May 2014 Groundwater Monitoring Report

Chatham County Landfill
Pittsboro, North Carolina
NC Solid Waste Permit # 19-01

Prepared for:

Chatham County Environmental Quality Department
PO BOX 1550
Pittsboro, North Carolina 27312

May 2014

Prepared by:

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

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May 2014 Groundwater Monitoring Report

Chatham County Landfill
NC Solid Waste Permit #19-01

Prepared For:

Chatham County Environmental Quality Department
Pittsboro, North Carolina 27312

S+G Project No. CHATHAM 13-2

Madeline German, P.G.
Project Geologist

Joan Smyth, P.G.
Senior Hydrogeologist

May 2014

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Chatham County Landfill
Solid Waste Permit No. 19-01

May 2014 Water Quality Monitoring Report

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1.0 INTRODUCTION

The Chatham County Landfill located at 811 County Landfill Road in Pittsboro, North Carolina, operating under Solid Waste Permit #19-01, is required to submit semi-annual groundwater monitoring reports in accordance with 15A NCAC 13B.0544. This report presents the results from the sampling conducted on May 8, 2014.

The Chatham County Landfill facility contains a closed MSW landfill, a scrap metal area, scrap tire area, a yard-waste compost operation, the notified land clearing and inert debris (LCID) landfill (N0069) and the household hazardous waste (HHW) collection facility (19-04). White goods collections ceased at this facility in 2012. The MSW landfill is an approximately 80 acre unlined facility that ceased operation in 1993 per Solid Waste Regulations and the post closure conditions dated December 20, 1996.

This report includes a field procedure summary, summary tables, laboratory analyses and groundwater characterization.

2.0 SITE GEOLOGY

According to the 1985 Geologic Map of North Carolina, the Chatham County Landfill is located in Cambrian/Late Proterozoic age Felsic Metavolcanic Rock of the Charlotte Belt; defined as metamorphosed dacite, rhyolitic flows and tuffs, light gray to greenish gray and generally interbedded with mafic and intermediate metavolcanic rock, meta-argillite and metamudstone. The Geology of the Carolinas[1] describes the Charlotte Belt as "dominantly plutonic" mafic gneisses, amphibolites, metagabbros and metavolcanic rock. Due to the abundance of post-deformational plutions geologic structure is difficult to determine. Many Cambrian/Late Proterozoic age plutons have a massive interior and only show foliation near their contacts.

3.0 SAMPLING LOCATIONS

The groundwater monitoring network consists of five wells (MW-1 through MW-5) positioned around the landfill perimeter (**Figure 1**). Well depths range from 21 to 64 feet below top of casing.

Two surface water sampling points (SW-1 and SW-2) are located up and downstream of the landfill on Shoe Heel Creek, respectively. A trip blank (TB) was also submitted for quality control purposes. . Available well records are presented in **Appendix A**.

4.0 SAMPLING PROCEDURES

Sampling procedures followed the protocols set forth in 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 groundwater depth and then purged three to five well volumes or until dry. Field

1 Horton, J. Wright, and Zullo, Victor, A., The Geology of the Carolinas, University of Tennessee Press, 1991.

measurements for pH, specific conductivity turbidity and temperature were recorded at each well. Water table elevations are included in **Table 1**.

Samples were collected in laboratory prepared containers for the specified analytical procedures. Sampling equipment was cleaned in accordance with Solid Waste regulation or was used in sterilized form from the manufacturer. Groundwater samples were properly preserved, placed on ice and transported to the laboratory facility within the specified hold times for analysis.

5.0 FIELD & LABORATORY RESULTS

5.1 Field Results

Field parameters of pH, temperature and turbidity were collected by S+G personnel; data is presented in **Table 2**. May 2014 data is generally consistent with previously recorded field measurements at the site.

5.2 Laboratory Analysis & Results

Samples were transported to ESC Lab Sciences, Mount Juliet, TN, a North Carolina certified laboratory (NC Certification No.: Env375). Laboratory analysis for sampled locations included metals via EPA Test Method 6020A and Appendix I volatile organic compounds (VOCs) via EPA Test Method 8260B.

Analytical results were compared to the NC DWM Solid Waste Section Quantitation Limits (SWSLs) and 15A NCAC 2L.0200 (2LStandard). Constituents detected between the Method Detection Limit (MDL) and Report Detection Limit (RDL) are denoted as "J" values by the laboratory. Values reported below the MDL are considered non-detect.

The laboratory analytical report is included as **Appendix B**.

5.2.1 Inorganic Constituent Results

Nine inorganic constituents: barium, beryllium, cobalt, chromium, copper, lead, nickel, vanadium and zinc were reported above the SWSL. Of these, the following were detected at concentrations above the 2L groundwater standard:

- chromium (MW-3) and
- lead (MW-3).

Inorganic concentrations can be attributed to high sample turbidity. The majority of inorganic detections were non-quantifiable "J-values" or below the SWSL. Inorganic detections are summarized in **Table 3**.

5.2.2 Organic Constituent Results

Four organic constituents were detected above the SWSL: 1,4 dichlorobenzene, benzene, chlorobenzene and vinyl chloride. Of these, the following constituents were detected above the 2L standard:

- benzene (MW-2 and MW-4); and
- vinyl chloride (MW-4).

Methylene chloride was reported as a J-value concentration in all the ground and surface water samples submitted for this event. Due to the consistency in concentration and volume this is likely laboratory contamination and not representative of the landfill conditions. Organic detections are summarized in **Table 4**.

5.2.3 Surface Water Results

For this event the sampling location for SW-1 was moved north approximately 300 feet to a location upgradient of the landfill at the property line. Future samples will be collected from this true, upgradient position. **Figure 1** shows the revised SW-1 position.

Surface water results indicated no inorganic constituents were detected above the 15a NCAC 2B.0200 criteria(2B Standards for Class C Waters). Organic concentrations for SW-1 and SW-2 were either below MDLs or "J"-values. Toluene concentrations from the November event were not repeated. Surface water results are presented in **Tables 3 and 4**.

6.0 GROUNDWATER CHARACTERIZATION

A potentiometric surface map was prepared from groundwater elevations for this sampling event. In general, groundwater is flowing east toward Shoe Heel Creek. This is consistent with groundwater flow patterns previously reported for the site. The potentiometric surface map is attached as **Figure 1**.

Groundwater flow velocities were calculated for monitoring wells MW-1 through MW-5 using the equation:

$$V = KI/n$$

Where: K = hydraulic conductivity
I = groundwater gradient
n = porosity

Groundwater flow velocities averaged 0.0172 (ft/day). Calculated flow velocities are included in **Table 1**.

7.0 CONCLUSIONS

Laboratory results indicated that water quality at the Chatham County Landfill is generally consistent with reported historical detections. Metals detections are likely due to naturally occurring conditions in conjunction with high sample turbidity levels that influence analytical results. Flow direction remains consistent with reported historical observations. The facility will continue semi-annual monitoring with the next event scheduled for November 2014.

FIGURE

May 2014 Groundwater Monitoring Report
Chatham County Landfill
Solid Waste Permit No. 19-01

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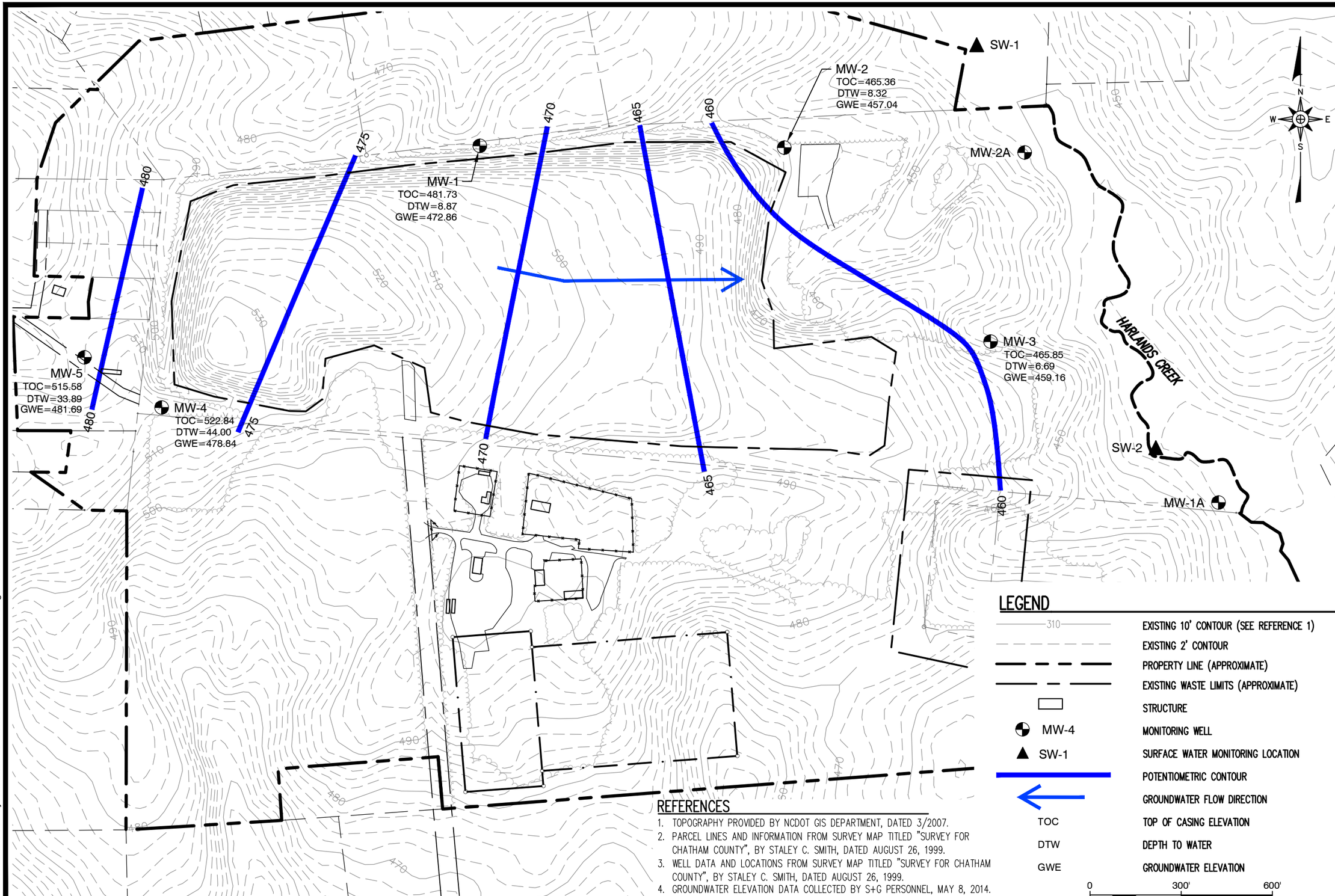

LEGEND

310	EXISTING 10' CONTOUR (SEE REFERENCE 1)
	EXISTING 2' CONTOUR
	PROPERTY LINE (APPROXIMATE)
	EXISTING WASTE LIMITS (APPROXIMATE)
	STRUCTURE
MW-4	MONITORING WELL
SW-1	SURFACE WATER MONITORING LOCATION
	POTENTIOMETRIC CONTOUR
	GROUNDWATER FLOW DIRECTION
TOC	TOP OF CASING ELEVATION
DTW	DEPTH TO WATER
GWE	GROUNDWATER ELEVATION

0 300' 600'

REFERENCES

1. TOPOGRAPHY PROVIDED BY NCDOT GIS DEPARTMENT, DATED 3/2007.
2. PARCEL LINES AND INFORMATION FROM SURVEY MAP TITLED "SURVEY FOR CHATHAM COUNTY", BY STALEY C. SMITH, DATED AUGUST 26, 1999.
3. WELL DATA AND LOCATIONS FROM SURVEY MAP TITLED "SURVEY FOR CHATHAM COUNTY", BY STALEY C. SMITH, DATED AUGUST 26, 1999.
4. GROUNDWATER ELEVATION DATA COLLECTED BY S+G PERSONNEL, MAY 8, 2014.

