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):

SCS Engineers

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

Name: Marta VanDussen Phone: 828-285-8951

E-mail: mvandussen@scsengineers.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
A-1 Sandrock C&D Landfill	2132 Bishop Road, Greensboro Guilford County	41-17	.0500	November 25, 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.

David Garrett P.G. 919-418-4375

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

Digitally signed by dgarrett@scsengineers.com DN: cn=dgarrett@scsengineers.com Date: 2015.02.05 15:20:56 -05'00'

2-5-2015

Signature Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 967 GEOLOGIST DAVID GARRETT

322 Chapanoke Road, Suite 101, Raleigh, North Carolina 27603

Facility Representative Address

C-1837

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

Revised 6/2009

Environmental Consultants
and Contractors

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SCS ENGINEERS, PC

February 5, 2015
File No. 02214704.00

Ms. Jackie Drummond, Hydrogeologist
North Carolina Department of Environment and Natural Resources
Division of Waste Management, Solid Waste Section
2090 US Highway 70
Swannanoa, North Carolina 28778

Subject: **A-1 Sandrock Construction and Demolition Debris Landfill, Guilford County**
Facility Permit Number 41-17
Water Quality Monitoring Report
November 2014 Semiannual Sampling Event

Dear Ms. Drummond:

On behalf of A-1 Sandrock, Inc., SCS Engineers, PC is submitting the attached Water Quality Monitoring Report documenting November 2014 Semiannual Sampling Event for Construction and Demolition Debris Landfill (C&D Landfill), Facility Permit Number 41-17. The November 2014 monitoring event is the 2nd of the requested semiannual groundwater monitoring events for year 2014. In addition to the report, the signed Environmental Monitoring Reporting Form and the electronic data deliverable (EDD) are being submitted. This groundwater and surface water sampling event was conducted on November 25, 2014. The report provides details pertaining to the sampling event including field activities, laboratory analysis, water quality findings and conclusions. Historical groundwater and surface water results are also included in the report.

In summary, the results of the surface water monitoring event indicate conditions consistent with historic field and analytical data. The results of the groundwater monitoring event do not indicate any groundwater impact associated with the landfill, and there is no indication of any risk to the public. The next water quality monitoring event at the A-1 Sandrock C&D Landfill is scheduled for May 2015.

If you have any questions or need additional information, please do not hesitate to contact David Garrett at 919-418-4375 (dgarrett@scsengineers.com).

Sincerely,

NORTH CAROLINA LICENSED SEAL 982 GEOLOGIST DAVID GARRETT

2-5-2015

David Garrett, P.G., P.E.
Project Manager
SCS ENGINEERS, PC

Marta A. VanDussen
Project Professional
SCS ENGINEERS, PC

cc: Ronnie Petty – A-1 Sandrock, Inc.

Enclosures: Water Quality Monitoring Report November 2014 Semiannual Sampling Event
Environmental Monitoring Reporting Form
Electronic Data Deliverable (EDD)

SCS ENGINEERS

WATER QUALITY MONITORING REPORT
NOVEMBER 2014
SEMIANNUAL SAMPLING EVENT

A-1 SANDROCK CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL
FACILITY PERMIT NO. 41-17

Prepared for:

A-1 Sandrock, Inc.
2091 Bishop Road
Greensboro, North Carolina 27406
(336) 855-8195

Prepared by:

SCS ENGINEERS, PC
2520 Whitehall Park Drive, Suite 450
Charlotte, North Carolina 28273
(704) 504-3107
License Number C-1837

Date: February 3, 2015
File No.: 02214704.00 Task 3

Offices Nationwide
www.scsengineers.com

WATER QUALITY MONITORING REPORT
NOVEMBER 2014 SEMIANNUAL SAMPLING EVENT

A-1 SANDROCK CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL FACILITY PERMIT NO. 41-17

Presented To:

A-1 Sandrock, Inc.
2091 Bishop Road
Greensboro, North Carolina 27406
(336) 855-8195

Presented From:

SCS ENGINEERS, PC
2520 Whitehall Park Drive, Suite 450
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Date: February 3, 2015
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Attachment 1 – Monitoring Well Sampling Logs
Attachment 2 – Laboratory Analytical Results
Attachment 3 – Environmental Monitoring Reporting Form and Electronic Data Deliverable (EDD)

SCS Engineers, PC (SCS) is submitting this Water Quality Monitoring Report for the A-1 Sandrock Construction and Demolition Debris Landfill, located in Guilford County, North Carolina on behalf of the A-1 Sandrock, Inc. This report provides background information, description of field activities, data, summary and analysis of the laboratory analytical results from the groundwater and surface water monitoring sampling event conducted in November 2014.

1 INTRODUCTION

A-1 Sandrock, Inc. operates the Construction and Demolition Debris Landfill (C&D Landfill) located at Bishop Road (State Road 1116), south of the city of Greensboro, Guilford County, North Carolina. The location of the landfill is shown on **Figure 1.** This C&D Landfill became operational in April 2009. The baseline monitoring was conducted in November 2006. Based on review of previously prepared documentation, groundwater monitoring has been conducted at the permitted landfill since October 2009.

State and federal regulations applicable to landfills are enforced by the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management (DWM), Solid Waste Section (SWS). The C&D Landfill is permitted by the DENR DWM under Permit No. 41-17, which requires semiannual monitoring of groundwater and surface water quality. This monitoring event is the second (2nd) semiannual monitoring event for year 2014 as required by the Permit to Operate issued by the NCDENR DWM on December 6, 2013. This report provides an evaluation of surface water and groundwater quality for the C&D Landfill.

Currently, the monitoring program network at the landfill consists of five (5) groundwater monitoring wells and four (4) on-site surface water sampling locations. There is one (1) up gradient, natural background well designated as MW-1, and four (4) down gradient compliance wells being designated as MW-2, MW-3, MW-4, and MW-5. The surface water sample locations are designated as SW-1, SW-2, SW-3, and SW-4. SW-1 is located at the northwest boundary of the site where Hickory Creek enters the facility. SW-2 is located along an unnamed tributary to Hickory Creek where it enters the east side of the landfill. SW-3 is located along an unnamed tributary to Hickory Creek where it enters the south side of the landfill. And SW-4 is located downstream where Hickory Creek exits the southwest corner of the landfill. The locations of the monitoring wells and surface water points are showed on **Figure 1**.

2 FIELD ACTIVITIES

On November 25, 2014, SCS personnel collected groundwater samples from five (5) groundwater monitoring wells and four (4) surface water sampling locations at the C&D Landfill for laboratory analysis of constituents listed in Appendix I of the 40 Code of Federal Regulations (CFR) Part 258, mercury, tetrahydrofuran, ammonia, nitrogen, chloride, chemical oxygen demand (COD), and total organic carbon (TOC). Additionally, one duplicate sample, designated as DUP, was collected during this sampling event. The groundwater and surface water samples were collected and handled in accordance with the sampling protocols included in the Water Quality Monitoring Plan prepared for the site, as well as the SWS Guidelines for Groundwater, Soil, and Surface Water Sampling.

Groundwater was purged and samples were collected from the monitoring wells using low flow sampling procedures. Total well depth, condition of the casing, and the groundwater recharge rate were used to determine the purging and sample collection method employed at each monitoring well. Prior to groundwater sampling, each monitoring well was purged of a minimum of three well volumes of water. During purging, measurements were taken in the field of conductivity, dissolved oxygen, pH, temperature, water levels, and turbidity. Measured field parameters and additional observations pertaining to the C&D Landfill sampling locations are provided on SCS's field sampling logs, which are included in **Attachment 1**. All groundwater samples were placed into laboratory-supplied sample bottles by a technician wearing a new pair of nitrile gloves.

Surface water samples were collected into sample containers by direct submersion in the creek and/or tributary. One round of surface water field parameters consisting of conductivity, dissolved oxygen, pH, temperature, and turbidity, was measured and recorded at each sampling location prior to collecting the sample. Surface water samples were placed into laboratory-supplied sample containers by a technician wearing a new pair of nitrile gloves. All reusable sampling equipment was properly decontaminated between sampling locations. Disposable sampling equipment and material was discarded after each use.

Following collection, each groundwater and surface water sample was immediately placed on ice in a sample cooler for shipment to Pace Analytical Services (Pace), a North Carolina certified laboratory located in Charlotte, North Carolina. Proper chain-of-custody documentation practices were followed during collection and transportation of each sample; the documentation is included in **Attachment 2** of this report. Chain-of-custody provides details of the laboratory analyses requested and performed on the samples. The laboratory analytical report is provided in the **Attachment 2** also.

3 GROUNDWATER LEVELS AND FLOW

Groundwater levels were gauged in the monitoring wells on November 25, 2014. Depths to groundwater were measured using an electronic water level meter that was thoroughly decontaminated between wells. Depth-to-water measurements were taken after the wells were opened for a sufficient period of time to allow water levels to equilibrate with atmospheric pressure. Water level data and groundwater elevation data are summarized on **Table 1**. The depth to groundwater across the site measured relative to the top of the polyvinyl chloride (PVC) casing ranged from 6.43 feet (MW-3) to 31.11 feet (MW-1), consistent with site surface topography.

Based on the water level data collected during this monitoring event, a Groundwater Surface Contour Map was prepared and is presented as **Figure 1**. The pattern of the water-table contours indicates that the horizontal component of shallow groundwater flow at the site generally varies from north to west, which is consistent with the site surface topography and drainage features. The hydraulic gradient of the water table, based on data from **Figure 1**, varies from approximately 0.032 to 0.074 feet per foot at the site.

The groundwater flow direction is primarily towards the western property boundary.

The calculated groundwater flow velocity and estimated values for hydraulic conductivity and porosity are included in **Table 1**. Please note that for all the monitoring wells, the estimated value for hydraulic conductivity comes from individual well aquifer tests (David Garrett, 2002) and effective porosity in the shallow aquifer is published empirical value from Groundwater and Wells (Driscoll, 1986).

4 WATER QUALITY FINDINGS

Concentrations of detected constituents in groundwater samples were compared to analyte-specific Solid Waste Section Limits (SWSLs) established by the SWS and NCDENR rule 15A NCAC 02L .0202 Groundwater Quality Standards (2L). Concentrations of detected constituents in surface water samples were compared to analyte-specific SWSLs and the 15A NCAC 2B.0211 surface water quality standards (2B) established for class C waters. If the reported concentration is less than the SWSL, the analytical result is qualified by SCS as estimated per DENR requirement, and is flagged with a "J" qualifier.

Table 2 presents summary of detected constituents only, in groundwater. **Table 3** presents summary of detected constituents only, in surface water. In both tables, constituent analytical results that exceed their associated SWSL, 2L or 2B compliance limit, where applicable, are shaded. **Table 4** presents summary of historically detected constituents only, in the groundwater and/ or surface water samples collected at the C&D Landfill.

A hard copy of the laboratory report from Pace Analytical Services, Inc. with a copy of the chain-of-custody form is included in **Attachment 2**. All laboratory analytical results and field parameter data for groundwater and surface water are included in an electronic data deliverable (EDD) format file specified by the SWS (available in electronic form only).

4.1 GROUNDWATER ANALYTICAL RESULTS

The summary of constituents detected in the groundwater during the November 2014 semiannual water quality monitoring event is provided in the sections below.

4.1.1 VOLATILE ORGANIC COMPOUNDS (VOCS)

VOCs were not detected in the groundwater samples collected from all five monitoring wells.

4.1.2 METALS

Two metals, barium and zinc, were detected at or above the applicable SWSLs in one or more of the monitoring wells during this monitoring event. Vanadium was detected above its respective 2L compliance limit. No other metals were reported above their compliance limits. All detections are summarized on **Table 2**.

4.1.3 INORGANIC PARAMETERS

At least one of inorganic parameters that were analyzed (chloride, COD, nitrogen, and TOC) was detected in the groundwater samples collected from the monitoring wells. The detections are summarized in **Table 2**. SWSLs are not established for the analyzed inorganics with the exception of nitrogen. The detected concentrations of nitrogen were below its SWSL. Chloride, and nitrogen have established 2L standards. All detected concentrations of these compounds were below their applicable groundwater standards.

4.1.4 FIELD PARAMETERS

The pH readings measured in all monitoring wells ranged between 5.68 Standard Units (SU) to 5.98 SU and were outside the 2L standard pH range of 6.5 to 8.5 SU specified in the 15A NCAC 02L .0202[c] (**Table 2**).

Turbidity values at the time of sampling the monitoring wells ranged from 4.11 (MW-5) to 34.81 (MW-1) nephelometric turbidity units (NTUs). Specific conductivity values ranged between 162 (MW-3) and 494 (MW-5) microsiemens per centimeter (µS/cm). Dissolved oxygen values ranged between 20 (MW-5) and 254 mg/L (MW-3).

4.2 SURFACE WATER ANALYTICAL RESULTS

The summary of constituents detected in the surface water during the November 2014 semiannual water quality monitoring event is provided in the sections below.

4.2.1 VOCS

VOCs were not detected in the surface water samples collected at all four sampling locations.

4.2.2 METALS

Zinc was detected at concentration above the applicable SWSL in one surface water sample SW-1. None of the detected metals were present at concentrations exceeding 2B surface water quality standards (**Table 3**).

4.2.3 INORGANIC PARAMETERS

Chloride, COD, nitrogen, and TOC were found in one or more surface water samples. The detections are summarized in **Table 3**. SWSLs are not established for the analyzed inorganics with the exception of nitrogen. The detected concentrations of nitrogen were below its SWSL. Only chloride has established 2B standard and chloride concentrations detected in surface water were below its standard.

4.2.4 FIELD PARAMETERS

The pH readings measured in all surface water samples ranged between 6.2 to 7.44 SU and were within the 2B surface water quality standard pH range of 6.0 to 9.0 SU specified in the 15A NCAC 2B (**Table 3**).

Turbidity values at the time of sampling the surface water samples ranged from 41.3 (SW-4) to 420.9 (SW-3) NTUs. Specific conductivity values ranged between 111 (SW-3) and 456 (SW-4) µS/cm. Dissolved oxygen values ranged between 300 (SW-4) and 358 mg/L (SW-1).

5 SUMMARY

The results of the November 2014 groundwater and surface water quality monitoring event performed at the A-1 Sandrock C&D landfill indicate that the overall water quality is stable and the reported data were similar to the results reported during previous semiannual sampling events. The results are summarized in more detail in the sections below.

5.1 VOCS DETECTION SUMMARY

During the November 2014 monitoring event VOCs were not detected in the monitoring wells and surface water samples.

Historically, two VOCs (acetone and toluene) were detected. Acetone was detected once (November 2010), and toluene was detected twice (October 2009 and April 2010). Both constituents have not been found either in the groundwater or surface water since May 2011. The historical analytical data for previously detected VOCs are presented in **Table 4**.

5.2 METALS DETECTION SUMMARY

Vanadium was the only metal present in the groundwater samples collected from monitoring wells MW-1 and MW-4 at concentrations that exceeded the respective 2L compliance limit during this monitoring event. It has to be noted that measured turbidity was the highest in the well MW-1.

None of the detected metals in the surface water were present at concentrations in excess of the 2B surface water quality standards.

Metal concentrations in groundwater are often dependent on the turbidity or suspended particulates (from the aquifer formation) retrieved with the groundwater sample and also metals natural occurring in the in-situ soil. The turbidity is a function of the sampling method, well construction, well development, depth to groundwater, and grain size/consolidation of the water-bearing zone. Since unfiltered samples are acidified in the field at the time of sample collection, metals contained within the particulates are dissolved into the water sample. Thus, the presence of turbidity in groundwater samples often results in elevated (false positive) analytical concentrations for metals. Therefore, the presence of elevated metal concentrations does not necessarily indicate a groundwater impact.

Additionally, certain metals are considered natural occurring within the in-situ soils and not caused by a release from a landfill. It is known that the landfill is located in a historic mining district, where mineralization by concentrated metals has occurred. Further monitoring will pay attention to any reported constituents.

The historical analytical data for metals detected in the past are presented in **Table 4.**

5.3 INORGANIC AND FIELD PARAMETERS

Chloride, COD, nitrogen, and TOC were reported in one or more groundwater and surface water samples during November 2014 monitoring event. The reported concentrations of chloride appear consistent with historical data for this parameter. COD, nitrogen and TOC analysis were not performed during previous monitoring events, therefore no data trend can be noted.

The results of the field-measured groundwater quality parameters indicate that the values measured in the collected samples were generally consistent comparing to the already existing data set. Turbidity was the highest and elevated in the monitoring well MW-1. The pH readings measured in all monitoring wells were outside the 2L standard pH range specified in the 15A NCAC 02L .0202[c] and indicate acidic groundwater.

Measured turbidity was significantly elevated in the surface water sample collected from SW-3 location. The remainder of the field parameters measured in the surface water samples were consistent with the values reported in the past.

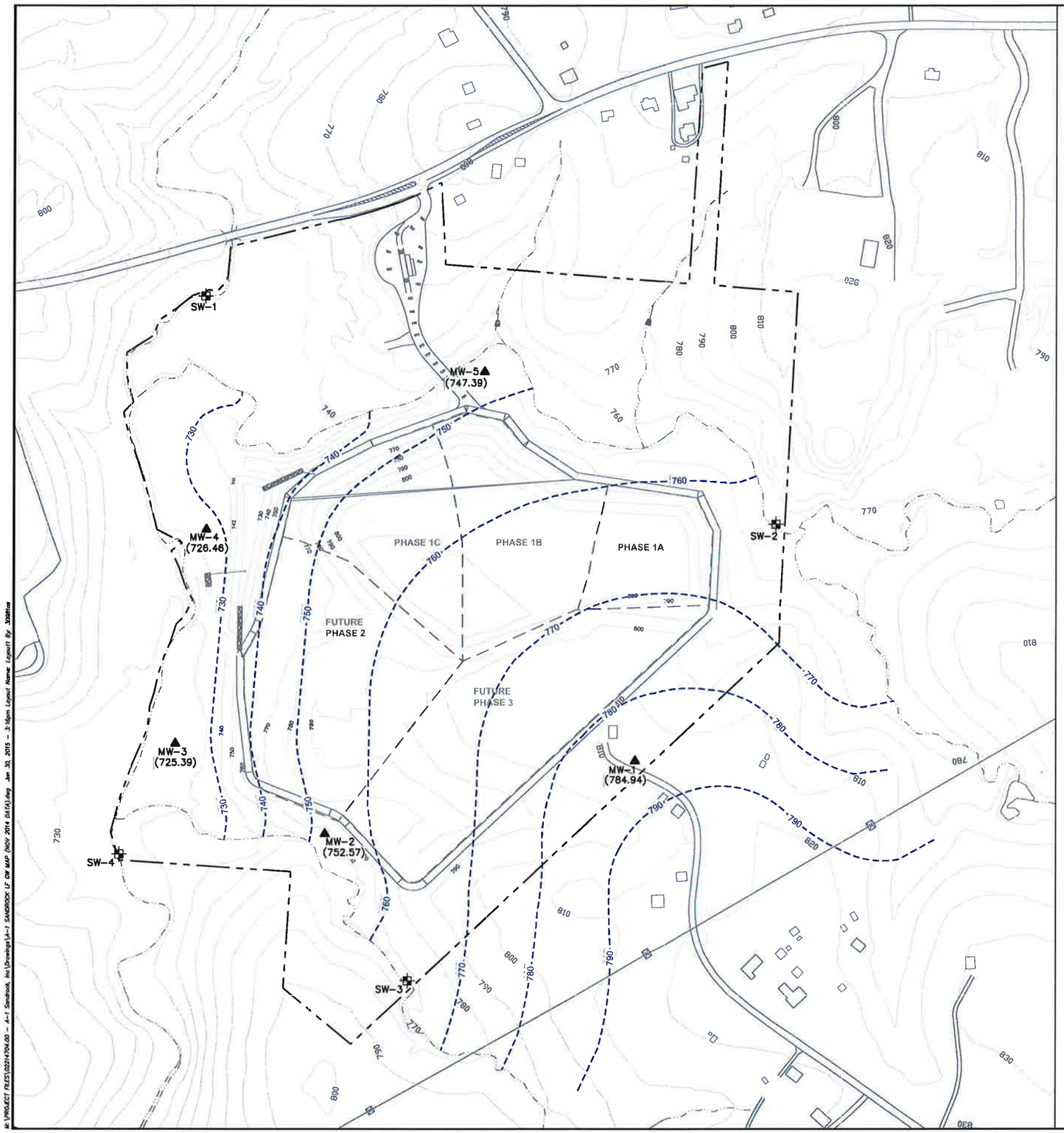
5.4 CONCLUSIONS

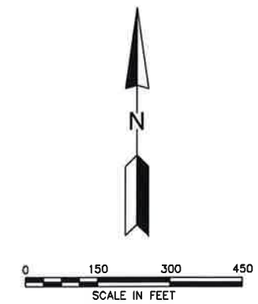
The results of the groundwater monitoring event indicate consistent presence of metals in the groundwater. There is no indication that the landfill is causing, or contributing to any degradation of groundwater quality. Furthermore, no down gradient groundwater users are present or anticipated, therefore there is no indication of any risk to the public at this time.

The results of the surface water monitoring event indicate conditions consistent with historic field and analytical data reported and do not demonstrate an impact on surface water quality due to landfill activities.

At this time, no changes or other recommendations for the monitoring program are warranted. The next water quality monitoring event at the A-1 Sandrock C&D Landfill is scheduled for May 2015.

FIGURES





LEGEND:

- 2 FOOT ELEVATION CONTOUR
- 800 – 10 FOOT ELEVATION CONTOUR
- FACILITY BOUNDARY
- CELL BOUNDARY
- STREAM/WATER IMPOUNDMENT
- POWERLINE
- 780 – GROUNDWATER ELEVATION CONTOUR
- MW-1 (790.73) – GROUNDWATER MONITORING LOCATION AND GROUNDWATER ELEVATION
- SW-1 – SURFACE WATER MONITORING LOCATION

NOTES:

1. GROUNDWATER POTENTIOMETRIC CONTOURS TAKEN FROM PERMITTING STUDIES, MODIFIED WITH CURRENT DATA FOR MONITORING WELLS MEASURED ON NOVEMBER 25, 2014.
2. GUILFORD COUNTY TAX MAP FOR SUMTER TOWNSHIP: ACL-3-185-755S-7, D.B. 4459, PG. 780.
3. TOPOGRAPHY WITHIN PROPERTY BOUNDARY FROM AERIAL PHOTOGRAPHY DATED 3/27/01, BY SPATIAL DATA. TOPOGRAPHY OUTSIDE PROPERTY BOUNDARY FROM AERIAL PHOTOGRAPHY DATED 1995, BY GUILFORD COUNTY GIS DEPARTMENT.
4. BOUNDARY INFORMATION FROM BOUNDARY MAP PREPARED BY L. DENNIS LEE, P.A., DATED NOVEMBER 14, 2002.
5. BASE GRADES SHOWN HERE ARE AS PERMITTED IN FEBRUARY 2004 BY NCDENR DIVISION OF WASTE MANAGEMENT (PERMIT #41-17). AS-BUILT SURVEY FOR PHASE 1A COMPLETED IN DECEMBER 2006 BY DENNIS LEE, RLS.

Digitally signed by dgarrett@scsengineers.com
DN: cn=dgarrett@scsengineers.com
Date: 2015.02.05 15:08:43 -05'00'

NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL

NC CORP. LICENSE NO. C-1837

NO.	REVISION	DATE

SHEET TITLE
NOVEMBER 2014
GROUNDWATER SURFACE CONTOUR MAP

PROJECT TITLE
A-1 SANDROCK C&D LANDFILL
WATER QUALITY REPORT

CLIENT
A-1 SANDROCK, INC.
2091 BISHOP ROAD
GREENSBORO, NC 27406
(336) 855-8195

SCS ENGINEERS, PC
2520 WHITEHALL PARK DRIVE, SUITE 450
CHARLOTTE, NORTH CAROLINA 28273
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PROJ. NO. 02214704.00 | DWN. BY: TAS | CHK. BY: DMC | CHK/RVW BY: MV | APP. BY: GDG

DATE: JANUARY 2015

SCALE: AS SHOWN

DRAWING NO. 1 of 1

M:\PROJECT FILES\02214704.00 - A-1 Sandrock, Inc\Drawings\A-1 SANDROCK LF GW MAP (NOV 2014 DATA).dwg Jan 30, 2015 - 3:16pm Layout Name: Layout1 By: 3098ms

TABLES

Table 1
Groundwater Level and Flow Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill, Permit #41-17
November 2014

Well ID	GS Elevation	TOC Elevation	Depth To Water	Water Level Elevation
	(feet)			
MW-1	813.40	816.05	31.11	784.94
MW-2	759.90	761.92	9.35	752.57
MW-3	729.80	731.82	6.43	725.39
MW-4	731.10	733.17	6.71	726.46
MW-5	761.10	762.88	15.49	747.39

Well ID	Water Level Elevation	Reference Elevation	Vertical Change	Horizontal Change	K*		n	I	v
	(feet)				(cm/sec)	(ft/year)		(ft/ft)	(ft/year)
MW-1	784.94	780	4.94	150	6.32E-06	6.54	0.20	0.033	1.08
MW-2	752.57	740	12.57	170	6.32E-06	6.54	0.20	0.074	2.42
MW-3	725.39	730	4.61	100	6.32E-06	6.54	0.20	0.046	1.51
MW-4	726.46	740	13.54	190	6.32E-06	6.54	0.20	0.071	2.33
MW-5	747.39	760	12.61	390	6.32E-06	6.54	0.20	0.032	1.06

NOTES:

Depth To Water was measured on November 25, 2014 for monitoring wells MW-1. MW-2, MW-3, MW-4, and MW-5.

GS - ground surface.

TOC - top of casing.

Depth To Water in feet from TOC.

Monitoring wells were surveyed by Allied Associates, P.A., April 7, 2009.

GS and TOC elevation in NGVD29.

K - hydraulic conductivity.

cm/sec = centimeters per second.

ft = feet.

n - effective porosity.

I - hydraulic gradient.

v - flow rate; GW flow rate calculated based on the modified Darcy equation: v = (K*I)/n.

*- The geometric mean of K from individual well aquifer tests was used to calculate the hydraulic conductivity (tests conducted by David Garrett, P.G., P.E. as part of the Site Suitability Report).

The effective porosity used in velocity calculations is published empirical value from Driscoll, 1986.

Table 2
Summary of Groundwater Quality Data - Detected Constituents Only
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill, Permit # 41-17
November 2014

Parameter		MDL	MRL	Compliance Limit		Monitoring Well ID and Analytical Results					
				SWSL	2L Standard	MW-1	MW-2	MW-3	MW-4	MW-5	DUP
Metals (µg/L)	Barium	2.5	5.0	100	700	**38.4 J**	**51.9 J**	**39.4 J**	**108**	**91.8 J**	**36.8 J**
	Copper	2.5	5.0	10	1,000	**7.1 J**	< 2.5 U	< 2.5 U	< 2.5 U	**5.3 J**	**6.6 J**
	Nickel	2.5	5.0	50	100	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	**13.2 J**	< 2.5 U
	Vanadium	2.5	5.0	25	0.3	**9.8 J**	< 2.5 U	< 2.5 U	**7.3 J**	< 2.5 U	**10.5 J**
	Zinc	5.0	10.0	10	1,000	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**10.0**	**13.5**
Inorganics (mg/L)	Chloride	0.50	1.0	NE	250	**4.9**	**5.1**	**4.8**	**5.2**	**16.5**	**5.0**
	Chemical Oxygen Demand	12.5	25.0	NE	NE	< 12.5 U	< 12.5 U	< 12.5 U	< 12.5 U	**39.0**	**64.0**
	Nitrogen, Nitrate	0.010	0.020	10	10	**0.60 J**	**0.052 J**	**0.17 J**	**0.21 J**	**0.028 J**	**0.61 J**
	Total Organic Carbon	0.50	1.0	NE	NE	**12.0**	**1.3**	**2.8**	**1.7**	**10.1**	**14.1**
Field Parameters	Dissolved Oxygen (DO)	NA	NA	NE	NE	**224**	**209**	**254**	**240**	**20**	NA
	pH (S.U.)	NA	NA	NE	6.5 - 8.5	**5.98**	**5.79**	**5.75**	**5.76**	**5.68**	NA
	Specific Conductivity (µS/cm)	NA	NA	NE	NE	**241**	**177**	**162**	**281**	**494**	NA
	Turbidity (NTU)	NA	NA	NE	NE	**34.81**	**15.43**	**18.88**	**8.12**	**4.11**	NA

NOTES:

Table 2 lists all detected compounds in the groundwater. Please refer to Pace Analytical Services, Inc. laboratory analysis report for further details.

MDL = Method Detection Limit.

MRL = Method Reporting Limit.

Compliance Limit = SWSL or 2L Standard.

SWSL = Solid Waste Section Limit (June 13, 2011).

2L Standard = NCAC Title 15A Subchapter 2L Classifications and Water Quality Standards Applicable to the GWs of North Carolina (April 1, 2013).

J indicates the detected result is below the SWSL.

µg/L = micrograms per liter.

NE = Not Established. NA = Not Applicable or Not Analyzed.

Bold font indicates analyte detection above MDL.

Shaded field denotes result that was at or above the Compliance Limit.

S.U. = Standard Units.

µS/cm = microsiemens per centimeter.

NTU = Nephelometric Turbidity Units.

Table 3
Summary of Surface Water Quality Data - Detected Constituents Only
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill, Permit # 41-17
November 2014

Parameter		MDL	MRL	Compliance Limit		Sample Location ID and Analytical Results			
				SWSL	2B Standard	SW-1	SW-2	SW-3	SW-4
Metals (µg/L)	Barium	2.5	5.0	100	200,000	**65.8 J**	**65.1 J**	**80.7 J**	**63.4 J**
	Zinc	5.0	10.0	10	50	**10.3**	< 5.0 U	< 5.0 U	< 5.0 U
Inorganics (mg/L)	Chloride	0.50	1.0	NE	230	**29.7**	**10.8**	**12.1**	**27.2**
	Chemical Oxygen Demand	12.5	25.00	NE	NE	**39.0**	**42.0**	**25.0**	< 12.5 U
	Nitrogen, Nitrate	0.010	0.020	10	NE	**0.077 J**	**0.034 J**	< 0.010 U	**0.048 J**
	Total Organic Carbon	0.50	1.0	NE	NE	**6.9**	**10.8**	**4.4**	**6.4**
Field Parameters	Dissolved Oxygen (DO)	NA	NA	NE	NE	**358**	**335.44**	**308.7**	**300**
	pH (S.U.)	NA	NA	NE	6.0 - 9.0	**7.44**	**7.22**	**6.2**	**7.18**
	Specific Conductivity (µS/cm)	NA	NA	NE	NE	**359**	**264**	**111**	**456**
	Turbidity (NTU)	NA	NA	NE	50	**66.7**	**50.66**	**420.9**	**41.3**

NOTES:

Table 3 lists all detected compounds in the surface water. Please refer to Pace Analytical Services, Inc. laboratory analysis report for further details.

MDL = Method Detection Limit.

MRL = Method Reporting Limit.

Compliance Limit = SWSL or 2L Standard.

SWSL = Solid Waste Section Limit (June 13, 2011).

2B Standard = Standards, criteria, or toxic concentrations either adopted per 15A NCAC 2B or National Criteria per EPA (Current as of 5/15/2013).

(AL) = Action Level Standard (See 2B .0211 for additional information).

J indicates the detected result is below the SWSL.

µg/L = micrograms per liter.

NE = Not Established. NA = Not Applicable or Not Analyzed. NM = Not Measured.

Bold font indicates analyte detection above MDL.

Shaded field denotes result that was at or above the Compliance Limit.

S.U. = Standard Units.

µS/cm = microsiemens per centimeter.

NTU = Nephelometric Turbidity Units.

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Antimony CAS No. 7440-36-0

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	6	1	640	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				2.95	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2010				2.95	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				2.95	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				0.220	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				0.220	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				0.220	**0.567 J**	**1.12 J**	**0.287 J**	ND	ND	**0.224 J**	ND	ND	**0.573 J**
Nov-2012				0.220	ND	**0.328 J**	ND	ND	ND	ND	ND	ND	ND
Jun-2013				0.220	ND	**0.484 J**	ND	ND	ND	ND	ND	ND	ND
Apr-2014				5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	**63.1**	ND<5.0	ND<5.0	ND<5.0
Nov-2014				3.8	ND<3.8	ND<3.8	ND<3.8	ND<3.8	ND<3.8	ND<3.8	ND<3.8	ND<3.8	ND<3.8

Parameter : Arsenic CAS No. 7440-38-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	10	10	10	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				4.91	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2010				4.91	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				4.91	**7.75 J**	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				2.80	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				2.80	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				2.80	ND	**3.49 J**	**3.78 J**	**3.24 J**	**3.17 J**	ND	**4.23 J**	**5.20 J**	**3.98 J**
Nov-2012				2.80	ND	ND	ND	ND	ND	**2.98 J**	ND	ND	ND
Jun-2013				5.40	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2014				5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Nov-2014				2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5

Parameter : Barium CAS No. 7440-39-3

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	100	700	200,000	NA	**390**	**449**	**860**	**768**	**534**	**82 J**	**47 J**	ND	**70 J**
Oct-2009				2.06	**22.9 BJ**	**50.8 BJ**	**334 B**	**163 B**	**42.4 BJ**	**57.7 BJ**	**81.7 BJ**	**61.7 BJ**	**62.6 BJ**
Apr-2010				2.06	**26.9 BJ**	**42.8 BJ**	**75.2 BJ**	**63.8 BJ**	**37.6 BJ**	**59.8 BJ**	**61.6 BJ**	**38.5 BJ**	**70.9 BJ**
Nov-2010				2.06	**64.7 J**	**59.5 J**	**46.4 J**	**49.5 J**	**52.9 J**	**88.2 J**	**110**	**80.9 J**	**96.3 J**
May-2011				1.0	**20.2 J**	**45.3 J**	**106**	**53.8 J**	**51.9 J**	**79.8 J**	**83.7 J**	**52.0 J**	**75.4 J**
Nov-2011				1.0	**42.8 J**	**43.6 J**	**95.5 J**	**101**	**58.5 J**	**66.1 J**	**69.3 J**	**59.6 J**	**76.2 J**
May-2012				1.0	**31.8 J**	**47.2 J**	**118**	**109**	**52..9 J**	**60.7 J**	**76.8 J**	**31.9 J**	**61.7 J**
Nov-2012				1.0	**31.5 J**	**68.2 J**	**68.7 J**	**105**	**69.8 J**	**83.8 J**	**69.1 J**	**138**	**76.8 J**
Jun-2013				1.0	**27.5 J**	**58.1 J**	**75.3 J**	**94.5 J**	**63.3 J**	**70.6 J**	**61.3 J**	**53.4 J**	**63.6 J**
Apr-2014				5.0	**52.5 J**	**48.6 J**	**37.9 J**	**94.0 J**	**51.8 J**	ND<5.0	**52.1 J**	**34.6 J**	**35.5 J**
Nov-2014				2.5	**38.4 J**	**51.9 J**	**39.4 J**	**108**	**91.8 J**	**65.8 J**	**65.1 J**	**80.7 J**	**63.4 J**

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Beryllium CAS No. 7440-41-7

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	1	4	6.5	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				0.442	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2010				0.088	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.442	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				0.100	ND	**0.103 J**	ND	ND	ND	ND	ND	ND	ND
Nov-2011				0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jun-2013				0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2014				1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Nov-2014				0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

Parameter : Chromium CAS No. 7440-47-3

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	10	10	50	NA	ND	ND	**29**	**11**	**11**	ND	ND	ND	ND
Oct-2009				1.46	ND	ND	**28.7 B**	**24.5 B**	ND	**3.33 B**	ND	ND	ND
Apr-2010				1.46	**3.58 J**	**2.81 J**	**6.43 J**	**4.24 J**	**2.38 J**	**5.55 J**	**3.47 J**	**3.47 J**	**4.46 J**
Nov-2010				1.46	**7.88 J**	**5.92 J**	**7.88 J**	**7.36 J**	**5.71 J**	**5.71 J**	**6.53 J**	**6.43 J**	**7.05 J**
May-2011				1.0	**1.55 J**	ND	**9.76 J**	**1.75 J**	**4.22 J**	ND	ND	ND	ND
Nov-2011				1.0	**6.48 J**	**1.43 J**	**8.87 J**	**7.84 J**	**1.40 J**	**1.37 J**	**1.10 J**	**1.35 J**	**1.52 J**
May-2012				1.0	**1.32 J**	**2.28 J**	**10.5**	**6.98 J**	ND	ND	ND	**1.19 J**	ND
Nov-2012				1.0	**1.43 J**	**2.01 J**	**10.9**	**4.30 J**	**4.89 J**	**4.39 J**	ND	**3.64 J**	ND
Jun-2013				1.40	**2.29 J**	ND	**6.39 J**	**6.83 J**	ND	ND	ND	ND	ND
Apr-2014				5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Nov-2014				2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5

Parameter : Cobalt CAS No. 7440-48-4

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	10	1	4	NA	**9 J**	**9 J**	**30.0**	**11**	**14**	ND	ND	ND	ND
Oct-2009				1.72	ND	ND	**20.0**	**9.53 J**	**1.96 J**	ND	ND	**4.84 J**	ND
Apr-2010				1.72	ND	ND	**3.08 J**	**4.97 J**	**2.13 J**	ND	ND	ND	ND
Nov-2010				1.72	ND	ND	ND	ND	ND	ND	ND	**2.30 J**	ND
May-2011				1.10	ND	ND	**5.10 J**	**5.49 J**	**2.08 J**	ND	**1.20 J**	**2.17 J**	ND
Nov-2011				1.10	**2.10 J**	ND	**3.41 J**	**3.76 J**	ND	ND	**1.13 J**	ND	ND
May-2012				1.10	ND	**2.33 J**	**5.16 J**	**7.22 J**	**3.25 J**	ND	**1.17 J**	**2.65 J**	ND
Nov-2012				1.10	ND	**1.38 J**	**2.14 J**	**2.02 J**	**2.77 J**	ND	ND	**26.7**	**1.17 J**
Jun-2013				1.10	ND	**1.19 J**	**3.12 J**	**2.31 J**	**6.13 J**	ND	ND	**9.42 J**	ND
Apr-2014				5.0	ND<5.0	ND<5.0	ND<5.0	**8.5 J**	**60.3**	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Nov-2014				2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Copper CAS No. 7440-50-8

