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)
Madison County Operating Solid Waste Facility	271 Craig Rudisill Road Marshall, NC 28714	58-03	.0500 & .1600	October 16-17, 2012

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) _____
☐ 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.

Andrew Moore, P.G. Project Geologist (828) 281-3350

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

Signature 2-12-2013 Date

Affix NC Licensed/ Professional Geologist Seal

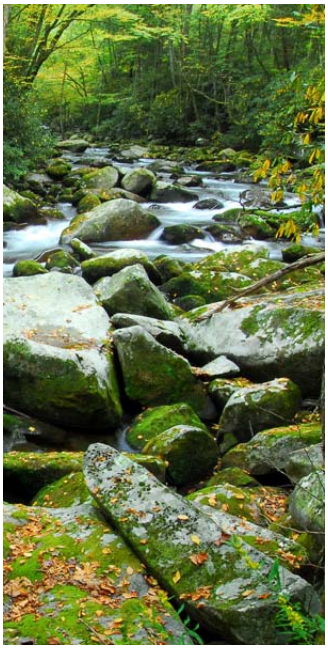
NORTH CAROLINA LICENSED SEAL 2339 GEOLOGIST ANDREW W. MOORE

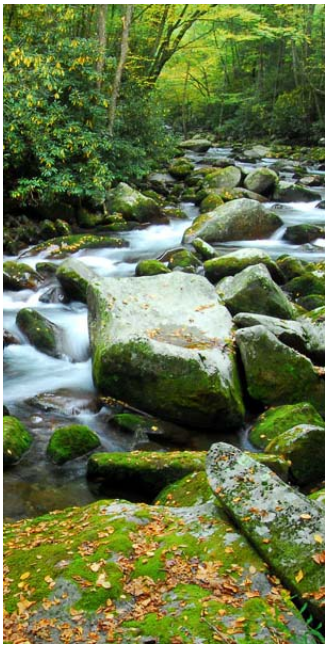
231 Haywood Street, Asheville, North Carolina 28801

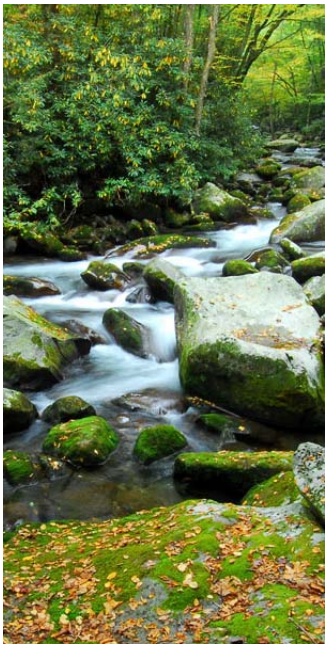
Facility Representative Address

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

Revised 6/2009







ALTAMONT ENVIRONMENTAL, INC.

ENGINEERING & HYDROGEOLOGY

Fall 2012 Semiannual Water Quality Monitoring Report

Madison County Operating Solid Waste Facility

Madison County, North Carolina Permit No. 58-03

February 12, 2013

Prepared for
Madison County, North Carolina
Project Number 2313.12

Prepared by
Altamont Environmental, Inc.
231 Haywood Street
Asheville, NC 28801
(828) 281-3350

Fall 2012 Semiannual Water Quality Monitoring Report

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February 12, 2013

NORTH CAROLINA LICENSED SEAL 2235 GEOLOGIST ANDREW W. MOORE

Andrew W. Moore, P.G.
Project Geologist

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1.0 Introduction

The Madison County Solid Waste Department operates a solid waste facility (Operating Landfill) located on Craig Rudisill Road, west of U.S. Highway 25/70 near Marshall, North Carolina. The site location map is included as Figure 1. The Operating Landfill includes the following permitted components:

- Operating Construction and Demolition Debris (C&D) landfill cell (Permit No. 58-03)
- Operating transfer station (Permit No. 58-03T)
- Closed C&D landfill cell (Permit No. 58-03)
- Closed Municipal Solid Waste (MSW) landfill cell (Permit No. 58-03)

The facility also contains a leachate underground holding tank that was installed in August 2011. Previously, the leachate sample was collected from a lined leachate basin that is no longer in use.

State regulations applicable to landfills are enforced by the North Carolina Department of Environment and Natural Resources (DENR), Division of Waste Management (DWM). This solid waste facility is permitted by the DENR DWM under Permit No. 58-03. The permit requires semiannual monitoring of groundwater, surface water, and leachate quality.

This report documents the second semiannual groundwater, surface water, and leachate monitoring event for 2012, and is being submitted in accordance with requirements stipulated in the DENR Solid Waste Management Rules, Title 15A, Subchapter 13B, of the North Carolina Administrative Code (15A NCAC 13B).

This semiannual report provides an evaluation of groundwater, surface water, and leachate quality for the solid waste facility.

The water quality monitoring network for the operating landfill consists of nine compliance monitoring wells (MW-01, MW-02, MW-03, MW-04, MW-05, MW-06R, MW-07R, MW-08, and MW-09), two surface water sample locations (SW-01 and SW-02R) located along a tributary to Walnut Creek, and a leachate sample (LT-1) collected from the fill port on the underground holding tank.

2.0 Methods

On October 16 and 17, 2012, Altamont Environmental, Inc. (Altamont) collected nine groundwater samples from monitoring wells, two surface water samples from a tributary to Walnut Creek, and one aqueous sample from the leachate underground holding tank located at the Madison County Operating Solid Waste Facility. One of the monitoring wells sampled, MW-06R, is upgradient from the landfill. Groundwater collected from this well is assumed to represent background groundwater quality at the site. This monitoring well was installed on September 30, 2008 as a replacement for the pre-existing background monitoring well, MW-06, which has historically been dry and contained only approximately 1 foot of water during this sampling event. Sampling locations are shown on Figures 2 and 3.

2.1 Groundwater Purging and Sampling Methods

Prior to collecting groundwater samples from the monitoring wells, the static water level was measured and recorded for each well. The monitoring wells were purged and sampled using low-flow techniques in accordance with the procedures described in *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, United States Environmental Protection Agency (EPA), Groundwater Issues (Puls and Barcelona, 1996). During purging, pH, specific conductivity (SC), dissolved oxygen (DO), oxidation-reduction potential (ORP), turbidity, and temperature were measured and recorded approximately every 3 minutes. Well purging continued until these parameters stabilized for three consecutive readings. The required stabilization criteria are as follows:

- pH values within +/- 0.1 pH unit
- SC values within +/- 3 percent
- Temperature, DO, and turbidity values within +/- 10 percent
- ORP values within +/- 10 millivolts

Following stabilization of these parameters, a groundwater sample was collected using laboratory-supplied sample containers by a technician wearing a new pair of non-reactive nitrile gloves. Low-flow sampling logs are included in Appendix A.

2.2 Surface Water Sampling Methods

Surface water samples SW-01 and SW-02R were collected at designated locations from an unnamed tributary to Walnut Creek that flows in a northerly direction adjacent to the western border of the Operating Landfill (Figure 2). Sample SW-01 is considered representative of surface water quality upstream of the Operating Landfill; sample SW-02R is considered representative of surface water quality downstream from the landfill. Surface water samples were collected in laboratory-supplied sample containers by a technician wearing a new pair of non-reactive nitrile gloves. As with groundwater sampling, temperature, pH, SC, DO, ORP, and turbidity were measured and recorded at each surface water sampling location prior to sample collection. Field parameters and observations pertaining to surface water quality are provided on sampling logs included in Appendix A.

2.3 Leachate Sampling Methods

One aqueous sample was collected from the leachate underground holding tank, LT-1 (Leachate Tank Sample Location 1). Leachate was previously collected from a lined storage basin. On August 12, 2011, the leachate underground holding tank was installed and connected to the leachate collection piping associated with the closed MSW landfill cell. Shortly thereafter during August 2011, the lined leachate basin was

closed. The leachate sample LT-1 was collected from one of the tank's fill ports using a new disposable polyethylene bailer. One round of field parameters (as described above) was measured and recorded for the sample LT-1 (see Appendix A). Leachate collected in the holding tank at the site is trucked, as needed, to the Metropolitan Sewerage District (MSD) treatment facility for the town of Marshall, North Carolina.

2.4 Sample Handling, Documentation, and Analysis

Field parameters for groundwater and surface water were measured and the results are provided on sampling logs (Appendix A). Following sample collection, each 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. Well construction details are included in Table 1. Altamont submitted the groundwater, surface water, and leachate samples for the required analyses summarized in Table 2.

Proper chain-of-custody documentation procedures were followed during collection and transport of each sample. A trip blank provided by the laboratory was placed in the sample cooler and analyzed for Appendix I volatile organic compounds (VOCs). The laboratory analytical reports and chain-of-custody documentation are provided in Appendix B.

3.0 Findings

3.1 Analytical Results

The field parameter data and laboratory analytical results for groundwater, surface water, the leachate sample, and trip blank collected at the operating landfill are included in Appendices A and B respectively, in hard copy and also in Appendix C, in the Electronic Data Deliverable (EDD) format specified by the DENR Solid Waste Section (SWS) 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, non-detections were reported at the laboratory-specific method detection limit (MDL), and all concentrations exceeding the MDL were reported and appropriately qualified (Tables 3, 4, 5, and 6). The MDL is the minimum concentration of a substance that can be measured and reported by a laboratory with 99 percent confidence that the analyte concentration is greater than zero. The laboratory's method reporting limit (MRL) is the minimum concentration of a target analyte that can be accurately determined by the referenced method. MRL is listed in the "Practical Quantitation Limit" (PQL) column in the Pace laboratory analytical report (Appendix B). All detections were compared to analyte-specific Solid Waste Section Limits (SWSLs) established by the SWS. The SWSL is the lowest concentration, determined by the SWS, of an analyte in a sample that can be quantitatively determined with suitable precision and accuracy. If the reported concentration is greater than the laboratory MRL and less than the SWSL, the analytical result is qualified as estimated, and is flagged with a "*J*" qualifier (italicized *J*-flag) by Altamont per the DENR requirement. A "J" qualifier (non-italicized) is assigned by the laboratory and is used for parameters detected at estimated concentrations greater than the MDL but less than the MRL. Detected concentrations of constituents below the applicable SWSLs are not reported in the text of this report, unless they exceed their applicable North Carolina water quality standard.

Detected concentrations of analytes in groundwater samples were compared to the values specified by 15A NCAC 2L.0202 groundwater quality standards (2L standards). Detected concentrations of analytes in groundwater with no established 2L standards were compared to an updated list of the interim maximum allowable concentrations (IMACs) for Class GA and GSA groundwater (in accordance with 15A NCAC 02L .0202 [c]) or to the Groundwater Protection Standard (GWPS) pursuant to 15A NCAC 13B.1634. Detections of analytes in surface water samples were compared to the standard from the 15A NCAC 2B.0200 surface water quality standards (2B standard).

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 EDD as 5803-MW01. In the tables, figures, and text of this report, however, the identification of a well consists only of the name of the well (MW-01) and does not include the permit number for the facility.

3.1.1 Groundwater Monitoring Wells

The following sections summarize the results of laboratory and field parameter analyses of groundwater samples.

3.1.1.1 Appendix I Metals

Six metals (barium, chromium, cobalt, nickel, vanadium, and zinc) were detected above their respective MDL in one or more of the monitoring wells (Table 3). Three metals (barium, cobalt, and zinc) were detected above their SWSLs in one or more of the monitoring wells (Table 4). Cobalt was detected above the 2L standard in MW-02 and MW-03. Vanadium was detected above the 2L standard in MW-06R, MW-07R, and MW-08 (Table 5).

It should be noted that the measured turbidity values for the groundwater samples from all of the monitoring wells ranged from 0.00 (for MW-04) to 138.20 (for MW-07R) nephelometric turbidity units (NTUs) (Table 3).

3.1.1.2 Appendix I VOCs

No VOCs were detected in any of the groundwater samples collected from the monitoring wells.

3.1.1.3 Field Parameters

Field parameters were recorded during sampling activities on October 16 and 17, 2012. Measured pH values for all samples collected from monitoring wells were slightly below the 2L standard pH range of 6.5 to 8.5 Standard Units (SU) (Table 3).

3.1.2 Surface Water

The following sections summarize the results of laboratory and field parameter analyses of surface water samples.

3.1.2.1 Appendix I Metals

Ten metals (arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc) were detected in the surface water samples above their respectiveaf MDL in at least one surface water sampling location (Table 3). Eight metals (barium, beryllium, chromium, cobalt, copper, lead, vanadium, and zinc) were detected in surface water samples at concentrations above their SWSLs (Table 4). Chromium, cobalt, copper, lead, and zinc were detected in the upstream surface water sample location above their 2B standards. Copper and zinc were detected in the downstream surface water sample location above their 2B standards (Table 5).

3.1.2.2 Appendix I VOCs

No VOCs were detected in either of the surface water samples.

3.1.2.3 Field Parameters

The pH value for SW-01 sample was slightly below the 2B standard pH range of 6.0 to 9.0 SU (Table 3).

3.1.3 Leachate

Analytical results for the leachate sample collected from the leachate underground holding tank are summarized in Table 6 and discussed below.

3.1.3.1 Appendix I Metals

Five metals (barium, cobalt, copper, nickel, and zinc) were detected in the aqueous sample collected from the leachate storage tank. Three metals (barium, cobalt, and zinc) were detected above their associated SWSLs.

3.1.3.2 Appendix I VOCs

No VOCs were detected in the aqueous leachate sample (LT-1).

3.1.3.3 Inorganics

The aqueous leachate sample (LT-1) was also analyzed for biological oxygen demand (BOD), chemical oxygen demand (COD), nitrogen/nitrate, phosphorus, and sulfate. The analytical results for these additional parameters are summarized in Table 6.

4.0 Hydrogeology

The predominant groundwater flow direction within the regolith overlying the bedrock at the operating landfill appears to be west-northwest, toward an unnamed tributary of Walnut Creek. Figure 3 depicts the generalized groundwater flow direction, based on groundwater measurements taken by Altamont on October 16 and 17, 2012. Water-level data are summarized on Table 1.

