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NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

RECEIVED JUL 2 2008 SOLID WASTE SECTION

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing conditions, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or near the facility (NCAC 13B .1629 (4)(a)(i).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Richardson Smith Gardner and Associates, Inc.

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

Name: Joan Smyth, P.G. Phone: 919-828-0577 x122

E-mail: joan@rsgengineers.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Davidson County Lined Landfill	Davidson County Lexington, North Carolina	29-~~02~~ 06	.1600	April 28, 2008

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

Joan Smyth, P.G.	Senior Hydrogeologist	919-828-0577 x 122
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

Joan A. Smyth 6/30/08
Signature Date

Affix NC Licensed/Registered Geologist/Engineer Seal here:

NORTH CAROLINA LICENSED SEAL 1369 GEOLOGIST JOAN A. SMYTH

Revised 01/2007

Ground Water Monitoring Report

April 2008 Monitoring Event

Davidson County
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 2008

Richardson Smith Gardner & Associates, Inc.
Engineering and Geological Services
14 North Boylan Avenue
Raleigh, North Carolina 27603

Ground Water Monitoring Report
Davidson County Lined MSW Landfill
April 2008 Semi - Annual Report

Prepared for:

Davidson County Integrated Solid Waste
1242 Old Highway 29
Thomasville, NC 27360

RSG Project No. **DAVDCO - 4**

NORTH CAROLINA LICENSED SEAL 1369 GEOLOGIST JOAN A. SMYTH

Joan A. Smyth 6/30/08

Joan A. Smyth, P.G.
Senior Hydrogeologist

June 2008

RICHARDSON SMITH GARDNER & ASSOCIATES
Engineering and Geological Services
14 N. Boylan Avenue
Raleigh, North Carolina 27603

Davidson County Lined MSW Landfill

Ground Water Monitoring Report
April 2008 Monitoring Event

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Appendix B – Time vs. Concentration Graphs

1.0 Introduction

On April 28th 2008, Richardson Smith Gardner & Associates (RSG) personnel performed the required semi-annual ground water monitoring event at the Davidson County Lined Landfill. This sampling event satisfies the requirements of the monitoring programs for this site, 15A NCAC 13B.1632. The following report summarizes the monitoring event, sampling procedures, field and laboratory results, statistical analysis, and ground water characterization as required by NC Solid Waste Regulations. Also included are summary tables of ground water measurements, field parameters, detected constituents, and statistical analysis results, as well as time versus concentration graphs, and the laboratory analytical report.

2.0 Davidson County Lined MSW Landfill

2.1 Sampling Procedures

Ground water sampling was performed at 12 well locations shown on **Figure 1**. Monitoring well, MW-2, was not sampled because the well had insufficient water. Sampling procedures followed the protocols set forth in the site's Water Quality Monitoring Plan[1]. Each well was gauged to determine ground water depth and then purged of a minimum of three well volumes or until dry. The wells were purged and allowed to stabilize prior to sample collection. Ground water purging and sample collections were performed using a factory sealed Teflon™ bailer.

A field measurement of temperature, pH, and conductivity was taken at each well and surface water sampling location. Samples were collected in laboratory containers provided by Environment 1, Inc. (NC Laboratory Certification # 10). Upon collection, the samples were sealed, placed on ice, and transported to the laboratory. Field blanks were also collected for quality control purposes.

During the sampling process, each well was inspected for signs of damage or unusual conditions. One monitoring well, MW-9, was found damaged, and could not be sampled.

Samples from surface water points SW-1 and SW-2, located upstream and downstream of the landfill on Jimmy's Creek, were collected. SW-4 was dry, and could not be sampled. The surface water locations are show in **Figure 1**.

2.2 Field and Laboratory Results

All samples were transported to the laboratory facility under proper chain of custody analyzed at the specified DWM Practical Quantitation Limits for Appendix I constituents[2]. The laboratory analysis is included in **Appendix A**.

1 Davidson County Landfill Sampling and Analysis Plan. G.N. Richardson and Associates, June 1998.
2 New guidelines for electronic submittal of environmental monitoring data memo, NCDENR DWM, Solid Waste Section, October 27, 2006.

Ground water and field measurements are included as **Tables 1 and 2,** respectively. Due to lowered Solid Waste Section Limits (SWSLs), the laboratory analysis detected eight (8) inorganic constituents (barium, cobalt, copper, total chromium, iron, manganese, vanadium and zinc) in six (6) wells (MW-1, MW-3, MW-4, MW-7, MW-8, & MW-11). Four (4) inorganic constituents were detected above their 2L standards:

- cobalt;
- iron;
- manganese; and
- vanadium;

were detected in four (4) wells (MW-1, MW-7, MW-8, & MW-11). Turbidity in these wells is elevated (**Table 2**). Cobalt and vanadium were detected at concentrations above the 2L standard because they do not have a 2L standard; however the cobalt level detected is below the Ground Water Protection Standard of 70 ppb. The concentration of vanadium exceeded the ground water protection standard of 3.5 ppb.

Laboratory analysis of ground water indicated no detectable levels of organic constituents in any of the wells. The laboratory results are summarized in **Table 3**.

A leachate sample was also collected from the lined landfill. This sample was analyzed for Appendix I constituents as well as BOD, COD, nitrate, and total phosphorus. Analysis of this sample indicated detectable levels of COD, total phosphorous, barium, and zinc. The laboratory report is included in **Appendix A**.

2.3 Statistical Analysis

Statistical analysis of the laboratory data indicated statistically significant increases of two (2) constituents: total chromium and vanadium (MW-11). The statistical analysis results are summarized in **Table 4**.

2.4 2L/MCL Statistical Analysis

For wells that showed statistically significant differences from background concentrations, additional analysis was performed. To perform the analysis, the respective 2L standard or MCL was determined for each parameter with statistically significant results. Each compliance well with statistical significance was re-analyzed against the lower of the 2L or MCL standard as a Ground Water Protection Standard (GWPS).

The statistical results for this additional analysis are presented in **Table 4**. An upper tolerance limit higher than the GWPS standard was considered to be a statistically significant result. This analysis indicated statistically significant results for total chromium and vanadium (MW-11). The results are summarized in **Table 4**.

3.0 Site Ground Water Characterization

A potentiometric surface map was prepared for the entire site from ground water elevation data collected during 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 at the lined MSW landfill ranged from 0.002 feet/day (MW-6) to 0.669 feet/day (MW-10). These calculations are included in **Table 1**. The data indicates that ground water underneath the lined MSW landfill is flowing generally to the north and northwest towards Jimmy's Creek. This is consistent with ground water flow patterns previously seen at this site. The potentiometric surface map (**Figure 1**) is also attached for your review.

4.0 Conclusions

The results presented above indicate concentrations of four inorganic constituents that exceed the 2L standard. Only three of these exceed the ground water protection standard. Some of these results indicated statistical significance. The presence of inorganic constituents is likely due to the presence of suspended solids in the sample.

