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):

Smith Gardner, Inc.

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

Name: Madeline German Phone: 919-828-0577 x 222

E-mail: madeline@smithgardnerinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Davidson County Phase 2 MSW Landfill	1242 Old Highway 29 Thomasville, NC 27360	29-06	0.1600	April 2-3, 2014

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

Madeline German — Geologist — 919-828-0577 x 222

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

Signature — Date: 5/28/2014

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 2275 GEOLOGIST MADELINE GERMAN 5/28/2014

14 N. Boylan Ave. Raleigh, NC 27603

Facility Representative Address

C-0828

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

Revised 6/2009

This page intentionally left blank.

April 2014 Semi-Annual Groundwater Monitoring Report

Davidson County Phase 2 MSW Landfill
NC Solid Waste Permit No. 29-06

Prepared for:

Davidson County Integrated Solid Waste
1242 Old Highway 29
Thomasville, North Carolina 27360-0024

May 2014

Prepared by:

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

PRINTED ON 100% RECYCLED PAPER

© 2014 Smith Gardner, Inc.
This document is intended for the sole use of the client for which it was prepared and for the purpose agreed upon by the client and Smith Gardner, Inc.

This page intentionally left blank.

April 2014 Groundwater Monitoring Report

Davidson County Phase 2 MSW Landfill
NC Solid Waste Permit No. 29-06

Prepared For:

Davidson County Integrated Solid Waste
Thomasville, North Carolina 27360-0024

S+G Project No. DAVDCO 10-9

Madeline German, P.G.
Project Geologist

Joan Smyth, P.G.
Senior Hydrogeologist

May 2014

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

This page intentionally left blank.

Davidson County Phase 2 MSW Landfill
NC Solid Waste Permit No. 29-06

April 2014 Groundwater Monitoring Report

Table of Contents

Page

1.0 INTRODUCTION 1
2.0 SITE GEOLOGY 1
3.0 SAMPLING LOCATIONS 1
4.0 SAMPLING PROCEDURES 1
5.0 FIELD & LABORATORY RESULTS 2
5.1 Field Results 2
5.2 Laboratory Analysis 2
5.2.1 Inorganic Constituents 2
5.2.2 Organic Constituents 3
5.2.3 Surface Water Results 3
5.2.4 Leachate Analysis 3
6.0 STATISTICAL ANALYSIS 3
7.0 GROUNDWATER CHARACTERIZATION 3
8.0 CONCLUSIONS 3

FIGURE

Figure 1 Ground Water Potentiometric Map

TABLES

Table 1 Groundwater Elevations
Table 2 Field Parameters
Table 3 Detected Constituents
Table 4 Leachate Analytical Data
Table 5 Aquifer Conductivity and Velocity Calculations

APPENDICES

Appendix A Monitoring Well Information
Appendix B Field Data Sheets
Appendix C Laboratory Analytical Report
Appendix D Time vs. Concentration Graphs

This page intentionally left blank.

1.0 INTRODUCTION

Smith Gardner, Inc. (S+G) was contracted by Davidson County to perform their semi-annual ground water monitoring at the Davidson County Phase 2 MSW Landfill, permit number 29-06, as required by 15A NCAC 13B .1600. Sampling was conducted April 2 & 3, 2014. This report summarizes the event sampling procedures, field and laboratory results and ground water characterization as required by NC Solid Waste Regulations. Summary tables, a potentiometric map and the laboratory analytical report are also included.

2.0 SITE GEOLOGY

The Davidson County Landfill facility is located in the Piedmont Physiographic Province of North Carolina approximately three and a half miles northeast of the City of Lexington, NC. The Geologic Map of North Carolina (*USGS*, 1985) indicates that the site lies at the western margin of the Carolina Slate Belt; an area of predominantly volcanic and sedimentary rocks of Late Proterozoic to Cambrian age that have been metamorphosed and intruded by numerous igneous plutons. The boundary zone between the Carolina Slate Belt and the adjacent Charlotte Belt is known as the Gold Hill/Silver Hill shear zone. The site vicinity is underlain by volcanic rocks from the Flat Swamp Member of the Cid Formation and metavolcanic rocks of the Battleground Formation.

3.0 SAMPLING LOCATIONS

The groundwater network for Phase 2 at Davidson County includes eleven monitoring wells (MW-1, MW-2, MW-3S, MW-4S, MW-5, MW-6S, MW-8, MW-9 and MW-10S), two surface water locations (SW-1 and SW-2) and one leachate sampling point (Leachate). Monitoring wells MW-3D, MW-4D and 10D were sampled for dissolved metals during the April 2013 event and designated as water level only locations. MW-6D and MW-7, and SW-3 have been historically dry, therefore, were removed from the monitoring network in January 2013. MW-1 serves as the background well for this site. A trip blank was submitted for quality control purposes. Available well logs are presented in **Appendix A**.

Sampling locations are shown on **Figure 1.**

4.0 SAMPLING PROCEDURES

Sampling procedures followed the protocols set forth in the site's Water Quality Monitoring Plan[1] and the North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities (North Carolina Department of Environment and Natural Resources, Division of Waste Management). S+G personnel gauged each well to determine ground water depth and purged three to five well volumes or until dry. Groundwater elevations are provided in **Table 1**.

[1] Water Quality Monitoring Plan, Davidson County, Phase 2, Areas 1 and 2, Smith Gardner, Inc. January 2013, presented in the Permit to Construct application.

Environment 1, Inc. (NC Laboratory Certification # 10) provided laboratory prepared sample containers for the specified analytical procedures. Sample collection was performed using factory sealed teflon bailers. Ground water samples were properly preserved, placed on ice and transported to the laboratory facility within the specified hold times for each analysis.

Sampling wells and locations were inspected and found to be in good condition and free of obstructions. Field logs are presented in **Appendix B**.

5.0 FIELD & LABORATORY RESULTS

5.1 Field Results

Temperature, pH, turbidity and specific conductance were measured in the field at the time of sampling via direct read instruments. The field parameter results are summarized in **Table 2** and have remained consistent with previously reported sampling events.

5.2 Laboratory Analysis

Samples were transported to Environment 1, Inc., in Greenville, NC, a North Carolina certified laboratory (NC Wastewater ID #10). Laboratory analysis for groundwater included metals via EPA Test Method 200.8 and Appendix I Volatile Organic Compounds (VOCs) via EPA Test Method 8260B. Leachate samples were also analyzed for BOD, COD, total suspended residue, ammonia nitrogen, nitrate nitrogen, total phosphorus and sulfate via the SWS approved method noted in the laboratory analytical report. Analytical results were compared to the NC DWM Solid Waste Section Quantitation Limits (SWSLs) and 15A NCAC 2L.0200 (2LStandard). Surface water results were compared with the NCAC 2B Standard for Class C waters (2B Standards).

Most inorganic constituents were either below the method detection limit (MDL) or were "J-values" indicating a non-quantifiable value. The laboratory results are presented in **Appendix C**.

5.2.1 Inorganic Constituents

Four inorganic constituents' barium (MW-6S), copper (MW-1, MW-4S, MW-6S, MW-9 and MW-10S), vanadium (MW-6S and MW-9) and zinc (MW-4S, MW-6S, MW-9 and MW-10S) were detected above their respective SWSL's. No constituents were detected above their 2L Standards.

A summary of inorganic laboratory results is presented in **Table 3**.

5.2.2 Organic Constituents

No organic constituents were detected above their MDL values for the April monitoring event. Acetone levels from the September event were confirmed as laboratory influenced, since they are not present this event.

Organic results are presented in **Table 3**.

5.2.3 Surface Water Results

No inorganic or organic constituents were detected above 2B Standards in surface water samples. Surface water results are shown in **Table 3**.

5.2.4 Leachate Analysis

Leachate samples were collected from the leachate collection system. A summary of constituents detected in the leachate is included as **Table 4**.

6.0 STATISTICAL ANALYSIS

No statistical analyses were performed on the analytical data based on the latest version of 15A NCAC 13B.1632 and .1633 effective April 1, 2011. Time vs. concentration graphs are included in **Appendix D**.

7.0 GROUNDWATER CHARACTERIZATION

A potentiometric surface map was prepared from ground water data from this sampling event. Ground water flow velocities for this sampling event were calculated for monitoring wells using the equation:

$$V = KI/n$$

where: K = hydraulic conductivity
I = ground water gradient
n = porosity

Ground water velocities in the uppermost aquifer at the Phase 2 MSW Landfill ranged from 0.015 feet/day (MW-2) to 0.250 feet/day (MW-9) and averaging 0.079 feet/day. Calculations are included in **Table 5**. Groundwater elevations indicate the flow direction is generally northwest across the site; which is consistent with historically reported ground water flow patterns. The potentiometric surface map is included as **Figure 1**.

8.0 CONCLUSIONS

Laboratory results indicate the water quality at the Davidson County Phase 2 Landfill is generally consistent with reported historical detections. Inorganic constituent detections are likely due to natural occurrence and their presence in the soil and rock formations, not impact from the landfill. In general, detected ground water concentrations at the site have remained

stable. The next ground water monitoring event will be performed in October 2014; results will be reported to NCDENR in accordance with 15A NCAC 13B.1600 et seq.

FIGURES

April 2014 Groundwater Monitoring Report
Davidson County Phase 2 MSW Landfill
NC Solid Waste Permit No. 29-06

This page intentionally left blank.

© 2014 Smith Gardner, Inc.

G:\CAD\Davidson\Davdco 10-9\sheets\DAVDCO-B0780.dwg - 5/27/2014 11:02 AM

LEGEND:

MW-2	EXISTING MONITORING WELL
MW-5	BEDROCK MONITORING WELL
SW-2	EXISTING SURFACE WATER MONITORING STATION
660	GROUNDWATER SURFACE CONTOUR
	PROPERTY LINE (SHOWN AS WHITE ON MAP)
	WASTE BOUNDARY
	DIRECTION OF GROUNDWATER FLOW
TOC	TOP OF CASING ELEVATION
DTW	DEPTH TO WATER MEASUREMENT
GWE	GROUNDWATER ELEVATION

NOTES

1. GROUNDWATER DATA RECORDED IN APRIL 2014 BY SMITH GARDNER, INC. PERSONNEL.
2. MW-6D, MW-7 AND SW-3 WERE REMOVED FROM THE MONITORING NETWORK IN THE JANUARY 2013 WATER QUALITY MONITORING REPORT.