5.0 Summary

Altamont completed the second semiannual water quality monitoring event of 2012 at the Madison County Operating Solid Waste Landfill on October 16 and 17, 2012.

Tables 3, 4, 5, and 6 of this report, sampling logs in Appendix A, the Pace Report of Laboratory Analysis in Appendix B, and the EDD in Appendix C provide detailed analytical results and field data used to interpret groundwater and surface water quality at the operating landfill.

5.1 Future Activities

Altamont will continue to measure field parameters and collect water quality samples from groundwater, surface water and leachate monitoring points associated with the operating landfill. Water quality samples will be submitted to a North Carolina certified laboratory for analysis for Appendix I metals and VOCs on a semiannual basis. The next sampling event is scheduled for April 2013.

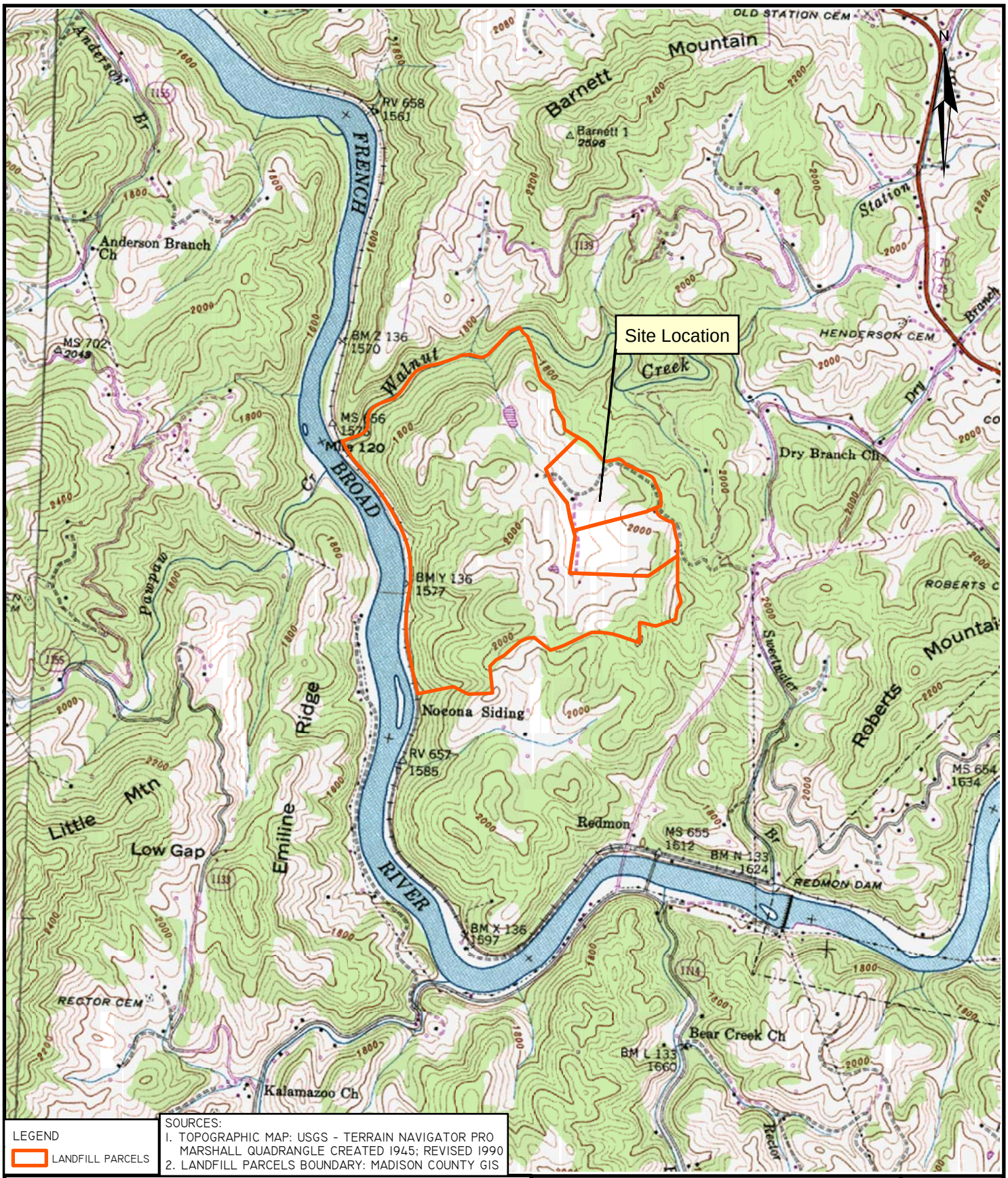
6.0 References

DENR DWM Solid Waste Section (SWS). October 27, 2006. *New Guidelines for Electronic Submittal of Environmental Monitoring Data.*

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

Puls, R.W., and M. J. Barcelona. 1996. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, U.S. Environmental Protection Agency, OSWER, EPA/540/S-95/504.

FIGURES



LEGEND

LANDFILL PARCELS

SOURCES:
1. TOPOGRAPHIC MAP: USGS - TERRAIN NAVIGATOR PRO MARSHALL QUADRANGLE CREATED 1945; REVISED 1990
2. LANDFILL PARCELS BOUNDARY: MADISON COUNTY GIS

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

DRAWN BY: MARTA VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: MADISON COUNTY
DATE: 12/17/2012

SCALE
0 500 1,000 2,000 FEET

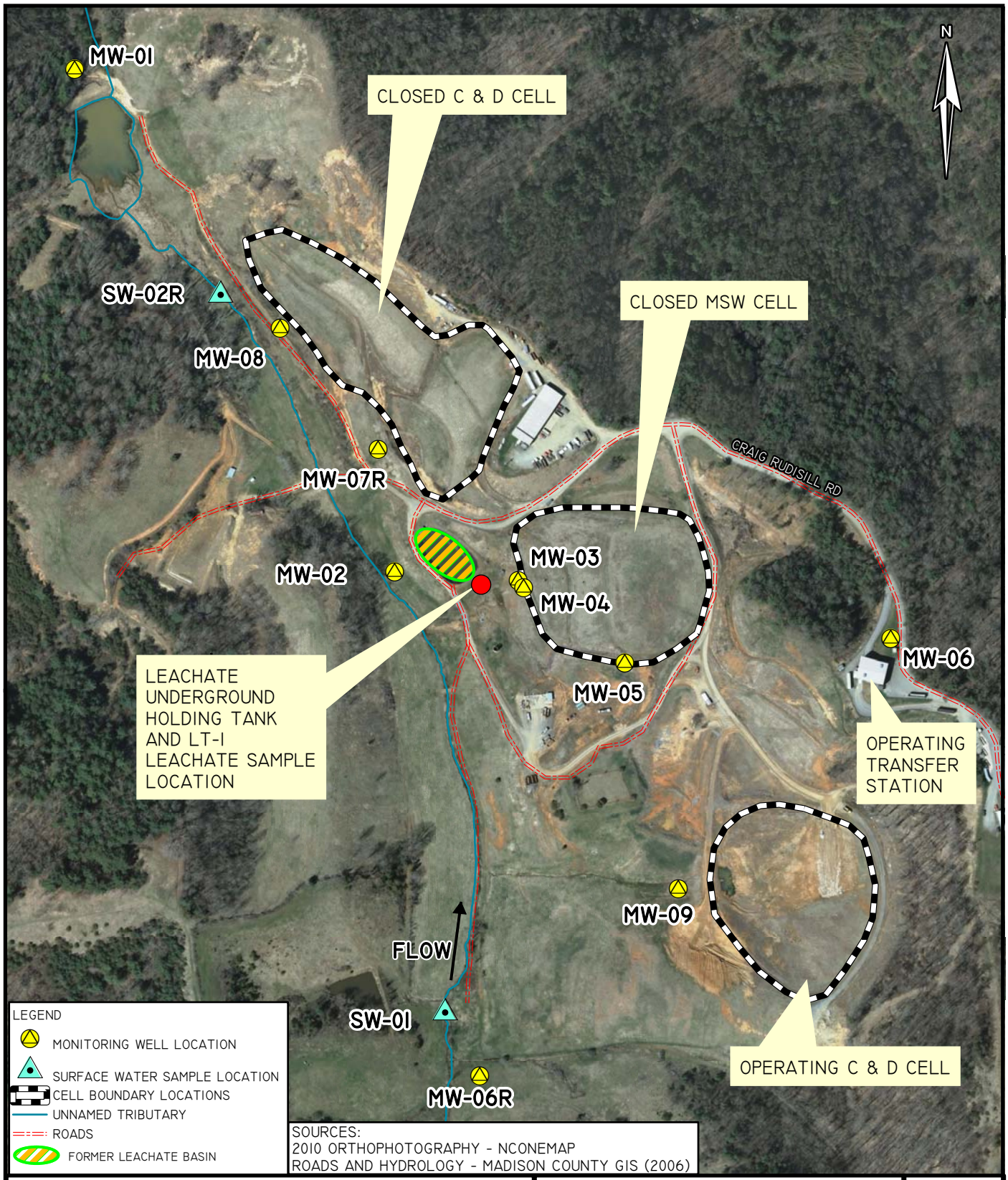
SITE LOCATION MAP

MADISON COUNTY OPERATING
SOLID WASTE FACILITY
PERMIT No. 58-03

271 CRAIG RUDISILL ROAD, MARSHALL
NORTH CAROLINA 28753

FIGURE
1

P:\MADISON COUNTY\FIGURES\GIS\GIS USER\MXDS\2012\FALL\58030CT FIGURE 1-SITE LOCATION MAP OPERATING.MXD



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

DRAWN BY: MARTA VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: MADISON COUNTY
DATE: 12/17/2012

SCALE
0 100 200 400 FEET

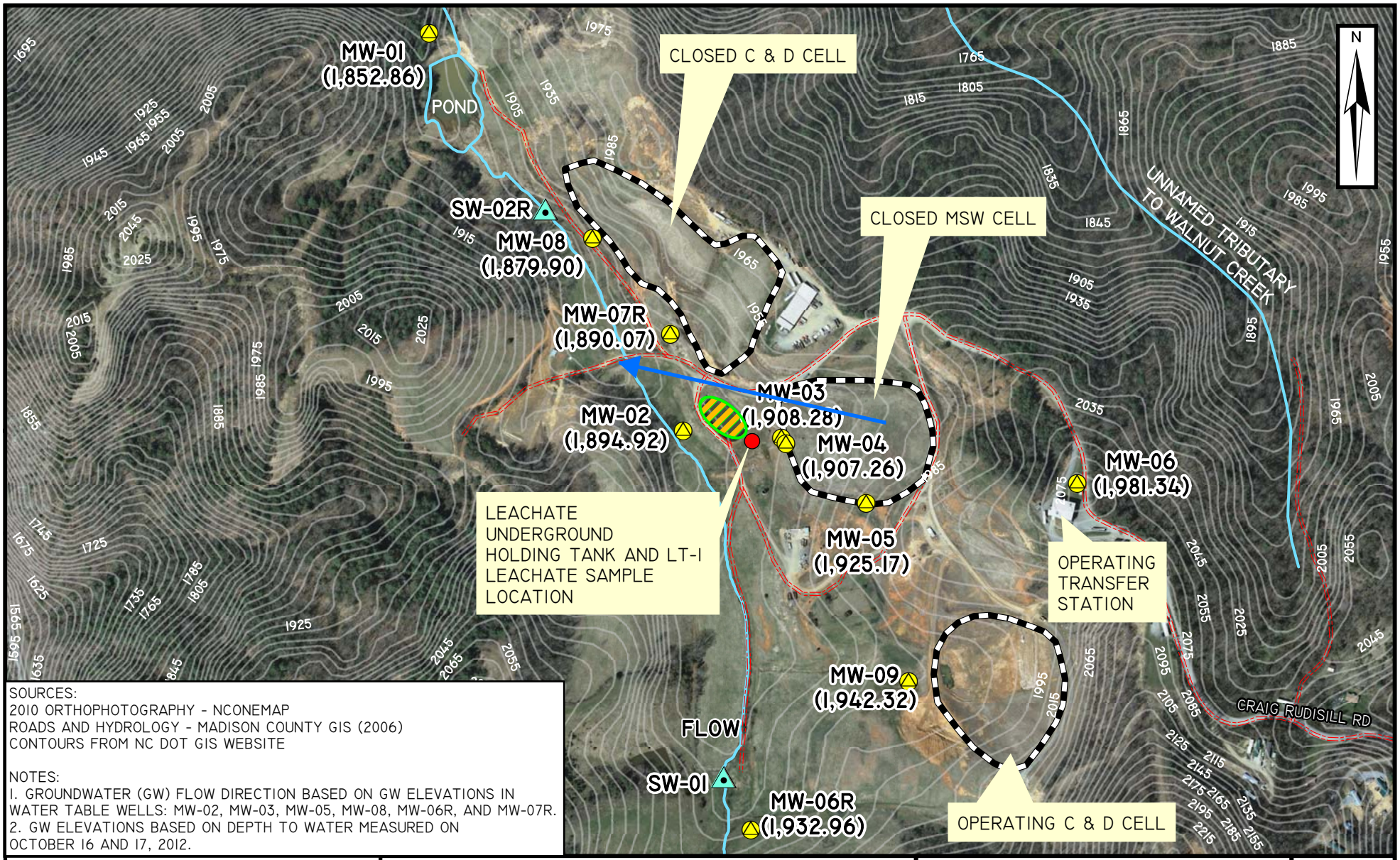
SAMPLE LOCATIONS

MADISON COUNTY OPERATING
SOLID WASTE FACILITY
PERMIT No. 58-03

271 CRAIG RUDISILL ROAD, MARSHALL
NORTH CAROLINA 28753

FIGURE
2

P:\MADISON COUNTY\FIGURES\GIS\GIS USER\MXDS\2012\FALL\58030CT FIGURE 2-SAMPLE LOCATION MAP OPERATING.MXD



SOURCES:
2010 ORTHOPHOTOGRAPHY - NCONEMAP
ROADS AND HYDROLOGY - MADISON COUNTY GIS (2006)
CONTOURS FROM NC DOT GIS WEBSITE

NOTES:
1. GROUNDWATER (GW) FLOW DIRECTION BASED ON GW ELEVATIONS IN WATER TABLE WELLS: MW-02, MW-03, MW-05, MW-08, MW-06R, AND MW-07R.
2. GW ELEVATIONS BASED ON DEPTH TO WATER MEASURED ON OCTOBER 16 AND 17, 2012.

