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# Semi-Annual Water Quality Monitoring Report

*Prepared for*

Lenoir County Subtitle D Lined MSWLF  
LaGrange, North Carolina

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**July 2013**

**Permit Number: 54-09**

**MESCO Project Number: G13029.0**

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Submitted on December 11, 2013

P.O. Box 97  
Garner, NC 27529  
License No. C-0281



Municipal Engineering Services Company, P.A.  
Garner and Boone , North Carolina

DENR USE ONLY

Paper Report

Electronic Data - Email CD (data loaded: Yes / No)

Doc/Event #:

NC DENR

# Environmental Monitoring Reporting Form

Division of Waste Management - Solid Waste

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):

Municipal Engineering Services Co., PA

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

Name: Jonathan Pfohl

Phone: (919)772-5393

E-mail: [jpfohl@mesco.com](mailto:jpfohl@mesco.com)

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Lenoir County Subtitle D Lined MSWLF, Phase 1	2949 Hodges Farm Road LaGrange, NC 28501	54-09	.1600	July 24, 2013

### 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  Methane gas monitoring data  
 Groundwater monitoring data from private water supply wells  Corrective action data (specify) \_\_\_\_\_  
 Leachate monitoring data  Other(specify) \_\_\_\_\_  
 Surface water monitoring data

### 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.

Steven R. Gandy, Ph.D., P.E.

Senior Project Manager

(919) 772-5393

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Signature

Date

Affix NC Licensed/ Professional Geologist Seal

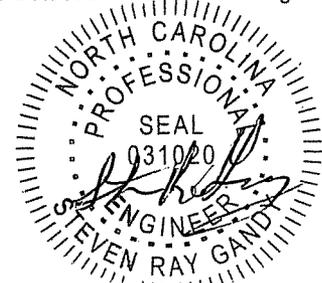
P.O. Box 97, Garner, NC 27529

Facility Representative Address

C-0281

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

Revised 6/2009



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December 11, 2013

Ms. Jaclynne Drummond  
 Solid Waste Section  
 NC DENR Division of Waste Management  
 217 West Jones Street  
 Raleigh, NC 27605

Re: ***Semi-Annual Water Quality Monitoring Report***  
 Lenoir County Subtitle D Lined Landfill, Phase 1  
 Event Date(s): July 24, 2013  
 Permit No. 54-09  
 MESCO Project No. G13029.0

Dear Ms. Drummond:

## **Introduction**

On behalf of Lenoir County, Municipal Engineering Services Company, P.A. (MESCO) is pleased to present this *Semi-Annual Water Quality Report* for the Summer 2013 event performed at the Lenoir County Subtitle D Lined Municipal Solid Waste Landfill (MSWLF), Phase 1. NCDENR Solid Waste Rules 15A NCAC 13B.1632 requires that Lenoir County provide this report to the SWS on a semi-annual basis. This report documents the quality of the groundwater, surface waters and leachate during this monitoring event performed on July 24, 2013. Laboratory analytical results of this event indicate that targeted constituents continue to not be detected in concentrations in exceedance of North Carolina Groundwater Standards (2L) or Groundwater Protection Standards (GWP).

## **Background**

The Lenoir County Subtitle D lined MSWLF, permit #54-09, is located at 2949 Hodges Farm Road, LaGrange, North Carolina. The site location topographic map is depicted in the attached **Figure 1**. The lined MSWLF is not currently accepting waste.

Water quality at this facility has been monitored at least semi-annually since prior to operation in 2003 with all historical analytical data available for trend comparison.

As specified within 15A NCAC 13B.1632(j) and the SWS Environmental Monitoring Report Form this report contains sampling procedures, field and laboratory results, groundwater and surface water characterization. Detections compared to Standards tables, a groundwater flow directions/rates table, a field observations table, a field data results table, potentiometric map, quality assurance/quality control data, and laboratory analytical data results are also enclosed.

As specified in rule 15A NCAC 13B.1632(i) and the SWS Environmental Monitoring Report Form, this report contains sampling procedures, field and laboratory results, groundwater and surface water characterization, and findings. Detections compared to Standards tables, hydrologic properties table, a potentiometric map, and field and laboratory analytical results with chains of custody (C-O-C) are enclosed.

## Sampling Procedure

Environment 1 (E1) of Greenville, NC reportedly performed this sampling event utilizing portable monitoring methodology in accordance with the approved Sampling & Analysis Plan (SAP) contained in the Lenoir County Landfill, Phase 1 *Design Hydrogeologic Study* dated August 19, 2002. E1 reportedly collected water samples from four downgradient groundwater monitoring wells (MW-14 through MW-17), two background wells (MW-13 and MW-18), and the leachate lagoon (LAGOON). Quality control measures implemented during this event included submittal and analysis of an equipment blank (EB), field blank (FB) and trip blank (TB). Additional static water level readings were recorded from eleven supplementary piezometers (P-3A, P1-4, P1-14, P-14, P-17, P-22, P2-4, P2-9, P2-10, MW-19S and MW-19D) to improve potentiometric map coverage. The lone designated surface water sample point SW-3 was reported to be dry. Monitoring locations are shown in **Figure 2**.

## Field Parameter Data

E1 reported the field parameters (pH, static water levels, specific conductance, temperature and turbidity) in the laboratory analysis report (**Appendix A**).

## Laboratory Results

Groundwater monitoring wells contained in the SAP and blanks (EB,FB) were analyzed for the Appendix I list of volatile organic compounds (VOCs) and total metals as listed in CFR Part 258. TB was analyzed for the Appendix I list of VOCs. The lined leachate lagoon (LAGOON) samples were tested for the SWS required leachate specific parameters (Appendix I VOCs and metals, nitrate, phosphorus, chemical oxygen demand, biological oxygen demand, pH, and sulfate). E1 documentation indicates samples were transported under C-O-C protocols and analyzed within the specified hold times for each method. Water samples were analyzed to the laboratory-established Method Detection Limits (MDL), which are at or below the current Solid Waste Section Limits (SWSL). A sampling and analysis table summarizing the locations, target parameters and laboratory methods is presented as **Table 1**. Laboratory results and COC are presented in **Appendix A**.