0 200' 400'

PREPARED BY:

NC LIC. NO. C-0926 [ENGINEERING]
SMITH+GARDNER
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

PREPARED FOR:

POTENTIPOMETRIC SURFACE MAP
APRIL 2014
PHASE 2 LANDFILL
DAVIDSON COUNTY, NC

FIGURE NO.	1
SCALE:	AS SHOWN
APPROVED:	M.M.G.
DRAWN:	J.A.L.
FILENAME:	DAVDCO-B0780
PROJECT NO:	DAVDCO 10-9
DATE:	May 2014

This page intentionally left blank.

TABLES

April 2014 Groundwater Monitoring Report
Davidson County Phase 2 MSW Landfill
Solid Waste Permit No. 29-06

This page intentionally left blank.

SMITH+GARDNER

By: MMG
Date: 04/04/2014

Table 1
Groundwater Elevations
Davidson County Phase 2 Landfill
April 2 & 3, 2014

Well	Northing	Easting	TOC Elevation (feet)	Depth to Water (feet)	Water Level Elevation (feet)
MW-1	767416.7610	1651389.0830	734.16	12.82	721.34
MW-2	766376.8072	1649303.3872	664.06	11.02	653.04
MW-3S	766204.9705	1648875.8572	660.73	7.83	652.90
MW-3D	766204.6283	1648881.1437	660.91	7.75	653.16
MW-4S	766223.2813	1648660.2736	673.82	18.51	655.31
MW-4D	766220.6778	1648667.3780	673.54	18.17	655.37
MW-5	765901.6002	1648200.9255	687.31	27.69	659.62
MW-6S	765234.1084	1648749.7961	703.25	36.04	667.21
MW-8	765430.5188	1649111.6524	711.14	47.42	663.72
MW-9	766057.5112	1648496.3934	683.25	20.82	662.43
MW-10S	766690.7204	1649415.2654	668.58	15.96	652.62
MW-10D	766684.2050	1649417.4280	668.76	17.01	651.75

Notes: Survey data from Michael Green and Associates, P.A.

SMITH+GARDNER

By: MMG
Date: 04/04/2014

Table 2
Field Parameters
Davidson County Phase 2 Landfill
April 2 & 3, 2014

Well	pH (Std. Units)	Conductivity (umhos)	Temperature (celsius)	Turbidity (NTU)	DO (%)	ORP (mV)
MW-1	6.08	314	13.68	42.2	57.6	253
MW-2	6.22	202	12.32	12.4	28.2	238.6
MW-3S	6.7	243	10.21	26.9	41.4	214.7
MW-4S	6.2	165	13.8	38.3	61.1	234.3
MW-5	6.13	129	14.84	45.4	63.7	221.6
MW-6S	6.51	538	14.69	33.8	73	208.2
MW-8	6.77	369	15.35	1.7	59.3	194.2
MW-9	6.2	435	14.83	239	25.3	238.3
MW-10S	6.42	269	12.95	4.07	29.6	233.6
SW-1	7.91	217	12.78	10.5	117.1	151.9
SW-2	7.74	214	12.67	9.07	74	136.4

NOTES:
Data Collected by Madeline German and John Fearrington of S+G Engineers Inc.

SMITH+GARDNER

By: SH
Date:5/1/2014

Table 3
Detected Constituents
Davidson County Phase 2 Landfill
April 2 & 3, 2014

Parameter	MDL	SWSL	2L or GWP§	2B	MW-1	MW-2	MW-3S	MW-4S	MW-5	MW-6S	MW-8	MW-9	MW-10S	SW-1	SW-2
Inorganic Constituents															
antimony	0.02	6	1 §	640	<0.02	<0.02	<0.02	0.75 J	0.21 J	0.04 J	<0.02	<0.02	<0.02	0.88 J	0.41 J
arsenic	0.05	10	10	10	0.12 J	<0.05	<0.05	0.09 J	<0.05	0.29 J	<0.05	0.55 J	<0.05	0.46 J	0.62 J
barium	0.06	100	700	2000000	44.3 J	13.8 J	28.3 J	49 J	11.5 J	**305**	2.4 J	132	27.8 J	35.2 J	40.5 J
beryllium	0.03	1	4 §	6.5	0.05 J	<0.03	<0.03	0.05 J	0.04 J	0.12 J	<0.03	0.2 J	0.07 J	0.04 J	0.04 J
cadmium	0.05	1	2	2	<0.05	<0.05	<0.05	0.05 J	<0.05	0.06 J	<0.05	0.26 J	<0.05	<0.05	<0.05
cobalt	0.02	10	1 §	270	2.6 J	0.72 J	0.4 J	3.1 J	1.5 J	4.6 J	0.14 J	6.3 J	3.4 J	0.51 J	0.85 J
copper	0.06	10	1000	7	**28**	2.8 J	1.2 J	**24**	5.5 J	**73**	0.62 J	**25**	**14**	1.7 J	2.3 J
chromium, total	0.04	10	10	50	1.4 J	2.9 J	2.4 J	4.7 J	1.7 J	5.7 J	2.1 J	7.7 J	10	0.73 J	1.1 J
lead	0.02	10	15	25	1.1 J	0.41 J	0.19 J	1.1 J	1.7 J	1.8 J	0.04 J	2.4 J	0.8 J	0.52 J	1.1 J
nickel	0.45	50	100	88	2.8 J	1.2 J	0.84 J	3.5 J	2.1 J	4.7 J	1.1 J	4.8 J	5.2 J	1.2 J	1.5 J
selenium	0.06	10	20	5	<0.06	<0.06	0.46 J	<0.06	<0.06	0.49 J	0.07 J	0.1 J	<0.06	0.23 J	0.17 J
silver	0.03	10	20	0.06	0.03 J	<0.03	<0.03	0.04 J	<0.03	<0.03	<0.03	0.06 J	<0.03	0.03 J	<0.03
thallium	0.02	5.5	0.28 §	0.47	0.03 J	<0.02	<0.02	0.04 J	<0.02	0.05 J	<0.02	0.03 J	<0.02	0.03 J	<0.02
vanadium	0.07	25	0.3 §	NE	12.9 J	5.8 J	11 J	19.8 J	8.6 J	**44**	7.4 J	**30**	15.4 J	2.1 J	2.9 J
zinc	0.47	10	1000	50	9.7 J	<0.47	0.84 J	**12**	4.8 J	**48**	<0.47	**14**	**11**	3.7 J	5.6 J

NOTE:

SWSL	-	Solid Waste Section Quantitation Limits
2L	-	Groundwater Standards (15A NCAC 2L 0200)
2B	-	NCAC 2B Standard for Class C waters
MDL	-	Method Detection Limit
GWP	-	Groundwater Protection Standard (indicated with §)
Shading	-	Detection above 2L Standard
Bold Letters	-	Constituents detected above SWSL
J	-	Laboratory reported between MDL and SWSL limit
< MDL	-	Not detected at or above MDL

Table units are presented in ug/l.
Lab data analysis by Environment 1, Inc. report dated 04/30/2014, ID#6059.

This page intentionally left blank.

SMITH+GARDNER

Table 4
Leachate Analytical Data
Davidson County Phase 2 Landfill
April 2 & 3, 2014

By: SH
Date: 5/1/2014

Parameter	Unit	Leachate
1,1-Dichloroethane	ug/l	2.4 J
1,2-Dichloroethane	ug/l	2.4
1,2-Dichloropropane	ug/l	0.8 J
1,4-Dichlorobenzene	ug/l	6.1
2-Butanone	ug/l	3060
2-Hexanone	ug/l	164
4-Methyl-2-Pentanone	ug/l	24 J
Acetone	ug/l	2540
Benzene	ug/l	29.3
Chlorobenzene	ug/l	1.2 J
Chloroethane	ug/l	5.2 J
Cis-1,2-Dichloroethene	ug/l	0.6 J
Ethylbenzene	ug/l	30.3
Toluene	ug/l	179
trans-1,2-Dichloroethene	ug/l	3.9 J
Vinyl Chloride	ug/l	6
Xylenes	ug/l	68.3
Ammonia Nitrogen as N	mg/l	230
BOD	mg/l	715
COD	mg/l	1051
Sulfate	mg/l	11.6 J
Total Phosphorus as P	mg/l	0.33
Total Suspended Residue	mg/l	110
Antimony	ug/l	5.9 J
Arsenic	ug/l	8 J
Barium	ug/l	194
Beryllium	ug/l	0.1 J
Cadmium	ug/l	0.57 J
Cobalt	ug/l	8.4 J
Copper	ug/l	5.1 J
Total Chromium	ug/l	19
Lead	ug/l	1.2 J
Nickel	ug/l	76
Selenium	ug/l	10
Silver	ug/l	0.1 J
Vanadium	ug/l	17.5 J
Zinc	ug/l	83

NOTES:
J-values are laboratory estimated values for detections between the SWSL and MDL.
Lab data analysis by Environment 1, Inc. report dated 04/30/2014, client ID#6059.

SMITH+GARDNER

By: MG
Date: 05/23/2014

Table 5
Aquifer Conductivity and Velocity Calculations
Davidson County Phase 2 Landfill
April 2 & 3, 2014

Well Number	Aquifer	Conductivity (ft/day)	Conductivity (ft/min)	Assumed Porosity (n)	Gradient (I)	Velocity (ft/day)
MW-1	Sandy Silt	1.61E-03	1.12E-06	0.18	NA	NA
MW-2	Sandy Silt	6.75E-02	4.69E-05	0.18	0.039	0.015
MW-3s	Sand	8.60E-02	5.97E-05	0.20	0.047	0.020
MW-3d	Granite	3.42E-02	2.38E-05	0.10	NA	NA
MW-4s	Sandy Silt	6.22E-02	4.32E-05	0.18	0.052	0.018
MW-4d	Diorite	7.55E+00	5.24E-03	0.10	NA	NA
MW-5	Clayey Silt	4.31E-01	2.99E-04	0.18	0.037	0.088
MW-6s	Sand and Gravel	4.64E-01	3.22E-04	0.22	0.044	0.093
MW-6d	Diorite	NA	NA	NA	NA	NA
MW-7	Diorite	NA	NA	NA	NA	NA
MW-8	Diorite	4.90E-01	3.40E-04	0.10	0.013	0.066
MW-9	Diorite	7.20E-01	5.00E-04	0.10	0.035	0.250

NA = Well had insufficient water to perform Slug Test, or insuffienent data to complete calculation.
Velocity Calculated from V=K*I/n where:
V = velocity
K = Hydraulic Conductivity
I = Gradient
n = Porosity
Hydraulic Conductivity data from slug tests performed in 1994
Porosity values assumed from Groundwater & Wells (Driscoll)
Gradient for bedrock wells assumed to be the same as for unconsolidated aquifer
Gradient calculated from Spring 2014 potentiometric surface.

