/27/2011	Consistent with historic measurements.

Notes:

1. "CAS NUMBER" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "RESULT" is analytical data reported by the laboratory or field data collected by Altamont.
4. "UNITS" are micrograms per liter (µg/L) for analytical results and Standard Units (SU) for pH.
5. "QUALIFIER" is a data qualifier or "flag". A blank cell indicates that there is no qualifier associated with the reported result.
6. "METHOD" is the analytical method used to analyze the constituents.
7. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
8. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method.
9. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
10. "GROUNDWATER QUALITY STANDARD" refers to the 2L Standard, Interim Maximum Allowable Concentration (IMAC), or Groundwater Protection Standard (GWPS) for groundwater.
11. "COLLECT DATE" is the date on which the sample was collected in the field.
12. "NE" means Not Established.
13. **Bold** numbers indicate a detection. Grayed cells indicate result in exceedance of the 2L, IMAC (groundwater) or greater than or equal to the GWPS (if no 2L or IMAC exist).
14. 2L Standard and IMAC are from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards" DENR (Amended Eff January 1, 2010).
15. GWPS is pursuant to "15A NCAC 13B .1634" DENR. Current standards were obtained from http://portal.ncdenr.org/web/sw/envmonitoringlist (last updated June 13, 2011).

Table 5
Well Construction Details and Corresponding Elevations
Jackson County Municipal Sold Waste Landfill, Jackson County, North Carolina

Facility Permit	Well ID	Date Drilled	Ground Surface Elevation[1,6,7]	TOC[2] Elevation	Stick Up	Total Well Depth	Depth To Water[8]	Groundwater Elevation	[4,6,7]Approx. Depth to Bedrock	Approx. Top of Bedrock Elevation	Depth to Top of Screened Interval[4,5]	Depth to Bottom of Screened Interval[4,5]	Top Elevation of Screened Interval	Elevation of Bottom of Screened Interval	Geology of Screened Interval	Source of Well Construction Information
		(mm/dd/yyyy)	(feet above msl)	(feet above msl)	(feet above gs)	(feet bgs)	(feet below TOC)	(feet above msl)	(feet bgs)	(feet above msl)	(feet bgs)	(feet bgs)	(feet above msl)	(feet above msl)		
50-02	MW-01	04/23/1992	2,169.40	2,171.42	2.0	110.5	102.16	2,069.26	83.0	2,086.40	95.0	110.0	2,074.40	2,059.40	bedrock	S&ME, Inc.
50-02	MW-02	04/22/1992	2,013.15	2,015.38	2.3	63.0	34.10	1,981.28	13.0	2,000.15	45.0	60.0	1,968.15	1,953.15	bedrock	S&ME, Inc.
50-02	MW-03	04/21/1992	2,044.16	2,045.53	1.3	65.5	53.67	1,991.86	57.0	1,987.16	48.5	63.5	1,995.66	1,980.66	partially weathered bedrock	S&ME, Inc.
50-02	MW-04	04/21/1992	1,978.68	1,980.77	2.0	43.0	29.25	1,951.52	NA	NA	25.0	40.0	1,953.68	1,938.68	saprolite	S&ME, Inc.
50-02	MW-05	09/23/1994	2,027.38	2,028.97	1.6	60.0	49.27	1,979.70	NA	NA	50.0	60.0	1,977.38	1,967.38	saprolite	AAA Green Bros Well Drilling
50-02	MW-06	03/23/2004	2,136.58	2,139.57	3.0	94.0	88.23	2,051.34	47.6	2,088.98	84.6	94.6	2,051.98	2,041.98	bedrock	Altamont Environmental, Inc.
50-02	MW-07	07/30/2010	1,978.71	1,981.29	2.6	95.0	32.89	1,948.40	44.0	1,935.00	70.0	95.0	1,908.71	1,883.71	bedrock	Altamont Environmental, Inc.

Notes:

1. Elevations are measured relative to mean sea level and are based on a survey completed on April 9, 1999 by Davenport & Associates, Inc for wells MW-01 through MW-05.
2. TOC means Top of Casing. bgs means below ground surface. "msl" indicates mean sea level.
3. NA means Not Applicable.
4. MW-01 through MW-04 Depth to Bedrock and Screened Interval taken from boring logs completed on April 21, 22, and 23, 1992 by S&ME.
5. MW-05 Screened Interval taken from boring log completed on September 23, 1994 by AAA Greene Bros. of Sylva.
6. MW-06 Depth to Bedrock and Screened Interval taken from Altamont boring log completed March 23, 2004. Elevation data taken from a survey completed in March 2004.
7. MW-07 Depth to Bedrock and Screened Interval taken from Altamont boring log completed July 30, 2010. Elevation data taken from a survey completed in August, 2010.
8. Depth to water measured on October 26 and 27, 2011.

APPENDICES

APPENDIX A
Well Sampling Logs and Equipment Documentation and Instrument Calibration Data Sheet(s)

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
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WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 10/26/2011
SAMPLING PERSONNEL: E. Yurkovich
WEATHER: Sunny 65°

Well ID: MW-01
Screen Interval: 95 to 110 bgs
Depth to Water: 102.16 toc
Stickup: 2.0
Depth of Pump Intake: 107 toc
Drawdown Set: 102.26 toc

Arrive at Well: 1051
Start Time: 1104
Sample Time: 1128
Finish Sample Time: 1144
Leave Well: 1205
Well Diameter: 2"

COMMENTS:
Well recharges quickly

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
1110	102.26	16.25	171	4.75	5.53	-3.5	1.26
1113	102.26	16.05	172	2.61	5.53	-22.7	1.55
1116	102.26	15.94	173	2.09	5.53	-34.4	0.00
1119	102.26	15.87	175	1.36	5.53	-39.4	0.00
1122	102.26	15.86	176	1.31	5.53	-28.0	0.00
1125	102.26	15.81	179	1.34	5.56	-30.4	0.00
1128	102.26	15.81	181	1.33	6.57	-31.5	0.00

Time between recharge during sample collection: 2 secs @ 3GPM

Sampling Personnel Signature: [signature]
Date: 10/26/11

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 10/27/2011
SAMPLING PERSONNEL: E. Yurkovich
WEATHER: cloudy 65°

Well ID: MW-02
Screen Interval: 45 to 60' bgs
Depth to Water: 34.10' toc
Stickup: 2.3
Depth of Pump Intake: 53.0' toc
Drawdown Set: 37.10 toc

Arrive at Well: 1217
Start Time: 1230
Sample Time: 1251
Finish Sample Time: 1333
Leave Well: 1350
Well Diameter: 2"

COMMENTS:
Well recharges slowly

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1233	35.10	15.79	236	11.92	3.99	274.2	3.69
1236	36.10	14.65	236	6.36	4.72	203.9	3.38
1239	36.50	14.48	233	5.98	4.53	213.1	0.95
1242	37.10	14.83	232	5.40	5.42	165.7	0.00
1245	37.10	14.98	231	5.16	5.45	161.6	0.00
1248	37.10	15.09	230	6.01	5.45	159.4	0.00
1251	37.10	15.16	229	4.96	5.44	158.7	0.00

Time between recharge during sample collection: 2.5 min

Sampling Personnel Signature:
Date: 10/27/11

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 10/26/2011
SAMPLING PERSONNEL: E. Yurkovich
WEATHER: Sunny 70°

Well ID: MW-03
Screen Interval: 48.5 to 63.5 bgs
Depth to Water: 53.67 toc
Stickup: 1.3
Depth of Pump Intake: 60.5 toc
Drawdown Set: 53.97 toc

Arrive at Well: 1258
Start Time: 1315
Sample Time: 1336
Finish Sample Time: 1354
Leave Well: 1400
Well Diameter: 2"

COMMENTS:
well recharges quickly

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
1318	53.97	17.96	391	4.33	5.66	126.4	15.24
1321	53.97	16.61	389	1.23	4.76	170.2	4.00
1324	53.97	16.60	388	0.83	3.93	208.6	2.01
1327	53.97	16.51	389	0.55	4.75	186.4	0.00
1330	53.97	16.37	388	0.53	4.62	164.6	0.00
1333	53.97	16.21	388	0.51	4.57	156.3	0.00
1336	53.97	16.06	388	0.49	4.52	159.7	0.00

Time between recharge during sample collection: 5 secs @ 3GPM

Sampling Personnel Signature: [signature] Date: 10/26/11

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 10/27/11
SAMPLING PERSONNEL: E. Yurkovich
WEATHER: Cloudy 60°

Well ID: MW-04
Screen Interval: 27 to 43 bgs
Depth to Water: 29.25 toc
Stickup: 2.0
Depth of Pump Intake: 37 toc
Drawdown Set: 29.90 toc

Arrive at Well: 1450
Start Time: 1501
Sample Time: 1521
Finish Sample Time: 1540
Leave Well: 1550
Well Diameter: 2"

COMMENTS:

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
1503	29.9	15.51	748	6.08	5.43	334.0	2.93
1506	29.9	15.17	746	2.53	5.40	474.8	4.94
1509	29.9	15.02	746	1.39	5.39	519.7	5.73
1512	29.9	14.94	746	2.85	5.38	526.7	0.01
1515	29.9	14.94	744	2.99	5.39	531.0	0.01
1518	29.9	14.89	744	3.00	5.39	532.2	0.02
1521	29.9	14.87	744	2.99	5.39	532.3	0.00

Time between recharge during sample collection: 5 sec.

Sampling Personnel Signature: [signature] Date: 10/27/11

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

No Sample

→ Casing Bent

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Well Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
SAMPLING PERSONNEL: E. Yurkovich

DATE: 10/26/2011
WEATHER: Sunny 70°
SAMPLE TIME:

WELL NUMBER: MW-05
WELL DIAMETER: 2"
TYPE OF CASING: PVC
MEASURING POINT: TOC
FLUSH MOUNT / STICK-UP
COMMENTS: well casing bent, Have to tie two small bailers together to purge/Sample well

WELL DEPTH IN FEET (WD): 60.0
WATER LEVEL IN FEET (WL): 49.27
LENGTH OF WATER COLUMN : 10.73 FEET
(WD) - (WL) = (LWC)
ONE CASING VOLUME: 1.82 GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: 5.47 GALLONS
ACTUAL VOLUME PURGED: GALLONS

WELL CASING VOLUMES (WCV)
1" = 0.041 Gal/Ft 2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-DISP. BAILER-TEFLON DEDICATED PUMP WHALE PUMP GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-DISP. BAILER-TEFLON DEDICATED PUMP WHALE PUMP GRUNDFOS OTHER:

READING	TIME	GALLONS PURGED	TEMP (°C)	SPECIFIC COND. (µS)	DISSOLVED OXYGEN (mg/L)	pH (S.U.) *report to 0.1 S.U.*	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)	COMMENTS
1		initial							
2									
3									
4									
5									
6									
7									
8									
9									
10									

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC		
125 mL PLASTIC		
40 mL GLASS		
1 L GLASS	2	Appendix II Herbicides
OTHER		

PROTECTIVE CASING: ok PAD: ok LOCK: ok VEGETATION: Thick ACCESS: Difficult

Sampling Personnel Signature: Date:

Notes: °C = degrees Celsius
µS = micro-Siemen
mg/L = milligrams per liter
S.U. = Standard Units
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 10/26/2011
SAMPLING PERSONNEL: E. Yurkovich
WEATHER: Sunny 60°

Well ID: MW-06
Screen Interval: 84.6 to 94.6 bgs
Depth to Water: 88.23 toc
Stickup: 3.0
Depth of Pump Intake: 92.6 toc
Drawdown Set: 89.23 toc

Arrive at Well: 929
Start Time: 942
Sample Time: 1005
Finish Sample Time: 1033
Leave Well: 1048
Well Diameter: 2"

COMMENTS:

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
947	89.03	14.87	247	5.70	5.79	-96.5	1.80
950	89.23	14.92	238	2.64	5.74	-104.5	0.00
953	89.23	14.97	229	2.16	5.70	-101.9	0.00
956	89.23	14.87	225	1.59	5.41	-72.3	0.00
959	89.23	14.96	222	1.51	5.39	-70.9	0.00
1002	89.23	14.99	220	1.49	5.40	-73.2	0.00
1005	89.23	14.97	219	1.46	5.40	-70.6	0.00

Time between recharge during sample collection: 35 secs @ 30PM

Sampling Personnel Signature: [signature] Date: 10/26/11

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 10/27/2011
SAMPLING PERSONNEL: E. Yurkovich
WEATHER: cloudy 65°

Well ID: MW-07
Screen Interval: 70 to 95 bgs
Depth to Water: 32.89 toc
Stickup: 0.7
Depth of Pump Intake: 33.2 toc
Drawdown Set: 34.00 toc

Arrive at Well: 1355
Start Time: 1406
Sample Time: 1427
Finish Sample Time: 1438
Leave Well: 1450
Well Diameter: 2"

COMMENTS:
Well recharges quickly

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
1409	33.2	16.05	470	8.25	6.44	-73.7	6.76
1412	33.7	15.24	718	5.54	6.03	-46.9	21.24
1415	33.7	15.06	753	2.65	6.00	-42.7	6.25
1418	33.7	15.04	755	2.06	6.00	-44.0	4.74
1421	34.0	15.03	759	1.60	6.01	-49.0	1.70
1424	34.0	15.00	760	1.54	6.01	-50.1	0.01
1427	34.0	15.01	760	1.53	6.01	-51.0	0.01

Time between recharge during sample collection: 5 seconds @ 30PM

Sampling Personnel Signature: [signature] Date: 10/27/11

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

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Surface Water Sampling Log

PROJECT NAME: Jackson Co. LF
DATE: 10/27/2011
PROJECT NUMBER: 2040.0302
WEATHER: Cloudy 65°
SAMPLING PERSONNEL: E. Yurkovich

SAMPLE NAME: SW-01

COMMENTS: Upstream Surface water Sample

Sample time: 1540

SAMPLE METHOD: GRAB SYRINGE PUMP BAILER-DISP. OTHER:

TIME	TEMP (°C)	SPECIFIC COND. (µS)	DISSOLVED OXYGEN (mg/L)	pH (S.U.) *report to 0.1 S.U.*	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)	COMMENTS
1540	13.64	59	10.19	9.67	6.71	0.00	

