
**Semi-Annual Water Quality Monitoring Report
with Corrective Action Update**

Prepared for

Greene County Active C&D over Closed MSW Landfill
Walstonburg, North Carolina

September 2012

Permit Number: 40-02

MESCO Project Number: G12010.0

Submittal: March 27, 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

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):

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

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Greene County Active C&D and Closed MSWLF	105 Landfill Road Walstonburg, NC 27888	40-02	.1600	September 16, 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 Methane gas monitoring data
 Groundwater monitoring data from private water supply wells Corrective action data (specify) MNA Paramaters MW-1R & MW-4
 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.

D. Mark Durway, L.G.

Geologist

(919) 772-5393

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Affix NC Licensed/ Professional Geologist Seal

D. Mark Durway
Signature

3.27.13
Date

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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March 27, 2013

Jaclynne Drummond
 Solid Waste Section (SWS)
 NCDENR Division of Waste Management
 217 West Jones Street
 Raleigh, NC 27603

Subject: **Semi-Annual Water Quality Monitoring Report with Corrective Action Update**
 Greene County Active C&D and Closed MSWLF
 Event Date: September 6, 2012
 Permit No. 40-02
 MESCO Project No. G11010.0

Dear Ms. Drummond:

Introduction

On behalf of Greene County, Municipal Engineering Services Company, P.A. (MESCO) is pleased to present this *Semi-Annual Water Quality Report with Corrective Action Update* for fall 2012 at the Active Construction and Demolition (C&D) Landfill and Closed Unlined Sanitary Municipal Solid Waste Landfill (MSWLF). NCDENR Solid Waste Rules 15ANCAC13B.1630 through .1637 requires that Greene County provide this report to the SWS on a semi-annual basis. This report documents the quality of the ground and surface waters during this monitoring event performed on September 6, 2012. A brief corrective action update and qualitative evaluation comparing current and historical data is also presented. During this event the only constituents attributed to landfill activities in concentrations above North Carolina Groundwater Standards (2L) was benzene and vinyl chloride from MW-4 which is located within the relevant compliance boundary.

Background

The Greene County Active Construction and Demolition (C&D) Landfill and Closed Unlined Sanitary Municipal Solid Waste Landfill (MSWLF) is located off Fire Tower Road (SR 1239), Walstonburg, Greene County, North Carolina and operates under permit #40-02. A topographic map showing the facility location is included as **Figure 1**.

Prior to operating as a C&D landfill, the site operated as an approximate 13-acre Municipal Solid Waste (MSW) unlined sanitary landfill. The MSW unit stopped receiving waste by January 1, 1998 in accordance with the *Greene County Transition Plan*. The C&D landfill is operating on a portion of the top of the MSW unit which are monitored together.

Water quality has been monitored at this facility on at least a semi-annual basis since 1994. MESCO submitted an *Assessment and Corrective Action (ACM)* [DIN:8776] report dated August 30, 2007. MESCO then developed a *Corrective Action Plan (CAP)* which was revised on February 12, 2010 (*CAP-Rev. 5*) [DIN:9670] and subsequently approved on February 16, 2010 [DIN:671]. Groundwater remediation using monitored natural attenuation (MNA) was initiated on March 30, 2010 and has continued on a semi-annual basis since. A *Corrective Action Evaluation Report (CAER)* was submitted to the SWS on October 16, 2012 (DIN:17502) which was reviewed by the SWS and responded to on December 6, 2012 (DIN:17837).

As specified within rule 15A NCAC 13B.1632(i) and the SWS Environmental Monitoring Report Form, this report contains sampling procedures, field and laboratory results, corrective action update, groundwater and surface water characterization, and findings. Detections compared to Standards tables, hydrogeologic properties table, MNA parameters table, histograms of historical detections, potentiometric map, field parameters, and laboratory analytical reports with chains-of-custody (C-O-C) and quality assurance/quality control data.

Sampling Procedures

Environment 1 (E1) of Greenville, NC, reportedly performed this monitoring event utilizing portable monitoring methodology in accordance with the approved Sampling & Analysis Plan (SAP) contained in the *CAP-Rev.5*. E1 reportedly collected groundwater samples from five downgradient groundwater monitoring wells (MW-4, MW-5, MW-6, MW-7 and MW-8), one background well (MW-1R), and two surface water points (Upstream and Downstream). Quality control measures included submittal and analysis of an equipment blank (EB), field blank (FB) and trip blank (TB). Surface water and groundwater monitoring locations are depicted on **Figure 1** and **Figure 2** respectively.

Static water levels in each well were measured electronically prior to purging. Samples were transported under C-O-C protocol and analyzed within the hold times specified for each method.

Field Parameter Data

E1 quantified the field parameters pH, specific conductance, temperature, turbidity, oxidation reduction potential (ORP) and dissolved oxygen (DO) which is presented in the laboratory analysis report in **Appendix A**.

Laboratory Results

E1 performed laboratory analysis of groundwater samples for Appendix II constituents and surface waters for Appendix I parameters. Additionally, MW-4 and the background well (MW-1R) were analyzed for the SWS recommended MNA performance parameters for the sixth consecutive semi-annual event as part of corrective action. Microseeps Inc. of Pittsburgh, PA performed specialty analysis of the MNA parameters including volatile fatty acids, methane/ethene/ethane and dissolved hydrogen. A sampling and analysis table summarizing the locations, constituents, and methods is presented on **Table 1**. Laboratory results and C-O-Cs are contained in **Appendix A**.

Water samples were analyzed to the laboratory-established Method Detection Limits (MDL), which are at or below current Solid Waste Section Limits (SWSL). **Table 2** summarizes Appendix I contaminant constituents detected in groundwater and surface water samples above the current SWSL, Groundwater Protection Standards (GWP), North Carolina Groundwater Standards (2L) or the applicable Class C North Carolina Surface Water Standards (2B). **Table 3** summarizes Appendix II exclusive detections (defined in this report as not also listed in Appendix I) above the MDL.

Quality Control Samples

Eight of the eighteen (44%) targeted total metals, including the Appendix II exclusive constituents mercury and tin, were detected in low non-quantifiable (“j” qualified) concentrations in the FB and EB. The detections of mercury (EB and FB) and tin (FB) indicates that field and or laboratory induced artifact contamination may have attributed to false positives or high bias concentrations of these specific metals which were detected in five groundwater samples.

Groundwater Samples

Total metals detected in levels above 2L Standards included arsenic in MW-4 and lead in MW-8.

VOCs benzene and vinyl chloride have consistently been detected in concentrations above their respective 2L Standards in samples collected from MW-4 since the detection levels were reduced in March 2007. VOCs remain absent from samples collected from MW-7 and MW-8, delineation wells located east of MW-4.

Targeted Appendix II exclusive parameters were not detected in levels above the SWSL nor established applicable Standards.

A site map spatially depicting VOCs detected in excess of the 2L Standard during this event is presented on **Figure 2**.

Surface Water Samples

Constituents were not detected above the applicable 2B Standard in the surface water sample collected upstream or downstream of the facility along an unnamed tributary of Sandy Run.

Groundwater Characterization

A single-day potentiometric map of the uppermost aquifer is presented on **Figure 2**, using ground water elevation data reported by E1 for this event. Groundwater flow direction and rates were calculated based on reported data and are included in **Table 4**. Estimated flow direction was easterly with flow rates, quantified through modified Darcy's equation, ranging from approximately 5 ft/yr (MW-4) to 471 ft/yr (MW-8) for an average of approximately 106 ft/yr.

Corrective Action Update

Groundwater remediation measures utilizing MNA per *CAP-Rev. 5* continues to be implemented at the facility. This is the sixth consecutive semi-annual MNA monitoring event of MW-4 and background well MW-1R. MNA data presented in **Table 5** continues to indicate that favorable geochemical conditions exist for continued natural attenuation.

Findings

Although total arsenic and total lead were detected in elevated concentrations from MW-4 and MW-8 respectively their presence is not attributed to a landfill release but rather believed to be natural. Since the 2L Standards "refers to the total concentrations in micrograms per liter of any constituent in a dissolved, colloidal or particulate from which is mobile in groundwater" it should not apply to total metals which employ digestion procedures that may bias results high by including metals in the sediment as well as colloidal and dissolved phases. As requested by the SWS beginning with the next event both total and dissolved phase metals are planned to be reported.

The laboratory results continue to indicate the surficial aquifer in near MW-4 has been impacted by low level dissolved phase Appendix I VOCs (benzene and vinyl chloride) in concentrations above the 2L Standard. Quantitative evaluations reveal concentrations of constituents detected above the 2L Standard during this event remain within their own respective historically identified range and an increasing trend is not evident (**Figure 3**). MW-4 has exhibited a reduction of benzene (-13%), vinyl chloride (-36%) and total VOCs (-61%) compared to their respective baseline averages established during the initial four corrective action events (**Figure 4**). The horizontal plume extent beyond MW-4 is likely defined within the compliance boundary as evidenced by the lack of detections in sentinel wells MW-7 and MW-8.

The detections of the low level Appendix II exclusive target constituents total tin and total mercury is likely an indication of field &/or laboratory induced artifact contamination since similar levels were also found in the associated quality control blanks.

Consistent with the findings of the *CAER*, targeted contaminant concentrations are not increasing and there is adequate evidence that natural attenuation is occurring in the groundwater at the facility.

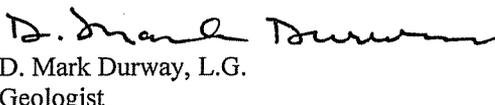
Closing

Semi-annual water quality and MNA monitoring will continue at the facility in March 2013. Please contact us by phone at (919) 772-5393 or by email at jpfohl@mesco.com or mdurway@mesco.com should you have any questions regarding this report.