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PREPARED BY:

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

DRAWN:	APPROVED:	SCALE:	FIGURE NO.
J.A.L.	M.M.G.	AS SHOWN	1

DATE:	PROJECT NO:	FILENAME:
May 2014	CHATHAM 13-2	CHATHAM-B0030

PREPARED FOR:

CHATHAM COUNTY LANDFILL
GROUNDWATER MONITORING REPORT
MAY 2014

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TABLES

May 2014 Groundwater Monitoring Report
Chatham County Landfill
Solid Waste Permit No. 19-01

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SMITH+GARDNER

By: MG
Date: 5/19/2014

Table 1
Ground Water Elevations Velocities
Chatham County Landfill
May 8, 2014

Well	Northing	Easting	TOC Elevation (feet)	Water Level (feet)	Groundwater Elevation (feet)	Hydraulic Conductivity (ft/day)	Porosity (%)	Gradient	Velocity (ft/day)
MW-1	726366	1921848	481.73	8.87	472.86	7.1	0.45	0.0143	0.226
MW-2	726360	1922850	465.36	8.32	457.04	7.1	0.45	0.0185	0.292
MW-3	725722	1623529	465.85	6.69	459.16	7.1	0.45	0.0140	0.221
MW-4	725505	1929801	522.84	44.00	478.84	7.1	0.45	0.0055	0.087
MW-5	725670	1920547	515.58	33.89	481.69	7.1	0.45	0.0338	0.533

Notes Velocity Calculated from V=K*I/n

V = velocity
K = Hydraulic Conductivity
I = Gradient
n = Porosity

Estimated hydraulic conductivity and porosity values assumed from Groundwater and Wells (Driscoll)
Gradient measured from Figure 1 Potentiometric Contour Map
Northing and Easting coordinates from Engineering & Environmental Science Compnay 5/11/2009 Methane Monitoring Site Plan drawing 1
Top of Casing elevation from December 11, 2012 Engineering & Environmental Science Compnay Monitoring Report
Water level data measured by Smith Gardner, Inc. personnel.
N/A=Data Not Available

SMITH+GARDNER

By: MG
Date: 05/19/2014

Table 2
Field Parameter Results
Chatham County Landfill
May 8, 2014

Well	pH (Std Units)	Specific Conductivity (umhos/cm)	Temperature (Celsius)	Turbidity (NTU)
MW-1	5.94	1340	23.2	32.3
MW-2	6.09	1080	17.8	88.40
MW-3	6.01	160	17.4	*
MW-4	6.20	2570	20.3	35.70
MW-5	6.03	150	19.5	73.6
SW-1	6.83	170	18.7	7.03
SW-2	7.1	100	21.1	7.12

Notes:
1. Field data measured by experienced Smith Gardner, Inc. personnel, May 8, 2014.
2. * indicated exceeded equipment calibration

SMITH+GARDNER

By: SH
Date: 5/19/2014

Table 3
Detected Inorganic Constituents
Chatham County Landfill
May 8, 2014

Parameter	MDL	SWSL	2L / GWP	2B	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
Antimony	0.21	6	1 §	640	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Arsenic	0.25	10	10	10	0.82 J	5.1	5.4	7.4	1.2	<0.25	0.42 J
Barium	0.36	100	700	2000000	**140**	**330**	**180**	63	6.4	22	21
Beryllium	0.12	1	4 §	6.5	<0.12	<0.12	**3**	<0.12	0.18 J	<0.12	<0.12
Cadmium	0.16	1	2	2	<0.16	<0.16	0.19 J	<0.16	<0.16	<0.16	<0.16
Cobalt	0.26	10	1 §	270	2.6	8.3	**12**	**12**	<0.26	<0.26	<0.26
Copper	0.52	10	1000	7	0.63 J	<0.52	**16**	0.69 J	0.55 J	<0.52	<0.52
Total Chromium	0.54	10	10	50	2.2	3.3	**20**	5	<0.54	<0.54	<0.54
Lead	0.24	10	15	25	<0.24	0.33 J	**37**	0.78 J	2.4	<0.24	<0.24
Nickel	0.35	50	100	88	**61**	2.6	6.6	5.9	<0.35	<0.35	<0.35
Selenium	0.38	10	20	5	3.3	3.9	2.5	7.5	1.1	0.62 J	0.62 J
Silver	0.31	10	20	0.06	0.61 J	<0.31	<0.31	<0.31	<0.31	<0.31	<0.31
Thallium	0.19	5.5	0.28 §	0.47	<0.19	<0.19	0.2 J	<0.19	<0.19	<0.19	<0.19
Vanadium	0.18	25	0.3 §	NE	4.1	3	**34**	4.1	2.9	2.2	2.2
Zinc	2.60	10	1000	50	<2.6	10	**170**	8.2 J	6.2 J	<2.6	<2.6

SWSL - Solid Waste Section Quantitation Limits
2L - Groundwater Standards (15A NCAC 2L 0200)
GWP - Groundwater Protection Standards (noted by §)
2B - 15A NCAC 2B.0200 et. seq. Standard for Class C waters
MDL - Method Detection Limit
Shading - Detection above 2L Standard
Bold Letters - Constituents detected above SWSL
J - Detected concentration between MDL and RDL limit therfore is an estimated value.
< MDL - Not detected at or above MDL
NA - Not Analyzed

Table units are presented in ug/l.
Lab data analysis by ESC Lab Sciences report #L698359 dated 5/15/2014 and #L698358 dated 5/19/2014.

SMITH+GARDNER

By: SH
Date: 5/19/2014

Table 4
Detected Organic Constituents
Chatham County Landfill
May 8, 2014

Parameter	MDL	SWSL	2L	2B	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
1,1-Dichloroethane	0.26	5	6	NE	0.66 J	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
1,4-Dichlorobenzene	0.27	1	6	NE	0.67 J	1	<0.27	**1.9**	<0.27	<0.27	<0.27
2-Butanone	3.9	100	4000	NE	<3.9	<3.9	7 J	<3.9	<3.9	<3.9	<3.9
Acetone	10.0	100	6000	NE	<10	<10	13 J	<10	<10	<10	<10
Benzene	0.33	1	1	51	<0.33	**1.8**	<0.33	**1.5**	<0.33	<0.33	<0.33
Chlorobenzene	0.35	3	50	NE	<0.35	**3.4**	<0.35	2.7	<0.35	<0.35	<0.35
Chloroethane	0.45	10	3000	NE	<0.45	0.49 J	<0.45	2.8 J	<0.45	<0.45	<0.45
cis-1,2-Dichloroethene	0.26	5	70	NE	<0.26	<0.26	<0.26	1.1	<0.26	<0.26	<0.26
Methylene Chloride	1.00	1	5	590	1.2 J	1.4 J	1.3 J	1.3 J	1.3 J	1.2 J	1.2 J
Tetrahydrofuran	1.80	NE	NE	NE	<1.8	1.8 J	<1.8	3.4 J	<1.8	<1.8	<1.8
Vinyl chloride	0.26	1	0.03	2.4	<0.26	<0.26	<0.26	**1.4**	<0.26	<0.26	<0.26

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

Table units are presented in ug/l.
Lab data analysis by ESC Lab Sciences report #L698359 dated 5/15/2014 and #L698358 dated 5/19/2014.

APPENDIX A

Monitoring Well Information

May 2014 Groundwater Monitoring Report
Chatham County Landfill
Solid Waste Permit No. 19-01

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REC'D JAN 26 2009

NON RESIDENTIAL WELL CONSTRUCTION RECORD

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

WELL CONTRACTOR CERTIFICATION # 2089

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

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW 5
WELL CONSTRUCTION PERMIT#(if applicable)
OTHER ASSOCIATED PERMIT #(if applicable)

3. WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐ Irrigation ☐ Other ☐ (list use)
DATE DRILLED 1-14-09
TIME COMPLETED 1-15-09 AM ☒ PM ☐

4. WELL LOCATION:
CITY: Pittsboro COUNTY Chatham
720 County Landfill Rd. Pittsboro
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35° 44' 32.22" N
LONGITUDE 79° 16' 5.62" W
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☒ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Chatham Co. Landfill
STREET ADDRESS 720 County Landfill Rd.
Pittsboro N.C. 27312
City or Town State Zip Code
CONTACT PERSON Robert Holden
MAILING ADDRESS 720 County Landfill Rd
Pittsboro N.C. 27312
City or Town State Zip Code
(919) 542-5516
Area code - Phone number

6. WELL DETAILS:
a. **TOTAL DEPTH:** 47.0
b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒
c. **WATER LEVEL** Below Top of Casing: 35.0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** 3.0 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. **YIELD (gpm):** _____ **METHOD OF TEST** _____
f. **DISINFECTION: Type** _____ **Amount** _____
g. **WATER ZONES** (depth):
From ____ To ____ From ____ To ____
From ____ To ____ From ____ To ____
From ____ To ____ From ____ To ____

7. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3.0	To 37.0	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

8. GROUT:

	Depth		Material	Method
From 0.0	To 32.0	Ft.	Portland	Tremie
From 32.0	To 35.0	Ft.	Bentonite	
From	To	Ft.		