The next ground water monitoring event will be completed in October 2008. The results of this event will be reported to NCDENR upon completion of statistical analysis of laboratory data.

Figures

Tables

Table 1
Ground Water Elevations & Velocities
Davidson County Lined Landfill
4/28/2008

Well	Northing	Easting	TOC Elevation (feet)	Water Level (feet)	GW Elev (feet)	Hyd. Cond. (ft/day)	Porosity (%)	Gradient (ft/ft)	Velocity (ft/day)
MW-1	763311.06	1650889.31	736.20	57.51	678.69	0.14	0.1	0.029	0.041
MW-2	763253.6	1649411.4	708.29	41.74	NA	0.17	0.1	NA	NA
MW-3	764274.92	1651226.41	666.72	11.1	655.62	0.62	0.1	0.016	0.099
MW-4	764433.34	1650879.1	673.68	18.96	654.72	1.31	0.2	0.016	0.105
MW-5	764515.15	1650681.8	678.23	24.88	653.35	NA	0.2	0.024	NA
MW-6	764259.47	1650467.49	694.13	33.75	660.38	0.02	0.1	0.012	0.002
MW-7	764228.53	1650127.95	663.39	8.1	655.29	0.38	0.15	0.026	0.066
MW-8	764340.45	1649624.12	661.16	8.23	652.93	0.57	0.15	0.035	0.133
MW-9	764134.52	1649433.54	692.60	35.26	657.34	2.65	0.1	0.011	0.292
MW-10	764044.52	1649157.57	671.64	19.95	651.69	0.88	0.1	0.076	0.669
MW-11	763749.09	1649125.82	692.10	27.42	664.68	4.13	0.1	0.009	0.372
MW-12	763456.03	1649124.23	711.66	51.76	659.90	0.58	0.1	0.021	0.122

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 Surveying Solutions, P.C.

Table 2
Field Parameters
Davidson County Lined Landfill
4/29/2008

Well	pH (Std. Units)	Conductivity (umhos)	Temp. (celsius)	Turbidity (NTU)
MW-1	6.8	560	17	51.3
MW-2	NM	NM	NM	NM
MW-3	7.2	200	13	167
MW-4	6.6	100	14	89.9
MW-5	6.7	120	14	16.1
MW-6	7.1	200	16	9.76
MW-7	7.0	100	13	>1000
MW-7d	7.1	50	14	18.5
MW-8	6.8	50	16	130
MW-9	NM	NM	NM	NM
MW-10	6.9	280	15	43.5
MW-11	6.9	170	15	381
MW-12	7.0	470	16	13.2
SW-1	7.8	160	15	22.6
SW-2	7.5	180	15	25.4

NM- Not Measured

Note: Data collected by Clark Wipfield of RSG Engineers, Inc.

Table 3
Detected Inorganic Constituents
Davidson County Lined Landfill
04/28/08

Parameter	SWSL	2L	GWP	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
Inorganic Constituents																		
antimony	6	---	1.4	0.2J	NS	ND	ND	ND	ND	ND	ND	ND	NS	0.3J	ND	0.3J	ND	ND
arsenic	10	50	---	0.6J	NS	ND	0.3J	ND	ND	2.2J	ND	0.4J	NS	ND	0.8J	ND	0.4J	0.2J
barium	100	2000	---	35.2J	NS	**110**	97.3J	45.8J	20.3J	79.7J	9.7J	69.6J	NS	5.1J	70J	1.3J	25.9J	24J
beryllium	1	---	4	0.1J	NS	0.1J	0.1J	ND	ND	0.9J	ND	0.3J	NS	0.1J	0.6J	ND	ND	ND
cadmium	1	1.75	---	0.1J	NS	0.1J	0.2J	ND	0.2J	0.2J	ND	0.1J	NS	0.1J	ND	0.1J	ND	ND
cobalt	10	---	70	2.1J	NS	4.0J	5.1J	0.1J	0.4J	4.0J	0.4J	10	NS	0.9J	7.0J	0.4J	0.6J	0.5J
copper	10	1000	---	4.1J	NS	**14**	**21**	0.4J	1.5J	**22**	3.1J	**15**	NS	1.4J	**34**	0.9J	2.4J	2.2J
chromium, total	10	50	---	0.7J	NS	1.1J	7.9J	ND	ND	7.3J	ND	9.8J	NS	1.4J	**25**	ND	0.5J	0.2J
iron	300	300	---	1707	NS	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND
manganese	50	50	---	170	NS	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND
lead	10	15	---	1.2J	NS	0.9J	1.7J	ND	0.5J	9.1J	0.2J	7.0J	NS	0.3J	6.8J	2.6J	0.3J	0.3J
mercury	0.2	1.05	---	0.05J	NS	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND
nickel	50	100	---	3.3J	NS	3.9J	4.9J	0.4J	1.0J	5.0J	0.2J	6.3J	NS	2.1J	14J	2.2J	1.3J	1.3J
selenium	10	50	---	2.0J	NS	0.4J	0.2J	ND	ND	0.4J	ND	ND	NS	0.4J	0.2J	0.2J	0.6J	0.6J
silver	10	17.5	---	0.2J	NS	0.1J	0.1J	ND	ND	0.2J	0.1J	ND	NS	0.1J	0.2J	0.1J	ND	ND
thallium	5	---	0.28	0.1J	NS	0.1J	0.1J	ND	ND	0.1J	ND	ND	NS	0.1J	0.1J	0.1J	ND	ND
vanadium	25	---	3.5	5.3J	NS	19.6J	21.2J	3.5J	1.4J	26	2.3J	34	NS	6.8J	75	7.6J	3.3J	2.6J
zinc	10	1050	---	4.8J	NS	**24**	**36**	1.5J	4.8J	**35**	4.2J	**23**	NS	5.8J	**50**	2.5J	3.2J	3.3J
Organic Constituents																		
acetone	100	700	---	1.90J	NS	1.50J	2.0J	1.4J	2.0J	2.20J	1.60J	ND	NS	1.50J	1.30J	1.70J	2.20J	2.50J
toluene	1	1000	---	0.20J	NS	0.30J	0.30J	ND	0.30J	0.30J	0.20J	0.30J	NS	ND	ND	ND	ND	ND

SWSL	-	Solid Waste Section Limits
GWP	-	Ground Water Protection Standard
ND	-	Not detected
Shading	-	Levels above 2L standard or no 2L standard
Bold Letters	-	Constituent detected above SWSL limit
J	-	Constituents detected below SWSL limit
NS	-	Not sampled
Note	-	Trip Blank detected 0.80J of Toluene
	-	Equipment Blank detected 1.30J of Acetone
	-	All units are in ug/L.
	-	Data Analyses by Environmental 1, Inc.

Richardson Smith Gardner and Associates, Inc.