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


Jonathan Pfohl
Environmental Specialist

Enclosures
cc: Mr. David Jones
Greene County

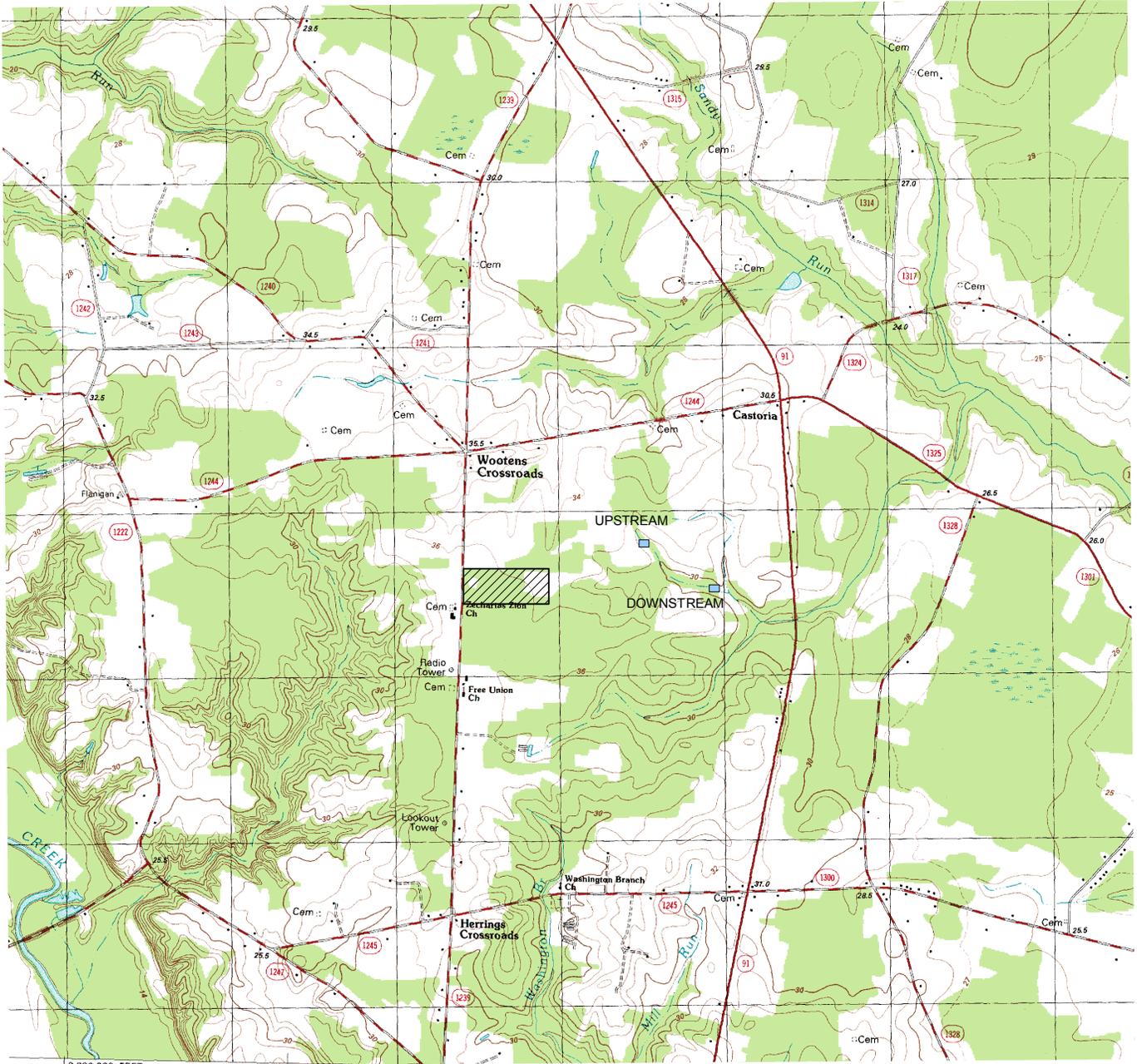

D. Mark Durway, L.G.
Geologist



Figures

Topographic Map with Site Location

Greene County Active C&D over Closed MSWLF



105 Landfill Road (SR1257)
Walstonburg, NC
Lat:35-31-29.7520
Long:-77-41-49.4325
Northing:648520.2533
Easting:2387660.4409

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 | |

NOTE: Topographical map assembled from corresponding USGS 7.5-min. quadrangles of the subject region.

0 ————— 3,334'

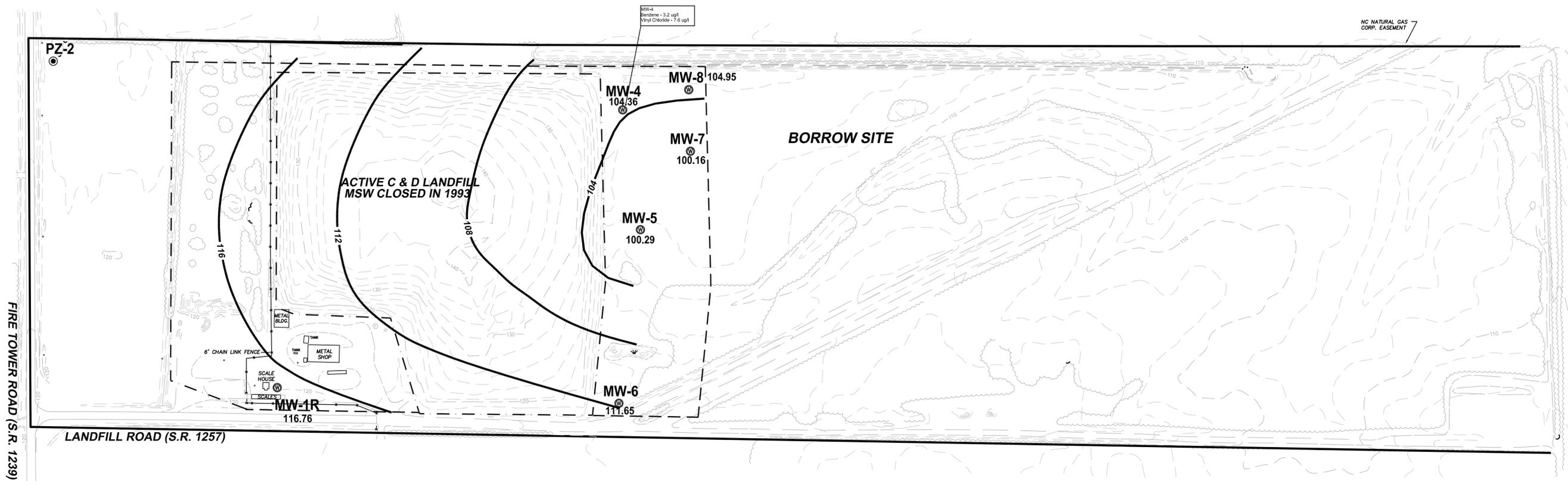
FIGURE 1

- LEGEND**
- RELEVANT COMPLIANCE BOUNDARY (250' FROM WASTE OR 50' FROM PROPERTY LINE)
 - - - EXISTING EROSION CONTROL DIVERSION DITCH
 - - - 120' EXISTING TOPOGRAPHIC CONTOURS
 - PROPERTY LINE
 - WASTE LIMIT OF UNLINED MSWLF
 - MW-1R (M) MONITORING WELL
 - PZ-2 (C) PIEZOMETER
 - 94.29 GROUNDWATER POTENTIOMETRIC ELEVATION
 - 112 GROUNDWATER CONTOUR

NOTES

THIS MAP WAS GENERATED FROM AERIAL PHOTOS FLOWN ON 2-22-94 BY TRIANGLE AERIAL MAPPING, SUPPLEMENTED WITH SURVEYS BY MUNICIPAL ENGINEERING SERVICES CO., PA.

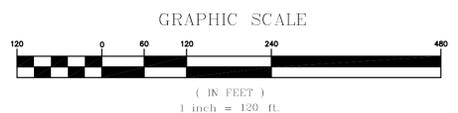
Municipal Engineering Services
 Company, P.A.
 P.O. BOX 97 GARNER, N.C. 27529
 P.O. BOX 349 BOONE, N.C. 28607
 (919) 772-5393 (828) 262-1767
 LICENSE NUMBER: C-0281



ACTIVE C & D OVER CLOSED MSW LANDFILL FACILITY
GREENE COUNTY
NORTH CAROLINA

Groundwater Levels & Detections Above 2L Standards
 March 19, 2012

WELL #	TOP OF CASING ELEVATION (ftamsl)	DEPTH TO WATER (ftbtoc)	GROUNDWATER POTENTIOMETRIC ELEVATION (ftamsl)	BENZENE (ug/l)	VCM (ug/l)
15A NCAC 2L Groundwater Quality Standard					
MW-1R	121.78	5.02	116.76	1.0	0.03
MW-4	117.89	13.53	104.36	3.2	7.6
MW-5	115.76	15.47	100.29		
MW-6	117.41	5.76	111.65		
MW-7	110.48	10.32	100.16		
MW-8	111.36	6.41	104.95		

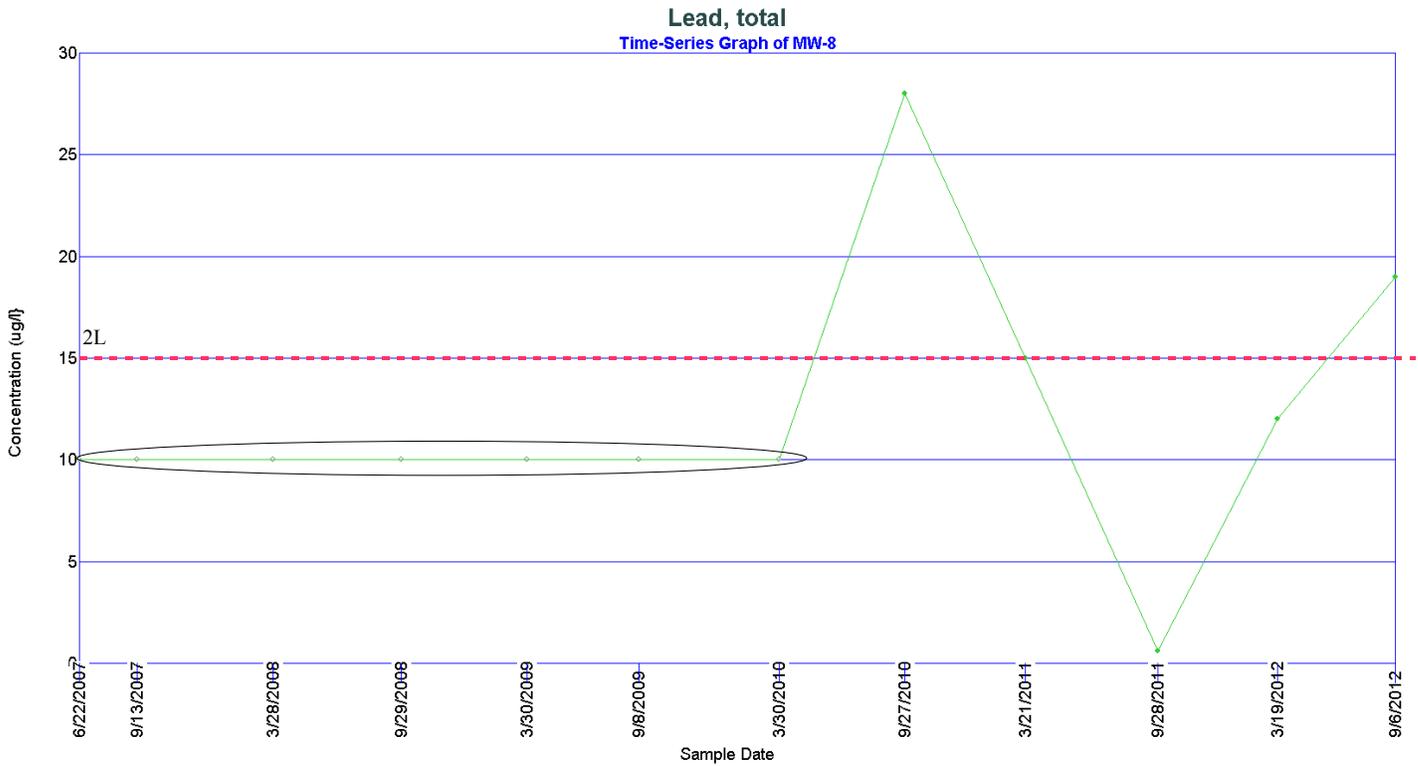
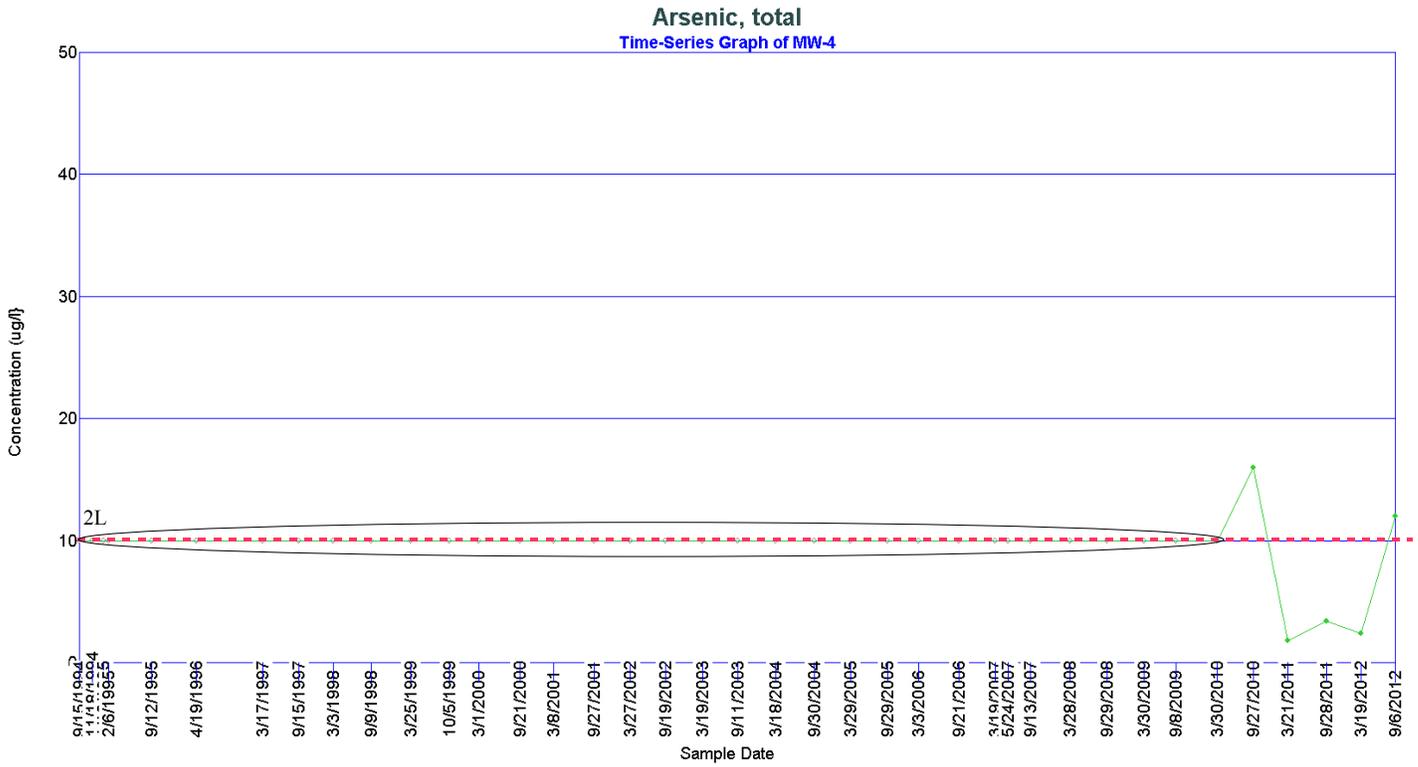