9. SCREEN:

	Depth		Diameter	Slot Size	Material
From 37.0	To 47.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

10. SAND/GRAVEL PACK:

	Depth		Size	Material
From 35.0	To 47.0	Ft.	#2	Sand
From	To	Ft.		
From	To	Ft.		

11. DRILLING LOG

From	To	Formation Description

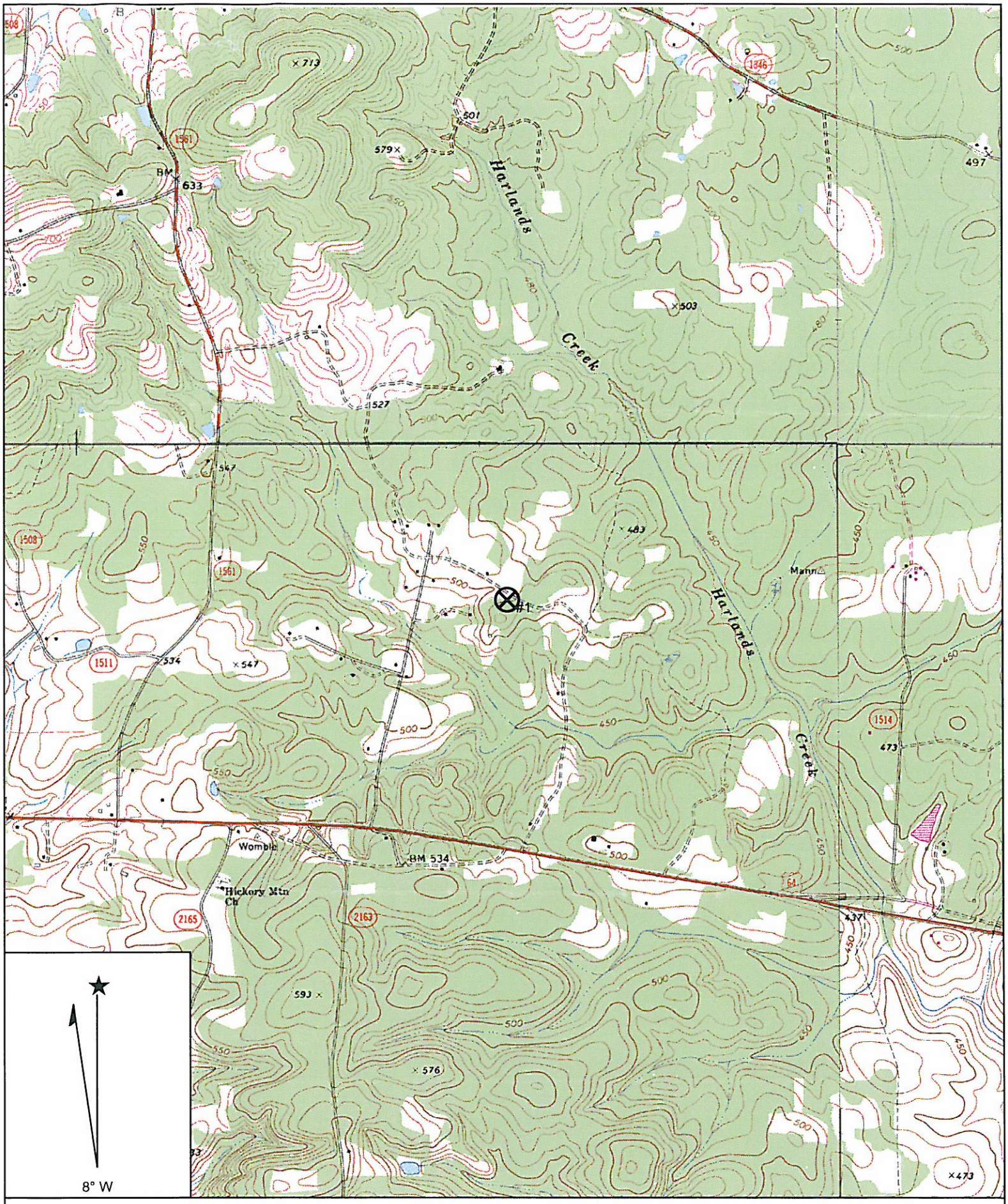
12. REMARKS:

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

David Barron — 1-16-09
SIGNATURE OF CERTIFIED WELL CONTRACTOR — DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

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

Form GW-1b
Rev. 3/07



Name: SILER CITY NE
Date: 1/23/2009
Scale: 1 inch equals 2000 feet

Location: 035° 44' 34.5" N 079° 16' 05.8" W

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

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-5**

PROJECT NAME: **Chatham County Landfill**
LOACATION: **Pittsboro, NC**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **AR/AH**
FIELD PARTY: **D. Barron**
GEOLOGIST: **J. Smyth**
DATE BEGUN: **1/14/09** COMPLETED: **1/14/09**

TOTAL DEPTH: **47**
TOP OF CASING ELEVATION: 515.58
GROUND SURFACE ELEVATION

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

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0				AR	CLAYEY SILT: Dry, red clayey silt to silty clay. Iron stained.		0.0	
3.0	7,8,11	SS	18"				3.0	
8.0	7,8,9	SS	10"		CLAYEY SILT: Dry, red clayey silt to silty clay. Iron and Mn stained.		8.0	
13.0	8,9,11	SS	18"				13.0	
18.0	14,20,20	SS	12"		CLAYEY SILT: Dry, greenish brown clayey silt. Some Mn staining.		18.0	
23.0	32,50/4	SS	10"		CLAYEY SILT: Dry, greenish brown clayey silt to silty clay.		23.0	
28.0	26,50/4	SS	6"		CLAYEY SILT: Dry, greenish brown clayey silt to silty clay. Trace of very fine sand.		28.0	

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

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-5**

PROJECT NAME: **Chatham County Landfill**
LOACATION: **Pittsboro, NC**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **AR/AH**
FIELD PARTY: **D. Barron**
GEOLOGIST: **J. Smyth**
DATE BEGUN: **1/14/09** COMPLETED: **1/14/09**

TOTAL DEPTH: **47**
TOP OF CASING ELEVATION: 515.58
GROUND SURFACE ELEVATION

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

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
30.0							30.0	
31.0							31.0	
32.0							32.0	
33.0		Grab		AH	MAFIC METAVOLCANIC: Mafic metavolcanic bedrock. At 37', wet mafic metavolcanic bedrock. Water coming out up out of hole. Borehole producing water while drilling. Fracture indications (air hammer sputtering) around 40' and 43'. Boring terminated at 47' and well set.		33.0	
34.0							34.0	
35.0							35.0	
36.0							36.0	
37.0		Grab					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	
46.0							46.0	
47.0							47.0	

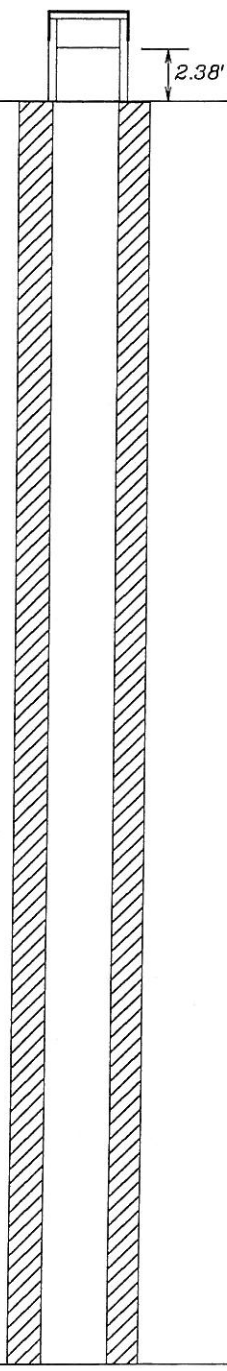
Potable wells depths: 200', 285', 380'
6" wells

CLIENT: HOBBS UPCHURCH & ASSOCIATES
BORING NO.: 4N DATE: 06/16/97
PROJECT NAME: CHATHAM Co. LANDFILL
JOB NO.:
PROJECT LOCATION: CHATHAM Co., NC
STATION:
BORING METHOD: 8" O.D. HSA & 3.5" AIR ROTARY
FOREMAN: STEVEN
ROCK CORE DIA.:
INSPECTOR: PAT SHILLINGTON
SHELBY TUBE O.D.:

SURFACE ELEVATION: 522.84'

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT BLOWS/6 in.	**SPT RECOVERY %	*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF
	Reddish-brown silty CLAY (CL), damp to moist.	4'						
5	Brown, minor gray mottling silty CLAY (CL) to clayey SILT (ML), damp to moist.	9'	1	8 14/19				
10	Brown clayey SILT (ML), moist. (Saprolite to Partly Weathered Rock)		2	35 50/1"				
15	Slight moisture seepage at 17 ft.	18.0'						
20	Brown CONGLOMERATE. (Partly Weathered Rock)							
25								
30								
35	Continued on page 2							

WELL DIAGRAM



BORING METHOD
HSA – HOLLOW STEM AUGER
CFA – CONTINUOUS FLIGHT AUGER
DC – DRIVEN CASING
MD – MUD DRILLING
RC – ROCK CORING

*ORGANIC VAPOR METER, PARTS PER MILLION
**STANDARD PENETRATION TEST

GROUND WATER
NOTED ON RODS ____ FT.
AT COMPLETION ____ FT.
AFTER ____ HRS. ____ FT.
AFTER ____ HRS. ____ FT.
AFTER ____ HRS. ____ FT.
AFTER ____ HRS. ____ FT.