Appendix A

Monitoring Well Information

This page intentionally left blank.

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-1**

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/25/08** DATE COMPLETED: **3/25/08**

TOTAL DEPTH: **20 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0		SS		HSA	SILT: Dry brown silt.		0.0	
1.0							1.0	
2.0							2.0	
3.0							3.0	
4.0							4.0	
5.0	7,10,11	SS	18"		SANDY SILT: Moist gray and white sandy silt with Fe oxidation. High organic content at 15 ft. Some dark gray gravel at 20 ft. B.T. at 20ft.		5.0	
6.0							6.0	
7.0							7.0	
8.0							8.0	
9.0							9.0	
10.0	8,10,13	SS	16"				10.0	
11.0							11.0	
12.0							12.0	
13.0							13.0	
14.0							14.0	
15.0	38,50/4	SS	6"				15.0	
16.0							16.0	
17.0							17.0	
18.0							18.0	
19.0							19.0	
20.0							20.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

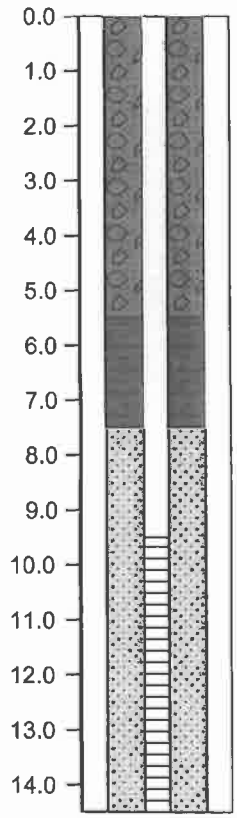
BOREHOLE NUMBER **MW-2** Page 1 of 1

PROJECT NAME: **Davidson County - Phase 2**
LOCATION: **Lexington, NC**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **8/12/08** DATE COMPLETED: **8/12/08**

TOTAL DEPTH: **14.5**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	13.06	
Time	11:00 am	
Date	8/12/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY
0.0				HSA	SILT: Dry dark brown silt with samll quarz fragments and black mottles.	
1.0						
2.0						
3.0						
4.0						
5.0	10,12,15	SS	18"		SANDY SILT: Moist sandy silt with partially weathered andesite and Fe spotting.	
6.0						
7.0						
8.0						
9.0						
10.0	8,17,23	SS	18"			
11.0						
12.0						
13.0		Grab			GRANITE: Dry, partially weathered granite. B.T. @ 14.5 feet.	
14.0						



Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-3D** Page 1 of 1

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **Daivd Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/26/08** DATE COMPLETED: **3/26/08**

TOTAL DEPTH: **40.5 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

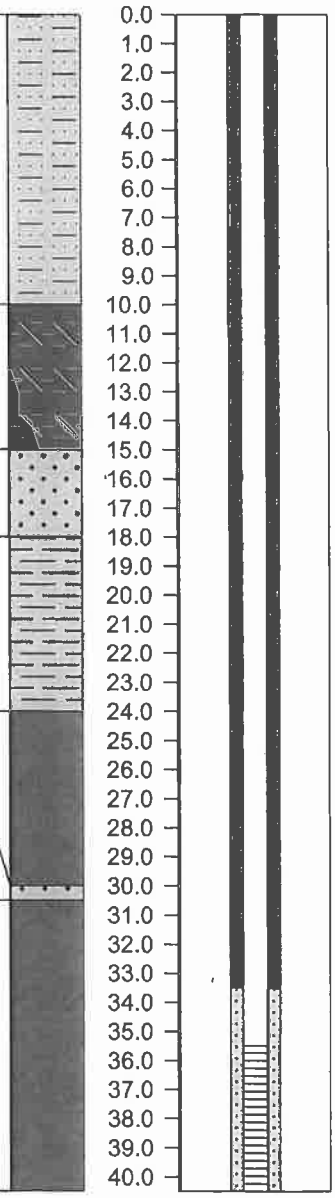
STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION
0.0–5.0				HSA	CLAYEY SAND: Upper 9" is gray to red brown wet clayey silt with organics. Bottom 3" is dry compacted clay with fine grained sandy silty clay with Fe spots.
5.0–6.0	3,3,5	SS	18"		
6.0–10.0					
10.0–11.0	11,13,17	SS	10"		CLAY AND SAND: Gray clay and fine grained sand conglomerate, with large organic material. Some Fe oxidation with bottom 5" wet.
11.0–15.0					
15.0–16.0	3,7,5	SS	8"		SAND: Course grained wet gray sand with quartz gravel.
16.0–18.0					
18.0–21.0	50/3	SS	4"		SANDY SILT: Wet course grained sticky gray sandy silt. A.R. 24 ft.
21.0–24.0					
24.0–29.0		SS		AH	GRANITE: Weathered boulder.
29.0–30.0					SAND: 6" thick fine to coarse sand layer.
30.0–35.0		Grab			GRANITE: Weathered granite, wet. B.T. 40.5 ft.
35.0–40.0		Grab			
40.0		Grab			

LITHOLOGY

DEPTH

WELL INSTALLATION



Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

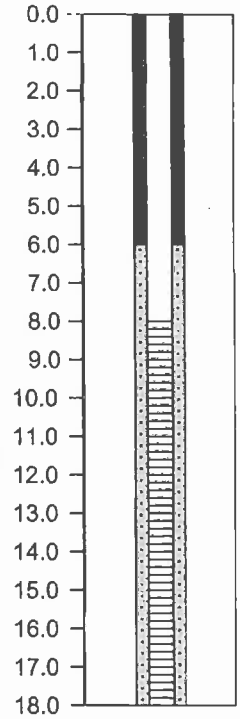
BOREHOLE NUMBER **MW-3s** Page 1 of 1

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/24/08**

TOTAL DEPTH: **18 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	6.21	
Time	1:10pm	
Date	3/27/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY
0.0		SS		HSA	CLAYEY SILT: Upper 9" is grAy to red brown wet clayey silt with organics. Bottom 3" is dry, compacted clay; and fine grained sandy silty clay with Fe spots.	
1.0						
2.0						
3.0						
4.0						
5.0	3,3,5	SS	18"			
6.0						
7.0						
8.0						
9.0						
10.0	11,13,17	SS	10"		CLAY AND SAND: Gray clay and fine grained sand conglomerate with large organic material. Some Fe oxidation, with bottom 5" wet.	
11.0						
12.0						
13.0						
14.0						
15.0	3,7,5	SS	8"		SAND: Course grained wet gray sand with quartz gravel. B.T. 18 ft.	
16.0						
17.0						
18.0						



DEPTH WELL INSTALLATION

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-4D**

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/26/08** DATE COMPLETED: **3/26/08**

TOTAL DEPTH: **37 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0		SS		HSA	SILT: Dry reddish brown silt with Mn mottling.		0.0	
1.0							1.0	
2.0							2.0	
3.0							3.0	
4.0							4.0	
5.0	6,9,11	SS	18"				5.0	
6.0							6.0	
7.0							7.0	
8.0							8.0	
9.0							9.0	
10.0	8,10,15	SS	18"		CLAYEY SILT: Dry brownish yellow clayey silt, with slight red tint and Mn mottling.		10.0	
11.0							11.0	
12.0							12.0	
13.0							13.0	
14.0							14.0	
15.0	46,33,45	SS	9"		SILTY CLAY: Upper 4" is dry gray and dark reddish brown, lower 5" is Gray/white fine grained silt.		15.0	
16.0							16.0	
17.0							17.0	
18.0							18.0	
19.0					SANDY CLAY: Small amounts of dry white/gray granite from partially weathered rock. A.R. at 21 ft.		19.0	
20.0	50/2	SS	2"				20.0	
21.0				AH	DIORITE: Dry diorite fracture at 36 ft.		21.0	
22.0							22.0	
23.0							23.0	
24.0							24.0	
25.0		Grab					25.0	
26.0							26.0	
27.0							27.0	
28.0							28.0	
29.0							29.0	
30.0		Grab					30.0	
31.0							31.0	
32.0							32.0	
33.0							33.0	
34.0							34.0	
35.0		Grab					35.0	
36.0							36.0	
37.0							37.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

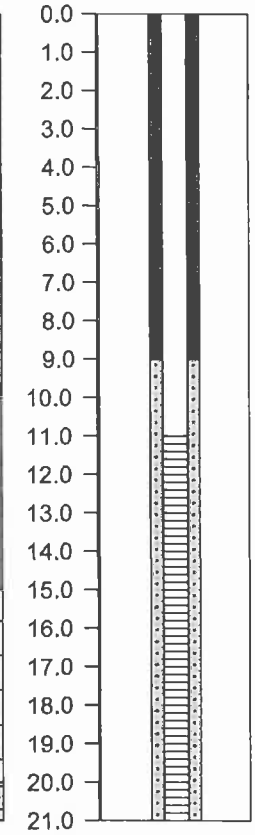
BOREHOLE NUMBER **MW-4s** Page 1 of 1

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/24/08**

TOTAL DEPTH: **21**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	18.97	
Time	1:30pm	
Date	3/27/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY
0.0		SS		HSA	SILT: Dry reddish brown silt with Mn mottles.	
1.0						
2.0						
3.0						
4.0						
5.0	6,9,11	SS	18"			
6.0						
7.0						
8.0						
9.0						
10.0	8,10,15	SS	18"		CLAYEY SILT: dry brownish yellow clayey silt, with slight red tint and Mn mottles.	
11.0						
12.0						
13.0						
14.0						
15.0	46,33,45	SS	9"		SILTY CLAY: Upper 4" is dry gray and dark reddish brown, lower 5" is gray/white fine grained silt.	
16.0						
17.0						
18.0						
19.0					SANDY SILT: Dry white/gray with small amounts of granite from partially weathered rock. A.R. at 21ft.	
20.0	50/2	SS	2"			
21.0						