Table 4
Davidson County Lined Landfill
Statistical Analysis Summary
4/28/2008

Location	Parameter	Result (mg/l)	Test Units	%ND	CL	Test	Statistically Significant?	2L/MCL statistical analysis	Method for MCL analysis
MW-3	Barium	0.11	mg/l	91.89	---	PPL with 1/2 DL	N	---	---
MW-8	Cobalt	0.01	mg/l	86.48	97.9	NPPL	N	---	---
MW-11	Copper	0.034	mg/l	89.61	89.81	NPTL	N	---	---
MW-3	Copper	0.014	mg/l	89.61	89.81	NPTL	N	---	---
MW-4	Copper	0.021	mg/l	89.61	89.81	NPTL	N	---	---
MW-7S	Copper	0.022	mg/l	89.61	89.81	NPTL	N	---	---
MW-8	Copper	0.015	mg/l	89.61	89.81	NPTL	N	---	---
MW-11	Total Chromium	0.025	mg/l	71.87	97.8	NPPL	Y	Y	MCL-PTI
MW-11	Vanadium	0.075	mg/l	79.83	93.6	NPPL	Y	Y	MCL-PTI
MW-7S	Vanadium	0.026	mg/l	79.83	93.6	NPPL	N	---	---
MW-8	Vanadium	0.034	mg/l	79.83	93.6	NPPL	N	---	---
MW-11	Zinc	0.05	mg/l	78.8	90	NPPL	N	---	---
MW-3	Zinc	0.024	mg/l	78.8	90	NPPL	N	---	---
MW-4	Zinc	0.036	mg/l	78.8	90	NPPL	N	---	---
MW-7S	Zinc	0.035	mg/l	78.8	90	NPPL	N	---	---
MW-8	Zinc	0.023	mg/l	78.8	90	NPPL	N	---	---

Legend:

%ND	Method chosen due to percent non-detects
NPTL	Non-parametric Tolerance Limit (Inter-well comparision)
PPL	Poisson Prediction Limit with 1/2 Detection Limit

Highlighting indicates statistical significance

Upgradient well : MW -1s

Appendix A

Laboratory Analytical Report

Environment 1, Incorporated

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

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

REC'D JUN 02 2008

ID#: 6038

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 04/30/08
DATE REPORTED : 05/29/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-1S	MW-2	MW-3	MW-4	MW-5	Analysis Date	Analyst	Method Code
Total Alkalinity, mg/l	1.0	1.0	270					05/01/08	TRB	SM2320B
Chloride, mg/l	5.0	5.0	47					05/09/08	MDM	SM4500-CLB
Total Dissolved Residue, mg/l	1.0	1.0	359					05/05/08	TRB	SM2540C
Sulfate, mg/l	5.0	250.0	25.4 J					05/02/08	TRB	SM4500-SO4
Antimony, ug/l	0.08	6.0	0.2 J	Missing	--- U	--- U	--- U	05/08/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	0.6 J	Missing	--- U	0.3 J	--- U	05/08/08	LFJ	EPA200.8
Barium, ug/l	0.34	100.0	35.2 J	Missing	110	97.3 J	45.8 J	05/08/08	LFJ	EPA200.8
Beryllium, ug/l	0.17	1.0	0.1 J	Missing	0.1 J	0.1 J	--- U	05/08/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	Missing	0.1 J	0.2 J	--- U	05/08/08	LFJ	EPA200.8
Cobalt, ug/l	2.53	10.0	2.1 J	Missing	4.0 J	5.1 J	0.1 J	05/08/08	LFJ	EPA200.8
Copper, ug/l	2.24	10.0	4.1 J	Missing	14	21	0.4 J	05/08/08	LFJ	EPA200.8
Total Chromium, ug/l	1.38	10.0	0.7 J	Missing	1.1 J	7.9 J	--- U	05/08/08	LFJ	EPA200.8
Iron, ug/l	14.0	300.0	1707					05/22/08	2	SM3111B
Manganese, ug/l	0.50	50.0	170					05/13/08	LFJ	EPA200.7
Lead, ug/l	0.04	10.0	1.2 J	Missing	0.9 J	1.7 J	--- U	05/08/08	LFJ	EPA200.8
Mercury, ug/l	0.13	0.20	0.05 J					05/08/08	LFJ	EPA200.8
Nickel, ug/l	1.35	50.0	3.3 J	Missing	3.9 J	4.9 J	0.4 J	05/08/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	2.0 J	Missing	0.4 J	0.2 J	--- U	05/08/08	LFJ	EPA200.8
Silver, ug/l	2.32	10.0	0.2 J	Missing	0.1 J	0.1 J	--- U	05/08/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J	Missing	0.1 J	0.1 J	--- U	05/08/08	LFJ	EPA200.8
Vanadium, ug/l	1.21	25.0	5.3 J	Missing	19.6 J	21.2 J	3.5 J	05/08/08	LFJ	EPA200.8
Zinc, ug/l	1.86	10.0	4.8 J	Missing	24	36	1.5 J	05/08/08	LFJ	EPA200.8

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

Environment 1, Incorporated

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
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 04/30/08
DATE REPORTED : 05/29/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-6	MW-7D	MW-8	MW-7S	MW-9	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	--- U	--- U	--- U	--- U	Missing	05/08/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	--- U	--- U	0.4 J	2.2 J	Missing	05/08/08	LFJ	EPA200.8
Barium, ug/l	0.34	100.0	20.3 J	9.7 J	69.6 J	79.7 J	Missing	05/08/08	LFJ	EPA200.8
Beryllium, ug/l	0.17	1.0	--- U	--- U	0.3 J	0.9 J	Missing	05/08/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.2 J	--- U	0.1 J	0.2 J	Missing	05/08/08	LFJ	EPA200.8
Cobalt, ug/l	2.53	10.0	0.4 J	0.4 J	10	4.0 J	Missing	05/08/08	LFJ	EPA200.8
Copper, ug/l	2.24	10.0	1.5 J	3.1 J	15	22	Missing	05/08/08	LFJ	EPA200.8
Total Chromium, ug/l	1.38	10.0	--- U	--- U	9.8 J	7.3 J	Missing	05/08/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.5 J	0.2 J	7 J	9.1 J	Missing	05/08/08	LFJ	EPA200.8
Nickel, ug/l	1.35	50.0	1.0 J	0.2 J	6.3 J	5.0 J	Missing	05/08/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	--- U	--- U	--- U	0.4 J	Missing	05/08/08	LFJ	EPA200.8
Silver, ug/l	2.32	10.0	--- U	0.1 J	--- U	0.2 J	Missing	05/08/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	--- U	--- U	--- U	0.1 J	Missing	05/08/08	LFJ	EPA200.8
Vanadium, ug/l	1.21	25.0	1.4 J	2.3 J	34	26	Missing	05/08/08	LFJ	EPA200.8
Zinc, ug/l	1.86	10.0	4.8 J	4.2 J	23	35	Missing	05/08/08	LFJ	EPA200.8