## Quality Control Samples

Six of the fifteen (40%) targeted Appendix I total metals were detected in low non-quantifiable (“j” qualified) concentrations in the EB and FB. Although the field and/or laboratory induced artifact contamination was identified it's unlikely the data set for the lined landfill has been influenced by false positives or high bias.

## Groundwater Samples

Constituents were not detected in concentrations exceeding the 2L or GWP Standards during this event. The two inorganic constituents detected in two groundwater samples above the SWSL is summarized in **Table 2**.

## Surfacewater Samples

Surfacewater monitoring point SW-3 was dry; thus, no surface water information was reported for this event.

## Leachate Samples

Total zinc was the only targeted constituent detected in a quantifiable concentration in the leachate sample (LAGOON) as summarized in **Table 3**.

## Groundwater and Surface Water Characterization

A single-day potentiometric map of the surficial aquifer created from groundwater elevation data recorded during this event is presented as **Figure 2**. Groundwater flow rates and directions were calculated based on this data and are included in **Table 4**. Groundwater flow was in a general northeasterly direction towards the designated wetlands and rates calculated by modified Darcy's equation ranged from approximately 3 feet/year (MW-13) to 350 feet/year (MW-14) with an average of 147 feet/year for all wells. Surfacewater sampling location SW-3 has reportedly been dry during each monitoring event since July 2007. Flow directions and gradients are generally consistent with historical observations.

## Findings

Laboratory data results continue to indicate that groundwater around the MSWLF and leachate lagoon remain unimpacted.

## Closing

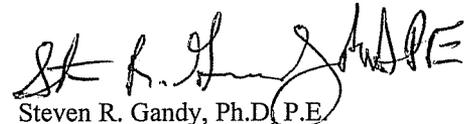
Detection monitoring will continue and the next semi-annual sampling event is tentatively scheduled for January 2014. Please contact us by phone at (919) 772-5393 Please contact us by phone at (919) 772-5393 or by email at [jpfohl@mesco.com](mailto:jpfohl@mesco.com) or [sgandy@mesco.com](mailto:sgandy@mesco.com).