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	10	1,000	7	NA	**36**	**45**	**60**	**67**	**55**	ND	ND	**42 J**	ND
Oct-2009				1.29	**3.02 BJ**	**8.77 BJ**	**27.8 B**	**35.0 B**	**8.49 BJ**	**7.56 BJ**	**2.69 BJ**	**11.2 B**	**3.21 BJ**
Apr-2010				1.29	**1.71 J**	**2.39 J**	**6.71 J**	**5.07 J**	**6.21 J**	**5.69 J**	**7.82 J**	**53.1**	**5.67 J**
Nov-2010				1.29	**13.7**	**6.64 J**	**5.98 J**	**7.09 J**	**7.07 J**	**7.26 J**	**7.90 J**	**12.0**	**6.32 J**
May-2011				1.60	ND	ND	**4.70 J**	**1.79 J**	**10.9**	ND	**1.94 J**	**23.0**	ND
Nov-2011				1.60	**7.29 BJ**	**4.06 BJ**	**5.51 BJ**	**11.2 B**	**4.97 BJ**	**3.08 BJ**	**5.34 BJ**	**19.2 B**	**3.65 BJ**
May-2012				1.60	ND	**2.91 J**	**4.85 J**	**9.56 J**	**2.80 J**	ND	**1.86 J**	**105**	**1.97 J**
Nov-2012				1.60	ND	ND	**6.39 J**	**4.02 J**	**5.03 J**	ND	ND	**33.8**	ND
Jun-2013				1.60	ND	ND	ND	**6.24 J**	**3.96 J**	ND	**1.71 J**	**51.1**	ND
Apr-2014				5.0	**6.7 J**	ND<5.0	ND<5.0	ND<5.0	**9.8 J**	ND<5.0	ND<5.0	**41.9**	**41.6**
Nov-2014				2.5	**7.1 J**	ND< 2.5	ND< 2.5	ND< 2.5	**5.3 J**	ND< 2.5	ND< 2.5	ND< 2.5	ND<2.5

Parameter : Lead CAS No. 7439-92-1

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	10	15	25	NA	**11**	ND	ND	60	ND	ND	ND	ND	ND
Oct-2009				6.79	ND	ND	**10.4**	ND	ND	ND	ND	ND	ND
Apr-2010				6.79	ND	ND	ND	**6.82 J**	ND	**7.08 J**	ND	ND	ND
Nov-2010				6.79	ND	**10.1 B**	**7.96 B**	**8.01 B**	ND	**7.46 B**	**7.71 B**	**8.08 B**	ND
May-2011				1.90	ND	ND	**2.94 J**	ND	ND	ND	ND	ND	ND
Nov-2011				1.90	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				1.90	**2.43 J**	ND	ND	**2.24 J**	ND	ND	ND	**2.30 J**	ND
Nov-2012				1.90	ND	ND	ND	ND	ND	ND	ND	**3.75 J**	ND
Jun-2013				2.10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2014				5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Nov-2014				2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5

Parameter : Nickel CAS No. 7440-02-0

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	50	100	88	NA	**10 J**	ND	**67**	**15 J**	**14 J**	ND	ND	ND	ND
Oct-2009				2.36	ND	ND	**31.0 J**	**20.5 J**	**3.02 J**	**4.92 J**	ND	ND	ND
Apr-2010				2.36	ND	ND	**10.6 J**	**6.29 J**	**3.11 J**	**2.60 J**	**2.98 J**	**3.91 J**	**5.68 J**
Nov-2010				2.36	**7.28 J**	**2.59 J**	**6.82 J**	**3.80 J**	**5.01 J**	**3.89 J**	**4.19 J**	**3.88 J**	**3.77 J**
May-2011				1.80	ND	ND	**9.74 J**	**3.86 J**	**2.92 J**	ND	ND	ND	ND
Nov-2011				1.80	**2.84 J**	ND	**8.41 J**	**9.74 J**	**4.41 J**	ND	ND	ND	ND
May-2012				1.80	ND	ND	**8.54 J**	**9.60 J**	**3.23 J**	ND	ND	ND	ND
Nov-2012				1.80	ND	ND	**7.45 J**	**8.64 J**	**7.47 J**	**2.39 J**	ND	**4.59 J**	ND
Jun-2013				1.80	ND	ND	**3.62 J**	**6.24 J**	**5.67 J**	ND	ND	ND	ND
Apr-2014				5.0	ND<5.0	ND<5.0	ND<5.0	**8.4 J**	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Nov-2014				2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	**13.2 J**	ND<2.5	ND<2.5	ND<2.5	ND<2.5

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Selenium CAS No. 7782-49-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	10	20	5	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				2.78	ND	ND	**6.34 J**	ND	ND	ND	ND	ND	ND
Apr-2010				2.78	**2.90 J**	**2.89 J**	ND	ND	ND	**4.67 J**	ND	ND	ND
Nov-2010				2.78	ND	ND	ND	ND	ND	ND	**3.97 J**	ND	ND
May-2011				2.70	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				2.70	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				4.50	ND	ND	ND	ND	ND	ND	ND	**7.92 J**	ND
Nov-2012				4.50	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jun-2013				5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2014				10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
Nov-2014				5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0

Parameter : Silver CAS No. 7440-22-4

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	10	20	0.06	NA	**12 J**	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				0.656	**1.24 BJ**	**3.43 BJ**	ND	**0.88 BJ**	**1.09 BJ**	**0.67 BJ**	ND	ND	ND
Apr-2010				0.656	ND	**1.04 J**	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.656	**7.14 J**	**7.32 J**	**6.32 J**	**6.57 J**	**6.99 J**	**6.72 J**	**6.96 J**	**6.84 J**	**7.14 J**
May-2011				1.90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				1.90	**3.81 J**	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				1.90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				1.90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jun-2013				1.90	**1.90 J**	**2.09 J**	ND	ND	ND	ND	ND	ND	**1.91 J**
Apr-2014				5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Nov-2014				2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5

Parameter : Vanadium CAS No. 7440-62-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	25	0.3	NE	NA	**200**	**200**	**135**	**106**	**145**	ND	ND	ND	ND
Oct-2009				0.586	**12.3 J**	**8.3 J**	**61.5**	**34.8**	**11.2 J**	**9.74 J**	**4.43 J**	**3.27 J**	ND
Apr-2010				0.059	**9.79 BJ**	ND	**2.44 BJ**	ND	ND	ND	ND	**0.379 BJ**	ND
Nov-2010				0.586	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				1.40	**9.29 J**	**2.23 J**	**17.3 J**	**2.07 J**	**9.21 J**	ND	ND	**2.71 J**	ND
Nov-2011				1.40	**14.9 J**	**2.55 J**	**13.3 J**	**10.5 J**	ND	ND	ND	ND	ND
May-2012				1.40	**9.03 J**	**5.35 J**	**19.4 J**	**12.6 J**	**2.01 J**	ND	ND	**3.03 J**	ND
Nov-2012				1.40	**8.78 J**	**5.25 J**	**9.30 J**	**8.88 J**	**2.92 J**	ND	ND	**12.1 J**	ND
Jun-2013				1.40	**9.81 J**	**2.45 J**	**11.4 J**	**10.3 J**	**1.57 J**	**2.66 J**	ND	**1.85 J**	**1.45 J**
Apr-2014				5.0	ND<5.0	ND<5.0	ND<5.0	**8.5 J**	**11.3 J**	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Nov-2014				2.5	**9.8 J**	ND<2.5	ND<2.5	**7.3 J**	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Zinc CAS No. 7440-66-6

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	10	1,000	50	NA	**202**	**236**	**219**	**354**	**501**	ND	ND	ND	ND
Oct-2009				1.29	**2.0 J**	**4.41 J**	**65.7**	**18.2**	**2.68 J**	**17.2**	**1.40 J**	**4.66 J**	**2.20 J**
Apr-2010				1.29	ND	ND	**9.32 J**	**2.41 J**	**1.91 J**	**3.96 J**	**6.98 J**	**5.59 J**	**8.19 J**
Nov-2010				1.29	**18.8 B**	**7.99 JB**	**7.30 JB**	**9.02 JB**	**6.58 JB**	**6.85 JB**	**8.55 JB**	**10.2 B**	**10.3 B**
May-2011				3.80	ND	**6.68 J**	**21.3**	**13.5**	**6.38 J**	ND	**3.97 J**	**3.95 J**	**4.18 J**
Nov-2011				3.80	**10.2**	ND	**16.4**	**17.2**	ND	**4.47 J**	**4.76 J**	**4.40 J**	**4.91 J**
May-2012				3.80	ND	**9.70 J**	**23.7**	**8.69 J**	ND	ND	ND	**5.38 J**	**4.43 J**
Nov-2012				3.80	ND	ND	**15.1**	**3.83 J**	**5.79 J**	**5.53 J**	ND	**24.5**	ND
Jun-2013				3.80	**6.16 J**	**4.32 J**	**11.2**	**6.33 J**	**4.10 J**	**4.83 J**	**6.45 J**	ND	**5.35 J**
Apr-2014				10.0	**18.5**	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
Nov-2014				5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	**10.0**	**10.3**	ND<5.0	ND<5.0	ND<5.0

Parameter : Iron CAS No. 7439-89-6

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	300	300	1,000	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				20.0	**158 BJ**	**2,360 B**	**35,200 B**	**17,700 B**	**1,250 B**	**2,530**	**1,040**	**2,050**	**553**
Apr-2010				20.0	**71.2 J**	**94.0 J**	**2,890**	**6,860**	**162 J**	ND	ND	ND	ND
Nov-2010				20.0	**81.6 J**	ND	**48.6 JB**	**2,160**	**245 J**	ND	ND	ND	ND
May-2011				22.0	**145 J**	**394**	**8,960**	**3,050**	**2,290**	NA	NA	NA	NA
Nov-2011				22.0	**2,790**	**821**	**6,660**	**4,410**	**332**	ND	ND	ND	ND
May-2012				22.0	**123 J**	**2,090**	**9,690**	**6,190**	**550**	ND	ND	ND	ND
Nov-2012				22.0	**43.1 J**	**1,690**	**3,810**	**2,590**	**428**	ND	ND	ND	ND
Jun-2013				22.0	**630**	**474**	**4,720**	**3,260**	**184 J**	ND	ND	ND	ND
Apr-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Parameter : Manganese CAS No. 7439-96-5

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	50	50	NE	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				0.64	**13.6 J**	**63.4**	**481**	**767**	**418**	**97.4**	**284**	**422**	**447**
Apr-2010				0.64	**7.45 J**	**13.8 J**	**187**	**992**	**146**	ND	ND	ND	ND
Nov-2010				0.64	**118**	**8.31 JB**	**4.37 JB**	**32.5 J**	**73.9**	ND	ND	ND	ND
May-2011				1.10	**6.53 J**	**12.5 J**	**181**	**879**	**240**	NA	NA	NA	NA
Nov-2011				1.10	**84.0**	**23.9 J**	**125**	**360**	**202**	ND	ND	ND	ND
May-2012				1.10	**5.67 J**	**49.9 J**	**125**	**765**	**403**	ND	ND	ND	ND
Nov-2012				1.10	**2.75 J**	**76.8**	**59.2**	**280**	**691**	ND	ND	ND	ND
Jun-2013				1.10	**15.3 J**	**131**	**58.6**	**184**	**776**	ND	ND	ND	ND
Apr-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Acetone CAS No. 67-64-1

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	100	6,000	2,000	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				2.18	ND	ND	ND	ND	ND	**2.98 J**	ND	ND	**2.57 J**
Apr-2010				2.18	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				2.18	**2.40 J**	ND	ND	ND	ND	**2.26 J**	ND	ND	**3.17 J**
May-2011				1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jun-2013				1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2014				10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
Nov-2014				10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0

Parameter: Toluene CAS No. 108-88-3

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	1	600	11	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-2009				0.0760	ND	ND	ND	ND	**0.830 J**	ND	ND	ND	ND
Apr-2010				0.0760	ND	ND	ND	ND	**0.340 J**	ND	ND	ND	ND
Nov-2010				0.0760	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				0.85	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				0.85	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jun-2013				0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr-2014				0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26
Nov-2014				0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26	ND<0.26

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Chloride CAS No. 16887-00-6

Sample	Compliance Limit (mg/L)			MDL	Analytical Results (mg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	NE	250	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-2009				0.0107	**4.05**	**3.24**	**2.61**	**2.94**	**7.00**	**22.0**	**12.2**	**6.27**	**18.6**
Apr-2010				NA	**4.9**	**3.6**	**3.1**	**4.1**	**3.9**	**19.0**	**8.6**	**4.70**	**18.3**
Nov-2010				0.0107	**5.27**	**3.23**	**2.74**	**3.38**	**5.96**	**22.5**	**12.5**	**6.45**	**20.3**
May-2011				0.047	**4.90 B**	**4.50 B**	**4.10 B**	**4.30 B**	**7.20 B**	NA	NA	NA	NA
Nov-2011				0.047	**4.70 B**	**4.20 B**	**3.60 B**	**3.80 B**	**8.80**	NA	NA	NA	NA
May-2012				0.43	**4.50 B**	**4.30 B**	**3.60 B**	**4.20 B**	**6.90**	NA	NA	NA	NA
Nov-2012				0.43	**4.60 B**	**5.00**	**3.80 B**	**4.20 B**	**11.0**	NA	NA	NA	NA
Jun-2013				2.2	**4.70 J**	**5.10**	**3.80 J**	**4.30 J**	**8.30**	NA	NA	NA	NA
Apr-2014				1.0	**4.4**	**5.7**	**4.1**	**5**	**11.9**	**29.1**	**8**	**5**	**4.8**
Nov-2014				0.50	**4.9**	**5.1**	**4.8**	**5.2**	**16.5**	**29.7**	**10.8**	**12.1**	**27.2**

Parameter : Nitrogen, Nitrate CAS No. SW303

Sample	Compliance Limit (mg/L)			MDL	Analytical Results (mg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Apr-2014	10	250	10	0.020	**0.84 J**	**0.028 J**	**0.15 J**	ND<0.020	ND<0.020	**0.27 J**	**0.13 J**	ND<0.020	ND<0.020
Nov-2014				0.010	**0.60 J**	**0.052 J**	**0.17 J**	**0.21 J**	**0.028 J**	**0.077 J**	**0.034 J**	ND< 0.010	**0.048 J**

Parameter : Sulfate CAS No. 14808-79-8

Sample	Compliance Limit (mg/L)			MDL	Analytical Results (mg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	250	250	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-2009				0.10	**26.7 J**	**10.5 J**	**7.43 J**	**8.35 J**	**16.1 J**	**9.20 J**	**11.8 J**	**8.67 J**	**10.2 J**
Apr-2010				NA	**33.5 J**	**12.1 J**	**6.3 J**	**12.2 J**	**39.1 J**	**28.6 J**	**14.2 J**	**11.0 J**	**26.6 J**
Nov-2010				NA	**13.1 J**	**9.8 J**	**6.0 J**	**7.4 J**	**28.5 J**	**14.1 J**	**19.3 J**	**20.3 J**	**16.3 J**
May-2011				0.020	**25.0 J**	**11.0 J**	**8.70 J**	**11.0 J**	**42.0 J**	NA	NA	NA	NA
Nov-2011				0.020	**26.0 J**	**11.0 J**	**8.70 J**	**9.40 J**	**48.0 J**	NA	NA	NA	NA
May-2012				0.040	**28.0 J**	**11.0 J**	**9.20 J**	**14.0 J**	**51.0 J**	NA	NA	NA	NA
Nov-2012				0.040	**28.0 J**	**12.0 J**	**9.50 J**	**17.0 J**	**43.0 J**	NA	NA	NA	NA
Jun-2013				0.040	**26.0 J**	**12.0 J**	**8.90 J**	**19.0 J**	**63.0 J**	NA	NA	NA	NA
Apr-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Total Dissolved Solids CAS No. ECL-0156 (SW311)

Sample	Compliance Limit (mg/L)			MDL	Analytical Results (mg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	NE	500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-2009				10.0	**84.0**	**75.0**	**84.0**	**77.0**	**132**	**166**	**241**	**92.0**	**181**
Apr-2010				NA	**176.0**	**109.0**	**128.0**	**101.0**	**129.0**	**295**	**131**	**95.0**	**409**
Nov-2010				NA	**19**	**23**	**20**	**22**	**169**	**230**	**256**	**141**	**231**
May-2011				10.0	**170**	**110**	**130**	**110**	**210**	NA	NA	NA	NA
Nov-2011				10.0	**150**	**92**	**130**	**140**	**180**	NA	NA	NA	NA
May-2012				10.0	**190**	**140**	**160**	**140**	**160**	NA	NA	NA	NA
Nov-2012				10.0	**170**	**130**	**140**	**170**	**250**	NA	NA	NA	NA
Jun-2013				10.0	**160**	**120**	**130**	**160**	**240**	NA	NA	NA	NA
Apr-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Parameter : Total Alkalinity CAS No. 471-34-1

Sample	Compliance Limit (mg/L)			MDL	Analytical Results (mg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct-2009				1.0	**71.4**	**47.9**	**52.8**	**46.9**	**84.1**	**89.9**	**182**	**53.8**	**117**
Apr-2010				NA	**80.0**	**64.0**	**60.5**	**97.5**	**35.5**	**18.7**	**60.5**	**33.0**	**172**
Nov-2010				NA	**10.0 B**	**53.0**	**59.0**	**42.8**	**77.0**	**145**	**155**	**64.5**	**150**
May-2011				12.0	**68.0**	**51.0**	**56.0**	**39.0**	**61.0**	NA	NA	NA	NA
Nov-2011				12.0	**70.0**	**49.0**	**52.0**	**60.0**	**77.0**	NA	NA	NA	NA
May-2012				12.0	**72.0**	**53.0**	**53.0**	**48.0**	**71.0**	NA	NA	NA	NA
Nov-2012				12.0	**69.0**	**53.0**	**54.0**	**75.0**	**120**	NA	NA	NA	NA
Jun-2013				14.0	**81.0**	**56.0 J**	**58.0**	**73.0**	**100**	NA	NA	NA	NA
Apr-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2014				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Parameter : Total Organic Carbon CAS No. 7440-44-0

Sample	Compliance Limit (mg/L)			MDL	Analytical Results (mg/L)								
Date	SWSL	2L Standard	2B Standard		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Apr-2014	NE	NE	NE	1.0	**11.6**	**33.8**	**4.9**	**4.4**	**13.6**	**8.1**	**7.8**	**5.2**	**3.8**
Nov-2014				0.50	**12.0**	**1.3**	**2.8**	**1.7**	**10.1**	**6.9**	**10.8**	**4.4**	**6.4**

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : pH (field)

Sample	Compliance Limit (S.U.)			Results (S.U. = Standard Units)								
Date	SWSL	2L Standard	2B Standard	*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	NE	6.5 - 8.5	6.0 - 9.0	6.42	6.20	6.28	6.01	6.27	7.14	6.82	6.96	6.96
Oct-2009				7.07	7.07	7.06	6.11	6.07	7.28	7.04	6.85	7.65
Apr-2010				6.55	6.01	6.04	5.70	5.93	7.70	6.92	6.61	7.70
May-2010				NA	NA	NA	NA	5.93	NA	NA	NA	NA
Nov-2010				5.73	6.01	5.97	5.75	6.00	7.52	6.71	6.35	7.10
May-2011				5.71	5.61	5.91	5.61	5.33	7.03	6.54	6.22	6.39
Nov-2011				6.50	6.16	6.08	6.39	5.99	7.85	7.27	6.62	6.93
May-2012				6.65	6.27	6.10	6.09	5.96	7.42	7.06	7.23	7.20
Nov-2012				7.09	6.33	6.25	6.21	6.25	7.06	6.95	6.18	6.22
Jun-2013				4.51	5.16	5.14	5.61	5.76	7.52	6.47	6.69	7.13
Apr-2014				5.75	5.21	5.16	5.48	5.08	7.55	6.48	6.64	7.09
Nov-2014				5.98	5.79	5.75	5.76	5.68	7.44	7.22	6.2	7.18

Parameter : Specific Conductance (field)

Sample	Compliance Limit (µS/cm)			Results (µS/cm = microsiemens per centimeter)								
Date	SWSL	2L Standard	2B Standard	*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	NE	NE	NE	216	125	128	128	218	335	152	109	280
Oct-2009				260	140	130	150	260	300	430	200	360
Apr-2010				221	126.1	131	125.3	182.2	436	167	104	420
May-2010				NA	NA	NA	NA	179	NA	NA	NA	NA
Nov-2010				93.9	124.1	117.7	129.7	232	117.1	279	60.3	273.8
May-2011				234	145	145	133	251	428	311	152	370
Nov-2011				226.0	165.1	161.7	187.1	291	426	256	174	479
May-2012				251	168.1	168.6	176	304	292	299	130	277
Nov-2012				190	135	127	165	305	413	225	128	261
Jun-2013				237	177	159	201	381	347	240	174	323
Apr-2014				243	178	155	193	385	362	256	171	331
Nov-2014				241	177	162	281	494	359	264	111	456

Parameter : Turbidity (field)

Sample	Compliance Limit (NTU)			Results (NTU = Nephelometric Turbidity Units)								
Date	SWSL	2L Standard	2B Standard	*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2006	NE	NE	50	> 1,000	> 1,000	> 1,000	> 1,000	725	22	15	38	32
Oct-2009				> 1,000	972	> 1,000	378	> 1,000	2.1	4.5	4.6	4.8
Apr-2010				7.91	36.98	772.8	> 1,000	40.83	18.63	33.63	23.06	26.99
May-2010				NA	NA	NA	NA	29.34	NA	NA	NA	NA
Nov-2010				0.98	148.5	1.13	71	23.7	1.64	1.97	2.79	1.38
May-2011				6.49	11.9	216	35.7	133	2.94	6.61	5.79	4.11
Nov-2011				10.2	51.7	152	83.1	10.9	6.92	6.16	26.8	122
May-2012				13.3	92.6	136	135	44.0	22.6	17.8	40.6	20.5
Nov-2012				3.42	50.5	139	61.3	10.9	7.81	4.27	33.7	18.6
Jun-2013				14.9	7.93	143	86.8	21.3	12.2	14.6	13.0	12.6
Apr-2014				29.8	11.2	19.5	42.7	< 1,000	25.4	19.8	11.2	14.5
Nov-2014				34.81	15.43	18.88	8.12	4.11	66.7	50.66	420.9	41.3

Table 4
Historical Groundwater and Surface Water Quality Data
A-1 Sandrock, Inc. Construction and Demolition Debris (C&D) Landfill

Parameter : Groundwater Elevation								
Sample	**Compliance Limit**			**Elevation (feet)**				
Date	**SWSL**	**2L Standard**	**2B Standard**	***MW-1***	***MW-2***	***MW-3***	***MW-4***	***MW-5***
Nov-2006	Not Applicable			790.20	753.51	727.39	728.62	747.92
Oct-2009				787.02	752.51	725.90	726.30	747.35
Apr-2010				791.96	753.13	727.72	728.35	747.94
Nov-2010				787.14	752.57	725.53	726.73	747.30
May-2011				787.68	752.47	724.83	727.26	747.45
Nov-2011				784.96	752.72	727.91	727.52	747.64
May-2012				788.55	752.51	728.07	728.13	747.79
Nov-2012				785.21	752.49	725.71	727.85	747.38
Jun-2013				788.75	752.73	728.47	727.27	747.53
Apr-2014				790.73	753.19	727.27	728.42	747.54
Nov-2014				784.94	752.57	725.39	726.46	747.39

NOTES:

1. This table shows historically detected constituents only, in either groundwater or surface water samples.
   Historical data is taken from August 2013 Water Quality Monitoring Report prepared by Golder Associates.
2. MW-1, MW-2, MW-3, MW-4, and MW-5 indicate monitoring groundwater wells. MW-1 is the background monitoring location.
3. SW-1, SW-2, SW-3, and SW-4 indicate surface water sampling locations.
4. Compliance Limit = SWSL or 2L or 2B Standard.
5. SWSL = Solid Waste Section Limit (June 13, 2011).
6. µg/L = micrograms per liter. mg/L = milligrams per liter.
7. 2L Standard = NCAC Title 15A Subchapter 2L Classifications and Water Quality Standards Applicable to the GWs of North Carolina (April 1, 2013).
8. 2B Standard = Standards, criteria, or toxic concentrations either adopted per 15A NCAC 2B or National Criteria per EPA (Current as of 5/15/2013).
9. MDL = Method Detection Limit.
10. ND< = not detected above the detection limit.
11. J indicates the detected result is below the SWSL.
12. NA = Not Analyzed or Not Applicable. NE = Not Established.
13. **Bold font** indicates analyte detection above MDL.
14. **Shaded field** denotes result that was at or above the Compliance Limit.
15. Blank cells indicate that there is no relevant information available.

ATTACHMENT 1

Monitoring Well Sampling Logs

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	MW-1	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): 46.65' - Depth to Groundwater: 31.11'			
=Length of Water Column: 15.54'			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: 2.49 gal			
1 Purge Volume = 2.49 gal		3 Purge Volumes = 7.5 gal	
Purge Method: bailer			
Sample Collection Method: bailer			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: PVC					
Protective Steel Housing:			Yes: X		No:
Locking Cap:			Yes: X		No:
Well Condition Satisfactory:			Yes: X		No:
Well Type:			Upright X		Flush Mount
Sampled by:	Michael Cobb			Time: 1505	
Additional Comments:					

	Units					
Purge Volume		2.5	5	7.5		
Time		1443	1448	1453		
Temp	˚C	15.66	14.95	14.85		
Ph	pH	5.95	5.96	5.98		
Spec. Cond	µS/cm	0.239	0.242	0.241		
Turb	NTU	33.65	52.87	34.81		
Dissolved Oxygen	mg/L	206.2	212.9	224		
ORP/Redox						
TDS						

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	MW-2	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): 32.6' - Depth to Groundwater: 9.35'			
=Length of Water Column: 23.25'			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: 3.72 gal			
1 Purge Volume = 3.72 gal		3 Purge Volumes = 11.16 gal	
Purge Method: bailer			
Sample Collection Method: bailer			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: PVC					
Protective Steel Housing:			Yes: X		No:
Locking Cap:			Yes: X		No:
Well Condition Satisfactory:			Yes: X		No:
Well Type:			Upright X		Flush Mount
Sampled by:	Michael Cobb			Time: 1400	
Additional Comments:					

	Units					
Purge Volume		3.7	7.4	11.2		
Time		1340	1344	1349		
Temp	˚C	16.02	16.3	16.6		
Ph	pH	5.75	5.74	5.79		
Spec. Cond	µS/cm	0.178	0.178	0.177		
Turb	NTU	22.69	17.41	15.43		
Dissolved Oxygen	mg/L	212	208	209		
ORP/Redox						
TDS						

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	MW-3	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): 33.64' - Depth to Groundwater: 6.43'			
=Length of Water Column: 27.21'			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: 4.35 gal			
1 Purge Volume = 4.35 gal		3 Purge Volumes = 13.05 gal	
Purge Method: bailer			
Sample Collection Method: bailer			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: PVC					
Protective Steel Housing:			Yes: X	No:	
Locking Cap:			Yes: X	No:	
Well Condition Satisfactory:			Yes: X	No:	
Well Type:			Upright X	Flush Mount	
Sampled by:	Michael Cobb		Time: 1150		
Additional Comments:					

	Units					
Purge Volume		4.3	8.6	13		
Time		1138	1141	1144		
Temp	˚C	15.11	15.12	15.01		
Ph	pH	5.91	5.79	5.75		
Spec. Cond	µS/cm	0.166	0.162	0.162		
Turb	NTU	13.77	20.4	18.88		
Dissolved Oxygen	mg/L	230	247	254		
ORP/Redox						
TDS						

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	MW-4	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): 26.11' - Depth to Groundwater: 6.71'			
=Length of Water Column: 19.4'			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: 3.1 gal			
1 Purge Volume = 3.3 gal		3 Purge Volumes = 9.3 gal	
Purge Method: bailer			
Sample Collection Method: bailer			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: PVC					
Protective Steel Housing:			Yes: X		No:
Locking Cap:			Yes: X		No:
Well Condition Satisfactory:			Yes: X		No:
Well Type:			Upright X		Flush Mount
Sampled by:	Michael Cobb			Time: 1055	
Additional Comments:					

	Units					
Purge Volume		3.1	6.2	9.3		
Time		1043	1047	1050		
Temp	˚C	15.6	15	15		
Ph	pH	5.64	5.75	5.76		
Spec. Cond	µS/cm	0.254	0.282	0.281		
Turb	NTU	10.77	7.89	8.12		
Dissolved Oxygen	mg/L	230	236	240		
ORP/Redox						
TDS						

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	MW-5	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): 31.16' - Depth to Groundwater: 15.49'			
=Length of Water Column: 15.67'			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: 2.5 gal			
1 Purge Volume = 2.51 gal		3 Purge Volumes = 7.5 gal	
Purge Method: bailer			
Sample Collection Method: bailer			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: PVC					
Protective Steel Housing:			Yes: X		No:
Locking Cap:			Yes: X		No:
Well Condition Satisfactory:			Yes: X		No:
Well Type:			Upright X		Flush Mount
Sampled by:	Michael Cobb			Time: 1610	
Additional Comments:					

	Units					
Purge Volume		2.5	5	7.5		
Time		1600	1604	1608		
Temp	˚C	15.96	15.9	15.94		
Ph	pH	5.67	5.66	5.68		
Spec. Cond	µS/cm	0.495	0.487	0.494		
Turb	NTU	2.82	5.33	4.11		
Dissolved Oxygen	mg/L	74	30	20		
ORP/Redox						
TDS						

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	SW-1	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): NA - Depth to Groundwater: NA			
=Length of Water Column: NA			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: NA			
1 Purge Volume = NA		3 Purge Volumes = NA	
Purge Method: NA			
Sample Collection Method: NA			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: NA					
Protective Steel Housing:			Yes:		No:
Locking Cap:			Yes:		No:
Well Condition Satisfactory:			Yes:		No:
Well Type:			Upright		Flush Mount
Sampled by:	Michael Cobb			Time: 0955	
Additional Comments: Surface water sample					

	Units					
Purge Volume						
Time		950				
Temp	˚C	19.7				
Ph	pH	7.44				
Spec. Cond	µS/cm	0.359				
Turb	NTU	66.7				
Dissolved Oxygen	mg/L	358				
ORP/Redox						
TDS						

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	SW-2	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): NA - Depth to Groundwater: NA			
=Length of Water Column: NA			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: NA			
1 Purge Volume = NA		3 Purge Volumes = NA	
Purge Method: NA			
Sample Collection Method: NA			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: NA					
Protective Steel Housing:			Yes:	No:	
Locking Cap:			Yes:	No:	
Well Condition Satisfactory:			Yes:	No:	
Well Type:			Upright	Flush Mount	
Sampled by:	Michael Cobb		Time: 1540		
Additional Comments: Surface water sample					

	Units					
Purge Volume						
Time		1535				
Temp	˚C	20.07				
Ph	pH	7.22				
Spec. Cond	µS/cm	0.264				
Turb	NTU	50.66				
Dissolved Oxygen	mg/L	335.44				
ORP/Redox						
TDS						

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	SW-3	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): NA - Depth to Groundwater: NA			
=Length of Water Column: NA			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: NA			
1 Purge Volume = NA		3 Purge Volumes = NA	
Purge Method: NA			
Sample Collection Method: NA			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: NA					
Protective Steel Housing:			Yes:		No:
Locking Cap:			Yes:		No:
Well Condition Satisfactory:			Yes:		No:
Well Type:			Upright		Flush Mount
Sampled by:	Michael Cobb			Time: 1340	
Additional Comments: Surface water sample; no flow, sampled from stagnant water					

	Units					
Purge Volume						
Time		1335				
Temp	˚C	19.9				
Ph	pH	6.2				
Spec. Cond	µS/cm	0.111				
Turb	NTU	420.9				
Dissolved Oxygen	mg/L	308.7				
ORP/Redox						
TDS						

SCS Engineers Well Sampling Log

Site ID:	A-1 Sandrock		
Well ID:	SW-4	Date	11/25/2014
Weather: Clear and sunny, temperature ranging from 40F to 60F.			
Total Well Depth (TWD): NA - Depth to Groundwater: NA			
=Length of Water Column: NA			
X: .04 (1"), .16(2"), .65(4") = 1 casing volume: NA			
1 Purge Volume = NA		3 Purge Volumes = NA	
Purge Method: NA			
Sample Collection Method: NA			

Well Diameter:	1"	2" X	4"	Other:	
Casing Material: NA					
Protective Steel Housing:			Yes:		No:
Locking Cap:			Yes:		No:
Well Condition Satisfactory:			Yes:		No:
Well Type:			Upright		Flush Mount
Sampled by:	Michael Cobb			Time: 1220	
Additional Comments: Surface water sample					

	Units					
Purge Volume						
Time		1225				
Temp	˚C	20.1				
Ph	pH	7.18				
Spec. Cond	µS/cm	0.456				
Turb	NTU	41.3				
Dissolved Oxygen	mg/L	300				
ORP/Redox						
TDS						

ATTACHMENT 2

Laboratory Analytical Results

Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 12, 2014

Mr. Michael Cobb
SCS Engineers
2520 Whitehall Park Drive
Suite 450
Charlotte, NC 28273

RE: Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Dear Mr. Cobb:
Enclosed are the analytical results for sample(s) received by the laboratory on November 26, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92227454001	**MW-1**	EPA 6010	JMW	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454002	**MW-2**	EPA 6010	JMW	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454003	**MW-3**	EPA 6010	JMW	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454004	**MW-4**	EPA 6010	JMW	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454005	**MW-5**	EPA 6010	SH1	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A

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Huntersville, NC 28078
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SAMPLE ANALYTE COUNT

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454006	**SW-1**	EPA 6010	SH1	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454007	**SW-2**	EPA 6010	SH1	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454008	**SW-3**	EPA 6010	SH1	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454009	**SW-4**	EPA 6010	SH1	15	PASI-A
		EPA 7470	HVK	1	PASI-A
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A
92227454010	**DUP**	EPA 6010	SH1	15	PASI-A
		EPA 7470	HVK	1	PASI-A

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	GAW	51	PASI-C
		EPA 350.1	KLB	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		SM 4500-Cl-E	SER	1	PASI-A
		SM 5220D	JTJ	1	PASI-A
		SM 5310B	AES2	1	PASI-A

