WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
PHASE I POST CLOSURE MONITORING
OCTOBER 2014 SAMPLING EVENT

S&ME Project No. 1584-98-081C

Prepared For:

The City of Greensboro

Prepared By:
S&ME, Inc.
3718 Old Battleground Road
Greensboro, North Carolina 27410

January 21, 2015

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1. EXECUTIVE SUMMARY

Five monitoring wells and five stream locations at the White Street Landfill were sampled between October 1, 2014 and October 6, 2014. Five wells (I-1, I-2, I-3, I-4 and MW-13) comprise the groundwater monitoring system for the closed Phase I portion of the White Street Landfill. Monitoring well MW-13 serves as a background well for both the Phase I and the Phase II areas. The sampling was conducted according to North Carolina Solid Waste Management Guidelines and samples were analyzed by a North Carolina certified laboratory.

Analytical results from the five Phase I monitoring wells indicate that the following NCAC 2L groundwater quality standards were exceeded.

- Benzene was detected at 3.9 μg/L at well I-1 which exceeds the 15A NCAC 2L groundwater standard (2L Standard) set at 1 μg/L.
- Chromium was detected at 12.8 μg/L at well I-2, which exceeds the 2L Standard set at 10 μg/L.
- Vanadium was detected in groundwater at background well MW-13, at a concentration exceeding the corresponding North Carolina Interim Maximum Allowable Concentrations (IMAC) 0.3 μg/L. This detection should reflect natural background water quality; as such, it would not represent an exceedance of the standard.

With regards to surface water sampling, both volatile organic constituents and inorganic constituents were detected at one or more sampled locations. No reported concentrations were greater than the corresponding NCAC 2B surface water standards except for cobalt, copper, and zinc, which were detected in samples collected up-stream of the facility.

It is believed that the cause of the benzene 2L Standard exceedance within the hydrogeologic regime at Phase I is from percolation of landfill constituents from the waste management units into the uppermost groundwater aquifer. Based on historic groundwater monitoring data and knowledge of naturally occurring metals observed in Phase II soils, the reported concentrations of barium, chromium, and vanadium are thought to represent naturally occurring metals in groundwater and/or colloidal solids in the groundwater samples, thus concentrations reported are not thought to be indicative a release from the Phase I waste management unit.

The monitoring wells reported to contain 2L Standard exceedances are located between the limits of waste and the compliance boundary, some less than 100 feet from the limit of waste. The City of Greensboro believes that Phase I of the White Street Landfill was closed prior to January 1, 1983, and as such, assessment and cleanup of this landfill unit should fall under jurisdiction of the NCDENR Inactive Hazardous Sites program Pre-Regulatory Landfill Unit, for “old landfills.”

2. INTRODUCTION

White Street Landfill is a Solid Waste Management Facility (SWMF) located at the north end of White Street in northeastern Greensboro. S&ME, Inc. (S&ME) was contracted by the City of Greensboro to complete this Phase I water quality monitoring event. Phase I of the landfill is reportedly covered by Solid Waste Permit #41-03, which also covers Phase II of the Facility. **Figure 1** is a map showing the monitor well locations. One up-gradient and four down-gradient monitoring wells located along the perimeter of the closed Phase I disposal area were sampled. Five surface water samples were collected from North Buffalo Creek and one of its tributaries in the vicinity of the White Street facility. Phase I shares the surface water sampling locations with adjacent Phase II and Phase III.

The samples collected from Phase I monitoring wells I-1, I-2, I-3, and I-4, were analyzed for Appendix I volatile organic constituents and the eight RCRA metals. Since background monitoring well MW-13 is shared with Phase II, the collected sample was analyzed for Appendix II constituents. This report discusses the field procedures, summarizes the field measurements and analytical results for the October 2014 water quality monitoring event.

3. SCOPE OF WORK

To complete the scope of work, S&ME completed the following tasks:

- Sampled five monitoring wells and five surface water locations.
- Obtained field values for pH, temperature, dissolved oxygen (DO), turbidity, oxidation-reduction potential (ORP), and conductivity at each sampled monitoring well location.
- Depths to water measurements were collected during well purging to monitor drawdown.
- Samples I-1, I-2, I-3, and I-4, were analyzed for Appendix I organic constituents and 8-RCRA metals by a North Carolina certified laboratory, using State approved methods.
- Sample MW-13 was analyzed for Appendix II constituents by a North Carolina certified laboratory, using State approved methods.
- Samples SW-1, SW-2, SW-3, SW-4 and SW-5 were analyzed for Appendix I constituents by a North Carolina certified laboratory, using State approved methods.
- Calculated groundwater flow directions for the Phase I area.
- Prepared and submitted this Groundwater Monitoring Report to the City of Greensboro and the State.

4. METHODS EMPLOYED

4.1 Monitoring Well Sampling

Phase I groundwater monitoring well sampling took place on October 1, 2014, with shared background monitoring well MW-13 sampled on October 6, 2014. The monitoring well locations are shown on **Figure 1**. A representative from S&ME opened each well and measured the static water level from the top edge of the PVC casing in wells. The total well depth sounding data reported for the sampling events completed during September 1997 and May 1998 were used to determine the volume of water in wells I-1, I-2, I-3, I-4 and MW-13, where dedicated MicroPurgeTM pumps had been previously installed. These data are summarized in **Table 1**.

In accordance with the facility's approved Water Quality Monitoring Plan, each well was purged using the dedicated MicroPurge™ pumps using compressed air. At each well, the purge rate and the drawdown of the water table were monitored as an indicator of how much stress the purging placed on the aquifer. The purge rates were calculated by recording the time required to fill a graduated cylinder. The purging flow rate varied but was approximately 100 milliliters/minute (ml/min.). During purging, the depth to water was periodically monitored and recorded on the groundwater sampling field data sheets. It is our opinion that the observed drawdowns were generally minor during purging; therefore, the stresses placed on the aquifer should have been minor. The observed drawdown data also suggests that the purging rates should have been low enough such that recharge water should not have been overly agitated, reducing the potential for colloids to be drawn into the well bore.

The purge water from each of these wells was monitored for pH, temperature, DO, turbidity, ORP and conductivity. Typically, a sample was collected when three consecutive readings for each individual field parameter fluctuated by no more than 10 percent, between each equipment volume. The 10% change target stabilization goal was generally reached prior to collection of the groundwater sample at each location. Turbidity was measured separately, with measurements less than or equal to 10 NTUs, set as the target criteria. Despite the use of low flow sampling methods, turbidity values at some wells remain higher than ideal during purging. Accordingly, some samples were collected relying upon professional judgment, without meeting the turbidity goal. The field data collected during sampling was recorded on the groundwater sampling field data sheets. The field data sheets are included in **Appendix I**.

Groundwater samples were collected from dedicated Teflon tubing at each of the pumped wells. Immediately upon collection, each sample was placed in laboratory supplied containers, packed on ice, and placed under chain-of custody. The sampling technician wore nitrile gloves that were changed between wells to reduce the possibility of cross contamination.

Phase I monitoring well samples I-1, I-2, I-3 and I-4 were analyzed for Appendix I volatile organic constituents and the eight RCRA metals. Since background well MW-13 is shared with Phase II, the collected sample was analyzed for Appendix II constituents.

Analyses were conducted by Environmental Conservation Laboratories, a North Carolina certified laboratory. Laboratory analytical data is attached in **Appendix II.** The NCDENR Environmental Monitoring Reporting Form is attached as **Appendix III**.

4.2 Stream Sampling

Surface water sampling took place during the October 2014 monitoring event. Surface water SW-1 was collected from North Buffalo Creek on the west side of the U.S. Highway 29 bridge upstream of the landfill. Surface water SW-2 was collected from a southern tributary of North Buffalo Creek just before it joins the main creek west of the landfill entrance. SW-3 was collected from North Buffalo Creek downstream of the North Buffalo Wastewater Treatment Plant outfall and upstream of the landfill. SW-4 was collected from North Buffalo Creek downstream of the landfill at a USGS gauging station located on North Buffalo Creek about three-quarters of a mile north of the landfill. SW-5 was collected from North Buffalo Creek immediately downstream of the Phase I and II landfill disposal areas. The locations are shown in **Figure 2**.

The surface water samples were collected by immersing laboratory supplied containers in the water to be sampled. After collection, the surface water samples were packed on ice and placed under chain-of-custody. All stream samples were analyzed for Appendix I inorganic and volatile organic constituents by Environmental Conservation Laboratories; a North Carolina certified laboratory.

5. RESULTS

5.1 Groundwater Analytical Results

The results of the laboratory analyses for the groundwater monitoring wells sampled in the closed Phase I area are summarized in **Table 2** and **Table 3**, and the complete laboratory report is included in **Appendix II**. The following summarizes the groundwater sample analyses.