MONITORING WELL LOCATION
SURFACE WATER SAMPLE LOCATION
CELL BOUNDARY LOCATIONS
ROADS
UNNAMED TRIBUTARY
10-FOOT CONTOUR INTERVALS
FORMER LEACHATE BASIN
GW FLOW DIRECTION
(1,932.96) CALCULATED GW ELEVATION

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

DRAWN BY: MARTA VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: MADISON COUNTY
DATE: 12/18/2012

SCALE
0 125 250 500 FEET

GENERALIZED GROUNDWATER FLOW

MADISON COUNTY OPERATING
SOLID WASTE FACILITY
PERMIT No. 58-03

271 CRAIG RUDISILL ROAD, MARSHALL
NORTH CAROLINA 28753

FIGURE
3

P:\MADISON COUNTY\FIGURES\GIS\GIS USER\MXDS\2012\FALL\58030CT FIGURE 3-GROUNDWATER FLOW.MXD

TABLES

Table 1
Well Construction Details and Corresponding Elevations (October 2012)
Madison County Operating Solid Waste Facility, Madison County, North Carolina

Facility Permit	Well ID	TOC Elevation	Ground Elevation	Depth To Water (from TOC)	Groundwater Elevation	Depth to Bedrock	Top of Bedrock Elevation	Screened Interval	Top of Screen Elevation
58-03	MW-01	1,859.04	1,857.04	6.18	1,852.86	7	1,850.0	2 to 17	1,855.04
58-03	MW-02	1,898.94	1,895.94	4.02	1,894.92	6	1,889.9	1 to 16	1,892.94
58-03	MW-03	1,932.96	1,929.46	24.68	1,908.28	NA	NA	15.5 to 25.5	1,913.96
58-03	MW-04	1,935.64	1,932.04	28.38	1,907.26	35.2	1,896.8	70.7 to 80.7	1,861.34
58-03	MW-05	1,972.76	1,969.26	47.59	1,925.17	NA	NA	46.5 to 61.5	1,922.76
58-03	MW-06	2,082.87	2,081.87	101.53	1,981.34	28	2,053.9	80 to 100	2,001.87
58-03	MW-06R	1,942.19	1,942.19	9.23	1,932.96	NA	NA	10 to 25	1,932.19
58-03	MW-07R	1,919.34	1,916.64	29.27	1,890.07	NA	NA	26 to 41	1,890.64
58-03	MW-08	1,899.92	1,896.92	20.02	1,879.90	NA	NA	16 to 26	1,880.92
58-03	MW-09	1,949.43	1,946.43	7.11	1,942.32	NA	NA	12.4 to 22.4	1,934.03

Notes:

1. Elevations are in feet, based on the NAVD 88 datum.
2. "TOC" means top of casing; "NA" means Not Applicable.
3. "Depth to Bedrock" and "Screened Interval" depths are measured in feet below ground surface.
4. For MW-01, MW-02, MW-05, and MW-06, TOC elevations are based on the report, Transition Plan Application (Law Engineering, April 1994). "Depth to Bedrock" and "Screened Interval" data were taken from boring logs completed on September 26, 27, 28, and 29, 1992 by Metro Drill, Inc. and April 12, 1995 by Engineering Tectonics.
5. MW-03 and MW-04 were installed during closure of MSW cell. TOC elevations are from the survey performed on December 14, 2006 by McGill Associates staff (J. Dallas Gordon, PLS). Ground survey data is included on the Closure Plan drawing generated by McGill Associates on January 4, 2007. Adjusted "Depth to Bedrock" and "Screened Interval" elevations were calculated using original data from September 1992 boring logs and new data from the December 14, 2006 survey.
6. For MW-07R and MW-08, TOC elevations were taken from survey data included on boring logs completed by Bunnell-Lammons Engineering, Inc. on July 28, 29, and 30, 2003.
7. For MW-09, TOC elevation was taken from survey data included on boring log completed by Bunnell-Lammons Engineering, Inc. on October 13, 2006.
8. Monitoring of background well MW-06 was terminated in Fall 2008 because the well was dry. MW-06R was installed on September 27, 2008 to replace MW-06. Survey data for MW-06R are based on a survey conducted on April 16, 2009 by Wes Cole Land Surveying, PA.
9. Ground elevations were calculated based on TOC elevations and field measurements.
10. Depth-to-water measurements were obtained in the field on October 16 and 17, 2012. MW-06 was gauged and recorded if water was present, but not sampled.

Table 2
Summary of Laboratory Analyses Performed on Samples
Madison County Operating Solid Waste Facility, Madison County, North Carolina

Groundwater Samples

Sample Name	Collect Date	Metals	VOCs
		EPA 6010 EPA 6020 EPA 7470	EPA 8260
MW-01	10/16/2012	X	X
MW-02	10/16/2012	X	X
MW-03	10/16/2012	X	X
MW-04	10/16/2012	X	X
MW-05	10/17/2012	X	X
MW-06R	10/17/2012	X	X
MW-07R	10/16/2012	X	X
MW-08	10/16/2012	X	X
MW-09	10/17/2012	X	X

Surface Water Samples

Sample Name	Collect Date	Metals	VOCs
		EPA 6010 EPA 6020 EPA 7470	EPA 8260
SW-01	10/17/2012	X	X
SW-02R	10/16/2012	X	X

Quality Control Sample

Sample Name	Collect Date	VOCs
		EPA 8260
TRIP BLANK	10/16/2012	X

Leachate Sample

Sample Name	Collect Date	Metals	VOCs	Biochemical Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)	Nitrogen/ Nitrate	Total Phosphorus	Sulfate
		EPA 6010 EPA 6020 EPA 7470	EPA 8260	SM 5210B	SM 5220D	EPA 353.2	EPA 365.1	EPA 300.0
LT-1	10/17/2012	X	X	X	X	X	X	X

Notes:
1. Metals analyses include Appendix I metals per 40 CFR Part 258 *"Appendix I Constituents for Detection Monitoring"* and mercury.
2. VOCs = volatile organic compounds.
3. VOCs analyses include Appendix I constituents per 40 CFR Part 258 and tetrahydrofuran.
4. Leachate sample (LT-1) was collected from the leachate underground holding tank.

Table 3
Groundwater and Surface Water Summary of Detected Constituents
Madison County Operating Solid Waste Facility, Madison County, North Carolina

		Metals										Field Parameters	
	Lab Certification	40 and 67										5445 (pH only)	
	Lab Method	EPA 6010											
	Parameter	Arsenic	Barium	Beryllium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc	pH	Turbidity
	CAS Number	7440-38-2	7440-39-3	7440-41-7	7440-47-3	7440-48-4	7440-50-8	7439-92-1	7440-02-0	7440-62-2	7440-66-6	SW320	SW330
	SWS ID	14	15	23	51	53	54	131	152	209	213	320	330
	Units	µg/L	µg/L	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	Result	Result
MW-01	10/16/2012	5.0 U	93.0 J	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	5.45	16.68
MW-02	10/16/2012	5.0 U	124	1.0 U	5.0 U	7.7 J	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	5.77	6.17
MW-03	10/16/2012	5.0 U	225	1.0 U	5.0 U	77.8	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	5.76	26.49
MW-04	10/16/2012	5.0 U	132	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	5.82	0.00
MW-05	10/17/2012	5.0 U	119	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	11.3	5.72	13.73
MW-06R	10/17/2012	5.0 U	96.0 J	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.7 J	9.1 J	18.4	6.00	90.27
MW-07R	10/16/2012	5.0 U	180	1.0 U	9.5 J	5.0 U	5.0 U	5.0 U	5.0 U	14.1 J	26.2	5.56	138.2
MW-08	10/16/2012	5.0 U	38.2 J	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.4 J	12.7	6.08	34.57
MW-09	10/17/2012	5.0 U	153	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	6.19	16.92
SW-01	10/17/2012	7.9 J	771	2.4	52.6	40.1	30.2	29.5	28.1 J	143	130	5.95	NR
SW-02R	10/16/2012	5.0 U	388	1.3	28.8	5.0 U	21.5	14.8	14.2 J	111	120	6.93	13.95
TRIP BLANK	10/16/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MDL	5.0	5.0	1.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	NA	NA
	MRL	5.0	5.0	1.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	NA	NA
	SWSL	10	100	1	10	10	10	10	50	25	10	NE	NE
	2L	10	700	NE	10	NE	1,000	15	100	NE	1,000	6.5-8.5	NE
	IMAC	NE	NE	4	NE	1	NE	NE	NE	0.3	NE	NE	NE
	GWPS	NE	NE	4	NE	1	NE	NE	NE	0.3	NE	NE	NE
	2B	10	200,000	6.5	50	4	7	25	88	NE	50	6.0-9.0	50/25

Table 3
Groundwater and Surface Water Summary of Detected Constituents
Madison County Operating Solid Waste Facility, Madison 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 practical quantitation level (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).
    For compounds with no 2B standard established, the NC and Environmental Protection Agency (EPA) National Criteria Table (Current as of August 16, 2012) was used for the most stringent of fresh water.
16. "NE" means Not Established. "NA" means Not Applicable. "NR" means Not Recorded. Blank cells indicate that there is no information relevant to the respective row.
17. **Bold** numbers indicate a detection. Grayed cells indicate result in exceedance of the 2L or IMAC or 2B (surface water) standards, or greater than or equal to the GWPS (if no 2L or IMAC exist).

Table 4
Groundwater and Surface Water Solid Waste Section Limits Exceedances Notification
Madison County Operating Solid Waste Facility, Madison County, North Carolina

FACILITY PERMIT	WELL ID	CAS NUMBER	SWS ID	PARAMETER	RESULT	UNITS	QUALIFIER	METHOD	MDL	MRL	SWSL	COLLECT DATE
58-03	MW-02	7440-39-3	15	Barium	124	µg/L		EPA 6010	5.0	5.0	100	10/16/2012
58-03	MW-03	7440-39-3	15	Barium	225	µg/L		EPA 6010	5.0	5.0	100	10/16/2012
58-03	MW-03	7440-48-4	53	Cobalt	77.8	µg/L		EPA 6010	5.0	5.0	10	10/16/2012
58-03	MW-04	7440-39-3	15	Barium	132	µg/L		EPA 6010	5.0	5.0	100	10/16/2012
58-03	MW-05	7440-39-3	15	Barium	119	µg/L		EPA 6010	5.0	5.0	100	10/17/2012
58-03	MW-05	7440-66-6	213	Zinc	11.3	µg/L		EPA 6010	10.0	10.0	10	10/17/2012
58-03	MW-06R	7440-66-6	213	Zinc	18.4	µg/L		EPA 6010	10.0	10.0	10	10/17/2012
58-03	MW-07R	7440-39-3	15	Barium	180	µg/L		EPA 6010	5.0	5.0	100	10/16/2012
58-03	MW-07R	7440-66-6	213	Zinc	26.2	µg/L		EPA 6010	10.0	10.0	10	10/16/2012
58-03	MW-08	7440-66-6	213	Zinc	12.7	µg/L		EPA 6010	10.0	10.0	10	10/16/2012
58-03	MW-09	7440-39-3	15	Barium	153	µg/L		EPA 6010	5.0	5.0	100	10/17/2012
58-03	SW-01	7440-39-3	15	Barium	771	µg/L		EPA 6010	5.0	5.0	100	10/17/2012
58-03	SW-01	7440-41-7	23	Beryllium	2.4	µg/L		EPA 6010	1.0	1.0	1	10/17/2012
58-03	SW-01	7440-47-3	51	Chromium	52.6	µg/L		EPA 6010	5.0	5.0	10	10/17/2012
58-03	SW-01	7440-48-4	53	Cobalt	40.1	µg/L		EPA 6010	5.0	5.0	10	10/17/2012
58-03	SW-01	7440-50-8	54	Copper	30.2	µg/L		EPA 6010	5.0	5.0	10	10/17/2012
58-03	SW-01	7439-92-1	131	Lead	29.5	µg/L		EPA 6010	5.0	5.0	10	10/17/2012
58-03	SW-01	7440-62-2	209	Vanadium	143	µg/L		EPA 6010	5.0	5.0	25	10/17/2012
58-03	SW-01	7440-66-6	213	Zinc	130	µg/L		EPA 6010	10.0	10.0	10	10/17/2012
58-03	SW-02R	7440-39-3	15	Barium	388	µg/L		EPA 6010	5.0	5.0	100	10/16/2012
58-03	SW-02R	7440-41-7	23	Beryllium	1.3	µg/L		EPA 6010	1.0	1.0	1	10/16/2012
58-03	SW-02R	7440-47-3	51	Chromium	28.8	µg/L		EPA 6010	5.0	5.0	10	10/16/2012
58-03	SW-02R	7440-50-8	54	Copper	21.5	µg/L		EPA 6010	5.0	5.0	10	10/16/2012
58-03	SW-02R	7439-92-1	131	Lead	14.8	µg/L		EPA 6010	5.0	5.0	10	10/16/2012
58-03	SW-02R	7440-62-2	209	Vanadium	111	µg/L		EPA 6010	5.0	5.0	25	10/16/2012
58-03	SW-02R	7440-66-6	213	Zinc	120	µg/L		EPA 6010	10.0	10.0	10	10/16/2012

Table 4
Groundwater and Surface Water Solid Waste Section Limits Exceedances Notification
Madison County Operating Solid Waste Facility, Madison 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. Grayed cells indicate result in exceedance of the 2B standard for surface water, 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)} for groundwater.
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).
14. 2B standard is 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). For constituents with no 2B standard established, the NC and Environmental Protection Agency (EPA) National Criteria Table (Current as of August 16, 2012) for the most stringent of fresh water and human health was used.