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-1 **Lab ID: 92227454001** Collected: 11/25/14 15:05 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:45	7440-38-2	
Barium	**38.4**	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/01/14 16:10	12/02/14 06:45	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/01/14 16:10	12/02/14 06:45	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7440-48-4	
Copper	**7.1**	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7440-50-8	
Lead	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:45	7782-49-2	
Silver	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/01/14 16:10	12/02/14 06:45	7440-28-0	
Vanadium	**9.8**	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:45	7440-62-2	
Zinc	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:45	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:16	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 04:25	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 04:25	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 04:25	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 04:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 04:25	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 04:25	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 04:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 04:25	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 04:25	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 04:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 04:25	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 04:25	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 04:25	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 04:25	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 04:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 04:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 04:25	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 04:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 04:25	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 04:25	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 04:25	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 04:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 04:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 04:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 04:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 04:25	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-1 **Lab ID: 92227454001** Collected: 11/25/14 15:05 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 04:25	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 04:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 04:25	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 04:25	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 04:25	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 04:25	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 04:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 04:25	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 04:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 04:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 04:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 04:25	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 04:25	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 04:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 04:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 04:25	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 04:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 04:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 04:25	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 04:25	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 04:25	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 04:25	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		12/04/14 04:25	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		12/04/14 04:25	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		12/04/14 04:25	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:33	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.60**	mg/L	0.020	1		11/27/14 00:16		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/27/14 00:16		
Nitrogen, NO2 plus NO3	**0.60**	mg/L	0.020	1		11/27/14 00:16		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**4.9**	mg/L	1.0	1		12/06/14 06:52	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	ND	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**12.0**	mg/L	1.0	1		12/06/14 00:41	7440-44-0	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-2 **Lab ID: 92227454002** Collected: 11/25/14 14:00 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:51	7440-38-2	
Barium	**51.9**	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/01/14 16:10	12/02/14 06:51	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/01/14 16:10	12/02/14 06:51	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7440-48-4	
Copper	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7440-50-8	
Lead	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:51	7782-49-2	
Silver	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/01/14 16:10	12/02/14 06:51	7440-28-0	
Vanadium	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:51	7440-62-2	
Zinc	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:51	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:22	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 04:42	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 04:42	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 04:42	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 04:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 04:42	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 04:42	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 04:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 04:42	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 04:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 04:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 04:42	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 04:42	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 04:42	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 04:42	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 04:42	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 04:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 04:42	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 04:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 04:42	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 04:42	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 04:42	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 04:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 04:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 04:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 04:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 04:42	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-2 **Lab ID: 92227454002** Collected: 11/25/14 14:00 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 04:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 04:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 04:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 04:42	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 04:42	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 04:42	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 04:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 04:42	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 04:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 04:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 04:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 04:42	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 04:42	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 04:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 04:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 04:42	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 04:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 04:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 04:42	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 04:42	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 04:42	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 04:42	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	89	%	70-130	1		12/04/14 04:42	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		12/04/14 04:42	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		12/04/14 04:42	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:34	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.052**	mg/L	0.020	1		11/27/14 00:08		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/27/14 00:08		
Nitrogen, NO2 plus NO3	**0.052**	mg/L	0.020	1		11/27/14 00:08		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**5.1**	mg/L	1.0	1		12/06/14 07:30	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	ND	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**1.3**	mg/L	1.0	1		12/06/14 00:51	7440-44-0	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-3 **Lab ID: 92227454003** Collected: 11/25/14 11:50 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:54	7440-38-2	
Barium	**39.4**	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/01/14 16:10	12/02/14 06:54	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/01/14 16:10	12/02/14 06:54	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7440-48-4	
Copper	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7440-50-8	
Lead	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:54	7782-49-2	
Silver	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/01/14 16:10	12/02/14 06:54	7440-28-0	
Vanadium	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 06:54	7440-62-2	
Zinc	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 06:54	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:24	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 05:15	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 05:15	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 05:15	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 05:15	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 05:15	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 05:15	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 05:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 05:15	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 05:15	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 05:15	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 05:15	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 05:15	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 05:15	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 05:15	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 05:15	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 05:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 05:15	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 05:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 05:15	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 05:15	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 05:15	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 05:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 05:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:15	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-3 **Lab ID: 92227454003** Collected: 11/25/14 11:50 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 05:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 05:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 05:15	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 05:15	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 05:15	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 05:15	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 05:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 05:15	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 05:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 05:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 05:15	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 05:15	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 05:15	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 05:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 05:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 05:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 05:15	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 05:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 05:15	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 05:15	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 05:15	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 05:15	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	80	%	70-130	1		12/04/14 05:15	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		12/04/14 05:15	17060-07-0	
Toluene-d8 (S)	123	%	70-130	1		12/04/14 05:15	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:35	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.17**	mg/L	0.020	1		11/27/14 00:01		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/27/14 00:01		
Nitrogen, NO2 plus NO3	**0.17**	mg/L	0.020	1		11/27/14 00:01		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**4.8**	mg/L	2.0	2		12/06/14 06:54	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	ND	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**2.8**	mg/L	1.0	1		12/06/14 01:02	7440-44-0	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-4 **Lab ID: 92227454004** Collected: 11/25/14 10:55 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 07:07	7440-38-2	
Barium	**108**	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/01/14 16:10	12/02/14 07:07	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/01/14 16:10	12/02/14 07:07	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7440-48-4	
Copper	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7440-50-8	
Lead	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 07:07	7782-49-2	
Silver	ND	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/01/14 16:10	12/02/14 07:07	7440-28-0	
Vanadium	**7.3**	ug/L	5.0	1	12/01/14 16:10	12/02/14 07:07	7440-62-2	
Zinc	ND	ug/L	10.0	1	12/01/14 16:10	12/02/14 07:07	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:27	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 05:32	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 05:32	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 05:32	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 05:32	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 05:32	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 05:32	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 05:32	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 05:32	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 05:32	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 05:32	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 05:32	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 05:32	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 05:32	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 05:32	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 05:32	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 05:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 05:32	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 05:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 05:32	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 05:32	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 05:32	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 05:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 05:32	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:32	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-4 **Lab ID: 92227454004** Collected: 11/25/14 10:55 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 05:32	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 05:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 05:32	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 05:32	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 05:32	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 05:32	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 05:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 05:32	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 05:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 05:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 05:32	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 05:32	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 05:32	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 05:32	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 05:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 05:32	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 05:32	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 05:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 05:32	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 05:32	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 05:32	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 05:32	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	90	%	70-130	1		12/04/14 05:32	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		12/04/14 05:32	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		12/04/14 05:32	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:36	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.21**	mg/L	0.020	1		11/26/14 23:52		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/26/14 23:52		
Nitrogen, NO2 plus NO3	**0.21**	mg/L	0.020	1		11/26/14 23:52		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**5.2**	mg/L	1.0	1		12/06/14 06:56	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	ND	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**1.7**	mg/L	1.0	1		12/06/14 01:13	7440-44-0	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-5 **Lab ID: 92227454005** Collected: 11/25/14 16:10 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:06	7440-38-2	
Barium	**91.8**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:06	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:06	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7440-48-4	
Copper	**5.3**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7440-50-8	
Lead	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7439-92-1	
Nickel	**13.2**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:06	7782-49-2	
Silver	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/04/14 15:20	12/05/14 17:06	7440-28-0	
Vanadium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:06	7440-62-2	
Zinc	**10.0**	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:06	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:38	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 05:48	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 05:48	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 05:48	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 05:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 05:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 05:48	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 05:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 05:48	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 05:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 05:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 05:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 05:48	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 05:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 05:48	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 05:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 05:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 05:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 05:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 05:48	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 05:48	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 05:48	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 05:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 05:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 05:48	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: MW-5 **Lab ID: 92227454005** Collected: 11/25/14 16:10 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 05:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 05:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 05:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 05:48	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 05:48	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 05:48	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 05:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 05:48	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 05:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 05:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 05:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 05:48	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 05:48	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 05:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 05:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 05:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 05:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 05:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 05:48	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 05:48	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 05:48	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 05:48	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		12/04/14 05:48	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		12/04/14 05:48	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		12/04/14 05:48	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:37	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.028**	mg/L	0.020	1		11/27/14 00:19		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/27/14 00:19		
Nitrogen, NO2 plus NO3	**0.028**	mg/L	0.020	1		11/27/14 00:19		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**16.5**	mg/L	1.0	1		12/06/14 06:56	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**39.0**	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**10.1**	mg/L	1.0	1		12/06/14 01:55	7440-44-0	M1

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: SW-1 **Lab ID: 92227454006** Collected: 11/25/14 09:55 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:09	7440-38-2	
Barium	**65.8**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:09	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:09	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7440-48-4	
Copper	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7440-50-8	
Lead	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:09	7782-49-2	
Silver	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/04/14 15:20	12/05/14 17:09	7440-28-0	
Vanadium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:09	7440-62-2	
Zinc	**10.3**	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:09	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:40	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 06:05	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 06:05	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 06:05	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 06:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 06:05	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 06:05	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 06:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 06:05	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 06:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 06:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 06:05	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 06:05	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 06:05	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 06:05	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 06:05	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 06:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 06:05	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 06:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 06:05	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 06:05	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 06:05	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 06:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 06:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:05	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: SW-1 **Lab ID: 92227454006** Collected: 11/25/14 09:55 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 06:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 06:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 06:05	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 06:05	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 06:05	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 06:05	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 06:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 06:05	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 06:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 06:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 06:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 06:05	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 06:05	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 06:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 06:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 06:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 06:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 06:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 06:05	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 06:05	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 06:05	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 06:05	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%	70-130	1		12/04/14 06:05	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		12/04/14 06:05	17060-07-0	
Toluene-d8 (S)	85	%	70-130	1		12/04/14 06:05	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:37	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.077**	mg/L	0.020	1		11/26/14 23:47		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/26/14 23:47		
Nitrogen, NO2 plus NO3	**0.077**	mg/L	0.020	1		11/26/14 23:47		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**29.7**	mg/L	1.0	1		12/06/14 06:57	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**39.0**	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**6.9**	mg/L	1.0	1		12/06/14 03:12	7440-44-0	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: SW-2 **Lab ID: 92227454007** Collected: 11/25/14 15:40 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:12	7440-38-2	
Barium	**65.1**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:12	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:12	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7440-48-4	
Copper	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7440-50-8	
Lead	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:12	7782-49-2	
Silver	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/04/14 15:20	12/05/14 17:12	7440-28-0	
Vanadium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:12	7440-62-2	
Zinc	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:12	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:43	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 06:21	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 06:21	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 06:21	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 06:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 06:21	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 06:21	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 06:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 06:21	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 06:21	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 06:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 06:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 06:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 06:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 06:21	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 06:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 06:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 06:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 06:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 06:21	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 06:21	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 06:21	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 06:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 06:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:21	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: SW-2 **Lab ID: 92227454007** Collected: 11/25/14 15:40 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 06:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 06:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 06:21	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 06:21	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 06:21	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 06:21	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 06:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 06:21	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 06:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 06:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 06:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 06:21	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 06:21	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 06:21	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 06:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 06:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 06:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 06:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 06:21	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 06:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 06:21	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 06:21	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%	70-130	1		12/04/14 06:21	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		12/04/14 06:21	17060-07-0	
Toluene-d8 (S)	86	%	70-130	1		12/04/14 06:21	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:41	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.034**	mg/L	0.020	1		11/27/14 00:18		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/27/14 00:18		
Nitrogen, NO2 plus NO3	**0.034**	mg/L	0.020	1		11/27/14 00:18		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**10.8**	mg/L	1.0	1		12/06/14 06:58	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**42.0**	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**10.8**	mg/L	1.0	1		12/06/14 03:25	7440-44-0	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: SW-3 **Lab ID: 92227454008** Collected: 11/25/14 13:40 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:15	7440-38-2	
Barium	**80.7**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:15	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:15	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7440-48-4	
Copper	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7440-50-8	
Lead	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:15	7782-49-2	
Silver	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/04/14 15:20	12/05/14 17:15	7440-28-0	
Vanadium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:15	7440-62-2	
Zinc	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:15	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:45	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 06:37	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 06:37	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 06:37	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 06:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 06:37	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 06:37	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 06:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 06:37	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 06:37	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 06:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 06:37	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 06:37	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 06:37	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 06:37	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 06:37	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 06:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 06:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 06:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 06:37	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 06:37	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 06:37	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 06:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 06:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:37	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: SW-3 **Lab ID: 92227454008** Collected: 11/25/14 13:40 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 06:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 06:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 06:37	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 06:37	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 06:37	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 06:37	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 06:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 06:37	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 06:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 06:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 06:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 06:37	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 06:37	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 06:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 06:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 06:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 06:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 06:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 06:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 06:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 06:37	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 06:37	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	90	%	70-130	1		12/04/14 06:37	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		12/04/14 06:37	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		12/04/14 06:37	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:46	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.020	1		11/27/14 00:05		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/27/14 00:05		
Nitrogen, NO2 plus NO3	ND	mg/L	0.020	1		11/27/14 00:05		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**12.1**	mg/L	1.0	1		12/06/14 06:59	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**25.0**	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**4.4**	mg/L	1.0	1		12/06/14 03:36	7440-44-0	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: SW-4 **Lab ID: 92227454009** Collected: 11/25/14 12:20 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:18	7440-38-2	
Barium	**63.4**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:18	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:18	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7440-48-4	
Copper	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7440-50-8	
Lead	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:18	7782-49-2	
Silver	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/04/14 15:20	12/05/14 17:18	7440-28-0	
Vanadium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:18	7440-62-2	
Zinc	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:18	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:48	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 06:53	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 06:53	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 06:53	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 06:53	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 06:53	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 06:53	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 06:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 06:53	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 06:53	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 06:53	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 06:53	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 06:53	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 06:53	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 06:53	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 06:53	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 06:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 06:53	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 06:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 06:53	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 06:53	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 06:53	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 06:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 06:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 06:53	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: SW-4 **Lab ID: 92227454009** Collected: 11/25/14 12:20 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 06:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 06:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 06:53	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 06:53	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 06:53	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 06:53	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 06:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 06:53	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 06:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 06:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 06:53	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 06:53	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 06:53	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 06:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 06:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 06:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 06:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 06:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 06:53	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 06:53	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 06:53	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 06:53	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	85	%	70-130	1		12/04/14 06:53	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		12/04/14 06:53	17060-07-0	
Toluene-d8 (S)	113	%	70-130	1		12/04/14 06:53	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:46	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.048**	mg/L	0.020	1		11/27/14 00:02		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/27/14 00:02		
Nitrogen, NO2 plus NO3	**0.048**	mg/L	0.020	1		11/27/14 00:02		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**27.2**	mg/L	1.0	1		12/06/14 07:01	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	ND	mg/L	25.0	1		12/10/14 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**6.4**	mg/L	1.0	1		12/06/14 03:48	7440-44-0	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: DUP **Lab ID: 92227454010** Collected: 11/25/14 15:10 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:22	7440-38-2	
Barium	**36.8**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7440-39-3	
Beryllium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:22	7440-41-7	
Cadmium	ND	ug/L	1.0	1	12/04/14 15:20	12/05/14 17:22	7440-43-9	
Chromium	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7440-47-3	
Cobalt	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7440-48-4	
Copper	**6.6**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7440-50-8	
Lead	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7439-92-1	
Nickel	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7440-02-0	
Selenium	ND	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:22	7782-49-2	
Silver	ND	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7440-22-4	
Thallium	ND	ug/L	5.4	1	12/04/14 15:20	12/05/14 17:22	7440-28-0	
Vanadium	**10.5**	ug/L	5.0	1	12/04/14 15:20	12/05/14 17:22	7440-62-2	
Zinc	**13.5**	ug/L	10.0	1	12/04/14 15:20	12/05/14 17:22	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	12/01/14 20:30	12/02/14 16:51	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		12/04/14 07:10	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		12/04/14 07:10	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 07:10	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		12/04/14 07:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 07:10	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 07:10	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/04/14 07:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		12/04/14 07:10	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		12/04/14 07:10	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 07:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 07:10	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 07:10	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/04/14 07:10	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/04/14 07:10	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/04/14 07:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/04/14 07:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/04/14 07:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/04/14 07:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 07:10	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/04/14 07:10	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		12/04/14 07:10	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/04/14 07:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/04/14 07:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/04/14 07:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 07:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/04/14 07:10	156-60-5	

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ANALYTICAL RESULTS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Sample: DUP **Lab ID: 92227454010** Collected: 11/25/14 15:10 Received: 11/26/14 16:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260							
1,2-Dichloropropane	ND	ug/L	1.0	1		12/04/14 07:10	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 07:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/04/14 07:10	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		12/04/14 07:10	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		12/04/14 07:10	591-78-6	
Iodomethane	ND	ug/L	5.0	1		12/04/14 07:10	74-88-4	
Methylene Chloride	ND	ug/L	1.0	1		12/04/14 07:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/04/14 07:10	108-10-1	
Styrene	ND	ug/L	1.0	1		12/04/14 07:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 07:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/04/14 07:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/04/14 07:10	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/04/14 07:10	109-99-9	
Toluene	ND	ug/L	1.0	1		12/04/14 07:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/04/14 07:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/04/14 07:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/04/14 07:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/04/14 07:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/04/14 07:10	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/04/14 07:10	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/14 07:10	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		12/04/14 07:10	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		12/04/14 07:10	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		12/04/14 07:10	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		12/04/14 07:10	2037-26-5	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		12/05/14 13:48	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.61**	mg/L	0.020	1		11/27/14 00:17		
Nitrogen, Nitrite	ND	mg/L	0.020	1		11/27/14 00:17		
Nitrogen, NO2 plus NO3	**0.61**	mg/L	0.020	1		11/27/14 00:17		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**5.0**	mg/L	1.0	1		12/06/14 07:01	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**64.0**	mg/L	25.0	1		12/10/14 13:00		M1
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**14.1**	mg/L	1.0	1		12/06/14 04:00	7440-44-0	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: MERP/7354 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

METHOD BLANK: 1340742 Matrix: Water
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	12/02/14 16:03	

LABORATORY CONTROL SAMPLE: 1340743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.2	86	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1340744 1340745

Parameter	Units	92227331006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	ug/L	ND	2.5	2.5	1.6	1.6	63	63	75-125	1	M1

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: MPRP/17444 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004

METHOD BLANK: 1340549 Matrix: Water
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	12/02/14 05:27	
Arsenic	ug/L	ND	10.0	12/02/14 05:27	
Barium	ug/L	ND	5.0	12/02/14 05:27	
Beryllium	ug/L	ND	1.0	12/02/14 05:27	
Cadmium	ug/L	ND	1.0	12/02/14 05:27	
Chromium	ug/L	ND	5.0	12/02/14 05:27	
Cobalt	ug/L	ND	5.0	12/02/14 05:27	
Copper	ug/L	ND	5.0	12/02/14 05:27	
Lead	ug/L	ND	5.0	12/02/14 05:27	
Nickel	ug/L	ND	5.0	12/02/14 05:27	
Selenium	ug/L	ND	10.0	12/02/14 05:27	
Silver	ug/L	ND	5.0	12/02/14 05:27	
Thallium	ug/L	ND	5.4	12/02/14 05:27	
Vanadium	ug/L	ND	5.0	12/02/14 05:27	
Zinc	ug/L	ND	10.0	12/02/14 05:27	

LABORATORY CONTROL SAMPLE: 1340550

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	496	99	80-120	
Arsenic	ug/L	500	491	98	80-120	
Barium	ug/L	500	492	98	80-120	
Beryllium	ug/L	500	484	97	80-120	
Cadmium	ug/L	500	498	100	80-120	
Chromium	ug/L	500	484	97	80-120	
Cobalt	ug/L	500	496	99	80-120	
Copper	ug/L	500	497	99	80-120	
Lead	ug/L	500	498	100	80-120	
Nickel	ug/L	500	496	99	80-120	
Selenium	ug/L	500	500	100	80-120	
Silver	ug/L	250	241	96	80-120	
Thallium	ug/L	500	486	97	80-120	
Vanadium	ug/L	500	489	98	80-120	
Zinc	ug/L	500	487	97	80-120	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1340551 1340552

Parameter	Units	92227354007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Antimony	ug/L	4.9J	500	500	495	502	98	99	75-125	1	
Arsenic	ug/L	ND	500	500	494	502	99	100	75-125	2	
Barium	ug/L	621	500	500	1110	1110	98	97	75-125	0	
Beryllium	ug/L	ND	500	500	481	488	96	98	75-125	2	
Cadmium	ug/L	ND	500	500	490	498	98	100	75-125	2	
Chromium	ug/L	ND	500	500	472	477	94	95	75-125	1	
Cobalt	ug/L	12.3	500	500	476	484	93	94	75-125	1	
Copper	ug/L	ND	500	500	493	499	99	100	75-125	1	
Lead	ug/L	ND	500	500	464	472	93	94	75-125	2	
Nickel	ug/L	78.0	500	500	538	545	92	93	75-125	1	
Selenium	ug/L	ND	500	500	488	499	98	100	75-125	2	
Silver	ug/L	ND	250	250	241	243	96	97	75-125	1	
Thallium	ug/L	ND	500	500	446	454	89	90	75-125	2	
Vanadium	ug/L	8.3	500	500	497	505	98	99	75-125	2	
Zinc	ug/L	ND	500	500	461	468	91	93	75-125	2	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: MPRP/17463 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

METHOD BLANK: 1343527 Matrix: Water
Associated Lab Samples: 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	12/05/14 17:00	
Arsenic	ug/L	ND	10.0	12/05/14 17:00	
Barium	ug/L	ND	5.0	12/05/14 17:00	
Beryllium	ug/L	ND	1.0	12/05/14 17:00	
Cadmium	ug/L	ND	1.0	12/05/14 17:00	
Chromium	ug/L	ND	5.0	12/05/14 17:00	
Cobalt	ug/L	ND	5.0	12/05/14 17:00	
Copper	ug/L	ND	5.0	12/05/14 17:00	
Lead	ug/L	ND	5.0	12/05/14 17:00	
Nickel	ug/L	ND	5.0	12/05/14 17:00	
Selenium	ug/L	ND	10.0	12/05/14 17:00	
Silver	ug/L	ND	5.0	12/05/14 17:00	
Thallium	ug/L	ND	5.4	12/05/14 17:00	
Vanadium	ug/L	ND	5.0	12/05/14 17:00	
Zinc	ug/L	ND	10.0	12/05/14 17:00	

LABORATORY CONTROL SAMPLE: 1343528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	488	98	80-120	
Arsenic	ug/L	500	480	96	80-120	
Barium	ug/L	500	483	97	80-120	
Beryllium	ug/L	500	481	96	80-120	
Cadmium	ug/L	500	484	97	80-120	
Chromium	ug/L	500	482	96	80-120	
Cobalt	ug/L	500	478	96	80-120	
Copper	ug/L	500	490	98	80-120	
Lead	ug/L	500	481	96	80-120	
Nickel	ug/L	500	483	97	80-120	
Selenium	ug/L	500	483	97	80-120	
Silver	ug/L	250	242	97	80-120	
Thallium	ug/L	500	474	95	80-120	
Vanadium	ug/L	500	482	96	80-120	
Zinc	ug/L	500	474	95	80-120	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1343529 1343530

Parameter	Units	92227455002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Antimony	ug/L	ND	500	500	486	489	97	98	75-125	1	
Arsenic	ug/L	ND	500	500	484	482	97	96	75-125	0	
Barium	ug/L	ND	500	500	490	491	97	97	75-125	0	
Beryllium	ug/L	ND	500	500	483	486	97	97	75-125	1	
Cadmium	ug/L	ND	500	500	484	487	97	97	75-125	1	
Chromium	ug/L	ND	500	500	480	484	96	97	75-125	1	
Cobalt	ug/L	ND	500	500	463	466	93	93	75-125	1	
Copper	ug/L	ND	500	500	491	491	98	98	75-125	0	
Lead	ug/L	ND	500	500	467	470	93	94	75-125	1	
Nickel	ug/L	ND	500	500	472	474	94	95	75-125	1	
Selenium	ug/L	ND	500	500	481	480	96	95	75-125	0	
Silver	ug/L	ND	250	250	241	242	96	96	75-125	0	
Thallium	ug/L	ND	500	500	459	465	92	93	75-125	1	
Vanadium	ug/L	ND	500	500	486	489	97	98	75-125	1	
Zinc	ug/L	ND	500	500	467	469	92	93	75-125	0	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: MSV/29473 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

METHOD BLANK: 1342703 Matrix: Water
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	12/04/14 03:19	
1,1,1-Trichloroethane	ug/L	ND	1.0	12/04/14 03:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	12/04/14 03:19	
1,1,2-Trichloroethane	ug/L	ND	1.0	12/04/14 03:19	
1,1-Dichloroethane	ug/L	ND	1.0	12/04/14 03:19	
1,1-Dichloroethene	ug/L	ND	1.0	12/04/14 03:19	
1,2,3-Trichloropropane	ug/L	ND	1.0	12/04/14 03:19	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	12/04/14 03:19	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	12/04/14 03:19	
1,2-Dichlorobenzene	ug/L	ND	1.0	12/04/14 03:19	
1,2-Dichloroethane	ug/L	ND	1.0	12/04/14 03:19	
1,2-Dichloropropane	ug/L	ND	1.0	12/04/14 03:19	
1,4-Dichlorobenzene	ug/L	ND	1.0	12/04/14 03:19	
2-Butanone (MEK)	ug/L	ND	5.0	12/04/14 03:19	
2-Hexanone	ug/L	ND	5.0	12/04/14 03:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	12/04/14 03:19	
Acetone	ug/L	ND	25.0	12/04/14 03:19	
Acrylonitrile	ug/L	ND	10.0	12/04/14 03:19	
Benzene	ug/L	ND	1.0	12/04/14 03:19	
Bromochloromethane	ug/L	ND	1.0	12/04/14 03:19	
Bromodichloromethane	ug/L	ND	1.0	12/04/14 03:19	
Bromoform	ug/L	ND	1.0	12/04/14 03:19	
Bromomethane	ug/L	ND	2.0	12/04/14 03:19	
Carbon disulfide	ug/L	ND	2.0	12/04/14 03:19	
Carbon tetrachloride	ug/L	ND	1.0	12/04/14 03:19	
Chlorobenzene	ug/L	ND	1.0	12/04/14 03:19	
Chloroethane	ug/L	ND	1.0	12/04/14 03:19	
Chloroform	ug/L	ND	1.0	12/04/14 03:19	
Chloromethane	ug/L	ND	1.0	12/04/14 03:19	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/04/14 03:19	
cis-1,3-Dichloropropene	ug/L	ND	1.0	12/04/14 03:19	
Dibromochloromethane	ug/L	ND	1.0	12/04/14 03:19	
Dibromomethane	ug/L	ND	1.0	12/04/14 03:19	
Ethylbenzene	ug/L	ND	1.0	12/04/14 03:19	
Iodomethane	ug/L	ND	5.0	12/04/14 03:19	
Methylene Chloride	ug/L	ND	1.0	12/04/14 03:19	
Styrene	ug/L	ND	1.0	12/04/14 03:19	
Tetrachloroethene	ug/L	ND	1.0	12/04/14 03:19	
Tetrahydrofuran	ug/L	ND	10.0	12/04/14 03:19	
Toluene	ug/L	ND	1.0	12/04/14 03:19	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

METHOD BLANK: 1342703 Matrix: Water

Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/04/14 03:19	
trans-1,3-Dichloropropene	ug/L	ND	1.0	12/04/14 03:19	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	12/04/14 03:19	
Trichloroethene	ug/L	ND	1.0	12/04/14 03:19	
Trichlorofluoromethane	ug/L	ND	1.0	12/04/14 03:19	
Vinyl acetate	ug/L	ND	2.0	12/04/14 03:19	
Vinyl chloride	ug/L	ND	1.0	12/04/14 03:19	
Xylene (Total)	ug/L	ND	2.0	12/04/14 03:19	
1,2-Dichloroethane-d4 (S)	%	101	70-130	12/04/14 03:19	
4-Bromofluorobenzene (S)	%	95	70-130	12/04/14 03:19	
Toluene-d8 (S)	%	101	70-130	12/04/14 03:19	

LABORATORY CONTROL SAMPLE: 1342704

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.5	97	80-125	
1,1,1-Trichloroethane	ug/L	50	46.6	93	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	42.9	86	79-124	
1,1,2-Trichloroethane	ug/L	50	40.1	80	85-125	L0
1,1-Dichloroethane	ug/L	50	44.8	90	73-126	
1,1-Dichloroethene	ug/L	50	44.7	89	66-135	
1,2,3-Trichloropropane	ug/L	50	43.0	86	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	43.8	88	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	48.7	97	83-124	
1,2-Dichlorobenzene	ug/L	50	45.4	91	80-133	
1,2-Dichloroethane	ug/L	50	46.3	93	67-128	
1,2-Dichloropropane	ug/L	50	48.0	96	75-132	
1,4-Dichlorobenzene	ug/L	50	44.7	89	78-130	
2-Butanone (MEK)	ug/L	100	104	104	61-144	
2-Hexanone	ug/L	100	100	100	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	87.8	88	72-135	
Acetone	ug/L	100	106	106	48-146	
Acrylonitrile	ug/L	250	131	52	40-160	
Benzene	ug/L	50	50.2	100	80-125	
Bromochloromethane	ug/L	50	51.9	104	71-125	
Bromodichloromethane	ug/L	50	45.2	90	78-124	
Bromoform	ug/L	50	39.4	79	71-128	
Bromomethane	ug/L	50	47.7	95	40-160	
Carbon disulfide	ug/L	50	47.1	94	50-160	
Carbon tetrachloride	ug/L	50	50.0	100	69-131	
Chlorobenzene	ug/L	50	45.5	91	81-122	
Chloroethane	ug/L	50	45.5	91	39-148	
Chloroform	ug/L	50	42.0	84	73-127	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

LABORATORY CONTROL SAMPLE: 1342704

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	50	53.5	107	44-146	
cis-1,2-Dichloroethene	ug/L	50	47.2	94	74-124	
cis-1,3-Dichloropropene	ug/L	50	46.6	93	72-132	
Dibromochloromethane	ug/L	50	40.6	81	78-125	
Dibromomethane	ug/L	50	47.5	95	82-120	
Ethylbenzene	ug/L	50	46.8	94	79-121	
Iodomethane	ug/L	100	103	103	39-154	
Methylene Chloride	ug/L	50	50.7	101	64-133	
Styrene	ug/L	50	46.6	93	84-126	
Tetrachloroethene	ug/L	50	43.5	87	78-122	
Tetrahydrofuran	ug/L	500	502	100	69-148	
Toluene	ug/L	50	47.2	94	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.2	94	71-127	
trans-1,3-Dichloropropene	ug/L	50	42.4	85	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	46.8	94	40-160	
Trichloroethene	ug/L	50	45.7	91	78-122	
Trichlorofluoromethane	ug/L	50	56.2	112	53-137	
Vinyl acetate	ug/L	100	106	106	40-160	
Vinyl chloride	ug/L	50	60.9	122	58-137	
Xylene (Total)	ug/L	150	136	91	81-126	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1342706

Parameter	Units	92227454003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20.5	102	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	21.0	105	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.8	104	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	23.1	116	70-130	
1,1-Dichloroethane	ug/L	ND	20	20.0	100	70-130	
1,1-Dichloroethene	ug/L	ND	20	20.9	105	70-166	
1,2,3-Trichloropropane	ug/L	ND	20	18.8	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	19.1	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	21.2	106	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	21.5	108	70-130	
1,2-Dichloroethane	ug/L	ND	20	20.3	102	70-130	
1,2-Dichloropropane	ug/L	ND	20	24.1	121	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.3	106	70-130	
2-Butanone (MEK)	ug/L	ND	40	38.8	97	70-130	
2-Hexanone	ug/L	ND	40	47.9	120	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	50.1	125	70-130	
Acetone	ug/L	ND	40	41.0	103	70-130	
Acrylonitrile	ug/L	ND	100	53.9	54	70-130	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

MATRIX SPIKE SAMPLE: 1342706

Parameter	Units	92227454003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	20	23.8	119	70-148	
Bromochloromethane	ug/L	ND	20	22.5	113	70-130	
Bromodichloromethane	ug/L	ND	20	21.1	106	70-130	
Bromoform	ug/L	ND	20	15.8	79	70-130	
Bromomethane	ug/L	ND	20	20.0	100	70-130	
Carbon disulfide	ug/L	ND	20	21.0	105	70-130	
Carbon tetrachloride	ug/L	ND	20	23.2	116	70-130	
Chlorobenzene	ug/L	ND	20	21.0	105	70-146	
Chloroethane	ug/L	ND	20	23.3	116	70-130	
Chloroform	ug/L	ND	20	18.2	91	70-130	
Chloromethane	ug/L	ND	20	21.9	110	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	20.5	103	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	20.9	104	70-130	
Dibromochloromethane	ug/L	ND	20	17.7	88	70-130	
Dibromomethane	ug/L	ND	20	21.0	105	70-130	
Ethylbenzene	ug/L	ND	20	21.7	108	70-130	
Iodomethane	ug/L	ND	40	40.4	101	70-130	
Methylene Chloride	ug/L	ND	20	19.9	99	70-130	
Styrene	ug/L	ND	20	19.6	98	70-130	
Tetrachloroethene	ug/L	ND	20	18.7	94	70-130	
Tetrahydrofuran	ug/L	ND	200	194	97	70-130	
Toluene	ug/L	ND	20	22.5	113	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	21.3	106	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	22.1	110	70-130	
trans-1,4-Dichloro-2-butene	ug/L	ND	20	18.7	93	70-130	
Trichloroethene	ug/L	ND	20	21.1	105	69-151	
Trichlorofluoromethane	ug/L	ND	20	27.2	136	70-130	M0
Vinyl acetate	ug/L	ND	40	30.7	77	70-130	
Vinyl chloride	ug/L	ND	20	28.5	143	70-130	M0
1,2-Dichloroethane-d4 (S)	%				97	70-130	
4-Bromofluorobenzene (S)	%				90	70-130	
Toluene-d8 (S)	%				103	70-130	

SAMPLE DUPLICATE: 1342705

Parameter	Units	92227454002 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

SAMPLE DUPLICATE: 1342705

Parameter	Units	92227454002 Result	Dup Result	RPD	Qualifiers
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Acrylonitrile	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon disulfide	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Iodomethane	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Tetrahydrofuran	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	101	101	0	
4-Bromofluorobenzene (S)	%	89	88	1	
Toluene-d8 (S)	%	102	103	2	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: WETA/21138 | Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 | Analysis Description: 350.1 Ammonia
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007

METHOD BLANK: 1343777 | Matrix: Water
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	12/05/14 13:12	

LABORATORY CONTROL SAMPLE: 1343778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1343779 1343780

Parameter	Units	92227300002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Ammonia	mg/L	8.4	5	5	8.6	8.5	5	3	90-110	1	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1343781 1343782

Parameter	Units	92227369002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Ammonia	mg/L	0.11	5	5	4.7	4.8	93	94	90-110	1	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: WETA/21141 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 92227454008, 92227454009, 92227454010

METHOD BLANK: 1343926 Matrix: Water
Associated Lab Samples: 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	12/05/14 13:41	

LABORATORY CONTROL SAMPLE: 1343927

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1343928 1343929

Parameter	Units	92227457002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Ammonia	mg/L	18.1	5	5	23.6	23.8	110	113	90-110	1	M1

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: WETA/21074 — Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 — Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

METHOD BLANK: 1339899 — Matrix: Water
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.020	11/26/14 23:44	
Nitrogen, Nitrite	mg/L	ND	0.020	11/26/14 23:44	
Nitrogen, NO2 plus NO3	mg/L	ND	0.020	11/26/14 23:44	

LABORATORY CONTROL SAMPLE: 1339900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.6	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	
Nitrogen, NO2 plus NO3	mg/L	2.5	2.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1339901 — 1339902

Parameter	Units	92227454006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Nitrate	mg/L	0.077	2.5	2.5	2.4	2.4	93	94	90-110	0	
Nitrogen, Nitrite	mg/L	ND	1	1	0.97	0.98	97	98	90-110	0	
Nitrogen, NO2 plus NO3	mg/L	0.077	2.5	2.5	2.4	2.4	93	94	90-110	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1339903 — 1339904

Parameter	Units	92227454004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Nitrate	mg/L	0.21	2.5	2.5	2.5	2.6	94	94	90-110	0	
Nitrogen, Nitrite	mg/L	ND	1	1	0.98	0.98	98	98	90-110	1	
Nitrogen, NO2 plus NO3	mg/L	0.21	2.5	2.5	2.5	2.6	94	94	90-110	0	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: WETA/21162 — Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E — Analysis Description: 4500 Chloride
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

METHOD BLANK: 1345524 — Matrix: Water
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	12/06/14 06:47	

LABORATORY CONTROL SAMPLE: 1345525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.9	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1345526 — 1345527

Parameter	Units	92227331006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chloride	mg/L	36.9	20	20	58.4	57.6	107	103	90-110	1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1345528 — 1345529

Parameter	Units	92227454008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chloride	mg/L	12.1	20	20	32.0	31.6	100	98	90-110	1	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: WETA/21238 — Analysis Method: SM 5220D
QC Batch Method: SM 5220D — Analysis Description: 5220D COD
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

METHOD BLANK: 1349082 — Matrix: Water
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004, 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	12/10/14 13:00	

LABORATORY CONTROL SAMPLE: 1349083

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	750	742	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1349084 — 1349085

Parameter	Units	92228790001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	mg/L	5520	750	750	20500	20600	2003	2011	90-110	0	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1349086 — 1349087

Parameter	Units	92227454010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	mg/L	64.0	750	750	926	929	115	115	90-110	0	M1

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: WETA/21149 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004

METHOD BLANK: 1344736 Matrix: Water
Associated Lab Samples: 92227454001, 92227454002, 92227454003, 92227454004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	12/05/14 19:13	

LABORATORY CONTROL SAMPLE: 1344737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	24.8	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1344738 1344739

Parameter	Units	92226977001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Total Organic Carbon	mg/L	ND	25	25	25.2	25.0	99	99	90-110	1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1344740 1344741

Parameter	Units	92227181002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Total Organic Carbon	mg/L	3.2	25	25	27.7	27.4	98	97	90-110	1	

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QUALITY CONTROL DATA

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

QC Batch: WETA/21150 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

METHOD BLANK: 1344752 Matrix: Water
Associated Lab Samples: 92227454005, 92227454006, 92227454007, 92227454008, 92227454009, 92227454010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	12/06/14 01:23	

LABORATORY CONTROL SAMPLE: 1344753

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	24.7	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1344754 1344755

Parameter	Units	92227454005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Total Organic Carbon	mg/L	10.1	25	25	33.9	32.4	95	89	90-110	5	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1344756 1344757

Parameter	Units	92227984005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Total Organic Carbon	mg/L	7.0	25	25	31.7	31.3	99	97	90-110	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92227454001	**MW-1**	EPA 3010	MPRP/17444	EPA 6010	ICP/15722
92227454002	**MW-2**	EPA 3010	MPRP/17444	EPA 6010	ICP/15722
92227454003	**MW-3**	EPA 3010	MPRP/17444	EPA 6010	ICP/15722
92227454004	**MW-4**	EPA 3010	MPRP/17444	EPA 6010	ICP/15722
92227454005	**MW-5**	EPA 3010	MPRP/17463	EPA 6010	ICP/15737
92227454006	**SW-1**	EPA 3010	MPRP/17463	EPA 6010	ICP/15737
92227454007	**SW-2**	EPA 3010	MPRP/17463	EPA 6010	ICP/15737
92227454008	**SW-3**	EPA 3010	MPRP/17463	EPA 6010	ICP/15737
92227454009	**SW-4**	EPA 3010	MPRP/17463	EPA 6010	ICP/15737
92227454010	**DUP**	EPA 3010	MPRP/17463	EPA 6010	ICP/15737
92227454001	**MW-1**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454002	**MW-2**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454003	**MW-3**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454004	**MW-4**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454005	**MW-5**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454006	**SW-1**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454007	**SW-2**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454008	**SW-3**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454009	**SW-4**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454010	**DUP**	EPA 7470	MERP/7354	EPA 7470	MERC/7065
92227454001	**MW-1**	EPA 8260	MSV/29473		
92227454002	**MW-2**	EPA 8260	MSV/29473		
92227454003	**MW-3**	EPA 8260	MSV/29473		
92227454004	**MW-4**	EPA 8260	MSV/29473		
92227454005	**MW-5**	EPA 8260	MSV/29473		
92227454006	**SW-1**	EPA 8260	MSV/29473		
92227454007	**SW-2**	EPA 8260	MSV/29473		
92227454008	**SW-3**	EPA 8260	MSV/29473		
92227454009	**SW-4**	EPA 8260	MSV/29473		
92227454010	**DUP**	EPA 8260	MSV/29473		
92227454001	**MW-1**	EPA 350.1	WETA/21138		
92227454002	**MW-2**	EPA 350.1	WETA/21138		
92227454003	**MW-3**	EPA 350.1	WETA/21138		
92227454004	**MW-4**	EPA 350.1	WETA/21138		
92227454005	**MW-5**	EPA 350.1	WETA/21138		
92227454006	**SW-1**	EPA 350.1	WETA/21138		
92227454007	**SW-2**	EPA 350.1	WETA/21138		
92227454008	**SW-3**	EPA 350.1	WETA/21141		
92227454009	**SW-4**	EPA 350.1	WETA/21141		
92227454010	**DUP**	EPA 350.1	WETA/21141		
92227454001	**MW-1**	EPA 353.2	WETA/21074		
92227454002	**MW-2**	EPA 353.2	WETA/21074		
92227454003	**MW-3**	EPA 353.2	WETA/21074		
92227454004	**MW-4**	EPA 353.2	WETA/21074		
92227454005	**MW-5**	EPA 353.2	WETA/21074		
92227454006	**SW-1**	EPA 353.2	WETA/21074		