CLIENT: HOBBS UPCHURCH & ASSOCIATES

BORING NO.: 4N count. DATE: 06/16/97

PROJECT NAME: CHATHAM Co. LANDFILL

JOB NO.:

PROJECT LOCATION: CHATHAM Co., NC

STATION:

BORING METHOD: 8" O.D. HSA & 3.5" AIR ROTARY

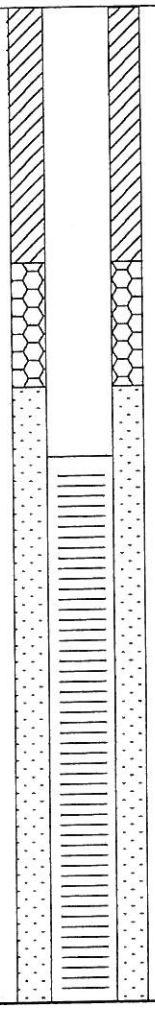
FOREMAN: STEVEN

ROCK CORE DIA.:

INSPECTOR: PAT SHILLINGTON

SHELBY TUBE O.D.:

DEPTH (ft)	DESCRIPTION & REMARKS SURFACE ELEVATION: 522.84'	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT BLOWS/6 in.	**SPT RECOVERY %	*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	Brown CONGLOMERATE (Continued from Page 1)	37'							
40	Graysih-green SILTSTONE to MUDSTONE, with random highly cemented layers. (Partly Weathered Rock)								
45									
50	Moisture seepage at 48 ft.								
55									
60		62.5'							
65	Hollow stem augering to 12 ft. Air Rotary drilling there after. Boring drilled to 35 ft. and well installed on 04/02/97. Well dry on 04/21/97. On 06/16/97 well material removed and boring extended to 62.5 ft.								
70									



BORING METHOD

HSA – HOLLOW STEM AUGER
CFA – CONTINUOUS FLIGHT AUGER
DC – DRIVEN CASING
MD – MUD DRILLING
RC – ROCK CORING

*ORGANIC VAPOR METER, PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS ____ FT.
AT COMPLETION ____ FT.
AFTER ____ HRS. ____ FT.
AFTER ____ HRS. ____ FT.
AFTER ____ HRS. ____ FT.
AFTER ____ HRS. ____ FT.
AFTER ____ HRS. ____ FT.

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27687 - RALEIGH, NC 27611-7687
PHONE (919)733-3221

FOR OFFICE USE ONLY
Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

MW-4N

DRILLING CONTRACTOR: ABC
DRILLER REGISTRATION NUMBER: 1747
STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Approximately 4 miles west of Pittsboro on Hwy 64
(Road, Community, or Subdivision and Lot No.)
County: Chatham

2. OWNER: Chatham Co.
ADDRESS: P.O. Box 87 (Street or Route No.)
Pittsboro (City or Town) NC (State) 27312 (Zip Code)

3. DATE DRILLED: 06/16/97 USE OF WELL: monitoring
4. TOTAL DEPTH: 62.5 CUTTINGS COLLECTED: ☐ Yes ☒ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: ≈49 FT. ☒ above ☐ below TOP OF CASING.
TOP OF CASING IS 2.38 FT. ABOVE LAND SURFACE.
7. YIELD (gpm): ≈0.5 METHOD OF TEST: est.
8. WATER ZONES (depth): 49-62.5
9. CHLORINATION: Type N/A Amount _____

DRILLING LOG

Depth From	To	Formation Description
0	4	Clay
4	14	silty
14	62.5	bedrock

If additional space is needed use back of form.

10. CASING:

Depth From	To	Diameter	Wall Thickness or Weight/Ft.	Material
+2.38	47.5	2"	Sch. 40	PVC

11. GROUT:

Depth From	To	Material	Method
0	4	Sand-Cement	
40	45.5	Bentonite	

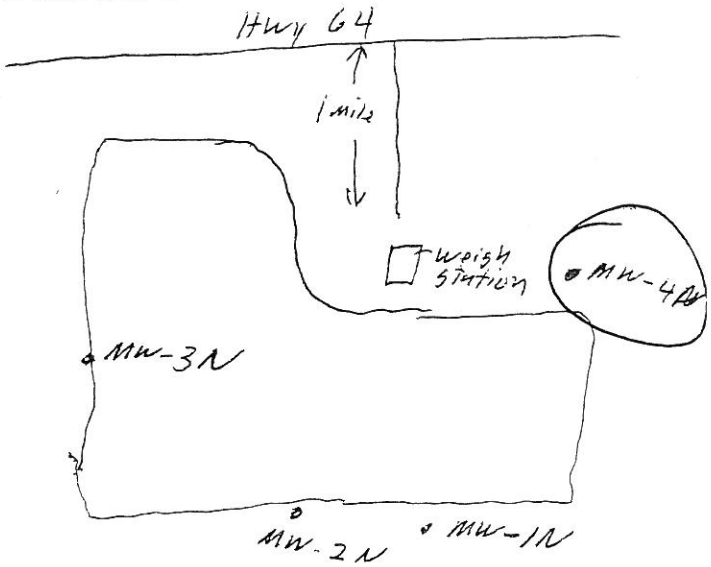
12. SCREEN:

Depth From	To	Diameter	Slot Size	Material
47.5	62.5	2"	0.01 in.	PVC

13. GRAVEL PACK:

Depth From	To	Size	Material
45.5	62.5	No. 2	quartz

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



14. REMARKS.

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

SIGNATURE OF CONTRACTOR OR AGENT — DATE: 06/18/97

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REVISED 2/90

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27687 - RALEIGH, NC 27611-7687
PHONE (919)733-3221

FOR OFFICE USE ONLY
Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

MW-3N

DRILLING CONTRACTOR: ABC
DRILLER REGISTRATION NUMBER: 1747
STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Approximately 4 miles west of Pittsboro on Hwy 64
(Road, Community, or Subdivision and Lot No.)
County: Chatham

2. OWNER: Chatham Co.
ADDRESS: P.O. Box 87 (Street or Route No.)
Pittsboro (City or Town) NC (State) 27312 (Zip Code)

3. DATE DRILLED: 04/01/97 USE OF WELL: monitoring
4. TOTAL DEPTH: 20 CUTTINGS COLLECTED: ☐ Yes ☒ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: _____ FT. ☐ above ☒ below TOP OF CASING.
TOP OF CASING IS 2.5 FT. ABOVE LAND SURFACE.
7. YIELD (gpm): <0.25 METHOD OF TEST: est.
8. WATER ZONES (depth): 8-20
9. CHLORINATION: Type N/A Amount _____

10. CASING:

	Depth From	To	Diameter	Wall Thickness or Weight/Ft.	Material
	0	5	2"	Sch. 40	PVC

11. GROUT:

	Depth From	To	Material	Method
	0	3	Sand-Cement	
	3	4	Bentonite	

12. SCREEN:

	Depth From	To	Diameter	Slot Size	Material
	5	20	2"	0.01 in.	PVC

13. GRAVEL PACK:

	Depth From	To	Size	Material
	4	20	No. 2	quartz

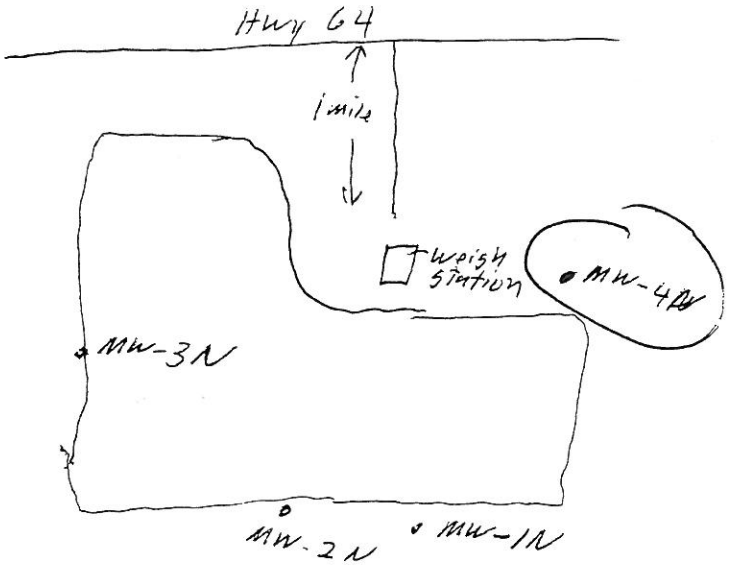
14. REMARKS: _____

DRILLING LOG

Depth From	To	Formation Description
0	8	Clay
8	12	silt
12	20	bedrock

If additional space is needed use back of form.

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



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

SIGNATURE OF CONTRACTOR OR AGENT _____ DATE 04/04/97

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REVISED 2/90

APPENDIX B

Laboratory Analytical Results

May 2014 Groundwater Monitoring Reports
Chatham County Landfill
Solid Waste Permit No. 19-01

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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

Report Summary

Monday May 19, 2014

Report Number: L698358
Samples Received: 05/12/14
Client Project:

Description: Chatham 13-2

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: John Hawkins

John Hawkins , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

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Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-01

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-1

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 11:57

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Antimony	U	0.21	1.0	ug/l	6020	05/16/14	1	6
Arsenic	0.82	0.25	1.0	ug/l	6020	05/15/14	1	10
Barium	140	1.8	10.	ug/l	6020	05/16/14	5	
Beryllium	U	0.12	1.0	ug/l	6020	05/15/14	1	1
Cadmium	U	0.16	0.50	ug/l	6020	05/15/14	1	1
Chromium	2.2	0.54	2.0	ug/l	6020	05/15/14	1	
Copper	0.63	0.52	2.0	ug/l	6020	05/15/14	1	10
Cobalt	2.6	0.26	1.0	ug/l	6020	05/15/14	1	10
Lead	U	0.24	1.0	ug/l	6020	05/15/14	1	10
Nickel	61.	0.35	1.0	ug/l	6020	05/15/14	1	
Selenium	3.3	0.38	1.0	ug/l	6020	05/15/14	1	10
Silver	0.61	0.31	1.0	ug/l	6020	05/15/14	1	
Thallium	U	0.19	1.0	ug/l	6020	05/15/14	1	5.5
Vanadium	4.1	0.18	2.0	ug/l	6020	05/15/14	1	
Zinc	U	2.6	10.	ug/l	6020	05/15/14	1	10
Volatile Organics								
Acetone	U	10.	50.	ug/l	8260B	05/16/14	1	100
Acrylonitrile	U	1.9	10.	ug/l	8260B	05/16/14	1	200
Benzene	U	0.33	1.0	ug/l	8260B	05/16/14	1	1
Bromochloromethane	U	0.52	1.0	ug/l	8260B	05/16/14	1	3
Bromodichloromethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Bromoform	U	0.47	1.0	ug/l	8260B	05/16/14	1	3
Bromomethane	U	0.87	5.0	ug/l	8260B	05/16/14	1	10
Carbon disulfide	U	0.28	1.0	ug/l	8260B	05/16/14	1	100
Carbon tetrachloride	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Chlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	3
Chlorodibromomethane	U	0.33	1.0	ug/l	8260B	05/16/14	1	3
Chloroethane	U	0.45	5.0	ug/l	8260B	05/16/14	1	10
Chloroform	U	0.32	5.0	ug/l	8260B	05/16/14	1	5
Chloromethane	U	0.28	2.5	ug/l	8260B	05/16/14	1	1
Dibromomethane	U	0.35	1.0	ug/l	8260B	05/16/14	1	10
1,2-Dibromo-3-Chloropropane	U	1.3	5.0	ug/l	8260B	05/16/14	1	
1,2-Dibromoethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	
1,2-Dichlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	5
1,4-Dichlorobenzene	0.67	0.27	1.0	ug/l	8260B	05/16/14	1	1
trans-1,4-Dichloro-2-butene	U	0.87	2.5	ug/l	8260B	05/16/14	1	100
1,1-Dichloroethane	0.66	0.26	1.0	ug/l	8260B	05/16/14	1	5
1,2-Dichloroethane	U	0.36	1.0	ug/l	8260B	05/16/14	1	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-01

