

Ground Water Monitoring Report

Spring 2012 Monitoring Event

**Davidson County
Phase 1 Lined MSW Landfill
Lexington, North Carolina
NC Solid Waste Permit # 29-06**

Prepared for:
Davidson County Integrated Solid Waste
1242 Old Highway 29
Thomasville, NC 27360-0024

June 2012



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Davidson County Lined MSW Landfill

**Ground Water Monitoring Report
Spring 2012 Monitoring Event**

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1.0 INTRODUCTION

Richardson Smith Gardner & Associates, Inc. (RSG) was contracted by Davidson County to perform their semi-annual ground water monitoring at the Davidson County Phase 1 Lined Landfill, permit number 29-06, as required by 15A NCAC 13B.1600. Sampling was conducted March 27, 2012. The following 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 MONITORING EVENT

3.1 Sampling Locations

The groundwater monitoring network for the Davidson County Phase 1 includes twelve monitoring wells (MW-1S, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7S, MW-7D, MW-8, MW-9A, MW-10, MW-11 and MW-12), two surface water locations (SW-1 and SW-2) and one leachate locations (Leachate). Monitoring well MW-2 was reported as “Missing” by Environment I; however, it was not sampled due to insufficient water. MW-9A was installed in November 2010 to replace broken MW-9. SW-1 is the upstream surface water location; SW-2 is located on Jimmy’s Creek downstream of the landfill. A trip blank and equipment blank were submitted for quality control purposes. Sampling locations are shown in **Figure 1**.

3.2 Sampling Procedures

Sampling procedures followed the protocols set forth in the site’s Water Quality Monitoring Plan 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). Each well was gauged to determine ground water depth then purged three to five well volumes or until dry. Ground water elevations are provided in **Table 1**. Ground water purging and sample collection was performed using factory sealed teflon bailers.

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

Monitoring wells and locations were inspected and found to be in good condition and free of obstructions.

4.0 FIELD AND LABORATORY RESULTS

Field measurements for pH, specific conductivity, turbidity and temperature, were recorded for each well and surface water sampling location. Field parameter data is summarized in **Table 2**. Field data sheets are included in **Appendix A**. Ground water and field measurements are included as **Tables 1 and 2**.

Samples were transported to Environment 1, Inc., a North Carolina certified laboratory (NC Wastewater ID #10) and analyzed for the Appendix I VOCs via EPA Test Method 8260B and metals via EPA Test Method 200.8. Background well MW-1S samples were also analyzed for total alkalinity, chloride, total dissolved residue, sulfate and iron using SWS approved methods shown on the laboratory report. Leachate samples were also analyzed for BOD, COD, Nitrate Nitrogen as N, Total Phosphorus as P and Sulfate by the SWS approved methods listed in the laboratory report. A trip blank (TB) and equipment blank (EB) were submitted for quality control purposes.

Samples were transported to the laboratory facility under proper chain of custody analyzed at the specified Method Detection Limits (MDL)¹. The laboratory analysis is included in **Appendix C**.

Six inorganic constituents barium (MW-3), copper (MW-3, MW-7S, and MW-11), total chromium (MW-11), iron (MW-1S), vanadium (MW-3) and zinc (MW-3, MW-4, MW-7S, MW-11) were detected above the Solid Waste Section Practical Quantitation Limits (SWSLs). Only iron in the sample from MW-1S was detected above its 15A NCAC 2L.0200 (2L) Standard. Most reported detections were “J-qualified” as non-quantifiable values by the laboratory. Additionally, elevated turbidity measurements may indicate a high bias for metals in samples for this event. MW-1S is the background well, which indicates metals are likely naturally occurring.

No organic constituents were detected above the SWSL or 2L Standard for this event.

No organic or inorganic constituents were detected in surface water samples.

No organic constituents were detected in the leachate sample and most inorganic results were “J” qualified by the laboratory.

The laboratory results for inorganic and organic detections are summarized in **Tables 3 and 4**, respectively. Leachate results are summarized in **Table 5**. Laboratory data is included in **Appendix C**. Time versus concentration graphs for inorganics detected above the SWSL are presented in **Appendix D**.

¹ New guidelines for electronic submittal of environmental monitoring data memo, NCDENR DWM, Solid Waste Section, October 27, 2006.

5.0 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.

6.0 GROUNDWATER CHARACTERIZATION

A potentiometric surface map was prepared for the site from ground water elevation data from this sampling event. Ground water velocity was calculated for each monitoring well on-site 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 1 lined MSW landfill ranged from 0.00874 feet/day (MW-3) to 1.78 feet/day (MW-9), averaging 0.362 feet/day across the unit. Calculations are included in **Table 5**. Groundwater elevations indicate the flow direction underneath the lined MSW landfill is generally north and northwest towards Jimmy's Creek. This is consistent with ground water flow patterns previously observed at this site. The potentiometric surface map is presented as **Figure 1**.

7.0 CONCLUSIONS

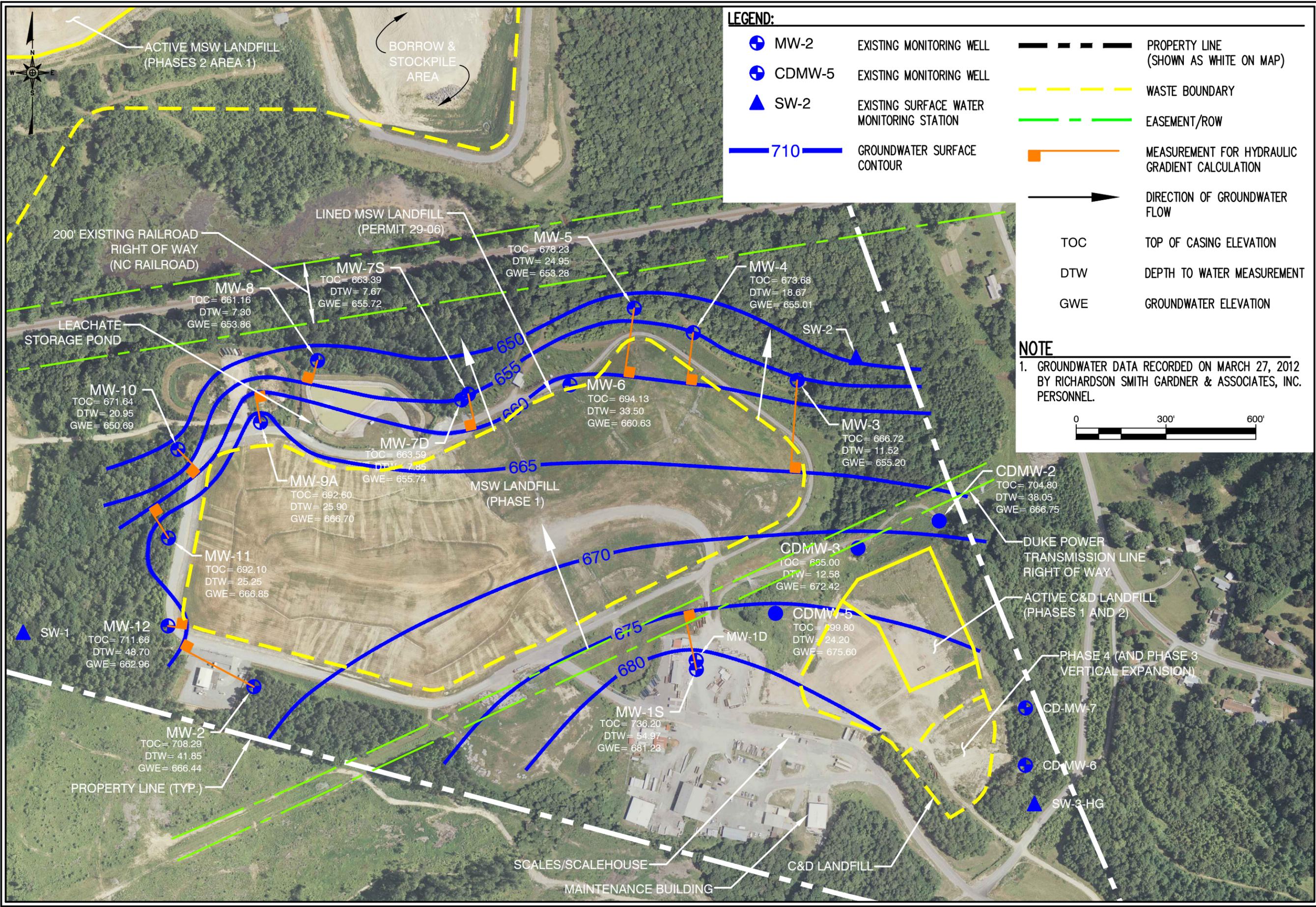
The analytical results for the Phase 1 lined landfill are consistent with reported historic inorganic detections. Inorganic detections are likely naturally occurring, due to turbidity and suspended solids in the samples and are not indicative of landfill impact. Elevated turbidity can impact inorganic detections as a "high biased" result in ground water analysis. Elevated turbidity measurements may have influenced inorganic constituent detections during sample collection. The next ground water monitoring event is tentatively scheduled for March 2012. Sampling results and analysis will be reported to NCDENR in accordance with 15A NCAC 13B.

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Figures

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LEGEND:

- ⊕ MW-2 EXISTING MONITORING WELL
- ⊕ CDMW-5 EXISTING MONITORING WELL
- ▲ SW-2 EXISTING SURFACE WATER MONITORING STATION
- 710 — GROUNDWATER SURFACE CONTOUR
- PROPERTY LINE (SHOWN AS WHITE ON MAP)
- WASTE BOUNDARY
- EASEMENT/ROW
- MEASUREMENT FOR HYDRAULIC GRADIENT CALCULATION
- DIRECTION OF GROUNDWATER FLOW
- TOC TOP OF CASING ELEVATION
- DTW DEPTH TO WATER MEASUREMENT
- GWE GROUNDWATER ELEVATION

NOTE

1. GROUNDWATER DATA RECORDED ON MARCH 27, 2012 BY RICHARDSON SMITH GARDNER & ASSOCIATES, INC. PERSONNEL.



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 fax: 919-926-3899

FIGURE NO.	2	FILE NAME	DAVDCO-B0693
SCALE:	AS SHOWN	PROJECT NO.	DAVDCO-1
CHECKED BY:	M.M.G.	DATE:	Jun. 2012
DRAWN BY:	C.T.J.		