DATE	BY	REV.	DESCRIPTION

SCALE: 1" = 120'
 DATE: 9/19/12
 DRWN. BY: M. DURWAY
 CHKD. BY: M. DURWAY
 PROJECT NUMBER: G12010.0
 DRAWING NO. SHEET NO.
 FIGURE 2 1 OF 1

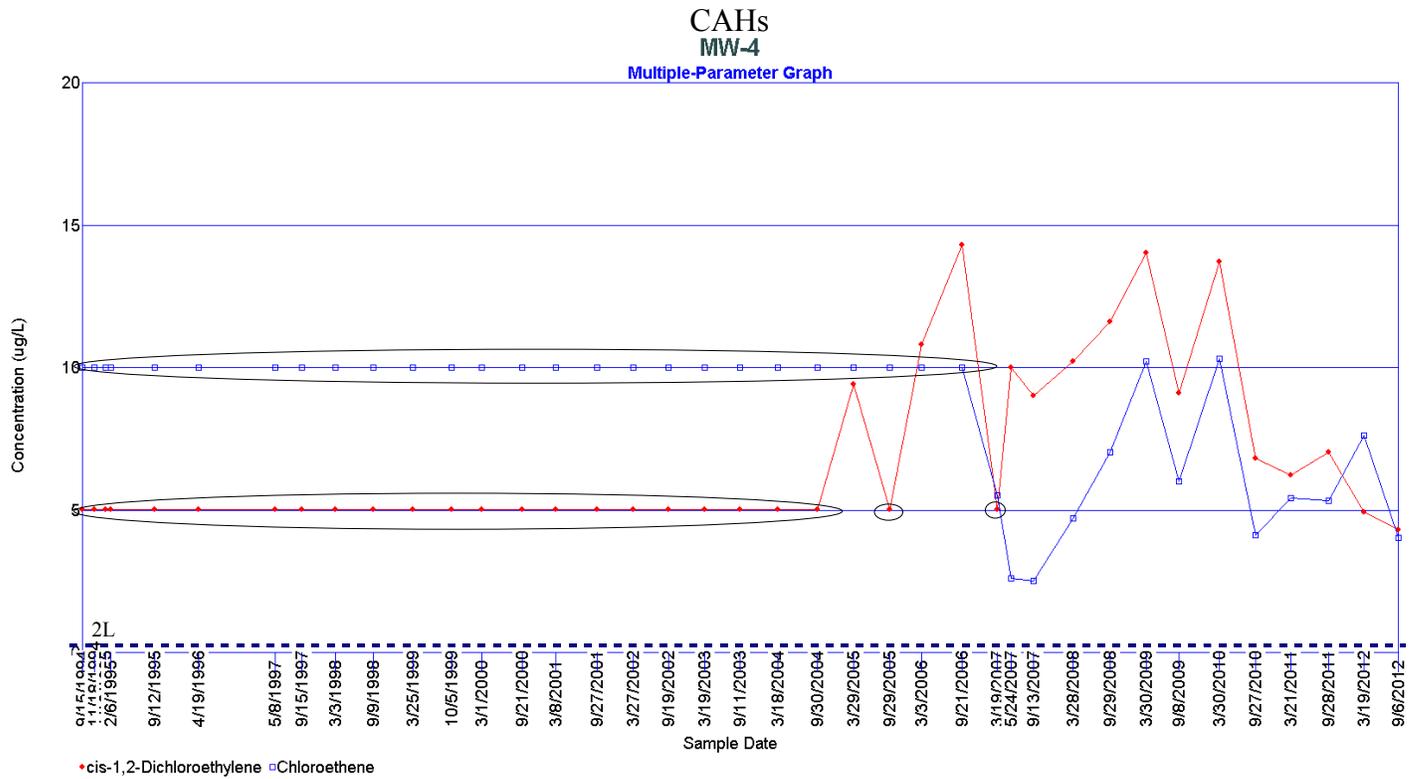
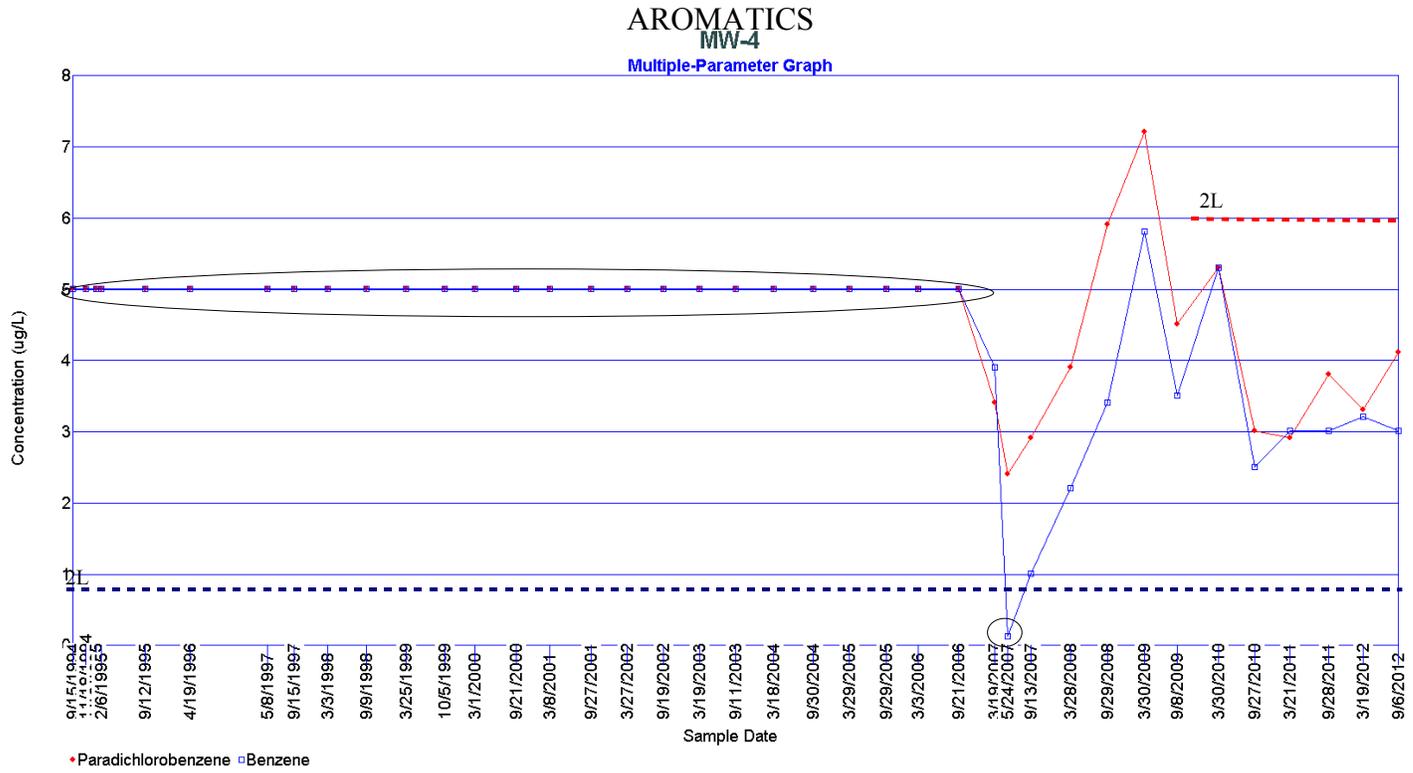
FIGURE 2

Figure 3
Time-Series Graphs of Select Constituents
September 6, 2012



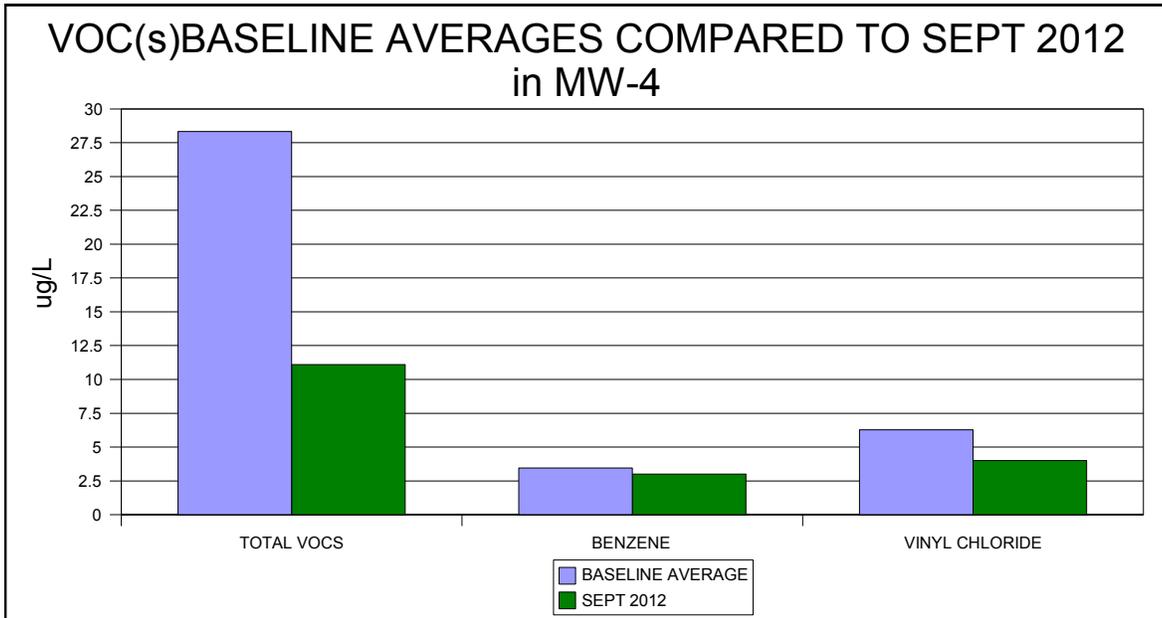
= Non-Detect But Shown at Detection Limit

Figure 3
Time-Series Graphs of Select Constituents
September 16, 2012



= Non-Detect But Shown at Detection Limit

Figure 4
Histograms of VOC Concentrations in MW-4
(March 30,2010-September 28, 2011) Compared to September 16, 2012