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	1	Appendix II Metals
125 mL PLASTIC	2	Cyanide, Sulfide
40 mL GLASS	3	Appendix II VOCs
1 L GLASS	2	Appendix II Herbicides
OTHER		

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: Date: 10/27/11

Notes: °C = degrees Celsius
mS = micro-Siemen per cubic centimeter
mg/L = milligrams per liter
S.U. = standard units
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

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Surface Water Sampling Log

PROJECT NAME: Jackson Co. LF
DATE: 10/26/2011
PROJECT NUMBER: 2040.0302
WEATHER: Sunny 70°
SAMPLING PERSONNEL: E. Yurkovich

SAMPLE NAME: SW-02

COMMENTS: Downstream Surfacewater Sample

Sample time: 1432

SAMPLE METHOD: (GRAB) SYRINGE PUMP BAILER-DISP. OTHER:

TIME	TEMP (°C)	SPECIFIC COND. (µS)	DISSOLVED OXYGEN (mg/L)	pH (S.U.) *report to 0.1 S.U.*	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)	COMMENTS
1432	15.44	34	3.02	7.34	40.3	0.00	

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	1	Appendix II Metals
125 mL PLASTIC	2	Cyanide, Sulfide
40 mL GLASS	3	Appendix II VOCs
1 L GLASS	2	Appendix II Herbicides
OTHER		

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: [signature] Date: 10/26/11

Notes: °C = degrees Celsius
mS = micro-Siemen per cubic centimeter
mg/L = milligrams per liter
S.U. = standard units
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

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Well Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
SAMPLING PERSONNEL: E. Yurkovich

DATE: 10/26/2011
WEATHER: Sunny 70°
SAMPLE TIME: 1510

WELL NUMBER: DW-01
WELL DIAMETER: —
TYPE OF CASING: —
MEASURING POINT: —
FLUSH MOUNT / STICK-UP
COMMENTS: Wilkey Residence

WELL DEPTH IN FEET (WD): —
WATER LEVEL IN FEET (WL): —
LENGTH OF WATER COLUMN : — FEET
(WD) - (WL) = (LWC)
ONE CASING VOLUME: — GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: — GALLONS
ACTUAL VOLUME PURGED: 30 GALLONS

WELL CASING VOLUMES (WCV)
1" = 0.041 Gal/Ft 2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-DISP. BAILER-TEFLON DEDICATED PUMP WHALE PUMP GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-DISP. BAILER-TEFLON DEDICATED PUMP WHALE PUMP GRUNDFOS OTHER:

READING	TIME	GALLONS PURGED	TEMP (°C)	SPECIFIC COND. (µS)	DISSOLVED OXYGEN (mg/L)	pH (S.U.) *report to 0.1 S.U.*	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)	COMMENTS
1	1510	30	15.93	58	2.65	6.43	143.4	0.00	
2									
3									
4									
5									
6									
7									
8									
9									
10									

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC		
125 mL PLASTIC		
40 mL GLASS	3	VOCs 624
1 L GLASS		
OTHER		

PROTECTIVE CASING: NA PAD: NA LOCK: NA VEGETATION: NA ACCESS: Good

Sampling Personnel Signature: [signature] Date: 10/26/11

Notes: °C = degrees Celsius
µS = micro-Siemen
mg/L = milligrams per liter
S.U. = Standard Units
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

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Well Sampling Log

PROJECT NAME: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
SAMPLING PERSONNEL: E. Yurkovich

DATE: 10/26/2011
WEATHER: Sunny 70°
SAMPLE TIME: 1450

WELL NUMBER: DW-02
WELL DIAMETER: —
TYPE OF CASING: —
MEASURING POINT: —
FLUSH MOUNT / STICK-UP
COMMENTS: Bolla Residence
Sample collected from wellhead.

WELL DEPTH IN FEET (WD): —
WATER LEVEL IN FEET (WL): —
LENGTH OF WATER COLUMN : — FEET
(WD) - (WL) = (LWC)
ONE CASING VOLUME: — GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: — GALLONS
ACTUAL VOLUME PURGED: 30 GALLONS

WELL CASING VOLUMES (WCV)
1" = 0.041 Gal/Ft 2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-DISP. BAILER-TEFLON DEDICATED PUMP WHALE PUMP GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-DISP. BAILER-TEFLON DEDICATED PUMP WHALE PUMP GRUNDFOS OTHER:

READING	TIME	GALLONS PURGED	TEMP (°C)	SPECIFIC COND. (µS)	DISSOLVED OXYGEN (mg/L)	pH (S.U.) *report to 0.1 S.U.*	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)	COMMENTS
1	1450	30	15.00	51	3.02	6.09	62.0	0.00	
2									
3									
4									
5									
6									
7									
8									
9									
10									

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC		
125 mL PLASTIC		
40 mL GLASS	3	VOCs 8024
1 L GLASS		
OTHER		

PROTECTIVE CASING: OK PAD: OK LOCK: NA VEGETATION: NA ACCESS: Good

Sampling Personnel Signature: [signature] Date: 10/26/11

Notes: °C = degrees Celsius
µS = micro-Siemen
mg/L = milligrams per liter
S.U. = Standard Units
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

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Equipment Documentation & Instrument Calibration Data Sheet

Calibration Documentation

Project Name: Jackson Co. Landfill
Project Number: 2040.0302
Project Location: Dillsboro, NC

Person Conducting Calibration: E. Yurkovich
Date of Calibration: 10/20/2011
Date of Field Measurements: 10/20/11

Equipment Documentation

Equipment or meters used to take measurements (e.g. water level meters, survey equipment, etc.):

Equipment Type	Serial Number	Brand	Date of Use
150-ft Water Level	26154	Solinist	
150-ft Water Level	22754	Solinist	
150-ft Water Level	150	Testwell	
150-ft Drawdown	MP30-1527	QED	10/20/11
Other			

Micro TPW Turbidity Meter

Calibration Standards Exp Date	Instrument Serial #	Instrument Reading		
		0.02 NTU	10.0 NTU	1000 NTU
August 2013	200601045	Initial: 0.47	Initial: 10.25	Initial: 71100
		Cal: 0.01	Cal: 9.96	Cal: 1004
		Time: 745	Time: 746	Time: 747

YSI 556 Multiparameter Meter

Instrument Serial Number	07D100979						
Instrument Readings							Calibration Expiration Date
Dissolved Oxygen	Initial: 8.59	Cal: 8.83	mmHg: 707.4	Time: 726			NA
QC*	AM Time:	Meas:	Mid Day Time:	Check:	PM Time:	Check:	NA
pH 7 S.U. *report to 0.1 S.U.*	Initial: 6.93	pHmV:	Cal: 7.00	pHmV:	Time: 733		June 2013
pH 4 S.U. *report to 0.1 S.U.*	Initial: 4.03	pHmV:	Cal: 4.00	pHmV:	Time: 736		April 2013
pH 10 S.U. *report to 0.1 S.U.*	Initial: 10.07	pHmV:	Cal: 10.01	pHmV:	Time: 736		Sept 2012
QC* pH 7 S.U. *report to 0.1 S.U.*	AM Time: 745	Meas: 6.99	Mid Day Time:	Check:	PM Time:	Check:	June 2013
Spec. Cond. 447/84/23 mS**	Initial: 474	Cal: 447	Time: 730				April 2012
QC* 84 mS	AM Time: 747	Meas: 84	Mid Day Time:	Check:	PM Time:	Check:	April 2012
ORP 200 mV	Initial: 194.9	Cal: 200.0	Time: 743				October 2011

Comments:

Signature: [signature] Date: 10/20/11

Notes:
1. Electronic equipment calibrated according to the manufacturer's operation manual.
2. Specific Conductivity should be calibrated according to values representative of historic range.
3. Order of Calibration is as follows : Specific Conductivity, pH 7, pH 4, pH 10, ORP, QC checks.
4. QC Acceptable Ranges: pH +/- 0.1 S.U. and Specific Conductivity 10% of the true value. If readings are out of these ranges, meter needs to be recalibrated.
5. * Indicates that a QC check must be performed in the morning, afternoon, and the end of the day, or every four hours.
6. ** Indicates to choose a Specific Conductivity buffer of 447, 84, or 23 mS which is closest to historical readings from the project location.

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WWW.ALTAMONTENVIRONMENTAL.COM

Equipment Documentation & Instrument Calibration Data Sheet

Project Name: Jackson Co. Landfill
Project Number: 2040.0302
Project Location: Dillsboro, NC

Calibration Documentation
Person Conducting Calibration: E. Yurkovich
Date of Calibration: 10/27/2011
Date of Field Measurements: 10/27/11

Equipment Documentation
Equipment or meters used to take measurements (e.g. water level meters, survey equipment, etc.):

Equipment Type	Serial Number	Brand	Date of Use
150-ft Water Level	26154	Solinist	
150-ft Water Level	22754	Solinist	
150-ft Water Level	150	Testwell	
150-ft Drawdown	MP30-1527	QED	10/27/11
Other			

Micro TPW Turbidity Meter

Calibration Standards Exp Date	Instrument Serial #	Instrument Reading		
		0.02 NTU	10.0 NTU	1000 NTU
August 2013	200601045	Initial: 0.00	Initial: 6.35	Initial: 1059
		Cal: 0.02	Cal: 9.95	Cal: 1006
		Time: 1019	Time: 1020	Time: 1021

YSI 556 Multiparameter Meter

Instrument Serial Number	07D100979						
Instrument Readings							Calibration Expiration Date
Dissolved Oxygen	Initial: 5.94	Cal: 9.00	mmHg: 702.5	Time: 950			NA
QC*	AM Time:	Meas:	Mid Day Time:	Check:	PM Time:	Check:	NA
pH 7 S.U. *report to 0.1 S.U.*	Initial: 7.04	pHmV:	Cal: 7.00	pHmV:	Time: 958		June 2013
pH 4 S.U. *report to 0.1 S.U.*	Initial: 4.03	pHmV:	Cal: 4.00	pHmV:	Time: 1001		April 2013
pH 10 S.U. *report to 0.1 S.U.*	Initial: 10.04	pHmV:	Cal: 10.01	pHmV:	Time: 1005		Sept 2012
QC* pH 7 S.U. *report to 0.1 S.U.*	AM Time: 1016	Meas: 7.00	Mid Day Time:	Check:	PM Time:	Check:	June 2013
Spec. Cond. 447/84/23 mS**	Initial: 444	Cal: 447	Time: 953				April 2012
QC* 84 mS	AM Time: 1014	Meas: 84	Mid Day Time:	Check:	PM Time:	Check:	April 2012
ORP 200 mV	Initial: 199.8	Cal: 200.0	Time: 1012				Oct 2011

Comments:
Signature: [signature] Date: 10/27/11

Notes:
1. Electronic equipment calibrated according to the manufacturer's operation manual.
2. Specific Conductivity should be calibrated according to values representative of historic range.
3. Order of Calibration is as follows : Specific Conductivity, pH 7, pH 4, pH 10, ORP, QC checks.
4. QC Acceptable Ranges: pH +/- 0.1 S.U. and Specific Conductivity 10% of the true value. If readings are out of these ranges, meter needs to be recalibrated.
5. * Indicates that a QC check must be performed in the morning, afternoon, and the end of the day, or every four hours.
6. ** Indicates to choose a Specific Conductivity buffer of 447, 84, or 23 mS which is closest to historical readings from the project location.

APPENDIX B
Reports of Laboratory Analysis and Chain-of-Custody Documentation

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 17, 2011

Mr. Joel Lenk
Altamont Environmental
321 Haywood Street
Asheville, NC 28801

RE: Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Dear Mr. Lenk:
Enclosed are the analytical results for sample(s) received by the laboratory on October 28, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lorri Patton

Lorri Patton

lorri.patton@pacelabs.com
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Iowa Certification #: 368
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New Mexico Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: D9921
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Washington Certification #: C754
Wisconsin Certification #: 999407970

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH 0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
U.S.Virgin Islands Certification: FL NELAC Reciprocity
Virginia Certification #: 00432
Virginia Environmental Certificate #: 460165
Washington Certification #: C955
Wyoming Certification: FL NELAC Reciprocity
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Drinking Water Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460144

Asheville Certification IDs
2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia Certification #: 00072
West Virginia Certification #: 356
Virgina/VELAP Certification #: 460147

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SAMPLE SUMMARY

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92105319001	**MW-01**	Water	10/26/11 11:28	10/28/11 09:50
92105319002	**MW-02**	Water	10/27/11 12:51	10/28/11 09:50
92105319003	**MW-03**	Water	10/26/11 13:36	10/28/11 09:50
92105319004	**MW-04**	Water	10/27/11 15:21	10/28/11 09:50
92105319005	**MW-06**	Water	10/26/11 10:05	10/28/11 09:50
92105319006	**MW-07**	Water	10/27/11 14:27	10/28/11 09:50
92105319007	**SW-01**	Water	10/27/11 15:40	10/28/11 09:50
92105319008	**SW-02**	Water	10/26/11 14:32	10/28/11 09:50
92105319009	**TRIP BLANK**	Water	10/26/11 00:00	10/28/11 09:50

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SAMPLE ANALYTE COUNT

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92105319001	**MW-01**	RSK 175	SK4	3	PASI-M
		EPA 8151	LJM	5	PASI-O
		EPA 6010	JMW	16	PASI-A
		EPA 6020	CJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
		SM 2320B	SAJ	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
92105319002	**MW-02**	RSK 175	SK4	3	PASI-M
		EPA 8151	LJM	5	PASI-O
		EPA 6010	JMW	16	PASI-A
		EPA 6020	CJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
92105319003	**MW-03**	RSK 175	SK4	3	PASI-M
		EPA 8151	LJM	5	PASI-O
		EPA 6010	JMW	16	PASI-A
		EPA 6020	CJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
		SM 2320B	SAJ	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A

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SAMPLE ANALYTE COUNT

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
92105319004	**MW-04**	RSK 175	SK4	3	PASI-M
		EPA 8151	LJM	5	PASI-O
		EPA 6010	JMW	16	PASI-A
		EPA 6020	CJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
92105319005	**MW-06**	RSK 175	SK4	3	PASI-M
		EPA 8151	LJM	5	PASI-O
		EPA 6010	JMW	16	PASI-A
		EPA 6020	CJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
		SM 2320B	SAJ	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
92105319006	**MW-07**	RSK 175	SK4	3	PASI-M
		EPA 8151	LJM	5	PASI-O
		EPA 6010	JMW	16	PASI-A
		EPA 6020	CJS	1	PASI-M