TITLE:
 POTENTIOMETRIC SURFACE MAP
 SPRING 2012
 CLOSED PHASE 1 AND C&D
 DAVIDSON COUNTY, NC

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Tables

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Table 1
Ground Water Elevations
Davidson County Phase 1 Lined Landfill
3/27/2012

Well	Northing	Easting	TOC Elevation (feet)	Water Level (feet)	GW Elev (feet)
MW-1S	763311.06	1650889.31	736.20	54.97	681.23
MW-2	763253.60	1649411.40	708.29	41.85	666.44
MW-3	764274.92	1651226.41	666.72	11.52	655.20
MW-4	764433.34	1650879.10	673.68	18.67	655.01
MW-5	764515.15	1650681.80	678.23	24.95	653.28
MW-6	764259.47	1650467.49	694.13	33.50	660.63
MW-7S	764228.53	1650127.95	663.39	7.67	655.72
MW-7D	764228.53	1650127.95	663.59	7.85	655.74
MW-8	764340.45	1649624.12	661.16	7.30	653.86
MW-9A	764134.52	1649433.54	692.60	25.90	666.70
MW-10	764044.52	1649157.57	671.64	20.95	650.69
MW-11	763749.09	1649125.82	692.10	25.25	666.85
MW-12	763456.03	1649124.23	711.66	48.70	662.96

Notes: Survey Data collected by Michael Green and Associates.

Table 2
Field Parameters
Davidson County Phase 1 Lined Landfill
3/27/2012

Well	pH (Std. Units)	Conductivity (umhos)	Temp. (celsius)	Turbidity (NTU)
MW-1	6.17	700	17.3	2.71
MW-3	6.2	220	12.9	38.8
MW-4	5.38	150	13.1	25.9
MW-5	5.63	180	13.9	10.18
MW-6	6.92	320	15.1	15.2
MW-7S	6.02	90	14	13.2
MW-7d	6..12	180	13.4	50
MW-8	NM	NM	14.2	32.4
MW-9A	NM	NM	15.2	99.6
MW-10	6.25	330	15	46.9
MW-11	5.95	370	15.3	46.6
MW-12	6.83	600	15.9	12.9
SW-1	NM	NM	17.2	43.6
SW-2	NM	NM	16.4	11.6

Notes: Data Collected by RSG personel, Don Misenheimer.
 NM - Not Measured

Table 3
Detected Inorganic Constituents
Davidson County Phase 1 Lined Landfill
3/27/2012

Parameter	MDL	SWSL	2L or GWP	2B	MW-1S	MW-3	MW-4	MW-5	MW-6	MW-7S	MW-7D	MW-8	MW-9A	MW-10	MW-11	MW-12	SW-1	SW-2
antimony	0.14	6	1 [§]	640	<0.14	<0.14	0.42 J	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14
arsenic	0.10	10	10	10	0.25 J	0.30 J	<0.10	<0.10	<0.10	0.17 J	<0.10	<0.10	0.20 J	<0.10	0.28 J	<0.10	1.5 J	0.41 J
barium	0.02	100	700	2000000	34.5 J	180	46.5 J	49.2 J	12.4 J	42.3 J	8.3 J	19.5 J	15.5 J	12.0 J	20.2 J	0.98 J	35.4 J	21.4 J
beryllium	0.02	1	4 [§]	6.5	<0.02	0.17 J	0.06 J	<0.02	<0.02	0.17 J	<0.02	<0.02	<0.02	0.14 J	0.17 J	<0.02	<0.02	<0.02
cadmium	0.02	1	2	2	0.09 J	0.20 J	0.09 J	0.04 J	0.23 J	0.12 J	0.07 J	0.04 J	0.04 J	0.09 J	0.14 J	0.06 J	<0.02	<0.02
cobalt	0.03	10	1 [§]	270	0.52 J	6.6 J	1.6 J	0.83 J	0.10 J	3.9 J	0.28 J	1.0 J	0.74 J	2.4 J	2.9 J	0.19 J	4.0 J	0.63 J
copper	0.02	10	1000	7	1.8 J	25	8.5 J	2.2 J	0.24 J	28	1.5 J	2.1 J	6.0 J	4.3 J	13	0.38 J	3.7 J	1.7 J
chromium, total	0.04	10	10	50	0.29 J	2.8 J	3.4 J	1.4 J	<0.04	5.8 J	0.24 J	1.7 J	1.6 J	6.4 J	11	0.34 J	1.7 J	0.72 J
iron	15.9	300	300	1000	409	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
manganese	0.61	50	50	200	22 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
lead	0.02	10	15	25	0.23 J	1.3 J	0.62 J	0.43 J	0.09 J	1.3 J	0.16 J	0.51 J	0.60 J	0.89 J	1.7 J	0.06 J	1.2 J	0.48 J
nickel	0.04	50	100	88	1.4 J	5.9 J	1.9 J	1.0 J	0.36 J	3.8 J	0.13 J	1.3 J	2.6 J	3.8 J	6.6 J	0.64 J	2.0 J	0.94 J
selenium	0.20	10	20	5	0.89 J	0.42 J	0.38 J	<0.20	<0.20	<0.20	<0.20	0.28 J	0.82 J	0.30 J	0.21 J	0.41 J	0.31 J	<0.20
silver	0.02	10	20	0.06	<0.02	0.04 J	<0.02	<0.02	<0.02	0.05 J	<0.02	<0.02	<0.02	<0.02	0.05 J	<0.02	<0.02	<0.02
thallium	0.02	5.5	0.28 [§]	0.47	0.27 J	0.17 J	0.05 J	0.03 J	0.22 J	0.04 J	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
vanadium	0.14	25	0.3 [§]	NE	3.1 J	28	8.9 J	5.7 J	0.54 J	14.0 J	1.7 J	5.0 J	6.5 J	13.9 J	23.2 J	5.5 J	7.2 J	2.5 J
zinc	0.24	10	1000	50	2.3 J	42	11	5.0 J	0.75 J	16	3.6 J	3.1 J	4.9 J	6.8 J	12	1.1 J	4.7 J	2.3 J

- SWSL - Solid Waste Section Quantitation Limits
- 2L - Groundwater Standards (15A NCAC 2L 0200)
- 2B - NCAC 2B Standard for Class C waters
- GWP - Groundwater Protection Standards (noted by [§])
- MDL - Method Detection Limit
- Shading - Detection above 2L standard or GWP standard
- Bold Letters - Constituents detected above SWSL
- J - Detected between MDL and SWSL limit
- <MDL - Not detected at or above MDL
- NA - Not analyzed

Table units are presented in ug/l.
 Lab data analysis by Environment 1, Inc. report dated 04/20/2012, ID#6038.

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Table 4
Detected Organic Constituents
Davidson County Phase 1 Lined Landfill
3/27/2012

Parameter	SWSL	2L	MDL	MW-4	MW-7S	MW-8	MW-10	Equipment Blank
acetone	100	6000	9.06	46.5 J	14.7 J	22.7 J	13.1 J	<9.06
Toluene	1	600	0.23	<0.23	<0.23	<0.23	<0.23	0.30 J

- SWSL - Solid Waste Section Quantitation Limits
- 2L - Groundwater Standards (15A NCAC 2L 0200)
- MDL - Method Detection Limit
- Shading - Detection above 2L standard
- Bold Letters - Constituents detected above SWSL
- J - Detected 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 04/20/2012, ID#6038.

Table 5
Davidson County Phase 1 Lined Landfill
Leachate Analytical Data
3/27/2012

Parameter	Unit	Leachate
Antimony	ug/l	0.32 J
Arsenic	ug/l	1.3 J
Barium	ug/l	108
BOD	mg/l	6.4
Cobalt	ug/l	3.8 J
COD	mg/l	89
Copper	ug/l	3.8 J
Lead	ug/l	0.32 J
Nitrate Nitrogen as N	mg/l	0.11 J
Nickel	ug/l	23.2 J
Selenium	ug/l	1.9 J
Sulfate	mg/l	5.5 J
Total Chromium	ug/l	2.5 J
Total Phosphorus as P	mg/l	0.1
Vanadium	ug/l	5.4 J
Zinc	ug/l	2.7 J

J-values indicate the parameter was detected between the laboratory MDL and the SWSL. These are estimated concentrations.

Lab data analysis by Environment 1, Inc. report dated 04/20/2012, ID#6038.

Table 6
Aquifer Conductivity and Velocity
Davidson County Phase 1 Lined Landfill
3/27/2012

Well Number	Aquifer	Conductivity (ft/day)	Conductivity (ft/min)	Assumed Porosity (n)	Gradient (I)	Velocity (ft/day)
MW-1	Bedrock	0.14	9.72E-05	0.1	0.006	8.61E-03
MW-2	Bedrock	0.17	1.18E-04	0.1	0.005	8.74E-03
MW-3	Unconsolidated	0.62	4.31E-04	0.2	0.064	1.98E-01
MW-4	Unconsolidated	1.31	9.10E-04	0.2	0.029	1.93E-01
MW-5	Unconsolidated	NA	NA	NA	NA	NA
MW-6	Bedrock	0.02	1.39E-05	0.1	0.038	7.50E-03
MW-7S	Unconsolidated	0.38	2.64E-04	0.15	0.036	9.04E-02
MW-7D	Unconsolidated	NA	NA	NA	NA	NA
MW-8	Unconsolidated	0.57	3.96E-04	0.15	0.014	5.43E-02
MW-9	Unconsolidated	2.65	1.84E-03	0.1	0.067	1.78E+00
MW-10	Unconsolidated	0.88	6.11E-04	0.2	0.085	3.72E-01
MW-11	Unconsolidated	4.13	2.87E-03	0.2	0.057	1.18E+00
MW-12	Unconsolidated	0.58	4.03E-04	0.2	0.034	9.86E-02

Notes: 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)
 Survey Data collected by Michael Green and Associates.
 Gradient calculated from Spring 2011 potentiometric surface.