DEPTH | WELL INSTALLATION

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

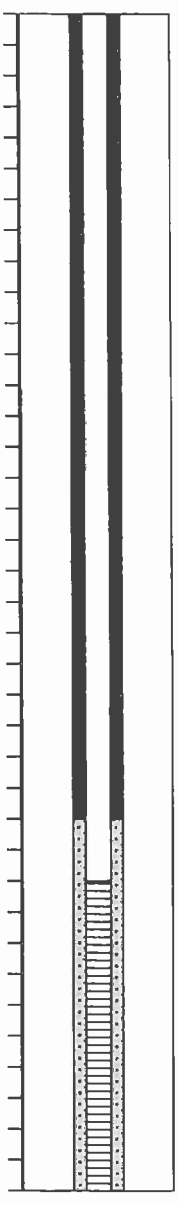
BOREHOLE NUMBER **MW-5**

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/24/08**

TOTAL DEPTH: **38 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	27.77	
Time	1:40pm	
Date	3/27/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0		SS	18"	HSA	SILTY CLAY: Dry red silty clay		0.0	
5.0	3,9,7	SS	14"				5.0	
10.0	6,9,14	SS	17"		CLAY AND SAND: Upper 4" red clay, middle 8" white and brown fine grained sand with organics, bottom 5" white/ gray clay silt.		10.0	
15.0	4,4,7	SS	14"		CLAYEY SILT: Moist white and gray clayey silt with Fe oxidation incremental banding from 45 degrees to parallel respectively. Brown sand observed at 36 ft. B.T. at 38 ft.		15.0	
20.0	5,10,15	SS	16"				20.0	
25.0	13,20,27	SS	10"				25.0	
30.0	9,17,27	SS	12"				30.0	
35.0	27,26,50/6	SS	14"				35.0	
38.0							38.0	



Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-6D**

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectoncis, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/27/08** DATE COMPLETED: **3/27/08**

TOTAL DEPTH: **70.5 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0				HSA	SANDY SILT: Brownish fine grained yellow sandy silt with Mn spots in upper 10". Lower portion is white/ gray compacted fine grained sandy silt quartz fragments increase in size with depth. Increased percent of Fe banding and oxidation with depth.		0.0	
5.0	28,37,50/1	SS	13"				5.0	
10.0	20,36,31	SS	17"				10.0	
15.0	23,36,50/6	SS	14"				15.0	
20.0	32,44,50/5	SS	18"				20.0	
25.0	50/5	SS	18"		SILT: Upper 14" is sticky wet viscous silt with Fe oxidation. Lower 4" hard compact gray/white silt.		25.0	
30.0	29,32,50/4	SS	12"		SANDY SILT: Brownish yellow sandy silt with Fe oxidation and quartz bands at 45 degree angles.		30.0	
35.0	28,50/5	SS	10"		GRAVEL AND SAND: Upper 4" wet gravel with large rock with medium grained sand. Lower 6" poorly sorted, mostly white silty		35.0	
37.0							37.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-6D**

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectoncis, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/27/08** DATE COMPLETED: **3/27/08**

TOTAL DEPTH: **70.5 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
37.0					sand, with quartz fragments.		37.0	
38.0							38.0	
39.0							39.0	
40.0	41,42,50/6	SS	5"		SILT AND SAND: Upper 2" wet silty gray sand. Bottom 3" dry white and gray sandy silt with black and Fe spots.		40.0	
41.0							41.0	
42.0							42.0	
43.0							43.0	
44.0							44.0	
45.0	19,27,50	SS	14"		SANDY SILT: Gray and light red sandy silt with Fe oxidation bands.		45.0	
46.0							46.0	
47.0							47.0	
48.0							48.0	
49.0					SILTY SAND: Wet white and gray silty sand with dark brown coarse sand. A.R. at 51 ft.		49.0	
50.0	50/2	SS	50/2"				50.0	
51.0				AH	GRANITE: Weathered granite		51.0	
52.0							52.0	
53.0							53.0	
54.0							54.0	
55.0		Grab					55.0	
56.0							56.0	
57.0							57.0	
58.0							58.0	
59.0							59.0	
60.0		Grab					60.0	
61.0							61.0	
62.0							62.0	
63.0							63.0	
64.0							64.0	
65.0		Grab					65.0	
66.0							66.0	
67.0					DIORITE: Large fracture at 68' produced a lot of water. B.T. at 70.5 ft.		67.0	
68.0							68.0	
69.0							69.0	
70.0							70.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-6s** Page 1 of 1

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/25/08** DATE COMPLETED: **3/25/08**

TOTAL DEPTH: **40 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	33.60	
Time	2:00pm	
Date	3/27/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0–5.0				HSA	SANDY SILT: Brownish fine grained yellow sandy silt with Mn spots in upper 10". Lower portion is white/ gray compacted fine grained sand with silt quartz fragments, increase in size with depth. Increased percent of Fe banding and oxidation with depth.			
5.0–6.0	28,37,50/1	SS	13"					
6.0–10.0								
10.0–11.0	20,36,31	SS	17"					
11.0–15.0								
15.0–16.0	23,36,50/6	SS	14"					
16.0–20.0								
20.0–21.0	32,44,50/5	SS	18"					
21.0–25.0								
25.0–26.0	50/5	SS	18"		SILT: Upper 14" is sticky wet viscous silt with Fe oxidation. Lower 4" hard compact gray/white silt.			
26.0–30.0								
30.0–31.0	29,32,50/4	SS	12"		SANDY SILT: Moist brownish yellow sandy silt, with Fe oxidation and quartz bands at 45 degree angles.			
31.0–35.0								
35.0–36.0	28,50/5	SS	10"		GRAVEL AND SAND: Moist brownish yellow sandy silt, with Fe oxidation and quartz banks at 45 degree angles.			
36.0–40.0					SANDY SILT: Upper 2" is wet silty gray sand. Bottom 3" is dry white & gray sandy silt, with black and Fe oxidation spots. B.T. at 40 ft.			
40.0–41.0	42,50/6	SS	5"					

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-7** Page 1 of 1

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Holy Springs, NC**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/25/08**

TOTAL DEPTH: **37.4**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0				HSA	SANDY SILT: Dry white and gray compacted sandy silt with Fe oxidation. Minor gravel fragments with depth. A.R. at 18 ft.		0.0	
1.0							1.0	
2.0							2.0	
3.0							3.0	
4.0							4.0	
5.0	13,23,31	SS	18"				5.0	
6.0							6.0	
7.0							7.0	
8.0							8.0	
9.0							9.0	
10.0	23,50/6	SS	12"				10.0	
11.0							11.0	
12.0							12.0	
13.0							13.0	
14.0							14.0	
15.0	16,23,34	SS	18"				15.0	
16.0							16.0	
17.0							17.0	
18.0		Grab		AH	DIORITE: Very competent diorite		18.0	
19.0							19.0	
20.0							20.0	
21.0							21.0	
22.0		Grab					22.0	
23.0							23.0	
24.0							24.0	
25.0							25.0	
26.0							26.0	
27.0		Grab					27.0	
28.0							28.0	
29.0							29.0	
30.0							30.0	
31.0							31.0	
32.0		Grab					32.0	
33.0							33.0	
34.0							34.0	
35.0							35.0	
36.0							36.0	
37.0		Grab					37.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