	TOTAL VOCS (ug/l)	BENZENE (ug/l)	VINYL CHLORIDE (ug/l)
BASELINE			
MARCH 2010	59.30	5.30	10.30
SEPT. 2010	17.40	2.50	4.10
MARCH 2011	17.50	3.00	5.40
SEPT. 2011	19.10	3.00	5.30
BASELINE AVERAGE	28.33	3.45	6.28

	TOTAL VOCS (ug/l)	BENZENE (ug/l)	VINYL CHLORIDE (ug/l)
CURRENT			
SEPTEMBER 2012	11.10	3.00	4.00

	TOTAL VOCS (ug/l)	BENZENE (ug/l)	VINYL CHLORIDE (ug/l)
COMPARISON			
DIFFERENCE (ug/l)	-17.23	-0.45	-2.28
DIFFERENCE (%)	-61	-13	-36

Tables

**Table 1
Sampling and Analysis Summary
September 6, 2012**

	Reason Not Sampled		App. I														MNA					Field Parameter					App. II									
	VOCs	Total Metals	VFA	Hydrogen	Methane/Ethane/Ethane	Dissolved CO2	Alkalinity	Sulfate	Sulfide	Chloride	TOC	COD	BOD	Iron	Nitrate	Turbidity	Dissolved Oxygen (DO)	Oxidation Reduction Potential (ORP)	Temperature	Conductivity	pH	VOCs (App II)	Total Metals (App II)	Pesticides	Herbicides-Chlorinated	Polychlorinated biphenyl (PCB)	Semivolatle Organics (SVOCs)	Total Cyanide	Sulfide							
	Lab EPA 8260B	Lab EPA200.8	Lab AM23G	Lab AM20GAX	Lab AM20GAX	Lab SM4500CO2C	Lab SM2320B	Lab SM426C	Lab SM18 4500-S2D	Lab SM4500-CLB	Lab SM 5310C	Lab HACH8000	Lab SM5210B	Lab SM311B	Lab EPA353.2	Lab SM2130B	Field Meter	Field Meter	Field Meter	Field Meter	Field Meter	Lab EPA 8260B	Lab EPA 6000/7000	Lab EPA 8081B	Lab SW8151A	Lab EPA 8082A	Lab EPA 8270D	Lab EPA 9014	Lab SM18 4500-S D							
MW-1R			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
MW-4			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
MW-5																x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
MW-6																x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
MW-7																x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
MW-8																x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
Downstream	x	x														x	x	x	x	x	x															
Upstream	x	x														x	x	x	x	x	x															
EB																						x	x	x	x	x	x	x	x	x						
TB																						x														
FB																						x	x													

App I & II = Appendix Lists from current 40 CFR 258

Table 2
Detections in Water Samples Above SWSL, GWP, 2L, or 2B (Appendix I)
September 6, 2012

Sample ID	Parameter Name ¹	Sample Date	Result	Unit	MDL ²	SWSL ³	2L ⁴	2B ⁵	GWP ⁶	Exceedance Amount	Preliminary Cause ⁷
MW-1R	Zinc, total	9/6/12	11	ug/l	0.48	10	1050				
MW-4	Arsenic, total	9/6/12	12	ug/l	0.13	10	10			2	N
MW-4	Vinyl Chloride	9/6/12	4	ug/l	0.63	1	0.03			3.97	L &/or LFG
MW-4	Benzene	9/6/12	3	ug/l	0.24	1	1			2	L &/or LFG
MW-4	1,4-Dichlorobenzene	9/6/12	4.1	ug/l	0.39	1	6				
MW-5	Zinc, total	9/6/12	10	ug/l	0.48	10	1050				
MW-6	Zinc, total	9/6/12	12	ug/l	0.48	10	1050				
MW-7	Vanadium, total	9/6/12	13.2 j	ug/l	0.1	25			3.5	9.7	
MW-7	Zinc, total	9/6/12	25	ug/l	0.48	10	1050				
MW-8	Zinc, total	9/6/12	12	ug/l	0.48	10	1050				
MW-8	Vanadium, total	9/6/12	17.3 j	ug/l	0.1	25			3.5	13.8	
MW-8	Lead, total	9/6/12	19	ug/l	0.08	10	15			4	N
Upstream	Toluene	9/6/12	1.4	ug/l	0.23	1		11			
Upstream	Zinc, total	9/6/12	16	ug/l	0.48	10		50			
Downstream	Lead, total	9/6/12	35	ug/l	0.08	10		25			

¹ MDL = Method Detection Limit

² SWSL = Solid Waste Section Reporting Limit

³ 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard

⁴ 2B = North Carolina 15 NCAC 2B Surface Water Quality Standard for the Applicable Stream Classification

⁵ GWP = Groundwater Protection Standard

⁷ 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.

j = Defined by laboratory as Between MDL and SWSL

L = Leachate

LFG = Landfill Gas

N = Natural (Erosion of Natural Deposits)

NE = Not Established

BOLD = Concentration > 2L, or 2B Standard

Table 3
Detections in Water Samples Above MDL (Appendix II Exclusive)
September 6, 2012

Sample ID	Parameter Name	Sample Date	Result	Unit	MDL ¹	SWSL ²	2L ³	GWP ⁴	Exceedance
MW-4	Mercury, total	9/6/12	.02 j	ug/l	0.02	0.2	1	--	
MW-4	Tin, total	9/6/12	.31 j	ug/l	0.1	100	NE	2000	
MW-5	Mercury, total	9/6/12	.09 j	ug/l	0.02	0.2	1	--	
MW-5	Tin, total	9/6/12	.36 j	ug/l	0.1	100	NE	2000	
MW-6	Mercury, total	9/6/12	.06 j	ug/l	0.02	0.2	1	--	
MW-6	Tin, total	9/6/12	.26 j	ug/l	0.1	100	NE	2000	
MW-7	Mercury, total	9/6/12	.02 j	ug/l	0.02	0.2	1	--	
MW-7	Tin, total	9/6/12	.28 j	ug/l	0.1	100	NE	2000	
MW-8	Tin, total	9/6/12	.34 j	ug/l	0.1	100	NE	2000	
EB	Mercury, total	9/6/12	0.04 j	ug/l	0.02	0.2	1	--	
FB	Mercury, total	9/6/12	.02 j	ug/l	0.02	0.2	1	--	
FB	Tin, total	9/6/12	0.28 j	ug/l	0.1	100	NE	2000	

¹ MDL = Method Detection Limit

² SWSL = Solid Waste Section Reporting Limit

³ 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard

⁴ GWP = Groundwater Protection Standard

j = Defined by laboratory as Between MDL and SWSL

BOLD = Concentration >2L, or 2B Standard

Table 4
Hydrologic Properties at Monitoring Well Locations
September 6, 2012

Monitoring Well	Hydraulic Conductivity (cm/sec)	Effective Porosity (%)	Hydraulic Gradient (ft/ft)	Linear Velocity (ft/yr)	Flow Direction	Depth to Groundwater (ft btoc)	Groundwater Potentiometric Elevation (ft amsl)
MW-1R	1.20E-04	15	0.026	21	N35E	4.23	117.55
MW-4	1.10E-04	15	0.007	5	S53E	14.77	103.12
MW-5	1.40E-04	15	0.021	20	S62W	16.13	99.63
MW-6	1.90E-04	15	0.028	37	N26E	8.18	109.23
MW-7	1.98E-04	7	0.028	83	S36E	11.38	99.10
MW-8	1.14E-03	7	0.028	471	S16E	8.29	103.07
Minimum	1.10E-04	7	0.007	5	-	4.23	99.10
Average	3.16E-04	12	0.023	106	-	10.50	105.28
Maximum	1.14E-03	15	0.028	471	-	16.13	117.55

NOTE: Data for hydraulic conductivities for wells except MW-7 & MW-8 obtained from GAI Consultants' *Water Quality Modifications* (October, 1994)
 Data for hydraulic conductivities for MW-7 & MW-8 obtained from slug tests performed by MESCO (June, 2007)
 Hydrologic gradient from water level elevations on September 6, 2012
 Flow rate (Q) is defined by modified Darcy's equation:

where

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

K = hydraulic conductivity

n_e = effective porosity

dh = head difference

dl = horizontal distance

Table 5
MNA Parameters at Monitoring Well Locations Summary
September 16, 2012

Parameters	Method	mdl*	Units	MW-1R	MW-4
				09/16/13	09/16/13
VFA – Acetic Acid	AM23G	6	ug/l	<6	<6
VFA – Butyric Acid	AM23G	4	ug/l	<4	<4
VFA – Hexanoic Acid	AM23G	6	ug/l	<6	<6
VFA – i-Hexanoic Acid	AM23G	6	ug/l	<6	<6
VFA – i-Pentanoic Acid	AM23G	44	ug/l	<44	<44
VFA – Lactic Acid	AM23G	10	ug/l	<10	<10
VFA – Pentaonic Acid	AM23G	12	ug/l	<12	<12
VFA – Propionic Acid	AM23G	7	ug/l	<7	<7
VFA – Pyruvic Acid	AM23G	33	ug/l	<33	<33
Hydrogen	AM20GAX	0.25	nM	<.25	<.25
Methane	AM20GAX	0.003	ug/l	4	4500
Ethene	AM20GAX	0.002	ug/l	<0.02	0.07
Ethane	AM20GAX	0.001	ug/l	<.001	<.001
CO2-Dissolved	SM4500CO2C	1000	ug/l	104000	445000
Alkalinity	SM2320B	1000	ug/l	21000	159000
Sulfate	SM426C	5000	ug/l	11300 j	6000 j
Sulfide	SM4500-S2D	100	ug/l	<100	<100
Chloride	SM4500-CLB	5000	ug/l	84000	8000
TOC	SM5310C	300	ug/l	1520	10200
COD	HACH8000	20000	ug/l	<200000	60000
BOD	SM5210B	2000	ug/l	<2000	16000
Iron, Total	SM3111B	15.9	ug/l	668	70000
Nitrate	EPA353.2	30	ug/l	3980 j	<30
Temperature	SM2550B	0.10	C	23.23	20.17
ORP	SM2580B	0.0	mV	131.1	-9.1
DO	SM4500OG	100	ug/l	450	560
pH	SM4500HB	0.10	SU	4.78	5.4
Specific Conductance	SM2510B	1	ug/l	388	309
Turbidity	SM2130B	0.0	NTU	3	25

Notes:

VFA = Volatile Fatty Acids

mdl* = Lowest Method Detection Limit for Lab Parameters or Lowest Field Measurement Possible

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#: 6005

GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL ,NC 28580

DATE COLLECTED: 09/06/12
DATE REPORTED : 09/26/12

REVIEWED BY: 