Table 5
Groundwater and Surface Water Quality Standards Exceedances Notification
Madison County Operating Solid Waste Facility, Madison County, North Carolina

FACILITY PERMIT	WELL ID	CAS NUMBER	SWS ID	PARAMETER	RESULT	UNITS	QUALIFIER	METHOD	MDL	MRL	SWSL	WATER QUALITY STANDARD	COLLECT DATE	CAUSE AND SIGNIFICANCE
GROUNDWATER SAMPLES - 2L STANDARD, IMAC OR GWPS (µg/L)														
58-03	MW-01	SW320	320	pH	5.45	SU					NE	6.5-8.5	10/16/2012	Consistent with historic readings.
58-03	MW-02	7440-48-4	53	Cobalt	7.7	µg/L	J	EPA 6010	5.0	5.0	10	1	10/16/2012	Possibly naturally occurring. Turbidity of sample at 6.17 NTU.
58-03	MW-02	SW320	320	pH	5.77	SU					NE	6.5-8.5	10/16/2012	Consistent with historic readings.
58-03	MW-03	7440-48-4	53	Cobalt	77.8	µg/L		EPA 6010	5.0	5.0	10	1	10/16/2012	Possibly naturally occurring. Turbidity of sample at 26.49 NTU.
58-03	MW-03	SW320	320	pH	5.76	SU					NE	6.5-8.5	10/16/2012	Consistent with historic readings.
58-03	MW-04	SW320	320	pH	5.82	SU					NE	6.5-8.5	10/16/2012	Consistent with historic readings.
58-03	MW-05	SW320	320	pH	5.72	SU					NE	6.5-8.5	10/17/2012	Consistent with historic readings.
58-03	MW-06R	7440-62-2	209	Vanadium	9.1	µg/L	J	EPA 6010	5.0	5.0	25	0.3	10/17/2012	Possibly naturally occurring. Turbidity of sample at 90.27 NTU.
58-03	MW-06R	SW320	320	pH	6.00	SU					NE	6.5-8.5	10/17/2012	Consistent with historic readings.
58-03	MW-07R	7440-62-2	209	Vanadium	14.1	µg/L	J	EPA 6010	5.0	5.0	25	0.3	10/16/2012	Possibly naturally occurring. Turbidity of sample at 138.2 NTU.
58-03	MW-07R	SW320	320	pH	5.56	SU					NE	6.5-8.5	10/16/2012	Consistent with historic readings.
58-03	MW-08	7440-62-2	209	Vanadium	6.4	µg/L	J	EPA 6010	5.0	5.0	25	0.3	10/16/2012	Possibly naturally occurring. Turbidity of sample at 34.57 NTU.
58-03	MW-08	SW320	320	pH	6.08	SU					NE	6.5-8.5	10/16/2012	Consistent with historic readings.
58-03	MW-09	SW320	320	pH	6.19	SU					NE	6.5-8.5	10/17/2012	Consistent with historic readings.
SURFACE WATER SAMPLES - 2B STANDARD OR NATIONAL CRITERIA PER EPA FOR CLASS C WATERS (µg/L)														
58-03	SW-01	7440-47-3	51	Chromium	52.6	µg/L		EPA 6010	5.0	5.0	10	50	10/17/2012	Possibly naturally occurring. SW-01 is the background surface water sampling location.
58-03	SW-01	7440-48-4	53	Cobalt	40.1	µg/L		EPA 6010	5.0	5.0	10	4	10/17/2012	
58-03	SW-01	7440-50-8	54	Copper	30.2	µg/L		EPA 6010	5.0	5.0	10	7	10/17/2012	
58-03	SW-01	7439-92-1	131	Lead	29.5	µg/L		EPA 6010	5.0	5.0	10	25	10/17/2012	
58-03	SW-01	7440-66-6	213	Zinc	130	µg/L		EPA 6010	10.0	10.0	10	50	10/17/2012	
58-03	SW-01	SW320	320	pH	5.95	SU					NE	6.0 - 9.0	10/17/2012	
58-03	SW-02R	7440-50-8	54	Copper	21.5	µg/L		EPA 6010	5.0	5.0	10	7	10/16/2012	Possibly naturally occurring. Concentrations lower than background surface water quality.
58-03	SW-02R	7440-66-6	213	Zinc	120	µg/L		EPA 6010	10.0	10.0	10	50	10/16/2012	

Table 5
Groundwater and Surface Water Quality Standards Exceedances Notification
Madison County Operating Solid Waste Facility, Madison 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 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. "WATER QUALITY STANDARD" refers to the 2B standard for surface water, 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. "U" is a laboratory data qualifier used for parameters not detected at concentrations above MDL.
14. "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.
15. 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).
16. 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).
17. 2B 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). For constituents with no 2B standard established, the NC and Environmental Protection Agency (EPA) National Criteria Table (Current as of August 16, 2012) for the most stringent of fresh water and human health was used.

Table 6
Leachate Analytical Results
Madison County Operating Solid Waste Facility, Madison County, North Carolina

		Metals					Field Parameters		Inorganics				
	Lab Certification	40 and 67					5445 (pH only)		40				
	Lab Method	EPA 6010							SM 5210B	SM 5220D	EPA 353.2	EPA 365.1	EPA 300.0
	Parameter	**Barium**	**Cobalt**	**Copper**	**Nickel**	**Zinc**	**pH**	**Turbidity**	**BOD**	**COD**	**Nitrogen/ Nitrate**	**Phosphorus**	**Sulfate**
	CAS Number	7440-39-3	7440-48-4	7440-50-8	7440-02-0	7440-66-6	SW320	SW330	SW316	SW317	SW419	SW412	14808-79-8
	SWS ID	15	53	54	152	213	320	330	316	317	467	412	315
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	SU	NTU	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
LT-1	10/17/2012	286	31.8	7.2 *J*	44.4 *J*	23.6	7.56	163.80	4,500	199,000	50,400	130	112,000 *J*
	MDL	5.0	5.0	5.0	5.0	10.0	NA	NA	2,000	25,000	20	50	20,000
	MRL	5.0	5.0	5.0	5.0	10.0	NA	NA	2,000	25,000	20	50	20,000
	SWSL	100	10	10	50	10	NE	NE	NE	NE	NE	NE	250,000

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 practical quantitation level (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. BOD means biological oxygen demand. COD means chemical oxygen demand.
14. "NE" means Not Established. "NA" means Not Applicable.

APPENDICES

APPENDIX A

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

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

Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 10/16/2012
SAMPLING PERSONNEL: P Brooks
WEATHER: 70s clear

Well ID: ~~MW-1~~ MW-01
Screen Interval: 2 to 17' bgs
Depth to Water: 6.18 toc
Stickup: 2.5'
Depth of Pump Intake: 15' toc
Drawdown Set: 6.78 toc

Arrive at Well: 1015
Start Time: 1032
Sample Time: 1102
Finish Sample Time: 1106
Leave Well: ~~1100~~ 1120
Well Diameter: 2"

COMMENTS: lock extremely rusted

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1035	6.48	17.06	98	5.26	5.61	121.9	8.07
1038	6.48	16.77	88	1.85	5.39	147.0	12.85
1041	6.78	16.80	84	1.48	5.39	152.1	32.07
1044	6.78	16.65	78	1.30	5.29	163.7	31.16
1047	6.78	16.72	70	1.33	5.28	171.4	30.66
1050	6.78	16.75	70	1.32	5.32	166.1	19.14
1053	6.78	16.75	70	1.26	5.35	161.2	26.28
1056	6.78	16.78	72	1.16	5.41	150.5	17.52
1059	6.78	16.78	73	1.10	5.42	147.6	16.87
~~10~~ 1102	6.78	16.78	73	1.18	5.45	142.2	16.68

Time between recharge during sample collection: 25 sec @ 3CPM

Sampling Personnel Signature: [signature]
Date: 10/16/12

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: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 10/16/12
SAMPLING PERSONNEL: P Brooks
WEATHER: 70s clear

Well ID:	MW-02	Arrive at Well:	1337
Screen Interval:	1 - 16 ft bgs	Start Time:	1340
Depth to Water:	4.02 toc	Sample Time:	1411
Stickup:	—	Finish Sample Time:	1416
Depth of Pump Intake:	10' toc	Leave Well:	1426
Drawdown Set:	4.32 toc	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)
1347	4.32	17.73	143	3.51	5.77	205.7	61.65
1350	4.32	17.59	144	1.64	5.69	200.8	40.26
1353	4.32	17.54	144	1.31	5.67	170.2	38.83
1356	4.32	17.57	147	1.04	5.71	47.3	27.24
1359	4.32	17.53	148	0.98	5.74	11.5	17.11
1402	4.32	17.51	150	0.88	5.76	-10.9	8.46
1405	4.32	17.55	150	0.79	5.77	-21.5	7.17
1408	4.32	17.58	151	0.86	5.77	-23.8	6.77
1411	4.32	17.61	151	0.81	5.77	-28.1	6.17

Time between recharge during sample collection: 30 sec @ 3CPM

Sampling Personnel Signature: [signature] Date: 10/16/2012

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
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Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 10/16/12
SAMPLING PERSONNEL: P Brooks
WEATHER: 70s clear

Well ID: MW-03
Screen Interval: 15.5-25.5 bgs
Depth to Water: 24.68 toc
Stickup: 4'
Depth of Pump Intake: 28' toc
Drawdown Set: 24.98 toc

Arrive at Well: 1428
Start Time: 1444
Sample Time: 1559
Finish Sample Time: 1515
Leave Well: 1525
Well Diameter: 2"

COMMENTS: orange color to water

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1445	24.98	18.42	351	6.70	6.18	33.0	382.0
1448	24.98	17.10	345	3.24	5.16	84.7	174.2
1451	24.98	17.00	343	2.72	4.92	97.1	91.69
1454	24.98	17.06	346	2.16	5.39	66.4	64.25
1457	24.98	17.20	348	1.92	5.66	47.7	~~53.24~~ 53.24
1500	24.98	17.17	349	1.86	5.68	47.2	48.15
1503	24.98	17.21	350	1.74	5.77	38.6	32.11
1506	24.98	17.17	355	1.64	5.79	35.9	28.96
1509	24.98	17.06	360	1.62	5.76	33.7	26.99

Time between recharge during sample collection: 40 sec @ 3CPM

Sampling Personnel Signature: [signature]
Date: 10/16/12

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
S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

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Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 10/16/12
SAMPLING PERSONNEL: P Brooks
WEATHER: 70s clear

Well ID: MW-04
Screen Interval: ~~28.38~~ 70.7' bgs 80.7ft
Depth to Water: 28.38 toc
Stickup: 4 ft
Depth of Pump Intake: ~~70'~~ 77' toc
Drawdown Set: toc

Arrive at Well: 1528
Start Time: 1535
Sample Time: 1556
Finish Sample Time: 1600
Leave Well: 1615
Well Diameter: 2"

COMMENTS: well is crooked but functional
QC pH 7 @ 1608 → 7.04

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1535	29.38	16.91	160	9.50	6.20	94.4	10.88
1538	29.38	16.24	157	8.82	5.73	149.3	0.00
1541	29.38	16.20	157	8.69	5.75	150.3	0.00
1544	29.38	16.17	157	3.52	5.72	155.9	0.00
1547	29.38	16.13	156	2.78	5.75	154.5	0.00
1550	29.58	16.13	156	2.86	5.77	153.4	0.00
1553	29.58	16.17	156	2.69	5.80	152.1	0.00
1556	29.58	16.18	156	2.67	5.82	151.2	0.00

Time between recharge during sample collection: 5 sec @ 3CPM

Sampling Personnel Signature: [signature]
Date: 10/18/12

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
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Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: ~~10/16/12~~ 10/17/12
SAMPLING PERSONNEL: PBrooks
WEATHER: 70s clear

Well ID:	MW-05		Arrive at Well:	1012
Screen Interval:	46.5 - 61.5	bgs	Start Time:	1022
Depth to Water:	47.59	toc	Sample Time:	1039
Stickup:	8"		Finish Sample Time:	1045
Depth of Pump Intake:	55'	toc	Leave Well:	1109
Drawdown Set:	48.59	toc	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)
1024	47.89	14.56	183	4.27	5.57	168.9	15.06
1027	48.59	14.54	185	3.21	5.56	172.5	17.45
1030	48.59	14.63	185	1.55	5.62	~~168.5~~ 168.5	18.78
1033	48.59	14.69	184	1.12	5.68	162.7	14.90
1036	48.59	14.77	183	1.02	5.69	160.4	14.21
1039	48.59	14.85	183	0.95	5.72	158.9	13.73

Time between recharge during sample collection: 1 min 30 sec @ 3 GPM

Sampling Personnel Signature: [signature] Date: 10/16/12

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
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NTU = nephelometric turbidity units

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Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 10/17/2012
SAMPLING PERSONNEL: P Brooks
WEATHER: 70's clear

Well ID:	MW-06R	Arrive at Well:	~~1229~~ 1229
Screen Interval:	10-25' bgs	Start Time:	1241
Depth to Water:	9.23 toc	Sample Time:	1308
Stickup:	flush mount	Finish Sample Time:	1311
Depth of Pump Intake:	18.0' toc	Leave Well:	1320
Drawdown Set:	9.53 toc	Well Diameter:	2"

COMMENTS: fine orange particulates suspended in water

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1241	9.53	17.42	96	7.25	6.17	136.2	174.3
1244	9.53	16.59	94	5.53	5.70	165.3	277.9
1247	9.53	16.68	95	5.04	5.67	166.3	230.9
1250	9.53	16.74	94	4.54	5.86	153.7	200.3
1253	9.53	16.78	94	4.21	5.98	147.0	133.8
1256	9.53	16.80	94	4.10	5.98	146.5	124.8
1259	9.53	16.81	94	4.12	5.99	146.0	108.2
1302	9.53	16.78	94	3.79	5.97	146.3	100.0
1305	9.53	16.78	94	3.80	5.98	145.1	96.33
1308	9.53	16.82	94	3.70	6.00	143.2	90.27