NM - Not Measured
 NA - Not Available

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Appendix A

Field Data Sheets

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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: DAWSON (L) Date: 3-26-12
 Well ID: MW-15 Initials: AD

Please mark the appropriate 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B. Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C. Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D. Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E.	<input type="checkbox"/>	<input type="checkbox"/>	
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>o.k.</i></p>			

2. Concrete Apron and Steel Case		YES	NO
A. Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B. Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C. Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E. Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G. No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
H. Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
I.	<input type="checkbox"/>	<input type="checkbox"/>	
Comments/ items addressed or to be addressed: <p><i>if concrete apron is present, it appears to be o.k.</i></p>			

3. PVC Riser		YES	NO
A. Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C. Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D. Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E. No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F.	<input type="checkbox"/>	<input type="checkbox"/>	
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>ok</i></p>			

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: DAVIDSON (L)
 Well ID: MAU-2

Date: 3-26-12
 Initials: MD

Please mark the appropriate 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.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Vicinity is free of potential contaminants.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Dead trees, etc. not in danger of falling and damaging wells.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Well is in the same location as on field maps.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>ok</i>			

2. Concrete Apron and Steel Case		YES	NO
A. Concrete apron is present and in good condition.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Steel case is present and upright.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Steel case is not movable and cemented in.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. Well tag is present with pertinent information.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		<input checked="" type="checkbox"/>	<input type="checkbox"/>
G. No evidence of tampering is present.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
H. Lock operates properly.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>o.k.</i>			

3. PVC Riser		YES	NO
A. Monitoring cap is present and provides a tight seal.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Riser is of appropriate height (has not been cut off too low within the steel case).		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Riser is not loose/ easily moved.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Riser does not appear cracked, broken, or brittle.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. No visual sign of external contamination entering well through riser.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>o.k.</i>			

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: DANFORD (LINED) Date: 3-26-12
 Well ID: MW-3 Initials: MD

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

	YES	NO
1. Well Vicinity		
A. Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align:center;"><i>o.k.</i></p>		

	YES	NO
2. Concrete Apron and Steel Case		
A. Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G. No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H. Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p><i>if concrete apron is present, it appears to be buried</i></p>		

	YES	NO
3. PVC Riser		
A. Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align:center;"><i>o.k.</i></p>		

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: Davidson (L) Date: 3-26-12
 Well ID: MW-4 Initials: JD

Please mark the appropriate 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.	<input checked="" type="checkbox"/>		
B. Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>		
C. Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>		
D. Well is in the same location as on field maps.	<input checked="" type="checkbox"/>		
E.			
Comments/ items addressed or to be addressed:			
<i>o.k.</i>			

2. Concrete Apron and Steel Case		YES	NO
A. Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>		
B. Steel case is present and upright.	<input checked="" type="checkbox"/>		
C. Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>		
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>		
E. Well tag is present with pertinent information.	<input checked="" type="checkbox"/>		
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>		
G. No evidence of tampering is present.	<input checked="" type="checkbox"/>		
H. Lock operates properly.	<input checked="" type="checkbox"/>		
I.			
Comments/ items addressed or to be addressed:			
<i>o.k.</i>			

3. PVC Riser		YES	NO
A. Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>		
B. Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>		
C. Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>		
D. Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>		
E. No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>		
F.			
Comments/ items addressed or to be addressed:			
<i>o.k.</i>			

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: DAVIDSON (L) Date: 3-26-12
 Well ID: MW-5 Initials: TD

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

		YES	NO
1. Well Vicinity			
A.	Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>O.K.</i></p>			

		YES	NO
2. Concrete Apron and Steel Case			
A.	Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G.	No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H.	Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>O.K.</i></p>			

		YES	NO
3. PVC Riser			
A.	Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>O.K.</i></p>			

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: DAVIDSON (L) Date: 3-26-12
 Well ID: MW-6 Initials: MD

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

		YES	NO
1. Well Vicinity			
A. Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
O.K.			

		YES	NO
2. Concrete Apron and Steel Case			
A. Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Steel case is present and upright.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G. No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H. Lock operates properly.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
O.K.			

		YES	NO
3. PVC Riser			
A. Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
O.K.			

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: DAWSON Date: 3-26-12
 Well ID: MW-7s Initials: M

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

		YES	NO
1. Well Vicinity			
A.	Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>o.k.</i>			

		YES	NO
2. Concrete Apron and Steel Case			
A.	Concrete apron is present and in good condition.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B.	Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G.	No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H.	Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>if concrete apron is present, it appears to be present buried</i>			

		YES	NO
3. PVC Riser			
A.	Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>o.k.</i>			

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: DAVIDSON (L) Date: 3-26-12
 Well ID: MW-7d Initials: TD

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

		YES	NO
1. Well Vicinity			
A.	Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>o.k.</i></p>			

		YES	NO
2. Concrete Apron and Steel Case			
A.	Concrete apron is present and in good condition.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B.	Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G.	No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H.	Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p><i>if concrete apron is present, it appears to be broken</i></p>			

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

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: DAVIDSON (L) Date: 3/6/12
 Well ID: MW-8 Initials: MD

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

	YES	NO
1. Well Vicinity		
A. Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:		
<i>o.k.</i>		

	YES	NO
2. Concrete Apron and Steel Case		
A. Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G. No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H. Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:		
<i>o.k.</i>		

	YES	NO
3. PVC Riser		
A. Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:		
<i>o.k.</i>		

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: Davidson (C)
 Well ID: MW-9a

Date: 3-26-12
 Initials: MD

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

		YES	NO
1. Well Vicinity			
A. Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>O.k.</i>			

		YES	NO
2. Concrete Apron and Steel Case			
A. Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>O.k.</i>			

		YES	NO
3. PVC Riser			
A. Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>O.k.</i>			

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: PAVISON (6)

Date: 3-26-12

Well ID: MW-10

Initials: MD

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

		YES	NO
1. Well Vicinity			
A.	Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>O.K.</i>			

		YES	NO
2. Concrete Apron and Steel Case			
A.	Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G.	No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H.	Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>O.K.</i>			

		YES	NO
3. PVC Riser			
A.	Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>O.K.</i>			

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: Davidson (L) Date: 3-26-12
 Well ID: MW-11 Initials: AD

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

		YES	NO
1. Well Vicinity			
A.	Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>O.K.</i></p>			

		YES	NO
2. Concrete Apron and Steel Case			
A.	Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G.	No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H.	Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>O.K.</i></p>			

		YES	NO
3. PVC Riser			
A.	Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed: <p style="text-align: center;"><i>O.K.</i></p>			

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: DAVIDSON (C) Date: 3-26-12
 Well ID: MW-12 Initials: MD

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

		YES	NO
1. Well Vicinity			
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: <p style="text-align: center;"><i>o.k.</i></p>			

		YES	NO
2. Concrete Apron and Steel Case			
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: <p style="text-align: center;"><i>if concrete apron is present, it appears to be buried buried</i></p>			

		YES	NO
3. PVC Riser			
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: <p style="text-align: center;"><i>o.k.</i></p>			

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Appendix B

Monitoring Well Information

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FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-1D

PROJECT NUMBER: 94012
 PROJECT NAME: DAVIDSON COUNTY
 LOCATION: LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE B-53
 DRILLING METHOD: AIR ROTARY
 WEATHER: SUNNY
 FIELD PARTY: KENNY MOBLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 5/03/94

TOP OF CASING ELEVATION: 736.18
 TOTAL DEPTH: 88.5
 GROUND SURFACE ELEVATION: 735.01
 SHEET: 2 OF 4

STATIC WATER LEVEL (BLS)	
HQ-White Drilling AB-After Boring	
Depth (ft)	51.88 AB
Time	9:37
Date	05/04/94

DATE COMPLETED: 5/03/94

DEPTH	BLD/COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTENCY	ORGANIC VAPOR	GRT	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
21.0 22.0 23.0 24.0 25.0 26.0 27.0 28.0 29.0 30.0 31.0 32.0 33.0 34.0 35.0 36.0 37.0 38.0 39.0 40.0 41.0 42.0 43.0 44.0 45.0								SCHIST: chlorite/white feldspar schist; few horizontal to subvertical fractures.		

FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-10

PROJECT NUMBER: 94012
 PROJECT NAME: DAVIDSON COUNTY
 LOCATION: LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE B-53
 DRILLING METHOD: AIR ROTARY
 WEATHER: SUNNY
 FIELD PARTY: KENNY MDSLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 5/03/94

TOP OF CASING ELEVATION: 736.18
 TOTAL DEPTH: 88.5
 GROUND SURFACE ELEVATION: 735.01
 SHEET: 3 OF: 4

STATIC WATER LEVEL (BLS)	
WD=While Drilling AB=After Boring	
Depth (ft)	51.88 AB
Time	9:37
Date	05/04/94

DEPTH	BLD COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	ORGANIC VAPOR	CGI	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
45.0 46.0 47.0 48.0 49.0 50.0 51.0 52.0 53.0 54.0 55.0 56.0 57.0 58.0 59.0 60.0 61.0 62.0 63.0 64.0 65.0 66.0 67.0 68.0								SCHIST: chlorite/white feldspar schist; few horizontal to subvertical fractures.		