- Benzene was detected at 3.9 μg/L at well I-1 which exceeds the 15A NCAC 2L groundwater standard (2L Standard) of 1 μg/L.
- Volatile organic compounds 1,1-dichloroethane, cis 1,2-dichloroethene, chlorobenzene, 1,2-dichlorobenzene, and 1,4-dichlorobenzene, were detected at quantified or estimated at "J" flagged concentrations in one or more of the wells. The reported concentrations of these compounds were below their corresponding 2L Standards.
- Barium was detected in all four compliance wells and background well MW-13 at concentrations that less than the corresponding 2L Standard.
- Chromium was detected at 12.8 μg/L at well I-2 which exceeds the 2L Standard set at 10 μg/L. Chromium was also detected in wells I-1, I-3, and I-4; however, the detected concentrations at these locations were less than the 2L Standard.

- Currently, there is no established 2L Standard for vanadium. However, North Carolina has published an Interim Maximum Allowable Concentrations (IMAC) for vanadium, which is set at 0.3 µg/L. The IMAC values are not final groundwater quality standards. During this event vanadium was detected in the groundwater sample collected from monitoring well MW-13 at an estimated concentration of 3.32 µg/L. This concentration is greater than the IMAC for vanadium. Monitoring well MW-13 is a background monitoring well for Phase I; consequently, the detected concentration is thought to represent background groundwater quality.

5.2 Groundwater Flow Direction

The static water levels in the five Phase I monitoring wells ranged from 6.11 to 23.34 feet below the top of well casings during the October 2014 monitoring event. Depth to groundwater, well casing elevation data, and calculated groundwater elevations are presented in **Table 1.** A groundwater contour map constructed using the data collected during this monitoring event is presented as **Figure 1**. The groundwater elevation data collected during this monitoring event indicates that the groundwater beneath Phase I generally flows toward the northeast toward Buffalo Creek and toward the unnamed tributary to Buffalo Creek that runs along the west side of the unit.

5.3 Surface Water

The results of the laboratory analyses for the Appendix I constituents in the surface water samples are summarized in **Table 4** and **Table 5**. The complete laboratory reports are included in **Appendix II**. The following summarizes the surface water sample analyses.

- The detected methylene chloride and chloroform concentrations are less than the corresponding NCAC 2B surface water standards (2B Standards).
- Cobalt was detected at a concentration greater than the corresponding 2B Standard in samples SW-1 and SW-3, collected up-stream of the facility. Cobalt was also detected in down-stream samples; however, the detected concentrations were less than the 2B Standard.
- Copper was detected at concentrations greater than the corresponding 2B Standard in sample SW-1, collected up-stream of the facility. Cooper was also detected in samples SW-2, SW-3, SW-4, and SW-5; however, the detected concentrations were less than the 2B Standard.
- Zinc was detected at concentrations greater than the corresponding 2B Standard in samples SW-1 and SW-3, collected up-stream of the facility. Zinc was also detected in samples SW-2, SW-4, and SW-5; however, the detected concentrations were less than the 2B Standard.
- Arsenic, antimony, barium, cadmium, chromium, lead, and nickel were detected at one or more sampled locations. The reported concentrations were less than the corresponding 2B Standards.
- Vanadium was detected in two of the three up-stream samples and both down-stream samples. There is no current NCAC 2B standard for vanadium.

5.4 Quality Assurance

A qualitative review of the data was performed to verify that the detected concentrations in the laboratory report were of known quality. A formal, quantitative data validation was not performed. Laboratory-assigned data qualifiers were evaluated to verify that rejected or unsupportable data were not included in the dataset. Quality control data provided in the laboratory reports were also reviewed. No rejected or otherwise unacceptable quality data were reported from the laboratory.

The monitoring wells in Phase I were sampled using dedicated micro-purge pumps. Therefore, no equipment rinse samples were collected for analysis for data quality control. Trip blank samples accompanied the sample bottles from the time they left the laboratory until they returned. The trip blank samples were analyzed for Appendix I volatile organic constituents. No volatile organic constituents were present in the trip blank samples at detectable levels. Laboratory QC samples were analyzed for all constituents included in this sampling event. The results of the trip blank and laboratory QC sample analyses are included in **Appendix II**.

6. REFERENCES

Fetter, C. W., 1988, Applied Hydrogeology, New York; Macmillian Publishing Company, 1988, 592 pp.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993); from the Environmental Management Commission Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2B, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, Section .0200 (April 1, 1991); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, subchapter 13B, Solid Waste Management, Section .1600 (January 1, 1997).

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA SUMMARY
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Well No.	Elevation TOC (feet)	Depth of Well (feet)	Static Water Levels			
			October 2014		April 2014	
			DTGW (feet)	Elevation (feet)	DTGW (feet)	Elevation (feet)
I-1	713.75	23.36	12.17	701.58	6.51	707.24
I-2	703.09	23.13	6.11	696.98	4.28	698.81
I-3	707.43	24.22	16.47	690.96	11.94	695.49
I-4	694.94	14.57	7.20	687.74	1.72	693.22
MW-13	741.24	33.78	23.34	717.90	18.24	723.00

TOC = Top of Casing. Elevations determined by survey: HDR Engineering, Inc.
Depth of well data as reported by BPA Environmental & Engineering, Inc.
DTGW = Depth to Groundwater
Elevation = calculated groundwater elevation

TABLE 2
GROUNDWATER ANALYTICAL RESULTS SUMMARY - OCTOBER 2014
APPENDIX I - VOLATILE ORGANIC COMPOUNDS
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Compound	Sample Locations					NC SWSL	NCAC 2L Standard
	down-gradient	down-gradient	down-gradient	down-gradient	background		
	I-1 (ug/L)	**I-2** (ug/L)	**I-3** (ug/L)	**I-4** (ug/L)	**MW-13** (ug/L)	(ug/L)	(ug/L)
Benzene	**3.9**	**0.54 J**	ND	ND	ND	1	1
1,1-Dichloroethane	**0.74 J**	ND	**1.5**	ND	ND	5	6
cis 1,2-dichloroethene	**0.61 J**	ND	ND	ND	ND	5	70
Chlorobenzene	**9.8**	**8.1**	**9.5**	**9.3**	ND	3	50
1,4-Dichlorobenzene	**4.9**	**1.6**	**2.2**	**5.0**	ND	1	6
1,2-Dichlorobenzene	ND	**1.3**	ND	ND	ND	5	20

ND = Analyte not detected

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = no corresponding NCAC 2L groundwater quality standard

NC SWSL= North Carolina Solid Waste Section Limit

NCAC 2L Standard = 15A North Carolina Administrative Code 2L .0202, Groundwater Quality Standards for Class GA groundwater

If a NCAC 2L is not established the Groundwater Protection Standard is used

Quantities highlighted in orange were detected above the 2L standards

TABLE 3
GROUNDWATER ANALYTICAL RESULTS SUMMARY - OCTOBER 2014
8-RCRA METALS
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

	Sample Locations					NC SWSL	NCAC 2L Standard	NC IMAC*
	down-gradient	down-gradient	down-gradient	down-gradient	background			
	I-1	**I-2**	**I-3**	**I-4**	**MW-13**			
Compound	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Barium	**585**	**524**	**136**	**537**	**88.3 J**	100	700	
Chromium	**2.59 J**	**12.8**	**6.34 J**	**5.58**	ND	10	10	
Vanadium	NA	NA	NA	NA	**3.32 J**	25	ns	0.3*

ND = Analyte not detected
NA = Constituent not analyzed for (not on 8-RCRA metal list)
NC SWSL = North Carolina Solid Waste Section Limit
NCAC 2L Standard = 15A NCAC 2L .0200, Groundwater Standards for Class GA groundwater
NC IMAC = Interim Maximum Allowable Concentration, used if no 2L Standard Exists
ns = no standard listed according to NCAC 2L
J = Estimated value between the detection limit and the NC SWSL.
B = Analyte was detected in the associated method blank

Orange highlights indicate a measurement higher than 2L standards.
Blue highligts indicate a concentration higher than the IMAC

TABLE 4
SURFACE WATER ANALYTICAL RESULTS SUMMARY - OCTOBER 2014
APPENDIX I - VOLATILE ORGANIC COMPOUNDS
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Compound	Sample Locations					15A NCAC 2B Standards*	NC SWSL
	SW-1 up-stream (ug/L)	SW-2 up-stream (ug/L)	SW-3 up-stream (ug/L)	SW-4 down-stream (ug/L)	SW-5 down-stream (ug/L)	(ug/L)	(ug/L)
Methylene Chloride	ND	ND	ND	ND	**0.77 J**	4.6	1
Chloroform	**1.2 J**	ND	**0.95 J**	**1.0 J**	ND	5.6	5

NC SWSL = North Carolina Solid Waste Section Limit
ND = Analyte not detected
* = Title 15A NCAC 2B Standards for Class C, WS-V surface water
J = Estimated value between the detection limit and the NC SWSL.
ns = Title 15A NCAC 2B provides no established standard for these constituents
Orange highlights indicate a measurement higher than 2B standards.