PARAMETERS	MDL	Upstream		Downstream		Well	Well	Well	Analysis Date	Method Code		
		SWSL				#4	#5	#6				
PH (field measurement), Units			6.05	5.48	5.40	4.19	4.50	09/06/12RJH	SM4500HB			
BOD, mg/l	2.0	2.0			16			09/06/12TRB	SM5210B			
COD, mg/l	20.0	20.0			60			09/18/12TRB	HACH8000			
Nitrate Nitrogen as N, mg/l	0.03	10.0			---	U		09/07/12ANO	EPA353.2			
Total Organic Carbon, mg/l	0.30	1.0			10.20			09/19/12SEJ	SM5310C			
Total Alkalinity, mg/l	1.0	1.0			159			09/06/12TRB	SM2320B			
Chloride, mg/l	5.0	5.0			8			09/11/12MSG	SM4500-CLB			
Cyanide, ug/l	5.0	10.0			---	U	---	U	09/18/12SEJ	SM4500 CNE		
Sulfate, mg/l	5.0	250.0			6.0 J			09/13/12TRB	4500S042E97			
Antimony, ug/l	0.02	6.0	0.06 J	- - U	0.15 J	0.07 J	---	U	09/13/12LFJ	EPA200.8		
Arsenic, ug/l	0.13	10.0	3.1 J	0.44 J	12	5.8 J	0.48 J	09/13/12LFJ	EPA200.8			
Barium, ug/l	0.07	100.0	32.6 J	6.0 J	41.2 J	36.3 J	19.7 J	09/13/12LFJ	EPA200.8			
Beryllium, ug/l	0.07	1.0	---	U	- - U	---	U	0.17 J	0.12 J	09/13/12LFJ	EPA200.8	
Cadmium, ug/l	0.03	1.0	0.05 J	- - U	0.12 J	0.61 J	0.08 J	09/13/12LFJ	EPA200.8			
Cobalt, ug/l	0.02	10.0	0.48 J	0.14 J	1.3 J	0.51 J	0.23 J	09/13/12LFJ	EPA200.8			
Copper, ug/l	0.06	10.0	1.3 J	0.45 J	2.4 J	4.1 J	0.84 J	09/13/12LFJ	EPA200.8			
Total Chromium, ug/l	0.18	10.0	0.86 J	0.35 J	0.58 J	1.4 J	1.5 J	09/13/12LFJ	EPA200.8			
Iron, ug/l	15.9	300.0			70000			09/21/12ADD	SM3111B			
Lead, ug/l	0.08	10.0	0.85 J	035	0.81 J	3.8 J	1.4 J	09/13/12LFJ	EPA200.8			
Mercury, ug/l	0.02	0.20	---	U	- - U	0.02 J	0.09 J	0.06 J	09/13/12LFJ	EPA200.8		
Nickel, ug/l	0.06	50.0	2.0 J	0.34 J	2.5 J	1.7 J	0.81 J	09/13/12LFJ	EPA200.8			
Selenium, ug/l	0.17	10.0	0.26 J	- - U	0.82 J	---	U	---	U	09/13/12LFJ	EPA200.8	
Silver, ug/l	0.10	10.0	---	U	- - U	---	U	---	U	09/13/12LFJ	EPA200.8	
Thallium, ug/l	0.07	5.5	---	U	- - U	0.14 J	---	U	---	U	09/13/12LFJ	EPA200.8
Tin, ug/l	0.10	100.0	---	U	- - U	0.31 J	0.36 J	0.26 J	09/13/12LFJ	EPA200.8		
Vanadium, ug/l	0.10	25.0	2.7 J	0.69 J	3.2 J	2.8 J	2.3 J	09/13/12LFJ	EPA200.8			
Zinc, ug/l	0.48	10.0	16	1.7 J	9.1 J	10	12	09/13/12LFJ	EPA200.8			
Turbidity, NTU	1.0	1.0	16	23	25	28	73	09/06/12RJH	SM2130B			
Sulfide, ug/l	100	1000			---	U	---	U	09/11/12LFJ	SM4500-S2D		
Conductivity (at 25c), uMhos/cm	1.0	1.0	126	103	309	60	43	09/06/12RJH	SM2510B			
Dissolved Oxygen, mg/l	0.1	0.1	0.44	1.05	0.56	0.20	0.83	09/06/12RJH	SM45000G			
Temperature, °C			24.99	23.17	20.17	18.51	21.18	09/06/12RJH	SM2550B			
Static Water Level, feet					14.77	16.13	8.18	09/06/12RJH				
Well Depth, feet					26.69	28.53	26.11	09/06/12RJH				
Carbon Dioxide, mg/l	1.0	1.0			445			09/06/12TRB	SM4500C02C			
ORP, mv			0.2	82.9	-9.1	15.47	208.9	09/06/12RJH	SM2580B			

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#: 6005

GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

DATE COLLECTED: 09/06/12
DATE REPORTED : 09/26/12

REVIEWED BY: 

PARAMETERS	MDL	Well SWSL #7	Well #8	Well #1R #2	Piezometer #2	Equipment Blank	Analysis Date	Method Analyst Code				
PH (field measurement), Units			4.01	4.32	4.78		09/06/12RJH	SM4500HB				
BOD, mg/l	2.0	2.0			---	U	09/06/12TRB	SM5210B				
COD, mg/l	20.0	20.0			---	U	09/18/12TRB	HACH8000				
Nitrate Nitrogen as N, mg/l	0.03	10.0			3.98	J	09/07/12ANO	EPA353.2				
Total Organic Carbon, mg/l	0.30	1.0			1.52		09/19/12SEJ	SM5310C				
Total Alkalinity, mg/l	1.0	1.0			21		09/06/12TRB	SM2320B				
Chloride, mg/l	5.0	5.0			84		09/11/12MSG	SM4500-CLB				
Cyanide, ug/l	5.0	10.0	---	U	---	U	09/18/12SEJ	SM4500 CNE				
Sulfate, mg/l	5.0	250.0			11.3	J	09/13/12TRB	4500S042E97				
Antimony, ug/l	0.02	6.0	---	U	0.02	J	09/13/12LFJ	EPA200.8				
Arsenic, ug/l	0.13	10.0	3.4	J	1.5	J	09/13/12LFJ	EPA200.8				
Barium, ug/l	0.07	100.0	49.5	J	53.0	J	9.4	J	09/13/12LFJ	EPA200.8		
Beryllium, ug/l	0.07	1.0	0.43	J	0.43	J	0.12	J	09/13/12LFJ	EPA200.8		
Cadmium, ug/l	0.03	1.0	0.05	J	0.30	J	0.09	J	09/13/12LFJ	EPA200.8		
Cobalt, ug/l	0.02	10.0	0.86	J	0.59	J	0.28	J	09/13/12LFJ	EPA200.8		
Copper, ug/l	0.06	10.0	2.9	J	2.1	J	2.7	J	09/13/12LFJ	EPA200.8		
Total Chromium, ug/l	0.18	10.0	11		8.2	J	0.39	J	09/13/12LFJ	EPA200.8		
Iron, ug/l	15.9	300.0			668		09/21/12ADD	SM3111B				
Lead, ug/l	0.08	10.0	5.1	J	19		1.1	J	09/13/12LFJ	EPA200.8		
Mercury, ug/l	0.02	0.20	0.02	J	-	U	---	U	09/13/12LFJ	EPA200.8		
Nickel, ug/l	0.06	50.0	1.9	J	1.6	J	1.7	J	09/13/12LFJ	EPA200.8		
Selenium, ug/l	0.17	10.0	---	U	0.21	J	0.35	J	09/13/12LFJ	EPA200.8		
Silver, ug/l	0.10	10.0	---	U	-	U	---	U	09/13/12LFJ	EPA200.8		
Thallium, ug/l	0.07	5.5	0.08	J	0.07	J	0.18	J	09/13/12LFJ	EPA200.8		
Tin, ug/l	0.10	100.0	0.28	J	0.34	J	---	U	09/13/12LFJ	EPA200.8		
Vanadium, ug/l	0.10	25.0	13.2	J	17.3	J	0.41	J	09/13/12LFJ	EPA200.8		
Zinc, ug/l	0.48	10.0	25		12		11		4.1	J	09/13/12LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	201		165		3		09/06/12RJH	SM2130B		
Sulfide, ug/l	100	1000	---	U	-	U	---	U	09/11/12LFJ	SM4500-S2D		
Conductivity (at 25c), uMhos/cm	1.0	1.0	49		32		388		09/06/12RJH	SM2510B		
Dissolved Oxygen, mg/l	0.1	0.1	4.98		7.01		0.45		09/06/12RJH	SM4500OG		
Temperature, °C			18.66		19.86		23.23		09/06/12RJH	SM2550B		
Static Water Level, feet			11.38		8.29		4.23	11.24	09/06/12RJH			
Well Depth, feet			21.39		20.23		18.64		09/06/12RJH			
Carbon Dioxide, mg/l	1.0	1.0			104				09/06/12TRB	SM4500CO2C		
ORP, mv			358.8		304.4		131.1		09/06/12RJH	SM2580B		

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

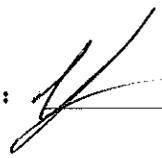
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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

ID#: 6005

GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

DATE COLLECTED: 09/06/12
DATE REPORTED : 09/26/12

REVIEWED BY: 

PARAMETERS	MDL	Trip		Field Blank	Analysis		Method Code
		SWSL	Blank		Date	Analyst	
Antimony, ug/l	0.02	6.0		- - U	09/13/12LFJ	EPA200.8	
Arsenic, ug/l	0.13	10.0		- - U	09/13/12LFJ	EPA200.8	
Barium, ug/l	0.07	100.0		0.13 J	09/13/12LFJ	EPA200.8	
Beryllium, ug/l	0.07	1.0		- - U	09/13/12LFJ	EPA200.8	
Cadmium, ug/l	0.03	1.0		- - U	09/13/12LFJ	EPA200.8	
Cobalt, ug/l	0.02	10.0		- - U	09/13/12LFJ	EPA200.8	
Copper, ug/l	0.06	10.0		1.1 J	09/13/12LFJ	EPA200.8	
Total Chromium, ug/l	0.18	10.0		- - U	09/13/12LFJ	EPA200.8	
Lead, ug/l	0.08	10.0		- - U	09/13/12LFJ	EPA200.8	
Mercury, ug/l	0.02	0.20		0.02 J	09/13/12LFJ	EPA200.8	
Nickel, ug/l	0.06	50.0		1.4 J	09/13/12LFJ	EPA200.8	
Selenium, ug/l	0.17	10.0		- - U	09/13/12LFJ	EPA200.8	
Silver, ug/l	0.10	10.0		- - U	09/13/12LFJ	EPA200.8	
Thallium, ug/l	0.07	5.5		- - U	09/13/12LFJ	EPA200.8	
Tin, ug/l	0.10	100.0		2.8 J	09/13/12LFJ	EPA200.8	
Vanadium, ug/l	0.10	25.0		- - U	09/13/12LFJ	EPA200.8	
Zinc, ug/l	0.48	10.0		6.0 J	09/13/12LFJ	EPA200.8	

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
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CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12 Page: 1
DATE EXTRACTED: 09/10/12
DATE ANALYZED: 09/10/12
DATE REPORTED: 09/26/12

REVIEWED BY: 

PESTICIDES AND PCB'S
EPA METHOD 8081B R2 (07)

PARAMETERS, ug/l	MDL	SWSL	Well #4	Well #5	Well #6	Well #7	Well #8
1. Aldrin	0.029	0.05	--- U				
2. Alpha-BHC	0.032	0.05	--- U				
3. Beta-BHC	0.031	0.05	--- U				
4. Delta-BHC	0.030	0.05	--- U				
5. Gamma-BHC (Lindane)	0.032	0.05	--- U				
6. Chlordane	0.320	0.50	--- U				
7. 4,4-DDD	0.051	0.10	--- U				
8. 4,4-DDE	0.049	0.10	--- U				
9. 4,4-DDT	0.052	0.10	--- U				
10. Dieldrin	0.042	0.075	--- U				
11. Endosulfan I	0.056	0.10	--- U				
12. Endosulfan II	0.046	0.10	--- U				
13. Endosulfan Sulfate	0.072	0.10	--- U				
14. Endrin	0.053	0.10	--- U				
15. Endrin Aldehyde	0.068	0.10	--- U				
16. Heptachlor	0.039	0.05	--- U				
17. Heptachlor Epoxide	0.042	0.075	--- U				
18. Methoxychlor	0.530	1.00	--- U				
19. Pcb's (Aroclors)	0.500	2.00	--- U				
20. Toxaphene	0.690	1.50	--- U				

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

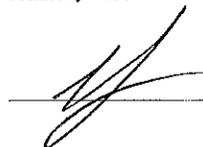
PHONE (252) 756-6208
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CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12
DATE EXTRACTED: 09/10/12
DATE ANALYZED: 09/10/12
DATE REPORTED: 09/26/12

Page: 2

REVIEWED BY: 

PESTICIDES AND PCB'S
EPA METHOD 8081B R2 (07)