FIELD BOREHOLE LOG

BOREHOLE NUMBER:

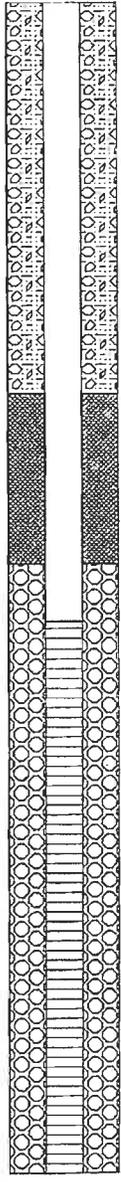
MW-10

PROJECT NUMBER: 94012
 PROJECT NAME: DAVIDSON COUNTY
 LOCATION: LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE B-53
 DRILLING METHOD: AIR ROTARY
 WEATHER: SUNNY
 FIELD PARTY: KENNY MOSLEY
 GEOLOGIST: GRAHAM SIMPERMAN
 DATE BEGUN: 5/03/94

TOP OF CASING ELEVATION: 736.18
 TOTAL DEPTH: 88.5
 GROUND SURFACE ELEVATION: 735.01
 SHEET: 4 OF: 4

STATIC WATER LEVEL (BLS)	
WD=While Drilling AB=After Boring	
Depth (ft)	51.88 AB
Time	9:37
Date	05/04/94

DATE COMPLETED: 5/03/94

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	ORGANIC VAPOR	GGI	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
68.0								<p>SCHIST: chlorite/white feldspar schist; few horizontal to subvertical fractures.</p>		
69.0										
70.0										
71.0										
72.0										
73.0										
74.0										
75.0										
76.0										
77.0										
78.0										
79.0										
80.0										
81.0										
82.0										
83.0										
84.0										
85.0										
86.0										
87.0										
88.0										

FIELD BOREHOLE LOG

BOREHOLE NUMBER

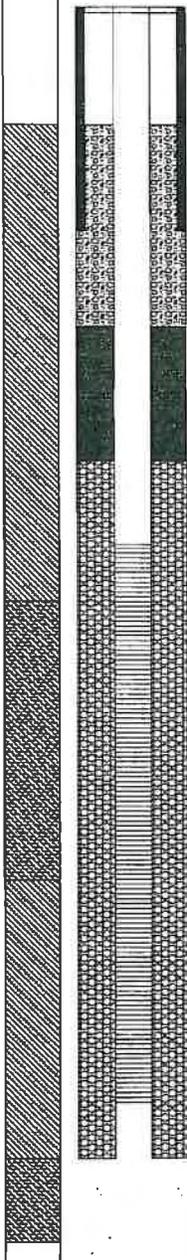
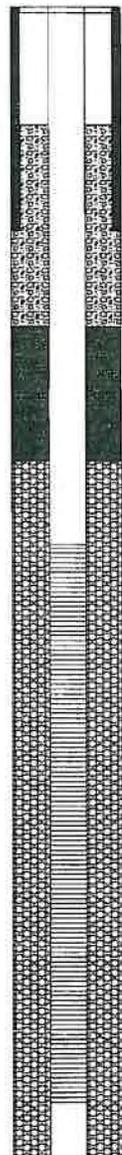
MW-3

PROJECT NUMBER 94012
 PROJECT NAME: DAVIDSON COUNTY
 LOCATION LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE B-53
 DRILLING METHOD: HOLLOW STEM AUGER
 WEATHER SUNNY
 FIELD PARTY: KENNY MOSLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 4/27/94

TOP OF CASING ELEVATION 566.72
 TOTAL DEPTH 20.0
 GROUND SURFACE ELEVATION 664.56
 SHEET: 1 OF: 1

STATIC WATER LEVEL (BLS)		
WD=While Drilling AB=After Boring		
Depth(ft)	12.10	AB
Time	15:40	
Date	05/03/94	

DATE COMPLETED: 4/27/94

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
2.0								SAND AND CLAY: organic rich, heavily rooted, trace to abundant 1/4" black and orange rind concretions, moist, firm to stiff; brown to dark brown.	2.0		
1.0							0.0				
0.0							1.0				
1.0								CLAY AND SILT AND SAND: numerous white feldspar black manganese, and orange iron inclusions, firm; moist; orange brown	2.0		
2.0							3.0				
3.0	4	Ss	S1				4.0				
4.0	5						5.0				
5.0	11						6.0				
6.0								SAND AND CLAY: medium to coarse grained sand, some muscovite and feldspar, moist, light tan to medium gray	7.0		
7.0							8.0				
8.0							9.0				
9.0	10	Ss	S2				10.0				
10.0	12						11.0				
11.0	15						12.0				
12.0								SAND AND CLAY AND SILT: 1.5 inch pegmatite zones; med. tan to gray	13.0		
13.0							14.0				
14.0	50/6	Ss	S3				15.0				
15.0							16.0				
16.0							17.0				
17.0								SAND AND CLAY AND SILT: 1.5 inch pegmatite zones; med. tan to gray	18.0		
18.0							19.0				
19.0	10	Ss	S4	W			20.0				
20.0	11										

FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-6D

PROJECT NUMBER 94012
 PROJECT NAME DAVIDSON COUNTY
 LOCATION LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER MOBILE 8-53
 DRILLING METHOD: HOLLOW STEM AUGER
 WEATHER: SUNNY
 FIELD PARTY: KENNY MOSLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 5/04/94

TOP OF CASING ELEVATION 694.13
 TOTAL DEPTH: 68.5
 GROUND SURFACE ELEVATION 692.79
 SHEET: 1 DF: 3

STATIC WATER LEVEL (BLS)		
WD=While Drilling AB=After Boring		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
1.0									1.0		
0.0								CLAY AND SILT AND SAND. Fill.	0.0		
1.0								CLAY AND SAND coarse sand, light tan brown, soft, moist; fill; some roots	1.0		
2.0									2.0		
3.0									3.0		
4.0	5	Ss	S1						4.0		
5.0	7								5.0		
6.0	7								6.0		
7.0									7.0		
8.0									8.0		
9.0	5	Ss	S2					CLAY AND SILT: tan brown to orange red; interbedded with light tan coarse sandy clay, with quartz and feldspar; soft, moist; medium dense.	9.0		
10.0	6								10.0		
11.0	9								11.0		
12.0									12.0		
13.0									13.0		
14.0	6	Ss	S3					CLAY AND SILT light tan, interbedded with orange coarse sandy clay, some greenstone and wood fragments; stiff.	14.0		
15.0	10								15.0		
16.0	12								16.0		
17.0									17.0		
18.0									18.0		
19.0	9	Ss	S4					CLAY AND SILT. light tan, interbedded with orange coarse sandy clay, some greenstone fragments, stiff.	19.0		
20.0	10								20.0		
21.0	9								21.0		

FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-6D

PROJECT NUMBER: 94012
 PROJECT NAME: DAVIDSON COUNTY
 LOCATION: LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE B-53
 DRILLING METHOD: HOLLOW STEM AUGER
 WEATHER: SUNNY
 FIELD PARTY: KENNY MOSLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 5/04/94

TOP OF CASING ELEVATION: 694.13
 TOTAL DEPTH: 68.5
 GROUND SURFACE ELEVATION: 692.79
 SHEET: 2 OF 3

STATIC WATER LEVEL (BLS)	
WD=While Drilling AB=After Boring	
Depth (ft)	
Time	
Date	

DATE COMPLETED: 5/04/94

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTENCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
21.0								CLAY AND SILT: light tan; interbedded with orange coarse sandy clay, some greenstone fragments, stiff.	21.0		
22.0							22.0				
23.0	6	Ss	S5				23.0				
24.0	10							CLAY AND SAND: orange brown, coarse grained; moist; stiff.	24.0		
25.0	14						25.0				
26.0									26.0		
27.0								27.0			
28.0	12	Ss	S6					CLAY AND SAND AND SILT: dark brown to orange and tan, heavy manganese staining; tan feldspar bands; residual weathered gneiss.	28.0		
29.0	50/5								29.0		
30.0									30.0		
31.0									31.0		
32.0								32.0			
33.0	50/1	Ss	S7					GRANITE GNEISS: bedrock; auger refusal	33.0		
34.0									34.0		
35.0									35.0		
36.0								36.0			
37.0									37.0		
38.0								38.0			
39.0									39.0		
40.0								40.0			
41.0									41.0		
42.0								42.0			
43.0									43.0		
44.0								44.0			
45.0									45.0		

FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-6D

PROJECT NUMBER: 94012
 PROJECT NAME: DAVIDSON COUNTY
 LOCATION: LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE 8-53
 DRILLING METHOD: HOLLOW STEM AUGER
 WEATHER: SUNNY
 FIELD PARTY: KENNY MOSLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 5/04/94

TOP OF CASING ELEVATION: 694.13
 TOTAL DEPTH: 68.5
 GROUND SURFACE ELEVATION: 692.79
 SHEET: 3 OF 3

STATIC WATER LEVEL (BLS)		
WO=While Drilling AB=After Boring		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
45.0								GRANITE GNEISS bedrock.	45.0		
46.0									46.0		
47.0									47.0		
48.0									48.0		
49.0									49.0		
50.0									50.0		
51.0									51.0		
52.0									52.0		
53.0									53.0		
54.0									54.0		
55.0									55.0		
56.0									56.0		
57.0									57.0		
58.0									58.0		
59.0									59.0		
60.0									60.0		
61.0									61.0		
62.0									62.0		
63.0									63.0		
64.0									64.0		
65.0								65.0			
66.0								66.0			
67.0								67.0			
68.0								68.0			
69.0								69.0			

FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-7

PROJECT NUMBER: 94012
 PROJECT NAME: DAVIDSON COUNTY
 LOCATION: LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE B-53
 DRILLING METHOD: HOLLOW STEM AUGER
 WEATHER: SUNNY
 FIELD PARTY: KENNY MOSLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 4/25/94

TOP OF CASING ELEVATION: 663.39
 TOTAL DEPTH: 15.0
 GROUND SURFACE ELEVATION: 661.30
 SHEET: 1 DF:1

STATIC WATER LEVEL (BLS)	
WD=While Drilling AB=After Boring	
Depth (ft)	5.08 AB
Time	12:43
Date	05/03/94

DEPTH	BLON COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	ORGANIC VAPOR	CGI	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
2.0 1.0 0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0								CLAY AND SAND: fill; orange brown; moist. CLAY AND SAND: orange brown to orange gray; hard; moist; 1 inch orange to tan clay sand with quartz (granite residuum); 3 inch green and white chlorite feldspar gneiss; wet; SM. CLAY AND SILT: relict chlorite schist structure with trace of white feldspar veins; dark green and white; hard; wet. CLAY AND SILT: chlorite feldspar schist; one 45 degree fracture; dk. green and white.		
	13 17 25 26 9 11 14 7 11 16	Ss Ss Ss	s1 s2 s3	W						

FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-7D

PROJECT NUMBER: 94012
 PROJECT NAME: DAVIISON COUNTY
 LOCATION: LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE B-53
 DRILLING METHOD: HOLLOW STEM AUGER
 WEATHER: SUNNY
 FIELD PARTY: KENNY MOSLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 4/26/94

TOP OF CASING ELEVATION: 663.59
 TOTAL DEPTH: 46.0
 GROUND SURFACE ELEVATION: 661.44
 SHEET: 2 OF 2

STATIC WATER LEVEL (BLS)	
WD=White Drilling AB=After Borinc	
Depth (Ft)	4.55 AB
Time	4:37
Date	04/26/94