TABLE 5
SURFACE WATER ANALYTICAL RESULTS SUMMARY - OCTOBER 2014
APPENDIX I - METALS
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Compound	Sample Locations					15A NCAC 2B Standards*	NC SWSL
	SW-1 up-stream (ug/L)	SW-2 up-stream (ug/L)	SW-3 up-stream (ug/L)	SW-4 down-stream (ug/L)	SW-5 down-stream (ug/L)	(ug/L)	(ug/L)
Antimony	**0.526 J**	ND	**0.378 J**	**0.268 J**	**0.267 J**	5.6	6
Arsenic	**6.11 J**	ND	ND	ND	ND	10	10
Barium	**112**	**45.9 J**	**22.3 J**	**24.4 J**	**25.1 J**	1000	100
Cadmium	**0.661 J**	ND	ND	ND	ND	0.4	1
Chromium	**20.6 B**	**2.13 JB**	**13.4 B**	**2.50 JB**	**2.70 JB**	50	10
Cobalt	**8.95 J**	ND	**4.56 J**	**2.46 J**	**2.45 J**	3	10
Copper	**30.9**	**1.82 J**	**6.82 J**	**5.42 J**	**5.30 J**	7**	10
Lead	**21.1**	ND	ND	ND	ND	25	10
Nickel	**7.25 J**	ND	**23.7 J**	**9.96 J**	**10.6 J**	25	50
Vanadium	**42.2**	ND	**3.14 J**	**2.66 J**	**2.26 J**	ns	25
Zinc	**144**	**3.94 J**	**63.6**	**34.9**	**34.0**	50**	10

NC SWSL = North Carolina Solid Waste Section Limit
ND = Analyte not detected
* = Title 15A NCAC 2B Standards for Class C, WS-V surface water
** = Freshwater Standard
J = Estimated value between the detection limit and the NC SWSL.
B = The analyte was detected in the associated method blank.
ns = Title 15A NCAC 2B provides no established standard for these constituents
Orange highlights indicate a measurement higher than 2B standards.

FIGURES

TABLE 1
GROUNDWATER ELEVATION DATA SUMMARY
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Well No.	Elevation TOC (feet)	Depth of Well (feet)	Static Water Levels			
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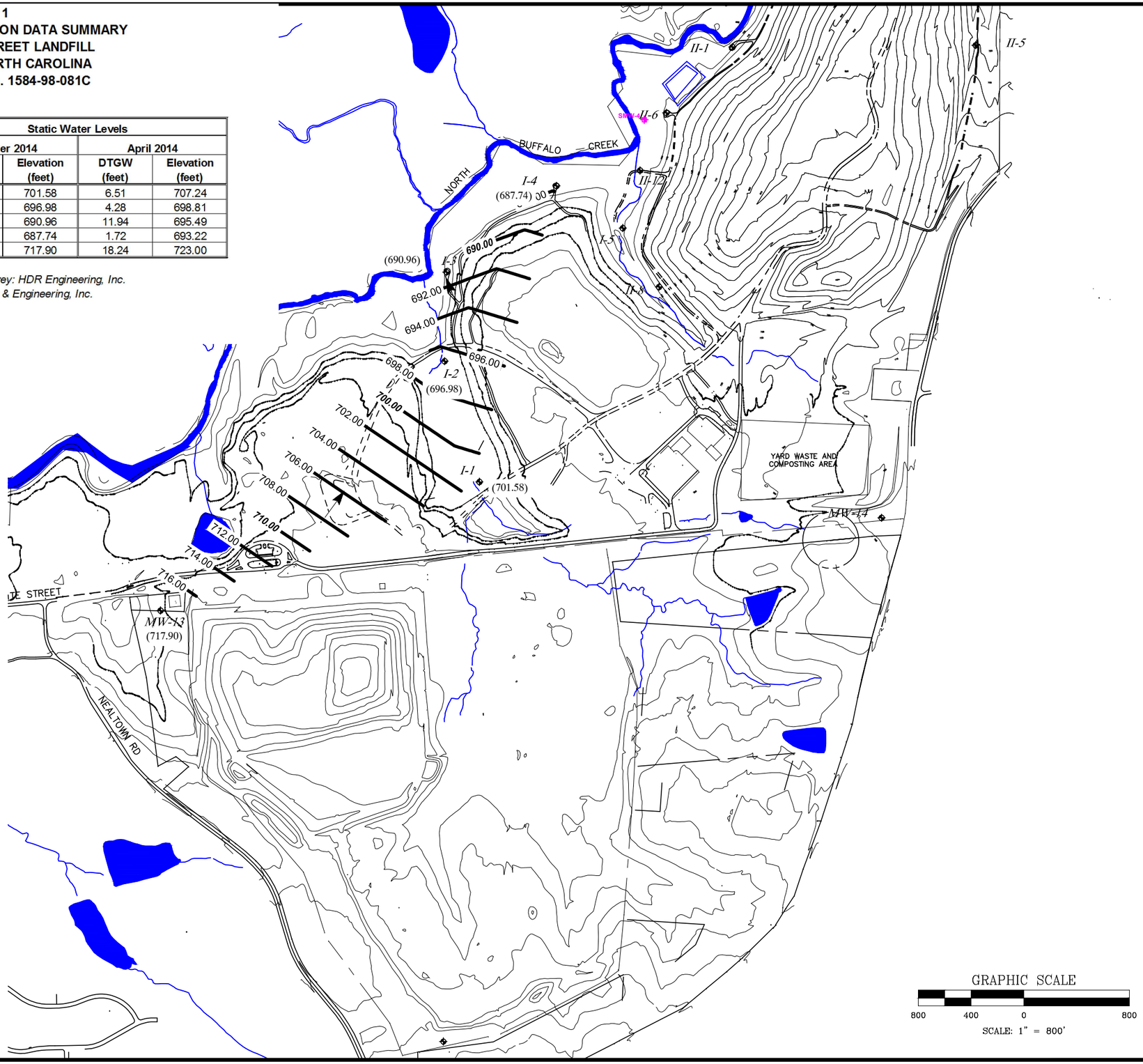
TOC = Top of Casing. Elevations determined by survey: HDR Engineering, Inc.
Depth of well data as reported by BPA Environmental & Engineering, Inc.
DTGW = Depth to Groundwater
Elevation = calculated groundwater elevation



GROUNDWATER FLOW MAP
PHASE I
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA

SCALE: AS SHOWN
JOB NO. 1584-98-081
DRAWN BY: RDM
DATE: NOVEMBER 2014
CHECKED BY: EQBH
FIGURE NO. 1

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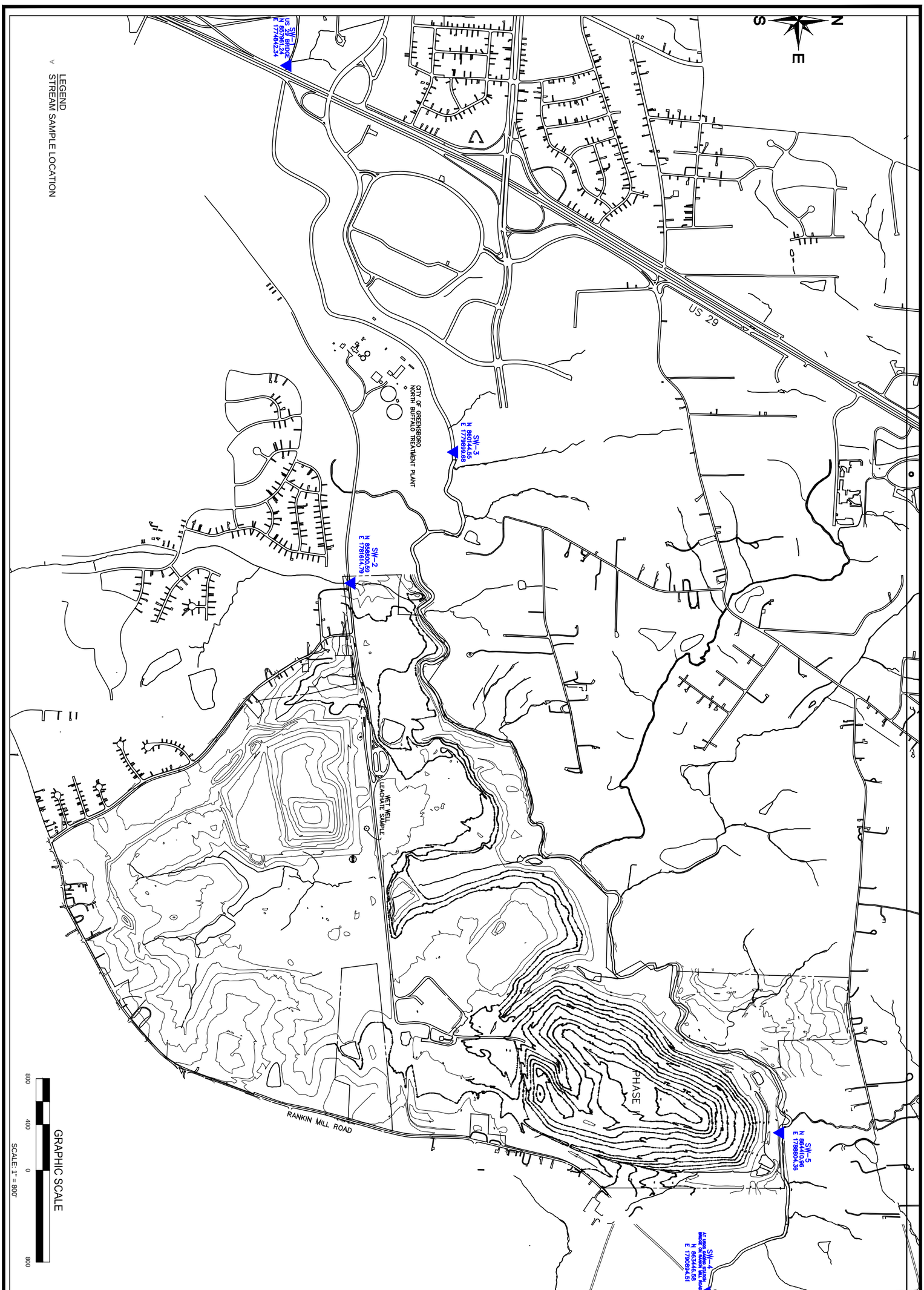

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STREAM SAMPLE LOCATION
PHASE I
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA

SCALE:	DRAWN BY:	CHECKED BY:
AS SHOWN	DSB/RDM	LE
JOB NO.	DATE:	FIGURE NO.
1584-98-081	NOVEMBER 2007	2

APPENDIX I
GROUNDWATER SAMPLING FIELD DATA SHEETS

Blank

Location: White Street Landfill
Project No.: 1584-98-081
Source Well: 4112-SW1
Locked?: Yes: x No:
Sampled By: Gary Simcox

Purge Date: Thursday, October 02, 2014
Purge Time:
Sample Date: Thursday, October 02, 2014
Sample Time: 805
Weather: Foggy
Air Temp: 60 *F

Water Level & Well Data

Depth to water from measuring point: feet
Depth to well bottom from measuring point: feet
Height of water column: 0.00 feet
Measuring point:

Well Purging & Sample Collection

Purge Method
Sample Method
Purge Rate ml/min
Control Settings On: sec.
Off: sec.
Pressure: psi

Purge Time
Start Stop
Sample Collection Time
Start Stop

Volume of water in well
2" well:
height: 0 x .163 = 0

Volume of water removed gallons liters

Was well purged dry Yes No

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
Final Readings	805	10/2/2014	19.33	8.03	0.276				
			* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
Project No.: 1584-98-081
Source Well: 4112-SW2

Locked?: Yes: x No:
Sampled By: Gary Simcox

Purge Date: Wednesday, October 01, 2014
Purge Time:
Sample Date: Wednesday, October 01, 2014
Sample Time: 1630
Weather: Sunny
Air Temp: 75 *F

Water Level & Well Data

Depth to water from measuring point: feet
Depth to well bottom from measuring point: feet
Height of water column: 0.00 feet
Measuring point:

Well Purging & Sample Collection

Purge Method
Sample Method
Purge Rate ml/min
Control Settings On: sec.
Off: sec.
Pressure: psi

Purge Time
Start Stop
Sample Collection Time
Start Stop

Volume of water in well
2" well:
height: 0 x .163 = 0

Volume of water removed gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
Final Readings	1630	10/1/2014	19.21	8.03	0.228				
			* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
Project No.: 1584-98-081
Source Well: 4112-SW3

Locked?: Yes: ____ No: ____
Sampled By: Gary Simcox

Purge Date: Thursday, October 02, 2014
Purge Time:
Sample Date: Thursday, October 02, 2014
Sample Time: 735
Weather: Foggy
Air Temp: 60 *F

Water Level & Well Data

Depth to water from measuring point: ____ feet
Depth to well bottom from measuring point: ____ feet
Height of water column: 0.00 feet
Measuring point: ____

Well Purging & Sample Collection

Purge Method ____
Sample Method ____
Purge Rate ____ ml/min
Control Settings On: ____ sec.
Off: ____ sec.
Pressure: ____ psi

Purge Time
Start ____ Stop ____
Sample Collection Time
Start ____ Stop ____

Volume of water in well
2" well:
height: 0 x .163 = 0

Volume of water removed ____ gallons ____ liters ____

Was well purged dry Yes ____ No **x**

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
Final Readings	735	10/2/2014	21.28	7.88	0.454				
			* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
Project No.: 1584-98-081
Source Well: 4112-SW4

Locked?: Yes: x No:
Sampled By: Gary Simcox

Purge Date: Thursday, October 02, 2014
Purge Time:
Sample Date: Thursday, October 02, 2014
Sample Time: 650
Weather: Foggy
Air Temp: 60 *F

Water Level & Well Data

Depth to water from measuring point: feet
Depth to well bottom from measuring point: feet
Height of water column: 0.00 feet
Measuring point:

Well Purging & Sample Collection

Purge Method
Sample Method
Purge Rate ml/min
Control Settings On: sec.
Off: sec.
Pressure: psi

Purge Time
Start Stop
Sample Collection Time
Start Stop

Volume of water in well
2" well:
height: 0 x .163 = 0

Volume of water removed gallons liters

Was well purged dry Yes No

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
Final Readings	650	10/2/2014	19.92	7.72	0.444				
			* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
Project No.: 1584-98-081
Source Well: 4112-SW5
Locked?: Yes: x No:
Sampled By: Gary Simcox

Purge Date: Wednesday, October 01, 2014
Purge Time:
Sample Date: Wednesday, October 01, 2014
Sample Time: 1600
Weather: Sunny
Air Temp: 85 *F

Water Level & Well Data

Depth to water from measuring point: feet
Depth to well bottom from measuring point: feet
Height of water column: 0.00 feet
Measuring point:

Well Purging & Sample Collection

Purge Method
Sample Method
Purge Rate gpm
Control Settings On: sec.
Off: sec.
Pressure: psi

Purge Time
Start Stop
Sample Collection Time
Start Stop

Volume of water in well
2" well:
height: 0 x .163 = 0

Volume of water removed 0.0 gallons x liters

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
Final Readings	1600	10/1/2014	22.08	7.84	0.441				
			* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location:	White Street Landfill	Purge Date:	Monday, October 06, 2014
Project No.:	1584-98-081	Purge Time:	
Source Well:	4103-MW13	Sample Date:	Monday, October 06, 2014
		Sample Time:	905
Locked?:	Yes: x No:	Weather:	Sunny
Sampled By:	Gary Simcox	Air Temp:	45 *F

Water Level & Well Data

Depth to water from measuring point:	23.34	feet
Depth to well bottom from measuring point:	33.00	feet
Height of water column:	9.66	feet
Measuring point:	Top of Casing	

Well Purging & Sample Collection

Purge Method: Bladder Pump
Sample Method: Bladder Pump
Purge Rate: 100 ml/min
Control Settings: On: 3.0 sec. Off: 27.0 sec.
Pressure: psi

Purge Time
Start 730 Stop 805

Sample Collection Time
Start 805 Stop 905

Volume of water in well

2" well:

height: 9.66 x .163 = 1.57458

Volume of water removed: 4.0 gallons liters x

Was well purged dry: Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
730	10/6/2014							
735	10/6/2014	10.68	7.52	0.647	109	5.82	9.11	23.95
740	10/6/2014	11.12	7.66	0.473	106	5.57	9.78	24.05
745	10/6/2014	11.46	7.70	0.490	106	5.30	6.24	24.24
750	10/6/2014	11.57	7.71	0.424	108	4.72	5.79	24.73
755	10/6/2014	11.66	7.70	0.425	109	4.68	5.74	24.93
800	10/6/2014	11.82	7.69	0.426	109	4.51	5.75	25.28
805	10/6/2014	11.86	7.69	0.425	109	4.59	5.76	25.50