Sincerely,

**MUNICIPAL ENGINEERING SERVICES CO., P.A.**



Jonathan Pfohl  
Environmental Specialist



Steven R. Gandy, Ph.D., P.E.  
Senior Project Manager

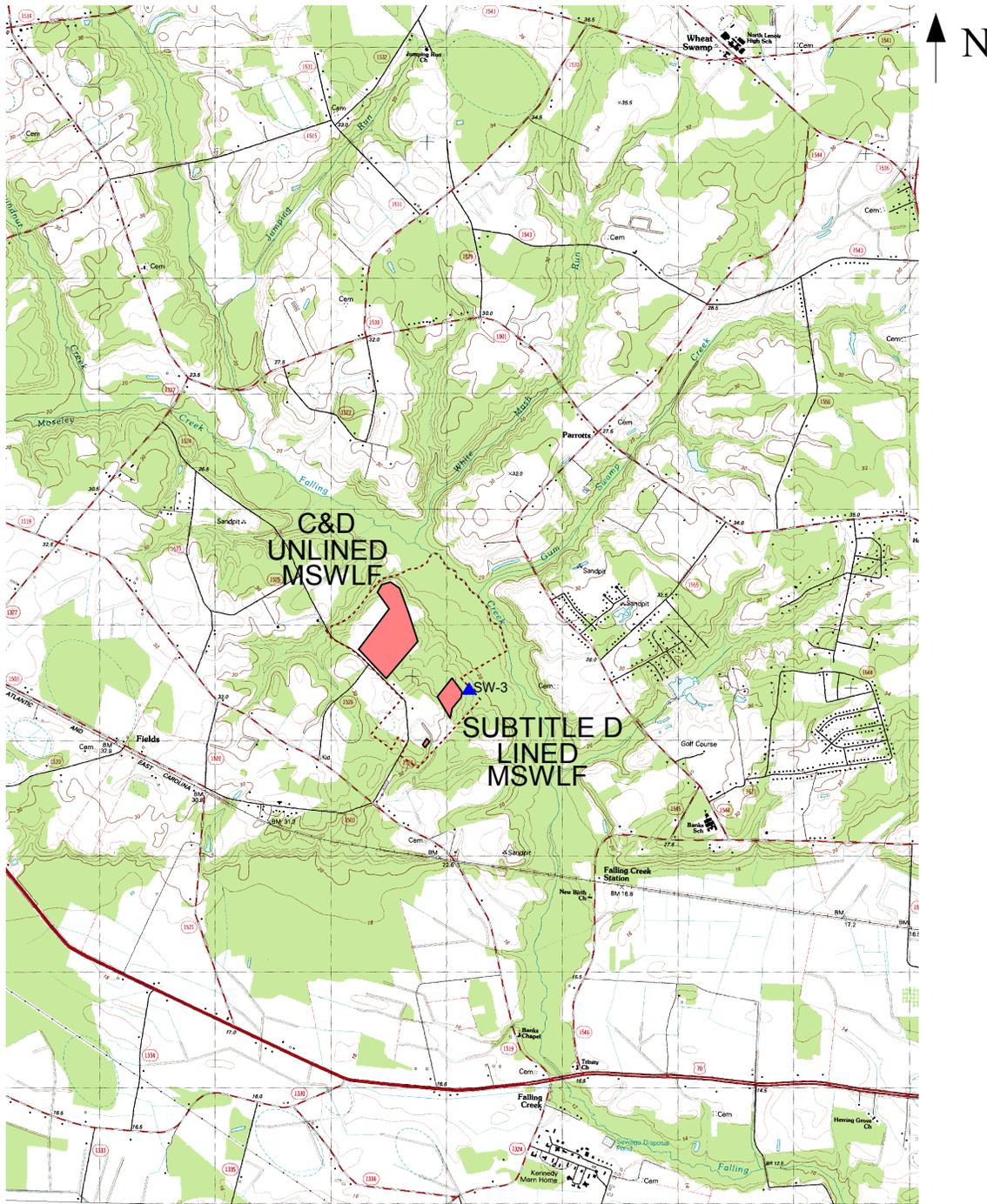
## Enclosures

cc: Mr. Tom Miller  
Lenoir County

# Figures

# Topographic Map with Site Location

## Lenoir County Landfill Facility

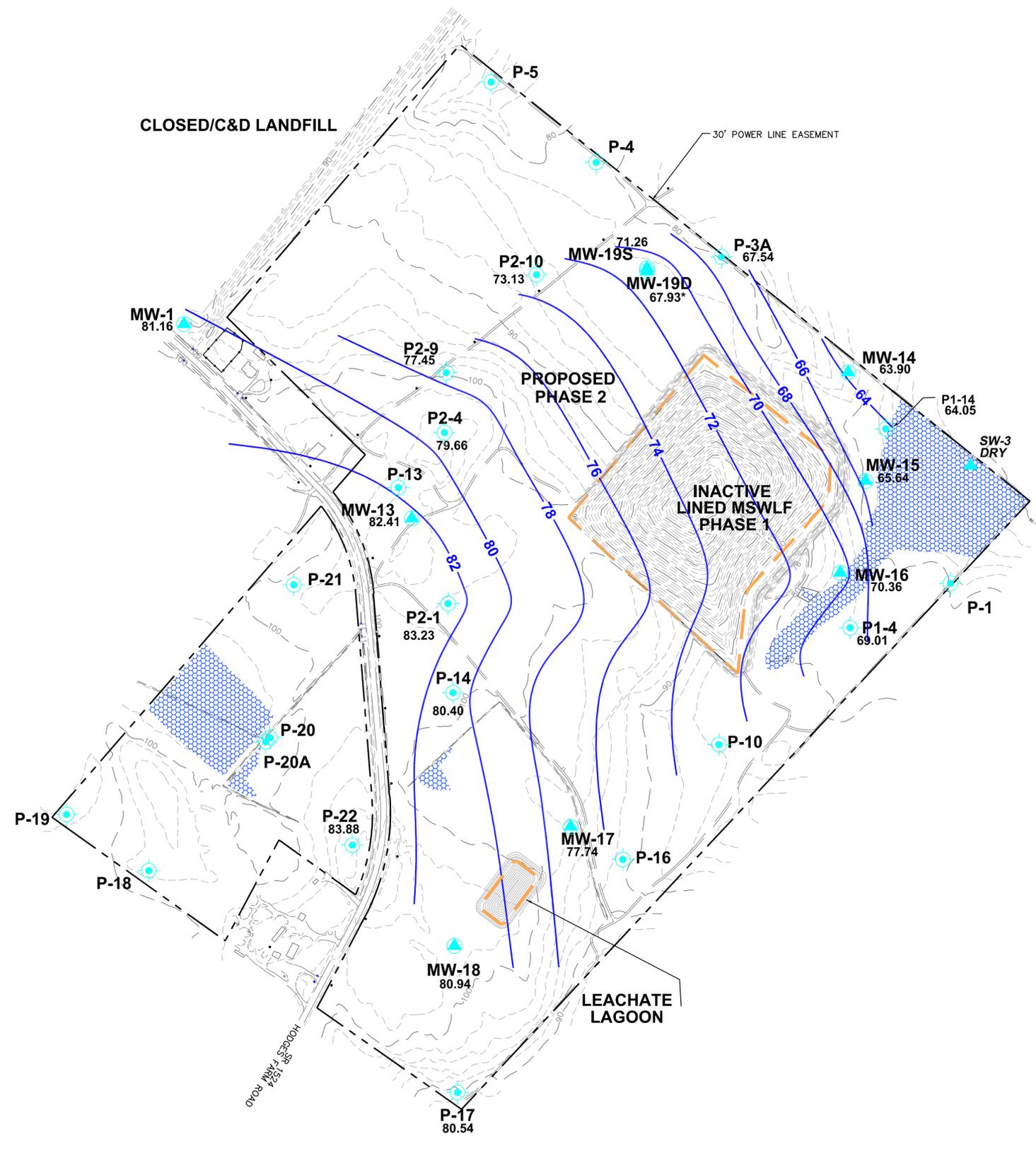
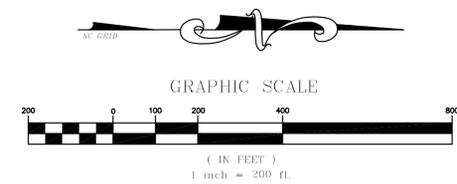


2949 Hodges Farm Rd (SR1524)  
 LaGrange, NC 28501  
 Lat:35-17-07.4269  
 Long:-77-42-32.7453  
 Northing:561295.59  
 Easting:2385220.32

### QUADRANGLE LEGEND

ROAD CLASSIFICATION	
Primary highway, hard surface	Light-duty road, hard or improved surface
Secondary highway, hard surface	Unimproved road
Interstate Route	U. S. Route
State Route	

**FIGURE 1**



- LEGEND**
- EXISTING TOPOGRAPHIC CONTOURS
  - EXISTING ROAD/PATH
  - EXISTING CREEK, STREAM, ETC.
  - EXISTING PROPERTY LINE
  - LINED MSWLF PHASE LIMITS
  - POTENTIOMETRIC GROUNDWATER CONTOUR
  - WETLANDS
  - SW-3 SURFACE WATER SAMPLING LOCATION
  - MW-14 MONITORING WELL
  - P-14 PIEZOMETER SYMBOL

Groundwater Levels & Detections Above 2L Standards  
July 29, 2013

WELL #	TOP OF CASING ELEVATION (FT AMSL)	DEPTH TO WATER (FT BTQC)	GROUNDWATER POTENTIOMETRIC ELEVATION (FT AMSL)	NONE (Ug/L)
15A NCAC 2L Groundwater Quality Standard				
MW-13	107.81	25.40	82.41	
MW-14	74.81	11.00	63.81	
MW-15	71.64	6.00	65.64	
MW-16	76.36	6.00	70.36	
MW-17	101.06	23.32	77.74	
MW-18	106.74	25.80	80.94	
MW-1	98.34	17.18	81.16	
P-3A	82.19	14.65	67.54	NS
P1-4	78.80	9.79	69.01	NS
P1-14	69.22	5.17	64.05	NS
P-14	104.07	23.67	80.40	NS
P-17	90.57	10.03	80.54	NS
P-22	110.40	26.52	83.88	NS
P2-1	104.98	21.75	83.23	NS
P2-4	107.62	27.96	79.66	NS
P2-9	101.95	24.50	77.45	NS
P2-10	88.14	15.01	73.13	NS
MW-19S	85.76	14.50	71.26	NS
MW-19D	85.87	17.31	68.56	NS