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

Environment 1, Incorporated

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

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

REC'D JUN 02 2008

ID#: 6038 B

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 04/30/08
DATE REPORTED : 05/29/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-10	MW-11	MW-12	SW-1	SW-2	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	0.3 J	--- U	0.3 J	--- U	--- U	05/08/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	--- U	0.8 J	--- U	0.4 J	0.2 J	05/08/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	5.1 J	70 J	1.3 J	25.9 J	24 J	05/08/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.1 J	0.6 J	--- U	--- U	--- U	05/08/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	--- U	0.1 J	--- U	--- U	05/08/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	0.9 J	7.0 J	0.4 J	0.6 J	0.5 J	05/08/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	1.4 J	34	0.9 J	2.4 J	2.2 J	05/08/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	1.4 J	25	--- U	0.5 J	0.2 J	05/08/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.3 J	6.8 J	2.6 J	0.3 J	0.3 J	05/08/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	2.1 J	14 J	2.2 J	1.3 J	1.3 J	05/08/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	0.4 J	0.2 J	0.2 J	0.6 J	0.6 J	05/08/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.2 J	0.1 J	--- U	--- U	05/08/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J	0.1 J	0.1 J	--- U	--- U	05/08/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	6.8 J	75	7.6 J	3.3 J	2.6 J	05/08/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	5.8 J	50	2.5 J	3.2 J	3.3 J	05/08/08	LFJ	EPA200.8

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

Environment 1, Incorporated

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
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6038 B

ANALYST: MAO
DATE COLLECTED: 04/30/08
DATE ANALYZED: 05/09/08
DATE REPORTED: 05/29/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-10	MW-11	MW-12	SW-1	SW-2
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	1.50 J	1.30 J	1.70 J	2.20 J	2.50 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

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
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6038 B

ANALYST: MAO
DATE COLLECTED: 04/30/08
DATE ANALYZED: 05/09/08
DATE REPORTED: 05/29/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Trip Blank	Equipment Blank
1. Chloromethane	0.18	1.0	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U
7. Acetone	1.21	100.0	--- U	1.30 J
8. Iodomethane	0.12	10.0	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U
27. Toluene	0.13	1.0	0.80 J	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U

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

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6038 B **Week: 11**

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION									
pH CHECK (LAB)						L2	L2	L2	L2
CONTAINER TYPE, P/G						P	G	G	G
CHEMICAL PRESERVATION						A	E	E	E
MW-10	4/30	9:10a		15°C	4				
MW-11		10:00a		15°C	3				
MW-12		3:10p		16°C	3				
SW-1		2:45p		15°C	3				
SW-2		1:30p		15°C	3				
Trip Blank		~~5:~~			2				
Equipment Blank		5:00			2				

PARAMETERS

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

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

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

SAMPLES COLLECTED BY: (Please Print)
CLARK WIPFLER

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	4/30 5:00	B. Jefferson	5/1/08 10:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS: Samples located in two coolers
All samples Grab

Instructions for completing this form are on the reverse side.

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

FORM #5

№ 160546

Environment 1, Incorporated

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
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6038

ANALYST: MAO
DATE COLLECTED: 04/30/08
DATE ANALYZED: 05/09/08
DATE REPORTED: 05/29/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-1S	MW-3	MW-4	MW-5	MW-6
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	1.90 J	1.50 J	2.00 J	1.40 J	2.00 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	0.20 J	0.30 J	0.30 J	--- U	0.30 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

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

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GREENVILLE, N.C. 27835-7085

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CLIENT: DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6038

ANALYST: MAO
DATE COLLECTED: 04/30/08
DATE ANALYZED: 05/09/08
DATE REPORTED: 05/29/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-7D	MW-8	MW-7S
1. Chloromethane	0.18	1.0	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	1.60 J	2.20 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U
27. Toluene	0.13	1.0	0.20 J	0.30 J	0.30 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U

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

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6038 **Week:** 11

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

																			CHLORINE NEUTRALIZED AT COLLECTION
										L2	L2	L2	L2						pH CHECK (LAB)
										P	G	G	G						CONTAINER TYPE, P/G
										A	E	E	E						CHEMICAL PRESERVATION
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Alkalinity	Chloride	TDS	Sulfate	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2						PARAMETERS
MW-1S	4/30	3:30p		17c	7	■	■	■	■	■	■	■							
~~MW-2~~					4					■	■	■	■						
MW-3	4/30	7:15a		13°C	3					■	■	■							
MW-4		7:35a		14°C	3					■	■	■							
MW-5		7:55a		14°C	3					■	■	■							
MW-6		8:15a		16°C	3					■	■	■							
MW-7D		8:40a		15°C	3					■	■	■							
MW-8		9:40a		14°C	3					■	■	■							
MW-7S	↓	8:30a		13°C	3					■	■	■							
~~MW-9~~					3					■	■	■							

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

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

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

SAMPLES COLLECTED BY: (Please Print) CLARK WIPFIELD

SAMPLES RECEIVED IN LAB AT 02 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Clark Wipfield	4/30 5:00p	[illegible signature]	5-1-08 10:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:
MW-2 Dry
MW-9 unable to sample due to well damage
Samples located in two coolers
All samples Grab

Instructions for completing this form are on the reverse side.

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

FORM #5

№ 160548

Environment 1, Incorporated

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

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

REC'D JUN 02 2008

ID#: 6038 A

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 04/30/08
DATE REPORTED : 05/29/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	Leachate	Analysis Date	Analyst	Method Code
BOD, mg/l	2.0	2.0	--- U	05/01/08	TRB	SM5210B
COD, mg/l	10.0	10.0	141	05/12/08	TRB	HACH8000
Nitrate Nitrogen, mg/l	0.03	10.0	--- U	05/02/08	ANO	EPA353.2
Total Phosphorus, mg/l	0.04	0.04	0.52	05/05/08	TWA	EPA365.4
Sulfate, mg/l	5.0	250.0	6.9 J	05/02/08	TRB	SM4500-SO4E
Antimony, ug/l	0.08	6.0	0.2 J	05/08/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	1.6 J	05/08/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	136	05/08/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U	05/08/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	05/08/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	4.0 J	05/08/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	4.6 J	05/08/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	6.6 J	05/08/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.4 J	05/08/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	15 J	05/08/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	3.3 J	05/08/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	05/08/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	--- U	05/08/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	8.5 J	05/08/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	32	05/08/08	LFJ	EPA200.8

* QC for this test was outside established limits. Data is still reportable to the State.