Final Readings	805	10/6/2014	11.86	7.69	0.425	109	4.59	5.76	25.50
			* C	units	mS/cm	mV	mg/L	NTU	

Blank

Location:	White Street Landfill	Purge Date:	Wednesday, October 01, 2014
Project No.:	1584-98-081	Purge Time:	
Source Well:	4103-I1	Sample Date:	Wednesday, October 01, 2014
		Sample Time:	1030
Locked?:	Yes: x No:	Weather:	Cloudy
Sampled By:	Gary Simcox	Air Temp:	70 *F

Water Level & Well Data

Depth to water from measuring point:	12.17	feet
Depth to well bottom from measuring point:	25.00	feet
Height of water column:	12.83	feet
Measuring point:	Top of Casing	

Well Purging & Sample Collection

Purge Method: Bladder Pump
Sample Method: Bladder Pump
Purge Rate: 100 ml/min
Control Settings: On: 3.0 sec. Off: 27.0 sec.
Pressure: psi

Purge Time
Start 940 Stop 1020

Sample Collection Time
Start 1020 Stop 1030

Volume of water in well

2" well:

height: 12.83 x .163 = 2.09129

Volume of water removed: 4.0 gallons liters x

Was well purged dry: Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
940	10/1/2014							
945	10/1/2014	17.30	6.17	3.260	121	3.41	11.74	12.25
950	10/1/2014	17.08	5.99	3.400	78	1.82	14.44	12.34
955	10/1/2014	17.08	6.00	3.400	66	2.08	9.76	12.35
1000	10/1/2014	17.05	6.01	3.370	62	1.85	7.47	12.34
1005	10/1/2014	17.10	6.03	3.380	50	1.64	5.94	12.41
1010	10/1/2014	17.02	6.02	3.390	50	1.81	5.38	12.39
1015	10/1/2014	17.01	6.04	3.390	47	1.80	5.19	12.36
1020	10/1/2014	17.04	6.04	3.400	45	1.67	5.14	12.35

Final Readings	1020	10/1/2014	17.04	6.04	3.400	45	1.67	5.14	12.35
			* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
Project No.: 1584-98-081
Source Well: 4103-I2

Locked?: Yes: x No:
Sampled By: Gary Simcox

Purge Date: Wednesday, October 01, 2014
Purge Time:
Sample Date: Wednesday, October 01, 2014
Sample Time: 1210
Weather: Cloudy
Air Temp: 70 *F

Water Level & Well Data

Depth to water from measuring point: 6.11 feet
Depth to well bottom from measuring point: 21.30 feet
Height of water column: 15.19 feet
Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Bladder Pump
Sample Method Bladder Pump
Purge Rate 100 ml/min
Control Settings On: 3.0 sec.
Off: 27.0 sec.
Pressure: psi

Purge Time
Start 1100 Stop 1200
Sample Collection Time
Start 1200 Stop 1210

Volume of water in well
2" well:
height: 15.19 x .163 = 2.47597

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1100	10/1/2014							
1105	10/1/2014	19.20	6.46	2.550	-42	2.14	16.49	6.85
1110	10/1/2014	18.79	6.53	2.520	-57	1.62	12.31	7.05
1115	10/1/2014	18.64	6.52	2.560	-60	1.79	14.78	7.20
1120	10/1/2014	18.52	6.52	2.590	-62	2.23	20.80	7.34
1125	10/1/2014	18.52	6.53	2.580	-64	2.35	21.20	7.49
1130	10/1/2014	18.55	6.56	2.580	-56	2.71	24.80	7.64
1135	10/1/2014	18.63	6.57	2.590	-58	3.04	25.40	7.72
1140	10/1/2014	18.73	6.61	2.590	-60	3.33	26.10	7.83
1145	10/1/2014	18.63	6.62	2.580	-65	3.26	26.00	7.87
1150	10/1/2014	18.57	6.64	2.580	-69	3.32	25.90	7.93
1155	10/1/2014	18.65	6.68	2.580	-68	3.61	22.10	8.04
1200	10/1/2014	18.64	6.70	2.580	-70	3.42	26.00	8.03

Final Readings	1200	10/1/2014	18.64	6.70	2.580	-70	3.42	26.00	8.03
			* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
Project No.: 1584-98-081
Source Well: 4103-I3

Locked?: Yes: x No:
Sampled By: Gary Simcox

Purge Date: Wednesday, October 01, 2014
Purge Time:
Sample Date: Wednesday, October 01, 2014
Sample Time: 1320
Weather: Cloudy
Air Temp: 70 *F

Water Level & Well Data

Depth to water from measuring point: 16.47 feet
Depth to well bottom from measuring point: 24.20 feet
Height of water column: 7.73 feet
Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method: Bladder Pump
Sample Method: Bladder Pump
Purge Rate: 100 ml/min
Control Settings: On: 3.0 sec.
Off: 27.0 sec.
Pressure: 21 psi

Purge Time
Start 1225 Stop 1310
Sample Collection Time
Start 1310 Stop 1320

Volume of water in well
2" well:
height: 7.73 x .163 = 1.25999

Volume of water removed: 4.0 gallons liters x

Was well purged dry: Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1225	10/1/2014							
1230	10/1/2014	18.95	7.07	2.530	-25	5.19	30.60	16.64
1235	10/1/2014	17.63	6.96	2.950	-18	3.21	14.82	16.71
1240	10/1/2014	17.38	6.92	3.070	-22	2.34	10.33	16.81
1245	10/1/2014	17.29	6.88	3.170	-28	1.55	7.68	16.91
1250	10/1/2014	17.17	6.87	3.240	-36	1.02	7.16	17.00
1255	10/1/2014	17.34	6.85	3.280	-45	0.65	6.15	17.15
1300	10/1/2014	17.40	6.86	3.310	-47	0.51	5.88	17.41
1305	10/1/2014	17.53	6.85	3.310	-46	0.46	6.35	17.59
1310	10/1/2014	17.64	6.85	3.320	-45	0.42	6.12	17.73

Final Readings	1310	10/1/2014	17.64	6.85	3.320	-45	0.42	61.00	17.70
			* C	units	mS/cm	mV	mg/L	NTU	

Location:	White Street Landfill	Purge Date:	Wednesday, October 01, 2014
Project No.:	1584-98-081	Purge Time:	
Source Well:	4103-I4	Sample Date:	Wednesday, October 01, 2014
		Sample Time:	1440
Locked?:	Yes: x No:	Weather:	Cloudy
Sampled By:	Gary Simcox	Air Temp:	70 *F

Water Level & Well Data

Depth to water from measuring point:	7.20	feet
Depth to well bottom from measuring point:	15.00	feet
Height of water column:	7.80	feet
Measuring point:	Top of Casing	

Well Purging & Sample Collection

Purge Method: Bladder Pump
Sample Method: Bladder Pump
Purge Rate: 100 ml/min
Control Settings: On: 2.0 sec. Off: 28.0 sec. Pressure: 15 psi

Purge Time
Start 1345 Stop 1430

Sample Collection Time
Start 1430 Stop 1440

Volume of water in well

2" well:

height: 7.8 x .163 = 1.2714

Volume of water removed: 5.0 gallons _____ liters x

Was well purged dry: Yes _____ No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1345	10/1/2014							
1350	10/1/2014	19.20	7.40	2.090	-138	0.68	28.10	7.48
1355	10/1/2014	18.66	7.43	1.940	-141	0.26	33.00	7.68
1400	10/1/2014	18.71	7.43	1.930	-141	0.22	21.90	7.85
1405	10/1/2014	18.77	7.43	1.930	-142	0.18	15.41	8.01
1410	10/1/2014	18.83	7.42	1.920	-139	0.17	14.35	8.15
1415	10/1/2014	18.89	7.43	1.920	-137	0.16	13.01	8.27
1420	10/1/2014	18.81	7.43	1.930	-134	0.17	12.21	8.50
1425	10/1/2014	18.85	7.43	1.930	-133	0.17	12.03	8.54
1430	10/1/2014	18.84	7.43	1.930	-133	0.17	11.92	8.57

Final Readings	1430	10/1/2014	18.84	7.43	193.000	-133	0.17	11.92	8.57
			* C	units	mS/cm	mV	mg/L	NTU	

APPENDIX II
LABORATORY ANALYTICAL REPORTS

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

www.encolabs.com

Wednesday, October 15, 2014

City of Greensboro (CI034)

Attn: Gail Hay

2503 White Street

Greensboro, NC 27405

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: White Street Landfill AppI (Phase I)
ENCO Workorder(s): C411818

Dear Gail Hay,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, October 2, 2014.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 27.