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
21.0								SAND coarse grained quartz muscovite granite, medium gray with gray quartz, heavy iron staining	21.0		
22.0								SAND AND CLAY: coarse sand, orange brown porphyritic gray quartz/white feldspar trace muscovite and hornblende granite; heavy iron staining	22.0		
23.0	25	Ss	S5						23.0		
24.0	50/6							SAND AND CLAY: coarse sand, brown; porphyritic gray quartz/white feldspar; trace muscovite and hornblende granite, heavy iron staining	24.0		
25.0	50/5								25.0		
26.0									26.0		
27.0									27.0		
28.0	50/5	Ss	S6					SAND AND CLAY: coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite, heavy iron staining	28.0		
29.0									29.0		
30.0									30.0		
31.0									31.0		
32.0								SAND AND CLAY: coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite, heavy iron staining	32.0		
33.0	50/4	Ss	S7						33.0		
34.0									34.0		
35.0									35.0		
36.0								SAND AND CLAY: coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite, heavy iron staining	36.0		
37.0									37.0		
38.0	50/5	Ss	S8						38.0		
39.0									39.0		
40.0								SAND AND CLAY: coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite, heavy iron staining	40.0		
41.0									41.0		
42.0									42.0		
43.0	50/3	Ss	S9						43.0		
44.0								SAND AND CLAY: coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite, heavy iron staining	44.0		
45.0									45.0		
46.0									46.0		

FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-8

PROJECT NUMBER: 94012
 PROJECT NAME: DAVIDSON COUNTY
 LOCATION: LEXINGTON, NORTH CAROLINA
 DRILLING COMPANY: BORE AND CORE
 RIG TYPE & NUMBER: MOBILE B-53
 DRILLING METHOD: HOLLOW STEM AUGER
 WEATHER: SUNNY
 FIELD PARTY: KENNY MOSLEY
 GEOLOGIST: GRAHAM SIMMERMAN
 DATE BEGUN: 4/27/94

TOP OF CASING ELEVATION: 661.16
 TOTAL DEPTH: 15.0
 GROUND SURFACE ELEVATION: 659.83
 SHEET: 1 OF: 1

STATIC WATER LEVEL (BLS)	
WD=While Drilling AB=After Boring	
Depth (ft)	6.34 AB
Time	9:37
Date	04/28/94

DATE COMPLETED: 4/27/94

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTENCY	ORGANIC VAPOR	CGI	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">2.0</div> <div style="margin-bottom: 10px;">1.0</div> <div style="margin-bottom: 10px;">0.0</div> <div style="margin-bottom: 10px;">1.0</div> <div style="margin-bottom: 10px;">2.0</div> <div style="margin-bottom: 10px;">3.0</div> <div style="margin-bottom: 10px;">4.0</div> <div style="margin-bottom: 10px;">5.0</div> <div style="margin-bottom: 10px;">6.0</div> <div style="margin-bottom: 10px;">7.0</div> <div style="margin-bottom: 10px;">8.0</div> <div style="margin-bottom: 10px;">9.0</div> <div style="margin-bottom: 10px;">10.0</div> <div style="margin-bottom: 10px;">11.0</div> <div style="margin-bottom: 10px;">12.0</div> <div style="margin-bottom: 10px;">13.0</div> <div style="margin-bottom: 10px;">14.0</div> <div style="margin-bottom: 10px;">15.0</div> </div>								<p>CLAY AND SILT: with medium to coarse sand; engineered fill (nine inches thick); numerous root fragments; mottled iron staining; wetland soil; dark grayish brown.</p> <p>CLAY AND SAND AND SILT: sand is med. to coarse blue quartz; angular; some reddish orange sandy clay; moist; med. dense.</p> <p>CLAY AND SILT: light bluish green with tan silty clay; some iron staining; slight relict chlorite/feldspar schist fabric.</p> <p>CLAY AND SAND: relict granite texture; quartz; feldspar; equigranular; moist.</p>		
	7 4 5	Ss	S1							
	6 4 4	Ss	S2		W					
	10 10 9	Ss	S3							

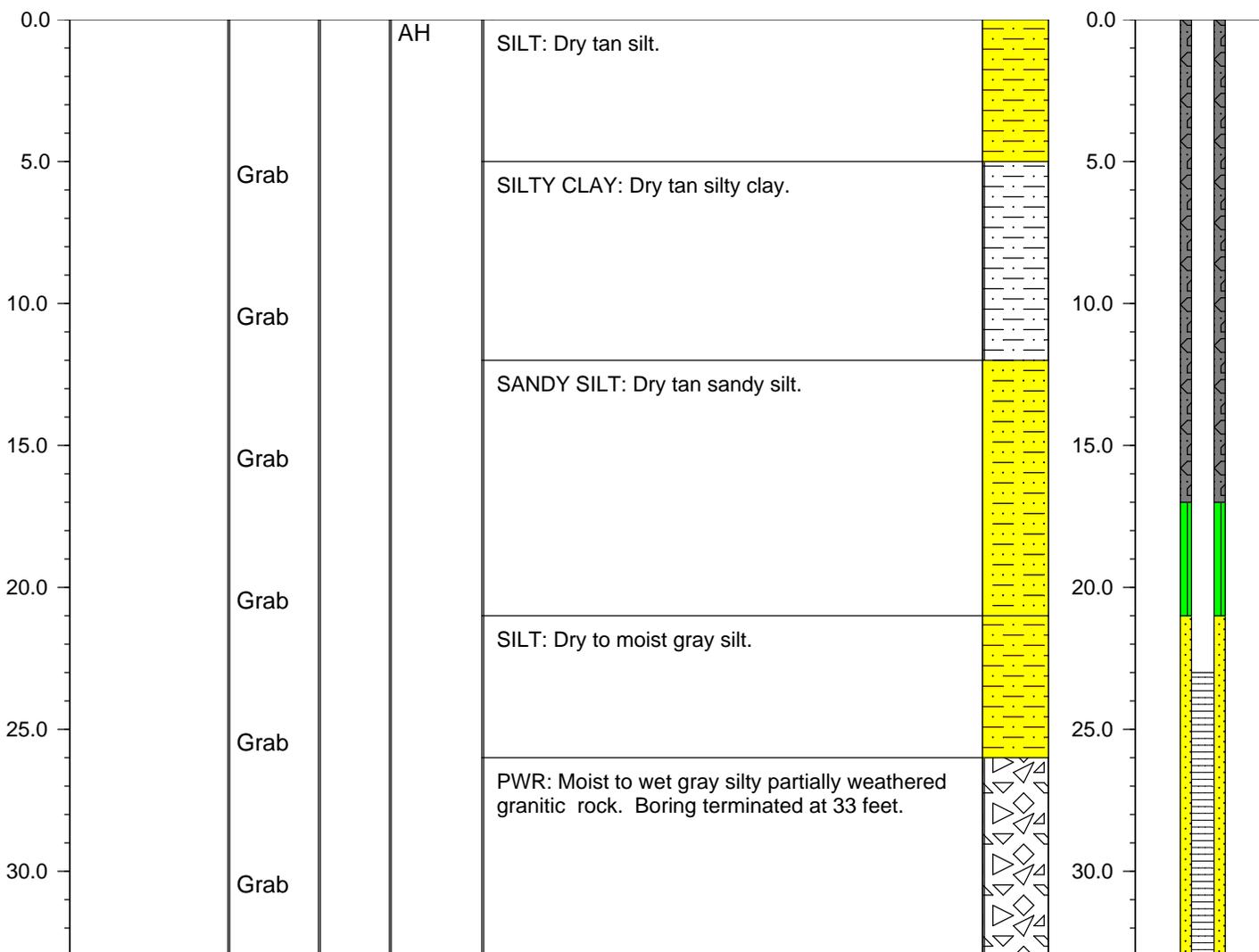


PROJECT NAME: **Davidson Co Phase 1 Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Geologic Explorations**
DRILLING METHOD: **AH**
FIELD PARTY: **Johnny Burr**
GEOLOGIST: **Lindsay Quant**
DATE BEGUN: **11/11/10** COMPLETED: **11/11/10**

TOTAL DEPTH: **33**
TOP OF CASING ELEV.: **GROUND ELEV.: 686.32**
NORTHING: **764126.597** EASTING: **1649351.338**

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

DEPTH Feet	BLOW COUNT Per 6"	SAMPLING METHOD	RECOVERY Inches	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH Feet	WELL INSTALLATION
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Appendix C

Laboratory Analytical Report

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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#: 6038

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA ,NC 27526

DATE COLLECTED: 03/27/12
DATE REPORTED : 04/20/12

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-1S	MW-2	MW-3	MW-4	MW-5	Analysis	Method
								Date	Analyst Code
Total Alkalinity, mg/l	1.0	1.0	261					03/30/12TRB	SM2320B
Chloride, mg/l	5.0	5.0	43					04/03/12HLB	SM4500-CLB
Total Dissolved Residue, mg/l	1.0	1.0	449					04/02/12MEL	SM2540C
Sulfate, mg/l	5.0	250.0	27.7 J					04/02/12TRB	SM426C
Antimony, ug/l	0.14	6.0	--- U	Missing	--- U	0.42 J	--- U	04/03/12CMF	EPA200.8
Arsenic, ug/l	0.10	10.0	0.25 J	Missing	0.30 J	--- U	--- U	04/03/12CMF	EPA200.8
Barium, ug/l	0.02	100.0	34.5 J	Missing	180	46.5 J	49.2 J	04/03/12CMF	EPA200.8
Beryllium, ug/l	0.02	1.0	--- U	Missing	0.17 J	0.06 J	--- U	04/03/12CMF	EPA200.8
Cadmium, ug/l	0.02	1.0	0.09 J	Missing	0.20 J	0.09 J	0.04 J	04/03/12CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	0.52 J	Missing	6.6 J	1.6 J	0.83 J	04/03/12CMF	EPA200.8
Copper, ug/l	0.02	10.0	1.8 J	Missing	25	8.5 J	2.2 J	04/03/12CMF	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.29 J	Missing	2.8 J	3.4 J	1.4 J	04/03/12CMF	EPA200.8
Iron, ug/l	15.9	300.0	409					04/10/12ADD	SM3111B
Manganese, ug/l	0.61	50.0	22 J					04/13/12LFPJ	EPA200.7
Lead, ug/l	0.02	10.0	0.23 J	Missing	1.3 J	0.62 J	0.43 J	04/03/12CMF	EPA200.8
Mercury, ug/l	0.05	0.20	--- U					04/03/12CMF	EPA200.8
Nickel, ug/l	0.04	50.0	1.4 J	Missing	5.9 J	1.9 J	1.0 J	04/03/12CMF	EPA200.8
Selenium, ug/l	0.20	10.0	0.89 J	Missing	0.42 J	0.38 J	--- U	04/03/12CMF	EPA200.8
Silver, ug/l	0.02	10.0	--- U	Missing	0.04 J	--- U	--- U	04/03/12CMF	EPA200.8
Thallium, ug/l	0.02	5.5	0.27 J	Missing	0.17 J	0.05 J	0.03 J	04/03/12CMF	EPA200.8
Vanadium, ug/l	0.14	25.0	3.1 J	Missing	28	8.9 J	5.7 J	04/03/12CMF	EPA200.8
Zinc, ug/l	0.24	10.0	2.3 J	Missing	42	11	5.0 J	04/03/12CMF	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#: 6038