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

Environment 1, Incorporated

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
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6038 A

ANALYST: MAO
DATE COLLECTED: 04/30/08
DATE ANALYZED: 05/09/08
DATE REPORTED: 05/29/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Leachate
1. Chloromethane	0.18	1.0	--- U
2. Vinyl Chloride	0.34	1.0	3.00
3. Bromomethane	0.26	10.0	--- U
4. Chloroethane	0.29	10.0	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U
7. Acetone	1.21	100.0	15.40 J
8. Iodomethane	0.12	10.0	--- U
9. Carbon Disulfide	0.14	100.0	--- U
10. Methylene Chloride	0.14	1.0	0.80 J
11. trans-1,2-Dichloroethene	0.13	5.0	0.20 J
12. 1,1-Dichloroethane	0.16	5.0	5.00
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	0.70 J
15. 2-Butanone	0.85	100.0	16.70 J
16. Bromochloromethane	0.11	3.0	--- U
17. Chloroform	0.13	5.0	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U
20. Benzene	0.16	1.0	0.90 J
21. 1,2-Dichloroethane	0.12	1.0	0.20 J
22. Trichloroethene	0.13	1.0	0.50 J
23. 1,2-Dichloropropane	0.17	1.0	0.40 J
24. Bromodichloromethane	0.13	1.0	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	1.60 J
27. Toluene	0.13	1.0	6.90
28. trans-1,3-Dichloropropene	0.14	1.0	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U
30. Tetrachloroethene	0.16	1.0	0.30 J
31. 2-Hexanone	1.00	50.0	1.40 J
32. Dibromochloromethane	0.14	3.0	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U
34. Chlorobenzene	0.13	3.0	0.70 J
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U
36. Ethylbenzene	0.16	1.0	5.40
37. Xylenes	0.48	5.0	18.90
38. Dibromomethane	0.17	10.0	--- U
39. Styrene	0.16	1.0	--- U
40. Bromoform	0.11	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	4.50
44. 1,2-Dichlorobenzene	0.13	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U
46. Acrylonitrile	1.49	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U

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

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6038 A **Week:** 11

DAVIDSON COUNTY (LINED)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	BOD	COD	Nitrate	T. Phosphorus	Sulfate	Metals	EPA 8260B	8260 Dup. 1
CHLORINE NEUTRALIZED AT COLLECTION													
pH CHECK (LAB)							<2		<2		<2	<2	<2
CONTAINER TYPE, P/G						P	P	P	P	P	P	G	G
CHEMICAL PRESERVATION						A	C	A	C	A	A	E	E
Leachate	4/30	1:15p		16°C	8								

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NATHIOSULFATE

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

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

SAMPLES COLLECTED BY: (Please Print) CLARK WIPFIELD

SAMPLES RECEIVED IN LAB AT 0.8 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Clark Wipfield	4/30 5:00	B Jefferson	5/1 10:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS: Grab Sample

Instructions for completing this form are on the reverse side.

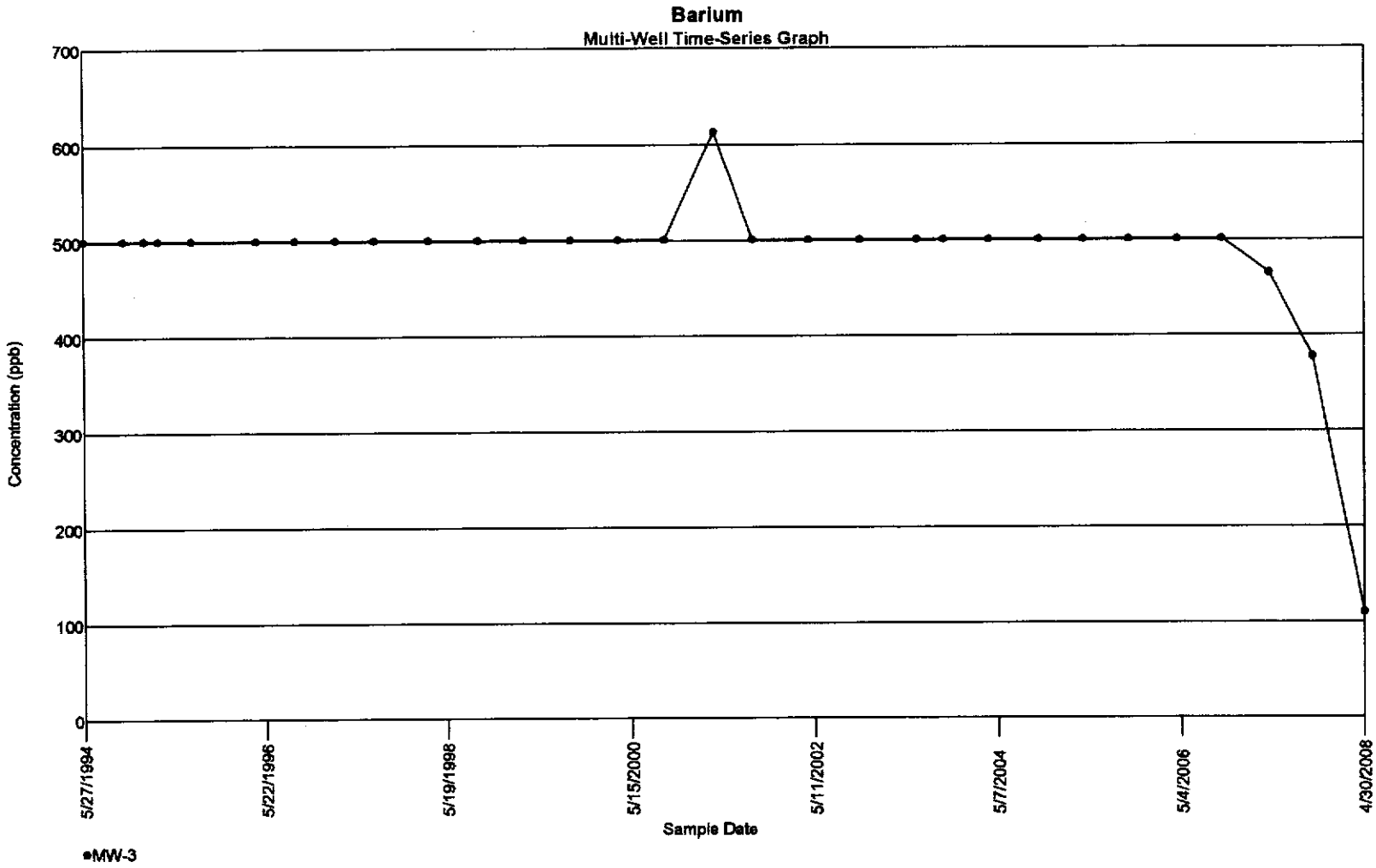
Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