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-1

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 11:57

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
1,2-Dichloropropane	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
Ethylbenzene	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
2-Hexanone	U	3.8	10.	ug/l	8260B	05/16/14	1	50
Iodomethane	U	1.7	10.	ug/l	8260B	05/16/14	1	10
2-Butanone (MEK)	U	3.9	10.	ug/l	8260B	05/16/14	1	100
Methylene Chloride	1.2	1.0	5.0	ug/l	8260B	05/16/14	1	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	8260B	05/16/14	1	100
Styrene	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	5
1,1,2,2-Tetrachloroethane	U	0.58	1.0	ug/l	8260B	05/16/14	1	3
Tetrachloroethene	U	0.37	1.0	ug/l	8260B	05/16/14	1	1
Toluene	U	0.78	5.0	ug/l	8260B	05/16/14	1	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l	8260B	05/16/14	1	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Trichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	1
Trichlorofluoromethane	U	1.2	5.0	ug/l	8260B	05/16/14	1	1
1,2,3-Trichloropropane	U	0.81	2.5	ug/l	8260B	05/16/14	1	1
Vinyl acetate	U	1.6	10.	ug/l	8260B	05/16/14	1	50
Vinyl chloride	U	0.26	1.0	ug/l	8260B	05/16/14	1	1
Xylenes, Total	U	1.1	3.0	ug/l	8260B	05/16/14	1	5
Tetrahydrofuran	U	1.8	5.0	ug/l	8260B	05/16/14	1	
Surrogate Recovery								
Toluene-d8	98.2			% Rec.	8260B	05/16/14	1	
Dibromofluoromethane	98.5			% Rec.	8260B	05/16/14	1	
4-Bromofluorobenzene	95.3			% Rec.	8260B	05/16/14	1	

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-02

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-2

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 11:41

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Antimony	U	0.21	1.0	ug/l	6020	05/16/14	1	6
Arsenic	5.1	0.25	1.0	ug/l	6020	05/15/14	1	10
Barium	330	1.8	10.	ug/l	6020	05/16/14	5	
Beryllium	U	0.12	1.0	ug/l	6020	05/15/14	1	1
Cadmium	U	0.16	0.50	ug/l	6020	05/15/14	1	1
Chromium	3.3	0.54	2.0	ug/l	6020	05/15/14	1	
Copper	U	0.52	2.0	ug/l	6020	05/15/14	1	10
Cobalt	8.3	0.26	1.0	ug/l	6020	05/15/14	1	10
Lead	0.33	0.24	1.0	ug/l	6020	05/15/14	1	10
Nickel	2.6	0.35	1.0	ug/l	6020	05/15/14	1	
Selenium	3.9	0.38	1.0	ug/l	6020	05/15/14	1	10
Silver	U	0.31	1.0	ug/l	6020	05/15/14	1	
Thallium	U	0.19	1.0	ug/l	6020	05/15/14	1	5.5
Vanadium	3.0	0.18	2.0	ug/l	6020	05/15/14	1	
Zinc	10.	2.6	10.	ug/l	6020	05/15/14	1	10
Volatile Organics								
Acetone	U	10.	50.	ug/l	8260B	05/16/14	1	100
Acrylonitrile	U	1.9	10.	ug/l	8260B	05/16/14	1	200
Benzene	1.8	0.33	1.0	ug/l	8260B	05/16/14	1	1
Bromochloromethane	U	0.52	1.0	ug/l	8260B	05/16/14	1	3
Bromodichloromethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Bromoform	U	0.47	1.0	ug/l	8260B	05/16/14	1	3
Bromomethane	U	0.87	5.0	ug/l	8260B	05/16/14	1	10
Carbon disulfide	U	0.28	1.0	ug/l	8260B	05/16/14	1	100
Carbon tetrachloride	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Chlorobenzene	3.4	0.35	1.0	ug/l	8260B	05/16/14	1	3
Chlorodibromomethane	U	0.33	1.0	ug/l	8260B	05/16/14	1	3
Chloroethane	0.49	0.45	5.0	ug/l	8260B	05/16/14	1	10
Chloroform	U	0.32	5.0	ug/l	8260B	05/16/14	1	5
Chloromethane	U	0.28	2.5	ug/l	8260B	05/16/14	1	1
Dibromomethane	U	0.35	1.0	ug/l	8260B	05/16/14	1	10
1,2-Dibromo-3-Chloropropane	U	1.3	5.0	ug/l	8260B	05/16/14	1	
1,2-Dibromoethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	
1,2-Dichlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	5
1,4-Dichlorobenzene	1.0	0.27	1.0	ug/l	8260B	05/16/14	1	1
trans-1,4-Dichloro-2-butene	U	0.87	2.5	ug/l	8260B	05/16/14	1	100
1,1-Dichloroethane	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
1,2-Dichloroethane	U	0.36	1.0	ug/l	8260B	05/16/14	1	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-02

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-2

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 11:41

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
1,2-Dichloropropane	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
Ethylbenzene	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
2-Hexanone	U	3.8	10.	ug/l	8260B	05/16/14	1	50
Iodomethane	U	1.7	10.	ug/l	8260B	05/16/14	1	10
2-Butanone (MEK)	U	3.9	10.	ug/l	8260B	05/16/14	1	100
Methylene Chloride	1.4	1.0	5.0	ug/l	8260B	05/16/14	1	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	8260B	05/16/14	1	100
Styrene	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	5
1,1,2,2-Tetrachloroethane	U	0.58	1.0	ug/l	8260B	05/16/14	1	3
Tetrachloroethene	U	0.37	1.0	ug/l	8260B	05/16/14	1	1
Toluene	U	0.78	5.0	ug/l	8260B	05/16/14	1	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l	8260B	05/16/14	1	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Trichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	1
Trichlorofluoromethane	U	1.2	5.0	ug/l	8260B	05/16/14	1	1
1,2,3-Trichloropropane	U	0.81	2.5	ug/l	8260B	05/16/14	1	1
Vinyl acetate	U	1.6	10.	ug/l	8260B	05/16/14	1	50
Vinyl chloride	U	0.26	1.0	ug/l	8260B	05/16/14	1	1
Xylenes, Total	U	1.1	3.0	ug/l	8260B	05/16/14	1	5
Tetrahydrofuran	1.8	1.8	5.0	ug/l	8260B	05/16/14	1	
Surrogate Recovery								
Toluene-d8	98.5			% Rec.	8260B	05/16/14	1	
Dibromofluoromethane	97.5			% Rec.	8260B	05/16/14	1	
4-Bromofluorobenzene	93.5			% Rec.	8260B	05/16/14	1	

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-03

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-3

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 11:20

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Antimony	U	0.21	1.0	ug/l	6020	05/16/14	1	6
Arsenic	5.4	0.25	1.0	ug/l	6020	05/15/14	1	10
Barium	180	1.8	10.	ug/l	6020	05/16/14	5	
Beryllium	3.0	0.12	1.0	ug/l	6020	05/15/14	1	1
Cadmium	0.19	0.16	0.50	ug/l	6020	05/15/14	1	1
Chromium	20.	0.54	2.0	ug/l	6020	05/15/14	1	
Copper	16.	0.52	2.0	ug/l	6020	05/15/14	1	10
Cobalt	12.	0.26	1.0	ug/l	6020	05/15/14	1	10
Lead	37.	0.24	1.0	ug/l	6020	05/15/14	1	10
Nickel	6.6	0.35	1.0	ug/l	6020	05/15/14	1	
Selenium	2.5	0.38	1.0	ug/l	6020	05/15/14	1	10
Silver	U	0.31	1.0	ug/l	6020	05/15/14	1	
Thallium	0.20	0.19	1.0	ug/l	6020	05/15/14	1	5.5
Vanadium	34.	0.18	2.0	ug/l	6020	05/15/14	1	
Zinc	170	2.6	10.	ug/l	6020	05/15/14	1	10
Volatile Organics								
Acetone	13.	10.	50.	ug/l	8260B	05/16/14	1	100
Acrylonitrile	U	1.9	10.	ug/l	8260B	05/16/14	1	200
Benzene	U	0.33	1.0	ug/l	8260B	05/16/14	1	1
Bromochloromethane	U	0.52	1.0	ug/l	8260B	05/16/14	1	3
Bromodichloromethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Bromoform	U	0.47	1.0	ug/l	8260B	05/16/14	1	3
Bromomethane	U	0.87	5.0	ug/l	8260B	05/16/14	1	10
Carbon disulfide	U	0.28	1.0	ug/l	8260B	05/16/14	1	100
Carbon tetrachloride	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Chlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	3
Chlorodibromomethane	U	0.33	1.0	ug/l	8260B	05/16/14	1	3
Chloroethane	U	0.45	5.0	ug/l	8260B	05/16/14	1	10
Chloroform	U	0.32	5.0	ug/l	8260B	05/16/14	1	5
Chloromethane	U	0.28	2.5	ug/l	8260B	05/16/14	1	1
Dibromomethane	U	0.35	1.0	ug/l	8260B	05/16/14	1	10
1,2-Dibromo-3-Chloropropane	U	1.3	5.0	ug/l	8260B	05/16/14	1	
1,2-Dibromoethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	
1,2-Dichlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	5
1,4-Dichlorobenzene	U	0.27	1.0	ug/l	8260B	05/16/14	1	1
trans-1,4-Dichloro-2-butene	U	0.87	2.5	ug/l	8260B	05/16/14	1	100
1,1-Dichloroethane	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
1,2-Dichloroethane	U	0.36	1.0	ug/l	8260B	05/16/14	1	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-03