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: A1 Sandrock GW 02214704.00
Pace Project No.: 92227454

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92227454007	**SW-2**	EPA 353.2	WETA/21074		
92227454008	**SW-3**	EPA 353.2	WETA/21074		
92227454009	**SW-4**	EPA 353.2	WETA/21074		
92227454010	**DUP**	EPA 353.2	WETA/21074		
92227454001	**MW-1**	SM 4500-Cl-E	WETA/21162		
92227454002	**MW-2**	SM 4500-Cl-E	WETA/21162		
92227454003	**MW-3**	SM 4500-Cl-E	WETA/21162		
92227454004	**MW-4**	SM 4500-Cl-E	WETA/21162		
92227454005	**MW-5**	SM 4500-Cl-E	WETA/21162		
92227454006	**SW-1**	SM 4500-Cl-E	WETA/21162		
92227454007	**SW-2**	SM 4500-Cl-E	WETA/21162		
92227454008	**SW-3**	SM 4500-Cl-E	WETA/21162		
92227454009	**SW-4**	SM 4500-Cl-E	WETA/21162		
92227454010	**DUP**	SM 4500-Cl-E	WETA/21162		
92227454001	**MW-1**	SM 5220D	WETA/21238		
92227454002	**MW-2**	SM 5220D	WETA/21238		
92227454003	**MW-3**	SM 5220D	WETA/21238		
92227454004	**MW-4**	SM 5220D	WETA/21238		
92227454005	**MW-5**	SM 5220D	WETA/21238		
92227454006	**SW-1**	SM 5220D	WETA/21238		
92227454007	**SW-2**	SM 5220D	WETA/21238		
92227454008	**SW-3**	SM 5220D	WETA/21238		
92227454009	**SW-4**	SM 5220D	WETA/21238		
92227454010	**DUP**	SM 5220D	WETA/21238		
92227454001	**MW-1**	SM 5310B	WETA/21149		
92227454002	**MW-2**	SM 5310B	WETA/21149		
92227454003	**MW-3**	SM 5310B	WETA/21149		
92227454004	**MW-4**	SM 5310B	WETA/21149		
92227454005	**MW-5**	SM 5310B	WETA/21150		
92227454006	**SW-1**	SM 5310B	WETA/21150		
92227454007	**SW-2**	SM 5310B	WETA/21150		
92227454008	**SW-3**	SM 5310B	WETA/21150		
92227454009	**SW-4**	SM 5310B	WETA/21150		
92227454010	**DUP**	SM 5310B	WETA/21150		

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Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: September 22, 2014 Page 1 of 2
	Document Number: **F-CHR-CS-003-rev.15**	Issuing Authority: Pace Huntersville Quality Office

Client Name: SCS Engineering

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other ✓

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Thermometer Used: IR Gun T1401 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1401** No Correction

Corrected Cooler Temp.: 1.7 °C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: MC 11/26/14

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. NO times
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☑No ☐N/A	6. MC 11/26
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	☐Yes ☑No ☐N/A	12. 1-1505 2-1400 3-1150 4-1055 5-1610 6-955 7-1540 8-1340 9-1220 10-1510 Times
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: MM Date: 11/26/14

SRF Review: VS Date: 12/1/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92227454

92227454

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1887014

Section A Required Client Information:

Company: SCS Engineers
Address: 2520 Whitehall Park Dr. Charlotte NC 28273
Email To: mcobb@scsengineers.com
Phone: 704-504-3107 Fax: 704-504-3194
Requested Due Date/TAT: normal

Section B Required Project Information:

Report To: Mike Cobb
Copy To:
Purchase Order No.:
Project Name: A1 Sandrock GW
Project Number: 02214704.06

Section C Invoice Information:

Attention: Mike Cobb
Company Name: SCS
Address: ←
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 2441-1

REGULATORY AGENCY: ☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other (Ascorbic Acid)	Analysis Test (Y/N)	COD, Ammonia	Chloride	As, Cl, Cr, Cu, Ni, Se, Zn	Nitrate, Nitrite	TOC	As, Cl, Cr, Cu, Ni, Se, Zn							Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G	11/25					10	2	1	1	3				3		x	y	x	x	x	x								001
2	MW-2								10	2	1	1	3				3		x	y	x	x	x	x								002
3	MW-3								10	2	1	1	3				3		x	y	x	x	x	x								003
4	MW-4								10	2	1	1	3				3		x	x	x	x	x	x								004
5	MW-5								10	2	1	1	3				3		x	x	x	x	x	x								005
6	SW-1								9	2	1	1	3				2		x	x	x	x	x	x								006
7	SW-2								10	2	1	1	3				3		x	x	x	x	x	x								007
8	SW-3								10	2	1	1	3				3		x	x	x	x	x	x								008
9	SW-4								10	2	1	1	3				3		x	x	x	x	x	x								009
10	DUP								10	2	1	1	3				3		x	x	x	x	x	x								010
11																																
12																																

92227454
~~92227~~5 11/24/14

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
One vial for SW-1 was	M. Cobb SCS	11/26	1448	[signature]	11/26/14	1448				
broken in the field	[signature]	11-26-14	1628	[signature]	11/26/14	1628	1.7	X	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Michael Cobb

SIGNATURE of SAMPLER: M. Cobb

DATE Signed (MM/DD/YY): 11/26/14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

ATTACHMENT 3

Environmental Monitoring Reporting Form and

Electronic Data Deliverable (EDD; Electronic File Only)

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):

SCS Engineers

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

Name: Marta VanDussen Phone: 828-285-8951

E-mail: mvandussen@scsengineers.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
A-1 Sandrock C&D Landfill	2132 Bishop Road, Greensboro Guilford County	41-17	.0500	November 25, 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.

David Garrett P.G. 919-418-4375

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

Digitally signed by dgarrett@scsengineers.com DN: cn=dgarrett@scsengineers.com Date: 2015.02.05 15:20:56 -05'00'

2-5-2015

Signature Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 967 GEOLOGIST DAVID GARRETT

322 Chapanoke Road, Suite 101, Raleigh, North Carolina 27603

Facility Representative Address

C-1837

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

Revised 6/2009

Environmental Consultants
and Contractors

SCS Engineers, P.C.
2520 Whitehall Park Drive
Suite 450
Charlotte, NC 28273-3557

704 504-3107
FAX 704 504-3174
www.scsengineers.com

SCS ENGINEERS, PC

February 3, 2015
File No. 02214708.00

Ms. Jackie Drummond, Hydrogeologist
North Carolina Department of Environment and Natural Resources
Division of Waste Management, Solid Waste Section
2090 US Highway 70
Swannanoa, North Carolina 28778

Subject: **Construction and Demolition Debris Landfill, Pitt County, NC**
Facility Permit Number 74-07 Phase 1 and Phase 2
Water Quality Monitoring Report
November 2014 Semiannual Sampling Event

Dear Ms. Drummond:

On behalf of C&D Landfill, Inc., SCS Engineers, PC is submitting the attached Water Quality Monitoring Report documenting November 2014 Semiannual Sampling Event for Phase 1 and Phase 2 Construction and Demolition Debris Landfill (C&D Landfill), Facility Permit Number 74-07. The November 2014 monitoring event is the 2nd of the requested semiannual groundwater monitoring events for year 2014. In addition to the report, the signed Environmental Monitoring Reporting Form and the electronic data deliverable (EDD) are being submitted. This groundwater and surface water sampling event was conducted on November 25, 2014. The report provides details pertaining to the sampling event including field activities, laboratory analysis, water quality findings and conclusions. Historical groundwater and surface water results are also included in the report.

In summary, the results of the surface water monitoring event indicate conditions consistent with historic field and analytical data. The results of the groundwater monitoring event indicate ongoing groundwater impact at the assessment monitoring wells MW-3S and MW-8, and recently added to the assessment sampling program, well MW-12S. Assessment monitoring at these wells was triggered by the detection of benzene, and benzene continues to be present. In addition, vinyl chloride was present at concentrations above 2L compliance limit in all three abovementioned wells during this monitoring event. There is no indication of any risk to the public at this time. The next water quality monitoring event at the C&D Landfill is scheduled for May 2015.

If you have any questions or need additional information, please do not hesitate to contact David Garrett at 919-418-4375 (dgarrett@scsengineers.com).

Sincerely,

David Garrett, P.G., P.E.
Project Manager
SCS ENGINEERS, PC

NORTH CAROLINA LICENSED SEAL 1962 GEOLOGIST G. DAVID GARRETT

Marta A. VanDussen
Project Professional
SCS ENGINEERS, PC

cc: Wayne Bell, C&D Landfill, Inc.

Enclosures: Water Quality Monitoring Report November 2014 Semiannual Sampling Event
Environmental Monitoring Reporting Form (EMR Form)
Electronic Data Deliverable (EDD)

SCS ENGINEERS

WATER QUALITY MONITORING REPORT
NOVEMBER 2014
SEMIANNUAL SAMPLING EVENT

CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL, PITT COUNTY
FACILITY PERMIT NO. 74-07

Prepared for:

C&D Landfill, Inc.
802 Recycling Lane
Greenville, North Carolina 27834
(252) 757-0023

Prepared by:

SCS ENGINEERS, PC
2520 Whitehall Park Drive, Suite 450
Charlotte, North Carolina 28273
(704) 504-3107
License Number C-1837

Date: February 3, 2015
File No.: 02214708.00 Task 1

Offices Nationwide
www.scsengineers.com

WATER QUALITY MONITORING REPORT
NOVEMBER 2014
SEMIANNUAL SAMPLING EVENT

CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL, PITT COUNTY
FACILITY PERMIT NO. 74-07

Presented To:

C&D Landfill, Inc.
802 Recycling Lane
Greenville, North Carolina 27834
(252) 757-0023

Presented From:

SCS ENGINEERS, PC
2520 Whitehall Park Drive, Suite 450
Charlotte, North Carolina 28273
(704) 504-3107
License Number C-1837

Date: February 3, 2015
File No.: 02214708.00 Task 1

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Figures

Figure No. 1 – Groundwater Surface Contour Map

Attachments

Attachment 1 – Laboratory Analytical Results
Attachment 2 – Environmental Monitoring Reporting Form and
Electronic Data Deliverable (EDD; Electronic File Only)

SCS Engineers, PC (SCS) is submitting this Water Quality Monitoring Report for the Construction and Demolition Debris Landfill, located in Pitt County, North Carolina on behalf of the C&D Landfill, Inc. This report provides background information, description of field activities, data, summary and analysis of the laboratory analytical results from the groundwater and surface water monitoring sampling event conducted in November 2014.

1 INTRODUCTION

C&D Landfill, Inc. operates the Construction and Demolition Debris Landfill (C&D Landfill) Phase 1 and Phase 2 located at 802 Recycling Lane, Greenville, Pitt County, North Carolina. The location of the landfill is shown on **Figure 1.** This C&D Landfill Phase 1 became operational in 2001 and Phase 2 became operational in 2009. The baseline monitoring was conducted in August 2009 at the Phase 2 of the C&D Landfill. Based on review of previously prepared documentation, groundwater monitoring has been performed at the permitted landfill since May 2001 for Phase 1 and since August 2009 for Phase 2.

State and federal regulations applicable to landfills are enforced by the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management (DWM), Solid Waste Section (SWS). The C&D Landfill (Phase 1 and Phase 2) is permitted by the NCDENR DWM under Permit No. 74-07, which requires semiannual monitoring of groundwater and surface water quality. This monitoring event is the second (2nd) semiannual monitoring event for year 2014. This report provides an evaluation of surface water and groundwater quality for the C&D Landfill Phase 1 and Phase 2.

Currently, the monitoring program network at the landfill consists of nine (9) groundwater monitoring wells within Phase 1, six (6) groundwater monitoring wells within Phase 2, and four (4) on-site surface water sampling locations. There are two monitoring programs on-going at the site, the assessment monitoring program related to monitoring wells MW-3S, MW-3A, MW-8, and MW-12S, and detection monitoring related to the remainder of the monitoring wells.

Phases 1 and 2 are separated by a man-made (channelized) drainage feature that may have once been a natural stream that originates onsite. This drainage feature predates either phase of the landfill. Within Phase 1 area there is one (1) up gradient, background well designated as MW-1S, and eight (8) down gradient compliance wells being designated as MW-2S, MW-3S, MW-4, MW-5, MW-6, MW-7, MW-3A, and MW-8. Within Phase 2 area there is one (1) up gradient, background well designated as MW-9A, and five (5) down gradient compliance wells being designated as MW-10, MW-11, MW-12S, MW-13, and MW-14S. Monitoring well MW-12S is located across and downgradient of the man-made drainage feature from Phase 1 well MW-8.

The surface water sample locations are designated as SW-1, SW-2, SW-3, and SW-4. SW-1 is a background surface water location. SW-1 and SW-3 monitor a natural stream on the south side of Phase 1 that originates offsite to the east, with SW-1 as background. SW-2 and SW-4 monitor a channelized stream on the west side of Phase 2 that originates offsite to the north, with SW-3 as background. SW-2 is located below the confluence of the interstitial man-made drainage feature and the channelized stream on the west side of Phase 2.

The locations of the monitoring wells and surface water points are showed on **Figure 1**.

2 FIELD ACTIVITIES

On November 25, 2014, Environment 1, Incorporated personnel collected groundwater samples from fourteen (14) groundwater monitoring wells and three (3) surface water sampling locations at the C&D Landfill for laboratory analysis of constituents listed in Appendix I of the 40 Code of Federal Regulations (CFR) Part 258 (Constituents for Detection Monitoring), Appendix II of the CFR Part 258 (Constituents for Assessment Monitoring), tetrahydrofuran, cyanide, and sulfide. The groundwater monitoring well MW-5 was not sampled during this monitoring event due to insufficient water in this well. The groundwater and surface water samples were collected and handled in accordance with the sampling protocols included in the *Sampling and Analysis Plan* dated May 2008 and *Groundwater Assessment Work Plan* dated June 2009, both prepared for the site by David Garrett & Associates, as well as the SWS Guidelines for Groundwater, Soil, and Surface Water Sampling.

Groundwater was purged and samples were collected from the monitoring wells using low flow sampling procedures. Total well depth, condition of the casing, and the groundwater recharge rate were used to determine the purging and sample collection method employed at each monitoring well. Prior to groundwater sampling, each monitoring well was purged of a minimum of three well volumes of water. During purging, measurements were taken in the field of conductivity, pH, temperature, water levels, and turbidity. Measured field parameters and additional observations pertaining to the C&D Landfill sampling locations are provided in the laboratory analytical report, which is included in **Attachment 1**. All groundwater samples were placed into laboratory-supplied sample bottles by a technician wearing a new pair of nitrile gloves.

Surface water samples were collected into sample containers by direct submersion in the creek and/or tributary. One round of surface water field parameters consisting of conductivity, pH, temperature, and turbidity, was measured and recorded at each sampling location prior to collecting the sample. Surface water samples were placed into laboratory-supplied sample containers by a technician wearing a new pair of nitrile gloves. All reusable sampling equipment was properly decontaminated between sampling locations. Disposable sampling equipment and material was discarded after each use.

Following collection, each groundwater and surface water sample was immediately placed on ice in a sample cooler for delivery to Environment 1, a North Carolina certified laboratory located in Greenville, North Carolina. Proper chain-of-custody documentation practices were followed during collection and transportation of each sample; the documentation is included in **Attachment 1** of this report. Chain-of-custody provides details of the laboratory analyses requested and performed on the samples. The laboratory analytical report is provided in the **Attachment 1** also.

3 GROUNDWATER LEVELS AND FLOW

Groundwater levels were gauged in the monitoring wells on November 25, 2014. Depths to groundwater were measured using an electronic water level meter that was thoroughly decontaminated between wells. Depth-to-water measurements were taken after the wells were opened for a sufficient period of time to allow water levels to equilibrate with atmospheric pressure. Water level data and groundwater elevation data are summarized on **Table 1**. The depth to groundwater across the site measured relative to the top of the polyvinyl chloride (PVC) casing ranged from 3.34 feet (MW-11; Phase 2) to 12.64 feet (MW-3S; Phase 1), consistent with site surface topography.

Based on the water level data collected during this monitoring event, a Groundwater Surface Contour Map was prepared and is presented as **Figure 1**. Groundwater levels during this monitoring event were slightly lower than the May 2014 levels, due to the dryer weather conditions. The pattern of the water-table contours indicates that the horizontal component of shallow groundwater flow at the site is generally to the south and southwest, which is consistent with the site surface topography and drainage features. In general, the groundwater flow direction is primarily towards the southwestern property boundary and continues to flow in the direction of areas where there are no identified groundwater users, and rather flat gradients extending through agricultural and wooded marshy land leading to the Tar River. Much of the downgradient area is beneath the 100-year flood level and is not anticipated to undergo development or groundwater use in the near future.

The calculated groundwater flow velocity and estimated values for hydraulic conductivity and porosity are included in **Table 1**. The hydraulic gradient of the water table, based on data from **Figure 1**, varies from approximately 0.003 to 0.005 feet per foot at the site. Please note that for all the monitoring wells, the estimated value for hydraulic conductivity comes from individual well aquifer tests performed by EFM, Inc. and effective porosity in the shallow aquifer are values approximated based on the grain-size data from lab testing of site soils for Phase 2 *Design Hydrogeologic Report*.

4 WATER QUALITY FINDINGS

Concentrations of detected constituents in groundwater samples were compared to analyte-specific Solid Waste Section Limits (SWSLs) established by the SWS and NCDENR rule 15A NCAC 02L .0202 Groundwater Quality Standards (2L). Concentrations of detected constituents in surface water samples were compared to analyte-specific SWSLs and the 15A NCAC 2B.0211 surface water quality standards (2B) established for class C waters. If the reported concentration is less than the SWSL, the analytical result is qualified by the laboratory and SCS as estimated per NCDENR requirement, and is flagged with a "J" qualifier.

Table 2 presents summary of detected constituents only, in groundwater. **Table 3** presents summary of detected constituents only, in surface water. In both tables, constituent analytical results that exceed their associated SWSL, 2L or 2B compliance limit, where applicable, are shaded. **Table 4** presents summary of historically detected constituents only, in the groundwater and/ or surface water samples collected at the C&D Landfill.

A hard copy of the laboratory report from Environment 1, Incorporated with a copy of the chain-of-custody form is included in **Attachment 1**. All laboratory analytical results and field parameter data for groundwater and surface water are included in an electronic data deliverable (EDD) spreadsheet format file specified by the SWS (available as electronic file only).

4.1 GROUNDWATER ANALYTICAL RESULTS

The summary of constituents detected in the groundwater during the November 2014 semiannual water quality monitoring event is provided in the sections below.

4.1.1 VOLATILE ORGANIC COMPOUNDS (VOCS)

Benzene, cis-1,2-dichloroetene, chlorobenzene, naphthalene, tetrahydrofuran, and vinyl chloride were detected in one or more of the monitoring wells associated with Phase 1 during this monitoring event. Benzene and vinyl chloride were detected at concentrations above their applicable SWSL and 2L limits in the assessment well MW-3S. Vinyl chloride was detected at concentration above its applicable SWSL and 2L compliance limits in the assessment well MW-8.

Benzene, cis-1,2-dichloroethene, ethylbenzene, tetrahydrofuran, toluene, vinyl chloride, and xylenes were detected in one or more of the monitoring wells associated with Phase 2 during this monitoring event. All detected VOCs were found at concentrations below applicable compliance limits. The concentrations of benzene and vinyl chloride exceeded SWSL and 2L standards in the sample collected from monitoring well MW-12S. This well is located across the man-made drainage feature from MW-8 (Phase 1 well). The source of the constituents detected at MW-12S has not been established at this time.

No other VOCs were reported above their respective compliance limits in the groundwater samples collected from Phase 1 and Phase 2 monitoring wells. All detections are summarized on **Table 2**.

4.1.2 SEMIVOLATILE ORGANIC COMPOUNDS (SVOCS) AND HERBICIDES

Appendix II SVOCs (per 40 CFR 258) and herbicides were not detected in the groundwater samples collected from Phase 1 and Phase 2 monitoring wells during November 2014 monitoring event.

4.1.3 METALS

Fourteen (14) metals were detected in one or more of the monitoring wells associated with Phase 1 during November 2014 monitoring event. Out of the fourteen detected metals, antimony, arsenic, barium, chromium, cobalt, lead, and zinc were found at concentrations above the applicable SWSLs in one or more of the collected groundwater samples. Antimony and vanadium were reported in the groundwater sample collected from background well MW-1S at concentrations in excess of the respective 2L compliance limits. Arsenic was detected in well MW-8 at a concentration equal to its 2L compliance limit. Chromium was present in well MW-7 at a concentration in excess of 2L limit. Cobalt was detected above its respective 2L compliance limit in MW-2S, MW-3S, MW-3A, MW-6, MW-7, and MW-8. Lead was detected above its respective 2L compliance limit in MW-2S. Vanadium was also present at concentrations in excess of established 2L standard for this metal in all Phase 1 monitoring wells but MW-3A, including the background well MW-1S. Except for antimony and vanadium, no other detected metals were present at concentrations above compliance limits in background well MW-1S, but ALL these metals have been detected in the background well MW-1S.

Sixteen (16) metals were detected in one or more of the monitoring wells associated with Phase 2 during this monitoring event. Out of sixteen detected metals, arsenic, barium, and chromium, were found equal to or in excess of the applicable SWSLs. Arsenic, chromium, cobalt and vanadium were found at concentrations above their respective 2L standards in MW-12S (assessment well). This well is located across the shallow drainage feature from MW-8 (Phase 1 well). Chromium and cobalt were found at concentrations in excess of 2L standard in MW-14S. Finally vanadium was present in all sampled Phase 2 monitoring wells, including the background well, at concentrations above its 2L compliance limit. Except for vanadium, no other metals were reported at concentrations above 2L compliance limits in the groundwater sample collected from the background well MW-9A. Again, all of the aforementioned metals have been detected at the background wells, including MW-9A.

No other metals were reported above their respective compliance limits in the groundwater samples collected from Phase 1 and Phase 2 monitoring wells. All detections are summarized on **Table 2**.

4.1.4 INORGANIC PARAMETERS

Cyanide and sulfide were not detected in the groundwater samples collected from either Phase I or Phase II wells.

4.1.5 FIELD PARAMETERS

The pH readings measured in Phase 1 monitoring wells ranged between 6.2 Standard Units (SU) to 6.8 SU and for wells MW-3A and MW-4 were outside the 2L standard pH range of 6.5 to 8.5 SU specified in the 15A NCAC 02L .0202[c] (**Table 2**). The pH readings measured in Phase 2 monitoring wells ranged between 5.4 Standard Units (SU) to 7.3 SU and for wells MW-10, MW-13, and MW-14S were outside the 2L standard pH range. In overall, values of pH appear to be within a normal range at all locations.

Turbidity values at the time of sampling the monitoring wells ranged from 1.39 (MW-1S; Phase 1) to 28.1 (MW-2S; Phase 1) nephelometric turbidity units (NTUs). Specific conductivity values ranged between 194 (MW-13; Phase 2) and 3,650 (MW-8; Phase 1) microsiemens per centimeter (µS/cm).

4.2 SURFACE WATER ANALYTICAL RESULTS

The summary of constituents detected in the surface water during the November 2014 semiannual water quality monitoring event is provided in the sections below.

4.2.1 VOCS

Acetone and toluene were detected in at least one surface water sample collected at three sampling locations. Acetone was reported in the surface water sample collected at SW-1 background location, and toluene was reported in the surface water collected at SW-2 location. None of the detected VOCs were at concentrations in excess of the SWSL and /or 2B compliance limits. Further details are presented on **Table 3**.

4.2.2 METALS

Twelve (12) metals were detected in one or more surface water samples. None of the detected metals were present at concentrations above the applicable SWSLs and/ or 2B surface water quality standards for these constituents (**Table 3**).

4.2.3 FIELD PARAMETERS

The pH readings measured in all surface water samples ranged between 5.9 to 7.1 SU and were within the 2B surface water quality standard pH range of 6.0 to 9.0 SU specified in the 15A NCAC 2B except for pH measured at SW-3 sampling location (**Table 3**).

Turbidity values at the time of sampling the surface water samples ranged from 8.72 (SW-2) to 15.2 (SW-3) NTUs. Specific conductivity values ranged between 160 (SW-3) and 306 (SW-2) µS/cm.

5 SUMMARY

The results of the November 2014 groundwater and surface water quality monitoring event performed at the C&D Landfill indicate that the overall water quality is steady and consistent with the results reported during previous semiannual sampling events. The results are summarized in more detail in the sections below.

5.1 VOCS DETECTION SUMMARY

During the November 2014 monitoring event benzene and vinyl chloride were present at concentrations in excess of their 2L compliance limits. In addition, cis-1,2-dichloroethene, chlorobenzene, ethylbenzene, naphthalene, tetrahydrofuran, toluene, and xylene were detected in one or more of the monitoring wells.

Benzene was found in two assessment wells, MW-3S and MW-12S, at concentrations in excess of the 2L compliance limit established for benzene. The presence of benzene is consistent with its historical detections for these two wells. This is the third occurrence where benzene was reported at concentration above its 2L compliance limit in MW-12S. During May 2014 monitoring event benzene was reported at concentration below 2L standard in the MW-12S groundwater sample.

During November 2014 monitoring event vinyl chloride was found in three assessment wells MW-3S, MW-8, and MW-12S at concentrations in excess of the 2L compliance limit. Since November 2007 monitoring event, this is the third detection of vinyl chloride in excess of the 2L compliance limit in the MW-3S groundwater. For well MW-8 it is the first detection of vinyl chloride reported, and in excess of its respective limit. Since May 2012 monitoring event vinyl chloride has been consistently present above 2L standard in MW-12S groundwater. The detected concentration is higher comparing to the one reported during May 2014 monitoring event.

Cis-1,2-dichloroethene was reported for groundwater samples collected from wells MW-12S and MW-14S at concentrations below its established 2L compliance limit. Cis-1,2-dichloroethene has been reported in the groundwater samples collected from the assessment well MW-12S since May 2011 monitoring event, however the reported results were below its respective 2L compliance limit. For well MW-14S this is a third instance where this compound was detected, however the reported concentrations were below the 2L compliance limit.

Ethylbenzene was reported for groundwater samples collected from wells MW-12S and MW-14S at concentrations below its established 2L compliance limit. No other ethylbenzene detections were reported in the past for these wells.

Chlorobenzene and naphthalene were reported for groundwater sample collected from well MW-3S at concentrations below their established 2L compliance limits. No other chlorobenzene and naphthalene detections were reported in the past for this well.

Tetrahydrofuran was detected in the groundwater samples collected from nine (9) monitoring wells MW-2S, MW-3S, MW-3A, MW-6, MW-7, MW-8, MW-11, MW-12S, and MW-14S, as it

had been the case in the past. There is no regulatory standard established for tetrahydrofuran, therefore the implications of these results have yet to be determined.

Toluene was reported for MW-12S groundwater sample during this monitoring event, and it is a second instance where it was detected, however both concentrations were below the applicable compliance limit.

Xylene was also reported for well MW-12S groundwater sample. No other xylene detections were reported in the past for this well.

Neither constituent shows a trend and has not been tied to the landfill operations.

Acetone and toluene were reported in the surface water samples during November 2014 monitoring event. Toluene was present in the surface water sample, SW-2, and acetone in the SW-1 (background location). In the past toluene was detected in the collected surface water samples as follows: four times in SW-1, three times in SW-2, and twice in SW-3 (last detection in November 2011). Acetone was detected in the surface water sample collected from SW-1, and it is a second instance where acetone is present in this location. In general, presence of VOCs in the surface water samples is spotty and no trends could be discerned from the collected data.

The historical analytical data for previously detected VOCs in the groundwater and surface water are presented in **Table 4.**

5.2 HERBICIDES DETECTION SUMMARY

Herbicides were not detected during November 2014 monitoring event. Data from May 2010, 2012, 2013, and 2014 monitoring events indicate trace values of common herbicides that might have been used during the former agricultural activities at the site. The impact might originate from a man-made drainage ditch between Phase 1 and Phase 2, but the full history of this portion of the site is unknown.

5.3 METALS DETECTION SUMMARY

Antimony, arsenic, chromium, cobalt, lead, vanadium, and zinc were found in the groundwater at concentrations that equal or exceed their respective 2L compliance limits during this monitoring event in one or more Phase 1 and Phase 2 monitoring wells.

Antimony was reported in the groundwater sample collected from Phase 1 background well MW-1S at concentration above its established 2L compliance limit. Since November 2008 antimony was detected in the groundwater collected from this well during eight monitoring events, however this is the first instance where its concentration exceeded 2L compliance limit.

Arsenic was detected in two wells MW-8 and MW-12S above its 2L compliance limit. Arsenic has been present in the well MW-8 groundwater since May 2008 monitoring event, however it is the first occurrence where it is reported at concentration in excess of the 2L limit. Arsenic has been found in the well MW-12S groundwater above its limit for the last six monitoring events

(since November 2011). Detected concentration during November 2014 monitoring event appears the highest comparing to the concentrations reported in the past, therefore further observation is necessary. Arsenic was reported in the Phase 1 background well MW-1, but not in the Phase 2 background well MW-9A during this monitoring event. Historically arsenic has been consistently present in the groundwater across the site, including the groundwater from background wells, however majority of the detected concentrations stay below the compliance limit.

Chromium was present at concentrations above its 2L compliance limit in MW-7 (Phase 1 detection well), MW-12S (Phase 2 assessment well), and MW-14S (Phase 2 detection well). This is the first instance where chromium was found above 2L standard in well MW-7. Chromium was also reported in the Phase 1 background well, MW-1, however detected concentration was below established 2L standard. This is the fourth occurrence for well MW-12S and first for well MW-14S of chromium concentration to be reported above the established 2L compliance limit. Chromium was not reported in the Phase 2 background well MW-9A. Historically chromium has been present in the groundwater across the site, however the majority of reported concentrations stayed below the compliance limit.

Cobalt was found in excess of its 2L standard in wells MW-2, MW-6, MW-7, and MW-3A, MW-3S and MW-8 (assessment wells), MW-12S, and MW-14S. Historically, cobalt has been present in the groundwater samples collected from all abovementioned wells, however no data trends can be discerned.

Lead was found in excess of its 2L standard in well MW-2S. Lead was reported in this well in the past, however this is the first instance where it was found above 2L standard.

Vanadium was detected in all of the sampled monitoring wells (except for well MW-3A) above 2L compliance limit. Vanadium has been consistently present in the groundwater across the site. Detected concentrations during the November 2014 monitoring event appear higher comparing to the previous, May 2014, monitoring event.

Zinc was found in excess of its 2L standard in well MW-4. Zinc was reported in this well in the past, and this is the fourth occurrence where it was found above the 2L compliance limit.

It has to be noted that turbidity was measured below the highest value of 28 NTUs at monitoring wells.

Detected metals in surface water samples were found below their respective 2B standards established for analyzed constituents. No trends can be discerned from the surface water data.

Metal concentrations in groundwater are often dependent on the turbidity or suspended particulates (from the aquifer formation) retrieved with the groundwater sample and also metals naturally occurring in the in-situ soil. The turbidity is a function of the sampling method, well construction, well development, depth to groundwater, and grain size/consolidation of the water-bearing zone. Since unfiltered samples are acidified in the field at the time of sample collection, metals contained within the particulates are dissolved into the water sample. Thus, the presence of turbidity in groundwater samples often results in elevated (false positive) analytical concentrations for metals. Therefore, the presence of elevated metal concentrations does not

necessarily indicate a groundwater impact. Additionally, certain metals are considered naturally occurring within the in-situ soils and not caused by a release from a landfill.

The historical analytical data for metals detected in the groundwater and surface water are presented in **Table 4.**

5.4 INORGANIC AND FIELD PARAMETERS

During November 2014 monitoring event neither cyanide nor sulfide were reported present in any of the monitoring wells. Sulfide was reported during May 2014 monitoring event in the groundwater samples collected from two assessment wells, MW-3S and MW-12S. The reported concentrations appeared consistent with historical data for this parameter.

The results of the field-measured groundwater quality parameters indicate that the values measured in the collected samples were consistent with historic reported values. The pH readings measured in some of the monitoring wells were outside the 2L standard pH range specified in the 15A NCAC 02L .0202[c] and indicate slightly acidic groundwater. In general, values of pH appear within a normal range at all locations. The turbidity values appear lower comparing to the ones reported during May 2014 monitoring event.

The results of the field-measured surface water quality parameters indicate that the values measured in the collected samples were generally consistent with the historic data. The highest turbidity measurement was taken at the SW-3 sampling location.

5.5 CONCLUSIONS

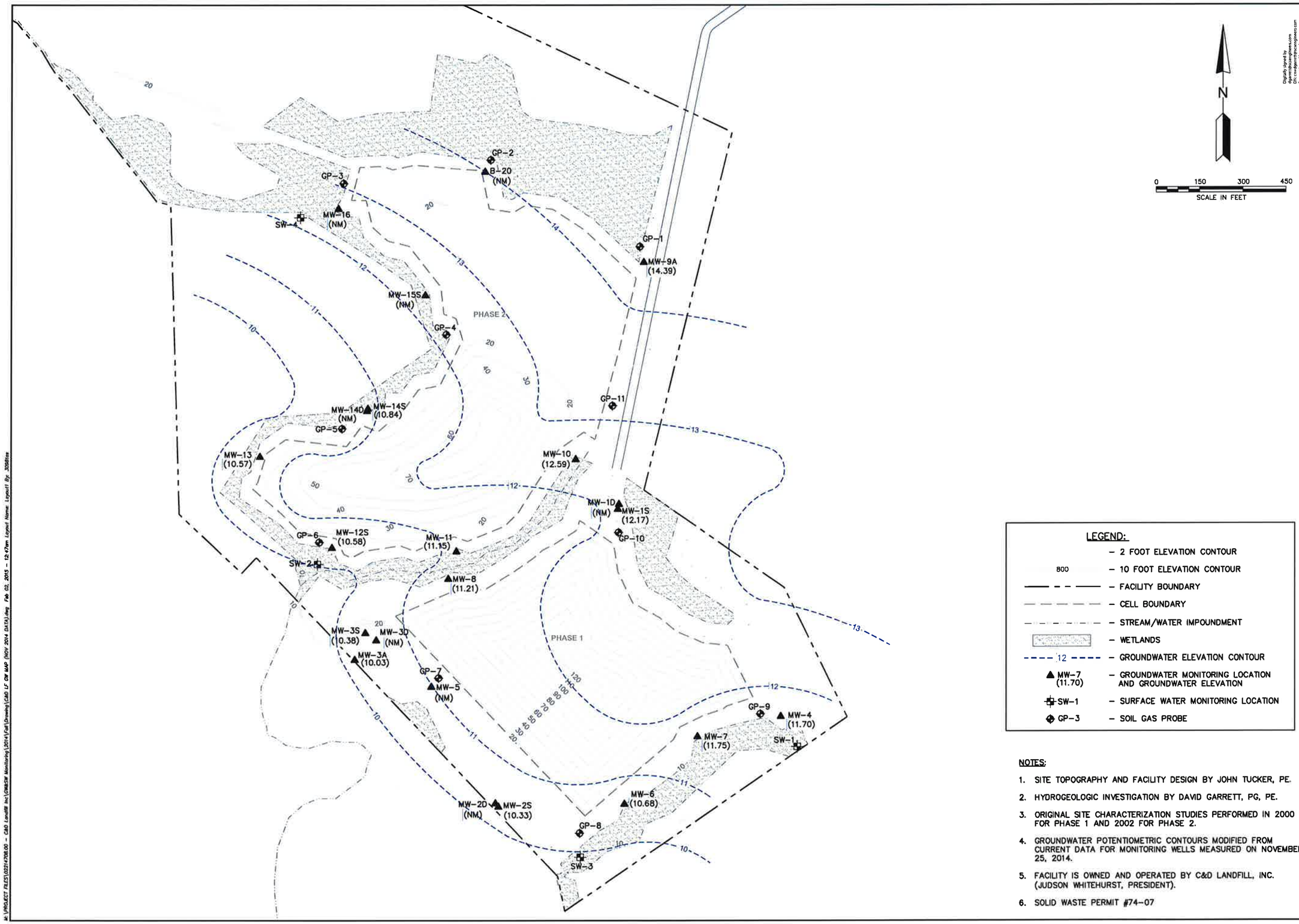
The results of the groundwater monitoring event indicate ongoing groundwater impact at the assessment monitoring wells MW-3S, MW-8, and MW-12S, well that was recently added to the assessment sampling program. Assessment monitoring at wells MW-3S and MW-8 was triggered by the detection of benzene, and benzene continues to be present. In addition, vinyl chloride is present at concentrations above 2L compliance limit in all three abovementioned wells. The groundwater quality impact does not appear severe and may not be attributable to landfill activities. There is no indication of any risk to the public at this time.

Monitoring well MW-12S will continue to be included in the assessment program, in order to observe if detections at this well are associated with the ones found at nearby assessment well MW-8.