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SAMPLE ANALYTE COUNT

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
92105319007	**SW-01**	EPA 8151	LJM	5	PASI-O
		EPA 6010	JMW	15	PASI-A
		EPA 6020	TL1	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
		SM 4500-S2D	AES	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
92105319008	**SW-02**	EPA 8151	LJM	5	PASI-O
		EPA 6010	JMW	15	PASI-A
		EPA 6020	TL1	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
		SM 4500-S2D	AES	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
92105319009	**TRIP BLANK**	EPA 8260	MCK	68	PASI-C

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-01 **Lab ID: 92105319001** Collected: 10/26/11 11:28 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	10.0	5.0	1		11/02/11 10:46	74-84-0	
Ethene	ND	ug/L	10.0	5.0	1		11/02/11 10:46	74-85-1	
Methane	**2060**	ug/L	10.0	5.0	1		11/02/11 10:46	74-82-8	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	**<0.23**	ug/L	0.95	0.23	1	11/01/11 08:15	11/02/11 17:04	94-75-7	
Dinoseb	**<0.058**	ug/L	0.19	0.058	1	11/01/11 08:15	11/02/11 17:04	88-85-7	1g,L2
2,4,5-T	**<0.043**	ug/L	0.19	0.043	1	11/01/11 08:15	11/02/11 17:04	93-76-5	
2,4,5-TP (Silvex)	**<0.050**	ug/L	0.19	0.050	1	11/01/11 08:15	11/02/11 17:04	93-72-1	
Surrogates									
2,4-DCPA (S)	96	%	42-142		1	11/01/11 08:15	11/02/11 17:04	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-38-2	
Barium	**83.4**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:45	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:45	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-47-3	
Cobalt	**120**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7439-92-1	
Manganese	**3250**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7439-96-5	
Nickel	**8.1**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:45	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-22-4	
Tin	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-31-5	
Vanadium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:45	7440-62-2	
Zinc	**11.7**	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:45	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020								
Thallium	**0.53**	ug/L	0.10	0.050	1	11/01/11 07:45	11/04/11 23:29	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	11/02/11 10:55	11/04/11 12:13	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 11:27	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 11:27	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 11:27	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 11:27	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 11:27	107-05-1	
Benzene	**2.1**	ug/L	1.0	0.25	1		11/06/11 11:27	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 11:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 11:27	75-27-4	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-01 **Lab ID: 92105319001** Collected: 10/26/11 11:28 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 11:27	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 11:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 11:27	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 11:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 11:27	56-23-5	
Chlorobenzene	**3.8**	ug/L	1.0	0.23	1		11/06/11 11:27	108-90-7	
Chloroethane	**0.77J**	ug/L	1.0	0.54	1		11/06/11 11:27	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 11:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 11:27	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 11:27	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 11:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 11:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 11:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 11:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		11/06/11 11:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 11:27	541-73-1	
1,4-Dichlorobenzene	**9.8**	ug/L	1.0	0.33	1		11/06/11 11:27	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 11:27	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 11:27	75-71-8	
1,1-Dichloroethane	**7.7**	ug/L	1.0	0.32	1		11/06/11 11:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 11:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 11:27	75-35-4	
cis-1,2-Dichloroethene	**10.2**	ug/L	1.0	0.19	1		11/06/11 11:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 11:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 11:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 11:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 11:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 11:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 11:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 11:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 11:27	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 11:27	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 11:27	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 11:27	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 11:27	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 11:27	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 11:27	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 11:27	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 11:27	108-10-1	
Naphthalene	**3.9**	ug/L	1.0	0.24	1		11/06/11 11:27	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 11:27	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 11:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 11:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 11:27	79-34-5	
Tetrachloroethene	**0.78J**	ug/L	1.0	0.46	1		11/06/11 11:27	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 11:27	108-88-3	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-01 **Lab ID: 92105319001** Collected: 10/26/11 11:28 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 11:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 11:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 11:27	79-00-5	
Trichloroethene	**1.0J**	ug/L	1.0	0.47	1		11/06/11 11:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 11:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 11:27	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 11:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		11/06/11 11:27	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 11:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 11:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		11/06/11 11:27	460-00-4	
Dibromofluoromethane (S)	121	%	70-130		1		11/06/11 11:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		11/06/11 11:27	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		11/06/11 11:27	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**94.0**	mg/L	5.0	5.0	1		11/09/11 16:27		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	**5.8**	mg/L	1.0	1.0	2		11/08/11 13:24		H1,N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		11/01/11 13:56	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	mg/L	5.0	5.0	1		11/01/11 18:27	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.20	0.20	1		10/28/11 22:00		H1
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	5.0	5.0	1		11/11/11 10:25	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.0051**	mg/L	0.0050	0.0050	1		11/08/11 16:28	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**12.1**	mg/L	1.0	1.0	1		11/01/11 19:41	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-02 **Lab ID: 92105319002** Collected: 10/27/11 12:51 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	10.0	5.0	1		11/03/11 17:49	74-84-0	
Ethene	ND	ug/L	10.0	5.0	1		11/03/11 17:49	74-85-1	
Methane	ND	ug/L	10.0	5.0	1		11/03/11 17:49	74-82-8	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	**<0.23**	ug/L	0.97	0.23	1	11/01/11 08:15	11/02/11 19:21	94-75-7	
Dinoseb	**<0.058**	ug/L	0.19	0.058	1	11/08/11 18:40	11/09/11 11:13	88-85-7	H2
2,4,5-T	**<0.043**	ug/L	0.19	0.043	1	11/01/11 08:15	11/02/11 19:21	93-76-5	
2,4,5-TP (Silvex)	**<0.050**	ug/L	0.20	0.050	1	11/01/11 08:15	11/02/11 19:21	93-72-1	
Surrogates									
2,4-DCPA (S)	86	%	42-142		1	11/08/11 18:40	11/09/11 11:13	19719-28-9	
2,4-DCPA (S)	82	%	42-142		1	11/01/11 08:15	11/02/11 19:21	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-38-2	
Barium	**50.5**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:49	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:49	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-47-3	
Cobalt	**6.9**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7439-92-1	
Manganese	**475**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7439-96-5	
Nickel	**5.2**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:49	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-22-4	
Tin	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-31-5	
Vanadium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:49	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:49	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020								
Thallium	**0.12**	ug/L	0.10	0.050	1	11/01/11 07:45	11/04/11 23:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	11/02/11 10:55	11/04/11 12:15	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 11:52	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 11:52	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 11:52	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 11:52	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 11:52	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		11/06/11 11:52	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 11:52	74-97-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-02 **Lab ID: 92105319002** Collected: 10/27/11 12:51 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 11:52	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 11:52	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 11:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 11:52	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 11:52	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 11:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		11/06/11 11:52	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		11/06/11 11:52	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 11:52	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 11:52	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 11:52	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 11:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 11:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 11:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 11:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		11/06/11 11:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 11:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		11/06/11 11:52	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 11:52	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 11:52	75-71-8	
1,1-Dichloroethane	**1.2**	ug/L	1.0	0.32	1		11/06/11 11:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 11:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 11:52	75-35-4	
cis-1,2-Dichloroethene	**1.4**	ug/L	1.0	0.19	1		11/06/11 11:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 11:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 11:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 11:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 11:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 11:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 11:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 11:52	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 11:52	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 11:52	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 11:52	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 11:52	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 11:52	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 11:52	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 11:52	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 11:52	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 11:52	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		11/06/11 11:52	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 11:52	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 11:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 11:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 11:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		11/06/11 11:52	127-18-4	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-02 **Lab ID: 92105319002** Collected: 10/27/11 12:51 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 11:52	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 11:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 11:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 11:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		11/06/11 11:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 11:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 11:52	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 11:52	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		11/06/11 11:52	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 11:52	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 11:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/06/11 11:52	460-00-4	
Dibromofluoromethane (S)	127	%	70-130		1		11/06/11 11:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	124	%	70-130		1		11/06/11 11:52	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		11/06/11 11:52	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**38.1**	mg/L	5.0	5.0	1		11/10/11 10:55		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	ND	mg/L	0.50	0.50	1		11/08/11 12:39		H1,N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		11/01/11 13:56	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**6.3**	mg/L	5.0	5.0	1		11/01/11 18:40	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.20	0.20	1		10/28/11 22:03		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**28.5**	mg/L	5.0	5.0	1		11/11/11 10:26	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.0061**	mg/L	0.0050	0.0050	1		11/08/11 16:39	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**3.7**	mg/L	1.0	1.0	1		11/01/11 20:11	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-03 **Lab ID: 92105319003** Collected: 10/26/11 13:36 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	10.0	5.0	1		11/02/11 10:57	74-84-0	
Ethene	ND	ug/L	10.0	5.0	1		11/02/11 10:57	74-85-1	
Methane	**56.8**	ug/L	10.0	5.0	1		11/02/11 10:57	74-82-8	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	**<0.23**	ug/L	0.96	0.23	1	11/01/11 08:15	11/02/11 19:55	94-75-7	
Dinoseb	**<0.062**	ug/L	0.21	0.062	1	11/08/11 18:40	11/09/11 11:47	88-85-7	H2
2,4,5-T	**<0.043**	ug/L	0.19	0.043	1	11/01/11 08:15	11/02/11 19:55	93-76-5	
2,4,5-TP (Silvex)	**<0.050**	ug/L	0.19	0.050	1	11/01/11 08:15	11/02/11 19:55	93-72-1	
Surrogates									
2,4-DCPA (S)	70	%	42-142		1	11/01/11 08:15	11/02/11 19:55	19719-28-9	
2,4-DCPA (S)	89	%	42-142		1	11/08/11 18:40	11/09/11 11:47	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-38-2	
Barium	**154**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:52	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:52	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-47-3	
Cobalt	**74.4**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7439-92-1	
Manganese	**7940**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7439-96-5	
Nickel	**7.4**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:52	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-22-4	
Tin	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-31-5	
Vanadium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:52	7440-62-2	
Zinc	**12.5**	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:52	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020								
Thallium	**0.051J**	ug/L	0.10	0.050	1	11/01/11 07:45	11/04/11 23:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	11/02/11 10:55	11/04/11 12:18	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 12:18	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 12:18	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 12:18	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 12:18	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 12:18	107-05-1	
Benzene	**1.2**	ug/L	1.0	0.25	1		11/06/11 12:18	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 12:18	74-97-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-03 **Lab ID: 92105319003** Collected: 10/26/11 13:36 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 12:18	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 12:18	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 12:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 12:18	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 12:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 12:18	56-23-5	
Chlorobenzene	**11.1**	ug/L	1.0	0.23	1		11/06/11 12:18	108-90-7	
Chloroethane	**0.69J**	ug/L	1.0	0.54	1		11/06/11 12:18	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 12:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 12:18	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 12:18	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 12:18	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 12:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 12:18	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 12:18	74-95-3	
1,2-Dichlorobenzene	**0.56J**	ug/L	1.0	0.30	1		11/06/11 12:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 12:18	541-73-1	
1,4-Dichlorobenzene	**11.2**	ug/L	1.0	0.33	1		11/06/11 12:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 12:18	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 12:18	75-71-8	
1,1-Dichloroethane	**2.9**	ug/L	1.0	0.32	1		11/06/11 12:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 12:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 12:18	75-35-4	
cis-1,2-Dichloroethene	**5.4**	ug/L	1.0	0.19	1		11/06/11 12:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 12:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 12:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 12:18	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 12:18	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 12:18	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 12:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 12:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 12:18	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 12:18	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 12:18	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 12:18	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 12:18	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 12:18	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 12:18	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 12:18	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 12:18	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		11/06/11 12:18	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 12:18	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 12:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 12:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 12:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		11/06/11 12:18	127-18-4	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-03 **Lab ID: 92105319003** Collected: 10/26/11 13:36 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 12:18	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 12:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 12:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 12:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		11/06/11 12:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 12:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 12:18	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 12:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		11/06/11 12:18	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 12:18	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 12:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		11/06/11 12:18	460-00-4	
Dibromofluoromethane (S)	126	%	70-130		1		11/06/11 12:18	1868-53-7	
1,2-Dichloroethane-d4 (S)	123	%	70-130		1		11/06/11 12:18	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		11/06/11 12:18	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**104**	mg/L	5.0	5.0	1		11/09/11 16:27		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	ND	mg/L	0.50	0.50	1		11/08/11 12:39		H1,N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		11/01/11 13:56	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	mg/L	5.0	5.0	1		11/01/11 18:54	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**0.41**	mg/L	0.20	0.20	1		10/28/11 22:01		H1
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**46.7**	mg/L	25.0	25.0	5		11/12/11 13:57	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		11/08/11 16:29	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**15.0**	mg/L	1.0	1.0	1		11/01/11 20:31	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-04 **Lab ID: 92105319004** Collected: 10/27/11 15:21 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	10.0	5.0	1		11/02/11 17:00	74-84-0	
Ethene	ND	ug/L	10.0	5.0	1		11/02/11 17:00	74-85-1	
Methane	**1410**	ug/L	10.0	5.0	1		11/02/11 17:00	74-82-8	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	**<0.23**	ug/L	0.96	0.23	1	11/01/11 08:15	11/02/11 20:29	94-75-7	
Dinoseb	**<0.058**	ug/L	0.19	0.058	1	11/08/11 18:40	11/09/11 12:21	88-85-7	H2
2,4,5-T	**<0.043**	ug/L	0.19	0.043	1	11/01/11 08:15	11/02/11 20:29	93-76-5	
2,4,5-TP (Silvex)	**<0.050**	ug/L	0.19	0.050	1	11/01/11 08:15	11/02/11 20:29	93-72-1	
Surrogates									
2,4-DCPA (S)	76	%	42-142		1	11/01/11 08:15	11/02/11 20:29	19719-28-9	
2,4-DCPA (S)	78	%	42-142		1	11/08/11 18:40	11/09/11 12:21	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-38-2	
Barium	**88.2**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:56	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:56	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7439-92-1	
Manganese	**1520**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7439-96-5	
Nickel	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:56	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-22-4	
Tin	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-31-5	
Vanadium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:56	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:56	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020								
Thallium	ND	ug/L	0.10	0.050	1	11/01/11 07:45	11/04/11 23:41	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.16J**	ug/L	0.20	0.10	1	11/02/11 10:55	11/04/11 12:21	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 12:43	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 12:43	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 12:43	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 12:43	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 12:43	107-05-1	
Benzene	**0.89J**	ug/L	1.0	0.25	1		11/06/11 12:43	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 12:43	74-97-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-04 **Lab ID: 92105319004** Collected: 10/27/11 15:21 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 12:43	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 12:43	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 12:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 12:43	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 12:43	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 12:43	56-23-5	
Chlorobenzene	**5.4**	ug/L	1.0	0.23	1		11/06/11 12:43	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		11/06/11 12:43	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 12:43	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 12:43	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 12:43	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 12:43	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 12:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 12:43	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 12:43	74-95-3	
1,2-Dichlorobenzene	**0.35J**	ug/L	1.0	0.30	1		11/06/11 12:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 12:43	541-73-1	
1,4-Dichlorobenzene	**6.8**	ug/L	1.0	0.33	1		11/06/11 12:43	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 12:43	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 12:43	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		11/06/11 12:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 12:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 12:43	75-35-4	
cis-1,2-Dichloroethene	**8.6**	ug/L	1.0	0.19	1		11/06/11 12:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 12:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 12:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 12:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 12:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 12:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 12:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 12:43	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 12:43	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 12:43	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 12:43	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 12:43	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 12:43	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 12:43	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 12:43	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 12:43	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 12:43	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		11/06/11 12:43	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 12:43	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 12:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 12:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 12:43	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		11/06/11 12:43	127-18-4	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-04 **Lab ID: 92105319004** Collected: 10/27/11 15:21 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 12:43	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 12:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 12:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 12:43	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		11/06/11 12:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 12:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 12:43	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 12:43	108-05-4	
Vinyl chloride	**0.89J**	ug/L	1.0	0.62	1		11/06/11 12:43	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 12:43	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 12:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		11/06/11 12:43	460-00-4	
Dibromofluoromethane (S)	126	%	70-130		1		11/06/11 12:43	1868-53-7	
1,2-Dichloroethane-d4 (S)	123	%	70-130		1		11/06/11 12:43	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		11/06/11 12:43	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**93.2**	mg/L	5.0	5.0	1		11/10/11 10:55		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	ND	mg/L	0.50	0.50	1		11/08/11 12:44		H1,N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		11/01/11 13:56	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**71.1**	mg/L	25.0	25.0	5		11/02/11 10:39	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**2.5**	mg/L	0.20	0.20	1		10/28/11 22:02		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**92.6**	mg/L	25.0	25.0	5		11/11/11 12:04	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		11/08/11 16:41	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**172**	mg/L	50.0	50.0	50		11/02/11 10:12	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-06 **Lab ID: 92105319005** Collected: 10/26/11 10:05 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	10.0	5.0	1		11/02/11 11:43	74-84-0	
Ethene	ND	ug/L	10.0	5.0	1		11/02/11 11:43	74-85-1	
Methane	**1170**	ug/L	10.0	5.0	1		11/02/11 11:43	74-82-8	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	**<0.24**	ug/L	1.0	0.24	1	11/01/11 08:15	11/02/11 21:04	94-75-7	
Dinoseb	**<0.061**	ug/L	0.20	0.061	1	11/08/11 18:40	11/09/11 12:56	88-85-7	H2
2,4,5-T	**<0.044**	ug/L	0.20	0.044	1	11/01/11 08:15	11/02/11 21:04	93-76-5	
2,4,5-TP (Silvex)	**<0.052**	ug/L	0.20	0.052	1	11/01/11 08:15	11/02/11 21:04	93-72-1	