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-3

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 11:20

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
1,2-Dichloropropane	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
Ethylbenzene	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
2-Hexanone	U	3.8	10.	ug/l	8260B	05/16/14	1	50
Iodomethane	U	1.7	10.	ug/l	8260B	05/16/14	1	10
2-Butanone (MEK)	7.0	3.9	10.	ug/l	8260B	05/16/14	1	100
Methylene Chloride	1.3	1.0	5.0	ug/l	8260B	05/16/14	1	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	8260B	05/16/14	1	100
Styrene	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	5
1,1,2,2-Tetrachloroethane	U	0.58	1.0	ug/l	8260B	05/16/14	1	3
Tetrachloroethene	U	0.37	1.0	ug/l	8260B	05/16/14	1	1
Toluene	U	0.78	5.0	ug/l	8260B	05/16/14	1	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l	8260B	05/16/14	1	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Trichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	1
Trichlorofluoromethane	U	1.2	5.0	ug/l	8260B	05/16/14	1	1
1,2,3-Trichloropropane	U	0.81	2.5	ug/l	8260B	05/16/14	1	1
Vinyl acetate	U	1.6	10.	ug/l	8260B	05/16/14	1	50
Vinyl chloride	U	0.26	1.0	ug/l	8260B	05/16/14	1	1
Xylenes, Total	U	1.1	3.0	ug/l	8260B	05/16/14	1	5
Tetrahydrofuran	U	1.8	5.0	ug/l	8260B	05/16/14	1	
Surrogate Recovery								
Toluene-d8	96.8			% Rec.	8260B	05/16/14	1	
Dibromofluoromethane	98.3			% Rec.	8260B	05/16/14	1	
4-Bromofluorobenzene	93.8			% Rec.	8260B	05/16/14	1	

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-04

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-4

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 10:45

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Antimony	U	0.21	1.0	ug/l	6020	05/16/14	1	6
Arsenic	7.4	0.25	1.0	ug/l	6020	05/15/14	1	10
Barium	63.	0.36	2.0	ug/l	6020	05/15/14	1	
Beryllium	U	0.12	1.0	ug/l	6020	05/15/14	1	1
Cadmium	U	0.16	0.50	ug/l	6020	05/15/14	1	1
Chromium	5.0	0.54	2.0	ug/l	6020	05/15/14	1	
Copper	0.69	0.52	2.0	ug/l	6020	05/15/14	1	10
Cobalt	12.	0.26	1.0	ug/l	6020	05/15/14	1	10
Lead	0.78	0.24	1.0	ug/l	6020	05/15/14	1	10
Nickel	5.9	0.35	1.0	ug/l	6020	05/15/14	1	
Selenium	7.5	0.38	1.0	ug/l	6020	05/15/14	1	10
Silver	U	0.31	1.0	ug/l	6020	05/15/14	1	
Thallium	U	0.19	1.0	ug/l	6020	05/15/14	1	5.5
Vanadium	4.1	0.18	2.0	ug/l	6020	05/15/14	1	
Zinc	8.2	2.6	10.	ug/l	6020	05/15/14	1	10
Volatile Organics								
Acetone	U	10.	50.	ug/l	8260B	05/16/14	1	100
Acrylonitrile	U	1.9	10.	ug/l	8260B	05/16/14	1	200
Benzene	1.5	0.33	1.0	ug/l	8260B	05/16/14	1	1
Bromochloromethane	U	0.52	1.0	ug/l	8260B	05/16/14	1	3
Bromodichloromethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Bromoform	U	0.47	1.0	ug/l	8260B	05/16/14	1	3
Bromomethane	U	0.87	5.0	ug/l	8260B	05/16/14	1	10
Carbon disulfide	U	0.28	1.0	ug/l	8260B	05/16/14	1	100
Carbon tetrachloride	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Chlorobenzene	2.7	0.35	1.0	ug/l	8260B	05/16/14	1	3
Chlorodibromomethane	U	0.33	1.0	ug/l	8260B	05/16/14	1	3
Chloroethane	2.8	0.45	5.0	ug/l	8260B	05/16/14	1	10
Chloroform	U	0.32	5.0	ug/l	8260B	05/16/14	1	5
Chloromethane	U	0.28	2.5	ug/l	8260B	05/16/14	1	1
Dibromomethane	U	0.35	1.0	ug/l	8260B	05/16/14	1	10
1,2-Dibromo-3-Chloropropane	U	1.3	5.0	ug/l	8260B	05/16/14	1	
1,2-Dibromoethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	
1,2-Dichlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	5
1,4-Dichlorobenzene	1.9	0.27	1.0	ug/l	8260B	05/16/14	1	1
trans-1,4-Dichloro-2-butene	U	0.87	2.5	ug/l	8260B	05/16/14	1	100
1,1-Dichloroethane	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
1,2-Dichloroethane	U	0.36	1.0	ug/l	8260B	05/16/14	1	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5
cis-1,2-Dichloroethene	1.1	0.26	1.0	ug/l	8260B	05/16/14	1	5
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-04

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-4

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 10:45

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
1,2-Dichloropropane	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
Ethylbenzene	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
2-Hexanone	U	3.8	10.	ug/l	8260B	05/16/14	1	50
Iodomethane	U	1.7	10.	ug/l	8260B	05/16/14	1	10
2-Butanone (MEK)	U	3.9	10.	ug/l	8260B	05/16/14	1	100
Methylene Chloride	1.3	1.0	5.0	ug/l	8260B	05/16/14	1	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	8260B	05/16/14	1	100
Styrene	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	5
1,1,2,2-Tetrachloroethane	U	0.58	1.0	ug/l	8260B	05/16/14	1	3
Tetrachloroethene	U	0.37	1.0	ug/l	8260B	05/16/14	1	1
Toluene	U	0.78	5.0	ug/l	8260B	05/16/14	1	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l	8260B	05/16/14	1	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Trichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	1
Trichlorofluoromethane	U	1.2	5.0	ug/l	8260B	05/16/14	1	1
1,2,3-Trichloropropane	U	0.81	2.5	ug/l	8260B	05/16/14	1	1
Vinyl acetate	U	1.6	10.	ug/l	8260B	05/16/14	1	50
Vinyl chloride	1.4	0.26	1.0	ug/l	8260B	05/16/14	1	1
Xylenes, Total	U	1.1	3.0	ug/l	8260B	05/16/14	1	5
Tetrahydrofuran	3.4	1.8	5.0	ug/l	8260B	05/16/14	1	
Surrogate Recovery								
Toluene-d8	97.3			% Rec.	8260B	05/16/14	1	
Dibromofluoromethane	98.0			% Rec.	8260B	05/16/14	1	
4-Bromofluorobenzene	94.0			% Rec.	8260B	05/16/14	1	

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-05

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-5

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 10:58

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Antimony	U	0.21	1.0	ug/l	6020	05/16/14	1	6
Arsenic	1.2	0.25	1.0	ug/l	6020	05/15/14	1	10
Barium	6.4	0.36	2.0	ug/l	6020	05/15/14	1	
Beryllium	0.18	0.12	1.0	ug/l	6020	05/15/14	1	1
Cadmium	U	0.16	0.50	ug/l	6020	05/15/14	1	1
Chromium	U	0.54	2.0	ug/l	6020	05/15/14	1	
Copper	0.55	0.52	2.0	ug/l	6020	05/15/14	1	10
Cobalt	U	0.26	1.0	ug/l	6020	05/15/14	1	10
Lead	2.4	0.24	1.0	ug/l	6020	05/15/14	1	10
Nickel	U	0.35	1.0	ug/l	6020	05/15/14	1	
Selenium	1.1	0.38	1.0	ug/l	6020	05/15/14	1	10
Silver	U	0.31	1.0	ug/l	6020	05/15/14	1	
Thallium	U	0.19	1.0	ug/l	6020	05/15/14	1	5.5
Vanadium	2.9	0.18	2.0	ug/l	6020	05/15/14	1	
Zinc	6.2	2.6	10.	ug/l	6020	05/15/14	1	10
Volatile Organics								
Acetone	U	10.	50.	ug/l	8260B	05/16/14	1	100
Acrylonitrile	U	1.9	10.	ug/l	8260B	05/16/14	1	200
Benzene	U	0.33	1.0	ug/l	8260B	05/16/14	1	1
Bromochloromethane	U	0.52	1.0	ug/l	8260B	05/16/14	1	3
Bromodichloromethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Bromoform	U	0.47	1.0	ug/l	8260B	05/16/14	1	3
Bromomethane	U	0.87	5.0	ug/l	8260B	05/16/14	1	10
Carbon disulfide	U	0.28	1.0	ug/l	8260B	05/16/14	1	100
Carbon tetrachloride	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Chlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	3
Chlorodibromomethane	U	0.33	1.0	ug/l	8260B	05/16/14	1	3
Chloroethane	U	0.45	5.0	ug/l	8260B	05/16/14	1	10
Chloroform	U	0.32	5.0	ug/l	8260B	05/16/14	1	5
Chloromethane	U	0.28	2.5	ug/l	8260B	05/16/14	1	1
Dibromomethane	U	0.35	1.0	ug/l	8260B	05/16/14	1	10
1,2-Dibromo-3-Chloropropane	U	1.3	5.0	ug/l	8260B	05/16/14	1	
1,2-Dibromoethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	
1,2-Dichlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	5
1,4-Dichlorobenzene	U	0.27	1.0	ug/l	8260B	05/16/14	1	1
trans-1,4-Dichloro-2-butene	U	0.87	2.5	ug/l	8260B	05/16/14	1	100
1,1-Dichloroethane	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
1,2-Dichloroethane	U	0.36	1.0	ug/l	8260B	05/16/14	1	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-05

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : MW-5

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 10:58

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
1,2-Dichloropropane	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
Ethylbenzene	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
2-Hexanone	U	3.8	10.	ug/l	8260B	05/16/14	1	50
Iodomethane	U	1.7	10.	ug/l	8260B	05/16/14	1	10
2-Butanone (MEK)	U	3.9	10.	ug/l	8260B	05/16/14	1	100
Methylene Chloride	1.3	1.0	5.0	ug/l	8260B	05/16/14	1	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	8260B	05/16/14	1	100
Styrene	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	5
1,1,2,2-Tetrachloroethane	U	0.58	1.0	ug/l	8260B	05/16/14	1	3
Tetrachloroethene	U	0.37	1.0	ug/l	8260B	05/16/14	1	1
Toluene	U	0.78	5.0	ug/l	8260B	05/16/14	1	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l	8260B	05/16/14	1	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Trichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	1
Trichlorofluoromethane	U	1.2	5.0	ug/l	8260B	05/16/14	1	1
1,2,3-Trichloropropane	U	0.81	2.5	ug/l	8260B	05/16/14	1	1
Vinyl acetate	U	1.6	10.	ug/l	8260B	05/16/14	1	50
Vinyl chloride	U	0.26	1.0	ug/l	8260B	05/16/14	1	1
Xylenes, Total	U	1.1	3.0	ug/l	8260B	05/16/14	1	5
Tetrahydrofuran	U	1.8	5.0	ug/l	8260B	05/16/14	1	
Surrogate Recovery								
Toluene-d8	98.8			% Rec.	8260B	05/16/14	1	
Dibromofluoromethane	95.7			% Rec.	8260B	05/16/14	1	
4-Bromofluorobenzene	92.2			% Rec.	8260B	05/16/14	1	