All data collected by Environment Incorporated personnel  
NS = Not Sampled

**Engineering Company, P.A.**

P.O. BOX 349 BOONE, N.C. 28607  
(828) 262-1767

**Municipal Services**

P.O. BOX 97 GARNER, N.C. 27529  
(919) 772-5393

LICENSE NUMBER: C-0281

**SUBTITLE D LINED MSW  
LANDFILL FACILITY  
LENOIR COUNTY  
NORTH CAROLINA**

SCALE: SEE BAR SCALE	DESCRIPTION
DATE: 10/12/2013	
DRWN. BY: R. MOSS	
CHKD. BY: S. GANDY	
PROJECT NUMBER	POTENTIOMETRIC MAP OF UPPERMOST AQUIFER
G13029.0	
DRAWING NO. FIGURE 2	SHEET NO. 1 OF 1

FIGURE 2

# Tables

**Table 1**  
**Sampling and Analysis Summary**  
**July 24, 2013**

	Reason Not Sampled	App. I		App II	Field Parameter					Leachate					
		VOCs	Total Metals	Mercury, Total	Static Depth to Water	Temperature	Conductivity	pH	Turbidity	Sulfate	pH	Phosphorus	BOD, 5 day	COD	Nitrate
		Lab EPA 8260B	Lab EPA200.8	Lab EPA200.8		SM2550B	SM2510B	SM4500HB	SM2130-B	SM426C	Lab SM4500HB	Lab EPA365.4	Lab SM5210B	Lab HACH8000	Lab EPA 353.2
MW-13		x	x		x	x	x	x	x						
MW-14		x	x		x	x	x	x	x						
MW-15		x	x		x	x	x	x	x						
MW-16		x	x		x	x	x	x	x						
MW-17		x	x		x	x	x	x	x						
MW-18		x	x		x	x	x	x	x						
SW-3	Dry														
LAGOON		x	x			x	x	x	x	x	x	x	x	x	x
EB		x	x	x											
FB		x	x	x											
TB		x													

App I = List from current 40 CFR 258

**Table 2**  
**Detections in Water Samples above SWSL, GWP, 2L, or 2B (Appendix I)**  
**July 24, 2013**

Well ID	Parameter Name <sup>1</sup>	Sample Date	Result	Unit	MDL <sup>2</sup>	SWSL <sup>3</sup>	2L <sup>4</sup>	2B <sup>5</sup>	GWP <sup>6</sup>	Exceedance	Preliminary Cause <sup>7</sup>
MW-15	Zinc, total	7/24/13	11	ug/L	10	10	1000				
MW-17	Barium, Total	7/24/13	103	ug/l	0.06	100	700				

<sup>1</sup> Table contains Appendix I constituents detected above SWSL, GWP, 2L, or 2B

<sup>2</sup> MDL = Method Detection Limit

<sup>3</sup> SWSL = Solid Waste Section Reporting Limit

<sup>4</sup> 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard

<sup>5</sup> 2B = North Carolina 15 NCAC 2B Surface Water Quality Standard for this Specific Stream Classification

<sup>6</sup> GWP = Groundwater Protection Standard

<sup>7</sup> Preliminary Cause = Refers to a preliminary analysis of the cause and/or source of a detection over the respective 2L/2B Standard.

A definitive source of the detection was not determined as part of this report.

NE = Not Established

**BOLD** = Concentration > 2L, or 2B Standard

**Table 3**  
**Detections in Leachate Samples above SWSL, GWP, 2L, or 2B**  
**July 24, 2013**

Sample ID	Parameter Name <sup>1</sup>	Sample Date	Result	Unit	MDL <sup>2</sup>	SWSL <sup>3</sup>	2L <sup>4</sup>	2B <sup>5</sup>	GWP <sup>6</sup>	Exceedance
LAGOON	BOD, 5 day	7/24/13	4400	ug/L	2000	2000	NE	NE	NE	
LAGOON	COD	7/24/13	28000	ug/L	1000000	20000	NE	NE	NE	
LAGOON	Zinc, total	7/24/13	12	ug/L	10	10	1000	50	NE	

<sup>1</sup> Table contains only constituents detected above SWSL, GWP, 2L, or 2B

<sup>2</sup> MDL = Method Detection Limit

<sup>3</sup> SWSL = Solid Waste Section Reporting Limit

<sup>4</sup> 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard

<sup>5</sup> 2B = North Carolina 15 NCAC 2B Surface Water Quality Standard for this Specific Stream Classification

<sup>6</sup> GWP = Groundwater Protection Standard (Current as of Sampling Event)

NE = Not Established

**BOLD** = Concentration > 2L, or 2B Standard

**Table 4**  
**Hydrologic Properties at Monitoring Well Locations**  
**July 24, 2013**

Monitoring Well	Hydraulic Conductivity (cm/sec)	Effective Porosity (%)	Hydraulic Gradient (ft/ft)	Groundwater Velocity Rate (ft/yr)	Flow Direction	Depth To Water (ft btoc)	Water Table Elevation (ft amsl)	Screened Interval Lithology
MW-13	7.69E-05	23	0.015	5	N43E	25.40	82.41	Silty Sand
MW-14	3.38E-03	23	0.013	192	N52E	11.00	63.81	Silty Sand
MW-15	2.89E-03	23	0.019	251	N64E	6.00	65.64	Silty Sand
MW-16	9.72E-04	23	0.080	350	S81E	6.00	70.36	Silty Sand
MW-17	1.13E-03	23	0.016	82	N82E	23.32	77.74	Silty Sand
MW-18	1.25E-04	23	0.005	3	N82E	25.80	80.94	Silty Clayey Sand
<b>Minimum</b>	7.69E-05	23	0.01	3	-	6	63.81	-
<b>Average</b>	1.43E-03	23	0.02	147	-	16.25	73.48	-
<b>Maximum</b>	3.38E-03	23	0.08	350	-	25.8	82.41	-