PARAMETERS, ug/l	MDL	SWSL	Well #1R	Equipment Blank
1. Aldrin	0.029	0.05	--- U	--- U
2. Alpha-BHC	0.032	0.05	--- U	--- U
3. Beta-BHC	0.031	0.05	--- U	--- U
4. Delta-BHC	0.030	0.05	--- U	--- U
5. Gamma-BHC (Lindane)	0.032	0.05	--- U	--- U
6. Chlordane	0.320	0.50	--- U	--- U
7. 4,4-DDD	0.051	0.10	--- U	--- U
8. 4,4-DDE	0.049	0.10	--- U	--- U
9. 4,4-DDT	0.052	0.10	--- U	--- U
10. Dieldrin	0.042	0.075	--- U	--- U
11. Endosulfan I	0.056	0.10	--- U	--- U
12. Endosulfan II	0.046	0.10	--- U	--- U
13. Endosulfan Sulfate	0.072	0.10	--- U	--- U
14. Endrin	0.053	0.10	--- U	--- U
15. Endrin Aldehyde	0.068	0.10	--- U	--- U
16. Heptachlor	0.039	0.05	--- U	--- U
17. Heptachlor Epoxide	0.042	0.075	--- U	--- U
18. Methoxychlor	0.530	1.00	--- U	--- U
19. Pcb's (Aroclors)	0.500	2.00	--- U	--- U
20. Toxaphene	0.690	1.50	--- U	--- U

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

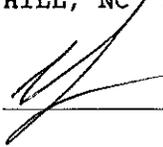
P.O. BOX 7085, 114 OAKMONT DRIVE
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PHONE (252) 756-6208
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CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12 Page: 1
DATE EXTRACTED: 09/12/12
DATE ANALYZED: 09/12/12
DATE REPORTED: 09/26/12

REVIEWED BY: 

LANDFILL APPENDIX II
EPA METHOD 8151A R1 (96)

PARAMETERS, ug/l	MDL	SWSL	Well #4	Well #5	Well #6	Well #7	Well #8
1. 2,4-D	0.36	2.0	--- U				
2. Dinoseb	0.54	1.0	--- U				
3. 2,4,5-TP	0.42	2.0	--- U				
4. 2,4,5-T	0.47	2.0	--- U				

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
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CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12 Page: 2
DATE EXTRACTED: 09/12/12
DATE ANALYZED: 09/12/12
DATE REPORTED: 09/26/12

REVIEWED BY: 

LANDFILL APPENDIX II EPA METHOD 8151A R1(96)

PARAMETERS, ug/l	MDL	SWSL	Well #1R	Equipment Blank
1. 2,4-D	0.36	2.0	--- U	--- U
2. Dinoseb	0.54	1.0	--- U	--- U
3. 2,4,5-TP	0.42	2.0	--- U	--- U
4. 2,4,5-T	0.47	2.0	--- U	--- U

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

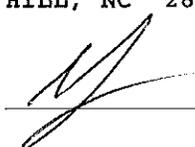
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DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12 Page: 1
DATE EXTRACTED: 09/11/12
DATE ANALYZED: 09/26/12
DATE REPORTED: 09/26/12

REVIEWED BY: 

SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4 (07)

PARAMETERS, ug/l	MDL	SWSL	Well #4	Well #5	Well #6	Well #7	Well #8
1. Acenaphthene	2.66	10.0	--- U				
2. Acenaphthylene	2.60	10.0	--- U				
3. Anthracene	2.97	10.0	--- U				
4. Benzo[a]anthracene	4.16	10.0	--- U				
5. Benzo[b]fluoranthene	3.32	10.0	--- U				
6. Benzo[k]fluoranthene	4.23	10.0	--- U				
7. Benzo[g,h,i]perylene	2.61	10.0	--- U				
8. Benzo[a]pyrene	3.27	10.0	--- U				
9. 4-Bromophenyl Phenyl Ether	2.63	10.0	--- U				
10. Butyl Benzyl Phthalate	5.78	10.0	--- U				
11. Bis-(2-Chloroethoxy) Methane	3.14	10.0	--- U				
12. Bis-(2-Chloroethyl) Ether	2.58	10.0	--- U				
13. Bis-(2-Chloroisopropyl) Ether	2.58	10.0	--- U				
14. 2-Chloronaphthalene	2.17	10.0	--- U				
15. 4-Chlorophenyl Phenyl Ether	2.42	10.0	--- U				
16. Chrysene	4.04	10.0	--- U				
17. Dibenzo[a,h]anthracene	2.78	10.0	--- U				
18. Di-N-Butyl Phthalate	3.09	10.0	--- U				
19. Dimethyl Phthalate	3.78	10.0	--- U				
20. Diethyl Phthalate	3.92	10.0	--- U				
21. 2,4-Dinitrotoluene	3.95	10.0	--- U				
22. 2,6-Dinitrotoluene	3.88	10.0	--- U				
23. Di-N-Octyl Phthalate	2.81	10.0	--- U				
24. Bis-(2-Ethylhexyl) Phthalate	9.97	15.0	--- U	30.40	--- U	--- U	--- U
25. Fluoranthene	3.92	10.0	--- U				
26. Fluorene	2.95	10.0	--- U				
27. Hexachlorobenzene	2.61	10.0	--- U				
28. Hexachlorocyclopentadiene	4.16	10.0	--- U				
29. Indeno[1,2,3-Cd]pyrene	2.91	10.0	--- U				
30. Isophorone	3.74	10.0	--- U				
31. Nitrobenzene	2.85	10.0	--- U				
32. N-Nitrosodimethylamine	4.25	10.0	--- U				
33. N-Nitrosodiphenylamine	3.95	10.0	--- U				
34. N-Nitrosodi-N-Propylamine	4.06	10.0	--- U				
35. Phenanthrene	3.24	10.0	--- U				
36. Pyrene	3.63	10.0	--- U				
37. 4-Chloro-3-Methylphenol	3.79	20.0	--- U				
38. 2-Chlorophenol	2.75	10.0	--- U				
39. O-Cresol	3.68	10.0	--- U				
40. P-Cresol	4.12	10.0	--- U				
41. 2,4-Dichlorophenol	5.19	10.0	--- U				
42. 2,6-Dichlorophenol	4.89	10.0	--- U				
43. 2,4-Dimethylphenol	3.21	10.0	--- U				
44. 4,6-Dinitro-2-Methylphenol	4.77	50.0	--- U				
45. 2,4-Dinitrophenol	4.37	50.0	--- U				
46. Ethyl Methanesulfonate	5.26	20.0	--- U				
47. Methyl Methanesulfonate	4.92	10.0	--- U				
48. 2-Nitrophenol	3.64	10.0	--- 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: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12
DATE EXTRACTED: 09/11/12
DATE ANALYZED: 09/26/12
DATE REPORTED: 09/26/12

Page: 2

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SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4 (07)

PARAMETERS, ug/l	MDL	SWSL	Well #4	Well #5	Well #6	Well #7	Well #8
49. 4-Nitrophenol	3.17	50.0	--- U				
50. Pentachlorophenol	5.33	25.0	--- U				
51. Phenol	1.86	10.0	--- U				
52. 2,3,4,6-Tetrachlorophenol	3.12	10.0	--- U				
53. 2,4,5-Trichlorophenol	4.17	10.0	--- U				
54. 2,4,6-Trichlorophenol	3.84	10.0	--- U				
55. Acetophenone	2.89	10.0	--- U				
56. 2-Acetylaminofluorene	3.98	20.0	--- U				
57. 4-Aminobiphenyl	4.12	20.0	--- U				
58. Benzyl Alcohol	4.47	20.0	--- U				
59. 4-Chloroaniline	3.36	20.0	--- U				
60. Chlorobenzilate	5.12	10.0	--- U				
61. Diallate	2.98	10.0	--- U				
62. Dibenzofuran	4.28	10.0	--- U				
63. 3,3-Dichlorobenzidine	4.22	20.0	--- U				
64. Dimethoate	3.98	20.0	--- U				
65. P-Dimethylaminoazobenzene	2.89	10.0	--- U				
66. 7,12-Dimethylbenz(a)anthracene	5.26	10.0	--- U				
67. 3,3-Dimethylbenzadine	3.21	10.0	--- U				
68. 1,3-Dinitrobenzene	2.89	20.0	--- U				
69. Diphenylamine	5.10	10.0	--- U				
70. Disulfoton	4.28	10.0	--- U				
71. Famphur	3.98	20.0	--- U				
72. Hexachloropropene	4.31	10.0	--- U				
73. Isosafrole	2.88	10.0	--- U				
74. Kepone	2.78	20.0	--- U				
75. Methapyrilene	3.54	100.0	--- U				
76. 3-Methylchloroanthrene	4.21	10.0	--- U				
77. 2-Methylnaphthalene	3.79	10.0	--- U				
78. Methyl Parathion	4.32	10.0	--- U				
79. m-Cresol	3.81	10.0	--- U				
80. 1,4-Naphthoquinone	4.00	10.0	--- U				
81. 1-Naphthylamine	5.61	10.0	--- U				
82. 2-Naphthylamine	4.62	10.0	--- U				
83. 2-Nitroaniline	3.61	50.0	--- U				
84. 3-Nitroaniline	4.81	50.0	--- U				
85. 4-Nitroaniline	4.22	20.0	--- U				
86. 5-Nitro-O-Toluidine	4.01	10.0	--- U				
87. N-Nitrosodi-n-butylamine	3.63	10.0	--- U				
88. N-Nitrosodiethylamine	3.83	20.0	--- U				
89. N-Nitrosomethylethylamine	3.83	10.0	--- U				
90. N-Nitrosopiperidine	5.19	20.0	--- U				
91. N-Nitrosopyrrolidine	2.89	10.0	--- U				
92. Parathion	3.12	10.0	--- U				
93. Pentachlorobenzene	3.92	10.0	--- U				
94. Pentachloronitrobenzene	3.71	20.0	--- U				
95. Phenacetin	4.41	20.0	--- U				
96. 1,4 Benzenediamine	2.99	10.0	--- U				

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

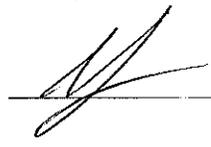
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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

CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12 Page: 3
DATE EXTRACTED: 09/11/12
DATE ANALYZED: 09/26/12
DATE REPORTED: 09/26/12

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SEMI-VOLATILE ORGANICS EPA METHOD 8270D R4 (07)

PARAMETERS, ug/l	MDL	SWSL	Well #4	Well #5	Well #6	Well #7	Well #8
97. Phorate	3.86	10.0	--- U				
98. Pronamide	3.69	10.0	--- U				
99. Safrole	4.12	10.0	--- U				
100. 1,2,4,5-Tetrachlorobenzene	5.01	10.0	--- U				
101. Thionazin	4.62	20.0	--- U				
102. O-Toluidine	4.11	10.0	--- U				
103. 1,3,5-Trinitrobenzene	3.98	10.0	--- U				
104. 0,0,0-Triethyl Phosphorothioate	3.61	10.0	--- U				
105. Hexachloroethane	1.49	10.0	--- U				
106. Isodrin	3.11	20.0	--- U				

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12
DATE EXTRACTED: 09/11/12
DATE ANALYZED: 09/26/12
DATE REPORTED: 09/26/12

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SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4 (07)