Surrogates									
2,4-DCPA (S)	61	%	42-142		1	11/08/11 18:40	11/09/11 12:56	19719-28-9	
2,4-DCPA (S)	122	%	42-142		1	11/01/11 08:15	11/02/11 21:04	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-38-2	
Barium	**85.6**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:59	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/30/11 10:00	10/31/11 19:59	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-47-3	
Cobalt	**146**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7439-92-1	
Manganese	**8600**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7439-96-5	
Nickel	**21.9**	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:59	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-22-4	
Tin	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-31-5	
Vanadium	ND	ug/L	5.0	5.0	1	10/30/11 10:00	10/31/11 19:59	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/30/11 10:00	10/31/11 19:59	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020								
Thallium	**0.13**	ug/L	0.10	0.050	1	11/01/11 07:45	11/04/11 23:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	11/02/11 10:55	11/04/11 12:24	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 13:08	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 13:08	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 13:08	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 13:08	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 13:08	107-05-1	
Benzene	**2.3**	ug/L	1.0	0.25	1		11/06/11 13:08	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 13:08	74-97-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-06 **Lab ID: 92105319005** Collected: 10/26/11 10:05 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 13:08	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 13:08	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 13:08	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 13:08	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 13:08	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 13:08	56-23-5	
Chlorobenzene	**2.2**	ug/L	1.0	0.23	1		11/06/11 13:08	108-90-7	
Chloroethane	**3.8**	ug/L	1.0	0.54	1		11/06/11 13:08	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 13:08	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 13:08	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 13:08	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 13:08	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 13:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 13:08	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 13:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		11/06/11 13:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 13:08	541-73-1	
1,4-Dichlorobenzene	**6.0**	ug/L	1.0	0.33	1		11/06/11 13:08	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 13:08	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 13:08	75-71-8	
1,1-Dichloroethane	**3.8**	ug/L	1.0	0.32	1		11/06/11 13:08	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 13:08	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 13:08	75-35-4	
cis-1,2-Dichloroethene	**8.4**	ug/L	1.0	0.19	1		11/06/11 13:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 13:08	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 13:08	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 13:08	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 13:08	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 13:08	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 13:08	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 13:08	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 13:08	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 13:08	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 13:08	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 13:08	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 13:08	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 13:08	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 13:08	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 13:08	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 13:08	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		11/06/11 13:08	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 13:08	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 13:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 13:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 13:08	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		11/06/11 13:08	127-18-4	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-06 **Lab ID: 92105319005** Collected: 10/26/11 10:05 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 13:08	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 13:08	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 13:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 13:08	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		11/06/11 13:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 13:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 13:08	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 13:08	108-05-4	
Vinyl chloride	**0.91J**	ug/L	1.0	0.62	1		11/06/11 13:08	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 13:08	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 13:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/06/11 13:08	460-00-4	
Dibromofluoromethane (S)	125	%	70-130		1		11/06/11 13:08	1868-53-7	
1,2-Dichloroethane-d4 (S)	121	%	70-130		1		11/06/11 13:08	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		11/06/11 13:08	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**83.0**	mg/L	5.0	5.0	1		11/09/11 16:27		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	**10.3**	mg/L	2.5	2.5	5		11/08/11 13:38		H1,N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		11/01/11 13:56	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	mg/L	5.0	5.0	1		11/01/11 19:48	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.20	0.20	1		10/28/11 21:59		H1
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	5.0	5.0	1		11/11/11 10:29	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.0064**	mg/L	0.0050	0.0050	1		11/08/11 16:30	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**13.2**	mg/L	1.0	1.0	1		11/01/11 20:59	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-07 **Lab ID: 92105319006** Collected: 10/27/11 14:27 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	10.0	5.0	1		11/03/11 18:23	74-84-0	
Ethene	ND	ug/L	10.0	5.0	1		11/03/11 18:23	74-85-1	
Methane	**1360**	ug/L	10.0	5.0	1		11/03/11 18:23	74-82-8	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	**<0.23**	ug/L	0.95	0.23	1	11/01/11 08:15	11/02/11 21:38	94-75-7	
Dinoseb	**<0.058**	ug/L	0.19	0.058	1	11/08/11 18:40	11/09/11 13:30	88-85-7	H2
2,4,5-T	**<0.043**	ug/L	0.19	0.043	1	11/01/11 08:15	11/02/11 21:38	93-76-5	
2,4,5-TP (Silvex)	**<0.050**	ug/L	0.19	0.050	1	11/01/11 08:15	11/02/11 21:38	93-72-1	
Surrogates									
2,4-DCPA (S)	105	%	42-142		1	11/01/11 08:15	11/02/11 21:38	19719-28-9	
2,4-DCPA (S)	89	%	42-142		1	11/08/11 18:40	11/09/11 13:30	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-38-2	
Barium	**295**	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/31/11 11:45	11/02/11 00:00	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/31/11 11:45	11/02/11 00:00	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-47-3	
Cobalt	**5.7**	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7439-92-1	
Manganese	**187**	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7439-96-5	
Nickel	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/31/11 11:45	11/02/11 00:00	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-22-4	
Tin	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-31-5	
Vanadium	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:00	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/31/11 11:45	11/02/11 00:00	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020								
Thallium	ND	ug/L	0.10	0.050	1	11/01/11 07:45	11/04/11 23:58	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	11/02/11 10:55	11/04/11 12:26	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 13:34	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 13:34	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 13:34	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 13:34	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 13:34	107-05-1	
Benzene	**1.1**	ug/L	1.0	0.25	1		11/06/11 13:34	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 13:34	74-97-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-07 **Lab ID: 92105319006** Collected: 10/27/11 14:27 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 13:34	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 13:34	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 13:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 13:34	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 13:34	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 13:34	56-23-5	
Chlorobenzene	**6.2**	ug/L	1.0	0.23	1		11/06/11 13:34	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		11/06/11 13:34	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 13:34	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 13:34	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 13:34	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 13:34	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 13:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 13:34	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 13:34	74-95-3	
1,2-Dichlorobenzene	**0.35J**	ug/L	1.0	0.30	1		11/06/11 13:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 13:34	541-73-1	
1,4-Dichlorobenzene	**5.0**	ug/L	1.0	0.33	1		11/06/11 13:34	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 13:34	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 13:34	75-71-8	
1,1-Dichloroethane	**0.71J**	ug/L	1.0	0.32	1		11/06/11 13:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 13:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 13:34	75-35-4	
cis-1,2-Dichloroethene	**12.5**	ug/L	1.0	0.19	1		11/06/11 13:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 13:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 13:34	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 13:34	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 13:34	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 13:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 13:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 13:34	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 13:34	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 13:34	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 13:34	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 13:34	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 13:34	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 13:34	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 13:34	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 13:34	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 13:34	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		11/06/11 13:34	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 13:34	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 13:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 13:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 13:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		11/06/11 13:34	127-18-4	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: MW-07 **Lab ID: 92105319006** Collected: 10/27/11 14:27 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 13:34	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 13:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 13:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 13:34	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		11/06/11 13:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 13:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 13:34	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 13:34	108-05-4	
Vinyl chloride	**0.65J**	ug/L	1.0	0.62	1		11/06/11 13:34	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 13:34	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 13:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		11/06/11 13:34	460-00-4	
Dibromofluoromethane (S)	127	%	70-130		1		11/06/11 13:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	124	%	70-130		1		11/06/11 13:34	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		11/06/11 13:34	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**250**	mg/L	5.0	5.0	1		11/10/11 10:55		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	**2.7**	mg/L	1.0	1.0	2		11/08/11 13:27		H1,N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		11/01/11 13:56	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**42.8**	mg/L	10.0	10.0	2		11/02/11 10:53	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.20	0.20	1		10/28/11 22:16		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**45.4**	mg/L	25.0	25.0	5		11/11/11 12:10	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		11/08/11 16:43	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**13.2**	mg/L	1.0	1.0	1		11/01/11 21:09	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: SW-01 **Lab ID: 92105319007** Collected: 10/27/11 15:40 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	**<0.23**	ug/L	0.99	0.23	1	11/01/11 08:15	11/02/11 22:12	94-75-7	
Dinoseb	**<0.059**	ug/L	0.19	0.059	1	11/08/11 18:40	11/09/11 14:04	88-85-7	H2
2,4,5-T	**<0.044**	ug/L	0.20	0.044	1	11/01/11 08:15	11/02/11 22:12	93-76-5	
2,4,5-TP (Silvex)	**<0.051**	ug/L	0.20	0.051	1	11/01/11 08:15	11/02/11 22:12	93-72-1	
Surrogates									
2,4-DCPA (S)	85	%	42-142		1	11/08/11 18:40	11/09/11 14:04	19719-28-9	
2,4-DCPA (S)	77	%	42-142		1	11/01/11 08:15	11/02/11 22:12	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-38-2	
Barium	**15.3**	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/31/11 11:45	11/02/11 00:08	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/31/11 11:45	11/02/11 00:08	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/31/11 11:45	11/02/11 00:08	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-22-4	
Tin	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-31-5	
Vanadium	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:08	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/31/11 11:45	11/02/11 00:08	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020								
Thallium	ND	ug/L	0.10	0.050	1	11/07/11 09:26	11/10/11 13:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	11/02/11 10:55	11/04/11 12:29	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 13:59	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 13:59	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 13:59	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 13:59	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 13:59	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		11/06/11 13:59	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 13:59	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 13:59	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 13:59	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 13:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 13:59	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 13:59	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 13:59	56-23-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: SW-01 **Lab ID: 92105319007** Collected: 10/27/11 15:40 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Chlorobenzene	ND	ug/L	1.0	0.23	1		11/06/11 13:59	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		11/06/11 13:59	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 13:59	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 13:59	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 13:59	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 13:59	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 13:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 13:59	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 13:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		11/06/11 13:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 13:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		11/06/11 13:59	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 13:59	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 13:59	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		11/06/11 13:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 13:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 13:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		11/06/11 13:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 13:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 13:59	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 13:59	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 13:59	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 13:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 13:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 13:59	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 13:59	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 13:59	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 13:59	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 13:59	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 13:59	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 13:59	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 13:59	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 13:59	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 13:59	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		11/06/11 13:59	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 13:59	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 13:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 13:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 13:59	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		11/06/11 13:59	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 13:59	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 13:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 13:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 13:59	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		11/06/11 13:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 13:59	75-69-4	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: SW-01 **Lab ID: 92105319007** Collected: 10/27/11 15:40 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 13:59	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 13:59	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		11/06/11 13:59	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 13:59	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 13:59	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/06/11 13:59	460-00-4	
Dibromofluoromethane (S)	129	%	70-130		1		11/06/11 13:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		11/06/11 13:59	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		11/06/11 13:59	2037-26-5	
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		11/01/11 13:56	18496-25-8	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		11/08/11 16:43	57-12-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: SW-02 **Lab ID: 92105319008** Collected: 10/26/11 14:32 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	**<0.23**	ug/L	0.98	0.23	1	11/01/11 08:15	11/02/11 22:46	94-75-7	
Dinoseb	**<0.060**	ug/L	0.20	0.060	1	11/08/11 18:40	11/09/11 14:38	88-85-7	H2
2,4,5-T	**<0.044**	ug/L	0.20	0.044	1	11/01/11 08:15	11/02/11 22:46	93-76-5	
2,4,5-TP (Silvex)	**<0.051**	ug/L	0.20	0.051	1	11/01/11 08:15	11/02/11 22:46	93-72-1	
Surrogates									
2,4-DCPA (S)	86	%	42-142		1	11/01/11 08:15	11/02/11 22:46	19719-28-9	
2,4-DCPA (S)	87	%	42-142		1	11/08/11 18:40	11/09/11 14:38	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-38-2	
Barium	**14.1**	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/31/11 11:45	11/02/11 00:14	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/31/11 11:45	11/02/11 00:14	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/31/11 11:45	11/02/11 00:14	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-22-4	
Tin	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-31-5	
Vanadium	ND	ug/L	5.0	5.0	1	10/31/11 11:45	11/02/11 00:14	7440-62-2	
Zinc	**12.0**	ug/L	10.0	10.0	1	10/31/11 11:45	11/02/11 00:14	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020								
Thallium	ND	ug/L	0.10	0.050	1	11/07/11 09:26	11/10/11 13:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	11/02/11 10:55	11/04/11 12:37	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 14:25	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 14:25	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 14:25	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 14:25	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 14:25	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		11/06/11 14:25	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 14:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 14:25	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 14:25	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 14:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 14:25	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 14:25	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 14:25	56-23-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: SW-02 **Lab ID: 92105319008** Collected: 10/26/11 14:32 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Chlorobenzene	ND	ug/L	1.0	0.23	1		11/06/11 14:25	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		11/06/11 14:25	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 14:25	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 14:25	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 14:25	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 14:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 14:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 14:25	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 14:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		11/06/11 14:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 14:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		11/06/11 14:25	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 14:25	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 14:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		11/06/11 14:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 14:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 14:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		11/06/11 14:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 14:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 14:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 14:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 14:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 14:25	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 14:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 14:25	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 14:25	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 14:25	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 14:25	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 14:25	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 14:25	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 14:25	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 14:25	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 14:25	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 14:25	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		11/06/11 14:25	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 14:25	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 14:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 14:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 14:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		11/06/11 14:25	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 14:25	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 14:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 14:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 14:25	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		11/06/11 14:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 14:25	75-69-4	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: SW-02 **Lab ID: 92105319008** Collected: 10/26/11 14:32 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 14:25	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 14:25	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		11/06/11 14:25	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 14:25	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 14:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/06/11 14:25	460-00-4	
Dibromofluoromethane (S)	129	%	70-130		1		11/06/11 14:25	1868-53-7	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		11/06/11 14:25	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		11/06/11 14:25	2037-26-5	
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		11/01/11 13:56	18496-25-8	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		11/08/11 16:31	57-12-5	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: TRIP BLANK **Lab ID: 92105319009** Collected: 10/26/11 00:00 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		11/06/11 14:50	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		11/06/11 14:50	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		11/06/11 14:50	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1.9	1		11/06/11 14:50	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		11/06/11 14:50	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		11/06/11 14:50	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		11/06/11 14:50	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		11/06/11 14:50	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		11/06/11 14:50	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		11/06/11 14:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		11/06/11 14:50	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		11/06/11 14:50	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		11/06/11 14:50	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		11/06/11 14:50	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		11/06/11 14:50	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/06/11 14:50	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		11/06/11 14:50	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		11/06/11 14:50	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		11/06/11 14:50	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/06/11 14:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/11 14:50	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		11/06/11 14:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		11/06/11 14:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		11/06/11 14:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		11/06/11 14:50	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		11/06/11 14:50	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		11/06/11 14:50	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		11/06/11 14:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/06/11 14:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		11/06/11 14:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		11/06/11 14:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		11/06/11 14:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		11/06/11 14:50	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/11 14:50	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		11/06/11 14:50	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		11/06/11 14:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		11/06/11 14:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		11/06/11 14:50	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/11 14:50	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		11/06/11 14:50	97-63-2	
2-Hexanone	ND	ug/L	5.0	0.46	1		11/06/11 14:50	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		11/06/11 14:50	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		11/06/11 14:50	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		11/06/11 14:50	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		11/06/11 14:50	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		11/06/11 14:50	80-62-6	