NOTE: 1. Hydraulic conductivity (K) values based on slug test results, performed by MESCO in December 2005.  
2. Effective Porosity (ne) values obtained from the MESCO Ph. 1 design hydrogeologic report completed in August 2002.  
3. Static water levels recorded by Environment 1, Inc. on July 24, 2013.  
Linear velocity rate (Q) is defined by modified Darcy's equation:

where 
$$Q = - \frac{K}{n_e} \cdot \frac{dh}{dl}$$

K = hydraulic conductivity  
ne = effective porosity  
dh = head difference  
dl = horizontal distance

**Appendix A**  
**Laboratory Analysis Report**  
**Field Analysis Report**  
**Chains of Custody**

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6053

LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON ,NC 28502

DATE COLLECTED: 07/24/13  
DATE REPORTED : 09/11/13

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-13	MW-14	MW-15	MW-16	MW-17	Analysis Date	Method Analyst Code
PH (field measurement), Units			7.1	4.3	4.8	4.6	4.1	07/24/13BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.02 J	0.34 J	0.15 J	0.17 J	0.04 J	07/26/13LFFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.24 J	0.05 J	0.29 J	0.29 J	0.43 J	07/26/13LFFJ	EPA200.8
Barium, ug/l	0.06	100.0	36.9 J	34.5 J	53.3 J	20.2 J	103	07/26/13LFFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.10 J	0.10 J	0.06 J	0.06 J	0.28 J	07/26/13LFFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.06 J	0.10 J	0.21 J	0.05 J	0.15 J	07/26/13LFFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.66 J	0.79 J	0.99 J	0.36 J	1.5 J	07/26/13LFFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.1 J	0.66 J	1.4 J	0.43 J	0.68 J	07/26/13LFFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.17 J	0.17 J	---	---	0.47 J	07/26/13LFFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.34 J	0.39 J	0.12 J	0.14 J	2.7 J	07/26/13LFFJ	EPA200.8
Nickel, ug/l	0.45	50.0	1.2 J	0.91 J	1.4 J	0.66 J	1.5 J	07/26/13LFFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.21 J	0.10 J	0.65 J	0.11 J	0.29 J	07/26/13LFFJ	EPA200.8
Silver, ug/l	0.03	10.0	---	---	---	---	---	07/26/13LFFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.03 J	0.03 J	0.05 J	---	0.03 J	07/26/13LFFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	0.38 J	---	---	---	1.0 J	07/26/13LFFJ	EPA200.8
Zinc, ug/l	0.47	10.0	3.9 J	5.4 J	11	4.8 J	5.2 J	07/26/13LFFJ	EPA200.8
Conductivity (at 25c), uMhos/cm	1.0	1.0	185	54	362	43	174	07/24/13BF	2510B-97
Temperature, °C			20	24	25	26	21	07/24/13BF	2550B-00
Static Water Level, feet			25.40	11.00	6.00	6.00	23.32	07/24/13BF	
Well Depth, feet			31.59	23.56	18.26	24.11	30.91	07/24/13BF	
Turbidity (Field), NTU	1.0	1.0	12.4	3.96	4.84	4.19	34.3	07/24/13BF	2130B-01

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6053

LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON ,NC 28502

DATE COLLECTED: 07/24/13  
DATE REPORTED : 09/11/13

REVIEWED BY: 

PARAMETERS	MDL	MW-18		Analysis		Method Code
		SWSL		Date	Analyst	
PH (field measurement), Units			5.3	07/24/13BF		4500HB-00
Antimony, ug/l	0.02	6.0	---	U 07/26/13LFG		EPA200.8
Arsenic, ug/l	0.05	10.0	0.20	J 07/26/13LFG		EPA200.8
Barium, ug/l	0.06	100.0	5.9	J 07/26/13LFG		EPA200.8
Beryllium, ug/l	0.03	1.0	0.04	J 07/26/13LFG		EPA200.8
Cadmium, ug/l	0.05	1.0	0.05	J 07/26/13LFG		EPA200.8
Cobalt, ug/l	0.02	10.0	0.15	J 07/26/13LFG		EPA200.8
Copper, ug/l	0.06	10.0	1.1	J 07/26/13LFG		EPA200.8
Total Chromium, ug/l	0.04	10.0	0.17	J 07/26/13LFG		EPA200.8
Lead, ug/l	0.02	10.0	0.34	J 07/26/13LFG		EPA200.8
Nickel, ug/l	0.45	50.0	1.0	J 07/26/13LFG		EPA200.8
Selenium, ug/l	0.06	10.0	0.11	J 07/26/13LFG		EPA200.8
Silver, ug/l	0.03	10.0	0.03	J 07/26/13LFG		EPA200.8
Thallium, ug/l	0.02	5.5	0.18	J 07/26/13LFG		EPA200.8
Vanadium, ug/l	0.07	25.0	0.12	J 07/26/13LFG		EPA200.8
Zinc, ug/l	0.47	10.0	5.4	J 07/26/13LFG		EPA200.8
Conductivity (at 25c), uMhos/cm	1.0	1.0	25	07/24/13BF		2510B-97
Temperature, °C			19	07/24/13BF		2550B-00
Static Water Level, feet			25.80	07/24/13BF		
Well Depth, feet			33.99	07/24/13BF		
Turbidity (Field), NTU	1.0	1.0	4.76	07/24/13BF		2130B-01

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715

Wastewater ID: 10

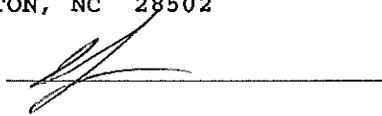
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON, NC 28502