PARAMETERS, ug/l	MDL	SWSL	Well #1R	Equipment Blank
1. Acenaphthene	2.66	10.0	--- U	--- U
2. Acenaphthylene	2.60	10.0	--- U	--- U
3. Anthracene	2.97	10.0	--- U	--- U
4. Benzo[a]anthracene	4.16	10.0	--- U	--- U
5. Benzo[b]fluoranthene	3.32	10.0	--- U	--- U
6. Benzo[k]fluoranthene	4.23	10.0	--- U	--- U
7. Benzo[g,h,i]perylene	2.61	10.0	--- U	--- U
8. Benzo[a]pyrene	3.27	10.0	--- U	--- U
9. 4-Bromophenyl Phenyl Ether	2.63	10.0	--- U	--- U
10. Butyl Benzyl Phthalate	5.78	10.0	--- U	--- U
11. Bis-(2-Chloroethoxy) Methane	3.14	10.0	--- U	--- U
12. Bis-(2-Chloroethyl) Ether	2.58	10.0	--- U	--- U
13. Bis-(2-Chloroisopropyl) Ether	2.58	10.0	--- U	--- U
14. 2-Chloronaphthalene	2.17	10.0	--- U	--- U
15. 4-Chlorophenyl Phenyl Ether	2.42	10.0	--- U	--- U
16. Chrysene	4.04	10.0	--- U	--- U
17. Dibenzo[a,h]anthracene	2.78	10.0	--- U	--- U
18. Di-N-Butyl Phthalate	3.09	10.0	--- U	--- U
19. Dimethyl Phthalate	3.78	10.0	--- U	--- U
20. Diethyl Phthalate	3.92	10.0	--- U	--- U
21. 2,4-Dinitrotoluene	3.95	10.0	--- U	--- U
22. 2,6-Dinitrotoluene	3.88	10.0	--- U	--- U
23. Di-N-Octyl Phthalate	2.81	10.0	--- U	--- U
24. Bis-(2-Ethylhexyl) Phthalate	9.97	15.0	--- U	--- U
25. Fluoranthene	3.92	10.0	--- U	--- U
26. Fluorene	2.95	10.0	--- U	--- U
27. Hexachlorobenzene	2.61	10.0	--- U	--- U
28. Hexachlorocyclopentadiene	4.16	10.0	--- U	--- U
29. Indeno[1,2,3-CD]pyrene	2.91	10.0	--- U	--- U
30. Isophorone	3.74	10.0	--- U	--- U
31. Nitrobenzene	2.85	10.0	--- U	--- U
32. N-Nitrosodimethylamine	4.25	10.0	--- U	--- U
33. N-Nitrosodiphenylamine	3.95	10.0	--- U	--- U
34. N-Nitrosodi-N-Propylamine	4.06	10.0	--- U	--- U
35. Phenanthrene	3.24	10.0	--- U	--- U
36. Pyrene	3.63	10.0	--- U	--- U
37. 4-Chloro-3-Methylphenol	3.79	20.0	--- U	--- U
38. 2-Chlorophenol	2.75	10.0	--- U	--- U
39. O-Cresol	3.68	10.0	--- U	--- U
40. P-Cresol	4.12	10.0	--- U	--- U
41. 2,4-Dichlorophenol	5.19	10.0	--- U	--- U
42. 2,6-Dichlorophenol	4.89	10.0	--- U	--- U
43. 2,4-Dimethylphenol	3.21	10.0	--- U	--- U
44. 4,6-Dinitro-2-Methylphenol	4.77	50.0	--- U	--- U
45. 2,4-Dinitrophenol	4.37	50.0	--- U	--- U
46. Ethyl Methanesulfonate	5.26	20.0	--- U	--- U
47. Methyl Methanesulfonate	4.92	10.0	--- U	--- U
48. 2-Nitrophenol	3.64	10.0	--- U	--- 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: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12
DATE EXTRACTED: 09/11/12
DATE ANALYZED: 09/26/12
DATE REPORTED: 09/26/12

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SEMI-VOLATILE ORGANICS EPA METHOD 8270D R4 (07)

PARAMETERS, ug/l	MDL	SWSL	Well #1R	Equipment Blank
49. 4-Nitrophenol	3.17	50.0	--- U	--- U
50. Pentachlorophenol	5.33	25.0	--- U	--- U
51. Phenol	1.86	10.0	--- U	--- U
52. 2,3,4,6-Tetrachlorophenol	3.12	10.0	--- U	--- U
53. 2,4,5-Trichlorophenol	4.17	10.0	--- U	--- U
54. 2,4,6-Trichlorophenol	3.84	10.0	--- U	--- U
55. Acetophenone	2.89	10.0	--- U	--- U
56. 2-Acetylaminofluorene	3.98	20.0	--- U	--- U
57. 4-Aminobiphenyl	4.12	20.0	--- U	--- U
58. Benzyl Alcohol	4.47	20.0	--- U	--- U
59. 4-Chloroaniline	3.36	20.0	--- U	--- U
60. Chlorobenzilate	5.12	10.0	--- U	--- U
61. Diallate	2.98	10.0	--- U	--- U
62. Dibenzofuran	4.28	10.0	--- U	--- U
63. 3,3-Dichlorobenzidine	4.22	20.0	--- U	--- U
64. Dimethoate	3.98	20.0	--- U	--- U
65. P-Dimethylaminoazobenzene	2.89	10.0	--- U	--- U
66. 7,12-Dimethylbenz [a]anthracene	5.26	10.0	--- U	--- U
67. 3,3-Dimethylbenzadine	3.21	10.0	--- U	--- U
68. 1,3-Dinitrobenzene	2.89	20.0	--- U	--- U
69. Diphenylamine	5.10	10.0	--- U	--- U
70. Disulfoton	4.28	10.0	--- U	--- U
71. Famphur	3.98	20.0	--- U	--- U
72. Hexachloropropene	4.31	10.0	--- U	--- U
73. Isosafrole	2.88	10.0	--- U	--- U
74. Kepone	2.78	20.0	--- U	--- U
75. Methapyrilene	3.54	100.0	--- U	--- U
76. 3-Methylchloroanthrene	4.21	10.0	--- U	--- U
77. 2-Methylnaphthalena	3.79	10.0	--- U	--- U
78. Methyl Parathion	4.32	10.0	--- U	--- U
79. m-Cresol	3.81	10.0	--- U	--- U
80. 1,4-Naphthoquinone	4.00	10.0	--- U	--- U
81. 1-Naphthylamine	5.61	10.0	--- U	--- U
82. 2-Naphthylamine	4.62	10.0	--- U	--- U
83. 2-Nitroaniline	3.61	50.0	--- U	--- U
84. 3-Nitroaniline	4.81	50.0	--- U	--- U
85. 4-Nitroaniline	4.22	20.0	--- U	--- U
86. 5-Nitro-O-Toluidine	4.01	10.0	--- U	--- U
87. N-Nitrosodi-n-butylamine	3.63	10.0	--- U	--- U
88. N-Nitrosodiethylamine	3.83	20.0	--- U	--- U
89. N-Nitrosomethylethylamine	3.83	10.0	--- U	--- U
90. N-Nitrosopiperidine	5.19	20.0	--- U	--- U
91. N-Nitrosopyrrolidine	2.89	10.0	--- U	--- U
92. Parathion	3.12	10.0	--- U	--- U
93. Pentachlorobenzene	3.92	10.0	--- U	--- U
94. Pentachloronitrobenzene	3.71	20.0	--- U	--- U
95. Phenacetin	4.41	20.0	--- U	--- U
96. 1,4 Benzenediamine	2.99	10.0	--- U	--- 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

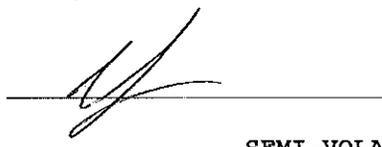
PHONE (252) 756-6208
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CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: CHS
DATE COLLECTED: 09/06/12
DATE EXTRACTED: 09/11/12
DATE ANALYZED: 09/26/12
DATE REPORTED: 09/26/12

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SEMI-VOLATILE ORGANICS EPA METHOD 8270D R4 (07)

PARAMETERS, ug/l	MDL	SWSL	Well #1R	Equipment Blank
97. Phorate	3.86	10.0	--- U	--- U
98. Pronamide	3.69	10.0	--- U	--- U
99. Safrole	4.12	10.0	--- U	--- U
100. 1,2,4,5-Tetrachlorobenzene	5.01	10.0	--- U	--- U
101. Thionazin	4.62	20.0	--- U	--- U
102. O-Toluidine	4.11	10.0	--- U	--- U
103. 1,3,5-Trinitrobenzene	3.98	10.0	--- U	--- U
104. 0,0,0-Triethyl Phosphorothioate	3.61	10.0	--- U	--- U
105. Hexachloroethane	1.49	10.0	--- U	--- U
106. Isodrin	3.11	20.0	--- U	--- U

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

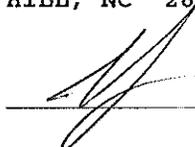
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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

CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005
ANALYST: MAO
DATE COLLECTED: 09/06/12
DATE REPORTED: 09/26/12

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REVIEWED BY: 

LANDFILL APPENDIX II EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	Date Analyzed:		09/10/12	09/10/12	09/10/12	09/10/12	09/11/12
	MDL	SWSL	Upstream	Downstream	Well #4	Well #5	Well #6
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	4.00	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	6.10 J	0.70 J	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	14.50 J	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	0.60 J	0.30 J	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	4.30 J	2.20 J	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	3.00	0.50 J	--- U
21. 1,2-Dichloroethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	1.40	0.30 J	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	1.30 J	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	4.10	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- 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: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005
ANALYST: MAO
DATE COLLECTED: 09/06/12
DATE REPORTED: 09/26/12

Page: 2

REVIEWED BY: 

LANDFILL APPENDIX II EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	Date Analyzed:		09/10/12	09/10/12	09/10/12	09/10/12	09/11/12
	MDL	SWSL	Upstream	Downstream	Well #4	Well #5	Well #6
48. Acrolein	40.57	53.0	--- U	--- U	--- U	--- U	--- U
49. Allyl Chloride	0.20	10.0	--- U	--- U	--- U	--- U	--- U
50. Chloroprene	0.21	20.0	--- U	--- U	--- U	--- U	--- U
51. 1,3-Dichlorobenzene	0.41	5.0	--- U	--- U	--- U	--- U	--- U
52. Dichlorodifluoromethane	0.51	5.0	--- U	--- U	--- U	--- U	--- U
53. 1,3-Dichloropropane	0.28	1.0	--- U	--- U	--- U	--- U	--- U
54. 2,2-Dichloropropane	0.17	15.0	--- U	--- U	--- U	--- U	--- U
55. 1,1-Dichloropropene	0.22	5.0	--- U	--- U	--- U	--- U	--- U
56. Ethyl Methacrylate	0.16	10.0	--- U	--- U	--- U	--- U	--- U
57. Hexachlorobutadiene	0.57	10.0	--- U	--- U	--- U	--- U	--- U
58. Isobutyl Alcohol	12.80	100.0	--- U	--- U	--- U	--- U	--- U
59. Methacrylonitrile	1.93	100.0	--- U	--- U	--- U	--- U	--- U
60. Methyl Methacrylate	0.25	30.0	--- U	--- U	--- U	--- U	--- U
61. Naphthalene	0.47	10.0	--- U	--- U	--- U	--- U	--- U
62. Propionitrile	3.26	150.0	--- U	--- U	--- U	--- U	--- U
63. 1,2,4-Trichlorobenzene	0.50	10.0	--- U	--- U	--- U	--- U	--- U
64. Acetonitrile	36.29	55.0	--- U	--- U	--- U	--- U	--- U

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: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005
ANALYST: MAO
DATE COLLECTED: 09/06/12
DATE REPORTED: 09/26/12

Page: 3

REVIEWED BY: 

LANDFILL APPENDIX II EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	Date Analyzed:		09/11/12	09/11/12	09/11/12	09/12/12	09/12/12
	MDL	SWSL	Well #7	Well #8	Well #1R	Equipment Blank	Trip Blank
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	--- U	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	0.30 J	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

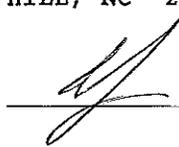
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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

CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005
ANALYST: MAO
DATE COLLECTED: 09/06/12
DATE REPORTED: 09/26/12

Page: 4

REVIEWED BY: 