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ANALYTICAL RESULTS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

Sample: TRIP BLANK **Lab ID: 92105319009** Collected: 10/26/11 00:00 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		11/06/11 14:50	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		11/06/11 14:50	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		11/06/11 14:50	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		11/06/11 14:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		11/06/11 14:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		11/06/11 14:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		11/06/11 14:50	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		11/06/11 14:50	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		11/06/11 14:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		11/06/11 14:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		11/06/11 14:50	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		11/06/11 14:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		11/06/11 14:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		11/06/11 14:50	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		11/06/11 14:50	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		11/06/11 14:50	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/06/11 14:50	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/06/11 14:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		11/06/11 14:50	460-00-4	
Dibromofluoromethane (S)	127	%	70-130		1		11/06/11 14:50	1868-53-7	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		11/06/11 14:50	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/06/11 14:50	2037-26-5	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: AIR/13517 Analysis Method: RSK 175
QC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 92105319001, 92105319003, 92105319005

METHOD BLANK: 1090433 Matrix: Water
Associated Lab Samples: 92105319001, 92105319003, 92105319005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	10.0	11/02/11 09:16	
Ethene	ug/L	ND	10.0	11/02/11 09:16	
Methane	ug/L	ND	10.0	11/02/11 09:16	

LABORATORY CONTROL SAMPLE & LCSD: 1090434 1090435

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	115	118	101	103	70-130	2	30	
Ethene	ug/L	106	107	110	101	104	70-130	3	30	
Methane	ug/L	60.7	61.6	63.6	102	105	70-130	3	30	

SAMPLE DUPLICATE: 1090738

Parameter	Units	20931221 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		30	
Ethene	ug/L	ND	ND		30	
Methane	ug/L	5250	5180	1	30	

SAMPLE DUPLICATE: 1090739

Parameter	Units	92105319005 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		30	
Ethene	ug/L	ND	ND		30	
Methane	ug/L	1170	1740	39	30	R1

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: AIR/13518
QC Batch Method: RSK 175
Analysis Method: RSK 175
Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 92105319004

METHOD BLANK: 1090440
Matrix: Water
Associated Lab Samples: 92105319004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	10.0	11/02/11 13:40	
Ethene	ug/L	ND	10.0	11/02/11 13:40	
Methane	ug/L	ND	10.0	11/02/11 13:40	

LABORATORY CONTROL SAMPLE & LCSD: 1090441 1090442

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	118	111	103	97	70-130	6	30	
Ethene	ug/L	106	110	104	104	98	70-130	6	30	
Methane	ug/L	60.7	63.6	61.6	105	102	70-130	3	30	

SAMPLE DUPLICATE: 1091343

Parameter	Units	259797001 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		30	
Ethene	ug/L	ND	ND		30	
Methane	ug/L	49.7	37.3	29	30	

SAMPLE DUPLICATE: 1091348

Parameter	Units	60109026009 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		30	
Ethene	ug/L	112	99.7	11	30	
Methane	ug/L	861	689	22	30	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: AIR/13537
QC Batch Method: RSK 175
Analysis Method: RSK 175
Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 92105319002, 92105319006

METHOD BLANK: 1092070
Matrix: Water
Associated Lab Samples: 92105319002, 92105319006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	10.0	11/03/11 16:09	
Ethene	ug/L	ND	10.0	11/03/11 16:09	
Methane	ug/L	ND	10.0	11/03/11 16:09	

LABORATORY CONTROL SAMPLE & LCSD: 1092071 1092072

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	107	112	94	99	70-130	5	30	
Ethene	ug/L	106	101	105	95	99	70-130	4	30	
Methane	ug/L	60.7	60.3	62.4	99	103	70-130	3	30	

SAMPLE DUPLICATE: 1092315

Parameter	Units	92105269004 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		30	
Ethene	ug/L	ND	ND		30	
Methane	ug/L	ND	ND		30	

SAMPLE DUPLICATE: 1092316

Parameter	Units	20931879 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		30	
Ethene	ug/L	ND	ND		30	
Methane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: GCSV/6244 — Analysis Method: EPA 8151
QC Batch Method: EPA 8151 — Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008

METHOD BLANK: 281742 — Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-T	ug/L	<0.042	0.19	11/02/11 14:48	
2,4,5-TP (Silvex)	ug/L	<0.049	0.19	11/02/11 14:48	
2,4-D	ug/L	<0.22	0.94	11/02/11 14:48	
Dinoseb	ug/L	<0.057	0.19	11/02/11 14:48	
2,4-DCPA (S)	%	87	42-142	11/02/11 14:48	

LABORATORY CONTROL SAMPLE: 281743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/L	1.2	1.2	99	28-161	
2,4,5-TP (Silvex)	ug/L	1.2	1.1	92	27-170	
2,4-D	ug/L	6	6.0	99	23-163	
Dinoseb	ug/L	1.2	0.10J	8	24-151	L0
2,4-DCPA (S)	%			109	42-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 282063 282064

Parameter	Units	92105319001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,5-T	ug/L	<0.043	2.4	2.4	2.0	1.2	85	50	36-169	53	40	D6
2,4,5-TP (Silvex)	ug/L	<0.050	2.4	2.4	1.9	2.1	79	88	20-176	11	40	
2,4-D	ug/L	<0.23	12	12	10.2	8.9	85	74	17-167	13	40	
Dinoseb	ug/L	<0.058	2.4	2.4	1.0	0.50	43	21	10-163	69	40	D6
2,4-DCPA (S)	%						95	89	42-142			

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: GCSV/6346 — Analysis Method: EPA 8151
QC Batch Method: EPA 8151 — Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008

METHOD BLANK: 286145 — Matrix: Water
Associated Lab Samples: 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dinoseb	ug/L	<0.057	0.19	11/09/11 06:05	
2,4-DCPA (S)	%	89	42-142	11/09/11 06:05	

LABORATORY CONTROL SAMPLE: 286146

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dinoseb	ug/L	1.2	0.95	79	24-151	
2,4-DCPA (S)	%			88	42-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 286378 286379

Parameter	Units	92105862001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dinoseb	ug/L		2.4	2.4	0.70	0.97	29	41	10-163	32	40	
2,4-DCPA (S)	%						66	74	42-142			

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: ICPM/29385 Analysis Method: EPA 6020
QC Batch Method: EPA 6020 Analysis Description: 6020 MET
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

METHOD BLANK: 1088510 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Thallium	ug/L	ND	0.10	11/04/11 21:23	

LABORATORY CONTROL SAMPLE: 1088511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	80	85.3	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1088512 1088513

Parameter	Units	259768001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	ug/L	ND	80	80	82.4	83.0	103	104	75-125	.7	20	

MATRIX SPIKE SAMPLE: 1088514

Parameter	Units	10174039003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	ND	80	80.9	101	75-125	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: ICPM/29572 | Analysis Method: EPA 6020
QC Batch Method: EPA 6020 | Analysis Description: 6020 MET
Associated Lab Samples: 92105319007, 92105319008

METHOD BLANK: 1092768 | Matrix: Water
Associated Lab Samples: 92105319007, 92105319008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Thallium	ug/L	ND	0.10	11/10/11 11:52	

LABORATORY CONTROL SAMPLE: 1092769

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	80	86.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1092770 1092771

Parameter	Units	259824001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	ug/L	ND	80	80	83.2	81.5	104	102	75-125	2	20	

MATRIX SPIKE SAMPLE: 1092772

Parameter	Units	92105319007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	ND	80	81.8	102	75-125	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: MERP/3837 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008

METHOD BLANK: 680969 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	11/03/11 16:17	

LABORATORY CONTROL SAMPLE: 680970

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.3	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 680971 680972

Parameter	Units	92105194005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	1.5	1.4	60	57	75-125	5	25	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 680973 680974

Parameter	Units	92105194006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.7	2.7	106	107	75-125	1	25	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: MPRP/9319 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005

METHOD BLANK: 680178 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	10/31/11 18:16	
Arsenic	ug/L	ND	5.0	10/31/11 18:16	
Barium	ug/L	ND	5.0	10/31/11 18:16	
Beryllium	ug/L	ND	1.0	10/31/11 18:16	
Cadmium	ug/L	ND	1.0	10/31/11 18:16	
Chromium	ug/L	ND	5.0	10/31/11 18:16	
Cobalt	ug/L	ND	5.0	10/31/11 18:16	
Copper	ug/L	ND	5.0	10/31/11 18:16	
Lead	ug/L	ND	5.0	10/31/11 18:16	
Manganese	ug/L	ND	5.0	10/31/11 18:16	
Nickel	ug/L	ND	5.0	10/31/11 18:16	
Selenium	ug/L	ND	10.0	10/31/11 18:16	
Silver	ug/L	ND	5.0	10/31/11 18:16	
Tin	ug/L	ND	5.0	10/31/11 18:16	
Vanadium	ug/L	ND	5.0	10/31/11 18:16	
Zinc	ug/L	ND	10.0	10/31/11 18:16	

LABORATORY CONTROL SAMPLE: 680179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	447	89	80-120	
Arsenic	ug/L	500	453	91	80-120	
Barium	ug/L	500	456	91	80-120	
Beryllium	ug/L	500	462	92	80-120	
Cadmium	ug/L	500	455	91	80-120	
Chromium	ug/L	500	444	89	80-120	
Cobalt	ug/L	500	452	90	80-120	
Copper	ug/L	500	460	92	80-120	
Lead	ug/L	500	453	91	80-120	
Manganese	ug/L	500	446	89	80-120	
Nickel	ug/L	500	451	90	80-120	
Selenium	ug/L	500	449	90	80-120	
Silver	ug/L	250	226	90	80-120	
Tin	ug/L	500	459	92	80-120	
Vanadium	ug/L	500	448	90	80-120	
Zinc	ug/L	500	452	90	80-120	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