CLIENT ID: 6053  
ANALYST: MAO  
DATE COLLECTED: 07/24/13  
DATE REPORTED: 09/11/13

Page: 1

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	Date Analyzed:		07/24/13	07/24/13	07/24/13	07/24/13	07/25/13
	MDL	SWSL	MW-13	MW-14	MW-15	MW-16	MW-17
1. Chloromethane	0.77	1.0	--- U				
2. Vinyl Chloride	0.63	1.0	--- U				
3. Bromomethane	0.67	10.0	--- U				
4. Chloroethane	0.48	10.0	--- U				
5. Trichlorofluoromethane	0.24	1.0	--- U				
6. 1,1-Dichloroethene	0.17	5.0	--- U				
7. Acetone	9.06	100.0	--- U				
8. Iodomethane	0.26	10.0	--- U				
9. Carbon Disulfide	0.23	100.0	--- U				
10. Methylene Chloride	0.64	1.0	--- U				
11. trans-1,2-Dichloroethene	0.23	5.0	--- U				
12. 1,1-Dichloroethane	0.20	5.0	--- U				
13. Vinyl Acetate	0.20	50.0	--- U				
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U				
15. 2-Butanone	2.21	100.0	--- U				
16. Bromochloromethane	0.37	3.0	--- U				
17. Chloroform	0.25	5.0	--- U				
18. 1,1,1-Trichloroethane	0.19	1.0	--- U				
19. Carbon Tetrachloride	0.22	1.0	--- U				
20. Benzene	0.24	1.0	--- U				
21. 1,2-Dichloroethane	0.27	1.0	--- U				
22. Trichloroethene	0.23	1.0	--- U				
23. 1,2-Dichloropropane	0.21	1.0	--- U				
24. Bromodichloromethane	0.21	1.0	--- U				
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U				
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U				
27. Toluene	0.23	1.0	--- U				
28. trans-1,3-Dichloropropene	0.28	1.0	--- U				
29. 1,1,2-Trichloroethane	0.25	1.0	--- U				
30. Tetrachloroethene	0.17	1.0	--- U				
31. 2-Hexanone	1.57	50.0	--- U				
32. Dibromochloromethane	0.24	3.0	--- U				
33. 1,2-Dibromoethane	0.26	1.0	--- U				
34. Chlorobenzene	0.30	3.0	--- U				
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U				
36. Ethylbenzene	0.21	1.0	--- U				
37. Xylenes	0.68	5.0	--- U				
38. Dibromomethane	0.28	10.0	--- U				
39. Styrene	0.19	1.0	--- U				
40. Bromoform	0.20	3.0	--- U				
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U				
42. 1,2,3-Trichloropropane	0.43	1.0	--- U				
43. 1,4-Dichlorobenzene	0.39	1.0	--- U				
44. 1,2-Dichlorobenzene	0.32	5.0	--- U				
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U				
46. Acrylonitrile	2.72	200.0	--- U				
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U				

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON, NC 28502

CLIENT ID: 6053  
ANALYST: MAO  
DATE COLLECTED: 07/24/13  
DATE REPORTED: 09/11/13

Page: 2

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	Date Analyzed:		07/25/13 MW-18
	MDL	SWSL	
1. Chloromethane	0.77	1.0	--- U
2. Vinyl Chloride	0.63	1.0	--- U
3. Bromomethane	0.67	10.0	--- U
4. Chloroethane	0.48	10.0	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U
7. Acetone	9.06	100.0	--- U
8. Iodomethane	0.26	10.0	--- U
9. Carbon Disulfide	0.23	100.0	--- U
10. Methylene Chloride	0.64	1.0	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U
15. 2-Butanone	2.21	100.0	--- U
16. Bromochloromethane	0.27	3.0	--- U
17. Chloroform	0.25	5.0	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U
20. Benzene	0.24	1.0	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U
22. Trichloroethene	0.23	1.0	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U
24. Bromodichloromethane	0.21	1.0	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U
27. Toluene	0.23	1.0	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U
30. Tetrachloroethene	0.17	1.0	--- U
31. 2-Hexanone	1.57	50.0	--- U
32. Dibromochloromethane	0.24	3.0	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U
34. Chlorobenzene	0.30	3.0	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U
36. Ethylbenzene	0.21	1.0	--- U
37. Xylenes	0.68	5.0	--- U
38. Dibromomethane	0.28	10.0	--- U
39. Styrene	0.19	1.0	--- U
40. Bromoform	0.20	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U
46. Acrylonitrile	2.72	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Environment I, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6053 Week: 33

LENOIR CO. LANDFILL (NEW)  
 COUNTY OF LENOIR  
 MR. TOM MILLER  
 P.O. BOX 756  
 KINSTON NC 28502

(252) 566-4194

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTANT			Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	CLASSIFICATION:		
	DATE	TIME				<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV	<input type="checkbox"/> NONE													
MW-13	7/24/13				5																
MW-14					4																
MW-15					4																
MW-16					4																
MW-17					4																
MW-18					4																
SW-3					4																
REINQUISHED BY (SIG.) <i>Ballas f-f</i>	DATE/TIME 7/24/13 1340	RECEIVED BY (SIG.) <i>Ballas f-f</i>	DATE/TIME 7/24/13 2000	RECEIVED BY (SIG.) <i>Ballas f-f</i>	DATE/TIME 7/24/13 2000	COMMENTS: SW 3 DRY														CHLORINE NEUTRALIZED AT COLLECTION pH CHECK (LAB) CONTAINER TYPE, PG CHEMICAL PRESERVATION A - NONE D - NAOH B - HNO <sub>3</sub> E - HCL C - H <sub>2</sub> SO <sub>4</sub> F - ZINC ACETATE/NAOH G - NA THIOSULFATE	CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY SAMPLES COLLECTED BY: <i>(Y) N</i> (Please Print) SAMPLES RECEIVED IN LAB AT <i>08</i> °C <i>READY FOR</i>

PLEASE READ Instructions for completing this form on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

# Environment 1, Incorporated

Drinking Water ID: 37715

Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6053 A

LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON, NC 28502

DATE COLLECTED: 07/24/13  
DATE REPORTED : 08/16/13

REVIEWED BY: 