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-06

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : SW-1

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 12:33

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Antimony	U	0.21	1.0	ug/l	6020	05/16/14	1	6
Arsenic	U	0.25	1.0	ug/l	6020	05/15/14	1	10
Barium	22.	0.36	2.0	ug/l	6020	05/15/14	1	
Beryllium	U	0.12	1.0	ug/l	6020	05/15/14	1	1
Cadmium	U	0.16	0.50	ug/l	6020	05/15/14	1	1
Chromium	U	0.54	2.0	ug/l	6020	05/15/14	1	
Copper	U	0.52	2.0	ug/l	6020	05/15/14	1	10
Cobalt	U	0.26	1.0	ug/l	6020	05/15/14	1	10
Lead	U	0.24	1.0	ug/l	6020	05/15/14	1	10
Nickel	U	0.35	1.0	ug/l	6020	05/15/14	1	
Selenium	0.62	0.38	1.0	ug/l	6020	05/15/14	1	10
Silver	U	0.31	1.0	ug/l	6020	05/15/14	1	
Thallium	U	0.19	1.0	ug/l	6020	05/15/14	1	5.5
Vanadium	2.2	0.18	2.0	ug/l	6020	05/15/14	1	
Zinc	U	2.6	10.	ug/l	6020	05/15/14	1	10
Volatile Organics								
Acetone	U	10.	50.	ug/l	8260B	05/16/14	1	100
Acrylonitrile	U	1.9	10.	ug/l	8260B	05/16/14	1	200
Benzene	U	0.33	1.0	ug/l	8260B	05/16/14	1	1
Bromochloromethane	U	0.52	1.0	ug/l	8260B	05/16/14	1	3
Bromodichloromethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Bromoform	U	0.47	1.0	ug/l	8260B	05/16/14	1	3
Bromomethane	U	0.87	5.0	ug/l	8260B	05/16/14	1	10
Carbon disulfide	U	0.28	1.0	ug/l	8260B	05/16/14	1	100
Carbon tetrachloride	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Chlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	3
Chlorodibromomethane	U	0.33	1.0	ug/l	8260B	05/16/14	1	3
Chloroethane	U	0.45	5.0	ug/l	8260B	05/16/14	1	10
Chloroform	U	0.32	5.0	ug/l	8260B	05/16/14	1	5
Chloromethane	U	0.28	2.5	ug/l	8260B	05/16/14	1	1
Dibromomethane	U	0.35	1.0	ug/l	8260B	05/16/14	1	10
1,2-Dibromo-3-Chloropropane	U	1.3	5.0	ug/l	8260B	05/16/14	1	
1,2-Dibromoethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	
1,2-Dichlorobenzene	U	0.35	1.0	ug/l	8260B	05/16/14	1	5
1,4-Dichlorobenzene	U	0.27	1.0	ug/l	8260B	05/16/14	1	1
trans-1,4-Dichloro-2-butene	U	0.87	2.5	ug/l	8260B	05/16/14	1	100
1,1-Dichloroethane	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
1,2-Dichloroethane	U	0.36	1.0	ug/l	8260B	05/16/14	1	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l	8260B	05/16/14	1	5
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	5

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-06

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : SW-1

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 12:33

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
1,2-Dichloropropane	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/16/14	1	1
Ethylbenzene	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
2-Hexanone	U	3.8	10.	ug/l	8260B	05/16/14	1	50
Iodomethane	U	1.7	10.	ug/l	8260B	05/16/14	1	10
2-Butanone (MEK)	U	3.9	10.	ug/l	8260B	05/16/14	1	100
Methylene Chloride	1.2	1.0	5.0	ug/l	8260B	05/16/14	1	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	8260B	05/16/14	1	100
Styrene	U	0.31	1.0	ug/l	8260B	05/16/14	1	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	5
1,1,2,2-Tetrachloroethane	U	0.58	1.0	ug/l	8260B	05/16/14	1	3
Tetrachloroethene	U	0.37	1.0	ug/l	8260B	05/16/14	1	1
Toluene	U	0.78	5.0	ug/l	8260B	05/16/14	1	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l	8260B	05/16/14	1	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	8260B	05/16/14	1	1
Trichloroethene	U	0.40	1.0	ug/l	8260B	05/16/14	1	1
Trichlorofluoromethane	U	1.2	5.0	ug/l	8260B	05/16/14	1	1
1,2,3-Trichloropropane	U	0.81	2.5	ug/l	8260B	05/16/14	1	1
Vinyl acetate	U	1.6	10.	ug/l	8260B	05/16/14	1	50
Vinyl chloride	U	0.26	1.0	ug/l	8260B	05/16/14	1	1
Xylenes, Total	U	1.1	3.0	ug/l	8260B	05/16/14	1	5
Tetrahydrofuran	U	1.8	5.0	ug/l	8260B	05/16/14	1	
Surrogate Recovery								
Toluene-d8	97.8			% Rec.	8260B	05/16/14	1	
Dibromofluoromethane	98.0			% Rec.	8260B	05/16/14	1	
4-Bromofluorobenzene	93.5			% Rec.	8260B	05/16/14	1	

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-07

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : SW-2

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 12:55

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Antimony	U	0.21	1.0	ug/l	6020	05/16/14	1	6
Arsenic	0.42	0.25	1.0	ug/l	6020	05/15/14	1	10
Barium	21.	0.36	2.0	ug/l	6020	05/15/14	1	
Beryllium	U	0.12	1.0	ug/l	6020	05/15/14	1	1
Cadmium	U	0.16	0.50	ug/l	6020	05/15/14	1	1
Chromium	U	0.54	2.0	ug/l	6020	05/15/14	1	
Copper	U	0.52	2.0	ug/l	6020	05/15/14	1	10
Cobalt	U	0.26	1.0	ug/l	6020	05/15/14	1	10
Lead	U	0.24	1.0	ug/l	6020	05/15/14	1	10
Nickel	U	0.35	1.0	ug/l	6020	05/15/14	1	
Selenium	0.62	0.38	1.0	ug/l	6020	05/15/14	1	10
Silver	U	0.31	1.0	ug/l	6020	05/15/14	1	
Thallium	U	0.19	1.0	ug/l	6020	05/15/14	1	5.5
Vanadium	2.2	0.18	2.0	ug/l	6020	05/15/14	1	
Zinc	U	2.6	10.	ug/l	6020	05/15/14	1	10
Volatile Organics								
Acetone	U	10.	50.	ug/l	8260B	05/17/14	1	100
Acrylonitrile	U	1.9	10.	ug/l	8260B	05/17/14	1	200
Benzene	U	0.33	1.0	ug/l	8260B	05/17/14	1	1
Bromochloromethane	U	0.52	1.0	ug/l	8260B	05/17/14	1	3
Bromodichloromethane	U	0.38	1.0	ug/l	8260B	05/17/14	1	1
Bromoform	U	0.47	1.0	ug/l	8260B	05/17/14	1	3
Bromomethane	U	0.87	5.0	ug/l	8260B	05/17/14	1	10
Carbon disulfide	U	0.28	1.0	ug/l	8260B	05/17/14	1	100
Carbon tetrachloride	U	0.38	1.0	ug/l	8260B	05/17/14	1	1
Chlorobenzene	U	0.35	1.0	ug/l	8260B	05/17/14	1	3
Chlorodibromomethane	U	0.33	1.0	ug/l	8260B	05/17/14	1	3
Chloroethane	U	0.45	5.0	ug/l	8260B	05/17/14	1	10
Chloroform	U	0.32	5.0	ug/l	8260B	05/17/14	1	5
Chloromethane	U	0.28	2.5	ug/l	8260B	05/17/14	1	1
Dibromomethane	U	0.35	1.0	ug/l	8260B	05/17/14	1	10
1,2-Dibromo-3-Chloropropane	U	1.3	5.0	ug/l	8260B	05/17/14	1	
1,2-Dibromoethane	U	0.38	1.0	ug/l	8260B	05/17/14	1	
1,2-Dichlorobenzene	U	0.35	1.0	ug/l	8260B	05/17/14	1	5
1,4-Dichlorobenzene	U	0.27	1.0	ug/l	8260B	05/17/14	1	1
trans-1,4-Dichloro-2-butene	U	0.87	2.5	ug/l	8260B	05/17/14	1	100
1,1-Dichloroethane	U	0.26	1.0	ug/l	8260B	05/17/14	1	5
1,2-Dichloroethane	U	0.36	1.0	ug/l	8260B	05/17/14	1	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/17/14	1	5
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l	8260B	05/17/14	1	5
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/17/14	1	5

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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-07

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : SW-2

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 12:55

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
1,2-Dichloropropane	U	0.31	1.0	ug/l	8260B	05/17/14	1	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/17/14	1	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/17/14	1	1
Ethylbenzene	U	0.38	1.0	ug/l	8260B	05/17/14	1	1
2-Hexanone	U	3.8	10.	ug/l	8260B	05/17/14	1	50
Iodomethane	U	1.7	10.	ug/l	8260B	05/17/14	1	10
2-Butanone (MEK)	U	3.9	10.	ug/l	8260B	05/17/14	1	100
Methylene Chloride	1.2	1.0	5.0	ug/l	8260B	05/17/14	1	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	8260B	05/17/14	1	100
Styrene	U	0.31	1.0	ug/l	8260B	05/17/14	1	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	8260B	05/17/14	1	5
1,1,2,2-Tetrachloroethane	U	0.58	1.0	ug/l	8260B	05/17/14	1	3
Tetrachloroethene	U	0.37	1.0	ug/l	8260B	05/17/14	1	1
Toluene	U	0.78	5.0	ug/l	8260B	05/17/14	1	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l	8260B	05/17/14	1	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	8260B	05/17/14	1	1
Trichloroethene	U	0.40	1.0	ug/l	8260B	05/17/14	1	1
Trichlorofluoromethane	U	1.2	5.0	ug/l	8260B	05/17/14	1	1
1,2,3-Trichloropropane	U	0.81	2.5	ug/l	8260B	05/17/14	1	1
Vinyl acetate	U	1.6	10.	ug/l	8260B	05/17/14	1	50
Vinyl chloride	U	0.26	1.0	ug/l	8260B	05/17/14	1	1
Xylenes, Total	U	1.1	3.0	ug/l	8260B	05/17/14	1	5
Tetrahydrofuran	U	1.8	5.0	ug/l	8260B	05/17/14	1	
Surrogate Recovery								
Toluene-d8	98.5			% Rec.	8260B	05/17/14	1	
Dibromofluoromethane	97.5			% Rec.	8260B	05/17/14	1	
4-Bromofluorobenzene	93.5			% Rec.	8260B	05/17/14	1	