Time between recharge during sample collection: 5 sec @ 3CPM

Sampling Personnel Signature: [signature] Date: 10/17/12

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
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S.U. = standard units
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Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 10/16/12
SAMPLING PERSONNEL: P Brooks
WEATHER: 70's clear

Well ID: MW-07R
Screen Interval: 26-41' bgs
Depth to Water: 29.77 toc
Stickup: 2.7'
Depth of Pump Intake: 37' toc
Drawdown Set: 30.27 toc

Arrive at Well: 1234
Start Time: 1245
Sample Time: 1307
Finish Sample Time: 1316
Leave Well: 1332
Well Diameter: 2"

COMMENTS: lock extremely rusty;

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1246	29.77	16.68	48	8.95	5.82	168.8	110.0
1249	29.77	16.50	46	8.16	5.56	191.6	73.34
1252	29.77	16.63	45	7.99	5.48	201.0	82.11
1255	29.77	Red 17.04	44	7.74	5.49	205.9	96.75
1258 30.27	~~29.77~~	16.02	43	7.52	5.45	208.9	137.7
1301	30.27	16.16	42	6.99	5.36	216.4	128.8
1304	30.27	16.57	42	6.71	5.43	213.6	132.0
1307	30.27	16.67	42	6.62	5.56	207.8	138.2
~~1310~~							

Time between recharge during sample collection: 1min 45sec @ 3GPM

Sampling Personnel Signature: [signature]
Date: 10/16/12

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
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Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 10/16/2012
SAMPLING PERSONNEL: P Brooks
WEATHER: 70's clear

Well ID:	MW-08	Arrive at Well:	1140
Screen Interval:	16-26 bgs	Start Time:	1156
Depth to Water:	20.02 toc	Sample Time:	1217
Stickup:	3'	Finish Sample Time:	1222
Depth of Pump Intake:	25' toc	Leave Well:	1235
Drawdown Set:	21.02 toc	Well Diameter:	2"

COMMENTS: lock rusty

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1158	21.02	15.73	200	7.46	6.13	123.7	45.98
1202	21.02	15.07	200	5.86	6.02	141.9	49.35
1205	21.02	15.36	200	5.16	6.06	150.8	28.53
1208	21.02	15.71	201	4.98	6.11	158.4	29.32
1211	21.02	15.86	200	4.83	6.11	158.5	30.27
1214	21.02	15.72	201	4.72	6.11	158.8	33.94
1217	21.02	15.79	201	4.76	6.08	160.1	34.57
~~1220~~							

Time between recharge during sample collection: 1 min 30 sec @ 3 GPM

Sampling Personnel Signature: [signature] Date: 10/16/12

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
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mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

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Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 10/17/12
SAMPLING PERSONNEL: P Brooks
WEATHER: 70s clear

Well ID: MW-09
Screen Interval: 12 - 24 bgs
Depth to Water: 7.41 toc
Stickup: 4"
Depth of Pump Intake: 20' toc
Drawdown Set: 8.11 toc
Arrive at Well: 1122
Start Time: 1131
Sample Time: 1203
Finish Sample Time: 1210
Leave Well: 1225
Well Diameter: 2"

COMMENTS: lock extremely rusted

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
1133	7.41	16.17	128	4.18	6.34	18.9	36.67
1136	8.11	16.12	128	1.96	6.13	63.7	28.41
1139	8.11	16.21	128	1.84	6.15	69.1	24.53
1142	8.11	16.41	128	1.70	6.18	80.7	32.25
1145	8.11	16.45	128	1.64	6.16	87.2	29.09
1148	8.11	16.49	128	1.40	6.17	85.4	25.86
1151	8.11	16.54	128	1.43	6.19	80.9	23.42
1154	8.11	16.53	128	1.38	6.17	79.7	19.38
1157	8.11	16.56	128	1.28	6.19	78.9	17.69
1200	8.11	16.57	128	1.32	6.18	78.1	17.46
1203	8.11	16.57	127	1.35	6.19	77.1	16.92

Time between recharge during sample collection: 65 sec @ 3 CPM

Sampling Personnel Signature: [signature]
Date: 10/17/12

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
S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

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Surface Water Sampling Log

PROJECT NAME: Madison Co. Operating LP
DATE: 10/17/12
PROJECT NUMBER: 2313
WEATHER: 70s, clear
SAMPLING PERSONNEL: P Brooks

SAMPLE NAME: ~~SP-1~~ LT-1

COMMENTS: taken from leachate tank with bailer

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
1350	18.62	3345	5.30	7.56	135.3	163.8	orange floating solids

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	3	Metals 6010, Hg 7470, Metals 200.8, Sulfide
125 mL PLASTIC	3	Phosphorus, Nitrate, COD
40 mL GLASS	3	App. I VOCs
1 L ~~GLASS~~ plastic	1	BOD
OTHER		

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: [signature] Date: 10/17/12

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: Madison Co. Operating LF
DATE: 10/17/12
PROJECT NUMBER: 2313
WEATHER: 70s clear
SAMPLING PERSONNEL: P Brooks

SAMPLE NAME: SW-01

COMMENTS: taken upstream of landfill; low volume of water

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
1322	15.16	93	1.42	5.95	136.4		

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	1	App I Metals
125 mL PLASTIC		
40 mL GLASS	3	VOCs App. I
1 L GLASS		
OTHER		

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: [signature] Date: 10/17/12

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: Madison Co. Operating LF
DATE: 10/16/12
PROJECT NUMBER: 2313
WEATHER: 70's clear
SAMPLING PERSONNEL: P Brooks

SAMPLE NAME: SW-02R

COMMENTS: very muddy; had to dig hole to get water not mud

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
1123	13.86	172	4.28	6.93	-123	13.95	

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

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: Date: 10/16/12

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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Equipment Documentation & Instrument Calibration Data Sheet

Project Name: Madison Co. Operating LP
Project Number: 2313
Project Location: Marshall, NC

Calibration Documentation
Person Conducting Calibration: P Brooks
Date of Calibration: 10/16/2012
Date of Field Measurements: P Brooks

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/~~16~~16/12
Other			

Micro TPW Turbidity Meter

Calibration Standards Exp Date	Instrument Serial #	Instrument Reading		
		0.02 NTU	10.0 NTU	1000 NTU
8/13	200601045	Initial: ~~10.90~~ 0.25	Initial: 14.85	Initial: 686.9
		Cal:	Cal:	Cal:
		Time:	Time:	Time:

YSI 556 Multiparameter Meter

Instrument Serial Number	~~07D100979~~						
Instrument Readings							Calibration Expiration Date
Dissolved Oxygen	Initial: 8.40	Cal: 9.02	mmHg: 760.0	Time: 833			NA
QC*	AM Time:	Meas:	Mid Day Time:	Check:	PM Time:	Check:	NA
pH 7 S.U. *report to 0.1 S.U.*	Initial: 6.94	pHmV:	Cal: 7.00	pHmV:	Time: 804		9/14
pH 4 S.U. *report to 0.1 S.U.*	Initial: 4.03	pHmV:	Cal: 4.00	pHmV:	Time: 808		4/13
pH 10 S.U. *report to 0.1 S.U.*	Initial: 10.05	pHmV:	Cal: 10.01	pHmV:	Time: 812		
QC* pH 7 S.U. *report to 0.1 S.U.*	AM Time: 848	Meas: 7.02	Mid Day Time:	Check:	PM Time:	Check:	
Spec. Cond. 1413/447/84/23 (100) mS**	Initial: 112	Cal: 100	Time: 759				7/13
QC* ~~84~~ mS (100)	AM Time: 845	Meas: 101	Mid Day Time:	Check:	PM Time:	Check:	
ORP 240 mV	Initial: 256.4	Cal: 258.0	Time: 843				

Comments:
Signature: Date: 10/16/12

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 1413, 447, 84, or 23 mS which is closest to historical readings from the project location.

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

Equipment Documentation & Instrument Calibration Data Sheet

Project Name: Madison Co. Operating LF
Project Number: 2313
Project Location: Marshall, NC

Calibration Documentation
Person Conducting Calibration: P Brooks
Date of Calibration: 10/17/12
Date of Field Measurements: 10/17/12

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	10/17/12
Other			

Micro TPW Turbidity Meter

Calibration Standards Exp Date	Instrument Serial #	Instrument Reading		
		0.02 NTU	10.0 NTU	1000 NTU
8/13	200601045	Initial: 0.00	Initial: 2.12	Initial: 1100
		Cal:	Cal:	Cal:
		Time:	Time:	Time:

YSI 556 Multiparameter Meter

Instrument Serial Number	~~07D100979~~ Enviro-Equip Rental #1 09G100136						
Instrument Readings							Calibration Expiration Date
Dissolved Oxygen	Initial: 8.76	Cal: 9.23	mmHg: 760	Time: 847			NA
QC*	AM Time:	Meas:	Mid Day Time:	Check:	PM Time:	Check:	NA
pH 7 S.U. *report to 0.1 S.U.*	Initial: 6.99	pHmV:	Cal: 7.00	pHmV:	Time: 818		9/14
pH 4 S.U. *report to 0.1 S.U.*	Initial: 3.98	pHmV:	Cal: 4.00	pHmV:	Time: 824		4/13
pH 10 S.U. *report to 0.1 S.U.*	Initial: 10.04	pHmV:	Cal: 10.01	pHmV:	Time: 832		5/13
QC* pH 7 S.U. *report to 0.1 S.U.*	AM Time: 903	Meas: 6.98	Mid Day Time:	Check:	PM Time:	Check:	
(100) Spec. Cond. 1413/447/84/23 mS**	Initial: 104	Cal: 100	Time: 812				7/13
QC* 84 mS	AM Time: 859	Meas: 101	Mid Day Time:	Check:	PM Time:	Check:	
(258) ORP 240 mV	Initial: 251.9	Cal: 258.0	Time: 857				10/12/12 ← mix date

Comments:
Signature: [signature] Date: 10/17/12

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 1413, 447, 84, or 23 mS which is closest to historical readings from the project location.

APPENDIX B

Report 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

October 31, 2012

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

RE: Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Dear Mr. Lenk:
Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2012. 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

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CERTIFICATIONS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Raleigh Certification IDs
6701 Conference Drive Raleigh, NC 27607
North Carolina Wastewater Certification #: 67
North Carolina Bioassay Certification #: 16
North Carolina Drinking Water Certification #: 37731

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
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

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
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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Eden, NC 27288
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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

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

SAMPLE SUMMARY

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92135629001	**MW-01**	Water	10/16/12 11:02	10/17/12 16:29
92135629002	**MW-02**	Water	10/16/12 14:11	10/17/12 16:29
92135629003	**MW-03**	Water	10/16/12 15:09	10/17/12 16:29
92135629004	**MW-04**	Water	10/16/12 15:56	10/17/12 16:29
92135629005	**MW-05**	Water	10/17/12 10:39	10/17/12 16:29
92135629006	**MW-06R**	Water	10/17/12 13:08	10/17/12 16:29
92135629007	**MW-07R**	Water	10/16/12 13:07	10/17/12 16:29
92135629008	**MW-08**	Water	10/16/12 12:17	10/17/12 16:29
92135629009	**MW-09**	Water	10/17/12 12:03	10/17/12 16:29
92135629010	**LT-1**	Water	10/17/12 13:50	10/17/12 16:29
92135629011	**SW-01**	Water	10/17/12 13:22	10/17/12 16:29
92135629012	**SW-02R**	Water	10/16/12 11:23	10/17/12 16:29
92135629013	**TRIP BLANK**	Water	10/16/12 00:00	10/17/12 16:29

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

SAMPLE ANALYTE COUNT

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92135629001	**MW-01**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629002	**MW-02**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629003	**MW-03**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629004	**MW-04**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629005	**MW-05**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629006	**MW-06R**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629007	**MW-07R**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629008	**MW-08**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629009	**MW-09**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629010	**LT-1**	EPA 6010	SH1	14	PASI-A

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Asheville, NC 28804
(828)254-7176

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

SAMPLE ANALYTE COUNT

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
		SM 5210B	JBH	1	PASI-A
		EPA 300.0	AES	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 365.1	JDA	1	PASI-A
		SM 5220D	EWS	1	PASI-A
92135629011	**SW-01**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629012	**SW-02R**	EPA 6010	SH1	14	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	KJM	52	PASI-C
		EPA 6020	ACT	1	PASI-R
92135629013	**TRIP BLANK**	EPA 8260	KJM	52	PASI-C

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(704)875-9092

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-01 **Lab ID: 92135629001** Collected: 10/16/12 11:02 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-38-2	
Barium	**93.0**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:09	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:09	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:09	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:09	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:09	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/25/12 10:50	10/25/12 17:36	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 08:03	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 08:03	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 08:03	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 08:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 08:03	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 08:03	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 08:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 08:03	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 08:03	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 08:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 08:03	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 08:03	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 08:03	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 08:03	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 08:03	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 08:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 08:03	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 08:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 08:03	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 08:03	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 08:03	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 08:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 08:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 08:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 08:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 08:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 08:03	78-87-5	