MATRIX SPIKE SAMPLE: 680180

Parameter	Units	92105193001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	459	92	75-125	
Arsenic	ug/L	ND	500	473	94	75-125	
Barium	ug/L	62.2J	500	516	91	75-125	
Beryllium	ug/L	ND	500	471	94	75-125	
Cadmium	ug/L	ND	500	458	92	75-125	
Chromium	ug/L	ND	500	450	90	75-125	
Cobalt	ug/L	ND	500	455	91	75-125	
Copper	ug/L	ND	500	473	94	75-125	
Lead	ug/L	ND	500	440	88	75-125	
Manganese	ug/L	14.9J	500	459	89	75-125	
Nickel	ug/L	ND	500	449	90	75-125	
Selenium	ug/L	ND	500	464	93	75-125	
Silver	ug/L	ND	250	230	92	75-125	
Tin	ug/L	ND	500	463	93	75-125	
Vanadium	ug/L	6.9J	500	464	91	75-125	
Zinc	ug/L	29.1	500	487	92	75-125	

SAMPLE DUPLICATE: 680181

Parameter	Units	92105193002 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	33.1	34.8	5	25	
Barium	ug/L	297	303	2	25	
Beryllium	ug/L	ND	ND		25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	ND	ND		25	
Cobalt	ug/L	41.9	42.1	0	25	
Copper	ug/L	ND	ND		25	
Lead	ug/L	ND	ND		25	
Manganese	ug/L	3200	3260	2	25	
Nickel	ug/L	ND	ND		25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	ND		25	
Tin	ug/L	ND	ND		25	
Vanadium	ug/L	6.1J	6.3	3	25	
Zinc	ug/L	ND	ND		25	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: MPRP/9321 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92105319006, 92105319007, 92105319008

METHOD BLANK: 680251 | Matrix: Water
Associated Lab Samples: 92105319006, 92105319007, 92105319008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	11/01/11 23:43	
Arsenic	ug/L	ND	5.0	11/01/11 23:43	
Barium	ug/L	ND	5.0	11/01/11 23:43	
Beryllium	ug/L	ND	1.0	11/01/11 23:43	
Cadmium	ug/L	ND	1.0	11/01/11 23:43	
Chromium	ug/L	ND	5.0	11/01/11 23:43	
Cobalt	ug/L	ND	5.0	11/01/11 23:43	
Copper	ug/L	ND	5.0	11/01/11 23:43	
Lead	ug/L	ND	5.0	11/01/11 23:43	
Nickel	ug/L	ND	5.0	11/01/11 23:43	
Selenium	ug/L	ND	10.0	11/01/11 23:43	
Silver	ug/L	ND	5.0	11/01/11 23:43	
Tin	ug/L	ND	5.0	11/01/11 23:43	
Vanadium	ug/L	ND	5.0	11/01/11 23:43	
Zinc	ug/L	ND	10.0	11/01/11 23:43	

LABORATORY CONTROL SAMPLE: 680252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	470	94	80-120	
Arsenic	ug/L	500	470	94	80-120	
Barium	ug/L	500	468	94	80-120	
Beryllium	ug/L	500	495	99	80-120	
Cadmium	ug/L	500	488	98	80-120	
Chromium	ug/L	500	480	96	80-120	
Cobalt	ug/L	500	488	98	80-120	
Copper	ug/L	500	461	92	80-120	
Lead	ug/L	500	477	95	80-120	
Nickel	ug/L	500	486	97	80-120	
Selenium	ug/L	500	470	94	80-120	
Silver	ug/L	250	243	97	80-120	
Tin	ug/L	500	493	99	80-120	
Vanadium	ug/L	500	472	94	80-120	
Zinc	ug/L	500	489	98	80-120	

MATRIX SPIKE SAMPLE: 680253

Parameter	Units	92105319006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	480	96	75-125	
Arsenic	ug/L	ND	500	497	99	75-125	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

MATRIX SPIKE SAMPLE: 680253

Parameter	Units	92105319006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	295	500	751	91	75-125	
Beryllium	ug/L	ND	500	488	98	75-125	
Cadmium	ug/L	ND	500	472	94	75-125	
Chromium	ug/L	ND	500	469	94	75-125	
Cobalt	ug/L	5.7	500	477	94	75-125	
Copper	ug/L	ND	500	466	93	75-125	
Lead	ug/L	ND	500	454	91	75-125	
Nickel	ug/L	ND	500	468	94	75-125	
Selenium	ug/L	ND	500	475	95	75-125	
Silver	ug/L	ND	250	243	97	75-125	
Tin	ug/L	ND	500	491	98	75-125	
Vanadium	ug/L	ND	500	469	94	75-125	
Zinc	ug/L	ND	500	491	97	75-125	

SAMPLE DUPLICATE: 680254

Parameter	Units	92105319007 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	ND	ND		25	
Barium	ug/L	15.3	15.4	1	25	
Beryllium	ug/L	ND	ND		25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	ND	ND		25	
Cobalt	ug/L	ND	ND		25	
Copper	ug/L	ND	ND		25	
Lead	ug/L	ND	ND		25	
Nickel	ug/L	ND	ND		25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	ND		25	
Tin	ug/L	ND	ND		25	
Vanadium	ug/L	ND	ND		25	
Zinc	ug/L	ND	ND		25	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: MSV/17231 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008, 92105319009

METHOD BLANK: 683378 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008, 92105319009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/06/11 11:01	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/06/11 11:01	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/06/11 11:01	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/06/11 11:01	
1,1-Dichloroethane	ug/L	ND	1.0	11/06/11 11:01	
1,1-Dichloroethene	ug/L	ND	1.0	11/06/11 11:01	
1,1-Dichloropropene	ug/L	ND	1.0	11/06/11 11:01	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/06/11 11:01	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/06/11 11:01	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	11/06/11 11:01	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/06/11 11:01	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/06/11 11:01	
1,2-Dichloroethane	ug/L	ND	1.0	11/06/11 11:01	
1,2-Dichloropropane	ug/L	ND	1.0	11/06/11 11:01	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/06/11 11:01	
1,3-Dichloropropane	ug/L	ND	1.0	11/06/11 11:01	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/06/11 11:01	
2,2-Dichloropropane	ug/L	ND	1.0	11/06/11 11:01	
2-Butanone (MEK)	ug/L	ND	5.0	11/06/11 11:01	
2-Hexanone	ug/L	ND	5.0	11/06/11 11:01	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/06/11 11:01	
Acetone	ug/L	ND	25.0	11/06/11 11:01	
Acetonitrile	ug/L	ND	50.0	11/06/11 11:01	
Acrolein	ug/L	ND	10.0	11/06/11 11:01	
Acrylonitrile	ug/L	ND	10.0	11/06/11 11:01	
Allyl chloride	ug/L	ND	2.0	11/06/11 11:01	
Benzene	ug/L	ND	1.0	11/06/11 11:01	
Bromochloromethane	ug/L	ND	1.0	11/06/11 11:01	
Bromodichloromethane	ug/L	ND	1.0	11/06/11 11:01	
Bromoform	ug/L	ND	1.0	11/06/11 11:01	
Bromomethane	ug/L	ND	2.0	11/06/11 11:01	
Carbon disulfide	ug/L	ND	2.0	11/06/11 11:01	
Carbon tetrachloride	ug/L	ND	1.0	11/06/11 11:01	
Chlorobenzene	ug/L	ND	1.0	11/06/11 11:01	
Chloroethane	ug/L	ND	1.0	11/06/11 11:01	
Chloroform	ug/L	ND	1.0	11/06/11 11:01	
Chloromethane	ug/L	ND	1.0	11/06/11 11:01	
Chloroprene	ug/L	ND	5.0	11/06/11 11:01	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/06/11 11:01	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/06/11 11:01	
Dibromochloromethane	ug/L	ND	1.0	11/06/11 11:01	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

METHOD BLANK: 683378 Matrix: Water

Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008, 92105319009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	ND	1.0	11/06/11 11:01	
Dichlorodifluoromethane	ug/L	ND	1.0	11/06/11 11:01	
Ethyl methacrylate	ug/L	ND	1.0	11/06/11 11:01	
Ethylbenzene	ug/L	ND	1.0	11/06/11 11:01	
Iodomethane	ug/L	ND	5.0	11/06/11 11:01	
Isobutanol	ug/L	ND	100	11/06/11 11:01	
m&p-Xylene	ug/L	ND	2.0	11/06/11 11:01	
Methacrylonitrile	ug/L	ND	10.0	11/06/11 11:01	
Methyl methacrylate	ug/L	ND	2.0	11/06/11 11:01	
Methylene Chloride	ug/L	ND	1.0	11/06/11 11:01	
Naphthalene	ug/L	ND	1.0	11/06/11 11:01	
o-Xylene	ug/L	ND	1.0	11/06/11 11:01	
Propionitrile	ug/L	ND	20.0	11/06/11 11:01	
Styrene	ug/L	ND	1.0	11/06/11 11:01	
Tetrachloroethene	ug/L	ND	1.0	11/06/11 11:01	
Toluene	ug/L	ND	1.0	11/06/11 11:01	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/06/11 11:01	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/06/11 11:01	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	11/06/11 11:01	
Trichloroethene	ug/L	ND	1.0	11/06/11 11:01	
Trichlorofluoromethane	ug/L	ND	1.0	11/06/11 11:01	
Vinyl acetate	ug/L	ND	2.0	11/06/11 11:01	
Vinyl chloride	ug/L	ND	1.0	11/06/11 11:01	
1,2-Dichloroethane-d4 (S)	%	116	70-130	11/06/11 11:01	
4-Bromofluorobenzene (S)	%	96	70-130	11/06/11 11:01	
Dibromofluoromethane (S)	%	121	70-130	11/06/11 11:01	
Toluene-d8 (S)	%	96	70-130	11/06/11 11:01	

LABORATORY CONTROL SAMPLE: 683379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.0	102	70-130	
1,1,1-Trichloroethane	ug/L	50	50.0	100	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.5	95	70-130	
1,1,2-Trichloroethane	ug/L	50	52.3	105	70-130	
1,1-Dichloroethane	ug/L	50	47.9	96	70-130	
1,1-Dichloroethene	ug/L	50	51.2	102	70-132	
1,1-Dichloropropene	ug/L	50	53.4	107	70-130	
1,2,3-Trichloropropane	ug/L	50	47.2	94	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.3	105	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	52.0	104	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	51.9	104	70-130	
1,2-Dichlorobenzene	ug/L	50	55.5	111	70-130	
1,2-Dichloroethane	ug/L	50	48.4	97	70-130	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

LABORATORY CONTROL SAMPLE: 683379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloropropane	ug/L	50	51.8	104	70-130	
1,3-Dichlorobenzene	ug/L	50	54.2	108	70-130	
1,3-Dichloropropane	ug/L	50	51.4	103	70-130	
1,4-Dichlorobenzene	ug/L	50	50.7	101	70-130	
2,2-Dichloropropane	ug/L	50	53.0	106	58-145	
2-Butanone (MEK)	ug/L	100	100	100	70-145	
2-Hexanone	ug/L	100	97.5	98	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	109	109	70-140	
Acetone	ug/L	100	105	105	50-175	
Acetonitrile	ug/L	500	469	94	70-130	
Acrolein	ug/L	250	293	117	70-130	F3
Acrylonitrile	ug/L	250	250	100	70-143	
Allyl chloride	ug/L	50	51.7	103	70-130	
Benzene	ug/L	50	50.7	101	70-130	
Bromochloromethane	ug/L	50	47.7	95	70-130	
Bromodichloromethane	ug/L	50	50.8	102	70-130	
Bromoform	ug/L	50	50.7	101	70-130	
Bromomethane	ug/L	50	50.2	100	54-130	
Carbon disulfide	ug/L	50	42.7	85	70-131	
Carbon tetrachloride	ug/L	50	52.0	104	70-132	
Chlorobenzene	ug/L	50	52.0	104	70-130	
Chloroethane	ug/L	50	45.3	91	64-134	
Chloroform	ug/L	50	47.7	95	70-130	
Chloromethane	ug/L	50	46.1	92	64-130	
Chloroprene	ug/L	50	38.9	78	70-130	
cis-1,2-Dichloroethene	ug/L	50	47.0	94	70-131	
cis-1,3-Dichloropropene	ug/L	50	53.9	108	70-130	
Dibromochloromethane	ug/L	50	49.3	99	70-130	
Dibromomethane	ug/L	50	50.8	102	70-131	
Dichlorodifluoromethane	ug/L	50	44.0	88	56-130	
Ethyl methacrylate	ug/L	50	48.8	98	70-130	
Ethylbenzene	ug/L	50	53.2	106	70-130	
Iodomethane	ug/L	100	118	118	49-180	
Isobutanol	ug/L	1000	944	94	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methacrylonitrile	ug/L	500	527	105	70-130	
Methyl methacrylate	ug/L	50	49.5	99	70-130	
Methylene Chloride	ug/L	50	50.1	100	63-130	
Naphthalene	ug/L	50	53.2	106	70-138	
o-Xylene	ug/L	50	51.1	102	70-130	
Propionitrile	ug/L	500	473	95	70-130	
Styrene	ug/L	50	52.7	105	70-130	
Tetrachloroethene	ug/L	50	53.2	106	70-130	
Toluene	ug/L	50	51.0	102	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.9	96	70-130	
trans-1,3-Dichloropropene	ug/L	50	52.8	106	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	48.7	97	70-141	
Trichloroethene	ug/L	50	56.1	112	70-130	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

LABORATORY CONTROL SAMPLE: 683379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichlorofluoromethane	ug/L	50	43.6	87	62-133	
Vinyl acetate	ug/L	100	102	102	66-157	
Vinyl chloride	ug/L	50	49.6	99	69-130	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Dibromofluoromethane (S)	%			95	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 683380 683381