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 4103-I1	Lab ID: C411818-01	Sampled: 10/01/14 10:30	Received: 10/02/14 12:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	03/30/15	10/10/14 10:44	10/13/2014 14:06
EPA 7470A	10/29/14	10/08/14 15:55	10/9/2014 14:31
EPA 8260B	10/15/14	10/09/14 14:23	10/10/2014 14:50

Client ID: 4103-I2	Lab ID: C411818-02	Sampled: 10/02/14 12:10	Received: 10/02/14 12:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	03/31/15	10/10/14 10:44	10/13/2014 14:09
EPA 7470A	10/30/14	10/08/14 15:55	10/9/2014 14:33
EPA 8260B	10/16/14	10/09/14 14:23	10/10/2014 15:19

Client ID: 4103-I3	Lab ID: C411818-03	Sampled: 10/01/14 13:20	Received: 10/02/14 12:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	03/30/15	10/10/14 10:44	10/13/2014 14:12
EPA 7470A	10/29/14	10/08/14 15:55	10/9/2014 14:35
EPA 8260B	10/15/14	10/13/14 17:51	10/14/2014 12:18

Client ID: 4103-I4	Lab ID: C411818-04	Sampled: 10/01/14 14:40	Received: 10/02/14 12:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	03/30/15	10/10/14 10:44	10/13/2014 14:15
EPA 7470A	10/29/14	10/08/14 15:55	10/9/2014 14:42
EPA 8260B	10/15/14	10/09/14 14:23	10/10/2014 16:18

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 4103-I1 **Lab ID: C411818-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	0.74	J	1	0.13	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	4.9		1	0.19	1.0	1	ug/L	EPA 8260B	
Barium - Total	585		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	3.9		1	0.15	1.0	1	ug/L	EPA 8260B	
Chlorobenzene	9.8		1	0.17	1.0	3	ug/L	EPA 8260B	
Chromium - Total	2.59	J	1	1.40	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.61	J	1	0.15	1.0	5	ug/L	EPA 8260B	

Client ID: 4103-I2 **Lab ID: C411818-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,2-Dichlorobenzene	1.3	J	1	0.19	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	1.6		1	0.19	1.0	1	ug/L	EPA 8260B	
Barium - Total	524		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	0.54	J	1	0.15	1.0	1	ug/L	EPA 8260B	
Chlorobenzene	8.1		1	0.17	1.0	3	ug/L	EPA 8260B	
Chromium - Total	12.8		1	1.40	10.0	10	ug/L	EPA 6010C	

Client ID: 4103-I3 **Lab ID: C411818-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	1.5	J	1	0.13	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	2.2		1	0.19	1.0	1	ug/L	EPA 8260B	
Barium - Total	136		1	1.00	10.0	100	ug/L	EPA 6010C	
Chlorobenzene	9.5		1	0.17	1.0	3	ug/L	EPA 8260B	
Chromium - Total	6.34	J	1	1.40	10.0	10	ug/L	EPA 6010C	

Client ID: 4103-I4 **Lab ID: C411818-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,4-Dichlorobenzene	5.0		1	0.19	1.0	1	ug/L	EPA 8260B	
Barium - Total	537		1	1.00	10.0	100	ug/L	EPA 6010C	
Chlorobenzene	9.3		1	0.17	1.0	3	ug/L	EPA 8260B	
Chromium - Total	5.58	J	1	1.40	10.0	10	ug/L	EPA 6010C	

ANALYTICAL RESULTS

Description: 4103-I1 **Lab Sample ID:** C411818-01 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/01/14 10:30 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/10/14 14:50	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/10/14 14:50	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
1,1-Dichloroethane [75-34-3] ^	**0.74**	J	ug/L	1	0.13	1.0	5	EPA 8260B	10/10/14 14:50	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/10/14 14:50	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/10/14 14:50	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/10/14 14:50	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	**4.9**		ug/L	1	0.19	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/10/14 14:50	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/10/14 14:50	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/10/14 14:50	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/10/14 14:50	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/10/14 14:50	MSZ	
Benzene [71-43-2] ^	**3.9**		ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/10/14 14:50	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/10/14 14:50	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/10/14 14:50	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/10/14 14:50	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Chlorobenzene [108-90-7] ^	**9.8**		ug/L	1	0.17	1.0	3	EPA 8260B	10/10/14 14:50	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/10/14 14:50	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/10/14 14:50	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	**0.61**	J	ug/L	1	0.15	1.0	5	EPA 8260B	10/10/14 14:50	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/10/14 14:50	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/10/14 14:50	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/10/14 14:50	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/10/14 14:50	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/10/14 14:50	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	

Description: 4103-I1 **Lab Sample ID:** C411818-01 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/01/14 10:30 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/10/14 14:50	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/10/14 14:50	MSZ	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/10/14 14:50	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*61*	*1*	*50.0*	*122 %*	*53-136*	*4J09039*	*EPA 8260B*	*10/10/14 14:50*	*MSZ*	
Dibromofluoromethane	*55*	*1*	*50.0*	*109 %*	*67-129*	*4J09039*	*EPA 8260B*	*10/10/14 14:50*	*MSZ*	
Toluene-d8	*62*	*1*	*50.0*	*124 %*	*59-134*	*4J09039*	*EPA 8260B*	*10/10/14 14:50*	*MSZ*	

Description: 4103-I1 **Lab Sample ID:** C411818-01 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/01/14 10:30 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	10/09/14 14:31	T1D	

Description: 4103-I1 **Lab Sample ID:** C411818-01 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/01/14 10:30 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	5.40	U	ug/L	1	5.40	10.0	10	EPA 6010C	10/13/14 14:06	JDH	
Barium [7440-39-3] ^	**585**		ug/L	1	1.00	10.0	100	EPA 6010C	10/13/14 14:06	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/13/14 14:06	JDH	
Chromium [7440-47-3] ^	**2.59**	J	ug/L	1	1.40	10.0	10	EPA 6010C	10/13/14 14:06	JDH	
Lead [7439-92-1] ^	2.10	U	ug/L	1	2.10	10.0	10	EPA 6010C	10/13/14 14:06	JDH	
Selenium [7782-49-2] ^	5.00	U	ug/L	1	5.00	10.0	10	EPA 6010C	10/13/14 14:06	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/13/14 14:06	JDH	

Description: 4103-I2 **Lab Sample ID:** C411818-02 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/02/14 12:10 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/10/14 15:19	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/10/14 15:19	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/10/14 15:19	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/10/14 15:19	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/10/14 15:19	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	**1.3**	J	ug/L	1	0.19	1.0	5	EPA 8260B	10/10/14 15:19	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	**1.6**		ug/L	1	0.19	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/10/14 15:19	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/10/14 15:19	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/10/14 15:19	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/10/14 15:19	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/10/14 15:19	MSZ	
Benzene [71-43-2] ^	**0.54**	J	ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/10/14 15:19	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/10/14 15:19	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/10/14 15:19	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/10/14 15:19	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Chlorobenzene [108-90-7] ^	**8.1**		ug/L	1	0.17	1.0	3	EPA 8260B	10/10/14 15:19	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/10/14 15:19	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/10/14 15:19	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/10/14 15:19	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/10/14 15:19	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/10/14 15:19	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/10/14 15:19	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/10/14 15:19	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/10/14 15:19	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/10/14 15:19	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/10/14 15:19	MSZ	

Description: 4103-I2 | **Lab Sample ID:** C411818-02 | **Received:** 10/02/14 12:30

Matrix: Ground Water | **Sampled:** 10/02/14 12:10 | **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) | **Sampled By:** Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/10/14 15:19	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*57*	*1*	*50.0*	*114 %*	*53-136*	*4J09039*	*EPA 8260B*	*10/10/14 15:19*	*MSZ*	
Dibromofluoromethane	*51*	*1*	*50.0*	*102 %*	*67-129*	*4J09039*	*EPA 8260B*	*10/10/14 15:19*	*MSZ*	
Toluene-d8	*57*	*1*	*50.0*	*114 %*	*59-134*	*4J09039*	*EPA 8260B*	*10/10/14 15:19*	*MSZ*	

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Description: 4103-I2 | **Lab Sample ID:** C411818-02 | **Received:** 10/02/14 12:30

Matrix: Ground Water | **Sampled:** 10/02/14 12:10 | **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) | **Sampled By:** Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	10/09/14 14:33	T1D	