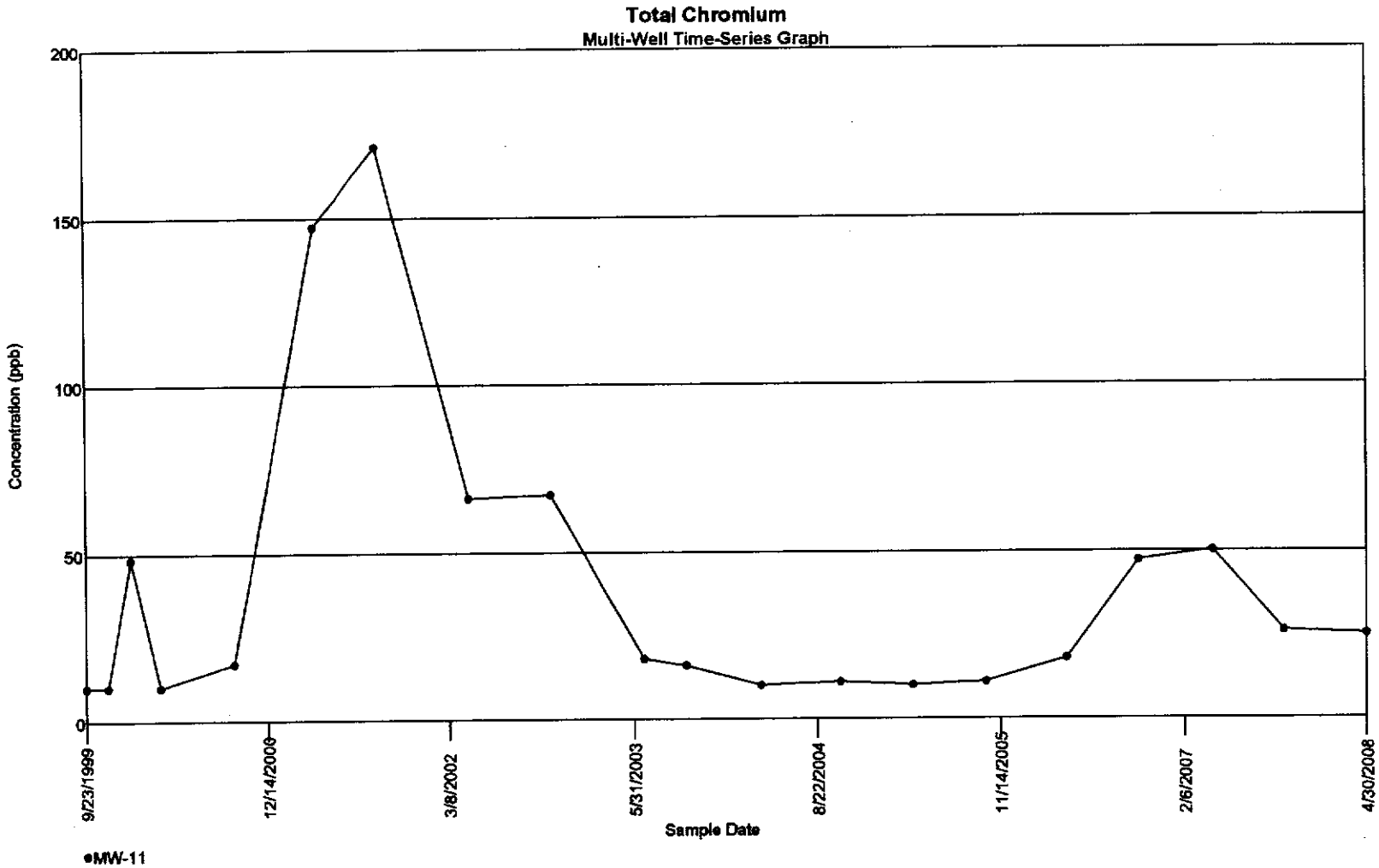
FORM #5

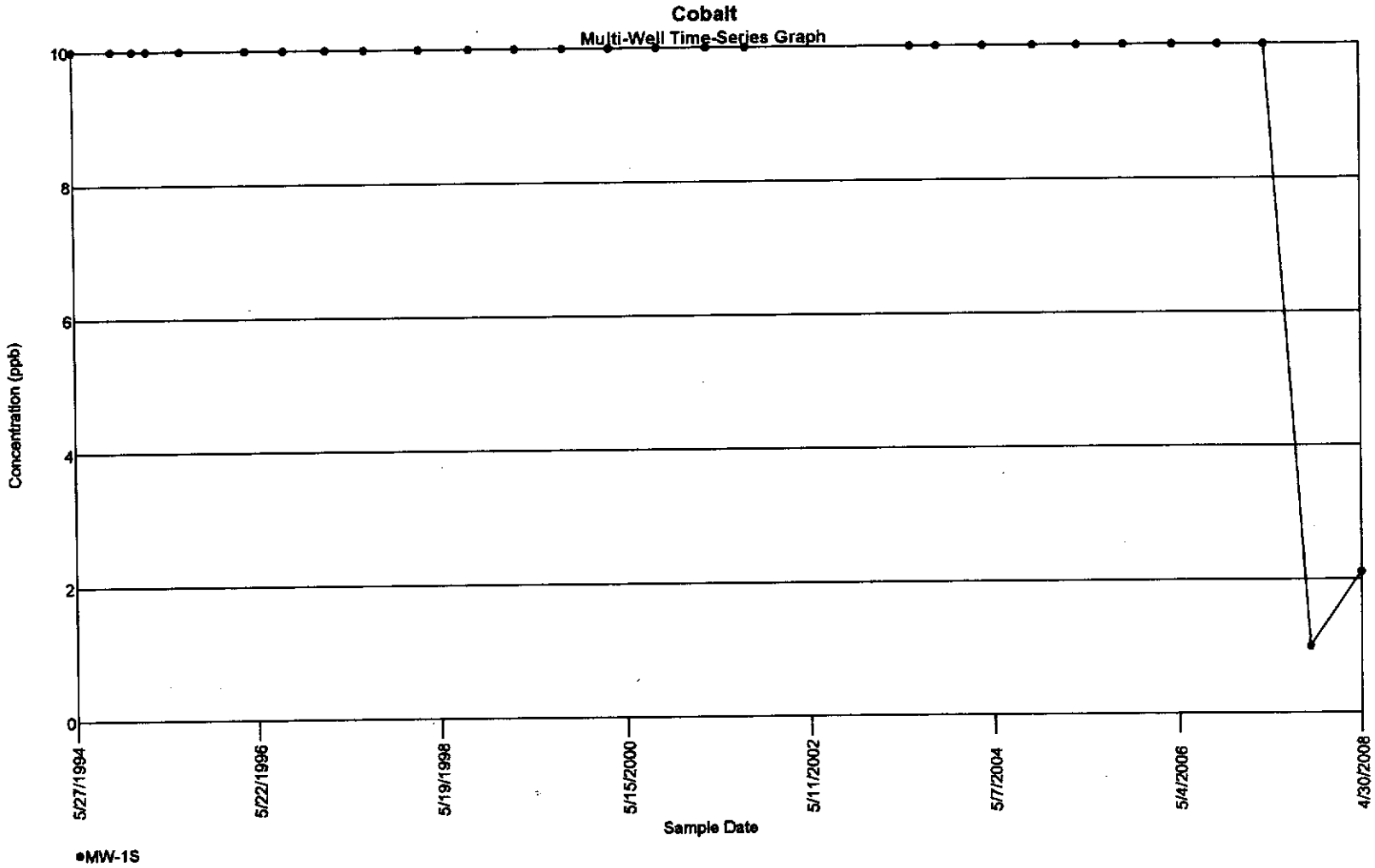
№ 160547

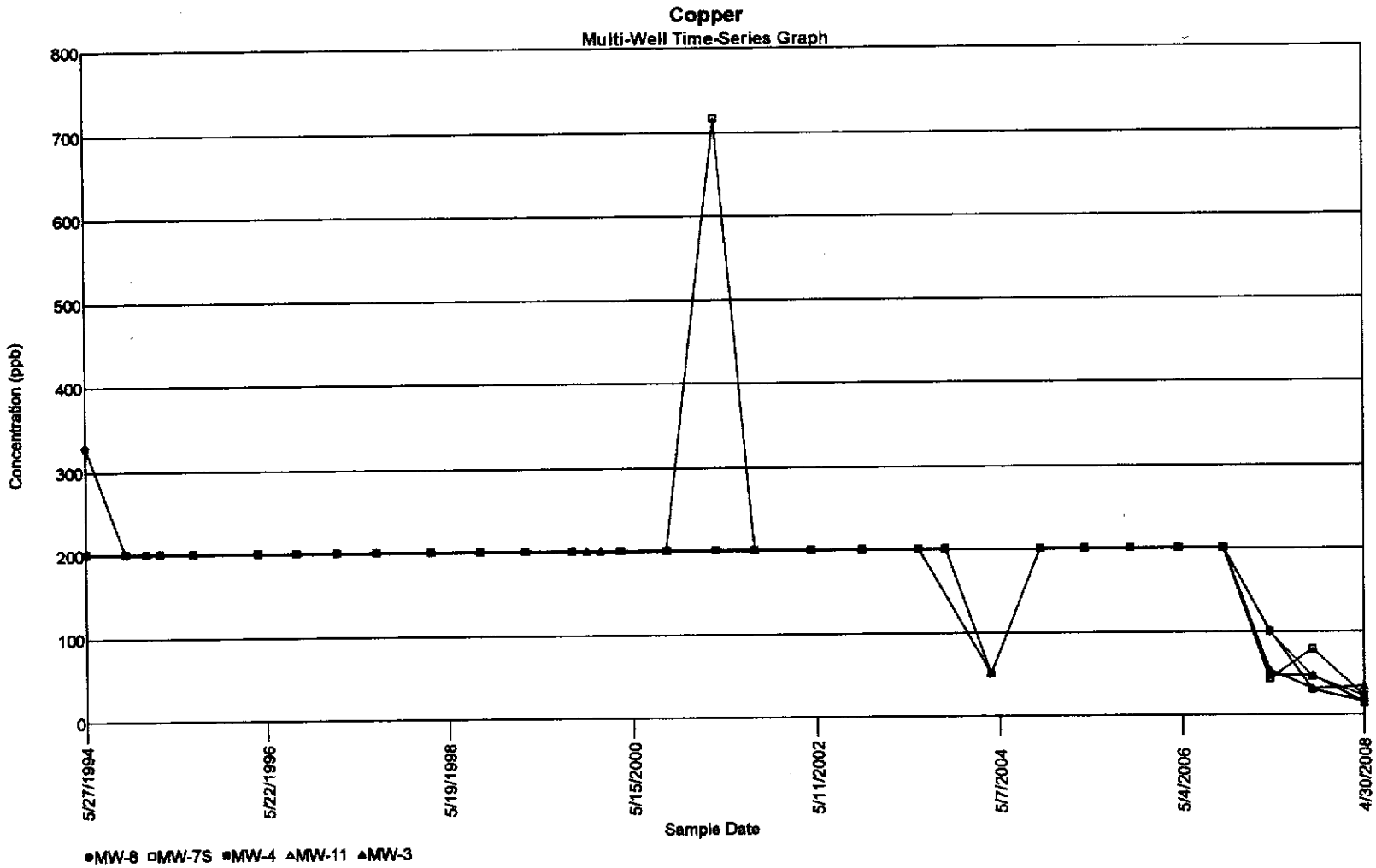
Appendix B

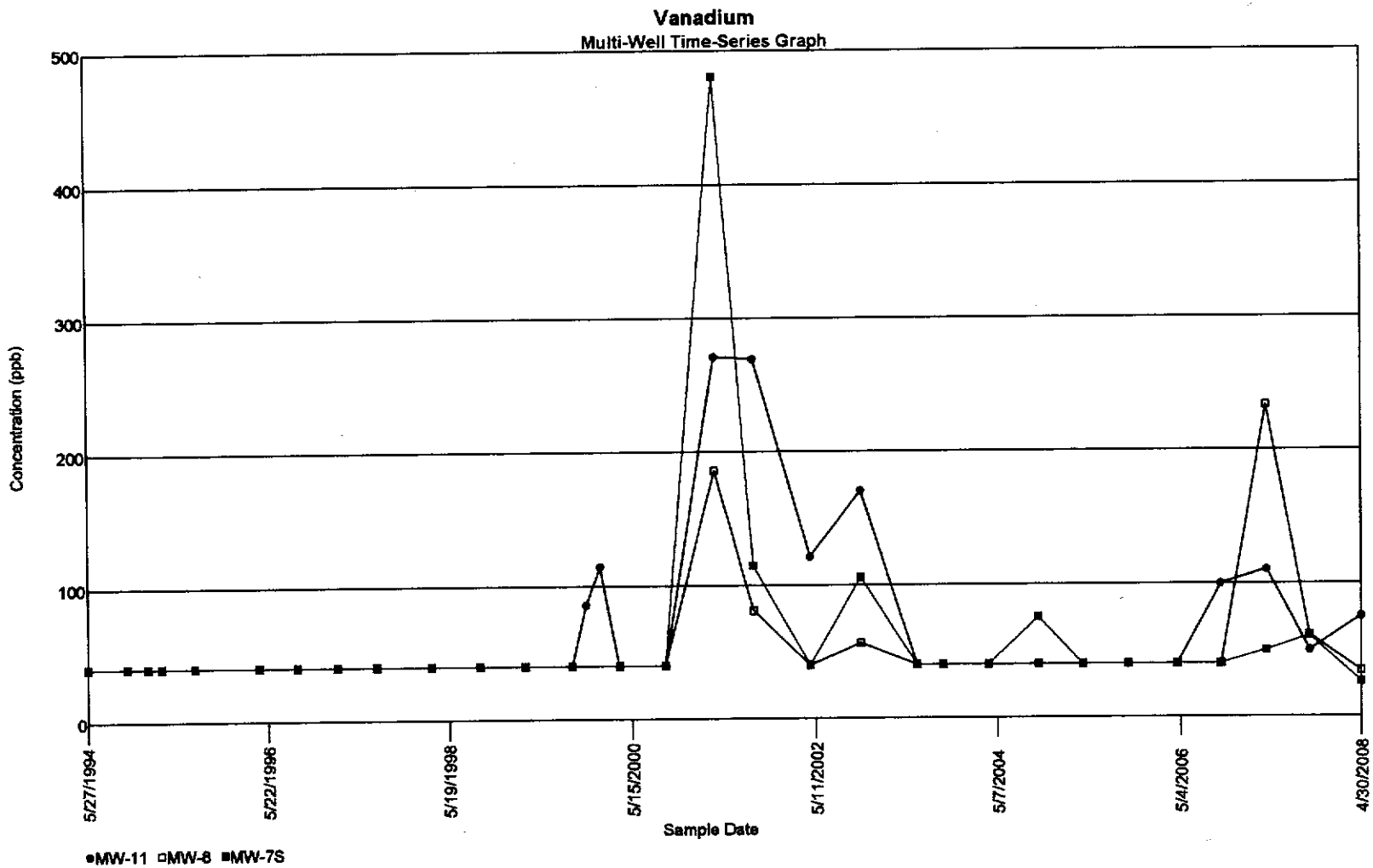
Time vs. Concentration Graphs

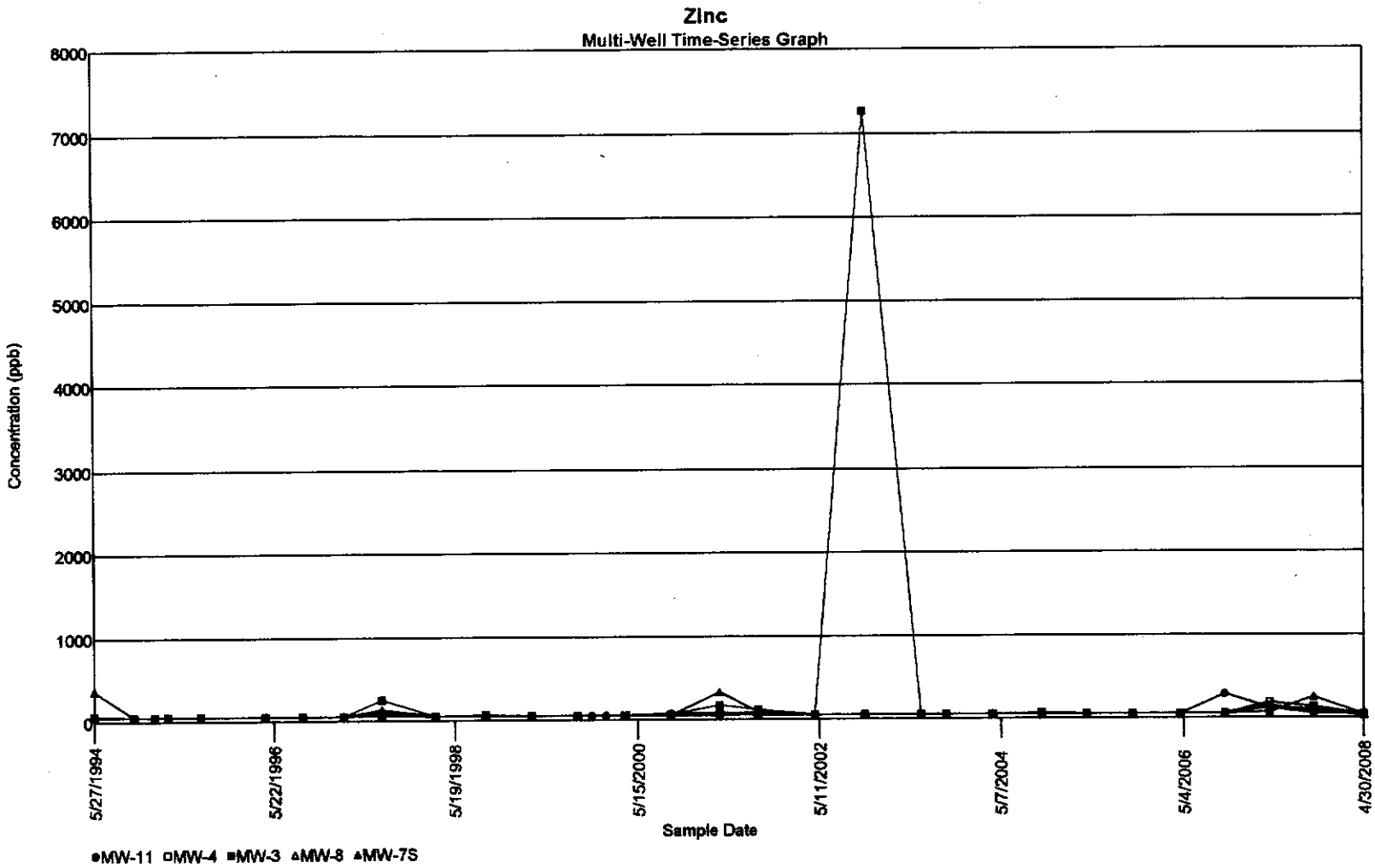

Barium
Multi-Well Time-Series Graph
Concentration (ppb)
700
600
500
400
300
200
100
0
5/27/1994
5/22/1996
5/19/1998
5/15/2000
5/11/2002
5/7/2004
5/4/2006
4/30/2008
Sample Date
•MW-3


Total Chromium