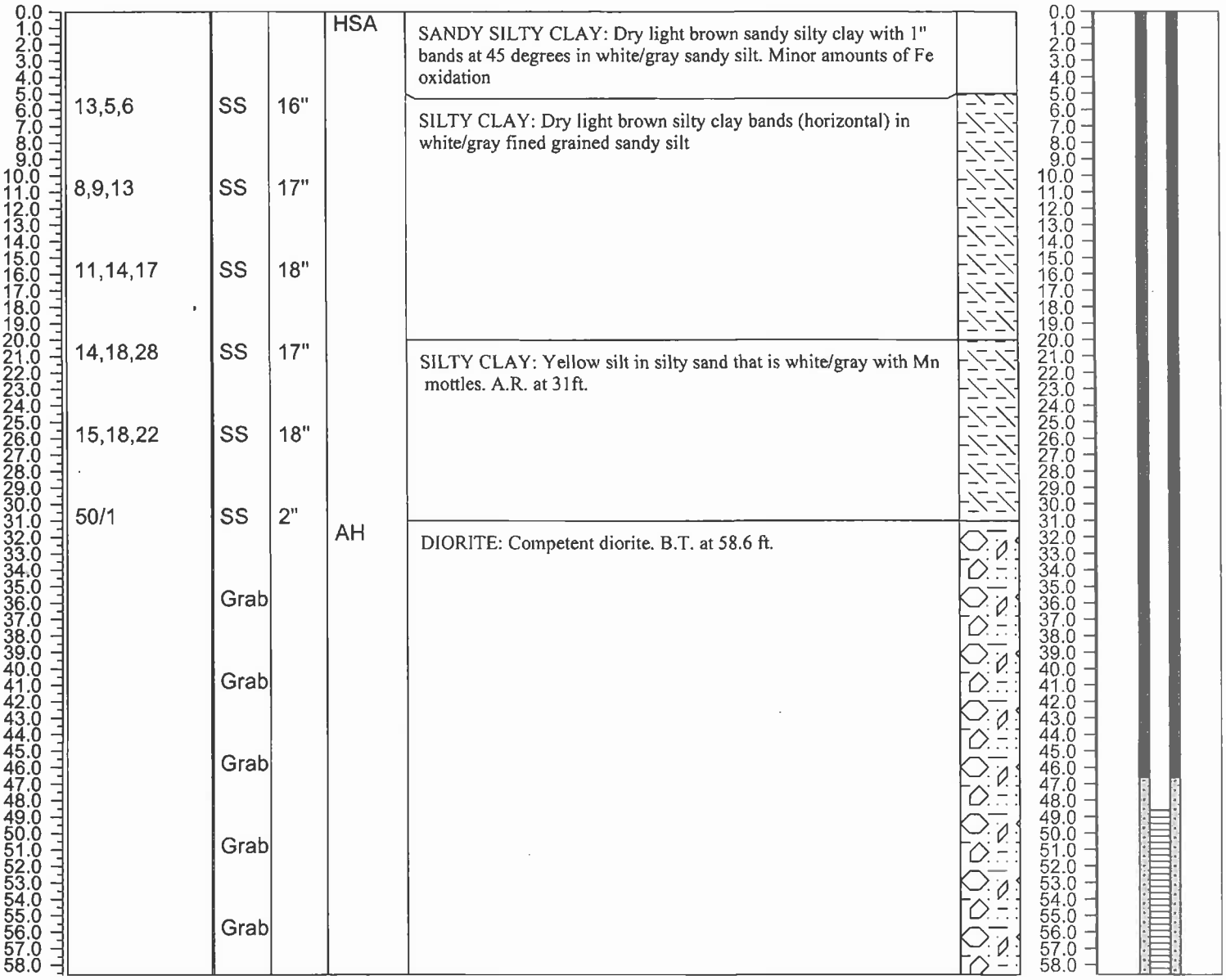
BOREHOLE NUMBER **MW-8**

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/25/08**

TOTAL DEPTH: **58.6**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	46.58	
Time	10:45am	
Date	4/3/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0–5.0				HSA	SANDY SILTY CLAY: Dry light brown sandy silty clay with 1" bands at 45 degrees in white/gray sandy silt. Minor amounts of Fe oxidation			
6.0	13,5,6	SS	16"		SILTY CLAY: Dry light brown silty clay bands (horizontal) in white/gray fined grained sandy silt			
11.0	8,9,13	SS	17"					
16.0	11,14,17	SS	18"					
21.0	14,18,28	SS	17"		SILTY CLAY: Yellow silt in silty sand that is white/gray with Mn mottles. A.R. at 31ft.			
26.0	15,18,22	SS	18"					
31.0	50/1	SS	2"	AH	DIORITE: Competent diorite. B.T. at 58.6 ft.			
36.0		Grab						
41.0		Grab						
46.0		Grab						
51.0		Grab						
56.0		Grab						



Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

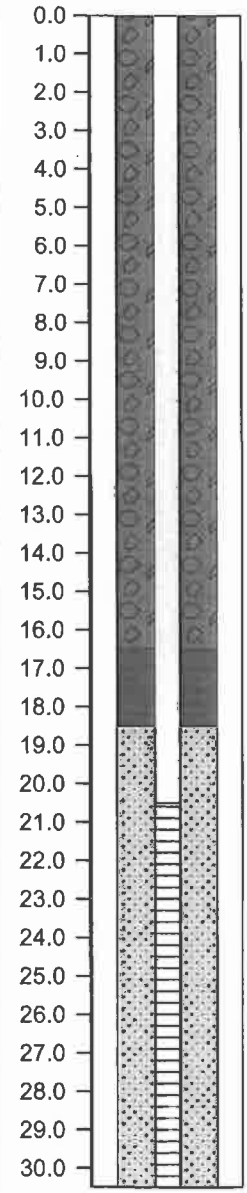
BOREHOLE NUMBER **MW-9** Page 1 of 1

PROJECT NAME: **Davidson County - Phase 2**
LOCATION: **Lexington, NC**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA/AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **8/12/08** DATE COMPLETED: **8/14/08**

TOTAL DEPTH: **30.5**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	19.35	
Time	2:30 pm	
Date	8/14/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY
0.0				HSA	SAND: Dry brown fine grained sand.	
1.0						
2.0						
3.0						
4.0						
5.0		Grab				
6.0						
7.0						
8.0						
9.0						
10.0		Grab				
11.0						
12.0						
13.0						
14.0						
15.0	50/0	SS	0"		DIORITE: Dry partially weathered diorite, with water at 21ft. Some brown/red silt with cutting at 20 feet. B.T. at 30.5 feet.	
16.0						
17.0						
18.0						
19.0						
20.0		Grab				
21.0						
22.0						
23.0						
24.0						
25.0		Grab				
26.0						
27.0						
28.0						
29.0						
30.0		Grab		AH		



NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW1
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-3-08
TIME COMPLETED 4-7-08 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 51 11.4107
LONGITUDE 80 10 34.8794
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 20.0'
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 14.1 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3.0	To 10.0	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 6.0'	To 8.0	Ft.	Bentonite	Tremie
From 0.0	To 6.0	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 10.0	To 20.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 8.0	To 20.0	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

919 828 2899

REC'D AUG 28 2008

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David BARRON
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave ST.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW#2
WELL CONSTRUCTION PERMIT#(if applicable)
OTHER ASSOCIATED PERMIT #(if applicable)

3. WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐ Irrigation ☐ Other ☐ (list use)
DATE DRILLED 8-11-08
TIME COMPLETED 8-15-08 AM ☒ PM ☐

4. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1160 old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☒ Valley ☐ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE
LONGITUDE
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1160 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

6. WELL DETAILS:
a. TOTAL DEPTH: 14.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 13.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

7. CASING:

From	To	Ft.	Diameter	Thickness/ Weight	Material
+3'	4'		2"	sch 40	PVC

8. GROUT:

From	To	Ft.	Material	Method
0	2.0		Portland	Tremie
2.0	3.0		Bentonite	Tremie

9. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
4.0	14.0		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

10. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
3.0	14.0		#3	SAND

11. DRILLING LOG

From	To	Formation Description

12. REMARKS:

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

David Barron 8-20-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
DAVID BARRON
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 3/07

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David BARRON
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 VARGRAVE ST.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW # 35
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 3-31
TIME COMPLETED 4-1 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 58.13561
LONGITUDE 80 11 05.49742
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 18.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 7.93 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

From	To	Ft.	Diameter	Thickness/ Weight	Material
+3	8.0		2"	Sch 40	PVC

7. GROUT:

From	To	Ft.	Material	Method
6.0	8.0		Bentonite	Tremie
0.0	6.0		Portland	Pump

8. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
8.0	18.0		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

9. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
6.0	18.0		#3	SAND

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David BARRON
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW 3D
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-9
TIME COMPLETED 4-11 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 58.13562
LONGITUDE 80 11 05.4984
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 40.5
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 7.82 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

From	To	Ft.	Diameter	Thickness/Weight	Material
+3	35.5		2"	Sch 40	PVC
0.0	24		4"	Sch 40	PVC

7. GROUT:

From	To	Ft.	Material	Method
31.5	33.5		Bentonite	Tremie
0.0	31.5		Portland	Pump

8. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
35.5	40.5		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

9. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
38.5	40.5		#3	SAND

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:

David Barron
Well Contractor (individual) Name

Eng. Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

W-Salem N.C. 27107
City or Town State Zip Code

(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW4s

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐ Irrigation ☐ Other ☐ (list use)

DATE DRILLED 3-31

TIME COMPLETED 4-1 AM ☒ PM ☐

3. WELL LOCATION:

CITY: Thomasville COUNTY Davidson

1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

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

LATITUDE 35 50 58.29283
LONGITUDE 80 11 08.13518

May be in degrees, minutes, seconds or in a decimal format

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

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY Davidson Co. Landfill

STREET ADDRESS 1242 old Hwy 29

Thomasville N.C. 27360-0024
City or Town State Zip Code

CONTACT PERSON Charlie Brushwood

MAILING ADDRESS 1242 old Hwy 29

Thomasville N.C. 27360-0024
City or Town State Zip Code

(336) 242-2284
Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 21.0

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 18.6 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): _____ METHOD OF TEST _____

f. DISINFECTION: Type _____ Amount _____

g. WATER ZONES (depth):

From	To	From	To

6. CASING:

From	To	Ft.	Diameter	Thickness/ Weight	Material
+3	11.0		2"	Sch 40	PVC

7. GROUT:

From	To	Ft.	Material	Method
7.0	9.0		Bentonite	Tremie
0.0	7.0		Portland	Pump

8. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
11.0	21.0		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

9. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
9.0	21.0		#3	SAND

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days; Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW 4D
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-9
TIME COMPLETED 4-11 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 58.29291
LONGITUDE 80 11 08.13521
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 37.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 18.2 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3	To 27.0	Ft.	2"	Sch 40	PVC
From 0.0	To 21.5	Ft.	4"	Sch 40	PVC
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 28.0	To 30.0	Ft.	Bentonite	Tremie
From 0.0	To 28.0	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 32.0	To 37.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 30.0	To 37.0	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days; Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW#5
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-1
TIME COMPLETED 4-8 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 55.0341
LONGITUDE 80 11 13.66395
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 38.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 27.47 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3'	To 28	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 24.0	To 26.0	Ft.	Bentonite	Tremie
From 0.0	To 24.0	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 28.0	To 38.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 26.0	To 38.0	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 588.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code - Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW65
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-8
TIME COMPLETED 4-10 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 48.51500
LONGITUDE 80 11 06.89024
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 40.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 31.9 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3	To 30.0	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 26.0	To 28.0	Ft.	Bentonite	Tremie
From 0.0	To 26.0	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 30.0	To 40.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 28.0	To 40.0	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code - Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW 60
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-8
TIME COMPLETED 4-10 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 48.51500
LONGITUDE 80 11 06.89030
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 70.5
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 32.12 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

From	To	Depth	Diameter	Thickness/Weight	Material
+3.0	65.5	Ft.	2"	Sch 40	PVC
0.0	51.0	Ft.	4"	Sch 40	PVC
		Ft.			

7. GROUT:

From	To	Depth	Material	Method
61.5	63.5	Ft.	Bentonite	Tremie
		Ft.	Portland	Pump
		Ft.		

8. SCREEN:

From	To	Depth	Diameter	Slot Size	Material
65.5	70.5	Ft.	2" in.	.010 in.	PVC
		Ft.	in.	in.	
		Ft.	in.	in.	

9. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
63.5	70.5	Ft.	#3	SAND
		Ft.		
		Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW #7
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-4-08
TIME COMPLETED 4-8-08 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 48.6102
LONGITUDE 80 11 04.88235
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 37'-4"
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 28'.6 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

From	To	Depth Ft.	Diameter	Thickness/ Weight	Material
+3	37.4		2"	Sch 40	PVC

7. GROUT:

From	To	Depth Ft.	Material	Method
23.4	25.4		Bentonite	Tremie
0.0	23.4		Portland	Pump

8. SCREEN:

From	To	Depth Ft.	Diameter in.	Slot Size in.	Material
[redacted]	37.4		2"	.010	PVC
27.4					

9. SAND/GRAVEL PACK:

From	To	Depth Ft.	Size	Material
[redacted]	37.4		#3	SAND
25.4				

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code - Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW #8
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-4-08
TIME COMPLETED 4-9-08 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 50.57123
LONGITUDE 80 11 02.42828
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 58'-6"
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 48.49 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3.0	To 48.6	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 44.6	To 46.6	Ft.	Bentonite	Tremie
From 0.0	To 44.6	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 48.6	To 58.6	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 46.6	To 58.6	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

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

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

REC'D AUG 28 2008

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David BARRON
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave ST.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW+9
WELL CONSTRUCTION PERMIT#(if applicable)
OTHER ASSOCIATED PERMIT #(if applicable)

3. WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐ Irrigation ☐ Other ☐ (list use)
DATE DRILLED 8-14-08
TIME COMPLETED 8-19-08 AM ☒ PM ☐

4. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1160 old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE
LONGITUDE
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1160 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

6. WELL DETAILS:
a. TOTAL DEPTH: 30.50
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 20.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS Flush FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From 20.5 To 30.5 From To
From To From To
From To From To

7. CASING:

From	To	Depth Ft.	Diameter	Thickness/ Weight	Material
0	20.5		2"	sch 40	PVC

8. GROUT:

From	To	Depth Ft.	Material	Method
0	15.5		Portland	Tremie
15.5	18.5		Bentonite	Tremie

9. SCREEN:

From	To	Depth Ft.	Diameter	Slot Size	Material
20.5	30.5		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

10. SAND/GRAVEL PACK:

From	To	Depth Ft.	Size	Material
18.5	30.5		#3	Sand

11. DRILLING LOG

From	To	Formation Description

12. REMARKS:

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

David Barron 8-20-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
DAVID BARRON
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 3/07

This page intentionally left blank.

Appendix B

Field Data Sheets

April 2014 Groundwater Monitoring Report
Davidson County Phase 2 MSW Landfill
NC Solid Waste Permit No. 29-06

This page intentionally left blank.

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAUDCO PHASE 2 **Date:** 9/2/14

Well ID: MW-1 **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ Items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

NO LOCK

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ Items addressed or to be addressed:

SMITH+GARDNER

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVDCO PHASE 2 **Date:** 4/2/14

Well ID: MW-2 **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVCO PHASE 2 **Date:** 4/2/14

Well ID: MW - 35 **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	–	
B. Vicinity is free of potential contaminants.	–	
C. Dead trees, etc. not in danger of falling and damaging wells.	–	
D. Well is in the same location as on field maps.	–	
E.		

Comments/ items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	–	
B. Steel case is present and upright.	–	
C. Steel case is not movable and cemented in.	–	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	–	
E. Well tag is present with pertinent information.	–	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	–	
G. No evidence of tampering is present.	–	
H. Lock operates properly.		–
I.		

Comments/ items addressed or to be addressed:

NO LOCK

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	–	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	–	
C. Riser is not loose/ easily moved.	–	
D. Riser does not appear cracked, broken, or brittle.	–	
E. No visual sign of external contamination entering well through riser.	–	
F.		

Comments/ items addressed or to be addressed:

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVDCO PHASE 2 **Date:** 4/2/14

Well ID: MW-3D **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

NO LOCK

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVCO PHASE 2 **Date:** 4/2/14

Well ID: MW-45 **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ Items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ Items addressed or to be addressed:

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVDCO PHASE 2 **Date:** 4/2/14

Well ID: MW- 4D **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.		
B. Vicinity is free of potential contaminants.		
C. Dead trees, etc. not in danger of falling and damaging wells.		
D. Well is in the same location as on field maps.		
E.		

Comments/ items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.		
B. Steel case is present and upright.		
C. Steel case is not movable and cemented in.		
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.		
E. Well tag is present with pertinent information.		
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		
G. No evidence of tampering is present.		
H. Lock operates properly.		
I.		

Comments/ items addressed or to be addressed:

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.		
B. Riser is of appropriate height (has not been cut off too low within the steel case).		
C. Riser is not loose/ easily moved.		
D. Riser does not appear cracked, broken, or brittle.		
E. No visual sign of external contamination entering well through riser.		
F.		

Comments/ items addressed or to be addressed:

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVDCO PHASE 2 **Date:** 4/2/14

Well ID: MW-5 **Initials:** JPF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

NO LOCK

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVDCO PHASE 2 **Date:** 4/2/19

Well ID: MW-6S **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

NO LOCK

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVDCO PHASE 2 **Date:** 4/2/14

Well ID: MW-8 **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

NO LOCK

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DANDCO PHASE 2 **Date:** 4/2/14

Well ID: MW-2 **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.		✓
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

VAULT FOR WELL FILLS W/ WATER

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.		✓
C. Steel case is not movable and cemented in.		✓
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.		✓
E. Well tag is present with pertinent information.		✓
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

FLUSH MOUNTED. NO STEEL CASING

NO LOCK

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).		✓
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

FLUSH MOUNTED

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DANDCO PHASE 2 **Date:** 4/2/14

Well ID: MW-10S **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.		✓
E.		

Comments/ items addressed or to be addressed:

LOCATION NOT ON MARS

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.		✓
C. Steel case is not movable and cemented in.		✓
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.		✓
E. Well tag is present with pertinent information.		✓
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.		✓
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

NO CASING. PIEZOMETER STICK-UP

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.		✓
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

CAP WAS ADDED. NOT RIGHT CAP BUT PREVENTS INFILTRATION.

SMITH+GARDNER **Groundwater Monitoring Well Inspection Checklist**

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVCO PHASE 2 **Date:** 4/2/14

Well ID: MW-10D **Initials:** JRF

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.		✓
E.		

Comments/ items addressed or to be addressed:

LOCATION NOT ON MAPS

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.		✓
C. Steel case is not movable and cemented in.		✓
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.		✓
E. Well tag is present with pertinent information.		✓
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.		✓
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

NO CASING. PIEZOMETER STICK-UP

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.		✓
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

CAP WAS ADDED. NOT RIGHT CAP BUT PREVENTS INFILTRATION

Appendix C

Laboratory Analytical Report

April 2014 Groundwater Monitoring Report
Davidson County Phase 2 MSW Landfill
NC Solid Waste Permit No. 29-06

This page intentionally left blank.

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#: 6059 A

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
SMITH GARDNER, INC.
14 NORTH BOYLAN AVE.
RALEIGH ,NC 27603

DATE COLLECTED: 04/02/14
DATE REPORTED : 04/30/14

REVIEWED BY:

PARAMETERS	MDL	SWSL	SW-1	SW-2	Leachate	Analysis Date	Analyst	Method Code
BOD, mg/l	2.0	2.0			715	04/03/14	TRB	5210B-01
COD, mg/l	20.0	20.0			1051	04/07/14	TRB	H8000-79
Total Suspended Residue, mg/l	1.0	1.0			110	04/03/14	LW	2540D-97
Ammonia Nitrogen as N, mg/l	0.04	0.04			230	04/03/14	ANO	350.1 R2-93
Nitrate Nitrogen as N, mg/l	0.03	10.0			--- U	04/04/14	ANO	353.2 R2-93
Total Phosphorus as P, mg/l	0.04	0.04			0.33	04/07/14	ALB	365.4-74
Sulfate, mg/l	5.0	250.0			11.6 J	04/04/14	TRB	4500S042E97
Antimony, ug/l	0.02	6.0	0.88 J	0.41 J	5.9 J	04/20/14	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.46 J	0.62 J	8 J	04/20/14	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	35.2 J	40.5 J	194	04/20/14	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.04 J	0.04 J	0.10 J	04/20/14	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	--- U	--- U	0.57 J	04/20/14	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.51 J	0.85 J	8.4 J	04/20/14	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.7 J	2.3 J	5.1 J	04/20/14	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.73 J	1.1 J	19	04/20/14	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.52 J	1.1 J	1.2 J	04/20/14	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	1.2 J	1.5 J	76	04/20/14	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.23 J	0.17 J	10	04/28/14	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	0.03 J	--- U	0.10 J	04/20/14	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.03 J	--- U	--- U	04/20/14	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	2.1 J	2.9 J	17.5 J	04/20/14	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	3.7 J	5.6 J	83	04/20/14	LFJ	EPA200.8

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: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
SMITH GARDNER, INC.
14 NORTH BOYLAN AVE.
RALEIGH, NC 27603

CLIENT ID: 6059 A

ANALYST: MAO
DATE COLLECTED: 04/02/14
DATE ANALYZED: 04/14/14
DATE REPORTED: 04/30/14

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	SW-1	SW-2	Leachate
1. Chloromethane	0.77	1.0	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	6.00
3. Bromomethane	0.67	10.0	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	5.20 J
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	2540.00
8. Iodomethane	0.26	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	3.90 J
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	2.40 J
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	0.60 J
15. 2-Butanone	2.21	100.0	--- U	--- U	3060.00
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	29.30
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	2.40
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	0.80 J
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	24.00 J
27. Toluene	0.23	1.0	--- U	--- U	179.00
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	164.00
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	1.20 J
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	30.30
37. Xylenes	0.68	5.0	--- U	--- U	68.30
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	6.10
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- 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

CHAIN OF CUSTODY RECORD

CLIENT: 6059 A **Week:** 12

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
SMITH GARDNER, INC.
14 NORTH BOYLAN AVE.
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION																			
pH CHECK (LAB)		<2		<2		<2		<2	<2	<2									
CONTAINER TYPE, P/G	P	P	P	P	P	P	P	P	G	G	G								
CHEMICAL PRESERVATION	A	C	A	C	A	C	A	A	E	E	E								
PARAMETERS	BOD	COD	TSR	Ammonia Nitro.	Nitrate	T. Phosphorus	Sulfate	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2								

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE/NAOH
G - NA THIOSULFATE

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	BOD	COD	TSR	Ammonia Nitro.	Nitrate	T. Phosphorus	Sulfate	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
SW-1	4/2	7:35A			4								▒	▒	▒	▒
SW-2	4/2	7:50A			3								▒	▒	▒	
Leachate	4/2	7:25A			10	▒	▒	▒	▒	▒	▒	▒	▒	▒	▒	

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print)

SAMPLES RECEIVED IN LAB AT 04 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	4/2 8:30A	[signature]	4/2/14 4:46
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	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.