Description: 4103-I2 **Lab Sample ID:** C411818-02 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/02/14 12:10 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	5.40	U	ug/L	1	5.40	10.0	10	EPA 6010C	10/13/14 14:09	JDH	
Barium [7440-39-3] ^	**524**		ug/L	1	1.00	10.0	100	EPA 6010C	10/13/14 14:09	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/13/14 14:09	JDH	
Chromium [7440-47-3] ^	**12.8**		ug/L	1	1.40	10.0	10	EPA 6010C	10/13/14 14:09	JDH	
Lead [7439-92-1] ^	2.10	U	ug/L	1	2.10	10.0	10	EPA 6010C	10/13/14 14:09	JDH	
Selenium [7782-49-2] ^	5.00	U	ug/L	1	5.00	10.0	10	EPA 6010C	10/13/14 14:09	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/13/14 14:09	JDH	

Description: 4103-I3 **Lab Sample ID:** C411818-03 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/01/14 13:20 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/14/14 12:18	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/14/14 12:18	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
1,1-Dichloroethane [75-34-3] ^	**1.5**	J	ug/L	1	0.13	1.0	5	EPA 8260B	10/14/14 12:18	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/14 12:18	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/14/14 12:18	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/14/14 12:18	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	**2.2**		ug/L	1	0.19	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/14/14 12:18	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/14/14 12:18	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/14/14 12:18	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/14/14 12:18	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/14/14 12:18	MSZ	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/14/14 12:18	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/14/14 12:18	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/14/14 12:18	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/14/14 12:18	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Chlorobenzene [108-90-7] ^	**9.5**		ug/L	1	0.17	1.0	3	EPA 8260B	10/14/14 12:18	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/14/14 12:18	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/14/14 12:18	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/14/14 12:18	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/14/14 12:18	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/14/14 12:18	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/14/14 12:18	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/14 12:18	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/14/14 12:18	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/14/14 12:18	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/14/14 12:18	MSZ	

Description: 4103-I3 | **Lab Sample ID:** C411818-03 | **Received:** 10/02/14 12:30

Matrix: Ground Water | **Sampled:** 10/01/14 13:20 | **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) | **Sampled By:** Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/14/14 12:18	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*59*	*1*	*50.0*	*118 %*	*53-136*	*4J13034*	*EPA 8260B*	*10/14/14 12:18*	*MSZ*	
Dibromofluoromethane	*54*	*1*	*50.0*	*108 %*	*67-129*	*4J13034*	*EPA 8260B*	*10/14/14 12:18*	*MSZ*	
Toluene-d8	*58*	*1*	*50.0*	*116 %*	*59-134*	*4J13034*	*EPA 8260B*	*10/14/14 12:18*	*MSZ*	

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Description: 4103-I3 | **Lab Sample ID:** C411818-03 | **Received:** 10/02/14 12:30

Matrix: Ground Water | **Sampled:** 10/01/14 13:20 | **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) | **Sampled By:** Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	10/09/14 14:35	T1D	

Description: 4103-I3 | **Lab Sample ID:** C411818-03 | **Received:** 10/02/14 12:30

Matrix: Ground Water | **Sampled:** 10/01/14 13:20 | **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) | **Sampled By:** Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	5.40	U	ug/L	1	5.40	10.0	10	EPA 6010C	10/13/14 14:12	JDH	
Barium [7440-39-3] ^	**136**		ug/L	1	1.00	10.0	100	EPA 6010C	10/13/14 14:12	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/13/14 14:12	JDH	
Chromium [7440-47-3] ^	**6.34**	J	ug/L	1	1.40	10.0	10	EPA 6010C	10/13/14 14:12	JDH	
Lead [7439-92-1] ^	2.10	U	ug/L	1	2.10	10.0	10	EPA 6010C	10/13/14 14:12	JDH	
Selenium [7782-49-2] ^	5.00	U	ug/L	1	5.00	10.0	10	EPA 6010C	10/13/14 14:12	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/13/14 14:12	JDH	

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Description: 4103-I4 | **Lab Sample ID:** C411818-04 | **Received:** 10/02/14 12:30

Matrix: Ground Water | **Sampled:** 10/01/14 14:40 | **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) | **Sampled By:** Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/10/14 16:18	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/10/14 16:18	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/10/14 16:18	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/10/14 16:18	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/10/14 16:18	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/10/14 16:18	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	**5.0**		ug/L	1	0.19	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/10/14 16:18	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/10/14 16:18	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/10/14 16:18	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/10/14 16:18	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/10/14 16:18	MSZ	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/10/14 16:18	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/10/14 16:18	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/10/14 16:18	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/10/14 16:18	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Chlorobenzene [108-90-7] ^	**9.3**		ug/L	1	0.17	1.0	3	EPA 8260B	10/10/14 16:18	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/10/14 16:18	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/10/14 16:18	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/10/14 16:18	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/10/14 16:18	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/10/14 16:18	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/10/14 16:18	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/10/14 16:18	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/10/14 16:18	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/10/14 16:18	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/10/14 16:18	MSZ	

Description: 4103-I4 | **Lab Sample ID:** C411818-04 | **Received:** 10/02/14 12:30

Matrix: Ground Water | **Sampled:** 10/01/14 14:40 | **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) | **Sampled By:** Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/10/14 16:18	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*59*	*1*	*50.0*	*119 %*	*53-136*	*4J09039*	*EPA 8260B*	*10/10/14 16:18*	*MSZ*	
Dibromofluoromethane	*54*	*1*	*50.0*	*108 %*	*67-129*	*4J09039*	*EPA 8260B*	*10/10/14 16:18*	*MSZ*	
Toluene-d8	*58*	*1*	*50.0*	*117 %*	*59-134*	*4J09039*	*EPA 8260B*	*10/10/14 16:18*	*MSZ*	

Description: 4103-I4 **Lab Sample ID:** C411818-04 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/01/14 14:40 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	10/09/14 14:42	T1D	

Description: 4103-I4 **Lab Sample ID:** C411818-04 **Received:** 10/02/14 12:30

Matrix: Ground Water **Sampled:** 10/01/14 14:40 **Work Order:** C411818

Project: White Street Landfill AppI (Phase I) **Sampled By:** Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	5.40	U	ug/L	1	5.40	10.0	10	EPA 6010C	10/13/14 14:15	JDH	
Barium [7440-39-3] ^	**537**		ug/L	1	1.00	10.0	100	EPA 6010C	10/13/14 14:15	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/13/14 14:15	JDH	
Chromium [7440-47-3] ^	**5.58**	J	ug/L	1	1.40	10.0	10	EPA 6010C	10/13/14 14:15	JDH	
Lead [7439-92-1] ^	2.10	U	ug/L	1	2.10	10.0	10	EPA 6010C	10/13/14 14:15	JDH	
Selenium [7782-49-2] ^	5.00	U	ug/L	1	5.00	10.0	10	EPA 6010C	10/13/14 14:15	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/13/14 14:15	JDH	

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 4J09039 - EPA 5030B_MS

Blank (4J09039-BLK1) Prepared: 10/09/2014 14:23 Analyzed: 10/10/2014 09:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.23	U	1.0	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*57*			*ug/L*	*50.0*		*115*	*53-136*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 4J09039 - EPA 5030B_MS

Blank (4J09039-BLK1) Continued Prepared: 10/09/2014 14:23 Analyzed: 10/10/2014 09:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*59*			*ug/L*	*50.0*		*117*	*67-129*			
Surrogate: Toluene-d8	*57*			*ug/L*	*50.0*		*114*	*59-134*			

LCS (4J09039-BS1) Prepared: 10/09/2014 14:23 Analyzed: 10/10/2014 10:26

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	19		1.0	ug/L	20.0		95	75-133			
Benzene	18		1.0	ug/L	20.0		91	81-134			
Chlorobenzene	18		1.0	ug/L	20.0		89	83-117			
Toluene	17		1.0	ug/L	20.0		85	71-118			
Trichloroethene	19		1.0	ug/L	20.0		97	74-119			

Matrix Spike (4J09039-MS1) Prepared: 10/09/2014 14:23 Analyzed: 10/10/2014 10:55

Source: C413192-09

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	20		1.0	ug/L	20.0	0.21 U	99	75-133			
Benzene	20		1.0	ug/L	20.0	0.15 U	99	81-134			
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	90	83-117			
Toluene	19		1.0	ug/L	20.0	0.14 U	96	71-118			
Trichloroethene	21		1.0	ug/L	20.0	0.15 U	106	74-119			

Matrix Spike Dup (4J09039-MSD1) Prepared: 10/09/2014 14:23 Analyzed: 10/10/2014 11:24

Source: C413192-09

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.21 U	108	75-133	9	20	
Benzene	19		1.0	ug/L	20.0	0.15 U	96	81-134	3	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.17 U	101	83-117	12	16	
Toluene	18		1.0	ug/L	20.0	0.14 U	91	71-118	6	17	
Trichloroethene	20		1.0	ug/L	20.0	0.15 U	100	74-119	6	22	