PARAMETERS	MDL	Lagoon		Analysis		Method
		SWSL		Date	Analyst	
PH (field measurement), Units			8.1	07/24/13BF		4500HB-00
BOD, mg/l	2.0	2.0	4.4	07/24/13TRB		5210B-01
COD, mg/l	20.0	20.0	28	07/30/13TRB		H8000-79
Nitrate Nitrogen as N, mg/l	0.03	10.0	---	U	07/26/13ANO	353.2 R2-93
Total Phosphorus as P, mg/l	0.04	0.04	---	U	07/29/13ANO	365.4-74
Sulfate, mg/l	5.0	250.0	10.2	J	07/29/13TRB	4500S042E97
Antimony, ug/l	0.02	6.0	---	U	07/26/13LFFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.39	J	07/26/13LFFJ	EPA200.8
Barium, ug/l	0.06	100.0	98.0	J	07/26/13LFFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	---	U	07/26/13LFFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.08	J	07/26/13LFFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.04	J	07/26/13LFFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.48	J	07/26/13LFFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	---	U	07/26/13LFFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.18	J	07/26/13LFFJ	EPA200.8
Nickel, ug/l	0.45	50.0	0.91	J	07/26/13LFFJ	EPA200.8
Selenium, ug/l	0.06	10.0	---	U	07/26/13LFFJ	EPA200.8
Silver, ug/l	0.03	10.0	---	U	07/26/13LFFJ	EPA200.8
Thallium, ug/l	0.02	5.5	---	U	07/26/13LFFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	---	U	07/26/13LFFJ	EPA200.8
Zinc, ug/l	0.47	10.0	12		07/26/13LFFJ	EPA200.8
Turbidity, NTU	1.0	1.0	5.2		07/25/13HMB	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	112		07/24/13BF	2510B-97
Temperature, °C			31		07/24/13BF	2550B-00

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

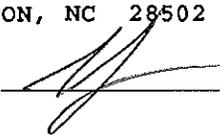
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON, NC 28502

CLIENT ID: 6053 A  
ANALYST: MAO  
DATE COLLECTED: 07/24/13  
DATE ANALYZED: 07/25/13  
DATE REPORTED: 08/16/13

Page: 1

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	MDL	SWSL	Lagoon
1. Chloromethane	0.77	1.0	--- U
2. Vinyl Chloride	0.63	1.0	--- U
3. Bromomethane	0.67	10.0	--- U
4. Chloroethane	0.48	10.0	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U
7. Acetone	9.06	100.0	--- U
8. Iodomethane	0.26	10.0	--- U
9. Carbon Disulfide	0.23	100.0	--- U
10. Methylene Chloride	0.64	1.0	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U
15. 2-Butanone	2.21	100.0	--- U
16. Bromochloromethane	0.27	3.0	--- U
17. Chloroform	0.25	5.0	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U
20. Benzene	0.24	1.0	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U
22. Trichloroethene	0.23	1.0	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U
24. Bromodichloromethane	0.21	1.0	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U
27. Toluene	0.23	1.0	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U
30. Tetrachloroethene	0.17	1.0	--- U
31. 2-Hexanone	1.57	50.0	--- U
32. Dibromochloromethane	0.24	3.0	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U
34. Chlorobenzene	0.30	3.0	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U
36. Ethylbenzene	0.21	1.0	--- U
37. Xylenes	0.68	5.0	--- U
38. Dibromomethane	0.28	10.0	--- U
39. Styrene	0.19	1.0	--- U
40. Bromoform	0.20	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U
46. Acrylonitrile	2.72	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: 6053 A Week: 33

LENOIR CO. LANDELL (NEW)  
 COUNTY OF LENOIR  
 MR. TOM MILLER  
 P.O. BOX 756  
 KINSTON NC 28502

(252) 566-4194

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			Field pH	BOD	COD	Nitrate	T. Phosphorus	Sulfate	Metals	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	CLASSIFICATION:
	DATE	TIME				<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV	<input type="checkbox"/> NONE															
Lagoon	7-24-13	8:15 11:25		31	10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C	C	C	C	C		<input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DWQ/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:																		
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:																		
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:																		

PLEASE READ Instructions for completing this form on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 262607

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6053 B

LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON , NC 28502

DATE COLLECTED: 07/24/13  
DATE REPORTED : 07/31/13

REVIEWED BY: 

PARAMETERS	MDL	P-22 SWSL	MW-19S	MW-19D	P1-4	P1-14	Analysis		Method
							Date	Analyst	
Static Water Level, feet			26.52	14.50	17.31	23.67	5.17	07/24/13BF	

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

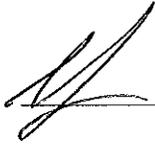
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6053 B

LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON ,NC 28502

DATE COLLECTED: 07/24/13  
DATE REPORTED : 07/31/13

REVIEWED BY: 

PARAMETERS	MDL	SWSL	P-14	P-3A	P-17	P2-1	P2-4	Analysis	
								Date	Analyst
								Method	Code
Static Water Level, feet			9.79	14.65	10.03	21.75	27.96	07/24/13	BF

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6053 B

LENOIR CO. LANDFILL (NEW)  
COUNTY OF LENOIR  
MR. TOM MILLER  
P.O. BOX 756  
KINSTON ,NC 28502

DATE COLLECTED: 07/24/13  
DATE REPORTED : 07/31/13

REVIEWED BY: 

PARAMETERS	MDL	SWSL	P2-9	P2-10	Analysis	Method
					Date	Analyst
Static Water Level, feet			24.50	15.01	07/24/13BF	

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: 6053 B Week: 33

LENOIR CO. LANDFILL (NEW)  
 COUNTY OF LENOIR  
 MR. TOM MILLER  
 P.O. BOX 756  
 KINSTON NC 28502

(252) 566-4194

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION		Field Parameter	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:	PARAMETERS	CLASSIFICATION:	CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY	SAMPLER RECEIVED IN LAB AT <u>N/A</u> °C
	DATE	TIME				<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV									
P-22	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
MW-195	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
MW-19D	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
P1-4	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
P1-14	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
P-14	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
P-3A	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
P-17	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
P2-1	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
P2-4	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
P2-9	7-24-13				1	<input type="checkbox"/>	<input type="checkbox"/>									
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
<i>Bobby Fox</i>	7-24-13 1340		<i>[Signature]</i>	7-24-13 200												

PLEASE READ Instructions for completing this form on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested. No 263356