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-08

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : TRIP BLANK

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 00:00

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Volatile Organics								
Acetone	U	10.	50.	ug/l	8260B	05/18/14	1	100
Acrylonitrile	U	1.9	10.	ug/l	8260B	05/18/14	1	200
Benzene	U	0.33	1.0	ug/l	8260B	05/18/14	1	1
Bromochloromethane	U	0.52	1.0	ug/l	8260B	05/18/14	1	3
Bromodichloromethane	U	0.38	1.0	ug/l	8260B	05/18/14	1	1
Bromoform	U	0.47	1.0	ug/l	8260B	05/18/14	1	3
Bromomethane	U	0.87	5.0	ug/l	8260B	05/18/14	1	10
Carbon disulfide	U	0.28	1.0	ug/l	8260B	05/18/14	1	100
Carbon tetrachloride	U	0.38	1.0	ug/l	8260B	05/18/14	1	1
Chlorobenzene	U	0.35	1.0	ug/l	8260B	05/18/14	1	3
Chlorodibromomethane	U	0.33	1.0	ug/l	8260B	05/18/14	1	3
Chloroethane	U	0.45	5.0	ug/l	8260B	05/18/14	1	10
Chloroform	U	0.32	5.0	ug/l	8260B	05/18/14	1	5
Chloromethane	U	0.28	2.5	ug/l	8260B	05/18/14	1	1
Dibromomethane	U	0.35	1.0	ug/l	8260B	05/18/14	1	10
1,2-Dibromo-3-Chloropropane	U	1.3	5.0	ug/l	8260B	05/18/14	1	
1,2-Dibromoethane	U	0.38	1.0	ug/l	8260B	05/18/14	1	
1,2-Dichlorobenzene	U	0.35	1.0	ug/l	8260B	05/18/14	1	5
1,4-Dichlorobenzene	U	0.27	1.0	ug/l	8260B	05/18/14	1	1
trans-1,4-Dichloro-2-butene	U	0.87	2.5	ug/l	8260B	05/18/14	1	100
1,1-Dichloroethane	U	0.26	1.0	ug/l	8260B	05/18/14	1	5
1,2-Dichloroethane	U	0.36	1.0	ug/l	8260B	05/18/14	1	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/18/14	1	5
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l	8260B	05/18/14	1	5
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l	8260B	05/18/14	1	5
1,2-Dichloropropane	U	0.31	1.0	ug/l	8260B	05/18/14	1	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/18/14	1	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	8260B	05/18/14	1	1
Ethylbenzene	U	0.38	1.0	ug/l	8260B	05/18/14	1	1
2-Hexanone	U	3.8	10.	ug/l	8260B	05/18/14	1	50
Iodomethane	U	1.7	10.	ug/l	8260B	05/18/14	1	10
2-Butanone (MEK)	U	3.9	10.	ug/l	8260B	05/18/14	1	100
Methylene Chloride	U	1.0	5.0	ug/l	8260B	05/18/14	1	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	8260B	05/18/14	1	100
Styrene	U	0.31	1.0	ug/l	8260B	05/18/14	1	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	8260B	05/18/14	1	5
1,1,2,2-Tetrachloroethane	U	0.58	1.0	ug/l	8260B	05/18/14	1	3
Tetrachloroethene	U	0.37	1.0	ug/l	8260B	05/18/14	1	1
Toluene	U	0.78	5.0	ug/l	8260B	05/18/14	1	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l	8260B	05/18/14	1	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	8260B	05/18/14	1	1

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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REPORT OF ANALYSIS

Joan Smyth
Smith Gardner, Inc.
14 North Boylan Avenue
Raleigh, NC 27603

May 19, 2014

ESC Sample # : L698358-08

Date Received : May 12, 2014
Description : Chatham 13-2

Site ID :

Sample ID : TRIP BLANK

Project # :

Collected By : John Fearrington
Collection Date : 05/08/14 00:00

Parameter	Result	MDL	RDL	Units	Method	Date	Dil.	SWSL
Trichloroethene	U	0.40	1.0	ug/l	8260B	05/18/14	1	1
Trichlorofluoromethane	U	1.2	5.0	ug/l	8260B	05/18/14	1	1
1,2,3-Trichloropropane	U	0.81	2.5	ug/l	8260B	05/18/14	1	1
Vinyl acetate	U	1.6	10.	ug/l	8260B	05/18/14	1	50
Vinyl chloride	U	0.26	1.0	ug/l	8260B	05/18/14	1	1
Xylenes, Total	U	1.1	3.0	ug/l	8260B	05/18/14	1	5
Tetrahydrofuran	U	1.8	5.0	ug/l	8260B	05/18/14	1	
Surrogate Recovery								
Toluene-d8	98.9			% Rec.	8260B	05/18/14	1	
Dibromofluoromethane	98.1			% Rec.	8260B	05/18/14	1	
4-Bromofluorobenzene	103.			% Rec.	8260B	05/18/14	1	

U = ND (Not Detected)
SWSL = Solid Waste Section Limit
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:
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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L698358-01	WG720808	SAMP	Arsenic	R2923087	J
	WG720808	SAMP	Copper	R2923087	J
	WG720808	SAMP	Silver	R2923087	J
	WG721290	SAMP	Bromomethane	R2923601	J5
	WG721290	SAMP	Chloroethane	R2923601	J4J5
	WG721290	SAMP	1,4-Dichlorobenzene	R2923601	J
	WG721290	SAMP	1,1-Dichloroethane	R2923601	J
	WG721290	SAMP	Methylene Chloride	R2923601	J
	WG721290	SAMP	Trichlorofluoromethane	R2923601	J4
L698358-02	WG720808	SAMP	Lead	R2923087	J
	WG721290	SAMP	Chloroethane	R2923601	JJ4
	WG721290	SAMP	Methylene Chloride	R2923601	J
	WG721290	SAMP	Trichlorofluoromethane	R2923601	J4
	WG721290	SAMP	Tetrahydrofuran	R2923601	J
L698358-03	WG720808	SAMP	Cadmium	R2923087	J
	WG720808	SAMP	Thallium	R2923087	J
	WG721290	SAMP	Acetone	R2923601	J
	WG721290	SAMP	Chloroethane	R2923601	J4
	WG721290	SAMP	2-Butanone (MEK)	R2923601	J
	WG721290	SAMP	Methylene Chloride	R2923601	J
	WG721290	SAMP	Trichlorofluoromethane	R2923601	J4
L698358-04	WG720808	SAMP	Copper	R2923087	J
	WG720808	SAMP	Lead	R2923087	J
	WG720808	SAMP	Zinc	R2923087	J
	WG721290	SAMP	Chloroethane	R2923601	JJ4
	WG721290	SAMP	Methylene Chloride	R2923601	J
	WG721290	SAMP	Trichlorofluoromethane	R2923601	J4
	WG721290	SAMP	Tetrahydrofuran	R2923601	J
L698358-05	WG720808	SAMP	Beryllium	R2923087	J
	WG720808	SAMP	Copper	R2923087	J
	WG720808	SAMP	Zinc	R2923087	J
	WG721290	SAMP	Chloroethane	R2923601	J4
	WG721290	SAMP	Methylene Chloride	R2923601	J
	WG721290	SAMP	Trichlorofluoromethane	R2923601	J4
L698358-06	WG720808	SAMP	Selenium	R2923087	J
	WG721290	SAMP	Chloroethane	R2923601	J4
	WG721290	SAMP	Methylene Chloride	R2923601	J
	WG721290	SAMP	Trichlorofluoromethane	R2923601	J4
L698358-07	WG720808	SAMP	Arsenic	R2923087	J
	WG720808	SAMP	Selenium	R2923087	J
	WG721290	SAMP	Chloroethane	R2923601	J4
	WG721290	SAMP	Methylene Chloride	R2923601	J
	WG721290	SAMP	Trichlorofluoromethane	R2923601	J4

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
05/19/14 at 10:15:53

TSR Signing Reports: 350
R5 - Desired TAT

MDL/RDL

Sample: L698358-01 Account: SMIGARNC Received: 05/12/14 09:00 Due Date: 05/19/14 00:00 RPT Date: 05/19/14 10:15
EDD = NCDENR; Deleted HG per JH. AV 5/12
Sample: L698358-02 Account: SMIGARNC Received: 05/12/14 09:00 Due Date: 05/19/14 00:00 RPT Date: 05/19/14 10:15
EDD = NCDENR; Deleted HG per JH. AV 5/12
Sample: L698358-03 Account: SMIGARNC Received: 05/12/14 09:00 Due Date: 05/19/14 00:00 RPT Date: 05/19/14 10:15
EDD = NCDENR; Deleted HG per JH. AV 5/12
Sample: L698358-04 Account: SMIGARNC Received: 05/12/14 09:00 Due Date: 05/19/14 00:00 RPT Date: 05/19/14 10:15
EDD = NCDENR; Deleted HG per JH. AV 5/12
Sample: L698358-05 Account: SMIGARNC Received: 05/12/14 09:00 Due Date: 05/19/14 00:00 RPT Date: 05/19/14 10:15
EDD = NCDENR; Deleted HG per JH. AV 5/12
Sample: L698358-06 Account: SMIGARNC Received: 05/12/14 09:00 Due Date: 05/19/14 00:00 RPT Date: 05/19/14 10:15
EDD = NCDENR; Deleted HG per JH. AV 5/12
Sample: L698358-07 Account: SMIGARNC Received: 05/12/14 09:00 Due Date: 05/19/14 00:00 RPT Date: 05/19/14 10:15
EDD = NCDENR; Deleted HG per JH. AV 5/12
Sample: L698358-08 Account: SMIGARNC Received: 05/12/14 09:00 Due Date: 05/19/14 00:00 RPT Date: 05/19/14 10:15
EDD = NCDENR