FORM #5

№ 273522

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#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
SMITH GARDNER, INC.
14 NORTH BOYLAN AVE.
RALEIGH ,NC 27603

DATE COLLECTED: 04/03/14
DATE REPORTED : 04/30/14

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-1	MW-2	MW-3S	MW-4S	MW-5	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.02	6.0	--- U	--- U	--- U	0.75 J	0.21 J	04/19/14	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.12 J	--- U	--- U	0.09 J	--- U	04/19/14	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	44.3 J	13.8 J	28.3 J	49.0 J	11.5 J	04/19/14	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.05 J	--- U	--- U	0.05 J	0.04 J	04/19/14	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	--- U	--- U	--- U	0.05 J	--- U	04/19/14	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	2.6 J	0.72 J	0.40 J	3.1 J	1.5 J	04/19/14	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	28	2.8 J	1.2 J	24	5.5 J	04/19/14	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	1.4 J	2.9 J	2.4 J	4.7 J	1.7 J	04/19/14	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	1.1 J	0.41 J	0.19 J	1.1 J	1.7 J	04/19/14	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.8 J	1.2 J	0.84 J	3.5 J	2.1 J	04/19/14	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	--- U	--- U	0.46 J	--- U	--- U	04/19/14	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	0.03 J	--- U	--- U	0.04 J	--- U	04/19/14	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.03 J	--- U	--- U	0.04 J	--- U	04/19/14	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	12.9 J	5.8 J	11.0 J	19.8 J	8.6 J	04/19/14	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	9.7 J	--- U	0.84 J	12	4.8 J	04/19/14	LFJ	EPA200.8

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#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
SMITH GARDNER, INC.
14 NORTH BOYLAN AVE.
RALEIGH ,NC 27603

DATE COLLECTED: 04/03/14
DATE REPORTED : 04/30/14

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-6S	MW-8	MW-9	MW-10S	Trip Blank	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.02	6.0	0.04 J	--- U	--- U	--- U		04/19/14	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.29 J	--- U	0.55 J	--- U		04/19/14	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	305	2.4 J	132	27.8 J		04/19/14	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.12 J	--- U	0.20 J	0.07 J		04/19/14	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.06 J	--- U	0.26 J	--- U		04/19/14	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	4.6 J	0.14 J	6.3 J	3.4 J		04/19/14	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	73	0.62 J	25	14		04/19/14	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	5.7 J	2.1 J	7.7 J	10		04/19/14	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	1.8 J	0.04 J	2.4 J	0.80 J		04/19/14	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	4.7 J	1.1 J	4.8 J	5.2 J		04/19/14	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.49 J	0.07 J	0.10 J	--- U		04/19/14	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	--- U	0.06 J	--- U		04/19/14	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.05 J	--- U	0.03 J	--- U		04/19/14	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	44	7.4 J	30	15.4 J		04/19/14	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	48	--- U	14	11		04/19/14	LFJ	EPA200.8

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: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
SMITH GARDNER, INC.
14 NORTH BOYLAN AVE.
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 04/03/14
DATE ANALYZED: 04/15/14
DATE REPORTED: 04/30/14

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-1	MW-2	MW-3S	MW-4S	MW-5
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	--- 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	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	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: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
SMITH GARDNER, INC.
14 NORTH BOYLAN AVE.
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 04/03/14
DATE ANALYZED: 04/15/14
DATE REPORTED: 04/30/14

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-6S	MW-8	MW-9	MW-10S	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	--- 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	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	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, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

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

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week:** 12

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
SMITH GARDNER, INC.
14 NORTH BOYLAN AVE.
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
						P	G	G	G
						A	E	E	E
MW-1	4/3	9:40A			4	■	■	■	■
MW-2		9:24A			3	■	■	■	
MW-3S		8:57A			3	■	■	■	
MW-4S		9:03A			3	■	■	■	
MW-5		8:48A			3	■	■	■	
MW-6S		8:41A			4	■	■	■	■
MW-8		8:33A			3	■	■	■	
MW-9		9:12A			3	■	■	■	
MW-10S		9:29			3	■	■	■	
Trip Blank					2		■	■	

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE/NAOH
G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
(Y) N

SAMPLES COLLECTED BY: (Please Print)

SAMPLES RECEIVED IN LAB AT 1.6 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	04/03/14 10:20A	[signature]	4/4/14 3:10
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	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.

N° 273523

FORM #5

Appendix D

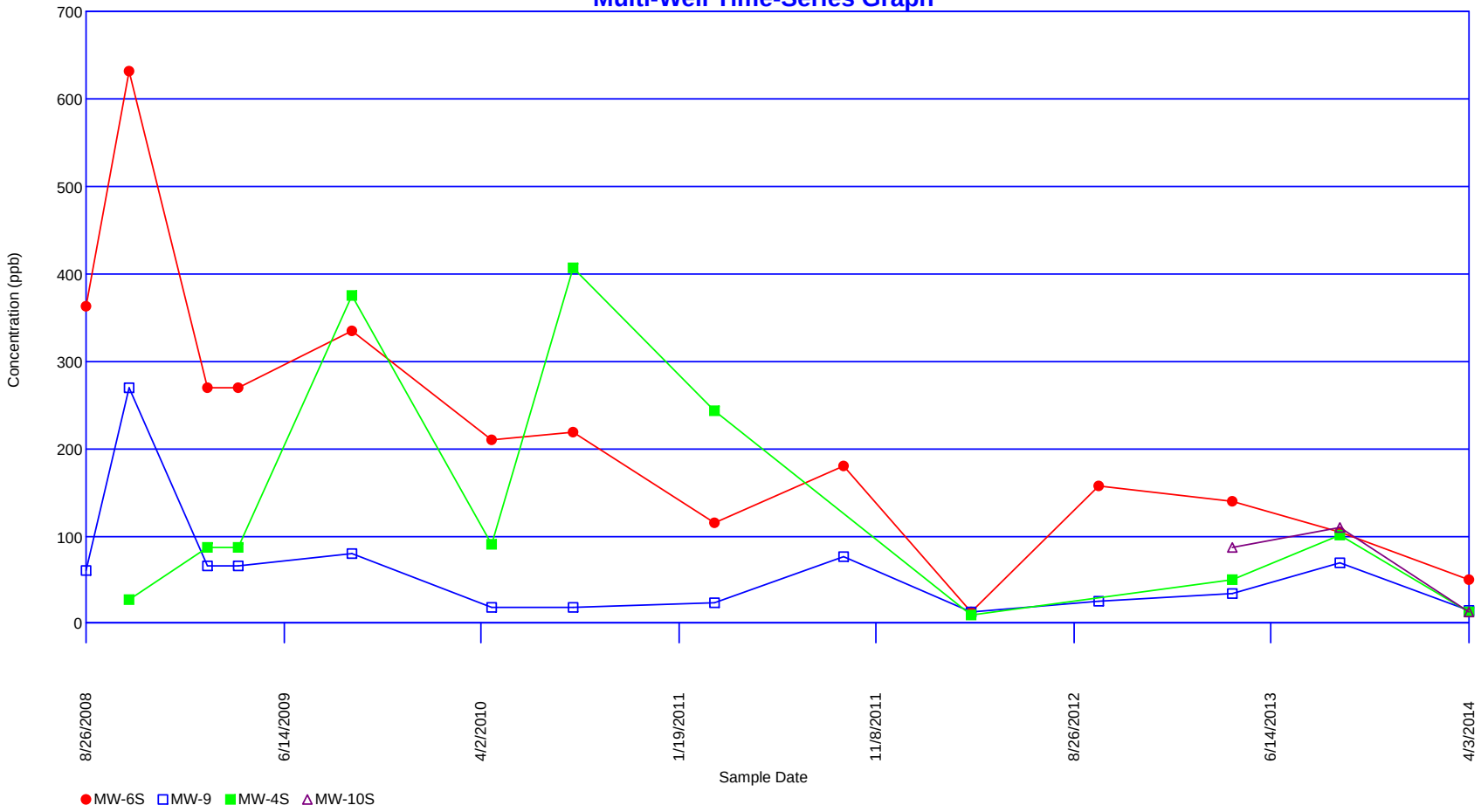
Time vs. Concentration Graphs

April 2014 Groundwater Monitoring Report
Davidson County Phase 2 MSW Landfill
NC Solid Waste Permit No. 29-06

This page intentionally left blank.