The results of the surface water monitoring event indicate conditions consistent with historic field and analytical data and do not demonstrate an impact on surface water quality due to landfill activities.

The next water quality monitoring event at the C&D Landfill is scheduled for May 2015.

FIGURES



LEGEND:

- 2 FOOT ELEVATION CONTOUR
- 800 – 10 FOOT ELEVATION CONTOUR
- FACILITY BOUNDARY
- CELL BOUNDARY
- STREAM/WATER IMPOUNDMENT
- WETLANDS
- 12 – GROUNDWATER ELEVATION CONTOUR
- MW-7 (11.70) – GROUNDWATER MONITORING LOCATION AND GROUNDWATER ELEVATION
- SW-1 – SURFACE WATER MONITORING LOCATION
- GP-3 – SOIL GAS PROBE

NOTES:

1. SITE TOPOGRAPHY AND FACILITY DESIGN BY JOHN TUCKER, PE.
2. HYDROGEOLOGIC INVESTIGATION BY DAVID GARRETT, PG, PE.
3. ORIGINAL SITE CHARACTERIZATION STUDIES PERFORMED IN 2000 FOR PHASE 1 AND 2002 FOR PHASE 2.
4. GROUNDWATER POTENTIOMETRIC CONTOURS MODIFIED FROM CURRENT DATA FOR MONITORING WELLS MEASURED ON NOVEMBER 25, 2014.
5. FACILITY IS OWNED AND OPERATED BY C&D LANDFILL, INC. (JUDSON WHITEHURST, PRESIDENT).
6. SOLID WASTE PERMIT #74-07

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DN: cn=dgarrett@scsengineers.com
Reason: I am the author of this document
Date: 2015.02.03 14:53:25 -05'00'

NC CORP. LICENSE NO. C-1837

NO.	REVISION	DATE

SHEET TITLE
NOVEMBER 2014
GROUNDWATER CONTOUR MAP

PROJECT TITLE
C&D LANDFILL PHASES 1 & 2
WATER QUALITY REPORT

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PROJ. NO. 02214704.00 | DSN. BY: TAS | DRAWN BY: MY | DSN. BY: GDG | CHK. BY: DMC | APP. BY: GDG

DATE:
JANUARY 2015

SCALE:
AS SHOWN

DRAWING NO.
1 of 1

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TABLES

Table 1
Groundwater Level and Flow Data
Construction and Demolition Debris (C&D) Landfill (Permit #74-07), Pitt County, North Carolina
November 2014

Well ID	TOC Elevation	Well Depth	Screened Interval	Depth To Water	Water Level Elevation
	(feet MSL)				
MW-1S (Well #1)	20.91	17.21	3 - 13	8.74	12.17
MW-2S (Well #2)	21.44	16.57	3 - 13	11.11	10.33
MW-3S (Well #3)	23.02	22.24	8 - 18	12.64	10.38
MW-3A	21.93	23.44	5 -15	11.90	10.03
MW-4	18.42	15.98	3 - 13	6.72	11.70
MW-5	17.90	21.06	3 - 18	NM	-----
MW-6	20.03	16.65	3 - 13	9.35	10.68
MW-7	19.40	16.33	3 - 13	7.65	11.75
MW-8	21.21	20.36	3 - 18	10.00	11.21
MW-9A	20.58	23.17	5 - 20	6.19	14.39
MW-10	16.61	22.73	5 - 20	4.02	12.59
MW-11	14.49	23.80	5 - 20	3.34	11.15
MW-12S	16.18	22.93	5 - 20	5.60	10.58
MW-13	20.69	22.68	5 - 20	10.12	10.57
MW-14S	16.60	23.12	15 - 20	5.76	10.84

Well ID	Water Level Elevation	Reference Elevation	Vertical Change	Horizontal Change	K	n	I	v
	(feet)				(feet/day)		(ft/ft)	(ft/day)
MW-3A	10.03	11	0.97	200	0.805	0.08	0.005	0.049
MW-10	12.59	13	0.41	130	0.116	0.05	0.003	0.007
MW-11	11.15	12	0.85	220	0.009	0.04	0.004	0.001
MW-12S	10.58	11	0.42	100	0.322	0.06	0.004	0.023

NOTES:

TOC = top of casing. TOC elevation in feet MSL (mean sea level).

Well Depth and **Screened Interval** in feet below GS.

Depth To Water in feet from TOC.

Phase I monitoring wells (MW-3A through MW-8) were surveyed (July 2001 and November 2002) by Burgess Land Surveying from Greenville, South Carolina.

Phase II monitoring wells (MW-9A through MW-14S) construction data obtained from records furnished by David Garrett, PG, PE.

K - hydraulic conductivity. Values obtained from slug testing performed by EFM, Inc.

ft = feet.

n - effective porosity. Values approximated based on the grain-size data from lab testing of site soils for Phase II Design Hydrogeologic Report.

I - hydraulic gradient. Values obtained by dividing water level elevation difference by horizontal distance between closest two contour lines to each well location.

v - flow rate; GW flow rate calculated based on the modified Darcy equation: $v = (K*I)/n$.

Table 2
Summary of Groundwater Quality Data - Detected Constituents Only
Construction and Demolition Debris (C&D) Landfill (Permit #74-07), Pitt County, North Carolina
November 2014

Parameter		MDL	MRL	Compliance Limit		Phase I Monitoring Well ID and Analytical Results (µg/L)			
				SWSL	2L Standard	MW-1S (Well #1)	MW-2S (Well #2)	MW-3S (Well #3)	MW-3A
Metals (µg/L)	Antimony	0.12	3	6	1	**16**	**0.16 J**	**0.14 J**	0.12 U
	Arsenic	0.10	5	10	10	**0.86 J**	**7 J**	**9 J**	**4.5 J**
	Barium	0.12	100	100	700	**64.5 J**	**273**	**675**	**123**
	Beryllium	0.04	1	1	4	0.04 U	**0.11 J**	0.04 U	0.04 U
	Cadmium	0.04	1	1	2	**0.12 J**	**0.44 J**	**0.17 J**	**0.12 J**
	Chromium	0.14	5	10	10	**1.6 J**	**3.5 J**	**5.1 J**	**2.8 J**
	Cobalt	0.12	10	10	1	**0.33 J**	**5.6 J**	**2.6 J**	**15**
	Copper	0.10	10	10	1,000	**0.94 J**	**2.0 J**	**1.5 J**	**0.74 J**
	Lead	0.13	5	10	15	**0.18 J**	**83**	0.13 U	0.13 U
	Nickel	0.12	10	50	100	**2.6 J**	**5.9 J**	**5.7 J**	**6.7 J**
	Selenium	0.16	10	10	20	**3.0 J**	0.16 U	0.16 U	**7.2 J**
	Silver	0.04	5	10	20	0.04 U	0.04 U	0.04 U	0.04 U
	Thallium	0.13	1	5.5	0.2	0.13 U	0.13 U	0.13 U	0.13 U
	Tin	0.05	100	100	2,000	0.05 U	NA	**0.96 J**	0.05 U
	Vanadium	0.06	10	25	0.3	**0.96 J**	**2.3 J**	**2.5 J**	**0.14 J**
	Zinc	0.53	10	10	1,000	**1.2 J**	**3.2 J**	**2.4 J**	**3.0 J**
VOCs (µg/L)	Benzene	0.24	1	1	1	0.24 U	**0.60 J**	**2.10**	**0.50 J**
	Cis-1,2-Dichloroethene	0.25	5	5	70	0.25 U	0.25 U	0.25 U	0.25 U
	Chlorobenzene	0.30	3	3	50	0.30 U	0.30 U	**0.30 J**	0.30 U
	Ethylbenzene	0.21	1	1	600	0.21 U	0.21 U	0.21 U	0.21 U
	Naphthalene	0.47	10	10	6	0.47 U	NA	**2.90 J**	0.47 U
	Tetrahydrofuran	0.39	1	NE	NE	0.39 U	**17.70**	**15.60**	**5.70**
	Toluene	0.23	1	1	600	0.23 U	0.23 U	0.23 U	0.23 U
	Vinyl Chloride	0.63	1	1	0.03	0.63 U	0.63 U	**2.00**	0.63 U
	Xylenes	0.68	5	5	500	0.68 U	0.68 U	0.68 U	0.68 U
Field Parameters	pH (S.U.)	NA	NA	NE	6.5 - 8.5	**6.6**	**6.6**	**6.6**	**6.5**
	Conductivity at 25°C (µS/cm)	1.0	NA	NE	NE	**871**	**2,880**	**2,870**	**2,400**
	Turbidity (NTU)	1.0	NA	NE	NE	**1.39**	**28.1**	**1.81**	**2.50**

Table 2
Summary of Groundwater Quality Data - Detected Constituents Only
Construction and Demolition Debris (C&D) Landfill (Permit #74-07), Pitt County, North Carolina
November 2014

Parameter		MDL	MRL	Compliance Limit		Phase I Monitoring Well ID and Analytical Results (µg/L)				
				SWSL	2L Standard	MW-4	MW-5	MW-6	MW-7	MW-8
Metals (µg/L)	Antimony	0.12	3	6	1	**0.78 J**	NS	**0.18 J**	**0.22 J**	**0.20 J**
	Arsenic	0.10	5	10	10	**0.66 J**	NS	**3.4 J**	**4.1 J**	**10**
	Barium	0.12	100	100	700	**7.3 J**	NS	**246**	**398**	**189**
	Beryllium	0.04	1	1	4	0.04 U	NS	0.04 U	0.04 U	**0.04 J**
	Cadmium	0.04	1	1	2	0.04 U	NS	**0.20 J**	**0.26 J**	**0.08 J**
	Chromium	0.14	5	10	10	0.14 U	NS	**2.6 J**	**11**	**5.8 J**
	Cobalt	0.12	10	10	1	**0.13 J**	NS	**2.8 J**	**5.0 J**	**12**
	Copper	0.10	10	10	1,000	**5.5 J**	NS	**0.61 J**	**4.8 J**	**1.2 J**
	Lead	0.13	5	10	15	**0.31 J**	NS	0.13 U	**0.22 J**	0.13 U
	Nickel	0.12	10	50	100	**1.5 J**	NS	**3.1 J**	**6.0 J**	**8.4 J**
	Selenium	0.16	10	10	20	**2.6 J**	NS	**1.7 J**	0.44 U	0.16 U
	Silver	0.04	5	10	20	**0.06 J**	NS	0.04 U	0.04 U	0.04 U
	Thallium	0.13	1	5.5	0.2	0.13 U	NS	0.13 U	0.13 U	0.13 U
	Tin	0.05	100	100	2,000	NA	NS	NA	NA	**0.22 J**
	Vanadium	0.06	10	25	0.3	**0.44 J**	NS	**1.2 J**	**1.3 J**	**1.1 J**
	Zinc	0.53	10	10	1,000	**50**	NS	**0.54 J**	**1.4 J**	**2.8 J**
VOCs (µg/L)	Benzene	0.24	1	1	1	0.24 U	NS	0.24 U	**0.30 J**	**0.80 J**
	Cis-1,2-Dichloroethene	0.25	5	5	70	0.25 U	NS	0.25 U	0.25 U	0.25 U
	Chlorobenzene	0.30	3	3	50	0.30 U	NS	0.30 U	0.30 U	0.30 U
	Ethylbenzene	0.21	1	1	600	0.21 U	NS	0.21 U	0.21 U	0.21 U
	Naphthalene	0.47	10	10	6	NA	NS	NA	NA	0.47 U
	Tetrahydrofuran	0.39	1	NE	NE	0.39 U	NS	**3.40**	**7.10**	**7.70**
	Toluene	0.23	1	1	600	0.23 U	NS	0.23 U	0.23 U	0.23 U
	Vinyl Chloride	0.63	1	1	0.03	0.63 U	NS	0.63 U	0.63 U	**1.40**
	Xylenes	0.68	5	5	500	0.68 U	NS	0.68 U	0.68 U	0.68 U
Field Parameters	pH (S.U.)	NA	NA	NE	6.5 - 8.5	**6.2**	NS	**6.7**	**6.8**	**6.6**
	Conductivity at 25°C (µS/cm)	1.0	NA	NE	NE	**397**	NS	**1,039**	**2,560**	**3,650**
	Turbidity (NTU)	1.0	NA	NE	NE	**7.22**	NS	**4.51**	**3.19**	**1.63**

Table 2
Summary of Groundwater Quality Data - Detected Constituents Only
Construction and Demolition Debris (C&D) Landfill (Permit #74-07), Pitt County, North Carolina
November 2014

Parameter		MDL	MRL	Compliance Limit		Phase II Monitoring Well ID and Analytical Results (µg/L)					
				SWSL	2L Standard	MW-9A	MW-10	MW-11	MW-12S	MW-13	MW-14S
Metals (µg/L)	Antimony	0.12	3	6	1	0.12 U	**0.24 J**	**0.24 J**	**0.34 J**	0.12 U	**0.21 J**
	Arsenic	0.10	5	10	10	0.10 U	**0.84 J**	**0.17 J**	**36**	**0.37 J**	**6.9 J**
	Barium	0.12	100	100	700	**32.1 J**	**100**	**19.7 J**	**515**	**69.9 J**	**207**
	Beryllium	0.04	1	1	4	0.04 U	**0.04 J**	**0.24 J**	0.04 U	**0.08 J**	**0.08 J**
	Cadmium	0.04	1	1	2	**0.31 J**	**0.21 J**	**0.58 J**	**0.26 J**	**0.18 J**	**0.26 J**
	Chromium	0.14	5	10	10	0.14 U	**1.1 J**	**0.34 J**	**21**	**0.35 J**	**14**
	Cobalt	0.12	10	10	1	0.12 U	**0.49 J**	**0.66 J**	**1.1 J**	**0.47 J**	**1.8 J**
	Copper	0.10	10	10	1,000	**0.51 J**	**0.76 J**	**0.96 J**	**1.2 J**	**0.40 J**	**1.1 J**
	Lead	0.13	5	10	15	0.13 U	0.13 U	0.13 U	0.13 U	**0.52 J**	**1.4 J**
	Nickel	0.12	10	50	100	**1.2 J**	**1.8 J**	**4.5 J**	**6.7 J**	**1.1 J**	**6.9 J**
	Selenium	0.16	10	10	20	0.44 U	**1.8 J**	0.44 U	0.44 U	**0.62 J**	0.16 U
	Silver	0.04	5	10	20	0.04 U	0.04 U	**0.04 J**	0.04 U	0.04 U	0.04 U
	Thallium	0.13	1	5.5	0.2	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	**0.15 J**
	Tin	0.05	100	100	2,000	NA	NA	NA	**0.18 J**	NA	NA
	Vanadium	0.06	10	25	0.3	**0.48 J**	**4.4 J**	**0.34 J**	**11.0 J**	**1.3 J**	**4.3 J**
	Zinc	0.53	10	10	1,000	**1.3 J**	**1.4 J**	**3.1 J**	**1.9 J**	**4.6 J**	**5.7 J**
VOCs (µg/L)	Benzene	0.24	1	1	1	0.24 U	0.24 U	0.24 U	**1.10**	0.24 U	**0.50 J**
	Cis-1,2-Dichloroethene	0.25	5	5	70	0.25 U	0.25 U	0.25 U	**1.70 J**	0.25 U	**1.60 J**
	Chlorobenzene	0.30	3	3	50	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
	Ethylbenzene	0.21	1	1	600	0.21 U	0.21 U	0.21 U	**0.50 J**	0.21 U	**0.60 J**
	Naphthalene	0.47	10	10	6	NA	NA	NA	0.47 U	NA	NA
	Tetrahydrofuran	0.39	1	NE	NE	0.39 U	0.39 U	**2.70**	**10.00**	0.39 U	**17.30**
	Toluene	0.23	1	1	600	0.23 U	0.23 U	0.23 U	**0.30 J**	0.23 U	0.23 U
	Vinyl Chloride	0.63	1	1	0.03	0.63 U	0.63 U	0.63 U	**3.40**	0.63 U	0.63 U
	Xylenes	0.68	5	5	500	0.68 U	0.68 U	0.68 U	**0.90 J**	0.68 U	**0.90 J**
Field Parameters	pH (S.U.)	NA	NA	NE	6.5 - 8.5	**7.3**	**5.9**	**6.6**	**6.6**	**5.4**	**5.8**
	Conductivity at 25°C (µS/cm)	1.0	NA	NE	NE	**374**	**990**	**817**	**2,590**	**194**	**2,190**
	Turbidity (NTU)	1.0	NA	NE	NE	**15.9**	**3.17**	**2.07**	**3.31**	**16.3**	**3.02**

Table 2
Summary of Groundwater Quality Data - Detected Constituents Only
Construction and Demolition Debris (C&D) Landfill (Permit #74-07), Pitt County, North Carolina
November 2014

NOTES:

Table 2 lists all detected compounds in the groundwater. Please refer to Environment 1, Incorporated laboratory analysis report for further details.

Groundwater samples were collected on November 25, 2014. Monitoring well MW-5 was not sampled due to insufficient water for the samples to be collected.

Phase 1 monitoring wells are as follows: MW-1S, MW-2S, MW-4, MW-5, MW-6, MW-7 (detection monitoring program) and MW-3S, MW-3A and MW-8 (detection and assessment monitoring program).

Phase 2 monitoring wells are as follows: MW-9A (background well), MW-10, MW-11, MW-12S, MW-13, and MW-14S (detection monitoring program).

MDL = Method Detection Limit.

MRL = Method Reporting Limit.

Compliance Limit = SWSL or 2L Standard.

SWSL = Solid Waste Section Limit (June 13, 2011).

2L Standard = NCAC Title 15A Subchapter 2L Classifications and Water Quality Standards Applicable to the GWs of North Carolina (April 1, 2013).

J indicates the detected result is below the SWSL.

U indicates concentration below MDL and MRL; non-detect.

µg/L = micrograms per liter.

ND = Not Detected. NE = Not Established. NA = Not Applicable.

Bold font indicates analyte detection above MDL.

Shaded field denotes result that was at or above the Compliance Limit.

S.U. = Standard Units.

µS/cm = microsiemens per centimeter.

NTU = Nephelometric Turbidity Units.

Table 3
Summary of Surface Water Quality Data - Detected Constituents Only
Construction and Demolition Debris (C&D) Landfill (Permit #74-07), Pitt County, North Carolina
November 2014

Parameter		MDL	MRL	Compliance Limit		Sample Locations and Analytical Results (µg/L)			
				SWSL	2B Standard	SW-1	SW-2	SW-3	SW-4
Metals (µg/L)	Antimony	0.12	3	6	640	0.12 U	0.12 U	**0.46 J**	Not Collected
	Arsenic	0.10	5	10	10	**0.78 J**	**0.47 J**	**0.33 J**	Dry
	Barium	0.12	100	100	200,000	**86.6 J**	**57.7 J**	**46.6 J**	
	Beryllium	0.04	1.0	1	6.5	0.04 U	0.04 U	**0.08 J**	
	Cadmium	0.04	1	1	2	**0.05 J**	**0.04 J**	**0.04 J**	
	Chromium	0.14	5	10	50	**0.98 J**	**0.81 J**	0.14 U	
	Cobalt	0.12	10	10	4	**0.41 J**	**0.34 J**	**0.75 J**	
	Copper	0.10	10	10	7 (AL)	**0.46 J**	**0.37 J**	**0.41 J**	
	Lead	0.13	5	10	25	**0.30 J**	**0.21 J**	**0.78 J**	
	Nickel	0.12	10	50	88	**1.2 J**	**1.4 J**	**0.53 J**	
	Vanadium	0.06	10	25	NE	**0.30 J**	0.06 U	**1.3 J**	
	Zinc	0.53	10	10	50	**3.7 J**	**2.0 J**	**5.7 J**	
VOCs (µg/L)	Acetone	9.06	100	100	2,000	**12.50 J**	9.06 U	9.06 U	
	Toluene	0.23	1	1	11	0.23 U	**0.30 J**	0.23 U	
Field Parameters	pH (S.U.)	NA	NA	NE	6.0 - 9.0	**7.0**	**7.1**	**5.9**	
	Conductivity at 25 °C (µS/cm)	NA	NA	NE	NE	**281**	**306**	**160**	
	Turbidity (NTU)	NA	NA	NE	50	**14.4**	**8.72**	**15.2**	

NOTES:
Table 3 lists all detected compounds in the surface water. Please refer to Environment 1, Incorporated laboratory analysis report for further details.
Surface water samples were collected on November 25, 2014.
MDL = Method Detection Limit.
MRL = Method Reporting Limit.
Compliance Limit = SWSL or 2B Standard.
SWSL = Solid Waste Section Limit (June 13, 2011).
2B Standard = Standards, criteria, or toxic concentrations either adopted per 15A NCAC 2B or National Criteria per EPA (Current as of 5/15/2013).
(AL) = Action Level Standard (See 2B .0211 for additional information).
J indicates the detected result is below the SWSL.
U indicates concentration below MDL and MRL; non-detect.
µg/L = micrograms per liter.
ND = Not Detected. NE = Not Established. NA = Not Applicable.
Bold font indicates analyte detection above MDL.
Shaded field denotes result that was at or above the Compliance Limit.
S.U. = Standard Units.
µS/cm = microsiemens per centimeter.
NTU = Nephelometric Turbidity Units.

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Antimony CAS No. 7440-36-0

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	6	1	640		ND	0.4 J	0.1 J		ND	ND	0.2 J	ND	ND							NS	ND	ND	
May-2008				0.08	ND	ND	ND		0.1 J	0.5 J	0.2 J	0.2 J	0.1 J							0.2 J	ND	ND	
Nov-2008					0.1 J	0.1 J	0.1 J		0.1 J	0.1 J	0.2 J	0.1 J	ND							ND	0.6 J	0.1 J	
May-2009				0.06	0.1 J	0.1 J	ND		0.7 J	0.2 J	0.1 J	ND	ND							0.1 J	ND	ND	
Jan-2010				0.06	ND	0.1 J	ND	ND	ND	0.5	ND	ND	ND	0.4 J	ND	ND	ND	ND	0.2 J	0.1 J	0.1 J	0.6 J	0.2 J
May-2010				0.22	ND	0.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7 J	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.22	ND	ND	ND	ND	ND	0.6 J	ND	ND	ND	ND	ND	ND	0.8 J	ND	ND	ND	ND	ND	ND
May-2011				0.14	0.19 J	ND	ND	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND	0.47 J	ND	ND	ND	0.2 J	ND	0.29 J
Nov-2011				0.14	ND	ND	ND	ND	ND	0.55 J	ND	ND	ND	ND	ND	ND	0.51 J	ND	ND	ND	ND	ND	ND
May-2012				0.02	0.12 J	0.12 J	0.27 J	0.10 J	0.15 J	0.36 J	0.17J	0.16 J	0.13 J	0.03 J	0.04 J	0.06 J	0.24 J	0.10 J	0.34 J	0.13 J	0.09 J	0.05 J	0.04 J
Nov-2012				0.02	0.14 J	0.28 J	0.16 J	0.50 J	0.14 J	0.5 J	0.07 J	0.15 J	0.16 J	0.06 J	0.09 J	0.08 J	0.3 J	0.10 J	0.14 J	ND	0.10 J	ND	ND
May-2013				0.02	0.07 J	0.09 J	ND	0.07 J	ND	0.34 J	0.07 J	0.31 J	0.14 J	0.04 J	0.04 J	0.05 J	0.18 J	0.03 J	0.15 J	0.14 J	0.04 J	0.03 J	DRY
May-2014				0.02	0.19 J	ND<0.02 U	ND<0.02 U	0.03 J	ND<0.02 U	0.34 J	ND<0.02 U	0.12 J	0.07 J	ND<0.02 U	ND<0.02 U	ND<0.02 U	0.10 J	ND<0.02 U	0.17 J	ND<0.02 U	ND<0.02 U	ND<0.02 U	DRY
Nov-2014				0.12	16	0.16 J	0.14 J	ND<0.12 U	0.78 J	NS	0.18 J	0.22 J	0.20 J	ND<0.12 U	0.24 J	0.24 J	0.34 J	ND<0.12 U	0.21 J	ND<0.12 U	ND<0.12 U	0.46 J	DRY

Parameter : Arsenic CAS No. 7440-38-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	10	10	10		ND	4.2 J	6.7 J		1.3 J	5.3 J	16	6.4 J	ND							NS	2.0 J	0.5 J	
May-2008				0.07	0.5 J	1.3 J	0.4 J		1.0 J	5.0 J	5.3 J	3.6 J	4.5 J							11	1.1 J	0.1 J	
Nov-2008					1.1 J	5.6 J	8.4 J		0.3 J	2.1 J	11	3.3 J	2.7 J							ND	5.3 J	0.9 J	
May-2009				0.17	1.8 J	2.2 J	7.0 J		2.8 J	1.3 J	2.9 J	1.0 J	1.6 J							6.3 J	1.4 J	0.8 J	
Jan-2010				0.17	2.1 J	0.8 J	6.8 J	2.6 J	2.8 J	5.8 J	6.4 J	0.5 J	4.0 J	1.3 J	0.5 J	ND	ND	2.4 J	1.3 J	3.9 J	0.3 J	ND	0.2 J
May-2010				0.04	0.7 J	1.7 J	9.2 J	1.0 J	2.6 J	3.9 J	6.1 J	4.5 J	7.5 J	0.3 J	0.5 J	ND	0.4 J	1.4 J	ND	0.9 J	1.3 J	0.4 J	0.6 J
Nov-2010				0.04	1.9 J	5.6 J	ND	5.4 J	2.3 J	ND	4.8 J	0.9 J	4.0 J	0.6 J	1.1 J	0.6 J	5.3 J	1.8 J	1.6 J	2 J	1.1 J	0.6 J	0.5 J
May-2011				0.10	0.36 J	3.1 J	3.8 J	0.93 J	1.6 J	6.4 J	2.2 J	1.5 J	3.2 J	0.60 J	0.52 J	ND	5.9 J	0.29 J	1.5 J	3.1 J	0.82 J	1.1 J	1.3 J
Nov-2011				0.10	1.1 J	0.9 J	4.9 J	2.2 J	1.9 J	3.3 J	2.4 J	0.81 J	2.7 J	0.50 J	2.5 J	0.23 J	11	0.52 J	1.7 J	2.0 J	2.5 J	0.99 J	0.51 J
May-2012				0.13	0.88 J	6.1 J	4.2 J	2.8 J	2.9 J	6.8 J	2.2 J	2.3 J	5.8 J	0.50 J	1.1 J	0.41 J	24	0.62 J	4.0 J	4.7 J	2.0 J	1.0 J	0.92 J
Nov-2012				0.13	0.74 J	9 J	5.7 J	5.5 J	0.9 J	1.9 J	2.4 J	0.72 J	8.0 J	0.17 J	1.5 J	0.82 J	15	0.76 J	3.7 J	0.93 J	0.68 J	0.50 J	0.82 J
May-2013				0.05	0.02 J	5.3 J	3.7 J	2.4 J	0.83 J	2.4 J	2.4 J	5.0 J	6.2 J	0.15 J	0.74 J	0.58 J	19	0.34 J	5.0 J	1.2 J	0.81 J	0.35 J	DRY
May-2014				0.05	ND<0.05 U	0.12 J	3.8 J	ND<0.05 U	ND<0.05 U	0.28 J	ND<0.05 U	2.1 J	5.8 J	ND<0.05 U	ND<0.05 U	ND<0.05 U	11	ND<0.05 U	0.30 J	0.67 J	1.4 J	0.26 J	DRY
Nov-2014				0.10	0.86 J	7 J	9 J	4.5 J	0.66 J	NS	3.4 J	4.1 J	10	ND<0.10 U	0.84 J	0.17 J	36	0.37 J	6.9 J	0.78 J	0.47 J	0.33 J	DRY

Parameter : Barium CAS No. 7440-39-3

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	100	700	200,000		62.4 J	96.9 J	357		207	115	233	136	214							NS	126	571	
May-2008				0.11	27.5 J	51.8 J	4 J		203	101	65 J	31 J	127							174	71.2 J	63 J	
Nov-2008					62.5 J	165	447		196	48.3 J	161	103	121							ND	268	75.1 J	
May-2009				0.04	26 J	6.9 J	460		266	117	56.1	31 J	113							181	61.6 J	78.7 J	
Jan-2010				0.04	77.4 J	15.4 J	492	84.2 J	165	83.8 J	137	29.1 J	169	55.4 J	113	23.4 J	98.5 J	82.8 J	100	89.2 J	71.3 J	76.1 J	70.9 J
May-2010				0.03	23.5 J	47.5 J	527	42.7 J	202	92.1 J	215	266	140	29.4 J	129	14.2 J	39.2 J	86.7 J	107	33.3 J	79.4 J	69.2 J	82.1 J
Nov-2010				0.03	56.6 J	149	254	100	141	129	155	34.3 J	164	32.9 J	63.2 J	31.4 J	177.0	106.0	177	49.8 J	59.1 J	75.5 J	94.2 J
May-2011				0.02	36 J	101	242	36 J	174	80.5 J	124	174	124	50.7 J	89.2 J	19.2 J	346.0	92.3 J	127	70.8 J	71.6 J	77.8 J	137
Nov-2011				0.02	58.7 J	34.3 J	484	70.7 J	183	150	157	67.4 J	184	43.6 J	43.6 J	17.3 J	467.0	67.8 J	223	48.7 J	69.4 J	73.3 J	81.2 J
May-2012				0.07	68.3 J	166	342	86.6 J	278	122	128	294	142	48.9 J	87.5 J	23.9 J	291.0	74.2 J	105	78.8 J	84.8 J	60.8 J	74.3 J
Nov-2012				0.07	37.1 J	152	425	120	151	117	53.4 J	100	133	36.5 J	132	19.3 J	504.0	76.6 J	74.7 J	38.0 J	49.1 J	74.1 J	70.6 J
May-2013				0.06	73.9 J	80.2 J	288	62.5 J	108	115	209	560	144	39.5 J	169	19.8 J	342.0	69.7 J	69.4 J	50.2 J	64.6 J	30.3 J	DRY
May-2014				0.06	20.3 J	33.0 J	343	28.6 J	80.2 J	67.9 J	110	291	157	29.3 J	58.9 J	18.3 J	368.0	52.4 J	90.9 J	94.3 J	72.9 J	37.9 J	DRY
Nov-2014				0.12	64.5 J	273	675	123	7.3 J	NS	246	398	189	32.1 J	100	19.7 J	515	69.9 J	207	86.6 J	57.7 J	46.6 J	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Beryllium CAS No. 7440-41-7

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	1	4	6.5		0.6 J	ND	ND		0.8 J	0.1 J	0.9 J	0.1 J	0.1 J							NS	ND	0.1 J	
May-2008				0.06	1.0	0.1 J	ND		0.4 J	0.1 J	0.1 J	0.1 J	0.1 J							0.7 J	0.1 J	0.1 J	
Nov-2008					0.7 J	ND	ND		0.2 J	0.1 J	0.1 J	0.1 J	ND							ND	0.4 J	0.1 J	
May-2009				0.06	2.6	ND	ND		0.9 J	0.5 J	0.1 J	0.1 J	ND							0.6 J	ND	0.1 J	
Jan-2010				0.06	0.2 J	0.9 J	ND	0.1 J	1.0	1.0	0.1 J	ND	0.1 J	0.2 J	0.2 J	0.3 J	ND	0.3 J	0.6 J	0.2 J	ND	0.2 J	0.1 J
May-2010				0.02	0.5 J	0.1 J	ND	ND	0.8 J	0.5 J	0.1 J	0.1 J	0.4 J	ND	0.1 J	0.1 J	0.1 J	0.3 J	0.1 J	0.1 J	0.1 J	0.1 J	0.1 J
Nov-2010				0.02	0.3 J	0.1 J	0.1 J	0.1 J	0.7 J	1.0	0.1 J	0.1 J	0.2 J	ND	0.1 J	0.2 J	0.1 J	0.3 J	0.2 J	0.1 J	0.1 J	0.1 J	0.1 J
May-2011				0.02	0.16 J	0.1 J	ND	ND	0.57 J	0.92 J	ND	ND	0.06 J	ND	0.29 J	0.31 J	ND	0.12 J	0.2 J	0.12 J	0.06 J	ND	0.57 J
Nov-2011				0.02	0.26 J	0.07 J	ND	ND	0.65 J	0.24 J	0.06 J	0.06 J	0.24 J	ND	0.16 J	0.10 J	ND	0.14 J	0.29 J	ND	0.06 J	0.09 J	0.10 J
May-2012				0.07	0.19 J	0.17 J	ND	ND	0.50 J	0.50 J	ND	ND	0.13 J	ND	0.09 J	0.08 J	ND	0.12 J	2.0	0.19 J	ND	ND	0.15 J
Nov-2012				0.07	0.18 J	0.09 J	ND	ND	0.47 J	0.13 J	0.09 J	ND	0.09 J	ND	0.08 J	0.29 J	ND	0.13 J	0.39 J	ND	ND	ND	0.12 J
May-2013				0.03	0.04 J	0.10 J	0.09 J	ND	ND	0.23 J	0.16 J	ND	ND	ND	0.08 J	1.0	0.03 J	0.12 J	0.48 J	0.12 J	0.07 J	0.11 J	DRY
May-2014				0.03	ND<0.03 U	0.06 J	0.03 J	ND<0.03 U	0.23 J	ND<0.03 U	0.05 J	0.04 J	0.12 J	ND<0.03 U	0.04 J	0.03 J	0.03 J	0.04 J	0.03 J	0.16 J	0.04 J	0.04 J	DRY
Nov-2014				0.04	ND<0.04 U	0.11 J	ND<0.04 U	ND<0.04 U	ND<0.04 U	NS	ND<0.04 U	ND<0.04 U	0.04 J	ND<0.04 U	0.04 J	0.24 J	ND<0.04 U	0.08 J	0.08 J	ND<0.04 U	ND<0.04 U	0.08 J	DRY

Parameter : Cadmium CAS No. 7440-43-9

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	1	2	2		0.7 J	0.3 J	0.7 J		0.5 J	0.6 J	0.6 J	0.4 J	0.3 J							NS	0.1 J	0.2 J	
May-2008				0.04	0.6 J	0.1 J	1		0.2 J	0.1 J	0.4 J	0.4 J	0.1 J							0.4 J	0.1 J	0.1 J	
Nov-2008					0.3 J	0.1 J	ND		0.3 J	ND	0.4 J	0.4 J	0.1 J							ND	0.3 J	ND	
May-2009				0.04	2.3	0.4 J	0.1 J		0.9 J	0.3 J	0.9 J	0.8 J	0.2 J							0.7 J	ND	ND	
Jan-2010				0.04	0.2 J	0.4 J	ND	0.2 J	0.3 J	0.6 J	0.3 J	0.2 J	0.2 J	0.1 J	ND	0.2 J	0.2 J	0.2 J	0.2 J	1.9	1.2	0.3 J	0.1 J
May-2010				0.02	0.2 J	0.8 J	0.3 J	0.1 J	1.2	0.3 J	2.2	2.0	0.2 J	0.2 J	1.0	0.1 J	0.2 J	0.4 J	0.1 J	0.2 J	0.1 J	0.1 J	0.1 J
Nov-2010				0.02	0.2 J	0.6 J	0.1 J	0.1 J	0.5 J	2.0	0.6 J	0.4 J	0.3 J	0.1 J	0.1 J	0.2 J	0.1 J	0.2 J	0.3 J	0.1 J	0.1 J	0.1 J	0.2 J
May-2011				0.02	0.11 J	0.29 J	0.07 J	0.1 J	0.35 J	0.64 J	0.43 J	0.4 J	0.06 J	0.05 J	0.8 J	0.17 J	0.1 J	0.16 J	0.12 J	0.22 J	0.11 J	0.29 J	0.14 J
Nov-2011				0.02	0.37 J	0.17 J	0.12 J	0.36 J	0.43 J	0.69 J	0.29 J	0.38 J	0.13 J	0.08 J	0.08 J	0.13 J	0.06 J	0.13 J	0.29 J	ND	ND	0.14 J	0.05 J
May-2012				0.03	ND	0.25 J	0.04 J	0.08 J	0.16 J	0.22 J	0.27 J	0.12 J	0.06 J	0.14 J	0.05 J	0.22 J	0.05 J	0.18 J	0.18 J	0.17 J	ND	ND	ND
Nov-2012				0.03	0.16 J	0.18 J	0.05 J	0.34 J	0.22 J	0.12 J	0.12 J	0.16 J	0.04 J	0.04 J	0.08 J	0.64 J	0.13 J	0.12 J	0.36 J	0.07 J	0.03 J	0.04 J	0.07 J
May-2013				0.05	0.15 J	0.29 J	0.11 J	0.07 J	0.09 J	0.20 J	0.31 J	0.14 J	0.13 J	0.64 J	0.06 J	0.97 J	0.68 J	0.21 J	0.18 J	0.08 J	0.05 J	0.08 J	DRY
May-2014				0.05	0.11 J	0.14 J	0.19 J	0.15 J	0.08 J	0.05 J	0.31 J	0.29 J	0.39 J	1.0	0.17 J	0.25 J	0.09 J	1.0	2.0	0.22 J	ND<0.05 U	ND<0.05 U	DRY
Nov-2014				0.04	0.12 J	0.44 J	0.17 J	0.12 J	ND<0.04 U	NS	0.20 J	0.26 J	0.08 J	0.31 J	0.21 J	0.58 J	0.26 J	0.18 J	0.26 J	0.05 J	0.04 J	0.04 J	DRY