Parameter	Units	92105319007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	62.7	62.8	125	126	70-166	0	30	
Benzene	ug/L	ND	50	50	57.1	56.7	114	113	70-148	1	30	
Chlorobenzene	ug/L	ND	50	50	60.0	60.1	120	120	70-146	0	30	
Toluene	ug/L	ND	50	50	56.4	56.5	113	113	70-155	0	30	
Trichloroethene	ug/L	ND	50	50	52.3	52.2	105	104	69-151	0	30	
1,2-Dichloroethane-d4 (S)	%						109	112	70-130			
4-Bromofluorobenzene (S)	%						96	94	70-130			
Dibromofluoromethane (S)	%						112	114	70-130			
Toluene-d8 (S)	%						91	91	70-130			

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WET/18551 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92105319001, 92105319003, 92105319005

METHOD BLANK: 684410 Matrix: Water
Associated Lab Samples: 92105319001, 92105319003, 92105319005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	11/09/11 16:27	

LABORATORY CONTROL SAMPLE: 684411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.2	108	90-110	

SAMPLE DUPLICATE: 684412

Parameter	Units	92105319001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	94.0	94.0	0	20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WET/18571 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92105319002, 92105319004, 92105319006

METHOD BLANK: 685189 Matrix: Water
Associated Lab Samples: 92105319002, 92105319004, 92105319006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	11/10/11 10:55	

LABORATORY CONTROL SAMPLE: 685190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.8	100	90-110	

SAMPLE DUPLICATE: 685191

Parameter	Units	92105550001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	35.0	29.2	18	20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WET/18536 Analysis Method: SM 3500-Fe D#4
QC Batch Method: SM 3500-Fe D#4 Analysis Description: Iron, Ferrous
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

METHOD BLANK: 683886 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.50	11/08/11 12:32	N2

LABORATORY CONTROL SAMPLE: 683887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1.5	1.5	98	90-110	N2

SAMPLE DUPLICATE: 683888

Parameter	Units	92105319005 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	10.3	10.5	2	20	H1,N2

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WET/18433 Analysis Method: SM 4500-S2D
QC Batch Method: SM 4500-S2D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008

METHOD BLANK: 680684 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006, 92105319007, 92105319008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	11/01/11 13:56	

LABORATORY CONTROL SAMPLE: 680685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	.5	0.45	90	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 680708 680709

Parameter	Units	92105121004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	.5	.5	0.43	0.42	86	85	75-125	1	20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WETA/10877 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

METHOD BLANK: 680712 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	11/01/11 16:52	

LABORATORY CONTROL SAMPLE: 680713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.2	96	90-110	

MATRIX SPIKE SAMPLE: 680714

Parameter	Units	92105194004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	42200J ug/L	20	61.2	95	90-110	

MATRIX SPIKE SAMPLE: 680716

Parameter	Units	92105381001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.6	20	26.6	95	90-110	

SAMPLE DUPLICATE: 680715

Parameter	Units	92105194004 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	42200J ug/L	44.0	4	20	

SAMPLE DUPLICATE: 680717

Parameter	Units	92105381001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	7.6	7.6	0	20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WETA/10861 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

METHOD BLANK: 680027 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.20	10/28/11 21:55	

LABORATORY CONTROL SAMPLE: 680028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	5	4.7	93	90-110	

MATRIX SPIKE SAMPLE: 680029

Parameter	Units	92105319002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	5	4.8	95	90-110	

MATRIX SPIKE SAMPLE: 680031

Parameter	Units	92105266001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	5	4.3	85	90-110	M1

SAMPLE DUPLICATE: 680030

Parameter	Units	92105319002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 680032

Parameter	Units	92105266001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WETA/10952 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 92105319001, 92105319002, 92105319004

METHOD BLANK: 685979 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	5.0	11/11/11 10:10	

LABORATORY CONTROL SAMPLE: 685980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.2	101	90-110	

MATRIX SPIKE SAMPLE: 685981

Parameter	Units	92105274001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	ND	20	25.1	102	75-125	

SAMPLE DUPLICATE: 685982

Parameter	Units	92105274002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	389	382	2	20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WETA/10953 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 92105319005, 92105319006

METHOD BLANK: 685983 | Matrix: Water
Associated Lab Samples: 92105319005, 92105319006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	5.0	11/11/11 10:28	

LABORATORY CONTROL SAMPLE: 685984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.7	98	90-110	

MATRIX SPIKE SAMPLE: 685985

Parameter	Units	92105319005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	ND	20	21.1	106	75-125	

SAMPLE DUPLICATE: 685986

Parameter	Units	92105319006 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	45.4	46.3	2	20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WETA/10965
QC Batch Method: SM 4500-Cl-E
Analysis Method: SM 4500-Cl-E
Analysis Description: 4500 Chloride
Associated Lab Samples: 92105319003

METHOD BLANK: 686545
Matrix: Water
Associated Lab Samples: 92105319003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	5.0	11/12/11 13:55	

LABORATORY CONTROL SAMPLE: 686546

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.0	100	90-110	

MATRIX SPIKE SAMPLE: 686547

Parameter	Units	92105319003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	46.7	20	65.2	92	75-125	

SAMPLE DUPLICATE: 686548

Parameter	Units	92105512001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	23.6	23.7	0	20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WETA/10913 Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92105319001, 92105319003, 92105319005, 92105319008

METHOD BLANK: 683506 Matrix: Water
Associated Lab Samples: 92105319001, 92105319003, 92105319005, 92105319008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	11/08/11 16:12	

LABORATORY CONTROL SAMPLE: 683507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.097	97	80-120	

MATRIX SPIKE SAMPLE: 683509

Parameter	Units	92105121004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.10	99	75-125	

SAMPLE DUPLICATE: 683508

Parameter	Units	92105121004 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WETA/10914 Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92105319002, 92105319004, 92105319006, 92105319007

METHOD BLANK: 683510 Matrix: Water
Associated Lab Samples: 92105319002, 92105319004, 92105319006, 92105319007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	11/08/11 16:37	

LABORATORY CONTROL SAMPLE: 683511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	101	80-120	

MATRIX SPIKE SAMPLE: 683512

Parameter	Units	92105319002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.0061	.1	0.11	102	75-125	

SAMPLE DUPLICATE: 683513

Parameter	Units	92105319004 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

QC Batch: WETA/10878 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

METHOD BLANK: 680719 Matrix: Water
Associated Lab Samples: 92105319001, 92105319002, 92105319003, 92105319004, 92105319005, 92105319006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	11/01/11 17:21	

LABORATORY CONTROL SAMPLE: 680720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	24.3	97	90-110	

MATRIX SPIKE SAMPLE: 680721

Parameter	Units	92105379002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	9.7	25	35.0	101	75-125	

MATRIX SPIKE SAMPLE: 680723

Parameter	Units	92105319002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	3.7	25	26.6	92	75-125	

SAMPLE DUPLICATE: 680722

Parameter	Units	92105379003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	32.3	31.0	4	20	

SAMPLE DUPLICATE: 680724

Parameter	Units	92105319003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	15.0	14.6	2	20	

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QUALIFIERS

Project: Jackson Co. LF-2040.0302
Pace Project No.: 92105319

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte
PASI-M	Pace Analytical Services - Minneapolis
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

1g	Sample could not be re-extracted due to not enough volume and/or the holding time has been exceeded.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
F3	The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.
H1	Analysis conducted outside the EPA method holding time.
H2	Extraction or preparation conducted outside EPA method holding time.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold TNI accreditation for this parameter.
R1	RPD value was outside control limits.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 1

1502755

Section A Required Client Information:

Company: Altamont Environmental
Address: 831 Hayward Street
Asheville NC 28801
Email To: cgilbert@altamontenvironmental.com
Phone: 828-281-3350 Fax: 828-281-3351
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Chris Gilbert
Copy To:
Purchase Order No.:
Project Name: Jackson Co. LF
Project Number: 2040.0302

Section C Invoice Information:

Attention: Sue Brewer
Company Name: Altamont
Address: Same
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Appendix II VOCs 8260	Appendix II Metals	Appendix II Herbicides 8151	Sulfide 376.2	Cyanide 335.3	Alkalinity	Chloride	Ferrous Iron	Methane, Ethane, Ethene	Nitrate, Sulfate	Manganese	TOC	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92105319
1	MW-01	WT	G			10/26/11	1128	16	17	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X			-001
2	MW-02	WT	G			10/27/11	1251	15	17	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X			-002
3	MW-03	WT	G			10/26/11	1336	16	17	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X			-003
4	MW-04	WT	G			10/27/11	1521	15	17	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X			-004
5	MW-06	WT	G			10/26/11	1005	15	17	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X			-005
6	MW-07	WT	G			10/27/11	1427	16	17	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X			-006
7	SW-01	WT	G			10/27/11	1540	14	8	X		X	X	X					X	X	X	X	X									-007
8	SW-02	WT	G			10/26/11	1437	15	8	X		X	X	X					X	X	X	X	X									-008
9	TRIP BLANK LAB								2				X						X													-009
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
All analytical results need to include MDL and qualifiers if applicable.	Evan Yurkovich / Altamont	10/28/11	0950	[signature]	10/28/11	0950	3.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Evan Yurkovich

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/28/11

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: July 20, 2011 Page 1 of 2
	Document No.: F-ASV-CS-003-rev.06	Issuing Authorities: Pace Asheville Quality Office

Client Name: Altamont Project # 92105315

Where Received: ☐ Huntersville ☑ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: ~~IR Gun#2 -80344039~~ **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor: Add / (Subtract) 0.2 C

Corrected Cooler Temp.: 3.5 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/28/11

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6. Nox
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes ☐No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: [signature] Date: 11/1/11 **SRF Review:** [signature] Date: 11/1/11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
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November 02, 2011

Mr. Joel Lenk
Altamont Environmental
321 Haywood Street
Asheville, NC 28801

RE: Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

Dear Mr. Lenk:
Enclosed are the analytical results for sample(s) received by the laboratory on October 28, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lorri Patton

Lorri Patton

lorri.patton@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH 0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: LA090012
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL1264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
Virginia Certification #: 00432
Wyoming Certification: FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92105313001	**DW-01**	Water	10/26/11 15:10	10/28/11 09:50
92105313002	**DW-02**	Water	10/26/11 14:56	10/28/11 09:50

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SAMPLE ANALYTE COUNT

Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92105313001	**DW-01**	EPA 524.2	BCH	25	PASI-O
92105313002	**DW-02**	EPA 524.2	BCH	25	PASI-O

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ANALYTICAL RESULTS

Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

Sample: DW-01 **Lab ID: 92105313001** Collected: 10/26/11 15:10 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	71-43-2	
Carbon tetrachloride	ND	ug/L	0.50	0.25	1		10/31/11 19:38	56-23-5	
Chlorobenzene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	108-90-7	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	106-46-7	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/31/11 19:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	0.50	0.25	1		10/31/11 19:38	78-87-5	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	100-41-4	
Methylene Chloride	ND	ug/L	0.50	0.44	1		10/31/11 19:38	75-09-2	
Styrene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	100-42-5	
Tetrachloroethene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	127-18-4	
Toluene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.25	1		10/31/11 19:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.25	1		10/31/11 19:38	79-00-5	
Trichloroethene	ND	ug/L	0.50	0.25	1		10/31/11 19:38	79-01-6	
Vinyl chloride	ND	ug/L	0.50	0.25	1		10/31/11 19:38	75-01-4	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/31/11 19:38	1330-20-7	
4-Bromofluorobenzene (S)	103	%	70-130		1		10/31/11 19:38	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		10/31/11 19:38	1868-53-7	
Toluene-d8 (S)	106	%	70-130		1		10/31/11 19:38	2037-26-5	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		10/31/11 19:38	17060-07-0	

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ANALYTICAL RESULTS

Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

Sample: DW-02 **Lab ID: 92105313002** Collected: 10/26/11 14:56 Received: 10/28/11 09:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	71-43-2	
Carbon tetrachloride	ND	ug/L	0.50	0.25	1		10/31/11 20:04	56-23-5	
Chlorobenzene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	108-90-7	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	106-46-7	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/31/11 20:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	0.50	0.25	1		10/31/11 20:04	78-87-5	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	100-41-4	
Methylene Chloride	ND	ug/L	0.50	0.44	1		10/31/11 20:04	75-09-2	
Styrene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	100-42-5	
Tetrachloroethene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	127-18-4	
Toluene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.25	1		10/31/11 20:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.25	1		10/31/11 20:04	79-00-5	
Trichloroethene	ND	ug/L	0.50	0.25	1		10/31/11 20:04	79-01-6	
Vinyl chloride	ND	ug/L	0.50	0.25	1		10/31/11 20:04	75-01-4	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/31/11 20:04	1330-20-7	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/31/11 20:04	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		10/31/11 20:04	1868-53-7	
Toluene-d8 (S)	106	%	70-130		1		10/31/11 20:04	2037-26-5	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		10/31/11 20:04	17060-07-0	

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QUALITY CONTROL DATA

Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

QC Batch: MSV/4022 — Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 — Analysis Description: 524.2 MSV
Associated Lab Samples: 92105313001, 92105313002

METHOD BLANK: 281648 — Matrix: Water
Associated Lab Samples: 92105313001, 92105313002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	0.50	10/31/11 19:11	
1,1,2-Trichloroethane	ug/L	ND	0.50	10/31/11 19:11	
1,1-Dichloroethene	ug/L	ND	0.50	10/31/11 19:11	
1,2,4-Trichlorobenzene	ug/L	ND	0.50	10/31/11 19:11	
1,2-Dichlorobenzene	ug/L	ND	0.50	10/31/11 19:11	
1,2-Dichloroethane	ug/L	ND	0.50	10/31/11 19:11	
1,2-Dichloropropane	ug/L	ND	0.50	10/31/11 19:11	
1,4-Dichlorobenzene	ug/L	ND	0.50	10/31/11 19:11	
Benzene	ug/L	ND	0.50	10/31/11 19:11	
Carbon tetrachloride	ug/L	ND	0.50	10/31/11 19:11	
Chlorobenzene	ug/L	ND	0.50	10/31/11 19:11	
cis-1,2-Dichloroethene	ug/L	ND	0.50	10/31/11 19:11	
Ethylbenzene	ug/L	ND	0.50	10/31/11 19:11	
Methylene Chloride	ug/L	ND	0.50	10/31/11 19:11	
Styrene	ug/L	ND	0.50	10/31/11 19:11	
Tetrachloroethene	ug/L	ND	0.50	10/31/11 19:11	
Toluene	ug/L	ND	0.50	10/31/11 19:11	
trans-1,2-Dichloroethene	ug/L	ND	0.50	10/31/11 19:11	
Trichloroethene	ug/L	ND	0.50	10/31/11 19:11	
Vinyl chloride	ug/L	ND	0.50	10/31/11 19:11	
Xylene (Total)	ug/L	ND	0.50	10/31/11 19:11	
1,2-Dichloroethane-d4 (S)	%	103	70-130	10/31/11 19:11	
4-Bromofluorobenzene (S)	%	94	70-130	10/31/11 19:11	
Dibromofluoromethane (S)	%	104	70-130	10/31/11 19:11	
Toluene-d8 (S)	%	99	70-130	10/31/11 19:11	