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA , NC 27526

DATE COLLECTED: 03/27/12
DATE REPORTED : 04/20/12

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-6	MW-7D	MW-8	MW-7S	MW-9A	Analysis	Method
								Date	Analyst
Antimony, ug/l	0.14	6.0	--- U	04/03/12CMF	EPA200.8				
Arsenic, ug/l	0.10	10.0	--- U	--- U	--- U	0.17 J	0.20 J	04/03/12CMF	EPA200.8
Barium, ug/l	0.02	100.0	12.4 J	8.3 J	19.5 J	42.3 J	15.5 J	04/03/12CMF	EPA200.8
Beryllium, ug/l	0.02	1.0	--- U	--- U	--- U	0.17 J	--- U	04/03/12CMF	EPA200.8
Cadmium, ug/l	0.02	1.0	0.23 J	0.07 J	0.04 J	0.12 J	0.04 J	04/03/12CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	0.10 J	0.28 J	1.0 J	3.9 J	0.74 J	04/03/12CMF	EPA200.8
Copper, ug/l	0.02	10.0	0.24 J	1.5 J	2.1 J	28	6.0 J	04/03/12CMF	EPA200.8
Total Chromium, ug/l	0.04	10.0	--- U	0.24 J	1.7 J	5.8 J	1.6 J	04/03/12CMF	EPA200.8
Lead, ug/l	0.02	10.0	0.09 J	0.16 J	0.51 J	1.3 J	0.60 J	04/03/12CMF	EPA200.8
Nickel, ug/l	0.04	50.0	0.36 J	0.13 J	1.3 J	3.8 J	2.6 J	04/03/12CMF	EPA200.8
Selenium, ug/l	0.20	10.0	--- U	--- U	0.28 J	--- U	0.82 J	04/03/12CMF	EPA200.8
Silver, ug/l	0.02	10.0	--- U	--- U	--- U	0.05 J	--- U	04/03/12CMF	EPA200.8
Thallium, ug/l	0.02	5.5	0.22 J	--- U	--- U	0.04 J	--- U	04/03/12CMF	EPA200.8
Vanadium, ug/l	0.14	25.0	0.54 J	1.7 J	5.0 J	14.0 J	6.5 J	04/03/12CMF	EPA200.8
Zinc, ug/l	0.24	10.0	0.75 J	3.6 J	3.1 J	16	4.9 J	04/03/12CMF	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 (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA, NC 27526

CLIENT ID: 6038
ANALYST: MAO
DATE COLLECTED: 03/27/12
DATE ANALYZED: 03/31/12
DATE REPORTED: 04/20/12

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-1S	MW-3	MW-4	MW-5	MW-6
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	46.50 J	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- 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

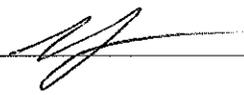
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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

CLIENT: DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA, NC 27526

CLIENT ID: 6038
ANALYST: MAO
DATE COLLECTED: 03/27/12
DATE ANALYZED: 03/31/12
DATE REPORTED: 04/20/12

Page: 2

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-7D	MW-8	MW-7S	MW-9A
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	22.70 J	14.70 J	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropane	0.24	1.0	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropane	0.28	1.0	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U
41. 1,1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U

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

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

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

CLIENT: 6038 Week: 12

DAVIDSON COUNTY (LINED)
 MS. JOAN SMYTH
 RICHARDSON SMITH GARDNER
 133 SPRING AVENUE
 FUQUAY VARIANA NC 27526

(919) 828-0577

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			Alkalinity	Chloride	TDS	Sulfate	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	CLASSIFICATION:	
	DATE	TIME				CHLORINE	UV	NONE											
MW-1S	3-27-12	11:15a			8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									A - NONE B - HNO ₃ C - H ₂ SO ₄	<input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DWQ/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION	
MW-2	3-27-12	10:52a			3												D - NaOH E - HCL F - ZINC ACETATE G - NATHIOSULFATE		
MW-3	3-27-12	10:41a			3														
MW-4	3-27-12	10:26a			3														
MW-5	3-27-12	2:36p			3														
MW-6	3-27-12	11:27a			3														
MW-7D	3-27-12	2:44p			3														
MW-8	3-27-12	11:35p			3														
MW-7S	3-27-12	2:56p			3														
MW-9A	3-27-12	2:56p			3														
RELINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
<i>[Signature]</i>	3-29-11	4:56p	<i>[Signature]</i>	3/30															

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.

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
 SAMPLES COLLECTED BY: *[Signature]*
 (Please Print) *DMW ACK*
 SAMPLES RECEIVED IN LAB AT *04* °C

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#: 6038 B

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA ,NC 27526

DATE COLLECTED: 03/27/12
DATE REPORTED : 04/23/12

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-10	MW-11	MW-12	SW-1	SW-2	Analysis	Method
								Date	Analyst
Antimony, ug/l	0.14	6.0	--- U	04/03/12CMF	EPA200.8				
Arsenic, ug/l	0.10	10.0	--- U	0.28 J	--- U	1.5 J	0.41 J	04/03/12CMF	EPA200.8
Barium, ug/l	0.02	100.0	12.0 J	20.2 J	0.98 J	35.4 J	21.4 J	04/03/12CMF	EPA200.8
Beryllium, ug/l	0.02	1.0	0.14 J	0.17 J	--- U	--- U	--- U	04/03/12CMF	EPA200.8
Cadmium, ug/l	0.02	1.0	0.09 J	0.14 J	0.06 J	--- U	--- U	04/03/12CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	2.4 J	2.9 J	0.19 J	4.0 J	0.63 J	04/03/12CMF	EPA200.8
Copper, ug/l	0.02	10.0	4.3 J	13	0.38 J	3.7 J	1.7 J	04/03/12CMF	EPA200.8
Total Chromium, ug/l	0.04	10.0	6.4 J	11	0.34 J	1.7 J	0.72 J	04/03/12CMF	EPA200.8
Lead, ug/l	0.02	10.0	0.89 J	1.7 J	0.06 J	1.2 J	0.48 J	04/03/12CMF	EPA200.8
Nickel, ug/l	0.04	50.0	3.8 J	6.6 J	0.64 J	2.0 J	0.94 J	04/03/12CMF	EPA200.8
Selenium, ug/l	0.20	10.0	0.30 J	0.21 J	0.41 J	0.31 J	--- U	04/03/12CMF	EPA200.8
Silver, ug/l	0.02	10.0	--- U	0.05 J	--- U	--- U	--- U	04/03/12CMF	EPA200.8
Thallium, ug/l	0.02	5.5	--- U	04/03/12CMF	EPA200.8				
Vanadium, ug/l	0.14	25.0	13.9 J	23.2 J	5.5 J	7.2 J	2.5 J	04/03/12CMF	EPA200.8
Zinc, ug/l	0.24	10.0	6.8 J	12	1.1 J	4.7 J	2.3 J	04/03/12CMF	EPA200.8

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

Environment 1, Incorporated

Drinking Water ID: 37715

Wastewater ID: 10

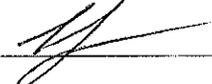
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
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CLIENT: DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA, NC 27526

CLIENT ID: 6038 B
ANALYST: MAO
DATE COLLECTED: 03/27/12
DATE ANALYZED: 03/31/12
DATE REPORTED: 04/23/12

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-10	MW-11	MW-12	SW-1	SW-2	
1. Chloromethane	0.77	1.0	---	U	---	U	---	U
2. Vinyl Chloride	0.63	1.0	---	U	---	U	---	U
3. Bromomethane	0.67	10.0	---	U	---	U	---	U
4. Chloroethane	0.48	10.0	---	U	---	U	---	U
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	13.10	J	---	U	---	U
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	---	U
12. 1,1-Dichloroethane	0.20	5.0	---	U	---	U	---	U
13. Vinyl Acetate	0.20	50.0	---	U	---	U	---	U
14. Cis-1,2-Dichloroethene	0.25	5.0	---	U	---	U	---	U
15. 2-Butanone	2.21	100.0	---	U	---	U	---	U
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	---	U
21. 1,2-Dichloroethane	0.27	1.0	---	U	---	U	---	U
22. Trichloroethene	0.23	1.0	---	U	---	U	---	U
23. 1,2-Dichloropropane	0.21	1.0	---	U	---	U	---	U
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	---	U
27. Toluene	0.23	1.0	---	U	---	U	---	U
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	---	U
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	---	U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	---	U	---	U	---	U
36. Ethylbenzene	0.21	1.0	---	U	---	U	---	U
37. Xylenes	0.68	5.0	---	U	---	U	---	U
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. 1,1,1,2,2-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	---	U
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, 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 (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA, NC 27526

CLIENT ID: 6038 B
ANALYST: MAO
DATE COLLECTED: 03/27/12
DATE ANALYZED: 03/31/12
DATE REPORTED: 04/23/12

Page: 2

REVIEWED BY: 