Parameter : Chromium CAS No. 7440-47-3

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	10	10	50		0.3 J	0.5 J	1.2 J		2.7 J	0.4 J	13	1.3 J	1.0 J							NS	1.5 J	ND	
May-2008				0.11	0.2 J	0.6 J	0.2 J		1.2 J	1.2 J	3.1 J	1.1 J	1.1 J							8.0 J	1.1 J	0.4 J	
Nov-2008					0.5 J	1.7 J	1.4 J		1.0 J	1.1 J	4.7 J	1.1 J	0.4 J							ND	5.0 J	0.3 J	
May-2009				0.10	ND	0.7 J	1.6 J		2.1 J	0.7 J	2.5 J	0.5 J	0.1 J							5.1 J	0.5 J	0.5 J	
Jan-2010				0.10	ND	ND	1 J	ND	2.8 J	2.7 J	0.8 J	ND	ND	2.7 J	0.9 J	ND	ND	0.7 J	2.6 J	2.1 J	0.7 J	0.4 J	0.3 J
May-2010				0.03	0.5 J	0.7 J	2 J	0.1 J	2.1 J	2.3 J	4.2 J	2.5 J	0.8 J	0.3 J	0.6 J	0.3 J	0.6 J	0.8 J	0.5 J	0.4 J	0.9 J	0.4 J	0.9 J
Nov-2010				0.03	0.5 J	0.6 J	1.7 J	0.3 J	3.1 J	11	2 J	0.4 J	0.8 J	ND	0.1 J	0.1 J	1.7 J	0.9 J	0.5 J	0.5 J	0.5 J	0.2 J	0.3 J
May-2011				0.04	0.44 J	0.62 J	0.76 J	0.3 J	3 J	6.2 J	2.4 J	1.2 J	0.84 J	0.17 J	0.83 J	0.23 J	2.6 J	0.51 J	0.48 J	1.8 J	0.58 J	0.99 J	3.1 J
Nov-2011				0.04	0.66 J	0.29 J	1.7 J	0.67 J	3.7 J	9.5 J	2.7 J	0.92 J	2.1 J	0.23 J	0.86 J	ND	14.0	0.57 J	1.3 J	0.74 J	1.2 J	0.63 J	0.46 J
May-2012				0.18	0.91 J	1.7 J	1.0 J	1.5 J	5.7 J	6.1 J	2.5 J	2.0 J	1.7 J	ND	0.50 J	ND	6.5 J	0.61 J	2.0 J	2.6 J	1.4 J	0.38 J	1.00 J
Nov-2012				0.18	0.45 J	1.9 J	1.5 J	2.3 J	3.6 J	5.2 J	1.8 J	1.5 J	3.0 J	ND	0.80 J	0.25 J	16.0	0.68 J	1.2 J	0.54 J	0.545 J	0.18 J	1.1 J
May-2013				0.04	0.50 J	0.57 J	0.50 J	1.0 J	2.2 J	4.8 J	3.2 J	7.4 J	2.2 J	0.13 J	1.1 J	0.78 J	19.0	0.59 J	5.8 J	2.4 J	1.6 J	1.6 J	DRY
May-2014				0.04	0.45 J	0.81 J	1.8 J	0.29 J	1.9 J	3.1 J	0.38 J	6.1 J	3.8 J	ND<0.04 U	0.83 J	0.20 J	9.0 J	0.46 J	2.1 J	1.9 J	0.95 J	0.51 J	DRY
Nov-2014				0.14	1.6 J	3.5 J	5.1 J	2.8 J	ND<0.14 U	NS	2.6 J	11	5.8 J	ND<0.14 U	1.1 J	0.34 J	21	0.35 J	14	0.98 J	0.81 J	ND<0.14 U	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Cobalt CAS No. 7440-48-4

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	10	1	4		1.5 J	9.3 J	9.4 J		1.0 J	2.3 J	6.3 J	17	ND							NS	0.8 J	0.7 J	
May-2008				0.03	0.8 J	1.3 J	0.1 J		1.0 J	1.7 J	1.7 J	2.6 J	19							1.2 J	0.8 J	1.0 J	
Nov-2008					0.9 J	10	17		0.4 J	0.5 J	4.4 J	2.8 J	12							ND	1.9 J	5.1 J	
May-2009				0.02	1.2 J	5.8 J	12.6		1.3 J	1.2 J	1.1 J	2.3 J	8.4 J							1.0 J	0.4 J	1.3 J	
Jan-2010				0.02	2.5 J	0.4 J	5.7 J	15	0.9 J	1.6 J	0.6 J	1.1 J	10	0.7 J	0.3 J	0.5 J	0.2 J	1.3 J	0.4 J	0.6 J	0.3 J	1.2 J	0.2 J
May-2010				0.10	0.7 J	1.1 J	18	3.8 J	0.9 J	2.8 J	5.4 J	9.0 J	21	0.2 J	0.2 J	0.3 J	0.2 J	0.9 J	0.2 J	0.3 J	0.6 J	0.6 J	0.5 J
Nov-2010				0.10	0.8 J	3.3 J	37	17	1.1 J	7.8 J	0.7 J	0.8 J	24	0.2 J	0.3 J	0.3 J	0.8 J	1.0 J	0.3 J	0.4 J	0.5 J	1.0 J	0.7 J
May-2011				0.03	0.41 J	3.7 J	14	7.7 J	0.58 J	1.5 J	1.4 J	4.2 J	31	0.09 J	2.2 J	0.26 J	1.5 J	1.2 J	0.18 J	0.84 J	1.5 J	0.42 J	1.6 J
Nov-2011				0.03	0.48 J	1.1 J	6.8 J	15	0.76 J	1.6 J	1.1 J	1.2 J	17	0.11 J	0.26 J	0.20 J	0.84 J	0.60 J	0.42 J	0.50 J	0.75 J	1.3 J	0.86 J
May-2012				0.02	0.38 J	7.0 J	2.6 J	25	0.63 J	1.7 J	1.3 J	3.6 J	31	0.06 J	0.45 J	0.22 J	0.72 J	1.5 J	3.4 J	0.89 J	0.79 J	0.76 J	0.72 J
Nov-2012				0.02	0.31 J	8.6 J	15	28	0.38 J	1.1 J	0.55 J	1.3 J	27	0.08 J	0.86 J	0.53 J	1.1 J	0.46 J	1.6 J	0.42 J	0.31 J	0.89 J	1.7 J
May-2013				0.02	0.20 J	2.0 J	2.2 J	18	0.35 J	1.6 J	3.0 J	9.2 J	24	0.04 J	0.33 J	0.73 J	0.88 J	0.47 J	2.4 J	0.73 J	0.52 J	0.48 J	DRY
May-2014				0.02	0.13 J	1.0 J	5.9 J	0.28 J	0.30 J	0.34 J	0.22 J	5.2 J	22	0.05 J	0.44 J	0.19 J	0.82 J	0.32 J	0.24 J	0.38 J	0.88 J	0.31 J	DRY
Nov-2014				0.12	0.33 J	5.6 J	2.6 J	15	0.13 J	NS	2.8 J	5.0 J	12	ND<0.12 U	0.49 J	0.66 J	1.1 J	0.47 J	1.8 J	0.41 J	0.34 J	0.75 J	DRY

Parameter : Copper CAS No. 7440-50-8

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	10	1,000	7		ND	NA	1.8 J		2.3 J	1.6 J	6.7 J	2.7 J	1.6 J							NS	1.9 J	0.6 J	
May-2008				0.05	1.5 J	1 J	0.8 J		0.7 J	0.9 J	2.1 J	2.0 J	0.9 J							5.5 J	0.8 J	0.6 J	
Nov-2008					1.3 J	1.2 J	1.3 J		0.9 J	3.3 J	2.8 J	3.0 J	0.8 J							ND	5.6 J	1.1 J	
May-2009				0.04	0.7 J	1.9 J	1.4 J		1.8 J	2.6 J	2.3 J	1.6 J	0.6 J							4.9 J	1.5 J	0.4 J	
Jan-2010				0.04	0.9 J	1.2 J	1.9 J	1.3 J	1.8 J	1.6 J	1.1 J	2.4 J	0.7 J	1.3 J	1.0 J	0.8 J	0.7 J	1.2 J	2.4 J	2.7 J	0.8 J	0.8 J	0.7 J
May-2010				0.03	0.7 J	0.9 J	1.1 J	4.0 J	1.4 J	1.1 J	2.4 J	2.9 J	1.1 J	0.1 J	0.6 J	0.2 J	0.3 J	0.5 J	0.1 J	0.4 J	0.4 J	0.3 J	0.5 J
Nov-2010				0.03	0.5 J	1.1 J	1.1 J	0.5 J	1.3 J	3.9 J	1.5 J	0.8 J	0.8 J	ND	ND	ND	1.1 J	0.8 J	0.1 J	0.3 J	0.1 J	0.1 J	0.3 J
May-2011				0.02	1.1 J	1.5 J	1.3 J	1.1 J	1.9 J	4.4 J	1.6 J	1.5 J	1.3 J	0.29 J	1.7 J	0.67 J	1.5 J	2.1 J	0.81 J	1.7 J	0.94 J	1.1 J	1.5 J
Nov-2011				0.02	0.89 J	0.49 J	1.5 J	0.88 J	1.1 J	7.1 J	1.7 J	0.93 J	0.69 J	0.05 J	0.18 J	0.09 J	0.53 J	0.82 J	0.59 J	0.17 J	0.46 J	0.30 J	ND
May-2012				0.06	0.87 J	1.3 J	0.91 J	0.85 J	1.8 J	3.4 J	2.2 J	1.9 J	1.1 J	0.11 J	0.37 J	0.50 J	0.87 J	0.77 J	1.9 J	2.3 J	1.2 J	0.34 J	0.42 J
Nov-2012				0.06	1.0 J	1.3 J	1.6 J	1.4 J	0.88 J	4.2 J	1.2 J	1.9 J	1.4 J	0.50 J	0.64 J	0.70 J	0.91 J	1.0 J	0.57 J	2.1 J	0.36 J	0.58 J	1.2 J
May-2013				0.06	0.96 J	1.6 J	0.77 J	1.0 J	0.61 J	4.8 J	1.8 J	1.9 J	1.3 J	0.35 J	0.68 J	1.4 J	1.5 J	0.63 J	1.8 J	1.3 J	1.4 J	1.1 J	DRY
May-2014				0.06	1.0 J	0.80 J	1.1 J	0.54 J	0.31 J	4.0 J	0.52 J	1.7 J	2.0 J	0.67 J	0.38 J	0.37 J	0.63 J	1.0 J	1.8 J	2.4 J	0.46 J	0.40 J	DRY
Nov-2014				0.10	0.94 J	2.0 J	1.5 J	0.74 J	5.5 J	NS	0.61 J	4.8 J	1.2 J	0.51 J	0.76 J	0.96 J	1.2 J	0.40 J	1.1 J	0.46 J	0.37 J	0.41 J	DRY

Parameter : Lead CAS No. 7439-92-1

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	10	15	25		1.3 J	ND	0.1 J		7.2 J	0.4 J	5.9 J	0.3 J	0.3 J							NS	1.6 J	0.2 J	
May-2008				0.32	1.6 J	0.5 J	ND		4.8 J	0.4 J	0.5 J	0.7 J	0.2 J							25	0.7 J	0.3 J	
Nov-2008					2.8 J	0.4 J	0.1 J		3.4 J	0.6 J	0.4 J	0.3 J	0.2 J							ND	14 J	0.9 J	
May-2009				0.04	3.7 J	0.5 J	ND		11.0	0.2 J	0.3 J	0.1 J	0.1 J							23	0.5 J	0.2 J	
Jan-2010				0.04	0.8 J	3.9 J	0.1 J	0.2 J	14.0	1.5 J	0.5 J	0.1 J	0.4 J	1.8 J	1.4 J	0.2 J	0.4 J	3.2 J	21	8.0 J	0.3 J	0.6 J	0.3 J
May-2010				0.01	3.0 J	1.1 J	0.1 J	ND	6.3 J	0.7 J	0.2 J	0.1 J	0.4 J	0.1 J	2.0 J	0.2 J	1.1 J	1.8 J	1.5 J	0.9 J	0.5 J	0.6 J	1.6 J
Nov-2010				0.01	2.0 J	0.5 J	0.1 J	0.2 J	6.4 J	3.9 J	0.3 J	0.2 J	0.4 J	ND	1.1 J	0.2 J	1.9 J	3.1 J	2.2 J	1 J	0.1 J	0.5 J	0.2 J
May-2011				0.02	0.6 J	0.92 J	0.16 J	0.15 J	4.8 J	3.0 J	0.18 J	0.12 J	0.13 J	0.16 J	1.2 J	0.1 J	0.83 J	0.8 J	4.4 J	4.3 J	0.5 J	0.28 J	5.7 J
Nov-2011				0.02	1.7 J	0.68 J	0.42 J	0.17 J	7.3 J	2.1 J	0.24 J	0.29 J	1.2 J	0.16 J	1.9 J	0.12 J	0.64 J	0.93 J	3.2 J	0.95 J	0.79 J	1.1 J	0.29 J
May-2012				0.08	1.1 J	1.3 J	0.22 J	0.25 J	7.6 J	3.5 J	0.39 J	0.33 J	0.20 J	ND	0.74 J	0.09 J	0.90 J	1.0 J	11.0	7.0 J	2.1 J	0.46 J	1.3 J
Nov-2012				0.08	1.1 J	0.64 J	0.31 J	0.35 J	3.1 J	1.4 J	0.55 J	0.20 J	0.19 J	0.12 J	0.43 J	0.49 J	0.65 J	1.5 J	7.9 J	0.45 J	0.43 J	0.11 J	1.3 J
May-2013				0.02	0.14 J	0.55 J	0.03 J	0.04 J	0.29 J	1.5 J	0.05 J	0.08 J	0.06 J	0.12 J	0.23 J	0.53 J	0.07 J	0.93 J	0.75 J	1.6 J	1.2 J	3.0 J	DRY
May-2014				0.02	0.11 J	0.19 J	0.16 J	0.06 J	0.74 J	0.51 J	0.04 J	0.14 J	0.19 J	0.07 J	0.10 J	0.04 J	ND<0.02 U	0.40 J	0.42 J	5.2 J	0.39 J	1.2 J	DRY
Nov-2014				0.13	0.18 J	83	ND<0.13 U	ND<0.13 U	0.31 J	NS	ND<0.13 U	0.22 J	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	0.52 J	1.4 J	0.30 J	0.21 J	0.78 J	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Nickel CAS No. 7440-02-0

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	50	100	88		3.3 J	3.6 J	5.9 J		2.7 J	9.1 J	9.1 J	7.5 J	5.3 J							NS	2.9 J	0.7 J	
May-2008				0.06	5.2 J	2.1 J	0.5 J		2.3 J	4.3 J	3.2 J	2.0 J	7.8 J							3.5 J	1.4 J	0.8 J	
Nov-2008					4 J	6 J	7.1 J		1.7 J	3.4 J	6.1 J	4.6 J	4.7 J							ND	4.2 J	1.3 J	
May-2009				0.04	2.1 J	1.8 J	5.4 J		1.2 J	2.5 J	1.0 J	0.9 J	3.3 J							1.9 J	0.2 J	0.4 J	
Jan-2010				0.04	1.7 J	3.1 J	5.8 J	2.6 J	2.1 J	4.8 J	1.1 J	0.6 J	5.1 J	2.5 J	0.8 J	2.2 J	0.9 J	1.6 J	1.0 J	1.3 J	0.9 J	0.8 J	0.6 J
May-2010				0.05	3.2 J	1.7 J	10.8 J	1.5 J	2.0 J	7.1 J	7.5 J	10.4 J	9.2 J	2.0 J	1.5 J	1.8 J	0.9 J	1.7 J	1.1 J	0.4 J	1.2 J	0.8 J	0.8 J
Nov-2010				0.05	3.9 J	6.2 J	12.1 J	6.4 J	2.1 J	16.8 J	5.7 J	1.7 J	9.1 J	1.8 J	4.1 J	1.6 J	4.1 J	2.2 J	1.9 J	0.7 J	1.6 J	0.8 J	0.8 J
May-2011				0.04	1.2 J	3.1 J	3.3 J	1.6 J	1.4 J	5.5 J	2 J	2.3 J	5.2 J	0.77 J	1.1 J	1.2 J	6.8 J	2.1 J	0.86 J	1.3 J	1.8 J	1.1 J	1.5 J
Nov-2011				0.04	1.4 J	1.2 J	4.3 J	3.6 J	1.8 J	6.9 J	2.7 J	1.5 J	5.4 J	0.78 J	1.3 J	1.2 J	7.6 J	1.3 J	2 J	0.88 J	0.99 J	0.76 J	0.55 J
May-2012				0.06	2.6 J	4.4 J	3.6 J	4.8 J	1.7 J	4.7 J	2.9 J	4.3 J	7.2 J	0.23 J	2.3 J	3.4 J	5.6 J	3.4 J	5.2 J	3.8 J	2.9 J	5.0 J	6.1 J
Nov-2012				0.06	2.6 J	6.6 J	5.8 J	8.8 J	1.8 J	5.4 J	1.4 J	2.5 J	8.6 J	1.3 J	1.6 J	2.3 J	7.3 J	1.7 J	1.9 J	0.46 J	0.46 J	0.78 J	1.1 J
May-2013				0.45	1.8 J	4.6 J	3.5 J	5.0 J	1.8 J	5.6 J	4.3 J	5.5 J	9.3 J	0.98 J	1.5 J	2.4 J	4.8 J	0.84 J	4.4 J	0.97 J	0.65 J	0.47 J	DRY
May-2014				0.45	1.3 J	1.6 J	3.1 J	1.5 J	0.87 J	2.2 J	0.71 J	3.5 J	7.8 J	1.3 J	1.0 J	2.7 J	5.9 J	1.2 J	1.6 J	0.98 J	0.89 J	ND<0.45 U	DRY
Nov-2014				0.12	2.6 J	5.9 J	5.7 J	6.7 J	1.5 J	NS	3.1 J	6.0 J	8.4 J	1.2 J	1.8 J	4.5 J	6.7 J	1.1 J	6.9 J	1.2 J	1.4 J	0.53 J	DRY

Parameter : Selenium CAS No. 7782-49-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	10	20	5		1.9 J	2.3 J	5.6 J		ND	2.3 J	7.9 J	6.0 J	4.7 J							NS	2.2 J	ND	
May-2008				0.51	1.9 J	1.2 J	0.3 J		0.9 J	2.5 J	1.7 J	1.7 J	5.9 J							1.3 J	0.9 J	0.2 J	
Nov-2008					1.6 J	4.8 J	9.8 J		ND	1.2 J	5.3 J	5.9 J	3.5 J							ND	3.0 J	0.3 J	
May-2009				0.12	5.2 J	2.5 J	8.2 J		0.5 J	1.5 J	0.5 J	0.8 J	2.2 J							0.8 J	ND	ND	
Jan-2010				0.12	5.2 J	1.9 J	ND	2.7 J	0.2 J	5.0 J	2.0 J	0.2 J	3.0 J	ND	0.2 J	ND	0.2 J	0.5 J	0.4 J	ND	ND	ND	ND
May-2010				0.32	1.0 J	3.5 J	11	1.0 J	1.1 J	7.3 J	7.5 J	9.8 J	4.4 J	ND	0.6 J	ND	ND	ND	ND	ND	0.7 J	ND	ND
Nov-2010				0.32	1.8 J	ND	ND	8.8 J	0.7 J	ND	7.2 J	1.1 J	4.7 J	ND	ND	ND	1.3 J	0.8 J	ND	ND	0.6 J	ND	ND
May-2011				0.20	0.46 J	ND	3.5 J	1.1 J	0.73 J	4.9 J	1.3 J	3 J	3.0 J	ND	1.1 J	ND	1.7 J	0.38 J	0.44 J	0.3 J	0.22 J	0.64 J	0.33 J
Nov-2011				0.20	1.2 J	1.3 J	6.6 J	2.3 J	0.61 J	5.9 J	1.6 J	1.1 J	1.9 J	ND	0.62 J	ND	2.5 J	0.78 J	0.33 J	0.20 J	0.29 J	0.21 J	ND
May-2012				0.17	1.7 J	13	3.8 J	4.3 J	1.6 J	5.0 J	1.5 J	4.3 J	4.5 J	ND	0.93 J	0.72 J	3.7 J	0.64 J	1.4 J	0.41 J	0.57 J	ND	ND
Nov-2012				0.17	1.2 J	15	0.3 J	11.0	1.2 J	4.3 J	0.64 J	1.9 J	6.9 J	0.21 J	2.1 J	1.1 J	4.1 J	1.0 J	0.94 J	0.17 J	0.30 J	0.26 J	ND
May-2013				0.06	1.6 J	14	5.4 J	4.9 J	1.1 J	4.4 J	2.7 J	9.9 J	6.8 J	0.08 J	1.7 J	1.1 J	5.7 J	0.83 J	5.5 J	0.39 J	0.38 J	0 19 J	DRY
May-2014				0.06	ND<0.06 U	0.38 J	2.9 J	ND<0.06 U	ND<0.06 U	ND<0.06 U	ND<0.06 U	3.4 J	4.9 J	ND<0.06 U	ND<0.06 U	ND<0.06 U	1.3 J	ND<0.06 U	ND<0.06 U	ND<0.06 U	ND<0.06 U	ND<0.06 U	DRY
Nov-2014				0.16/0.44	3.0 J	ND<0.16 U	ND<0.16 U	7.2 J	2.6 J	NS	1.7 J	ND<0.44 U	ND<0.16 U	ND<0.44 U	1.8 J	ND<0.44 U	ND<0.44 U	0.62 J	ND<0.16 U	ND<0.16 U	ND<0.16 U	ND<0.16 U	DRY

Parameter : Silver CAS No. 7440-22-4

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	10	20	0.06		ND	ND	ND		ND	ND	ND	ND	ND							NS	ND	ND	
May-2008				0.04	0.2 J	0.1 J	ND		0.1 J	0.1 J	0.1 J	ND	ND							0.1 J	ND	0.1 J	
Nov-2008					ND	ND	0.1 J		ND	0.1 J	ND	0.1 J	ND							0.1 J	0.1 J	ND	
May-2009				0.04	ND	ND	ND		0.1 J	ND	ND	ND	ND							0.1 J	0.1 J	ND	
Jan-2010				0.04	0.1 J	0.2 J	0.2 J	0.1 J	0.1 J	0.1 J	0.1 J	0.3 J	0.3 J	0.1 J	0.1 J	ND	0.1 J	0.1 J	0.1 J	0.2 J	0.1 J	0.2 J	0.1 J
May-2010				0.03	0.1 J	ND	0.1 J	ND	0.1 J	0.1 J	ND	ND	0.1 J	ND	ND	0.1 J	ND	ND	ND	ND	0.1 J	ND	ND
Nov-2010				0.03	ND	ND	ND	ND	ND	0.1 J	0.1 J	0.1 J	0.1 J	ND	ND	ND	0.1 J	ND	ND	ND	ND	ND	ND
May-2011				0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.04 J	ND
Nov-2011				0.02	ND	ND	0.04 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2013				0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.03 J	ND	ND	ND	ND	ND	ND	DRY
May-2014				0.03	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	ND<0.03 U	DRY
Nov-2014				0.04	ND<0.04 U	ND<0.04 U	ND<0.04 U	ND<0.04 U	0.06 J	NS	ND<0.04 U	ND<0.04 U	ND<0.04 U	ND<0.04 U	ND<0.04 U	0.04 J	ND<0.04 U	ND<0.04 U	ND<0.04 U	ND<0.04 U	ND<0.04 U	ND<0.04 U	DRY

Table 4
Historical Groundwater and Surface Water Quality Data
Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Thallium CAS No. 7440-28-0

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	5.5	0.2	0.47		ND	**0.2 J**	ND		ND	ND	**0.2 J**	ND	ND							NS	ND	ND	
May-2008				0.63	**0.1 J**	**0.1 J**	ND		**0.1 J**	**0.1 J**	**0.2 J**	**0.1 J**	ND							**0.2 J**	ND	ND	
Nov-2008					ND	**0.1 J**	ND		ND	ND	**0.1 J**	**0.1 J**	ND							ND	**0.1 J**	ND	
May-2009				0.03	ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
Jan-2010				0.03	**0.1 J**	ND	ND	**0.1 J**	**0.1 J**	**0.1 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.1 J**	**0.1 J**	**0.1 J**	ND
May-2010				0.05	ND	ND	ND	ND	**0.1 J**	ND	ND	**0.5 J**	**0.1 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.05	ND	**0.1 J**	ND	ND	**0.1 J**	**0.5 J**	**0.1 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				0.02	ND	**0.1 J**	ND	ND	**0.03 J**	**0.07 J**	**0.9 J**	**0.24 J**	ND	ND	**0.05 J**	ND	**0.08 J**	**0.04 J**	**0.04 J**	**0.05 J**	ND	ND	**0.09 J**
Nov-2011				0.02	ND	**0.07 J**	**0.24 J**	**0.14 J**	**0.05 J**	**0.16 J**	**0.08 J**	**0.08 J**	ND	**0.08 J**	**0.05 J**	**0.12 J**	**0.04 J**	**0.07 J**	**0.05 J**	ND	ND	**0.12 J**	**0.09 J**
May-2012				0.07	**0.35 J**	**0.22 J**	ND	**0.10 J**	ND	ND	**0.10 J**	**0.26 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				0.07	ND	**0.10 J**	ND	**0.13 J**	ND	ND	ND	**0.29 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2013				0.02	**0.04 J**	**0.07 J**	ND	**0.08 J**	ND	**0.07 J**	**0.10 J**	**0.20 J**	**0.06 J**	ND	ND	**0.14 J**	ND	ND	**0.30 J**	**0.05 J**	ND	**0.06 J**	DRY
May-2014				0.02	ND<0.02 U	**0.07 J**	ND<0.02 U	**0.06 J**	ND<0.02 U	**0.02 J**	ND<0.02 U	**0.26 J**	**0.03 J**	ND<0.02 U	ND<0.02 U	ND<0.02 U	ND<0.02 U	ND<0.02 U	**0.13 J**	**0.02 J**	ND<0.02 U	ND<0.02 U	DRY
Nov-2014				0.13	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	NS	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	ND<0.13 U	**0.15 J**	ND<0.13 U	ND<0.13 U	ND<0.13 U	DRY

Parameter : Tin CAS No. 7440-31-5

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Jan-2010	100	2,000	800	0.08	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-2010				0.11	NA	NA	**1.5 J**	**3.9 J**	NA	NA	NA	NA	**0.4 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2010				0.11	NA	NA	**0.5 J**	**0.6 J**	NA	NA	NA	NA	**0.5 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-2011				0.16	NA	NA	**0.23 J**	**0.32 J**	NA	NA	NA	NA	**0.95 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2011				0.16	NA	NA	**0.26 J**	**0.47 J**	NA	NA	NA	NA	**0.24 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-2012				0.10	NA	NA	**0.15 J**	**0.24 J**	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2012				0.10	ND	NA	**0.13 J**	**0.28 J**	NA	NA	NA	NA	**0.92 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-2013				0.06	ND	NA	**0.24 J**	**0.20 J**	NA	NA	NA	NA	**0.08 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	DRY
May-2014				0.06	ND<0.06 U	NA	ND<0.06 U	**0.06 J**	NA	NA	NA	NA	ND<0.06 U	NA	NA	NA	ND<0.06 U	NA	NA	NA	NA	NA	DRY
Nov-2014				0.05	ND<0.05 U	NA	**0.96 J**	ND<0.05 U	NA	NS	NA	NA	**0.22 J**	NA	NA	NA	**0.18 J**	NA	NA	NA	NA	NA	DRY

Parameter : Vanadium CAS No. 7440-62-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	25	0.3	NE		**1.5 J**	**0.9 J**	**1.7 J**		**6.9 J**	**1.6 J**	**17 J**	**2.5 J**	**1.4 J**							NS	**2.0 J**	**0.7 J**	
May-2008				0.07	**0.8 J**	ND	ND		**3.4 J**	**1.2 J**	**4.6 J**	**3.1 J**	**1.0 J**							**40**	**1.4 J**	**0.8 J**	
Nov-2008					**2.6 J**	**1.3 J**	**1.5 J**		**3.1 J**	**1.8 J**	**4.2 J**	**1.3 J**	**0.8 J**							ND	**9.2 J**	**1.2 J**	
May-2009				0.28	**3.5 J**	**1.8 J**	**2.7 J**		**10.0 J**	**1.6 J**	**7.5 J**	**1.8 J**	**1.3 J**							**30**	**2.3 J**	**1.9 J**	
Jan-2010				0.28	**1 J**	**3.5 J**	**2.3 J**	**2.1 J**	**11.4 J**	**5.1 J**	**11.6 J**	**0.8 J**	**0.9 J**	**4.9 J**	**4.5 J**	**1.3 J**	**2.4 J**	**4.9 J**	**35**	**18.9 J**	**0.8 J**	**0.9 J**	**0.6 J**
May-2010				0.03	**3.8 J**	**2.1 J**	**2 J**	**0.8 J**	**8.3 J**	**2.3 J**	**5.8 J**	**1.3 J**	**1.6 J**	**0.6 J**	**3.2 J**	**1.0 J**	**3.7 J**	**2.4 J**	**3.3 J**	**2.0 J**	**1.5 J**	**1.4 J**	**3.0 J**
Nov-2010				0.03	**3.3 J**	**0.6 J**	**2.6 J**	**1.6 J**	**9.4 J**	**3.2 J**	**4.4 J**	**1.1 J**	**1.9 J**	**0.9 J**	**1.9 J**	**0.6 J**	**4.4 J**	**3.6 J**	**8.5 J**	**3.1 J**	**1.1 J**	**0.9 J**	**0.9 J**
May-2011				0.14	**1.2 J**	**0.94 J**	**1.4 J**	**0.69 J**	**7.5 J**	**4.3 J**	**3.9 J**	**0.75 J**	**0.76 J**	**1.2 J**	**3.1 J**	**0.54 J**	**2.9 J**	**1.0 J**	**11.8 J**	**6.8 J**	**0.86 J**	**0.93 J**	**7.2 J**
Nov-2011				0.14	**2.5 J**	**0.75 J**	**3 J**	**0.88 J**	**8.5 J**	**2.4 J**	**3.3 J**	**1.2 J**	**4.1 J**	**1.3 J**	**9.2 J**	**0.55 J**	**4.8 J**	**1.4 J**	**8.4 J**	**2.2 J**	**3.4 J**	**1.1 J**	**0.88 J**
May-2012				0.10	**1.7 J**	**2.0 J**	**1.4 J**	**2.0 J**	**7.2 J**	**5.6 J**	**3.0 J**	**1.3 J**	**1.3 J**	**0.96 J**	**5.9 J**	**0.78 J**	**6.9 J**	**2.2 J**	**31.0**	**9.5 J**	**2.5 J**	**1.0 J**	**3.0 J**
Nov-2012				0.10	**1.2 J**	**1.7 J**	**1.8 J**	**1.6 J**	**5.8 J**	**2.0 J**	**4.7 J**	**0.52 J**	**1.2 J**	**0.25 J**	**4.1 J**	**0.44 J**	**6.4 J**	**3.0 J**	**22.7 J**	**1.5 J**	**0.83 J**	**0.67 J**	**2.3 J**
May-2013				0.07	**1.0 J**	**0.62 J**	**1.9 J**	**0.39 J**	**3.3 J**	**3.5 J**	**1.5 J**	**1.3 J**	**1.3 J**	**0.07 J**	**4.6 J**	**0.35 J**	**7.8 J**	**2.0 J**	**8.2 J**	**3.1 J**	**1.5 J**	**3.4 J**	DRY
May-2014				0.07	**0.16 J**	ND<0.07 U	**1.3 J**	ND<0.07 U	**3.2 J**	**1.1 J**	**0.34 J**	**1.3 J**	**1.0 J**	ND<0.07 U	**2.9 J**	ND<0.07 U	**4.1 J**	**1.4 J**	**1.4 J**	**6.0 J**	**0.48 J**	**1.2 J**	DRY
Nov-2014				0.06	**0.96 J**	**2.3 J**	**2.5 J**	**0.14 J**	**0.44 J**	NS	**1.2 J**	**1.3 J**	**1.1 J**	**0.48 J**	**4.4 J**	**0.34 J**	**11.0 J**	**1.3 J**	**4.3 J**	**0.30 J**	ND<0.06 U	**1.3 J**	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Zinc CAS No. 7440-66-6

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	10	1,000	50		7.9 J	3.3 J	8 J		16	5.9 J	20	3.4 J	5.1 J							NS	24	71	
May-2008				0.04	4.5 J	1.9 J	1.6 J		7.8 J	4.1 J	3.0 J	3.4 J	2.7 J							43	7.8 J	19	
Nov-2008					5.1 J	2.4 J	3.3 J		5.3 J	3.9 J	3.6 J	3.0 J	1.7 J							ND	96	36	
May-2009				0.14	9.4 J	5 J	5.9 J		12	3.3 J	2.5 J	2.8 J	3.2 J							21	4.8 J	18	
Jan-2010				0.14	2.2 J	3 J	1.3 J	3.1 J	16	4.8 J	3.9 J	1.5 J	3.1 J	7.5 J	2.6 J	2.9 J	2.8 J	8.5 J	4.7 J	15	8.1 J	14	8.8 J
May-2010				0.08	2.2 J	5.8 J	2.3 J	2.9 J	8.5 J	4.3 J	3.3 J	3.8 J	6.3 J	1.5 J	4.0 J	2.0 J	1.1 J	7.5 J	1.2 J	2.3 J	5.3 J	11	3.0 J
Nov-2010				0.08	5.6 J	3.5 J	3.4 J	4.1 J	8.1 J	14	4.5 J	4.3 J	5.4 J	2.6 J	2.1 J	3.2 J	3.1 J	8.5 J	2.6 J	5.6 J	6.8 J	17	3.9 J
May-2011				0.24	2.6 J	3.1 J	3.6 J	3.2 J	6.1 J	7.4 J	1.8 J	2.4 J	5.4 J	3.2 J	3.5 J	2.1 J	3.5 J	32.0	2.6 J	9.6 J	12	5.8 J	9.4 J
Nov-2011				0.24	3.2 J	2.0 J	2.7 J	4.7 J	9.4 J	7.7 J	3.3 J	1.8 J	5.3 J	2.3 J	1.7 J	1.9 J	1.8 J	3.2 J	4.7 J	1.9 J	8.2 J	16	2.4 J
May-2012				0.48	1.4 J	2.0 J	0.72 J	5.7 J	4.7 J	6.6 J	0.91 J	0.66 J	3.2 J	0.66 J	ND	1.7 J	ND	8.1 J	6.2 J	6.4 J	18	6.0 J	0.70 J
Nov-2012				0.48	4.7 J	4.6 J	7.6 J	8.4 J	6.7 J	5.8 J	4.9 J	4.6 J	5.5 J	4.4 J	3.1 J	6.4 J	4.1 J	3.3 J	4.6 J	4.8 J	6.5 J	8.2 J	11.0
May-2013				0.47	0.76 J	2.4 J	1.2 J	3.8 J	1.6 J	6.1 J	0.91 J	1.0 J	2.9 J	3.7 J	2.1 J	3.8 J	1.9 J	3.5 J	5.6 J	4.1 J	5.2 J	6.8 J	DRY
May-2014				0.47	0.88 J	1.1 J	2.6 J	1.4 J	1.8 J	2.0 J	0.84 J	1.9 J	3.4 J	3.4 J	1.3 J	1.3 J	2.0 J	2.4 J	2.6 J	9.9 J	2.3 J	2.7 J	DRY
Nov-2014				0.53	1.2 J	3.2 J	2.4 J	3.0 J	50	NS	0.54 J	1.4 J	2.8 J	1.3 J	1.4 J	3.1 J	1.9 J	4.6 J	5.7 J	3.7 J	2.0 J	5.7 J	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Acetone CAS No. 67-64-1

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	100	6,000	2,000		ND	**2.2 J**	**3.3 J**		ND	ND	**2.7 J**	**1.7 J**	**2.3 J**							NS	**2.3 J**	**2.2 J**	
May-2008				1.21	**3.3 J**	**2.7 J**	**5.6 J**		**3.10 J**	**4.10 J**	**4.50 J**	**3.40 J**	**4.50 J**							**4.50 J**	**5.50 J**	**3.80 J**	
Nov-2008					**1.7 J**	**3.4 J**	**4.5 J**		**1.3 J**	**1.5 J**	**2.7 J**	**2.4 J**	**2.8 J**							ND	**3.7 J**	**5.3 J**	
May-2009				1.21	**3 J**	ND	**2.1 J**		ND	ND	ND	ND	ND							ND	**1.3 J**	ND	
Jan-2010				9.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2010				9.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				9.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**29 J**	ND	ND	ND	ND	ND	ND
May-2011				9.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				9.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.10 J**	ND	ND	ND	ND	ND	ND
May-2012				9.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				9.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2013				9.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	DRY
May-2014				9.06	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	DRY
Nov-2014				9.06	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	NS	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	ND<9.06 U	**12.50 J**	ND<9.06 U	ND<9.06 U	DRY

Parameter : Benzene CAS No. 71-43-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	1	1	51		ND	NA	**1.0**		ND	ND	**0.2 J**	**0.3 J**	**0.7 J**							NS	ND	ND	
May-2008				0.16	ND	ND	**1.1**		ND	ND	ND	ND	**0.50 J**							ND	ND	ND	
Nov-2008					ND	ND	**2.1**		ND	ND	ND	ND	**0.5 J**							ND	ND	ND	
May-2009				0.16	ND	ND	**1.5**		ND	ND	ND	ND	**0.3 J**							ND	ND	ND	
Jan-2010				0.24	ND	ND	**1.3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2010				0.24	ND	ND	**3.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.24	**0.6 J**	ND	**2.1**	**0.90 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				0.24	**0.3 J**	ND	**1.0**	ND	ND	ND	ND	ND	**0.40 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				0.24	ND	ND	**1.1**	**0.60 J**	ND	ND	ND	ND	**0.40 J**	ND	ND	ND	**0.30 J**	ND	ND	ND	ND	ND	ND
May-2012				0.24	ND	ND	**1.0**	**0.60 J**	ND	ND	ND	ND	**1.10**	ND	ND	ND	**1.20**	ND	ND	ND	ND	ND	ND
Nov-2012				0.24	ND	**0.6 J**	**1.2**	**0.70 J**	ND	ND	ND	ND	**1.60**	ND	ND	ND	**0.70 J**	ND	ND	ND	ND	ND	ND
May-2013				0.24	ND	ND	ND	**0.30 J**	ND	ND	ND	ND	ND	ND	ND	ND	**1.10**	ND	**0.40 J**	ND	ND	ND	DRY
May-2014				0.24	ND<0.24 U	ND<0.24 U	**1.10**	ND<0.24 U	ND<0.24 U	ND<0.24 U	ND<0.24 U	**0.30 J**	**1.90**	ND<0.24 U	ND<0.24 U	ND<0.24 U	**0.40 J**	ND<0.24 U	ND<0.24 U	ND<0.24 U	ND<0.24 U	ND<0.24 U	DRY
Nov-2014				0.24	ND<0.24 U	**0.60 J**	**2.10**	**0.50 J**	ND<0.24 U	NS	ND<0.24 U	**0.30 J**	**0.80 J**	ND<0.24 U	ND<0.24 U	ND<0.24 U	**1.10**	ND<0.24 U	**0.50 J**	ND<0.24 U	ND<0.24 U	ND<0.24 U	DRY