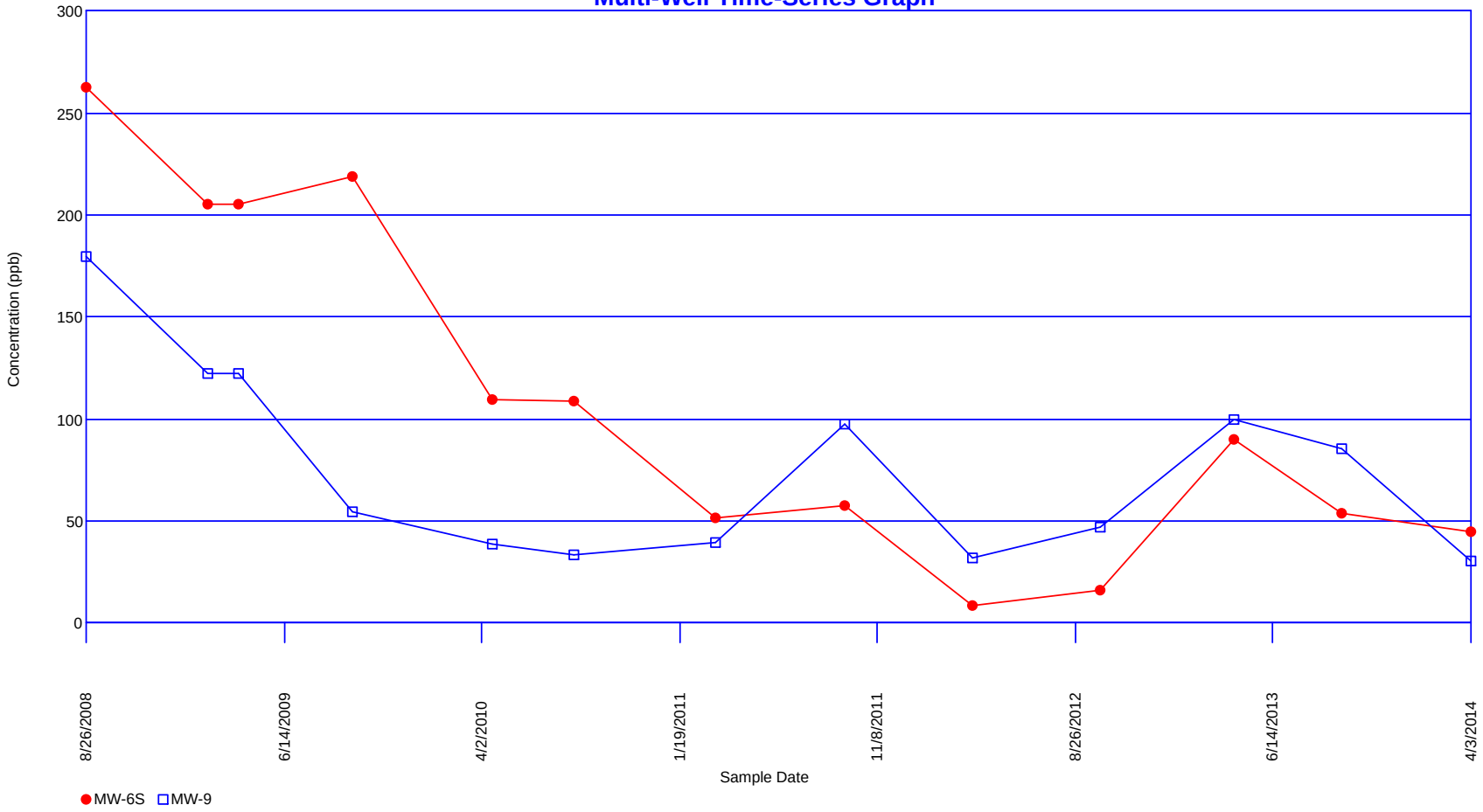
Zinc

Multi-Well Time-Series Graph



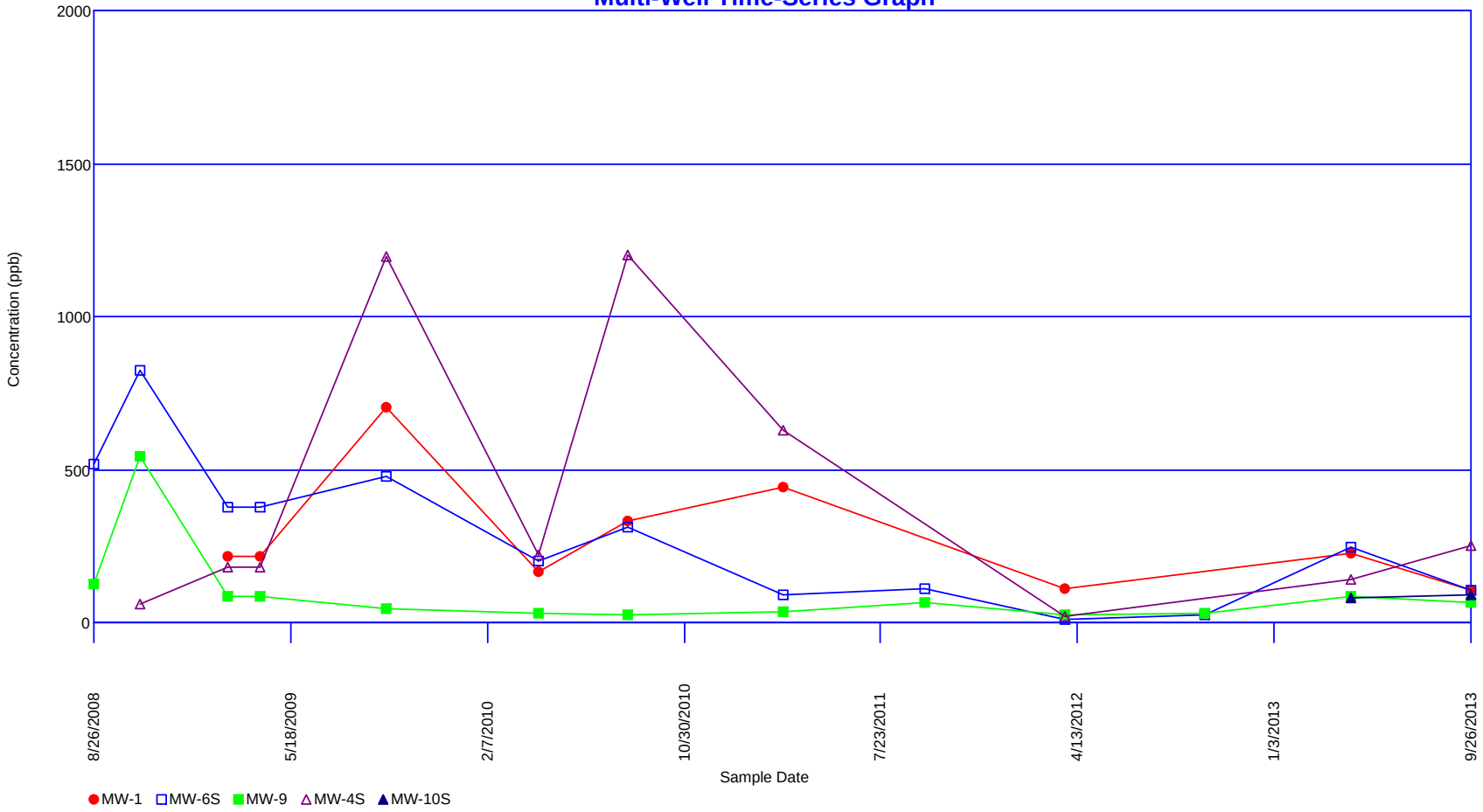
Vanadium

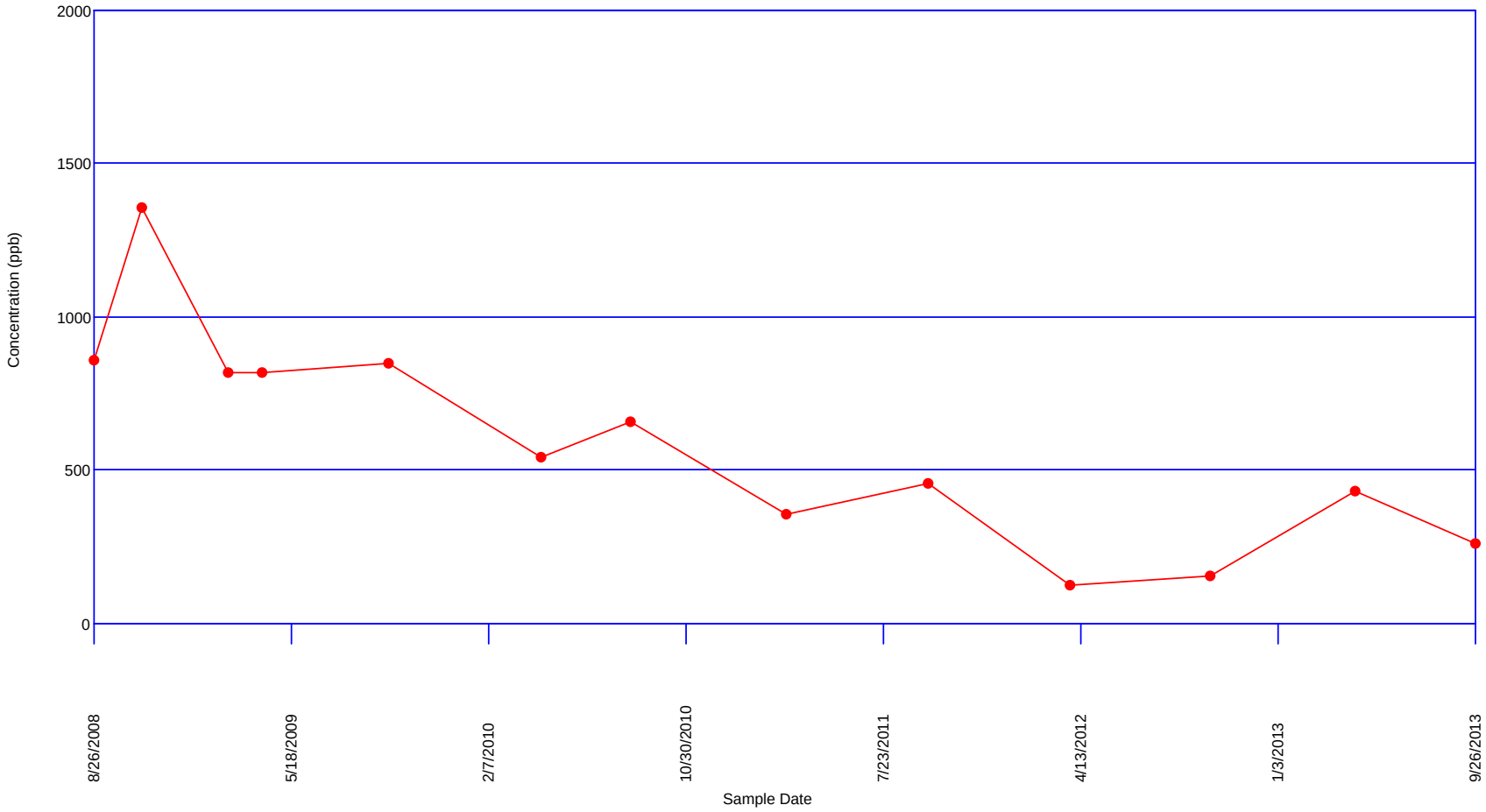
Multi-Well Time-Series Graph



Copper, total

Multi-Well Time-Series Graph



Barium, total

Time-Series Graph of MW-6S