Multi-Well Time-Series Graph
Concentration (ppb)
200
150
100
50
0
9/23/1999
12/14/2000
3/8/2002
5/31/2003
8/22/2004
11/14/2005
2/6/2007
4/30/2008
Sample Date
MW-11


Cobalt
Multi-Well Time-Series Graph
Concentration (ppb)
10
8
6
4
2
0
5/27/1994
5/22/1996
5/19/1998
5/15/2000
5/11/2002
5/7/2004
5/4/2006
4/30/2008
Sample Date
MW-1S


Copper
Multi-Well Time-Series Graph
Concentration (ppb)
800
700
600
500
400
300
200
100
0
5/27/1994
5/22/1996
5/19/1998
5/15/2000
5/11/2002
5/7/2004
5/4/2006
4/30/2008
Sample Date
MW-8 MW-7S MW-4 MW-11 MW-3


Vanadium
Multi-Well Time-Series Graph
Concentration (ppb)
500
400
300
200
100
0
5/27/1994
5/22/1996
5/19/1998
5/15/2000
5/11/2002
5/7/2004
5/4/2006
4/30/2008
Sample Date
●MW-11 □MW-8 ■MW-7S


Zinc
Multi-Well Time-Series Graph
Concentration (ppb)
8000
7000
6000
5000
4000
3000
2000
1000
0
5/27/1994
5/22/1996
5/19/1998
5/15/2000
5/11/2002
5/7/2004
5/4/2006
4/30/2008
Sample Date
●MW-11 □MW-4 ■MW-3 △MW-8 ▲MW-7S