Parameter : Cis-1,2-Dichloroethene CAS No. 156-59-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	5	70	720		ND	ND	**0.2 J**		ND	ND	ND	ND	**0.20 J**							NS	ND	ND	
May-2008				0.14	ND	ND	**0.2 J**		ND	ND	ND	ND	**0.20 J**							ND	ND	ND	
Nov-2008					**1.0 J**	**1.4 J**	**1.3 J**		ND	ND	ND	ND	**0.20 J**							ND	ND	**1.6 J**	
May-2009				0.14	ND	ND	**0.2 J**		ND	ND	ND	ND	ND							ND	ND	ND	
Jan-2010				0.25	ND	ND	**0.3 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2010				0.25	ND	ND	**0.5 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.25	ND	ND	**0.3 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				0.25	ND	ND	**0.3 J**	ND	ND	ND	ND	ND	**0.40 J**	ND	ND	ND	**0.60 J**	ND	ND	ND	ND	ND	ND
Nov-2011				0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.20 J**	ND	ND	ND	ND	ND	ND
May-2012				0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8.50**	ND	ND	ND	ND	ND	ND
Nov-2012				0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.10 J**	ND	ND	ND	ND	ND	ND
May-2013				0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.90**	ND	**1.40 J**	ND	ND	ND	DRY
May-2014				0.25	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	**0.70 J**	ND<0.25 U	**0.30 J**	ND<0.25 U	ND<0.25 U	ND<0.25 U	DRY
Nov-2014				0.25	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	NS	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	ND<0.25 U	**1.70 J**	ND<0.25 U	**1.60 J**	ND<0.25 U	ND<0.25 U	ND<0.25 U	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Chlorobenzene CAS No. 108-90-7

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
May-2014	3.0	50	140	0.30	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	DRY
Nov-2014				0.30	ND<0.30 U	ND<0.30 U	**0.30 J**	ND<0.30 U	ND<0.30 U	NS	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	ND<0.30 U	DRY

Parameter : Ethylbenzene CAS No. 100-41-4

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
May-2014	1	600	97	0.21	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	DRY
Nov-2014				0.21	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	NS	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	ND<0.21 U	**0.50 J**	ND<0.21 U	**0.60 J**	ND<0.21	ND<0.21	ND<0.21	DRY

Parameter : Methylene Chloride CAS No. 75-09-2

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	1	5	590		ND	ND	**0.30 J**		ND	ND	ND	ND	**0.20 J**							NS	ND	ND	
May-2008				0.14	ND	**0.20 J**	**0.20 J**		**0.20 J**	**0.20 J**	**0.20 J**	**0.20 J**	**0.30 J**							**0.20 J**	**0.20 J**	**0.20 J**	
Nov-2008					ND	ND	ND		ND	ND	ND	ND	**0.20 J**							ND	ND	ND	
May-2009				0.14	ND	ND	**0.20 J**		ND	ND	ND	ND	**0.20 J**							ND	ND	ND	
Jan-2010				0.64	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2010				0.64	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.64	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**11.2**	ND	ND	ND	ND	ND	ND
May-2011				0.64	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.90 J**	ND	ND	ND	ND	ND	ND
Nov-2011				0.64	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				0.64	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				0.64	ND	ND	**0.80 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2013				0.64	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	DRY
May-2014				0.64	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	DRY
Nov-2014				0.64	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	NS	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	ND<0.64 U	DRY

Parameter : Naphthalene CAS No. 91-20-3

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2014	10	6	12	0.47	ND<0.47 U	NA	**2.90 J**	ND<0.47 U	NA	NS	NA	NA	ND<0.47 U	NA	NA	NA	ND<0.47 U	NA	NA	NA	NA	NA	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Tetrachloroethene CAS No. 127-18-4

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	1	0.7	3.3		ND	NA	ND		ND	ND	ND	ND	ND							ND	ND	ND	
May-2008				0.16	ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
Nov-2008					ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
May-2009				0.16	ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
Jan-2010				0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2010				0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.2 J**	ND	ND	ND	ND	ND	ND
May-2011				0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.2 J**	ND	ND	ND	ND	ND	ND
Nov-2011				0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2012				0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2013				0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	DRY
May-2014				0.17	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	DRY
Nov-2014				0.17	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	NS	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	ND<0.17 U	DRY

Parameter: Tetrahydrofuran CAS No. 109-99-9

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
May-2011	NE	NE	NE	0.39	ND	**0.7 J**	**2.5**	ND	ND	**0.9 J**	**2.30**	**4.50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.6 J**	ND
Nov-2011				0.39	ND	ND	**6.7**	**3.30**	ND	ND	**1.90**	ND	**3.90**	ND	ND	ND	**4.20**	ND	**0.9 J**	ND	ND	ND	ND
May-2012				0.39	**1.80**	**2.40**	**4.4**	**5.10**	**1.40**	**1.70**	**2.70**	**6.40**	**5.20**	ND	ND	**18.40**	**2.50**	ND	**14.00**	ND	ND	ND	ND
Nov-2012				0.39	ND	**8.50**	**4.6**	**3.80**	ND	ND	ND	**1.20**	**5.50**	ND	ND	**6.20**	**10.90**	ND	**0.70 J**	ND	ND	ND	ND
May-2013				0.39	ND	ND	**5.6**	**2.40**	ND	ND	**4.40**	**20.90**	**5.40**	ND	ND	ND	**3.30**	ND	**7.40**	ND	ND	ND	DRY
May-2014				0.39	ND<0.39 U	**1.0**	**6.5**	ND<0.39 U	ND<0.39 U	ND<0.39 U	ND<0.39 U	**10.8**	**10.2**	ND<0.39 U	ND<0.39 U	ND<0.39 U	**5.50**	ND<0.39 U	**0.80 J**	ND<0.39 U	ND<0.39 U	ND<0.39 U	DRY
Nov-2014				0.39	ND<0.39 U	**17.70**	**15.60**	**5.70**	ND<0.39 U	NS	**3.40**	**7.10**	**7.70**	ND<0.39 U	ND<0.39 U	**2.70**	**10.00**	ND<0.39 U	**17.30**	ND<0.39 U	ND<0.39 U	ND<0.39 U	DRY

Parameter: Trichloroethene CAS No. 79-01-6

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	1	3	30		ND	NA	ND		ND	ND	ND	ND	ND							NS	ND	ND	
May-2008				0.13	ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
Nov-2008					ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
May-2009				0.13	ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
Jan-2010				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2010				0.23	ND	ND	**0.30 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.70 J**	ND	ND	ND	ND	ND	ND
Nov-2011				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.40 J**	ND	ND	ND	ND	ND	ND
Nov-2012				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2013				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	DRY
May-2014				0.23	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	DRY
Nov-2014				0.23	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	NS	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	DRY

Table 4
Historical Groundwater and Surface Water Quality Data
Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter: Toluene CAS No. 108-88-3

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	1	600	11		ND	NA	**0.20 J**		ND	ND	ND	ND	ND							NS	ND	ND	
May-2008				0.13	ND	ND	**0.30 J**		ND	ND	ND	ND	ND							ND	ND	ND	
Nov-2008					ND	ND	**0.40 J**		ND	ND	ND	ND	ND							ND	ND	**0.20 J**	
May-2009				0.13	ND	ND	**0.20 J**		ND	ND	ND	ND	ND							ND	ND	ND	
Jan-2010				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2010				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.30 J**	ND	ND	ND
May-2011				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.40 J**
Nov-2011				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.40 J**	**0.40 J**	**0.40 J**
May-2012				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.60 J**	ND	ND	**0.50 J**	ND	ND	ND
Nov-2012				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2013				0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.30 J**	**0.30 J**	**1.30**	ND	DRY
May-2014				0.23	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	**3.3**	**3.0**	ND<0.23 U	DRY
Nov-2014				0.23	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	NS	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	ND<0.23 U	**0.30 J**	ND<0.23 U	ND<0.23 U	ND<0.23 U	**0.30 J**	ND<0.23 U	DRY

Parameter: Vinyl Chloride CAS No. 75-01-4

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	1	0.03	2.4		ND	NA	**0.4 J**		ND	ND	ND	ND	ND							NS	ND	ND	
May-2008				0.34	ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
Nov-2008					ND	ND	**0.5 J**		ND	ND	ND	ND	ND							ND	ND	ND	
May-2009				0.34	ND	ND	ND		ND	ND	ND	ND	ND							ND	ND	ND	
Jan-2010				0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2010				0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2010				0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2011				0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov-2011				0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May-2012				0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.80 J**	ND	ND	ND	ND	ND	ND
Nov-2012				0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.90**	ND	ND	ND	ND	ND	ND
May-2013				0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.0**	ND	ND	ND	ND	ND	DRY
May-2014				0.63	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	**1.10**	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	DRY
Nov-2014				0.63	ND<0.63 U	ND<0.63 U	**2.00**	ND<0.63 U	ND<0.63 U	NS	ND<0.63 U	ND<0.63 U	**1.40**	ND<0.63 U	ND<0.63 U	ND<0.63 U	**3.40**	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	ND<0.63 U	DRY

Parameter: Xylenes CAS No. 1330-20-7

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
May-2014	5	500	670	0.68	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	DRY
Nov-2014				0.68	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	NS	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	ND<0.68 U	**0.90 J**	ND<0.68 U	**0.90 J**	ND<0.68 U	ND<0.68 U	ND<0.68 U	DRY

Table 4
Historical Groundwater and Surface Water Quality Data
Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Sulfide CAS No. 18496-25-8

Sample	Compliance Limit (µg/L)			MDL	Analytical Results (µg/L)																		
Date	SWSL	2L Standard	2B Standard		*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Jan-2010	1,000	NE	0.21	100	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-2010				100	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2010				100	NA	NA	**1,380**	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-2011				100	NA	NA	**544 J**	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2011				100	NA	NA	**2,795**	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-2012				100	NA	NA	**137 J**	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-2012				100	NA	NA	**644 J**	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-2013				100	ND	NA	**272 J**	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	DRY
May-2014				100	ND<100 U	NA	**467 J**	ND<100 U	NA	NA	NA	NA	ND<100 U	NA	NA	NA	**230 J**	NA	NA	NA	NA	NA	DRY
Nov-2014				100	ND<100 U	NA	ND<100 U	ND<100 U	NA	NS	NA	NA	ND<100 U	NA	NA	NA	ND<100 U	NA	NA	NA	NA	NA	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : pH (field)

Sample	Compliance Limit (S.U.)			Results (S.U. = Standard Units)																		
Date	SWSL	2L Standard	2B Standard	*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	NE	6.5 - 8.5	6.0 - 9.0	6.4	6.5	6.7		6.0	6.5	7.1	6.8	6.5							NM	7.1	7.0	
May-2008				6.1	6.3	6.6		5.9	6.9	6.8	6.5	6.4							6.0	6.9	6.2	
Nov-2008				6.6	6.6	6.6																
May-2009				6.2	6.3	6.6		6.3	6.9	6.8	6.6	6.5							5.6	6.9	6.1	
Jan-2010				5.8	5.8	6.4	6.5	6.0	6.2	5.7	5.7	6.2	7.1	5.8	6.4	5.7	5.1	5.7	5.5	6.7	6.0	5.6
May-2010				6.7	5.8	6.5	6.9	6.2	6.7	6.6	6.5	6.3	7.4	7.2	7.3	7.0	5.3	7.2	6.0	6.8	6.8	6.7
Nov-2010				6.1	5.9	6.5	6.6	6.1	6.0	6.8	6.8	6.5	7.2	7.1	7.3	6.3	5.6	6.6	6.1	6.4	7.3	6.5
May-2011				6.1	5.9	6.5	6.6	6.0	6.6	6.7	6.3	6.4	7.3	6.7	7.2	6.4	5.9	5.7	6.0	6.7	6.8	6.5
Nov-2011				6.1	5.8	6.4	6.5	6.1	6.5	6.6	6.5	6.4	7.4	6.9	7.2	7.5	5.7	6.1	6.0	6.8	6.5	6.5
May-2012				6.2	5.9	6.4	6.4	6.0	6.7	6.6	6.3	6.3	7.2	6.5	6.7	6.2	5.8	6.1	5.9	6.6	6.6	6.3
Nov-2012				6.3	6.4	6.5	6.4	6.1	6.9	6.5	6.6	6.5	7.4	6.7	6.6	6.5	5.9	5.5	6.2	6.9	7.0	6.3
May-2013				6.0	5.9	6.5	6.5	6.0	7.0	6.6	6.7	7.0	7.4	6.5	6.9	6.4	5.6	5.2	6.2	6.7	6.1	DRY
May-2014				6.1	6.4	6.4	6.3	6.3	6.7	6.0	6.5	6.2	7.3	5.6	7.3	6.3	5.8	5.9	6.1	6.7	6.1	DRY
Nov-2014				6.6	6.6	6.6	6.5	6.2	NS	6.7	6.8	6.6	7.3	5.9	6.6	6.6	5.4	5.8	7.0	7.1	5.9	DRY

Parameter : Conductivity (field)

Sample	Compliance Limit (µS/cm)			Results (µS/cm = microsiemens per centimeter)																		
Date	SWSL	2L Standard	2B Standard	*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	NE	NE	NE	821	912	1,399		332	905	1,711	1,395	1,602							168	879	123	
May-2008				1,116	426	1,553		398	873	553	502	1,333							189	245	147	
Nov-2008				992	1,441	1,802		433	824	1,601	1,263	1,330							NM	746	166	
May-2009				1,495	626	1,829		435	828	466	506	1,267							144	214	181	
Jan-2010				956	463	1,647	656	246	951	356	222	1,065	398	127	632	296	262	109	126	234	166	162
May-2010				916	380	3,105	475	515	1,587	1,802	2,129	1,619	411	356	577	421	171	408	114	285	188	171
Nov-2010				763	1,069	1,401	1,135	477	1,626	951	337	1,125	523	479	498	799	356	490	112	312	152	117
May-2011				674	1,494	1,954	567	607	2,290	1,159	1,247	1,816	411	889	600	1,522	422	369	129	183	412	149
Nov-2011				782	1,880	402	1,677	551	3,004	1,166	681	1,603	794	794	474	1,867	267	721	114	219	199	136
May-2012				918	1,990	1,553	1,746	930	1,569	1,111	1,471	1,546	397	943	844	1,861	385	1,157	123	348	160	107
Nov-2012				7,007	1,853	1,676	2,061	508	1,215	295	911	2,070	363	877	706	1,678	361	324	108	328	295	152
May-2013				501	1,404	1,223	1,330	480	1,294	1,198	2,520	3,090	356	1,140	864	1,612	271	1,519	124	237	71	DRY
May-2014				377	1,060	1,424	258	389	573	275	2,530	3,380	349	434	826	1,694	253	562	86	333	86	DRY
Nov-2014				871	2,880	2,870	2,400	397	NS	1,039	2,560	3,650	374	990	817	2,590	194	2,190	281	306	160	DRY

Parameter : Turbidity (field)

Sample	Compliance Limit (NTU)			Results (NTU = Nephelometric Turbidity Units)																		
Date	SWSL	2L Standard	2B Standard	*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*	*SW-1*	*SW-2*	*SW-3*	*SW-4*
Nov-2007	NE	NE	50	36	28			370	190	280	360	170										
May-2008				70	9.6	<1		100	200	25	230	220							NM	NM	NM	
Nov-2008				80	60	300													NM	NM	NM	
May-2009				280	34	230		120	17	20	65	55							NM	NM	NM	
Jan-2010				150	47	<1	55	300	110	17	35	135	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
May-2010				80	35	330	18	130	40	35	65	140	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Nov-2010				38	19	190	45	170	25	15	25	60	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
May-2011				18	24	270	95	110	200	14	34	330	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Nov-2011				31	17	170	140	150	20	16	25	320	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
May-2012				14	75	280	80	33	190	11	35	450	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Nov-2012				18	150	400	360	70	23	23	7.5	400	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
May-2013				8	7	2	6	17	6	6	5	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	DRY
May-2014				2.56	3.03	4.58	1.76	36.5	117	1.92	6.61	21.1	30.3	19.8	1.95	3.39	13.0	3.03	54.3	10.7	31.9	DRY
Nov-2014				1.39	28.1	1.81	2.50	7.22	NS	4.51	3.19	1.63	15.9	3.17	2.07	3.31	16.3	3.02	14.4	8.72	15.2	DRY

Table 4

Historical Groundwater and Surface Water Quality Data

Construction and Demolition Debris (C&D) Landfill, Pitt County (Permit #74-07), Pitt County, North Carolina

Parameter : Groundwater Elevation

Sample	Compliance Limit			Elevation (feet)														
Date	SWSL	2L Standard	2B Standard	*MW-1S*	*MW-2S*	*MW-3S*	*MW-3A*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9A*	*MW-10*	*MW-11*	*MW-12S*	*MW-13*	*MW-14S*
Nov-2007	Not Applicable			**11.03**	**9.56**	**10.28**		**10.74**	**10.47**	**9.65**	**9.98**	**10.63**						
May-2008				**11.05**	**10.93**	**11.02**		**11.84**	**11.30**	**10.58**	**11.00**	**11.35**						
Nov-2008				**10.31**	**9.14**	**9.77**		**10.03**	**10.14**	**9.35**	**9.51**	**10.07**						
May-2009				**11.77**	**10.32**	**10.56**		**11.62**	**10.90**	**10.19**	**10.72**	**10.76**						
Jan-2010				**13.74**	**11.65**	**11.42**	**11.12**	**12.19**	**12.04**	**11.07**	**11.60**	**11.70**	**14.94**	**13.61**	**11.52**	**11.71**	**12.45**	**12.51**
May-2010				**11.87**	**10.83**	**10.70**	**10.36**	**11.62**	**11.33**	**10.64**	**11.06**	**12.74**	**13.76**	**12.50**	**11.02**	**12.03**	**11.22**	**11.41**
Nov-2010				**12.71**	**11.43**	**11.14**	**10.61**	**11.61**	**11.70**	**10.88**	**11.24**	**11.62**	**14.50**	**12.78**	**8.35**	**11.25**	**12.44**	**12.59**
May-2011				**11.97**	**10.56**	**10.71**	**10.39**	**11.49**	**11.19**	**10.40**	**10.85**	**11.25**	**13.57**	**12.33**	**10.26**	**11.00**	**12.01**	**12.03**
Nov-2011				**12.71**	**11.88**	**11.29**	**10.83**	**11.92**	**11.64**	**10.61**	**11.14**	**11.76**	**14.46**	**12.69**	**11.24**	**11.51**	**12.10**	**12.03**
May-2012				**12.04**	**10.43**	**10.53**	**10.31**	**11.49**	**11.10**	**10.30**	**10.79**	**11.36**	**13.67**	**12.21**	**10.33**	**11.06**	**11.86**	**11.99**
Nov-2012				**12.71**	**10.50**	**10.68**	**10.50**	**11.80**	**11.32**	**10.49**	**10.79**	**11.49**	**14.60**	**12.68**	**10.94**	**10.70**	**11.51**	**11.49**
May-2013				**12.55**	**10.71**	**10.90**	**10.42**	**11.85**	**11.45**	**10.44**	**11.08**	**11.58**	**13.99**	**12.28**	**10.32**	**10.50**	**10.77**	**11.00**
May-2014				**13.31**	**11.43**	**11.55**	**11.13**	**11.86**	**11.60**	**11.13**	**11.70**	**12.27**	**13.97**	**12.68**	**10.82**	**10.93**	**11.29**	**11.49**
Nov-2014				**12.17**	**10.33**	**10.38**	**10.03**	**11.70**	NS	**10.68**	**11.75**	**11.21**	**14.39**	**12.59**	**11.15**	**10.58**	**10.57**	**10.84**

NOTES:

1. This table shows historically detected constituents only, in either groundwater or surface water samples.
   Historical data is taken from July 2013 Water Quality Monitoring Report for May 2013 prepared by David Garrett & Associates Engineering and Geology.
2. MW-1S through MW-14S indicate Phase 1 and Phase 2 monitoring groundwater wells. SW-1 through SW-4 indicate surface water sampling locations.
3. Phase 1 monitoring wells are as follows: MW-1S, MW-2S, MW-4, MW-5, MW-6, MW-7 (detection monitoring program) and MW-3S, MW-3A and MW-8 (detection and assessment monitoring program).
4. Phase 2 monitoring wells are as follows: MW-9A (background well), MW-10, MW-11, MW-12S, MW-13, and MW-14S (detection monitoring program).
5. Compliance Limit = SWSL or 2L or 2B Standard.
6. SWSL = Solid Waste Section Limit (June 13, 2011).
7. µg/L = micrograms per liter. mg/L = milligrams per liter.
8. 2L Standard = NCAC Title 15A Subchapter 2L Classifications and Water Quality Standards Applicable to the GWs of North Carolina (April 1, 2013).
9. 2B Standard = Standards, criteria, or toxic concentrations either adopted per 15A NCAC 2B or National Criteria per EPA (Current as of 5/15/2013).
10. MDL = Method Detection Limit.
11. ND or ND< U = not detected above the method detection limit.
12. J indicates the detected result is above MDL and below the SWSL. U indicates concentration below MDL and MRL; non-detect.
13. NA = Not Analyzed or Not Applicable. NE = Not Established. NS = Not Sampled.
14. **Bold font** indicates analyte detection above MDL.
15. **Shaded field** denotes result that was at or above the Compliance Limit.
16. Blank cells indicate that there is no relevant information available.

ATTACHMENT 1

Laboratory Analytical Results

Environment 1, Incorporated

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

ID#: 6003

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH ,NC 27603-3415

DATE COLLECTED: 11/25/14
DATE REPORTED : 01/02/15

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-3A	MW-4	MW-5	MW-6	MW-7	Analysis Date	Analyst	Method Code
PH (field measurement), Units			6.5	6.2	Missing	6.7	6.8	11/26/14	BF	4500HB-00
Cyanide, ug/l	5.0	10.0	--- U					12/01/14	SEJ	4500CNE-99
Antimony, ug/l	0.12	6.0	--- U					12/08/14	LFJ	EPA200.8
Antimony, ug/l	0.12	6.0		0.78 J	Missing	0.18 J	0.22 J	12/09/14	LFJ	EPA200.8
Arsenic, ug/l	0.10	10.0	4.5 J					12/08/14	LFJ	EPA200.8
Arsenic, ug/l	0.10	10.0		0.66 J	Missing	3.4 J	4.1 J	12/09/14	LFJ	EPA200.8
Barium, ug/l	0.12	100.0	123					12/08/14	LFJ	EPA200.8
Barium, ug/l	0.12	100.0		7.3 J	Missing	246	398	12/09/14	LFJ	EPA200.8
Beryllium, ug/l	0.04	1.0	--- U					12/08/14	TRB	EPA200.8
Beryllium, ug/l	0.04	1.0		--- U	Missing	--- U	--- U	12/09/14	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.12 J					12/08/14	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0		--- U	Missing	0.20 J	0.26 J	12/09/14	LFJ	EPA200.8
Cobalt, ug/l	0.12	10.0	15					12/08/14	LFJ	EPA200.8
Cobalt, ug/l	0.12	10.0		0.13 J	Missing	2.8 J	5.0 J	12/09/14	LFJ	EPA200.8
Copper, ug/l	0.10	10.0	0.74 J					12/08/14	LFJ	EPA200.8
Copper, ug/l	0.10	10.0		5.5 J	Missing	0.61 J	4.8 J	12/09/14	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0	2.8 J					12/08/14	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0		--- U	Missing	2.6 J	11	12/09/14	LFJ	EPA200.8
Lead, ug/l	0.13	10.0	--- U					12/08/14	LFJ	EPA200.8
Lead, ug/l	0.13	10.0		0.31 J	Missing	--- U	0.22 J	12/09/14	LFJ	EPA200.8
Mercury, ug/l	0.06	0.20	--- U					12/01/14	MTM	245.1 R3-9
Nickel, ug/l	0.12	50.0	6.7 J					12/08/14	LFJ	EPA200.8
Nickel, ug/l	0.12	50.0		1.5 J	Missing	3.1 J	6.0 J	12/09/14	LFJ	EPA200.8
Selenium, ug/l	0.44	10.0	7.2 J					12/08/14	LFJ	EPA200.8
Selenium, ug/l	0.44	10.0		2.6 J	Missing	1.7 J		12/09/14	LFJ	EPA200.8
Selenium, ug/l	0.44	10.0					--- U	12/23/14	LFJ	3113B-04
Silver, ug/l	0.04	10.0	--- U					12/08/14	LFJ	EPA200.8
Silver, ug/l	0.04	10.0		0.06 J	Missing	--- U	--- U	12/09/14	LFJ	EPA200.8
Thallium, ug/l	0.13	5.5	--- U					12/08/14	LFJ	EPA200.8
Thallium, ug/l	0.13	5.5		--- U	Missing	--- U	--- U	12/09/14	LFJ	EPA200.8
Tin, ug/l	0.05	100.0	--- U					12/08/14	LFJ	EPA200.8
Vanadium, ug/l	0.06	25.0	0.14 J					12/08/14	LFJ	EPA200.8
Vanadium, ug/l	0.06	25.0		0.44 J	Missing	1.2 J	1.3 J	12/09/14	LFJ	EPA200.8
Zinc, ug/l	0.53	10.0	3.0 J					12/08/14	LFJ	EPA200.8
Zinc, ug/l	0.53	10.0		50	Missing	0.54 J	1.4 J	12/09/14	LFJ	EPA200.8
Sulfide, ug/l	100	1000	--- U					12/01/14	LFJ	4500S2D-00
Conductivity (at 25c), uMhos/cm	1.0	1.0	2400	397	Missing	1039	2560	11/25/14	BF	2510B-97
Temperature, °C			18	17	Missing	18	17	11/25/14	BF	2550B-00
Static Water Level, feet			11.90	6.72	Missing	9.35	7.65	11/25/14	BF	
Well Depth, feet			23.44	15.98	Missing	16.65	16.33	11/25/14	BF	
Turbidity (Field), NTU	1.0	1.0	2.50	7.22	Missing	4.51	3.19	11/25/14	BF	2130B-01

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

PHONE (252) 756-6208
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ID#: 6003

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH ,NC 27603-3415

DATE COLLECTED: 11/25/14
DATE REPORTED : 01/02/15

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-8	Well #1 Shallow	Well #2 Shallow	Well #3 Shallow	Analysis Date	Analyst	Method Code
PH (field measurement), Units			6.6	6.6	6.6	6.6	11/26/14	BF	4500HB-00
Cyanide, ug/l	5.0	10.0	--- U	--- U		--- U	12/01/14	SEJ	4500CNE-99
Antimony, ug/l	0.12	6.0	0.20 J	016	0.16 J	0.14 J	12/09/14	LFJ	EPA200.8
Arsenic, ug/l	0.10	10.0	10		7 J		12/11/14	MTM	EPA200.8
Arsenic, ug/l	0.10	10.0		0.86 J		9 J	12/09/14	LFJ	EPA200.8
Barium, ug/l	0.12	100.0	189	64.5 J	273	675	12/09/14	LFJ	EPA200.8
Beryllium, ug/l	0.04	1.0	0.04 J	--- U	0.11 J	--- U	12/09/14	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.08 J	0.12 J	0.44 J	0.17 J	12/09/14	LFJ	EPA200.8
Cobalt, ug/l	0.12	10.0	12	0.33 J	5.6 J	2.6 J	12/09/14	LFJ	EPA200.8
Copper, ug/l	0.10	10.0	1.2 J	0.94 J	2.0 J	1.5 J	12/09/14	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0	5.8 J	1.6 J	3.5 J	5.1 J	12/09/14	LFJ	EPA200.8
Lead, ug/l	0.13	10.0	--- U	0.18 J	083	--- U	12/09/14	LFJ	EPA200.8
Mercury, ug/l	0.06	0.20	--- U	--- U		--- U	12/01/14	MTM	245.1 R3-94
Nickel, ug/l	0.12	50.0	8.4 J	2.6 J	5.9 J	5.7 J	12/09/14	LFJ	EPA200.8
Selenium, ug/l	0.16	10.0	--- U		--- U		12/15/14	MTM	EPA200.8
Selenium, ug/l	0.16	10.0		3.0 J		--- U	12/09/14	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	--- U	--- U	--- U	12/09/14	LFJ	EPA200.8
Thallium, ug/l	0.13	5.5	--- U	--- U	--- U	--- U	12/09/14	LFJ	EPA200.8
Tin, ug/l	0.05	100.0	0.22 J	--- U		0.96 J	12/09/14	LFJ	EPA200.8
Vanadium, ug/l	0.06	25.0	1.1 J	0.96 J	2.3 J	2.5 J	12/09/14	LFJ	EPA200.8
Zinc, ug/l	0.53	10.0	2.8 J	1.2 J	3.2 J	2.4 J	12/09/14	LFJ	EPA200.8
Sulfide, ug/l	100	1000	--- U	--- U		--- U	12/01/14	LFJ	4500S2D-00
Conductivity (at 25c), uMhos/cm	1.0	1.0	3650	871	2880	2870	11/25/14	BF	2510B-97
Temperature, °C			20	19	19	21	11/25/14	BF	2550B-00
Static Water Level, feet			10.00	8.74	11.11	12.64	11/25/14	BF	
Well Depth, feet			20.36	17.21	16.57	22.24	11/25/14	BF	
Turbidity (Field), NTU	1.0	1.0	1.63	1.39	28.1	1.81	11/25/14	BF	2130B-01

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

PHONE (252) 756-6208
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CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 11/26/14
DATE ANALYZED: 12/30/14
DATE REPORTED: 01/02/15

PESTICIDES AND PCB'S
EPA METHOD 8081B R2(07)

PARAMETERS, ug/l	MDL	SWSL	MW-3A	MW-8	Well #1 Shallow	Well #3 Shallow
1. Aldrin	0.029	0.05	--- U	--- U	--- U	--- U
2. Alpha-BHC	0.032	0.05	--- U	--- U	--- U	--- U
3. Beta-BHC	0.031	0.05	--- U	--- U	--- U	--- U
4. Delta-BHC	0.030	0.05	--- U	--- U	--- U	--- U
5. Gamma-BHC (Lindane)	0.032	0.05	--- U	--- U	--- U	--- U
6. Chlordane	0.320	0.50	--- U	--- U	--- U	--- U
7. 4,4-DDD	0.051	0.10	--- U	--- U	--- U	--- U
8. 4,4-DDE	0.049	0.10	--- U	--- U	--- U	--- U
9. 4,4-DDT	0.052	0.10	--- U	--- U	--- U	--- U
10. Dieldrin	0.042	0.075	--- U	--- U	--- U	--- U
11. Endosulfan I	0.056	0.10	--- U	--- U	--- U	--- U
12. Endosulfan II	0.046	0.10	--- U	--- U	--- U	--- U
13. Endosulfan Sulfate	0.072	0.10	--- U	--- U	--- U	--- U
14. Endrin	0.053	0.10	--- U	--- U	--- U	--- U
15. Endrin Aldehyde	0.068	0.10	--- U	--- U	--- U	--- U
16. Heptachlor	0.039	0.05	--- U	--- U	--- U	--- U
17. Heptachlor Epoxide	0.042	0.075	--- U	--- U	--- U	--- U
18. Methoxychlor	0.530	1.00	--- U	--- U	--- U	--- U
19. Pcb's (Aroclors)	0.500	2.00	--- U	--- U	--- U	--- U
20. Toxaphene	0.690	1.50	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 12/02/14
DATE ANALYZED: 12/30/14
DATE REPORTED: 01/02/15

LANDFILL APPENDIX II
EPA METHOD 8151A R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-3A	MW-8	Well #1 Shallow	Well #3 Shallow
1. 2,4-D	0.36	2.0	--- U	--- U	--- U	--- U
2. Dinoseb	0.54	1.0	--- U	--- U	--- U	--- U
3. 2,4,5-TP	0.42	2.0	--- U	--- U	--- U	--- U
4. 2,4,5-T	0.47	2.0	--- U	--- U	--- U	--- U

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Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
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RALEIGH, NC 27603-3415

CLIENT ID: 6003

ANALYST: MAO
DATE COLLECTED: 11/25/14
DATE ANALYZED: 12/02/14
DATE REPORTED: 01/02/15

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-4	MW-6	MW-7	Well #2 Shallow
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	0.30 J	0.60 J
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U
48. Tetrahydrofuran	0.39	1.0	--- U	3.40	7.10	17.70

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Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 11/26/14
DATE ANALYZED: 12/31/14
DATE REPORTED: 01/02/15

SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4(07)

PARAMETERS, ug/l	MDL	SWSL	MW-3A	MW-8	Well #1 Shallow	Well #3 Shallow
1. Acenaphthene	2.66	10.0	--- U	--- U	--- U	--- U
2. Acenaphthylene	2.60	10.0	--- U	--- U	--- U	--- U
3. Anthracene	2.97	10.0	--- U	--- U	--- U	--- U
4. Benzo[a]antrhacene	4.16	10.0	--- U	--- U	--- U	--- U
5. Benzo[b]fluoranthene	3.32	10.0	--- U	--- U	--- U	--- U
6. Benzo[k]fluoranthene	4.23	10.0	--- U	--- U	--- U	--- U
7. Benzo[g,h,i]perylene	2.61	10.0	--- U	--- U	--- U	--- U
8. Benzo[a]pyrene	3.27	10.0	--- U	--- U	--- U	--- U
9. 4-Bromophenyl Phenyl Ether	2.63	10.0	--- U	--- U	--- U	--- U
10. Butyl Benzyl Phthalate	5.78	10.0	--- U	--- U	--- U	--- U
11. Bis-(2-Chloroethoxy) Methane	3.14	10.0	--- U	--- U	--- U	--- U
12. Bis-(2-Chloroethyl) Ether	2.58	10.0	--- U	--- U	--- U	--- U
13. Bis-(2-Chloroisopropyl) Ether	2.58	10.0	--- U	--- U	--- U	--- U
14. 2-Chloronaphthalene	2.17	10.0	--- U	--- U	--- U	--- U
15. 4-Chlorophenyl Phenyl Ether	2.42	10.0	--- U	--- U	--- U	--- U
16. Chrysene	4.04	10.0	--- U	--- U	--- U	--- U
17. Dibenzo[a,h]anthracene	2.78	10.0	--- U	--- U	--- U	--- U
18. Di-N-Butyl Phthalate	3.09	10.0	--- U	--- U	--- U	--- U
19. Dimethyl Phthalate	3.78	10.0	--- U	--- U	--- U	--- U
20. Diethyl Phthalate	3.92	10.0	--- U	--- U	--- U	--- U
21. 2,4-Dinitrotoluene	3.95	10.0	--- U	--- U	--- U	--- U
22. 2,6-Dinitrotoluene	3.88	10.0	--- U	--- U	--- U	--- U
23. Di-N-Octyl Phthalate	2.81	10.0	--- U	--- U	--- U	--- U
24. Bis-(2-Ethylhexyl) Phthalate	9.97	15.0	--- U	--- U	--- U	--- U
25. Fluoranthene	3.92	10.0	--- U	--- U	--- U	--- U
26. Fluorene	2.95	10.0	--- U	--- U	--- U	--- U
27. Hexachlorobenzene	2.61	10.0	--- U	--- U	--- U	--- U
28. Hexachlorocyclopentadiene	4.16	10.0	--- U	--- U	--- U	--- U
29. Indeno[1,2,3-Cd]pyrene	2.91	10.0	--- U	--- U	--- U	--- U
30. Isophorone	3.74	10.0	--- U	--- U	--- U	--- U
31. Nitrobenzene	2.85	10.0	--- U	--- U	--- U	--- U
32. N-Nitrosodimethylamine	4.25	10.0	--- U	--- U	--- U	--- U
33. N-Nitrosodiphenylamine	3.95	10.0	--- U	--- U	--- U	--- U
34. N-Nitrosodi-N-Propylamine	4.06	10.0	--- U	--- U	--- U	--- U
35. Phenanthrene	3.24	10.0	--- U	--- U	--- U	--- U
36. Pyrene	3.63	10.0	--- U	--- U	--- U	--- U
37. 4-Chloro-3-Methylphenol	3.79	20.0	--- U	--- U	--- U	--- U
38. 2-Chlorophenol	2.75	10.0	--- U	--- U	--- U	--- U
39. O-Cresol	3.68	10.0	--- U	--- U	--- U	--- U
40. P-Cresol	4.12	10.0	--- U	--- U	--- U	--- U
41. 2,4-Dichlorophenol	5.19	10.0	--- U	--- U	--- U	--- U
42. 2,6-Dichlorophenol	4.89	10.0	--- U	--- U	--- U	--- U
43. 2,4-Dimethylphenol	3.21	10.0	--- U	--- U	--- U	--- U
44. 4,6-Dinitro-2-Methylphenol	4.77	50.0	--- U	--- U	--- U	--- U
45. 2,4-Dinitrophenol	4.37	50.0	--- U	--- U	--- U	--- U
46. Ethyl Methanesulfonate	5.26	20.0	--- U	--- U	--- U	--- U
47. Methyl Methanesulfonate	4.92	10.0	--- U	--- U	--- U	--- U
48. 2-Nitrophenol	3.64	10.0	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
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CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
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RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 11/26/14
DATE ANALYZED: 12/31/14
DATE REPORTED: 01/02/15

SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4(07)

PARAMETERS, ug/l	MDL	SWSL	MW-3A	MW-8	Well #1 Shallow	Well #3 Shallow
49. 4-Nitrophenol	3.17	50.0	--- U	--- U	--- U	--- U
50. Pentachlorophenol	5.33	25.0	--- U	--- U	--- U	--- U
51. Phenol	1.86	10.0	--- U	--- U	--- U	--- U
52. 2,3,4,6-Tetrachlorophenol	3.12	10.0	--- U	--- U	--- U	--- U
53. 2,4,5-Trichlorophenol	4.17	10.0	--- U	--- U	--- U	--- U
54. 2,4,6-Trichlorophenol	3.84	10.0	--- U	--- U	--- U	--- U
55. Acetophenone	2.89	10.0	--- U	--- U	--- U	--- U
56. 2-Acetylaminofluorene	3.98	20.0	--- U	--- U	--- U	--- U
57. 4-Aminobiphenyl	4.12	20.0	--- U	--- U	--- U	--- U
58. Benzyl Alcohol	4.47	20.0	--- U	--- U	--- U	--- U
59. 4-Chloroaniline	3.36	20.0	--- U	--- U	--- U	--- U
60. Chlorobenzilate	5.12	10.0	--- U	--- U	--- U	--- U
61. Diallate	2.98	10.0	--- U	--- U	--- U	--- U
62. Dibenzofuran	4.28	10.0	--- U	--- U	--- U	--- U
63. 3,3-Dichlorobenzidine	4.22	20.0	--- U	--- U	--- U	--- U
64. Dimethoate	3.98	20.0	--- U	--- U	--- U	--- U
65. P-Dimethylaminoazobenzene	2.89	10.0	--- U	--- U	--- U	--- U
66. 7,12-Dimethylbenz(a)anthracene	5.26	10.0	--- U	--- U	--- U	--- U
67. 3,3-Dimethylbenzadine	3.21	10.0	--- U	--- U	--- U	--- U
68. 1,3-Dinitrobenzene	2.89	20.0	--- U	--- U	--- U	--- U
69. Diphenylamine	5.10	10.0	--- U	--- U	--- U	--- U
70. Disulfoton	4.28	10.0	--- U	--- U	--- U	--- U
71. Famphur	3.98	20.0	--- U	--- U	--- U	--- U
72. Hexachloropropene	4.31	10.0	--- U	--- U	--- U	--- U
73. Isosafrole	2.88	10.0	--- U	--- U	--- U	--- U
74. Kepone	2.78	20.0	--- U	--- U	--- U	--- U
75. Methapyrilene	3.54	100.0	--- U	--- U	--- U	--- U
76. 3-Methylchloroanthrene	4.21	10.0	--- U	--- U	--- U	--- U
77. 2-Methylnaphthalene	3.79	10.0	--- U	--- U	--- U	--- U
78. Methyl Parathion	4.32	10.0	--- U	--- U	--- U	--- U
79. m-Cresol	3.81	10.0	--- U	--- U	--- U	--- U
80. 1,4-Naphthoquinone	4.00	10.0	--- U	--- U	--- U	--- U
81. 1-Naphthylamine	5.61	10.0	--- U	--- U	--- U	--- U
82. 2-Naphthylamine	4.62	10.0	--- U	--- U	--- U	--- U
83. 2-Nitroaniline	3.61	50.0	--- U	--- U	--- U	--- U
84. 3-Nitroaniline	4.81	50.0	--- U	--- U	--- U	--- U
85. 4-Nitroaniline	4.22	20.0	--- U	--- U	--- U	--- U
86. 5-Nitro-O-Toluidine	4.01	10.0	--- U	--- U	--- U	--- U
87. N-Nitrosodi-n-butylamine	3.63	10.0	--- U	--- U	--- U	--- U
88. N-Nitrosodiethylamine	3.83	20.0	--- U	--- U	--- U	--- U
89. N-Nitrosomethylethylamine	3.83	10.0	--- U	--- U	--- U	--- U
90. N-Nitrosopiperidine	5.19	20.0	--- U	--- U	--- U	--- U
91. N-Nitrosopyrrolidine	2.89	10.0	--- U	--- U	--- U	--- U
92. Parathion	3.12	10.0	--- U	--- U	--- U	--- U
93. Pentachlorobenzene	3.92	10.0	--- U	--- U	--- U	--- U
94. Pentachloronitrobenzene	3.71	20.0	--- U	--- U	--- U	--- U
95. Phenacetin	4.41	20.0	--- U	--- U	--- U	--- U
96. 1,4 Benzenediamine	2.99	10.0	--- U	--- U	--- U	--- U

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Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
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RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 11/26/14
DATE ANALYZED: 12/31/14
DATE REPORTED: 01/02/15

SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4(07)

PARAMETERS, ug/l	MDL	SWSL	MW-3A	MW-8	Well #1 Shallow	Well #3 Shallow
97. Phorate	3.86	10.0	--- U	--- U	--- U	--- U
98. Pronamide	3.69	10.0	--- U	--- U	--- U	--- U
99. Safrole	4.12	10.0	--- U	--- U	--- U	--- U
100. 1,2,4,5-Tetrachlorobenzene	5.01	10.0	--- U	--- U	--- U	--- U
101. Thionazin	4.62	20.0	--- U	--- U	--- U	--- U
102. O-Toluidine	4.11	10.0	--- U	--- U	--- U	--- U
103. 1,3,5-Trinitrobenzene	3.98	10.0	--- U	--- U	--- U	--- U
104. 0,0,0-Triethyl Phosphorothioate	3.61	10.0	--- U	--- U	--- U	--- U
105. Hexachloroethane	1.49	10.0	--- U	--- U	--- U	--- U
106. Isodrin	3.11	20.0	--- U	--- U	--- U	--- U

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RALEIGH, NC 27603-3415

CLIENT ID: 6003

ANALYST: MAO
DATE COLLECTED: 11/25/14
DATE ANALYZED: 12/03/14
DATE REPORTED: 01/02/15

REVIEWED BY:

LANDFILL APPENDIX II
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-3A	MW-8	Well #1 Shallow	Well #3 Shallow
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	1.40	--- U	2.00
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	0.50 J	0.80 J	--- U	2.10
21. 1,2-Dichloroethane	0.21	1.0	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	0.30 J
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U
48. Acrolein	40.57	53.0	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

CLIENT ID: 6003

ANALYST: MAO
DATE COLLECTED: 11/25/14
DATE ANALYZED: 12/03/14
DATE REPORTED: 01/02/15

REVIEWED BY:

LANDFILL APPENDIX II
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-3A	MW-8	Well #1 Shallow	Well #3 Shallow
49. Allyl Chloride	0.20	10.0	--- U	--- U	--- U	--- U
50. Chloroprene	0.21	20.0	--- U	--- U	--- U	--- U
51. 1,3-Dichlorobenzene	0.41	5.0	--- U	--- U	--- U	--- U
52. Dichlorodifluoromethane	0.51	5.0	--- U	--- U	--- U	--- U
53. 1,3-Dichloropropane	0.28	1.0	--- U	--- U	--- U	--- U
54. 2,2-Dichloropropane	0.17	15.0	--- U	--- U	--- U	--- U
55. 1,1-Dichloropropene	0.22	5.0	--- U	--- U	--- U	--- U
56. Ethyl Methacrylate	0.16	10.0	--- U	--- U	--- U	--- U
57. Hexachlorobutadiene	0.57	10.0	--- U	--- U	--- U	--- U
58. Isobutyl Alcohol	12.80	100.0	--- U	--- U	--- U	--- U
59. Methacrylonitrile	1.93	100.0	--- U	--- U	--- U	--- U
60. Methyl Methacrylate	0.25	30.0	--- U	--- U	--- U	--- U
61. Naphthalene	0.47	10.0	--- U	--- U	--- U	2.90 J
62. Propionitrile	3.26	150.0	--- U	--- U	--- U	--- U
63. 1,2,4-Trichlorobenzene	0.50	10.0	--- U	--- U	--- U	--- U
64. Acetonitrile	36.29	55.0	--- U	--- U	--- U	--- U
65. Tetrahydrofuran	0.39	1.0	5.70	7.70	--- U	15.60

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

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858
environment1inc.com
Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6003 **Week:** 48

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH NC 27603

(919) 418-4375

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION																		
pH CHECK (LAB)																		
CONTAINER TYPE, P/G																		
CHEMICAL PRESERVATION																		
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Cyanide	Metals	Sulfide	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	EPA 8270D	8270D Dup. 1	EPA 8081B	8081B Duplicate	8260B App. II	8151A Landfill	8151A Duplicate
MW-3A	11-25-14	0900		18	12	G	G	G	G	G	G	G		G	G	G	G	G	G	G	G
MW-4	11-25-14	1110		17	4	G		G		G	G	G	G	G							
MW-5	11-25-14				4																
MW-6	11-25-14	1030		18	4	G		G		G	G	G	G	G							
MW-7	11-25-14	1050		17	4	G		G		G	G	G	G	G							
MW-8	11-25-14	0820		20	12	G	G	G	G	G	G	G		G	G	G	G	G	G	G	G
Well #1 Shallow	11-25-14	0750		19	12	G	G	G	G	G	G	G		G	G	G	G	G	G	G	G
Well #2 Shallow	11-25-14	1010		19	4	G		G		G	G	G	G	G							
Well #3 Shallow	11-25-14	0935		21	12	G	G	G	G	G	G	G		G	G	G	G	G	G	G	G
Trip Blank					2									G					G		

PARAMETERS/TESTS

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

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

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

SAMPLES COLLECTED BY: (Please Print) Bobby / Tom

SAMPLES RECEIVED IN LAB AT 0-2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bobby Tom	11-25-14 / 2:54	B. Dia	11/25/14 / 258
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS: Well Five NOT enough water to Sample. WD was 21.06 now only 7.09

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

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

FORM #5

№ 289575

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858
environment1inc.com
Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6003 **Week:** 48

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH NC 27603

(919) 418-4375

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parmeter															
																					CHLORINE NEUTRALIZED AT COLLECTION
																					pH CHECK (LAB)
						P															CONTAINER TYPE, P/G
						A															CHEMICAL PRESERVATION
MW-3A	11-25-14	0900		18	12	G															
MW-4	11-25-14	1110		17	4	G															
MW-5	~~[illegible]~~				4																
MW-6	11-25-14	1030		18	4	G															
MW-7	11-25-14	1050		17	4	G															
MW-8	11-25-14	0820		20	12	G															
Well #1 Shallow	11-25-14	0750		19	12	G															
Well #2 Shallow	11-25-14	1010		19	4	G															
Well #3 Shallow	11-25-14	0935		21	12	G															
Trip Blank					2																

PARAMETERS/TESTS

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

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [x] SOLID WASTE SECTION

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

SAMPLES COLLECTED BY: (Please Print)
Bobby / Tom

SAMPLES RECEIVED IN LAB AT 0-2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bobby Tom	11-25-14 2:54	[signature]	11/25/14 258
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

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

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

FORM #5

№ 289574

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

ID#: 6003 D

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH ,NC 27603-3415

DATE COLLECTED: 11/25/14
DATE REPORTED : 01/02/15

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-9A	MW-10	MW-11	MW-13	MW-12s	Analysis Date	Analyst	Method Code
PH (field measurement), Units			7.3	5.9	6.6	5.4	6.6	11/26/14	BF	4500HB-00
Cyanide, ug/l	5.0	10.0					--- U	12/01/14	SEJ	4500CNE-99
Antimony, ug/l	0.12	6.0	--- U	0.24 J	0.24 J		0.34 J	12/09/14	LFJ	EPA200.8
Antimony, ug/l	0.12	6.0				--- U		12/08/14	LFJ	EPA200.8
Arsenic, ug/l	0.10	10.0	--- U	0.84 J	0.17 J		36	12/09/14	LFJ	EPA200.8
Arsenic, ug/l	0.10	10.0				0.37 J		12/08/14	LFJ	EPA200.8
Barium, ug/l	0.12	100.0	32.1 J	100	19.7 J		515	12/09/14	LFJ	EPA200.8
Barium, ug/l	0.12	100.0				69.9 J		12/08/14	LFJ	EPA200.8
Beryllium, ug/l	0.04	1.0	--- U	0.04 J	0.24 J		--- U	12/09/14	LFJ	EPA200.8
Beryllium, ug/l	0.04	1.0				0.08 J		12/08/14	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.31 J	0.21 J	0.58 J		0.26 J	12/09/14	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0				0.18 J		12/08/14	LFJ	EPA200.8
Cobalt, ug/l	0.12	10.0	--- U	0.49 J	0.66 J		1.1 J	12/09/14	LFJ	EPA200.8
Cobalt, ug/l	0.12	10.0				0.47 J		12/08/14	LFJ	EPA200.8
Copper, ug/l	0.10	10.0	0.51 J	0.76 J	0.96 J		1.2 J	12/09/14	LFJ	EPA200.8
Copper, ug/l	0.10	10.0				0.40 J		12/08/14	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0	--- U	1.1 J	0.34 J		21	12/09/14	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0				0.35 J		12/08/14	LFJ	EPA200.8
Lead, ug/l	0.13	10.0	--- U	--- U	--- U		--- U	12/09/14	LFJ	EPA200.8
Lead, ug/l	0.13	10.0				0.52 J		12/08/14	LFJ	EPA200.8
Mercury, ug/l	0.06	0.20					--- U	12/01/14	MTM	245.1 R3-9
Nickel, ug/l	0.12	50.0	1.2 J	1.8 J	4.5 J		6.7 J	12/09/14	LFJ	EPA200.8
Nickel, ug/l	0.12	50.0				1.1 J		12/08/14	LFJ	EPA200.8
Selenium, ug/l	0.44	10.0	--- U	1.8 J	--- U			12/09/14	LFJ	EPA200.8
Selenium, ug/l	0.44	10.0				0.62 J		12/08/14	LFJ	EPA200.8
Selenium, ug/l	0.44	10.0					--- U	12/23/14	LFJ	3113B-04
Silver, ug/l	0.04	10.0	--- U	--- U	0.04 J		--- U	12/09/14	LFJ	EPA200.8
Silver, ug/l	0.04	10.0				--- U		12/08/14	LFJ	EPA200.8
Thallium, ug/l	0.13	5.5	--- U	--- U	--- U		--- U	12/09/14	LFJ	EPA200.8
Thallium, ug/l	0.13	5.5				--- U		12/08/14	LFJ	EPA200.8
Tin, ug/l	0.05	100.0					0.18 J	12/09/14	LFJ	EPA200.8
Vanadium, ug/l	0.06	25.0	0.48 J	4.4 J	0.34 J		11.0 J	12/09/14	LFJ	EPA200.8
Vanadium, ug/l	0.06	25.0				1.3 J		12/08/14	LFJ	EPA200.8
Zinc, ug/l	0.53	10.0	1.3 J	1.4 J	3.1 J		1.9 J	12/09/14	LFJ	EPA200.8
Zinc, ug/l	0.53	10.0				4.6 J		12/08/14	LFJ	EPA200.8
Sulfide, ug/l	100	1000					--- U	12/01/14	LFJ	4500S2D-00
Conductivity (at 25c), uMhos/cm	1.0	1.0	374	990	817	194	2590	11/25/14	BF	2510B-97
Temperature, °C			18	17	18	20	19	11/25/14	BF	2550B-00
Static Water Level, feet			6.19	4.02	3.34	10.12	5.60	11/25/14	BF	
Well Depth, feet			23.17	22.73	23.80	22.68	22.93	11/25/14	BF	
Turbidity (Field), NTU	1.0	1.0	15.9	3.17	2.07	16.3	3.31	11/25/14	BF	2130B-01

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

ID#: 6003 D

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH ,NC 27603-3415

DATE COLLECTED: 11/25/14
DATE REPORTED : 01/02/15

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-14S	Trip Blank	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.8		11/26/14	BF	4500HB-00
Antimony, ug/l	0.12	6.0	0.21 J		12/09/14	LFJ	EPA200.8
Arsenic, ug/l	0.10	10.0	6.9 J		12/09/14	LFJ	EPA200.8
Barium, ug/l	0.12	100.0	207		12/09/14	LFJ	EPA200.8
Beryllium, ug/l	0.04	1.0	0.08 J		12/09/14	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.26 J		12/09/14	LFJ	EPA200.8
Cobalt, ug/l	0.12	10.0	1.8 J		12/09/14	LFJ	EPA200.8
Copper, ug/l	0.10	10.0	1.1 J		12/09/14	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0	14		12/09/14	LFJ	EPA200.8
Lead, ug/l	0.13	10.0	1.4 J		12/09/14	LFJ	EPA200.8
Nickel, ug/l	0.12	50.0	6.9 J		12/09/14	LFJ	EPA200.8
Selenium, ug/l	0.16	10.0	--- U		12/15/14	MTM	EPA200.8
Silver, ug/l	0.04	10.0	--- U		12/09/14	LFJ	EPA200.8
Thallium, ug/l	0.13	5.5	0.15 J		12/09/14	LFJ	EPA200.8
Vanadium, ug/l	0.06	25.0	4.3 J		12/09/14	LFJ	EPA200.8
Zinc, ug/l	0.53	10.0	5.7 J		12/09/14	LFJ	EPA200.8
Conductivity (at 25c), uMhos/cm	1.0	1.0	2190		11/25/14	BF	2510B-97
Temperature, °C			19		11/25/14	BF	2550B-00
Static Water Level, feet			5.76		11/25/14	BF	
Well Depth, feet			23.12		11/25/14	BF	
Turbidity (Field), NTU	1.0	1.0	3.02		11/25/14	BF	2130B-01

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003 D

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 11/26/14
DATE ANALYZED: 12/30/14
DATE REPORTED: 01/02/15

PESTICIDES AND PCB'S
EPA METHOD 8081B R2(07)

PARAMETERS, ug/l	MDL	SWSL	MW-12s
1. Aldrin	0.029	0.05	--- U
2. Alpha-BHC	0.032	0.05	--- U
3. Beta-BHC	0.031	0.05	--- U
4. Delta-BHC	0.030	0.05	--- U
5. Gamma-BHC (Lindane)	0.032	0.05	--- U
6. Chlordane	0.320	0.50	--- U
7. 4,4-DDD	0.051	0.10	--- U
8. 4,4-DDE	0.049	0.10	--- U
9. 4,4-DDT	0.052	0.10	--- U
10. Dieldrin	0.042	0.075	--- U
11. Endosulfan I	0.056	0.10	--- U
12. Endosulfan II	0.046	0.10	--- U
13. Endosulfan Sulfate	0.072	0.10	--- U
14. Endrin	0.053	0.10	--- U
15. Endrin Aldehyde	0.068	0.10	--- U
16. Heptachlor	0.039	0.05	--- U
17. Heptachlor Epoxide	0.042	0.075	--- U
18. Methoxychlor	0.530	1.00	--- U
19. Pcb's (Aroclors)	0.500	2.00	--- U
20. Toxaphene	0.690	1.50	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003 D

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 12/02/14
DATE ANALYZED: 12/31/14
DATE REPORTED: 01/02/15

LANDFILL APPENDIX II
EPA METHOD 8151A R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-12s
1. 2,4-D	0.36	2.0	--- U
2. Dinoseb	0.54	1.0	--- U
3. 2,4,5-TP	0.42	2.0	--- U
4. 2,4,5-T	0.47	2.0	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

CLIENT ID: 6003 D

ANALYST: MAO
DATE COLLECTED: 11/25/14
DATE REPORTED: 01/02/15

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	12/02/14 MW-9A	12/02/14 MW-10	12/02/14 MW-11	12/03/14 MW-13	12/03/14 MW-14S
	Date Analyzed:						
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	--- U	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	--- U	--- U	1.60 J
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	0.50 J
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	0.60 J
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	0.90 J
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

CLIENT ID: 6003 D

ANALYST: MAO
DATE COLLECTED: 11/25/14
DATE REPORTED: 01/02/15

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	Date Analyzed: 12/02/14 MW-9A	12/02/14 MW-10	12/02/14 MW-11	12/03/14 MW-13	12/03/14 MW-14S
48. Tetrahydrofuran	0.39	1.0	--- U	--- U	2.70	--- U	17.30

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

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Drinking Water ID: 37715
Wastewater ID: 10

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C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003 D

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 11/26/14
DATE ANALYZED: 12/31/14
DATE REPORTED: 01/02/15

SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4(07)

PARAMETERS, ug/l	MDL	SWSL	MW-12s
1. Acenaphthene	2.66	10.0	--- U
2. Acenaphthylene	2.60	10.0	--- U
3. Anthracene	2.97	10.0	--- U
4. Benzo[a]antrhacene	4.16	10.0	--- U
5. Benzo[b]fluoranthene	3.32	10.0	--- U
6. Benzo[k]fluoranthene	4.23	10.0	--- U
7. Benzo[g,h,i]perylene	2.61	10.0	--- U
8. Benzo[a]pyrene	3.27	10.0	--- U
9. 4-Bromophenyl Phenyl Ether	2.63	10.0	--- U
10. Butyl Benzyl Phthalate	5.78	10.0	--- U
11. Bis-(2-Chloroethoxy) Methane	3.14	10.0	--- U
12. Bis-(2-Chloroethyl) Ether	2.58	10.0	--- U
13. Bis-(2-Chloroisopropyl) Ether	2.58	10.0	--- U
14. 2-Chloronaphthalene	2.17	10.0	--- U
15. 4-Chlorophenyl Phenyl Ether	2.42	10.0	--- U
16. Chrysene	4.04	10.0	--- U
17. Dibenzo[a,h]anthracene	2.78	10.0	--- U
18. Di-N-Butyl Phthalate	3.09	10.0	--- U
19. Dimethyl Phthalate	3.78	10.0	--- U
20. Diethyl Phthalate	3.92	10.0	--- U
21. 2,4-Dinitrotoluene	3.95	10.0	--- U
22. 2,6-Dinitrotoluene	3.88	10.0	--- U
23. Di-N-Octyl Phthalate	2.81	10.0	--- U
24. Bis-(2-Ethylhexyl) Phthalate	9.97	15.0	--- U
25. Fluoranthene	3.92	10.0	--- U
26. Fluorene	2.95	10.0	--- U
27. Hexachlorobenzene	2.61	10.0	--- U
28. Hexachlorocyclopentadiene	4.16	10.0	--- U
29. Indeno(1,2,3-Cd)pyrene	2.91	10.0	--- U
30. Isophorone	3.74	10.0	--- U
31. Nitrobenzene	2.85	10.0	--- U
32. N-Nitrosodimethylamine	4.25	10.0	--- U
33. N-Nitrosodiphenylamine	3.95	10.0	--- U
34. N-Nitrosodi-N-Propylamine	4.06	10.0	--- U
35. Phenanthrene	3.24	10.0	--- U
36. Pyrene	3.63	10.0	--- U
37. 4-Chloro-3-Methylphenol	3.79	20.0	--- U
38. 2-Chlorophenol	2.75	10.0	--- U
39. O-Cresol	3.68	10.0	--- U
40. P-Cresol	4.12	10.0	--- U
41. 2,4-Dichlorophenol	5.19	10.0	--- U
42. 2,6-Dichlorophenol	4.89	10.0	--- U
43. 2,4-Dimethylphenol	3.21	10.0	--- U
44. 4,6-Dinitro-2-Methylphenol	4.77	50.0	--- U
45. 2,4-Dinitrophenol	4.37	50.0	--- U
46. Ethyl Methanesulfonate	5.26	20.0	--- U
47. Methyl Methanesulfonate	4.92	10.0	--- U
48. 2-Nitrophenol	3.64	10.0	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

PHONE (252) 756-6208
FAX (252) 756-0833

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003 D

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 11/26/14
DATE ANALYZED: 12/31/14
DATE REPORTED: 01/02/15

SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4(07)

PARAMETERS, ug/l	MDL	SWSL	MW-12s
49. 4-Nitrophenol	3.17	50.0	--- U
50. Pentachlorophenol	5.33	25.0	--- U
51. Phenol	1.86	10.0	--- U
52. 2,3,4,6-Tetrachlorophenol	3.12	10.0	--- U
53. 2,4,5-Trichlorophenol	4.17	10.0	--- U
54. 2,4,6-Trichlorophenol	3.84	10.0	--- U
55. Acetophenone	2.89	10.0	--- U
56. 2-Acetylaminofluorene	3.98	20.0	--- U
57. 4-Aminobiphenyl	4.12	20.0	--- U
58. Benzyl Alcohol	4.47	20.0	--- U
59. 4-Chloroaniline	3.36	20.0	--- U
60. Chlorobenzilate	5.12	10.0	--- U
61. Diallate	2.98	10.0	--- U
62. Dibenzofuran	4.28	10.0	--- U
63. 3,3-Dichlorobenzidine	4.22	20.0	--- U
64. Dimethoate	3.98	20.0	--- U
65. P-Dimethylaminoazobenzene	2.89	10.0	--- U
66. 7,12-Dimethylbenz[a]anthracene	5.26	10.0	--- U
67. 3,3-Dimethylbenzadine	3.21	10.0	--- U
68. 1,3-Dinitrobenzene	2.89	20.0	--- U
69. Diphenylamine	5.10	10.0	--- U
70. Disulfoton	4.28	10.0	--- U
71. Famphur	3.98	20.0	--- U
72. Hexachloropropene	4.31	10.0	--- U
73. Isosafrole	2.88	10.0	--- U
74. Kepone	2.78	20.0	--- U
75. Methapyrilene	3.54	100.0	--- U
76. 3-Methylchloroanthrene	4.21	10.0	--- U
77. 2-Methylnaphthalene	3.79	10.0	--- U
78. Methyl Parathion	4.32	10.0	--- U
79. m-Cresol	3.81	10.0	--- U
80. 1,4-Naphthoquinone	4.00	10.0	--- U
81. 1-Naphthylamine	5.61	10.0	--- U
82. 2-Naphthylamine	4.62	10.0	--- U
83. 2-Nitroaniline	3.61	50.0	--- U
84. 3-Nitroaniline	4.81	50.0	--- U
85. 4-Nitroaniline	4.22	20.0	--- U
86. 5-Nitro-O-Toluidine	4.01	10.0	--- U
87. N-Nitrosodi-n-butylamine	3.63	10.0	--- U
88. N-Nitrosodiethylamine	3.83	20.0	--- U
89. N-Nitrosomethylethylamine	3.83	10.0	--- U
90. N-Nitrosopiperidine	5.19	20.0	--- U
91. N-Nitrosopyrrolidine	2.89	10.0	--- U
92. Parathion	3.12	10.0	--- U
93. Pentachlorobenzene	3.92	10.0	--- U
94. Pentachloronitrobenzene	3.71	20.0	--- U
95. Phenacetin	4.41	20.0	--- U
96. 1,4 Benzenediamine	2.99	10.0	--- U

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Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

REVIEWED BY:

CLIENT ID: 6003 D

ANALYST: CHS
DATE COLLECTED: 11/25/14
DATE EXTRACTED: 11/26/14
DATE ANALYZED: 12/31/14
DATE REPORTED: 01/02/15

SEMI-VOLATILE ORGANICS
EPA METHOD 8270D R4(07)

PARAMETERS, ug/l	MDL	SWSL	MW-12s
97. Phorate	3.86	10.0	--- U
98. Pronamide	3.69	10.0	--- U
99. Safrole	4.12	10.0	--- U
100. 1,2,4,5-Tetrachlorobenzene	5.01	10.0	--- U
101. Thionazin	4.62	20.0	--- U
102. O-Toluidine	4.11	10.0	--- U
103. 1,3,5-Trinitrobenzene	3.98	10.0	--- U
104. 0,0,0-Triethyl Phosphorothioate	3.61	10.0	--- U
105. Hexachloroethane	1.49	10.0	--- U
106. Isodrin	3.11	20.0	--- U

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322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

CLIENT ID: 6003 D

ANALYST: MAO
DATE COLLECTED: 11/25/14
DATE ANALYZED: 12/03/14
DATE REPORTED: 01/02/15

REVIEWED BY:

LANDFILL APPENDIX II
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-12s	Trip Blank
1. Chloromethane	0.77	1.0	--- U	--- U
2. Vinyl Chloride	0.63	1.0	3.40	--- U
3. Bromomethane	0.67	10.0	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	1.70 J	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U
20. Benzene	0.24	1.0	1.10	--- U
21. 1,2-Dichloroethane	0.21	1.0	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U
27. Toluene	0.23	1.0	0.30 J	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U
36. Ethylbenzene	0.21	1.0	0.50 J	--- U
37. Xylenes	0.68	5.0	0.90 J	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U
48. Acrolein	40.57	53.0	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

CLIENT ID: 6003 D

ANALYST: MAO
DATE COLLECTED: 11/25/14
DATE ANALYZED: 12/03/14
DATE REPORTED: 01/02/15

REVIEWED BY: _____

LANDFILL APPENDIX II
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW-12s	Trip Blank
49. Allyl Chloride	0.20	10.0	--- U	--- U
50. Chloroprene	0.21	20.0	--- U	--- U
51. 1,3-Dichlorobenzene	0.41	5.0	--- U	--- U
52. Dichlorodifluoromethane	0.51	5.0	--- U	--- U
53. 1,3-Dichloropropane	0.28	1.0	--- U	--- U
54. 2,2-Dichloropropane	0.17	15.0	--- U	--- U
55. 1,1-Dichloropropene	0.22	5.0	--- U	--- U
56. Ethyl Methacrylate	0.16	10.0	--- U	--- U
57. Hexachlorobutadiene	0.57	10.0	--- U	--- U
58. Isobutyl Alcohol	12.80	100.0	--- U	--- U
59. Methacrylonitrile	1.93	100.0	--- U	--- U
60. Methyl Methacrylate	0.25	30.0	--- U	--- U
61. Naphthalene	0.47	10.0	--- U	--- U
62. Propionitrile	3.26	150.0	--- U	--- U
63. 1,2,4-Trichlorobenzene	0.50	10.0	--- U	--- U
64. Acetonitrile	36.29	55.0	--- U	--- U
65. Tetrahydrofuran	0.39	1.0	10.00	--- U

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

Environment 1, Inc.
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environment1inc.com
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CHAIN OF CUSTODY RECORD

CLIENT: 6003 D **Week:** 48

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH NC 27603

(919) 418-4375

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION																		
pH CHECK (LAB)																		
CONTAINER TYPE, P/G			P	P	P	P	P	P		G	G	G	G	G	G	G	G	G
CHEMICAL PRESERVATION			A	D	A	F	A	A		E	E	A	A	A	A	E	A	A
PARAMETERS/TESTS	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Cyanide	Metals	Sulfide	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	EPA 8270D	8270D Dup. 1	EPA 8081B	8081B Duplicate	8260B App. II	8151A Landfill	8151A Duplicate
SAMPLE LOCATION / COLLECTION DATE / TIME																			
MW-9A 11-25-14 1340		18	4	G		G		G	G	G	G	G							
MW-10 11-25-14 1125		17	4	G		G		G	G	G	G	G							
MW-11 11-25-14 1145		18	4	G		G		G	G	G	G	G							
MW-13 11-25-14 1240		20	4	G		G		G	G	G	G	G							
MW-12s 11-25-14 1220		19	12	G	G	G	G	G	G	G		G	G	G	G	G	G	G	G
MW-14S 11-25-14 1300		19	4	G		G		G	G	G	G	G							
Trip Blank			2									G					G		

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

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

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: Y N

SAMPLES COLLECTED BY: (Please Print) Bobby / Tom

SAMPLES RECEIVED IN LAB AT 02 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bobby Tom	11-25-14 2:54		11/25/14 1768
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

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

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

FORM #5

№ 289572

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858
environment1inc.com
Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6003 D **Week:** 48

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH NC 27603

(919) 418-4375

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS/TESTS

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

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parmeter	P	A
MW-9A	11-25-14	1340		18	4	G		
MW-10	11-25-14	1125		17	4	G		
MW-11	11-25-14	1145		18	4	G		
MW-13	11-25-14	1240		20	4	G		
MW-12s	11-25-14	1220		19	12	G		
MW-14S	11-25-14	1300		19	4	G		
Trip Blank					2			

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [x] SOLID WASTE SECTION

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

SAMPLES COLLECTED BY:
(Please Print)
Bobby / Tom

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bobby Fox	11-25-14 2:54	[signature]	11/25/14 2:55
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

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

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

FORM #5

№ 289571

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

ID#: 6003 C

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH ,NC 27603-3415

DATE COLLECTED: 11/25/14
DATE REPORTED : 12/23/14

REVIEWED BY:

PARAMETERS	MDL	SWSL	SW-1	SW-2	SW-3	SW-4	Analysis Date	Analyst	Method Code
PH (field measurement), Units			7.0	7.1	5.9	Missing	11/26/14	BF	4500HB-00
Antimony, ug/l	0.12	6.0	--- U	--- U	0.46 J	Missing	12/09/14	LFJ	EPA200.8
Arsenic, ug/l	0.10	10.0	0.78 J	0.47 J	0.33 J	Missing	12/09/14	LFJ	EPA200.8
Barium, ug/l	0.12	100.0	86.6 J	57.7 J	46.6 J	Missing	12/09/14	LFJ	EPA200.8
Beryllium, ug/l	0.04	1.0	--- U	--- U	0.08 J	Missing	12/09/14	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.05 J	0.04 J	0.04 J	Missing	12/09/14	LFJ	EPA200.8
Cobalt, ug/l	0.12	10.0	0.41 J	0.34 J	0.75 J	Missing	12/09/14	LFJ	EPA200.8
Copper, ug/l	0.10	10.0	0.46 J	0.37 J	0.41 J	Missing	12/09/14	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0	0.98 J	0.81 J	--- U	Missing	12/09/14	LFJ	EPA200.8
Lead, ug/l	0.13	10.0	0.30 J	0.21 J	0.78 J	Missing	12/09/14	LFJ	EPA200.8
Nickel, ug/l	0.12	50.0	1.2 J	1.4 J	0.53 J	Missing	12/09/14	LFJ	EPA200.8
Selenium, ug/l	0.16	10.0	--- U	--- U	--- U	Missing	12/09/14	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	--- U	--- U	Missing	12/09/14	LFJ	EPA200.8
Thallium, ug/l	0.13	5.5	--- U	--- U	--- U	Missing	12/09/14	LFJ	EPA200.8
Vanadium, ug/l	0.06	25.0	0.30 J	--- U	1.3 J	Missing	12/09/14	LFJ	EPA200.8
Zinc, ug/l	0.53	10.0	3.7 J	2.0 J	5.7 J	Missing	12/09/14	LFJ	EPA200.8
Conductivity (at 25c), uMhos/cm	1.0	1.0	281	306	160	Missing	11/25/14	BF	2510B-97
Temperature, °C			16	13	16	Missing	11/25/14	BF	2550B-00
Turbidity (Field), NTU	1.0	1.0	14.4	8.72	15.2	Missing	11/25/14	BF	2130B-01

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH, NC 27603-3415

CLIENT ID: 6003 C

ANALYST: MAO
DATE COLLECTED: 11/25/14
DATE ANALYZED: 12/02/14
DATE REPORTED: 12/23/14

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	SW-1	SW-2	SW-3
1. Chloromethane	0.77	1.0	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U
7. Acetone	9.06	100.0	12.50 J	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	2.30 J	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	0.30 J	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U
48. Tetrahydrofuran	0.39	1.0	--- U	--- U	--- U

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

Environment 1, Inc.
P.O. Box 70[illegible], 714 Oakmont Dr.
Greenville, NC 27858
environment1inc.com
Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6003 C **Week:** 48

JUDSON WHITEHURST (C&D LANDFILL)
C/O MR DAVID GARRETT
SCS ENGINEERS
322 CHAPANOKE ROAD, SUITE 101
RALEIGH NC 27603

(919) 418-4375

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	Field Parmeter
CHLORINE NEUTRALIZED AT COLLECTION												
pH CHECK (LAB)							12			12	12	
CONTAINER TYPE, P/G						P	P	P	P	G	G	P
CHEMICAL PRESERVATION						A	A	A	A	E	E	A
SW-1	11-25-14	1105		16	4	G	G	G	G	G	G	G
SW-2	11-25-14	1005		13	4	G	G	G	G	G	G	G
SW-3	11-25-14	1310		16	4	G	G	G	G	G	G	G
SW-4					4							

PARAMETERS/TESTS

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

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

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

SAMPLES COLLECTED BY: (Please Print) Bobby/Tom

SAMPLES RECEIVED IN LAB AT 0-2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bobby Tap	11-25-14 2:54	[signature]	11/25/14 2:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS: SW-4 DRY

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

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

FORM #5

№ 289573

ATTACHMENT 2

Environmental Monitoring Reporting Form and

Electronic Data Deliverable (EDD; Electronic File Only)

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):

SCS Engineers, PC

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

Name: Marta VanDussen Phone: 828-285-8951

E-mail: mvandussen@scsengineers.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
C&D Landfill Phases 1 & 2	802 Recycling Lane, Greenville, Pitt County, North Carolina	74-07	.0500	November 25, 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.

David Garrett P.G. 919-418-4375

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

Digitally signed by dgarrett@scsengineers.com
DN: cn=dgarrett@scsengineers.com
Reason: Issued for review
Date: 2015.02.02 14:55:25 -05'00'

02/02/2015 Affix NC Licensed/ Professional Geologist Seal

Signature Date

322 Chapanoke Road, Suite 101, Raleigh, North Carolina 27603

Facility Representative Address

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

NORTH CAROLINA LICENSED SEAL 983 PROFESSIONAL GEOLOGIST DAVID GARRETT

Revised 6/2009