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-01 **Lab ID: 92135629001** Collected: 10/16/12 11:02 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 08:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 08:03	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 08:03	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 08:03	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 08:03	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 08:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 08:03	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 08:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 08:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 08:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 08:03	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 08:03	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 08:03	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 08:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 08:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 08:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 08:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 08:03	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 08:03	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 08:03	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 08:03	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	84	%	70-130		1		10/28/12 08:03	460-00-4	
Dibromofluoromethane (S)	119	%	70-130		1		10/28/12 08:03	1868-53-7	
1,2-Dichloroethane-d4 (S)	123	%	70-130		1		10/28/12 08:03	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/28/12 08:03	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-02 **Lab ID: 92135629002** Collected: 10/16/12 14:11 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-38-2	
Barium	**124**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:12	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:12	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-47-3	
Cobalt	**7.7**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:12	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:12	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:12	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/25/12 10:50	10/25/12 17:39	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 08:21	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 08:21	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 08:21	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 08:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 08:21	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 08:21	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 08:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 08:21	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 08:21	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 08:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 08:21	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 08:21	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 08:21	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 08:21	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 08:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 08:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 08:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 08:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 08:21	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 08:21	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 08:21	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 08:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 08:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 08:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 08:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 08:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 08:21	78-87-5	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-02 **Lab ID: 92135629002** Collected: 10/16/12 14:11 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 08:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 08:21	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 08:21	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 08:21	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 08:21	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 08:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 08:21	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 08:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 08:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 08:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 08:21	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 08:21	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 08:21	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 08:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 08:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 08:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 08:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 08:21	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 08:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 08:21	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 08:21	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	83	%	70-130		1		10/28/12 08:21	460-00-4	
Dibromofluoromethane (S)	119	%	70-130		1		10/28/12 08:21	1868-53-7	
1,2-Dichloroethane-d4 (S)	124	%	70-130		1		10/28/12 08:21	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		10/28/12 08:21	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-03 **Lab ID: 92135629003** Collected: 10/16/12 15:09 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-38-2	
Barium	**225**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:15	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:15	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-47-3	
Cobalt	**77.8**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:15	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:15	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:15	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/25/12 10:50	10/25/12 17:41	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 08:39	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 08:39	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 08:39	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 08:39	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 08:39	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 08:39	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 08:39	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 08:39	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 08:39	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 08:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 08:39	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 08:39	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 08:39	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 08:39	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 08:39	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 08:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 08:39	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 08:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 08:39	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 08:39	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 08:39	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 08:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 08:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 08:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 08:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 08:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 08:39	78-87-5	

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205 East Meadow Road - Suite A
Eden, NC 27288
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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-03 **Lab ID: 92135629003** Collected: 10/16/12 15:09 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 08:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 08:39	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 08:39	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 08:39	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 08:39	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 08:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 08:39	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 08:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 08:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 08:39	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 08:39	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 08:39	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 08:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 08:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 08:39	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 08:39	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 08:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 08:39	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 08:39	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 08:39	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 08:39	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	83	%	70-130		1		10/28/12 08:39	460-00-4	
Dibromofluoromethane (S)	120	%	70-130		1		10/28/12 08:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	123	%	70-130		1		10/28/12 08:39	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		10/28/12 08:39	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-04 **Lab ID: 92135629004** Collected: 10/16/12 15:56 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-38-2	
Barium	**132**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:18	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:18	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:18	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:18	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:18	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:06	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 08:57	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 08:57	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 08:57	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 08:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 08:57	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 08:57	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 08:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 08:57	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 08:57	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 08:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 08:57	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 08:57	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 08:57	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 08:57	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 08:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 08:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 08:57	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 08:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 08:57	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 08:57	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 08:57	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 08:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 08:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 08:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 08:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 08:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 08:57	78-87-5	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-04 **Lab ID: 92135629004** Collected: 10/16/12 15:56 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 08:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 08:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 08:57	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 08:57	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 08:57	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 08:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 08:57	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 08:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 08:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 08:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 08:57	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 08:57	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 08:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 08:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 08:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 08:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 08:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 08:57	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 08:57	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 08:57	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 08:57	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	86	%	70-130		1		10/28/12 08:57	460-00-4	
Dibromofluoromethane (S)	120	%	70-130		1		10/28/12 08:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	123	%	70-130		1		10/28/12 08:57	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/28/12 08:57	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-05 **Lab ID: 92135629005** Collected: 10/17/12 10:39 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-38-2	
Barium	**119**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:21	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:21	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:21	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:21	7440-62-2	
Zinc	**11.3**	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:21	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:14	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 09:16	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 09:16	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 09:16	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 09:16	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 09:16	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 09:16	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 09:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 09:16	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 09:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 09:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 09:16	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 09:16	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 09:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 09:16	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 09:16	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 09:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 09:16	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 09:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 09:16	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 09:16	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 09:16	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 09:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 09:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 09:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 09:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 09:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 09:16	78-87-5	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-05 **Lab ID: 92135629005** Collected: 10/17/12 10:39 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 09:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 09:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 09:16	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 09:16	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 09:16	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 09:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 09:16	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 09:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 09:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 09:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 09:16	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 09:16	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 09:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 09:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 09:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 09:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 09:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 09:16	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 09:16	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 09:16	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 09:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	82	%	70-130		1		10/28/12 09:16	460-00-4	
Dibromofluoromethane (S)	122	%	70-130		1		10/28/12 09:16	1868-53-7	
1,2-Dichloroethane-d4 (S)	126	%	70-130		1		10/28/12 09:16	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/28/12 09:16	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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2225 Riverside Dr.
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(828)254-7176

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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-06R **Lab ID: 92135629006** Collected: 10/17/12 13:08 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-38-2	
Barium	**96.0**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:24	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:24	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7439-92-1	
Nickel	**6.7**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:24	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-22-4	
Vanadium	**9.1**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:24	7440-62-2	
Zinc	**18.4**	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:24	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:17	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 09:34	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 09:34	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 09:34	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 09:34	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 09:34	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 09:34	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 09:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 09:34	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 09:34	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 09:34	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 09:34	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 09:34	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 09:34	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 09:34	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 09:34	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 09:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 09:34	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 09:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 09:34	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 09:34	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 09:34	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 09:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 09:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 09:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 09:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 09:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 09:34	78-87-5	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-06R **Lab ID: 92135629006** Collected: 10/17/12 13:08 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 09:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 09:34	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 09:34	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 09:34	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 09:34	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 09:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 09:34	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 09:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 09:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 09:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 09:34	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 09:34	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 09:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 09:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 09:34	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 09:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 09:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 09:34	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 09:34	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 09:34	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 09:34	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	83	%	70-130		1		10/28/12 09:34	460-00-4	
Dibromofluoromethane (S)	121	%	70-130		1		10/28/12 09:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		10/28/12 09:34	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/28/12 09:34	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-07R **Lab ID: 92135629007** Collected: 10/16/12 13:07 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-38-2	
Barium	**180**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:37	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:37	7440-43-9	
Chromium	**9.5**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:37	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-22-4	
Vanadium	**14.1**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:37	7440-62-2	
Zinc	**26.2**	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:37	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:19	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 09:52	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 09:52	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 09:52	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 09:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 09:52	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 09:52	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 09:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 09:52	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 09:52	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 09:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 09:52	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 09:52	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 09:52	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 09:52	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 09:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 09:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 09:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 09:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 09:52	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 09:52	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 09:52	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 09:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 09:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 09:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 09:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 09:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 09:52	78-87-5	

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Eden, NC 27288
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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-07R **Lab ID: 92135629007** Collected: 10/16/12 13:07 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 09:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 09:52	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 09:52	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 09:52	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 09:52	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 09:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 09:52	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 09:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 09:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 09:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 09:52	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 09:52	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 09:52	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 09:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 09:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 09:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 09:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 09:52	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 09:52	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 09:52	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 09:52	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	84	%	70-130		1		10/28/12 09:52	460-00-4	
Dibromofluoromethane (S)	123	%	70-130		1		10/28/12 09:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	126	%	70-130		1		10/28/12 09:52	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/28/12 09:52	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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Eden, NC 27288
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2225 Riverside Dr.
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(828)254-7176

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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-08 **Lab ID: 92135629008** Collected: 10/16/12 12:17 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-38-2	
Barium	**38.2**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:40	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:40	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:40	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-22-4	
Vanadium	**6.4**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:40	7440-62-2	
Zinc	**12.7**	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:40	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:22	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 10:10	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 10:10	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 10:10	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 10:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 10:10	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 10:10	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 10:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 10:10	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 10:10	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 10:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 10:10	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 10:10	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 10:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 10:10	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 10:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 10:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 10:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 10:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 10:10	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 10:10	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 10:10	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 10:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 10:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 10:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 10:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 10:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 10:10	78-87-5	

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Eden, NC 27288
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2225 Riverside Dr.
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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-08 **Lab ID: 92135629008** Collected: 10/16/12 12:17 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 10:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 10:10	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 10:10	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 10:10	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 10:10	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 10:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 10:10	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 10:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 10:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 10:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 10:10	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 10:10	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 10:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 10:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 10:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 10:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 10:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 10:10	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 10:10	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 10:10	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 10:10	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	84	%	70-130		1		10/28/12 10:10	460-00-4	
Dibromofluoromethane (S)	122	%	70-130		1		10/28/12 10:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	123	%	70-130		1		10/28/12 10:10	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/28/12 10:10	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-09 **Lab ID: 92135629009** Collected: 10/17/12 12:03 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-38-2	
Barium	**153**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:43	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:43	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:43	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:43	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:43	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:25	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 10:29	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 10:29	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 10:29	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 10:29	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 10:29	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 10:29	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 10:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 10:29	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 10:29	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 10:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 10:29	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 10:29	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 10:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 10:29	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 10:29	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 10:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 10:29	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 10:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 10:29	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 10:29	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 10:29	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 10:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 10:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 10:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 10:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 10:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 10:29	78-87-5	

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Eden, NC 27288
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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: MW-09 **Lab ID: 92135629009** Collected: 10/17/12 12:03 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 10:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 10:29	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 10:29	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 10:29	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 10:29	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 10:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 10:29	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 10:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 10:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 10:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 10:29	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 10:29	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 10:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 10:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 10:29	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 10:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 10:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 10:29	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 10:29	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 10:29	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 10:29	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	83	%	70-130		1		10/28/12 10:29	460-00-4	
Dibromofluoromethane (S)	121	%	70-130		1		10/28/12 10:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	124	%	70-130		1		10/28/12 10:29	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/28/12 10:29	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: LT-1 **Lab ID: 92135629010** Collected: 10/17/12 13:50 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-38-2	
Barium	**286**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:46	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:46	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-47-3	
Cobalt	**31.8**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-48-4	
Copper	**7.2**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7439-92-1	
Nickel	**44.4**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:46	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:46	7440-62-2	
Zinc	**23.6**	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:46	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:33	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 10:47	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 10:47	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 10:47	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 10:47	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 10:47	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 10:47	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 10:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 10:47	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 10:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 10:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 10:47	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 10:47	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 10:47	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 10:47	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 10:47	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 10:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 10:47	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 10:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 10:47	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 10:47	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 10:47	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 10:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 10:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 10:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 10:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 10:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 10:47	78-87-5	

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Eden, NC 27288
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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: LT-1 **Lab ID: 92135629010** Collected: 10/17/12 13:50 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 10:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 10:47	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 10:47	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 10:47	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 10:47	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 10:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 10:47	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 10:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 10:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 10:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 10:47	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 10:47	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 10:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 10:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 10:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 10:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 10:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 10:47	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 10:47	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 10:47	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 10:47	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	83	%	70-130		1		10/28/12 10:47	460-00-4	
Dibromofluoromethane (S)	123	%	70-130		1		10/28/12 10:47	1868-53-7	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		10/28/12 10:47	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/28/12 10:47	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**4.5**	mg/L	2.0	2.0	1	10/19/12 02:45	10/23/12 21:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**112**	mg/L	20.0	20.0	10		10/26/12 12:00	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**50.4**	mg/L	0.020	0.020	1		10/18/12 01:21		
365.1 Phosphorus, Total	Analytical Method: EPA 365.1								
Phosphorus	**0.13**	mg/L	0.050	0.050	1		10/28/12 15:07	7723-14-0	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**199**	mg/L	25.0	25.0	1		10/30/12 14:00		

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: SW-01 **Lab ID: 92135629011** Collected: 10/17/12 13:22 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-36-0	
Arsenic	**7.9**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-38-2	
Barium	**771**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-39-3	
Beryllium	**2.4**	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:49	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/23/12 00:49	7440-43-9	
Chromium	**52.6**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-47-3	
Cobalt	**40.1**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-48-4	
Copper	**30.2**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-50-8	
Lead	**29.5**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7439-92-1	
Nickel	**28.1**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:49	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-22-4	
Vanadium	**143**	ug/L	5.0	5.0	1	10/20/12 12:50	10/23/12 00:49	7440-62-2	
Zinc	**130**	ug/L	10.0	10.0	1	10/20/12 12:50	10/23/12 00:49	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:35	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 11:05	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 11:05	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 11:05	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 11:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 11:05	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 11:05	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 11:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 11:05	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 11:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 11:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 11:05	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 11:05	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 11:05	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 11:05	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 11:05	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 11:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 11:05	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 11:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 11:05	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 11:05	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 11:05	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 11:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 11:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 11:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 11:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 11:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 11:05	78-87-5	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: SW-01 **Lab ID: 92135629011** Collected: 10/17/12 13:22 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 11:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 11:05	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 11:05	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 11:05	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 11:05	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 11:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 11:05	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 11:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 11:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 11:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 11:05	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 11:05	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 11:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 11:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 11:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 11:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 11:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 11:05	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 11:05	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 11:05	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 11:05	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	83	%	70-130		1		10/28/12 11:05	460-00-4	
Dibromofluoromethane (S)	122	%	70-130		1		10/28/12 11:05	1868-53-7	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		10/28/12 11:05	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/28/12 11:05	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: SW-02R **Lab ID: 92135629012** Collected: 10/16/12 11:23 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-38-2	
Barium	**388**	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-39-3	
Beryllium	**1.3**	ug/L	1.0	1.0	1	10/20/12 12:50	10/22/12 20:03	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	10/20/12 12:50	10/22/12 20:03	7440-43-9	
Chromium	**28.8**	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-48-4	
Copper	**21.5**	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-50-8	
Lead	**14.8**	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7439-92-1	
Nickel	**14.2**	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	10/20/12 12:50	10/22/12 20:03	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-22-4	
Vanadium	**111**	ug/L	5.0	5.0	1	10/20/12 12:50	10/22/12 20:03	7440-62-2	
Zinc	**120**	ug/L	10.0	10.0	1	10/20/12 12:50	10/22/12 20:03	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	10/26/12 13:10	10/26/12 17:38	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/28/12 11:23	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 11:23	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 11:23	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 11:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 11:23	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 11:23	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 11:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 11:23	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 11:23	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 11:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 11:23	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 11:23	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 11:23	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 11:23	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 11:23	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 11:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 11:23	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 11:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 11:23	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 11:23	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 11:23	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 11:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 11:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 11:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 11:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 11:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 11:23	78-87-5	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: SW-02R **Lab ID: 92135629012** Collected: 10/16/12 11:23 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 11:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 11:23	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 11:23	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 11:23	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 11:23	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 11:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 11:23	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 11:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 11:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 11:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 11:23	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 11:23	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 11:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 11:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 11:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 11:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 11:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 11:23	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 11:23	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 11:23	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 11:23	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	81	%	70-130		1		10/28/12 11:23	460-00-4	
Dibromofluoromethane (S)	122	%	70-130		1		10/28/12 11:23	1868-53-7	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		10/28/12 11:23	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/28/12 11:23	2037-26-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Thallium	ND	ug/L	2.0	0.16	4	10/23/12 17:00	10/25/12 15:19	7440-28-0	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: TRIP BLANK **Lab ID: 92135629013** Collected: 10/16/12 00:00 Received: 10/17/12 16:29 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	10.0	1		10/28/12 11:41	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		10/28/12 11:41	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		10/28/12 11:41	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/28/12 11:41	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/28/12 11:41	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/28/12 11:41	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/28/12 11:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/28/12 11:41	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		10/28/12 11:41	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/28/12 11:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/28/12 11:41	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/28/12 11:41	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/28/12 11:41	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/28/12 11:41	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		10/28/12 11:41	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/28/12 11:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/28/12 11:41	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/28/12 11:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/28/12 11:41	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/28/12 11:41	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		10/28/12 11:41	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/28/12 11:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		10/28/12 11:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/28/12 11:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/28/12 11:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/28/12 11:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/28/12 11:41	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/28/12 11:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/28/12 11:41	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/28/12 11:41	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/28/12 11:41	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		10/28/12 11:41	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		10/28/12 11:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/28/12 11:41	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		10/28/12 11:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/28/12 11:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/28/12 11:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/28/12 11:41	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		10/28/12 11:41	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		10/28/12 11:41	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/28/12 11:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/28/12 11:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/28/12 11:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/28/12 11:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/28/12 11:41	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/28/12 11:41	108-05-4	