VOLATILE ORGANICS
EPA METHOD 8260B

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

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA, NC 27526

CLIENT ID: 6038 B
ANALYST: MAO
DATE COLLECTED: 03/29/12
DATE ANALYZED: 04/03/12
DATE REPORTED: 04/17/12

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B

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

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA, NC 27526

CLIENT ID: 6038 B
ANALYST: MAO
DATE COLLECTED: 03/29/12
DATE ANALYZED: 04/03/12
DATE REPORTED: 04/17/12

Page: 1

REVIEWED BY: _____

VOLATILE ORGANICS EPA METHOD 8260B

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

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

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

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

CLIENT: 6038 B Week: 12

DAVIDSON COUNTY (LINED)
 MS. JOAN SMYTH
 RICHARDSON SMITH GARDNER
 133 SPRING AVENUE
 FUQUAY VARINA NC 27526

(919) 828-0577

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2	CHLORINE NEUTRALIZED AT COLLECTION
	DATE	TIME				<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV	<input type="checkbox"/> NONE					
MW-10	3-27-12	12:13p			4								
MW-11	3-27-12	12:03p			3								
MW-12	3-27-12	11:52p			3								
SW-1	3-27-12	3:05p			3								
SW-2	3-27-12	3:30p			3								
Equipment Blank	3-29-12	4:55p			2								
Trip Blank					2								
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME

FORM #5

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

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

No 239112

COMMENTS:

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY

SAMPLES COLLECTED BY: *DM* (Please Print)

SAMPLES RECEIVED IN LAB AT 1.0 °C

CLASSIFICATION:

WASTEWATER (NPDES)

DRINKING WATER

DWQ/GW

SOLID WASTE SECTION

PARAMETERS:

A - NONE D - NaOH

B - HNO₃ E - HCL

C - H₂SO₄ F - ZINC ACETATE

G - Na THIOSULFATE

DISINFECTION:

CHLORINE

UV

NONE

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PH CHECK (LAB)

CHLORINE NEUTRALIZED AT COLLECTION

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#: 6038 A

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA ,NC 27526

DATE COLLECTED: 03/29/12
DATE REPORTED : 04/17/12

REVIEWED BY: 

PARAMETERS	MDL	Leachate		Analysis		Method Code
		SWSL		Date	Analyst	
BOD, mg/l	2.0	2.0	6.4	03/30/12	TRB	SM5210B
COD, mg/l	20.0	20.0	89	04/03/12	TRB	HACH8000
Nitrate Nitrogen as N, mg/l	0.03	10.0	0.11 J	03/30/12	ANO	EPA353.2
Total Phosphorus as P, mg/l	0.04	0.04	0.10	04/12/12	ANO	EPA365.4
Sulfate, mg/l	5.0	250.0	5.5 J	04/02/12	TRB	SM426C
Antimony, ug/l	0.14	6.0	0.32 J	04/05/12	CMF	EPA200.8
Arsenic, ug/l	0.10	10.0	1.3 J	04/05/12	CMF	EPA200.8
Barium, ug/l	0.02	100.0	108	04/05/12	CMF	EPA200.8
Beryllium, ug/l	0.02	1.0	---	04/05/12	CMF	EPA200.8
Cadmium, ug/l	0.02	1.0	---	04/05/12	CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	3.8 J	04/05/12	CMF	EPA200.8
Copper, ug/l	0.02	10.0	3.8 J	04/05/12	CMF	EPA200.8
Total Chromium, ug/l	0.04	10.0	2.5 J	04/05/12	CMF	EPA200.8
Lead, ug/l	0.02	10.0	0.32 J	04/05/12	CMF	EPA200.8
Nickel, ug/l	0.04	50.0	23.2 J	04/05/12	CMF	EPA200.8
Selenium, ug/l	0.20	10.0	1.9 J	04/05/12	CMF	EPA200.8
Silver, ug/l	0.02	10.0	---	04/05/12	CMF	EPA200.8
Thallium, ug/l	0.02	5.5	---	04/05/12	CMF	EPA200.8
Vanadium, ug/l	0.14	25.0	5.4 J	04/05/12	CMF	EPA200.8
Zinc, ug/l	0.24	10.0	2.7 J	04/05/12	CMF	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 (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
133 SPRING AVENUE
FUQUAY VARINA, NC 27526

CLIENT ID: 6038 A
ANALYST: MAO
DATE COLLECTED: 03/29/12
DATE ANALYZED: 04/03/12
DATE REPORTED: 04/17/12

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B

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

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

Environment 1, Inc.
 P.O. Box 7385, 114 Oakmont Dr.
 Greenville, NC 27858

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

CLIENT: 6038 A Week: 12

DAVIDSON COUNTY (LINED)
 MS. JOAN SMYTH
 RICHARDSON SMITH GARDNER
 133 SPRING AVENUE
 FUQUAY VARINA NC 27526

(919) 828-0577

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION		BOD	COD	Nitrate	T. Phosphorus	Sulfate	Metals	EPA 8260B	8260 Dup. 1	CHLORINE NEUTRALIZED AT COLLECTION	pH CHECK (LAB)	CONTAINER TYPE/P/G	CHEMICAL PRESERVATION	
	DATE	TIME				<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV													<input type="checkbox"/> NONE
Leachate	3-29-12	11:30a			8	<input type="checkbox"/>	<input type="checkbox"/>													
RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)
<i>Ken</i>	3/29/12 4:36p	<i>B</i>	3/29/12 8:13	<i>Dunn</i>																
REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)	DATE/TIME	REINQUISHED BY (SIG.)
COMMENTS:																CLASSIFICATION:	PARAMETERS	CHLORINE PRESERVATION		
CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY																<input type="checkbox"/> WASTEWATER (NPDES)	A - NONE	D - NAOH		
SAMPLES COLLECTED BY: <i>Dunn, Alex K</i>																<input type="checkbox"/> DRINKING WATER	B - HNO ₃	E - HCL		
(Please Print) Y <input checked="" type="radio"/> N <input type="radio"/>																<input type="checkbox"/> DWQ/GW	C - H ₂ SO ₄	F - ZINC ACETATE		
SAMPLES RECEIVED IN LAB AT 0.8 °C																<input checked="" type="checkbox"/> SOLID WASTE SECTION	G - NA THIOSULFATE			

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

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested. No 239113

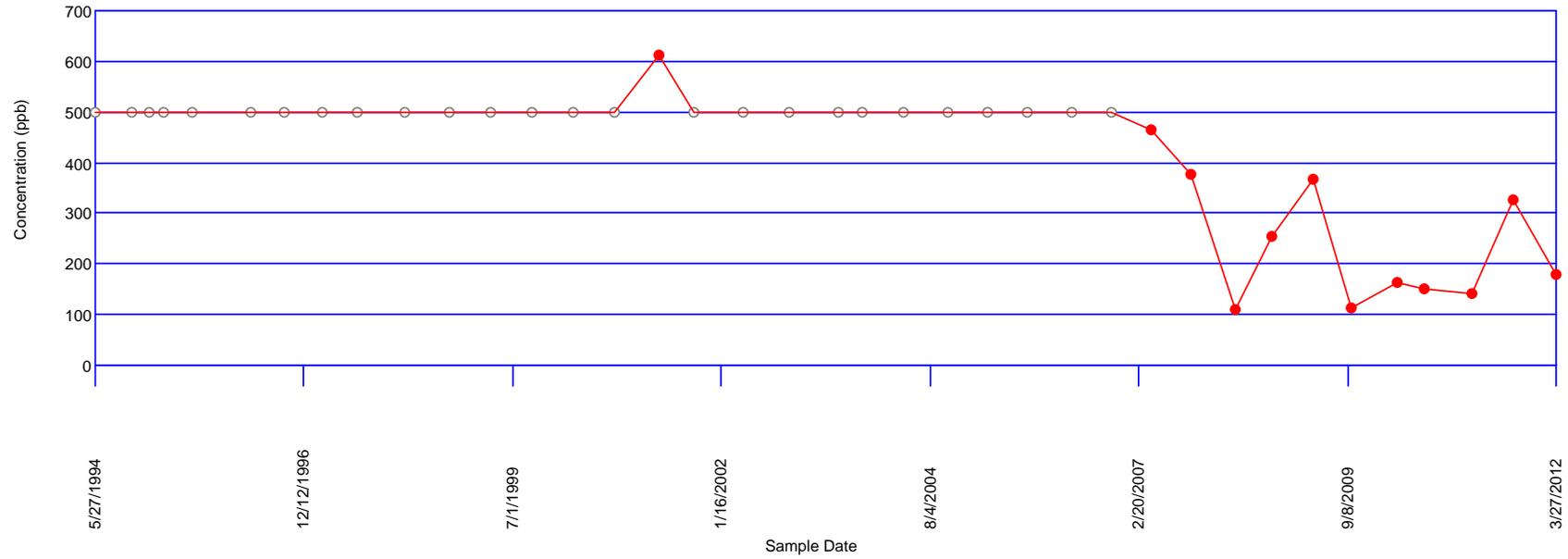
Appendix D

Time vs. Concentration Graphs

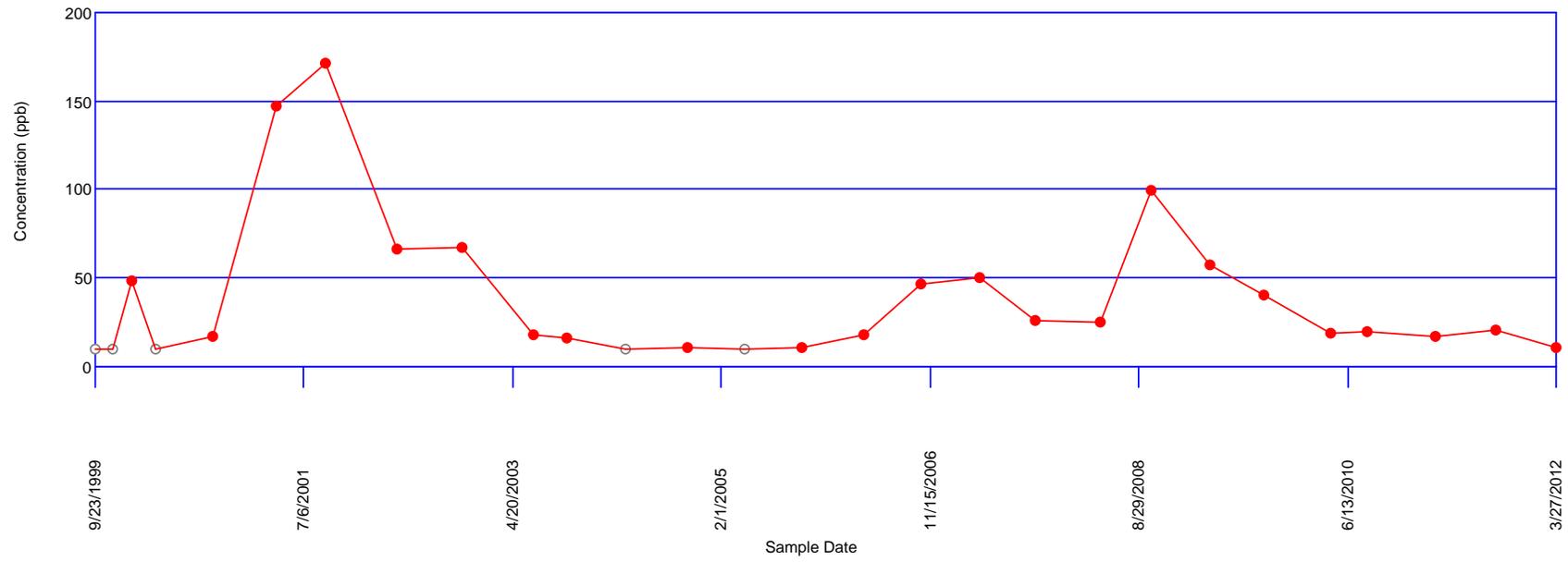
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Barium