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

**CHAIN OF CUSTODY RECORD**

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: 6053 B Week: 33

LENOIR CO. LANDELL (NEW)  
 COUNTY OF LENOIR  
 MR. TOM MILLER  
 P.O. BOX 756  
 KINSTON NC 28502

(252) 566-4194

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:	PARAMETERS	CHLORINE NEUTRALIZED AT COLLECTION	PH CHECK (LAB)	CONTAINER TYPE, PG	CHEMICAL PRESERVATION
	DATE	TIME													
P2-10	7-24-13	8:45			1			<i>[Signature]</i>	7/24/13		A - NONE D - NaOH B - HNO <sub>3</sub> E - HCL C - H <sub>2</sub> SO <sub>4</sub> F - ZINC ACETATE/NaOH G - Na THIOSULFATE				
											CLASSIFICATION: <input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DWO/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION				
											CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY <input checked="" type="checkbox"/> N				
RELINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	COMMENTS:	SAMPLES COLLECTED BY: (Please Print)	SAMPLES RECEIVED IN LAB AT	°C						
<i>[Signature]</i>	7-24-13	1340	<i>[Signature]</i>				<i>[Signature]</i>	2/12/200							

PLEASE READ Instructions for completing this form on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

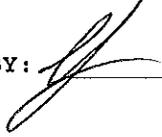
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 628

LENOIR CO. LANDFILL (LEACHATE)  
MR. TOM MILLER  
LENOIR COUNTY LANDFILL  
2949 HODGES FARM ROAD  
LAGRANGE ,NC 28551

DATE COLLECTED: 07/24/13  
DATE REPORTED : 08/27/13

REVIEWED BY: 

PARAMETERS	Lagoon	Analysis		Method
		Date	Analyst	Code
Total Suspended Residue, mg/l	<5.0	07/25/13	DRF	2540D-97
Ammonia Nitrogen as N, mg/l	<0.04	07/25/13	ANO	350.1 R2-93
Total Kjeldahl Nitrogen as N,mg/l	0.76	07/29/13	ANO	351.2 R2-93
Total Cyanide, mg/l	<0.005	07/26/13	SEJ	4500CNE-99
Mercury, ug/l	<0.2	08/07/13	ADD	245.1 R3-94
Molybdenum, ug/l	<10	07/29/13	LFJ	EPA200.7

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

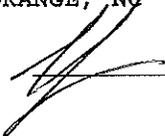
PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: LENOIR CO. LANDFILL (LEACHATE)  
MR. TOM MILLER  
LENOIR COUNTY LANDFILL  
2949 HODGES FARM ROAD  
LAGRANGE, NC 28551

CLIENT ID: 628

ANALYST: CHS  
DATE COLLECTED: 07/24/13  
DATE EXTRACTED: 07/26/13  
DATE ANALYZED: 07/30/13  
DATE REPORTED: 08/27/13

Page: 1

REVIEWED BY: 

SEMIVOLATILE ORGANICS  
EPA METHOD 625

PARAMETERS, ug/l	Lagoon
1. N-Nitrosodimethylamine	<10.00
2. Phenol	<10.00
3. Bis(2-Chloroethyl) Ether	<10.00
4. 2-Chlorophenol	<10.00
5. 1,3-Dichlorobenzene	<10.00
6. 1,4-Dichlorobenzene	<10.00
7. 1,2-Dichlorobenzene	<10.00
8. Bis(2-Chloroisopropyl) Ether	<10.00
9. Hexachloroethane	<10.00
10. N-Nitrosodi-N-Propylamine	<10.00
11. Nitrobenzene	<10.00
12. Isophorone	<10.00
13. 2-Nitrophenol	<10.00
14. 2,4-Dimethylphenol	<10.00
15. Bis(2-Chloroethoxy) Methane	<10.00
16. 2,4-Dichlorophenol	<10.00
17. 1,2,4-Trichlorobenzene	<10.00
18. Naphthalene	<10.00
19. Hexachlorobutadiene	<10.00
20. 4-Chloro-3-Methylphenol	<20.00
21. Hexachlorocyclopentadiene	<10.00
22. 2,4,6-Trichlorophenol	<10.00
23. 2-Chloronaphthalene	<10.00
24. Acenaphthylene	<10.00
25. Dimethylphthalate	<10.00
26. 2,6-Dinitrotoluene	<10.00
27. Acenaphthene	<10.00
28. 2,4-Dinitrophenol	<50.00
29. 4-Nitrophenol	<50.00
30. 2,4-Dinitrotoluene	<10.00
31. Fluorene	<10.00
32. Diethylphthalate	<10.00
33. 4-Chlorophenyl Phenyl Ether	<10.00
34. 4,6-Dinitro-2-Methylphenol	<50.00
35. N-Nitrosodiphenylamine	<10.00
36. 4-Bromophenyl Phenyl Ether	<10.00
37. Hexachlorobenzene	<10.00
38. Pentachlorophenol	<50.00
39. Phenanthrene	<10.00
40. Anthracene	<10.00
41. Di-N-Butylphthalate	<10.00
42. Fluoranthene	<10.00
43. Benzidine	<100.00
44. Pyrene	<10.00
45. Butylbenzylphthalate	<10.00
46. Benzo[a]anthracene	<10.00
47. 3,3-Dichlorobenzadine	<10.00
48. Chrysene	<10.00

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: LENOIR CO. LANDFILL (LEACHATE)  
MR. TOM MILLER  
LENOIR COUNTY LANDFILL  
2949 HODGES FARM ROAD  
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CLIENT ID: 628

ANALYST: CHS  
DATE COLLECTED: 07/24/13  
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Page: 2

REVIEWED BY: 

## SEMIVOLATILE ORGANICS EPA METHOD 625

PARAMETERS, ug/l	Lagoon
49. Bis(2-Ethylhexyl)phthalate	<20.00
50. Di-N-Octylphthalate	<10.00
51. Benzo[b]fluoranthene	<10.00
52. Benzo[k]fluoranthene	<10.00
53. Benzo[a]pyrene	<10.00
54. Indeno(1,2,3-C,d)pyrene	<10.00
55. Dibenzo[a,h]anthracene	<10.00
56. Benzo[g,h,i]perylene	<10.00
57. 1,2-Diphenylhydrazine	<10.00