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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

ANALYTICAL RESULTS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Sample: TRIP BLANK **Lab ID: 92135629013** Collected: 10/16/12 00:00 Received: 10/17/12 16:29 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/28/12 11:41	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/28/12 11:41	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	83	%	70-130		1		10/28/12 11:41	460-00-4	
Dibromofluoromethane (S)	123	%	70-130		1		10/28/12 11:41	1868-53-7	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		10/28/12 11:41	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/28/12 11:41	2037-26-5	

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QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: MERP/4615 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92135629001, 92135629002, 92135629003

METHOD BLANK: 859181 Matrix: Water
Associated Lab Samples: 92135629001, 92135629002, 92135629003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/25/12 14:50	

LABORATORY CONTROL SAMPLE: 859182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.4	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 859183 859184

Parameter	Units	92135804002 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	2.5	2.4	97	94	75-125	3	25	

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: MERP/4620 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011, 92135629012

METHOD BLANK: 860228 Matrix: Water
Associated Lab Samples: 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011, 92135629012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/26/12 17:01	

LABORATORY CONTROL SAMPLE: 860229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.7	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 860230 860231

Parameter	Units	92135629004 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	2.5	2.5	98	100	75-125	2	25	

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: MPRP/11782 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92135629001, 92135629002, 92135629003, 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011

METHOD BLANK: 857127 Matrix: Water
Associated Lab Samples: 92135629001, 92135629002, 92135629003, 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	10/22/12 23:04	
Arsenic	ug/L	ND	5.0	10/22/12 23:04	
Barium	ug/L	ND	5.0	10/22/12 23:04	
Beryllium	ug/L	ND	1.0	10/22/12 23:04	
Cadmium	ug/L	ND	1.0	10/22/12 23:04	
Chromium	ug/L	ND	5.0	10/22/12 23:04	
Cobalt	ug/L	ND	5.0	10/22/12 23:04	
Copper	ug/L	ND	5.0	10/22/12 23:04	
Lead	ug/L	ND	5.0	10/22/12 23:04	
Nickel	ug/L	ND	5.0	10/22/12 23:04	
Selenium	ug/L	ND	10.0	10/22/12 23:04	
Silver	ug/L	ND	5.0	10/22/12 23:04	
Vanadium	ug/L	ND	5.0	10/22/12 23:04	
Zinc	ug/L	ND	10.0	10/22/12 23:04	

LABORATORY CONTROL SAMPLE: 857128

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	490	98	80-120	
Arsenic	ug/L	500	475	95	80-120	
Barium	ug/L	500	491	98	80-120	
Beryllium	ug/L	500	492	98	80-120	
Cadmium	ug/L	500	476	95	80-120	
Chromium	ug/L	500	470	94	80-120	
Cobalt	ug/L	500	479	96	80-120	
Copper	ug/L	500	493	99	80-120	
Lead	ug/L	500	477	95	80-120	
Nickel	ug/L	500	481	96	80-120	
Selenium	ug/L	500	491	98	80-120	
Silver	ug/L	250	235	94	80-120	
Vanadium	ug/L	500	482	96	80-120	
Zinc	ug/L	500	462	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 857129 857130

Parameter	Units	92135614003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	508	500	101	100	75-125	2	25	

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QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 857129 857130

Parameter	Units	92135614003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	500	500	505	494	101	98	75-125	2	25	
Barium	ug/L	6.0J	500	500	491	486	97	96	75-125	1	25	
Beryllium	ug/L	ND	500	500	500	496	100	99	75-125	1	25	
Cadmium	ug/L	ND	500	500	475	469	95	94	75-125	1	25	
Chromium	ug/L	ND	500	500	473	467	95	93	75-125	1	25	
Cobalt	ug/L	ND	500	500	477	472	95	94	75-125	1	25	
Copper	ug/L	ND	500	500	506	502	101	100	75-125	1	25	
Lead	ug/L	ND	500	500	464	458	93	92	75-125	1	25	
Nickel	ug/L	ND	500	500	476	467	95	93	75-125	2	25	
Selenium	ug/L	ND	500	500	507	495	101	99	75-125	2	25	
Silver	ug/L	ND	250	250	240	237	96	95	75-125	1	25	
Vanadium	ug/L	ND	500	500	494	489	98	97	75-125	1	25	
Zinc	ug/L	ND	500	500	473	466	94	92	75-125	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 857131 857132

Parameter	Units	92135619003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	487	481	97	96	75-125	1	25	
Arsenic	ug/L	ND	500	500	474	472	95	94	75-125	0	25	
Barium	ug/L	8.8J	500	500	496	490	97	96	75-125	1	25	
Beryllium	ug/L	ND	500	500	492	486	98	97	75-125	1	25	
Cadmium	ug/L	ND	500	500	474	466	95	93	75-125	2	25	
Chromium	ug/L	ND	500	500	472	466	94	93	75-125	1	25	
Cobalt	ug/L	ND	500	500	479	472	96	94	75-125	1	25	
Copper	ug/L	ND	500	500	494	487	99	97	75-125	1	25	
Lead	ug/L	ND	500	500	466	462	93	92	75-125	1	25	
Nickel	ug/L	ND	500	500	479	471	96	94	75-125	2	25	
Selenium	ug/L	ND	500	500	486	480	97	96	75-125	1	25	
Silver	ug/L	ND	250	250	234	231	94	92	75-125	1	25	
Vanadium	ug/L	ND	500	500	485	479	97	96	75-125	1	25	
Zinc	ug/L	ND	500	500	463	455	92	90	75-125	2	25	

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QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: MPRP/11783
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92135629012

METHOD BLANK: 857133
Matrix: Water
Associated Lab Samples: 92135629012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	10/22/12 19:57	
Arsenic	ug/L	ND	5.0	10/22/12 19:57	
Barium	ug/L	ND	5.0	10/22/12 19:57	
Beryllium	ug/L	ND	1.0	10/22/12 19:57	
Cadmium	ug/L	ND	1.0	10/22/12 19:57	
Chromium	ug/L	ND	5.0	10/22/12 19:57	
Cobalt	ug/L	ND	5.0	10/22/12 19:57	
Copper	ug/L	ND	5.0	10/22/12 19:57	
Lead	ug/L	ND	5.0	10/22/12 19:57	
Nickel	ug/L	ND	5.0	10/22/12 19:57	
Selenium	ug/L	ND	10.0	10/22/12 19:57	
Silver	ug/L	ND	5.0	10/22/12 19:57	
Vanadium	ug/L	ND	5.0	10/22/12 19:57	
Zinc	ug/L	ND	10.0	10/22/12 19:57	

LABORATORY CONTROL SAMPLE: 857134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	461	92	80-120	
Arsenic	ug/L	500	448	90	80-120	
Barium	ug/L	500	459	92	80-120	
Beryllium	ug/L	500	466	93	80-120	
Cadmium	ug/L	500	455	91	80-120	
Chromium	ug/L	500	446	89	80-120	
Cobalt	ug/L	500	453	91	80-120	
Copper	ug/L	500	459	92	80-120	
Lead	ug/L	500	455	91	80-120	
Nickel	ug/L	500	454	91	80-120	
Selenium	ug/L	500	462	92	80-120	
Silver	ug/L	250	227	91	80-120	
Vanadium	ug/L	500	456	91	80-120	
Zinc	ug/L	500	439	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 857135 857136

Parameter	Units	92135714002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	489	485	98	97	75-125	1	25	
Arsenic	ug/L	ND	500	500	474	472	95	94	75-125	0	25	
Barium	ug/L	118	500	500	599	596	96	96	75-125	1	25	

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 857135 857136

Parameter	Units	92135714002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	ND	500	500	494	493	99	99	75-125	0	25	
Cadmium	ug/L	ND	500	500	475	474	95	95	75-125	0	25	
Chromium	ug/L	ND	500	500	471	472	94	94	75-125	0	25	
Cobalt	ug/L	ND	500	500	479	477	96	95	75-125	0	25	
Copper	ug/L	ND	500	500	490	486	98	97	75-125	1	25	
Lead	ug/L	ND	500	500	470	469	94	94	75-125	0	25	
Nickel	ug/L	ND	500	500	478	477	96	95	75-125	0	25	
Selenium	ug/L	ND	500	500	484	482	97	96	75-125	0	25	
Silver	ug/L	ND	250	250	235	236	94	94	75-125	0	25	
Vanadium	ug/L	ND	500	500	483	482	97	96	75-125	0	25	
Zinc	ug/L	ND	500	500	463	462	92	91	75-125	0	25	

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QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: MSV/20866 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92135629001, 92135629002, 92135629003, 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011, 92135629012, 92135629013

METHOD BLANK: 861670 Matrix: Water
Associated Lab Samples: 92135629001, 92135629002, 92135629003, 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011, 92135629012, 92135629013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/28/12 01:41	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/28/12 01:41	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/28/12 01:41	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/28/12 01:41	
1,1-Dichloroethane	ug/L	ND	1.0	10/28/12 01:41	
1,1-Dichloroethene	ug/L	ND	1.0	10/28/12 01:41	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/28/12 01:41	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	10/28/12 01:41	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/28/12 01:41	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/28/12 01:41	
1,2-Dichloroethane	ug/L	ND	1.0	10/28/12 01:41	
1,2-Dichloropropane	ug/L	ND	1.0	10/28/12 01:41	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/28/12 01:41	
2-Butanone (MEK)	ug/L	ND	5.0	10/28/12 01:41	
2-Hexanone	ug/L	ND	5.0	10/28/12 01:41	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	10/28/12 01:41	
Acetone	ug/L	ND	25.0	10/28/12 01:41	
Acrylonitrile	ug/L	ND	10.0	10/28/12 01:41	
Benzene	ug/L	ND	1.0	10/28/12 01:41	
Bromochloromethane	ug/L	ND	1.0	10/28/12 01:41	
Bromodichloromethane	ug/L	ND	1.0	10/28/12 01:41	
Bromoform	ug/L	ND	1.0	10/28/12 01:41	
Bromomethane	ug/L	ND	2.0	10/28/12 01:41	
Carbon disulfide	ug/L	ND	2.0	10/28/12 01:41	
Carbon tetrachloride	ug/L	ND	1.0	10/28/12 01:41	
Chlorobenzene	ug/L	ND	1.0	10/28/12 01:41	
Chloroethane	ug/L	ND	1.0	10/28/12 01:41	
Chloroform	ug/L	ND	1.0	10/28/12 01:41	
Chloromethane	ug/L	ND	1.0	10/28/12 01:41	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/28/12 01:41	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/28/12 01:41	
Dibromochloromethane	ug/L	ND	1.0	10/28/12 01:41	
Dibromomethane	ug/L	ND	1.0	10/28/12 01:41	
Ethylbenzene	ug/L	ND	1.0	10/28/12 01:41	
Iodomethane	ug/L	ND	5.0	10/28/12 01:41	
Methylene Chloride	ug/L	ND	1.0	10/28/12 01:41	
Styrene	ug/L	ND	1.0	10/28/12 01:41	
Tetrachloroethene	ug/L	ND	1.0	10/28/12 01:41	
Tetrahydrofuran	ug/L	ND	10.0	10/28/12 01:41	
Toluene	ug/L	ND	1.0	10/28/12 01:41	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/28/12 01:41	

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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

QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

METHOD BLANK: 861670 Matrix: Water

Associated Lab Samples: 92135629001, 92135629002, 92135629003, 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011, 92135629012, 92135629013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/28/12 01:41	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	10/28/12 01:41	
Trichloroethene	ug/L	ND	1.0	10/28/12 01:41	
Trichlorofluoromethane	ug/L	ND	1.0	10/28/12 01:41	
Vinyl acetate	ug/L	ND	2.0	10/28/12 01:41	
Vinyl chloride	ug/L	ND	1.0	10/28/12 01:41	
Xylene (Total)	ug/L	ND	2.0	10/28/12 01:41	
1,2-Dichloroethane-d4 (S)	%	112	70-130	10/28/12 01:41	
4-Bromofluorobenzene (S)	%	88	70-130	10/28/12 01:41	
Dibromofluoromethane (S)	%	110	70-130	10/28/12 01:41	
Toluene-d8 (S)	%	101	70-130	10/28/12 01:41	