LANDFILL APPENDIX II EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	Date Analyzed:		09/11/12	09/11/12	09/11/12	09/12/12	09/12/12
	MDL	SWSL	Well #7	Well #8	Well #1R	Equipment Blank	Trip Blank
48. Acrolein	40.57	53.0	--- U	--- U	--- U	--- U	--- U
49. Allyl Chloride	0.20	10.0	--- U	--- U	--- U	--- U	--- U
50. Chloroprene	0.21	20.0	--- U	--- U	--- U	--- U	--- U
51. 1,3-Dichlorobenzene	0.41	5.0	--- U	--- U	--- U	--- U	--- U
52. Dichlorodifluoromethane	0.51	5.0	--- U	--- U	--- U	--- U	--- U
53. 1,3-Dichloropropane	0.28	1.0	--- U	--- U	--- U	--- U	--- U
54. 2,2-Dichloropropane	0.17	15.0	--- U	--- U	--- U	--- U	--- U
55. 1,1-Dichloropropene	0.22	5.0	--- U	--- U	--- U	--- U	--- U
56. Ethyl Methacrylate	0.16	10.0	--- U	--- U	--- U	--- U	--- U
57. Hexachlorobutadiene	0.57	10.0	--- U	--- U	--- U	--- U	--- U
58. Isobutyl Alcohol	12.80	100.0	--- U	--- U	--- U	--- U	--- U
59. Methacrylonitrile	1.93	100.0	--- U	--- U	--- U	--- U	--- U
60. Methyl Methacrylate	0.25	30.0	--- U	--- U	--- U	--- U	--- U
61. Naphthalene	0.47	10.0	--- U	--- U	--- U	--- U	--- U
62. Propionitrile	3.26	150.0	--- U	--- U	--- U	--- U	--- U
63. 1,2,4-Trichlorobenzene	0.50	10.0	--- U	--- U	--- U	--- U	--- U
64. Acetonitrile	36.29	55.0	--- U	--- U	--- U	--- U	--- U

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

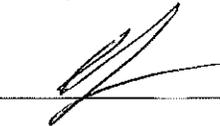
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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

CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005
ANALYST: MAO
DATE COLLECTED: 09/06/12
DATE REPORTED: 09/26/12

Page: 5

REVIEWED BY: 

LANDFILL APPENDIX II EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	Date Analyzed		09/12/12
	MDL	SWSL	Field Blank
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	0.21	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

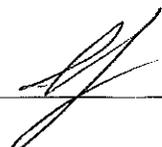
CLIENT: GREENE CO. LANDFILL
DAVID JONES
P.O. BOX 543
SNOW HILL, NC 28580

CLIENT ID: 6005

ANALYST: MAO
DATE COLLECTED: 09/06/12
DATE REPORTED: 09/26/12

Page: 6

REVIEWED BY: _____



LANDFILL APPENDIX II EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	Date Analyzed:		09/12/12
	MDL	SWSL	Field Blank
48. Acrolein	40.57	53.0	--- U
49. Allyl Chloride	0.20	10.0	--- U
50. Chloroprene	0.21	20.0	--- U
51. 1,3-Dichlorobenzene	0.41	5.0	--- U
52. Dichlorodifluoromethane	0.51	5.0	--- U
53. 1,3-Dichloropropane	0.28	1.0	--- U
54. 2,2-Dichloropropane	0.17	15.0	--- U
55. 1,1-Dichloropropene	0.22	5.0	--- U
56. Ethyl Methacrylate	0.16	10.0	--- U
57. Hexachlorobutadiene	0.57	10.0	--- U
58. Isobutyl Alcohol	12.80	100.0	--- U
59. Methacrylonitrile	1.93	100.0	--- U
60. Methyl Methacrylate	0.25	30.0	--- U
61. Naphthalene	0.47	10.0	--- U
62. Propionitrile	3.26	150.0	--- U
63. 1,2,4-Trichlorobenzene	0.50	10.0	--- U
64. Acetonitrile	36.29	55.0	--- U

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

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

CLIENT: 6005 Week: 39

GREENE CO. LANDFILL
 DAVID JONES
 P.O. BOX 543
 SNOW HILL NC 28580

() 747-5720

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION		Field pH	BOD	COD	Nitrate	TOC	Alkalinity	Chloride	Cyanide	Sulfate	Metals	Turbidity	Sulfide	Conductivity	DO	Temperature	Field Parameter	PARAMETERS	CLASSIFICATION:	
	DATE	TIME				CHLORINE	UV																			
Upstream	06/12/2008		8499	4	4	<input type="checkbox"/>	<input type="checkbox"/>																			
Downstream	06/12/1315		2317	4	4	<input type="checkbox"/>	<input type="checkbox"/>																			
Well #4	06/12/1120		2017	20	20	<input type="checkbox"/>	<input type="checkbox"/>																			
Well #5	06/12/1138		1807	11	11	<input type="checkbox"/>	<input type="checkbox"/>																			
Well #6	06/12/1158		2118	11	11	<input type="checkbox"/>	<input type="checkbox"/>																			
Well #7	06/12/1233		1866	11	11	<input type="checkbox"/>	<input type="checkbox"/>																			
Well #8	06/12/0950		1982	11	11	<input type="checkbox"/>	<input type="checkbox"/>																			
Well #1R	06/12/1242		2323	19	19	<input type="checkbox"/>	<input type="checkbox"/>																			
Piezometer #2	06/12/1242			1	1	<input type="checkbox"/>	<input type="checkbox"/>																			
Equipment Blank	06/12/1242			10	10	<input type="checkbox"/>	<input type="checkbox"/>																			
Trip Blank				2	2	<input type="checkbox"/>	<input type="checkbox"/>																			
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:																	SAMPLES COLLECTED BY: (Please Print) H Jones	CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY (Y) (N)	SAMPLES RECEIVED IN LAB AT 1.0 °C	
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME																					
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME																					

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 244689

Environment 1, Inc.
 P.O. Box 7085, 114 Oakmont Dr.
 Greenville, NC 27838

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

CLIENT: 6005 Week: 39

GREENE CO. LANDFILL
 DAVID JONES
 P.O. BOX 543
 SNOW HILL, NC 28580

() 747-5720

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION		Field pH	BOD	COD	Nitrate	TOC	Alkalinity	Chloride	Cyanide	Sulfate	Metals	Turbidity	Sulfide	Conductivity	DO	Temperature	Field Parameter	PARAMETERS	
	DATE	TIME				CHLORINE	UV																		
Field Blank	01/06/12				3	<input type="checkbox"/>	<input type="checkbox"/>																		A - NONE B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - HCL F - ZINC ACETATE G - NATHIOSULFATE
						<input type="checkbox"/>	<input type="checkbox"/>																		CHLORINE NEUTRALIZED AT COLLECTION pH CHECK (LAB) CONTAINER TYPE, P/G CHEMICAL PRESERVATION
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	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	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	CHLORINE NEUTRALIZED AT COLLECTION pH CHECK (LAB) CONTAINER TYPE, P/G CHEMICAL PRESERVATION
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	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	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	CHLORINE NEUTRALIZED AT COLLECTION pH CHECK (LAB) CONTAINER TYPE, P/G CHEMICAL PRESERVATION
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	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	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	CHLORINE NEUTRALIZED AT COLLECTION pH CHECK (LAB) CONTAINER TYPE, P/G CHEMICAL PRESERVATION
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	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	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	CHLORINE NEUTRALIZED AT COLLECTION pH CHECK (LAB) CONTAINER TYPE, P/G CHEMICAL PRESERVATION

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 244688

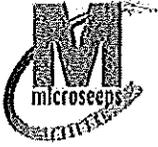
CLASSIFICATION:
 WASTEWATER (NPDES)
 DRINKING WATER
 DMO/GW
 SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY

SAMPLES COLLECTED BY: *N Jones*
 (Please Print)

SAMPLES RECEIVED IN LAB AT 1.0 °C

COMMENTS:



Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

September 19, 2012

Steve Jones
Environment 1, Inc.
PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

RE: **GREENE CO / 6005**

Microseeps Workorder: 6538

Dear Steve Jones:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, September 07, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Ryan Rylands 09/19/2012
rrylands@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 9

Report ID: 6538 - 280275

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Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 6538 GREENE CO / 6005

Lab ID	Sample ID	Matrix	Date Collected	Date Received
65380001	MW1R	Water	9/6/2012 12:42	9/7/2012 10:30
65380002	MW1R	Bubble Strip	9/6/2012 12:42	9/7/2012 10:30
65380003	MW4	Water	9/6/2012 11:10	9/7/2012 10:30
65380004	MW4	Bubble Strip	9/6/2012 11:10	9/7/2012 10:30

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ANALYTICAL RESULTS

Workorder: 6538 GREENE CO / 6005

Lab ID: 65380001

Date Received: 9/7/2012 10:30 Matrix: Water

Sample ID: MW1R

Date Collected: 9/8/2012 12:42

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
EDonors - MICR									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	<0.10	mg/l	0.10	0.010	1		9/14/2012 22:07	KB	
Acetic Acid	<0.070	mg/l	0.070	0.0060	1		9/14/2012 22:07	KB	
Propionic Acid	0.14	mg/l	0.050	0.0070	1		9/14/2012 22:07	KB	
Butyric Acid	<0.050	mg/l	0.050	0.0040	1		9/14/2012 22:07	KB	
Pyruvic Acid	<0.15	mg/l	0.15	0.033	1		9/14/2012 22:07	KB	
l-Pentanoic Acid	<0.15	mg/l	0.15	0.044	1		9/14/2012 22:07	KB	
Pentanoic Acid	<0.070	mg/l	0.070	0.012	1		9/14/2012 22:07	KB	
i-Hexanoic Acid	<0.050	mg/l	0.050	0.0060	1		9/14/2012 22:07	KB	
Hexanoic Acid	<0.050	mg/l	0.050	0.0060	1		9/14/2012 22:07	KB	

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ANALYTICAL RESULTS

Workorder: 6538 GREENE CO / 6005

Lab ID: 65380002
Sample ID: MW1R

Date Received: 9/7/2012 10:30 Matrix: Bubble Strip
Date Collected: 9/6/2012 12:42

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
RISK - MICR									
Analysis Desc: AM20GAX			Analytical Method: AM20GAX						
Methane	4.0	ug/l	0.015	0.0030	1		9/11/2012 12:27	GT	
Ethane	<0.010	ug/l	0.010	0.0010	1		9/11/2012 12:27	GT	
Ethene	<0.010	ug/l	0.010	0.0020	1		9/11/2012 12:27	GT	
Hydrogen	<0.60	nM	0.60	0.25	1		9/11/2012 12:27	GT	

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ANALYTICAL RESULTS

Workorder: 8538 GREENE CO / 6005

Lab ID: 65380003 Date Received: 9/7/2012 10:30 Matrix: Water
 Sample ID: MW4 Date Collected: 9/6/2012 11:10

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
EDonors - MICR									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	<0.10	mg/l	0.10	0.010	1		9/14/2012 22:49	KB	
Acetic Acid	<0.070	mg/l	0.070	0.0060	1		9/14/2012 22:49	KB	
Propionic Acid	<0.050	mg/l	0.050	0.0070	1		9/14/2012 22:49	KB	
Butyric Acid	<0.050	mg/l	0.050	0.0040	1		9/14/2012 22:49	KB	
Pyruvic Acid	<0.15	mg/l	0.15	0.033	1		9/14/2012 22:49	KB	
i-Pentanoic Acid	<0.15	mg/l	0.15	0.044	1		9/14/2012 22:49	KB	
Pentanoic Acid	<0.070	mg/l	0.070	0.012	1		9/14/2012 22:49	KB	
i-Hexanoic Acid	<0.050	mg/l	0.050	0.0060	1		9/14/2012 22:49	KB	
Hexanoic Acid	<0.050	mg/l	0.050	0.0060	1		9/14/2012 22:49	KB	

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ANALYTICAL RESULTS

Workorder: 6538 GREENE CO / 0005

Lab ID: 65380004 Date Received: 9/7/2012 10:30 Matrix: Bubble Strip
Sample ID: MW4 Date Collected: 9/6/2012 11:10

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
RISK - MICR									
Analysis Desc: AM20GAX			Analytical Method: AM20GAX						
Methane	4500	ug/l	0.016	0.0030	1		9/11/2012 12:40	GT	
Ethane	<0.010	ug/l	0.010	0.0010	1		9/11/2012 12:40	GT	
Ethene	0.074	ug/l	0.010	0.0020	1		9/11/2012 12:40	GT	
Hydrogen	<0.60	nM	0.60	0.25	1		9/11/2012 12:40	GT	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 6538 GREENE CO / 6005

PARAMETER QUALIFIERS

- U Indicates the compound was analyzed for, but not detected.
- J Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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