Batch 4J13034 - EPA 5030B_MS

Blank (4J13034-BLK1) Prepared: 10/13/2014 17:51 Analyzed: 10/14/2014 09:50

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 4J13034 - EPA 5030B_MS

Blank (4J13034-BLK1) Continued Prepared: 10/13/2014 17:51 Analyzed: 10/14/2014 09:50

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.23	U	1.0	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*60*			*ug/L*	*50.0*		*121*	*53-136*			
Surrogate: Dibromofluoromethane	*54*			*ug/L*	*50.0*		*107*	*67-129*			
Surrogate: Toluene-d8	*57*			*ug/L*	*50.0*		*115*	*59-134*			

LCS (4J13034-BS1) Prepared: 10/13/2014 17:51 Analyzed: 10/14/2014 09:21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	18		1.0	ug/L	20.0		92	75-133			
Benzene	17		1.0	ug/L	20.0		85	81-134			
Chlorobenzene	17		1.0	ug/L	20.0		83	83-117			
Toluene	16		1.0	ug/L	20.0		81	71-118			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 4J13034 - EPA 5030B_MS

LCS (4J13034-BS1) Continued Prepared: 10/13/2014 17:51 Analyzed: 10/14/2014 09:21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Trichloroethene	16		1.0	ug/L	20.0		78	74-119			

Matrix Spike (4J13034-MS1) Prepared: 10/13/2014 17:51 Analyzed: 10/14/2014 10:50

Source: C413325-06

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.21 U	112	75-133			
Benzene	19		1.0	ug/L	20.0	0.15 U	94	81-134			
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	90	83-117			
Toluene	16		1.0	ug/L	20.0	0.14 U	82	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.15 U	98	74-119			

Matrix Spike Dup (4J13034-MSD1) Prepared: 10/13/2014 17:51 Analyzed: 10/14/2014 11:19

Source: C413325-06

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.21 U	121	75-133	8	20	
Benzene	20		1.0	ug/L	20.0	0.15 U	98	81-134	4	17	
Chlorobenzene	19		1.0	ug/L	20.0	0.17 U	96	83-117	7	16	
Toluene	18		1.0	ug/L	20.0	0.14 U	91	71-118	11	17	
Trichloroethene	20		1.0	ug/L	20.0	0.15 U	100	74-119	2	22	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 4J08037 - EPA 7470A

Blank (4J08037-BLK1) Prepared: 10/08/2014 15:55 Analyzed: 10/09/2014 14:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.170	U	0.200	ug/L							

Blank (4J08037-BLK2) Prepared: 10/08/2014 15:55 Analyzed: 10/09/2014 14:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.170	U	0.200	ug/L							

LCS (4J08037-BS1) Prepared: 10/08/2014 15:55 Analyzed: 10/09/2014 14:06

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.19		0.200	ug/L	5.00		104	80-120			

Matrix Spike (4J08037-MS1) Prepared: 10/08/2014 15:55 Analyzed: 10/09/2014 14:10

Source: C411283-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.54		0.200	ug/L	5.00	0.170 U	111	75-125			

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 4J08037 - EPA 7470A

Matrix Spike Dup (4J08037-MSD1) Prepared: 10/08/2014 15:55 Analyzed: 10/09/2014 14:12

Source: C411283-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.72		0.200	ug/L	5.00	0.170 U	94	75-125	16	25	

Post Spike (4J08037-PS1) Prepared: 10/08/2014 15:55 Analyzed: 10/09/2014 14:19

Source: C411283-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.96		0.200	ug/L	5.00	-0.0580	79	75-125			

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4J10012 - EPA 3005A

Blank (4J10012-BLK1) Prepared: 10/10/2014 10:44 Analyzed: 10/13/2014 13:10

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	5.40	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.40	U	10.0	ug/L							
Lead	2.10	U	10.0	ug/L							
Selenium	5.00	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							

LCS (4J10012-BS1) Prepared: 10/10/2014 10:44 Analyzed: 10/13/2014 13:28

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	190		10.0	ug/L	200		95	80-120			
Barium	201		10.0	ug/L	200		101	80-120			
Cadmium	20.0		1.00	ug/L	20.0		100	80-120			
Chromium	192		10.0	ug/L	200		96	80-120			
Lead	195		10.0	ug/L	200		97	80-120			
Selenium	188		10.0	ug/L	200		94	80-120			
Silver	196		10.0	ug/L	200		98	80-120			

Matrix Spike (4J10012-MS1) Prepared: 10/10/2014 10:44 Analyzed: 10/13/2014 13:33

Source: C410857-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	208		10.0	ug/L	200	5.40 U	104	75-125			
Barium	221		10.0	ug/L	200	2.41	109	75-125			
Cadmium	21.9		1.00	ug/L	20.0	0.360 U	110	75-125			
Chromium	210		10.0	ug/L	200	1.40 U	105	75-125			
Lead	215		10.0	ug/L	200	2.10 U	107	75-125			
Selenium	211		10.0	ug/L	200	5.00 U	105	75-125			
Silver	209		10.0	ug/L	200	1.90 U	105	75-125			

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4J10012 - EPA 3005A

Matrix Spike Dup (4J10012-MSD1) Prepared: 10/10/2014 10:44 Analyzed: 10/13/2014 13:36

Source: C410857-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	210		10.0	ug/L	200	5.40 U	105	75-125	1	20	
Barium	223		10.0	ug/L	200	2.41	110	75-125	0.9	20	
Cadmium	22.1		1.00	ug/L	20.0	0.360 U	110	75-125	0.7	20	
Chromium	214		10.0	ug/L	200	1.40 U	107	75-125	2	20	
Lead	216		10.0	ug/L	200	2.10 U	108	75-125	0.5	20	
Selenium	218		10.0	ug/L	200	5.00 U	109	75-125	3	20	
Silver	213		10.0	ug/L	200	1.90 U	107	75-125	2	20	

Post Spike (4J10012-PS1) Prepared: 10/10/2014 10:44 Analyzed: 10/13/2014 13:38

Source: C410857-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.187		0.0100	mg/L	0.200	0.000587	93	80-120			
Barium	0.196		0.0100	mg/L	0.200	0.00241	97	80-120			
Cadmium	0.0193		0.00100	mg/L	0.0200	9.80E-5	96	80-120			
Chromium	0.183		0.0100	mg/L	0.200	-0.000253	91	80-120			
Lead	0.187		0.0100	mg/L	0.200	0.000260	94	80-120			
Selenium	0.187		0.0100	mg/L	0.200	-0.00801	94	80-120			
Silver	0.190		0.0100	mg/L	0.200	-0.000372	95	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

www.encolabs.com

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Page ____ of ____

Client Name: City of Greensboro (CI034)	Project Number: [none]
Address: 2503 White Street	Project Name/Desc: White Street Landfill Appl (Phase I)
City/ST/Zip: Greensboro, NC 27405	PO # / Billing Info:
Tel: (336) 373-4188 Fax:	Reporting Contact: Gail Hay
Sampler(s) Name, Affiliation (Print): Gaby Simcox	Billing Contact: Gail Hay
Sampler(s) Signature:	Site Location / Time Zone:

Requested Analyses

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C411818

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag,As,Ba,Cd,Cr,Pb,Se	Hg							Sample Comments
							Preservation (See Codes) (Combine as necessary)									
	4103-I1	10/1/14	1030	G	GW	4	X	X	X							
	4103-I2	10/1/14	1210	G	GW	4	X	X	X							
	4103-I3	10/1/14	1320	G	GW	4	X	X	X							
	4103-I4	10/1/14	1440	G	GW	4	X	X	X							

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time 10/1/14 1730	Received By	Date/Time 10/2/14 1230
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: C-1 1.6		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

Matrix : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

APPENDIX III
NCDENR ENVIRONMENTAL MONITORING REPORTING FORM

DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

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

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

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

S&ME, Inc.

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

Name: Edmund Henriques Phone: 336-288-7180

E-mail: ehenriques@smeinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
White Street Landfill - Phase I	North end of White Street, Greensboro, NC	41-03	Not Applicable	October 1-2, 2014

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

Edmund Q.B. Henriques | Environmental Department Manager | 336-288-7180

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

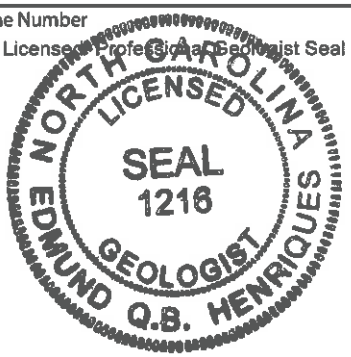
Edmund Q.B. Henriques | 1/21/2015 | Affix NC Licensed Professional Geologist Seal

Signature | Date

8646 Market Street, Suite 105, Greensboro, NC 27409

Facility Representative Address

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



Revised 6/2009