LABORATORY CONTROL SAMPLE: 861671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.3	95	70-130	
1,1,1-Trichloroethane	ug/L	50	50.7	101	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.8	92	70-130	
1,1,2-Trichloroethane	ug/L	50	45.8	92	70-130	
1,1-Dichloroethane	ug/L	50	47.6	95	70-130	
1,1-Dichloroethene	ug/L	50	53.7	107	70-132	
1,2,3-Trichloropropane	ug/L	50	45.4	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	57.3	115	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.4	101	70-130	
1,2-Dichlorobenzene	ug/L	50	51.0	102	70-130	
1,2-Dichloroethane	ug/L	50	46.7	93	70-130	
1,2-Dichloropropane	ug/L	50	46.0	92	70-130	
1,4-Dichlorobenzene	ug/L	50	48.2	96	70-130	
2-Butanone (MEK)	ug/L	100	101	101	70-145	
2-Hexanone	ug/L	100	98.0	98	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	100	100	70-140	
Acetone	ug/L	100	96.8	97	50-175	
Acrylonitrile	ug/L	250	233	93	70-143	
Benzene	ug/L	50	48.2	96	70-130	
Bromochloromethane	ug/L	50	50.6	101	70-130	
Bromodichloromethane	ug/L	50	46.8	94	70-130	
Bromoform	ug/L	50	49.9	100	70-130	
Bromomethane	ug/L	50	52.7	105	54-130	
Carbon disulfide	ug/L	50	61.4	123	70-131	
Carbon tetrachloride	ug/L	50	45.1	90	70-132	
Chlorobenzene	ug/L	50	48.7	97	70-130	
Chloroethane	ug/L	50	57.7	115	64-134	
Chloroform	ug/L	50	51.0	102	70-130	
Chloromethane	ug/L	50	54.9	110	64-130	

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Eden, NC 27288
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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

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

QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

LABORATORY CONTROL SAMPLE: 861671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	53.7	107	70-131	
cis-1,3-Dichloropropene	ug/L	50	49.9	100	70-130	
Dibromochloromethane	ug/L	50	50.8	102	70-130	
Dibromomethane	ug/L	50	41.3	83	70-131	
Ethylbenzene	ug/L	50	49.8	100	70-130	
Iodomethane	ug/L	100	131	131	49-180	
Methylene Chloride	ug/L	50	52.6	105	63-130	
Styrene	ug/L	50	51.7	103	70-130	
Tetrachloroethene	ug/L	50	47.1	94	70-130	
Tetrahydrofuran	ug/L	500	500	100	70-130	
Toluene	ug/L	50	47.1	94	70-130	
trans-1,2-Dichloroethene	ug/L	50	53.3	107	70-130	
trans-1,3-Dichloropropene	ug/L	50	49.7	99	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	48.7	97	70-141	
Trichloroethene	ug/L	50	46.5	93	70-130	
Trichlorofluoromethane	ug/L	50	51.8	104	62-133	
Vinyl acetate	ug/L	100	115	115	66-157	
Vinyl chloride	ug/L	50	53.2	106	69-130	
Xylene (Total)	ug/L	150	157	105	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			90	70-130	
Dibromofluoromethane (S)	%			105	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 861672 861673

Parameter	Units	92135629001 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	52.0	59.4	104	119	70-166	13	30	
Benzene	ug/L	ND	50	50	38.4	43.3	77	87	70-148	12	30	
Chlorobenzene	ug/L	ND	50	50	44.6	50.3	89	101	70-146	12	30	
Toluene	ug/L	ND	50	50	44.7	49.9	89	100	70-155	11	30	
Trichloroethene	ug/L	ND	50	50	42.4	47.5	85	95	69-151	11	30	
1,2-Dichloroethane-d4 (S)	%						115	113	70-130			
4-Bromofluorobenzene (S)	%						83	84	70-130			
Dibromofluoromethane (S)	%						112	111	70-130			
Toluene-d8 (S)	%						98	97	70-130			

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(704)875-9092

QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: RMPR/1058 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 92135629001, 92135629002, 92135629003, 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011, 92135629012

METHOD BLANK: 858115 Matrix: Water
Associated Lab Samples: 92135629001, 92135629002, 92135629003, 92135629004, 92135629005, 92135629006, 92135629007, 92135629008, 92135629009, 92135629010, 92135629011, 92135629012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Thallium	ug/L	ND	0.50	10/25/12 15:19	

LABORATORY CONTROL SAMPLE: 858116

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	100	100	100	80-120	

MATRIX SPIKE SAMPLE: 858118

Parameter	Units	92135629001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	ND	100	100	100	75-125	

MATRIX SPIKE SAMPLE: 858120

Parameter	Units	92135629011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	ND	100	99.4	99	75-125	

SAMPLE DUPLICATE: 858117

Parameter	Units	92135629001 Result	Dup Result	RPD	Max RPD	Qualifiers
Thallium	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 858119

Parameter	Units	92135629011 Result	Dup Result	RPD	Max RPD	Qualifiers
Thallium	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: WET/22822
QC Batch Method: SM 5210B
Analysis Method: SM 5210B
Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92135629010

METHOD BLANK: 856324
Matrix: Water
Associated Lab Samples: 92135629010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	10/23/12 21:30	

LABORATORY CONTROL SAMPLE: 856325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	168	85	84.5-115.4	

SAMPLE DUPLICATE: 856326

Parameter	Units	92135693001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	2.4	2.4	0	20	B2

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QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: WETA/13565
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92135629010

METHOD BLANK: 859399
Matrix: Water
Associated Lab Samples: 92135629010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	10/26/12 00:01	

LABORATORY CONTROL SAMPLE: 859400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.1	91	90-110	

MATRIX SPIKE SAMPLE: 859401

Parameter	Units	92136065001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	2.8	20	19.7	85	90-110	M1

MATRIX SPIKE SAMPLE: 859403

Parameter	Units	92135661003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	36.9	20	83.5	233	90-110	M1

SAMPLE DUPLICATE: 859402

Parameter	Units	92136065001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	2.8	2.4	15	20	

SAMPLE DUPLICATE: 859404

Parameter	Units	92135661003 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	36.9	38.4	4	20	

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QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: WETA/13513
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92135629010

METHOD BLANK: 855215
Matrix: Water
Associated Lab Samples: 92135629010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.020	10/18/12 00:46	

LABORATORY CONTROL SAMPLE: 855216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.6	104	90-110	

MATRIX SPIKE SAMPLE: 855217

Parameter	Units	92135337012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	2.5	2.5	101	90-110	

MATRIX SPIKE SAMPLE: 855219

Parameter	Units	92135337011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	2.5	2.6	103	90-110	

SAMPLE DUPLICATE: 855218

Parameter	Units	92135337012 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 855220

Parameter	Units	92135337011 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	ND	ND		20	

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

QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: WETA/13591
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Phosphorus, Total
Associated Lab Samples: 92135629010

METHOD BLANK: 861540
Matrix: Water
Associated Lab Samples: 92135629010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.050	10/28/12 14:58	

LABORATORY CONTROL SAMPLE: 861541

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	2.5	2.6	102	90-110	

MATRIX SPIKE SAMPLE: 861542

Parameter	Units	92135513001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	2.5	2.5	96	90-110	

MATRIX SPIKE SAMPLE: 861544

Parameter	Units	92135646001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	0.38	2.5	2.8	98	90-110	

SAMPLE DUPLICATE: 861543

Parameter	Units	92135540001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	1.6	1.6	0	20	

SAMPLE DUPLICATE: 861545

Parameter	Units	92135676001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	0.64	0.62	3	20	

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

QC Batch: WETA/13607
QC Batch Method: SM 5220D
Analysis Method: SM 5220D
Analysis Description: 5220D COD
Associated Lab Samples: 92135629010

METHOD BLANK: 861969
Matrix: Water
Associated Lab Samples: 92135629010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/30/12 14:00	

LABORATORY CONTROL SAMPLE: 861970

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	750	779	104	90-110	

MATRIX SPIKE SAMPLE: 861971

Parameter	Units	92134588001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	49.0	750	821	103	75-125	

MATRIX SPIKE SAMPLE: 861973

Parameter	Units	92136201004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	600	1500	1990	93	75-125	

SAMPLE DUPLICATE: 861972

Parameter	Units	92134588001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	49.0	46.0	6	20	

SAMPLE DUPLICATE: 861974

Parameter	Units	92136201004 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	600	600	0	20	

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QUALIFIERS

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

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.

PRL - Pace Reporting Limit.

RL - Reporting 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.

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TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte
PASI-R	Pace Analytical Services - Raleigh

ANALYTE QUALIFIERS

B2	Oxygen usage is less than 2.0 for all dilutions set. The reported value is an estimated less than value and is calculated for the dilution using the most amount of sample.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92135629001	**MW-01**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629002	**MW-02**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629003	**MW-03**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629004	**MW-04**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629005	**MW-05**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629006	**MW-06R**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629007	**MW-07R**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629008	**MW-08**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629009	**MW-09**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629010	**LT-1**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629011	**SW-01**	EPA 3010	MPRP/11782	EPA 6010	ICP/10790
92135629012	**SW-02R**	EPA 3010	MPRP/11783	EPA 6010	ICP/10789
92135629001	**MW-01**	EPA 7470	MERP/4615	EPA 7470	MERC/4521
92135629002	**MW-02**	EPA 7470	MERP/4615	EPA 7470	MERC/4521
92135629003	**MW-03**	EPA 7470	MERP/4615	EPA 7470	MERC/4521
92135629004	**MW-04**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629005	**MW-05**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629006	**MW-06R**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629007	**MW-07R**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629008	**MW-08**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629009	**MW-09**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629010	**LT-1**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629011	**SW-01**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629012	**SW-02R**	EPA 7470	MERP/4620	EPA 7470	MERC/4526
92135629001	**MW-01**	EPA 8260	MSV/20866		
92135629002	**MW-02**	EPA 8260	MSV/20866		
92135629003	**MW-03**	EPA 8260	MSV/20866		
92135629004	**MW-04**	EPA 8260	MSV/20866		
92135629005	**MW-05**	EPA 8260	MSV/20866		
92135629006	**MW-06R**	EPA 8260	MSV/20866		
92135629007	**MW-07R**	EPA 8260	MSV/20866		
92135629008	**MW-08**	EPA 8260	MSV/20866		
92135629009	**MW-09**	EPA 8260	MSV/20866		
92135629010	**LT-1**	EPA 8260	MSV/20866		
92135629011	**SW-01**	EPA 8260	MSV/20866		
92135629012	**SW-02R**	EPA 8260	MSV/20866		
92135629013	**TRIP BLANK**	EPA 8260	MSV/20866		
92135629001	**MW-01**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629002	**MW-02**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629003	**MW-03**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629004	**MW-04**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629005	**MW-05**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629006	**MW-06R**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629007	**MW-07R**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629008	**MW-08**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629009	**MW-09**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168

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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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Madison Co. Operating LF 2313
Pace Project No.: 92135629

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92135629010	**LT-1**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629011	**SW-01**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629012	**SW-02R**	EPA 3010	RMPR/1058	EPA 6020	RMET/1168
92135629010	**LT-1**	SM 5210B	WET/22822	SM 5210B	WET/22823
92135629010	**LT-1**	EPA 300.0	WETA/13565		
92135629010	**LT-1**	EPA 353.2	WETA/13513		
92135629010	**LT-1**	EPA 365.1	WETA/13591		
92135629010	**LT-1**	SM 5220D	WETA/13607		

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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

1655692

Section A Required Client Information:

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

Section B Required Project Information:

Report To: Joel Lenk
Copy To: Marta van Dussen
Purchase Order No.:
Project Name: Madison Co. Operating LF
Project Number: 2313.

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	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED 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)	App I Metals	App I VOCs	Ha by 7470	Metals 200.8	BOD	COD	Nitrate	Phosphorus	Sulfate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92135629
1	MW-01	WT	G	10/16/12	1102			17	4			X	X						X	X									-001
2	MW-02	WT	G	10/16/12	1411			18	4			X	X						X	X									-002
3	MW-03	WT	G	10/16/12	1509			17	4			X	X						X	X									-003
4	MW-04	WT	G	10/16/12	1556			16	4			X	X						X	X									-004
5	MW-05	WT	G	10/17/12	1039			15	4			X	X						X	X									-005
6	MW-06R	WT	G	10/17/12	1308			17	4			X	X						X	X									-006
7	MW-07R	WT	G	10/16/12	1307			17	4			X	X						X	X									-007
8	MW-08	WT	G	10/16/12	1217			16	4			X	X						X	X									-008
9	MW-09	WT	G	10/17/12	1203			16	4			X	X						X	X									-009
10	LT-1	WT	G	10/17/12	1350			19	10	X	X	X	X						X	X	X	X	X	X	X	X	X		-010
11	SW-01	WT	G	10/17/12	1322			15	4			X	X						X	X									-011
12	SW-02R	WT	G	10/16/12	1123			14	4			X	X						X	X									-012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
2 Trip Blanks included	[signature]	10/17/12	1629	[signature]	10/17	1629	2.7	Y	N	Y

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

TB-013

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Parker Brooks

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 10/17/2012

*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.

APPENDIX C

Environmental Monitoring Form
and
Electronic Submittal of Environmental Monitoring Data
5803Oct2012 (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)
Madison County Operating Solid Waste Facility	271 Craig Rudisill Road Marshall, NC 28714	58-03	.0500 & .1600	October 16-17, 2012

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) _____
☐ 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.

Andrew Moore, P.G. Project Geologist (828) 281-3350

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

Signature 2-12-2013 Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 2339 GEOLOGIST ANDREW W. MOORE

231 Haywood Street, Asheville, North Carolina 28801

Facility Representative Address

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

Revised 6/2009