LABORATORY CONTROL SAMPLE & LCSD: 281649 281650

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	5	5.3	5.4	107	108	70-130	1	40	
1,1,2-Trichloroethane	ug/L	5	5.2	5.2	104	105	70-130	.5	40	
1,1-Dichloroethene	ug/L	5	5.6	5.6	111	111	70-130	.02	40	
1,2,4-Trichlorobenzene	ug/L	5	3.6	4.0	71	80	70-130	12	40	
1,2-Dichlorobenzene	ug/L	5	4.8	4.8	97	97	70-130	.2	40	
1,2-Dichloroethane	ug/L	5	5.2	5.5	105	110	70-130	4	40	
1,2-Dichloropropane	ug/L	5	5.1	4.8	102	96	70-130	5	40	
1,4-Dichlorobenzene	ug/L	5	4.5	4.6	90	91	70-130	2	40	
Benzene	ug/L	5	5.3	5.3	107	106	70-130	.8	40	
Carbon tetrachloride	ug/L	5	5.3	5.2	105	104	70-130	1	40	
Chlorobenzene	ug/L	5	4.9	4.9	98	98	70-130	.4	40	
cis-1,2-Dichloroethene	ug/L	5	5.2	4.9	104	98	70-130	6	40	

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QUALITY CONTROL DATA

Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

LABORATORY CONTROL SAMPLE & LCSD: 281649 281650

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethylbenzene	ug/L	5	4.7	4.5	93	91	70-130	3	40	
Methylene Chloride	ug/L	5	5.6	5.8	112	116	70-130	4	40	
Styrene	ug/L	5	4.8	4.7	96	94	70-130	3	40	
Tetrachloroethene	ug/L	5	5.7	5.5	114	110	70-130	3	40	
Toluene	ug/L	5	5.5	5.3	109	107	70-130	2	40	
trans-1,2-Dichloroethene	ug/L	5	5.3	5.2	105	104	70-130	1	40	
Trichloroethene	ug/L	5	5.4	5.2	107	105	70-130	2	40	
Vinyl chloride	ug/L	5	5.3	5.5	106	110	70-130	3	40	
Xylene (Total)	ug/L		15.2	13.8				9		
1,2-Dichloroethane-d4 (S)	%				102	103	70-130			
4-Bromofluorobenzene (S)	%				104	103	70-130			
Dibromofluoromethane (S)	%				103	103	70-130			
Toluene-d8 (S)	%				106	104	70-130			

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without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: JACKSON CO LF DW 10/26
Pace Project No.: 92105313

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach

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Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1502741

Section A Required Client Information:

Company: Altamont Environmental
Address: 231 Haywood Street, Asheville NC 28801
Email To: cgilbert@altamontenvironmental.com
Phone: 828-281-3350 Fax: 828-281-3351
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Chris Gilbert
Copy To:
Purchase Order No.:
Project Name: Jackson Co. LF
Project Number: 2040.0302

Section C Invoice Information:

Attention: Sue Brewer
Company Name: Altamont
Address: Same
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Analysis Test: VOCs 524.2

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DW-01	WT	G			10/26/11	1510	16	3			/	X					X		92105313001
2	DW-02	WT	G			10/26/11	1450	15	3				X					X		92105313002
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Evan Yurkovich / Altamont	10/28/11	0950	[signature]	10/28/11	0950	2.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Evan Yurkovich

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 10/28/11

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: July 20, 2011 Page 1 of 2
	Document No.: F-ASV-CS-003-rev.06	Issuing Authorities: Pace Asheville Quality Office

Client Name: Altavon T Project # 92105313

Where Received: ☐ Huntersville ☑ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun#2 -80344039 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

Temp Correction Factor: Add / Subtract 0.2 C

Corrected Cooler Temp.: 2.5 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Optional
Proj. Due Date:
Proj. Name:

Date and Initials of person examining contents: 10/28

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes	☐No		Initial when completed
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes	☐No	☐N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):_____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: [signature] Date: 11/1/11 **SRF Review:** [signature] Date: 11/1/11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

APPENDIX C
Environmental Monitoring Form
and
Electronic Submittal of Environmental Monitoring Data 5002Oct2011 (CD only)

DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Altamont Environmental, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Marta A. VanDussen, EIT Phone: (828) 281-3350

E-mail: mvandussen@altamontenvironmental.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Jackson County Municipal Solid Waste Landfill	US Highway 441 Dillsboro, NC 28725	50-02	.1600	October 26-27, 2011

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☐ Detection Monitoring ☐ Assessment Monitoring ☒ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☒ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☒ Corrective action data (specify) Natural Attenuation Parameters
☐ Other(specify)

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Christopher F. Gilbert, P.E. Project Engineer (828) 281-3350

Facility Representative Name (Print) Title (Area Code) Telephone Number

Signature 09/11/2012 Date

Affix NC Licensed/ Professional ~~Geologist~~ ENGINEER Seal

NORTH CAROLINA PROFESSIONAL SEAL 030224 ENGINEER CHRISTOPHER F GILBERT

231 Haywood Street, Asheville, North Carolina 28801

Facility Representative Address

C-2185

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

APPENDIX D
Monitoring Well MW-05R
Lithology Boring Log

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Boring Log Form

Project Name	Jackson County	LITHOLOGIC LOG SHEET	Boring Name MW-05R
Project No.	2040		Sheet 1 of 1
Geologist	Evan Yurkovich		Total Depth 54'
Driller	NYEG Drilling		Groundwater 50.93'
Rig Type	Geoprobe 7720 DT	Date Begun 1/26/2012	
Method Used	3¼" ID Hollow Stem Auger	Date Completed 1/26/2012	
Weather			

Location Diagram

See attached map

Sampling Method	Blow Count	Location Sampled	Recovery	Depth in Feet	Soil Graph	Lithologic Description
						(0-5') Topsoil down to light Brown, silty CLAY, moist.
				5		(5-10') blackish Brown CLAY to greyish Black CLAY, moist, micaeous.
				10		(10-15') brownish Grey clayey SILT to brownish Grey silty CLAY, loose, moist, micaeous.
				15		(15-25') Grey silty CLAY, moist, micaeous.
				20		(20-25') Grey silty CLAY, moist.
				25		(24') Water bearing zone
						(25-54') brownish Grey CLAY, saturated.
				30		
				35		
				40		
				45		
				50		
				55		(54') Terminal depth.

WELL NUMBER MW-05R

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY

CLIENT Jackson County
PROJECT NAME Closed Jackson County Landfill
PROJECT NUMBER 2040
PROJECT LOCATION Dillsboro, North Carolina
DATE STARTED 1/26/12 **COMPLETED** 1/26/12
GROUND ELEVATION ____ **HOLE SIZE** 7-inch
DRILLING CONTRACTOR NYEG Drilling, LLC
GROUND WATER LEVELS:
DRILLING METHOD Geoprobe 7720DT
AT TIME OF DRILLING ---
LOGGED BY Evan Yurkovich **CHECKED BY** ____
AT END OF DRILLING ---
NOTES ____
AFTER DRILLING 50.9 ft

DEPTH (ft)	SAMPLE TYPE	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					Topsoil (1.0)	
			CL		Light brown, silty clay, moist. (5.0)	
5			CL		Blackish brown clay to greyish black clay, moist, micaeous. (10.0)	
10			CL-ML		Brownish grey clayey silt to brownish grey silty clay, loose, moist. (15.0)	
15			CL		Grey silty clay, moist, micaeous. (25.0)	Cement Grout
20						
25		Water bearing zone	CL		Brownish grey clay, saturated.	
30						
35						

GEN BH/TP/WELL 021510 MW-05R.GPJ GINT US.GDT 2/8/12

(Continued Next Page)

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY

CLIENT Jackson County
PROJECT NAME Closed Jackson County Landfill
PROJECT NUMBER 2040
PROJECT LOCATION Dillsboro, North Carolina

DEPTH (ft)	SAMPLE TYPE	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35						
			CL		Brownish grey clay, saturated. *(continued)*	
40						Bentonite Seal
45						
						Sand #2
						2" PVC Sch. 80 0.010" slot
50						
					54.0	
					Boring terminated at 54.0 feet.	

APPENDIX E
Monitoring Well MW-05R
Non-Residential Well Construction Record

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 4097-B

1. WELL CONTRACTOR:

Norman Wayne Mowbray
Well Contractor (Individual) Name

NYEG Drilling LLC.
Well Contractor Company Name

3440 Augusta Road
Street Address

Greenville NC 29605
City or Town State Zip Code

(864) 331-3745
Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT#

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable)

3. WELL USE (Check One Box) Monitoring ☑ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)

DATE DRILLED 1-26-12

4. WELL LOCATION:

Green Energy Park Road
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: Dillsboro COUNTY Jackson

TOPOGRAPHIC / LAND SETTING: (check appropriate box)
☑ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other

LATITUDE ___°___'___" DMS OR ___ DD

LONGITUDE ___°___'___" DMS OR ___ DD

Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map andattached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

Jackson County Closed MSW
Facility Name Facility ID# (if applicable)

Green Energy Park Road
Street Address

Dillsboro NC
City or Town State Zip Code

Contact Name

Mailing Address

City or Town State Zip Code

( )
Area code Phone number

6. WELL DETAILS:

a. **TOTAL DEPTH:** 54'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☑ NO ☐

c. **WATER LEVEL** Below Top of Casing: ___ FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** 2.8 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** ___ **METHOD OF TEST** ___

f. **DISINFECTION: Type** ___ **Amount** ___

g. **WATER ZONES** (depth):
Top ___ Bottom ___ Top ___ Bottom ___
Top ___ Bottom ___ Top ___ Bottom ___
Top ___ Bottom ___ Top ___ Bottom ___

7. CASING:	Depth		Diameter	Thickness/ Weight	Material
Top +2.8	Bottom 44	Ft.	2"	40	PVC
Top	Bottom	Ft.			
Top	Bottom	Ft.			

8. GROUT:	Depth		Material	Method
Top 0	Bottom 39.5	Ft.	Bent/Cement	Tremie
Top	Bottom	Ft.		
Top	Bottom	Ft.		

9. SCREEN:	Depth		Diameter	Slot Size	Material
Top 44	Bottom 54	Ft.	2 in.	.010 in.	PVC
Top	Bottom	Ft.	in.	in.	
Top	Bottom	Ft.	in.	in.	

10. SAND/GRAVEL PACK:	Depth		Size	Material
Top 42.5	Bottom 54	Ft.	#2	Sand
Top	Bottom	Ft.		
Top	Bottom	Ft.		

11. DRILLING LOG

Top	Bottom	Formation Description

12. REMARKS:

~~MW-05R~~

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Norman Wayne Mowbray Jr. 1-27-12
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Norman Wayne Mowbray
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b
Rev. 2/09

APPENDIX F
Monitoring Well MW-05
Well Abandonment Record

WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 4097-B

1. WELL CONTRACTOR:

Norman Wayne Mowbray
Well Contractor (Individual) Name

NYEG Drilling LLC.
Well Contractor Company Name

3440 Augusta Road
Street Address

Greenville | SC | 29605
City or Town | State | Zip Code

(864) 331-3745
Area code Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) MW-05

STATE WELL PERMIT # (if applicable) _____

COUNTY WELL PERMIT # (if applicable) _____

DWQ or OTHER PERMIT # (if applicable) _____

WELL USE (Check applicable use) ☑ **Monitoring** ☐ **Residential**

☐ **Municipal/Public** ☐ **Industrial/Commercial** ☐ **Agricultural**

☐ **Recovery** ☐ **Injection** ☐ **Irrigation**

☐ Other (list use) _____

3. WELL LOCATION:

COUNTY Jackson QUADRANGLE NAME _____

NEAREST TOWN: Dillsboro

Green Energy Park Road
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHC / LAND SETTING:

☑ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other _____
(Check appropriate setting)

LATITUDE ___ °___'___"DMS OR

LONGITUDE ___ °___'___"DMS OR

Latitude/longitude source: ☐GPS ☐Topographic map
(location of well must be shown on a USGS topo map andattached to this form if not using GPS)

4a. FACILITY - The name of the business where the well is located. Complete 4a a
(If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Jackson County Closed MSW Landfill

STREET ADDRESS Green Park Energy Road

Dillsboro | NC
City or Town | State | Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME _____

STREET ADDRESS _____

5. WELL DETAILS:

a. Total Depth 60 ft. Diameter: 2 in.

b. Water Level (Below Measuring Point): _____ ft.

Measuring point is _____ ft. above land surface.

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	60 ft.	2 in.
b. Casing Removed:	___ ft.	___ in.

7. DISINFECTION: _____

(Amount of 65%75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Cement _____ lb.
Water _____ gal.

Sand Cement

Cement _____ lb.
Water _____ gal.

Bentonite

Bentonite lb.

Type: ☐ Slurry ☐ Pellets

Water _____ gal.

Other

Type material Bentonite Cement Grout

Amount 10 gallons

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

~~Tremie grout from the bottom up. Remove existing protective casing.~~

10. WELL DIAGRAM : Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used

11. DATE WELL ABANDONED 1-26-12

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Norman Wayne Mowbray Jr. 1-27-12
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

_____
SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Norman Wayne Mowbray
PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-1617, Phone : (919) 807-6300

Form GW-30
Rev. 5/10