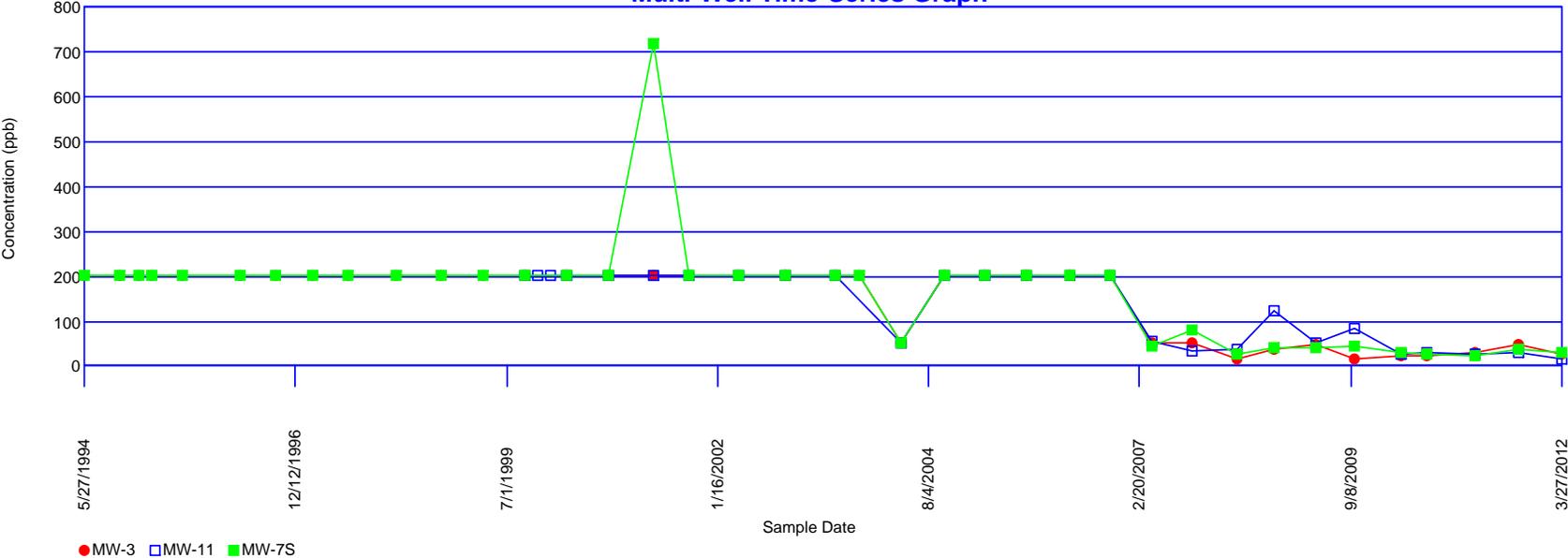
Time-Series Graph of MW-3



Total Chromium Time-Series Graph of MW-11

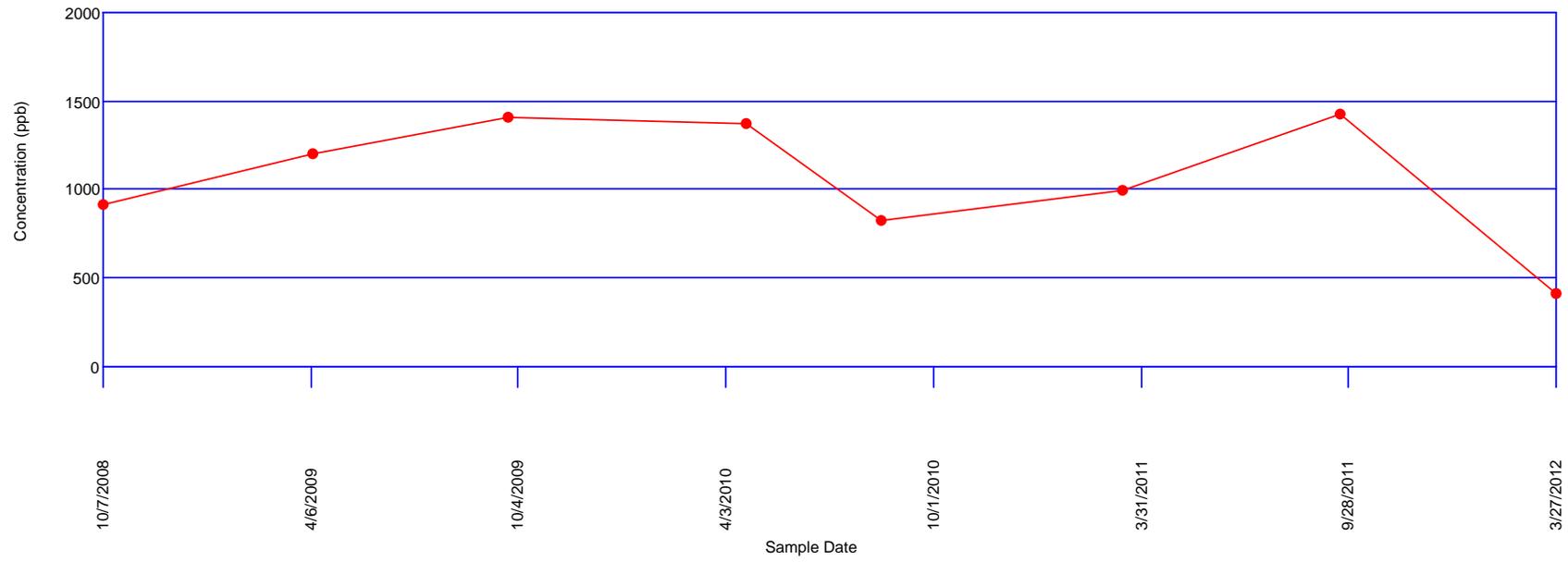


Copper Multi-Well Time-Series Graph

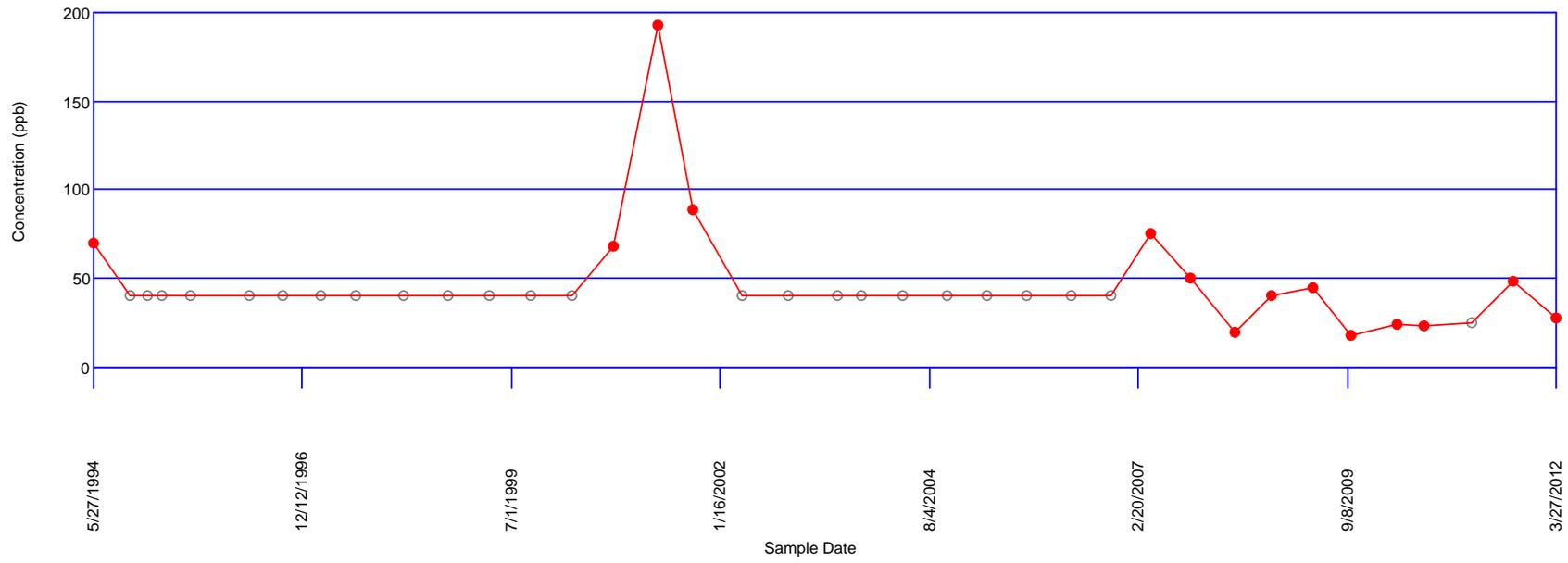


Iron

Time-Series Graph of MW-1S



Vanadium Time-Series Graph of MW-3



Zinc Multi-Well Time-Series Graph

