Environmental Engineers, Scientists & Consultants

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February 27, 2014

Mr. Ervin Lane
Compliance Hydrogeologist
Division of Waste Management/Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

RE: Second Semiannual Water Quality Monitoring Report of 2013
Coastal Regional Solid Waste Management Authority Tuscarora Landfill
Permit Nos. 25-04 & 25-09
JOYCE Project No. 00618. 1301.12, Task No. 01

Dear Ervin:

On behalf of the Coastal Regional Solid Waste Management Authority (CRSWMA), Joyce Engineering is submitting the enclosed *Second Semiannual Water Quality Monitoring Report of 2013* in electronic format, including the Environmental Monitoring Form. This report includes results from well redevelopment and additional sampling including dissolved metals analysis for MW-18S as we discussed with you in January. This report completes the second semiannual compliance monitoring event of 2013 for the Tuscarora Landfill, Permit Numbers 25-04 and 25-09, as required by the North Carolina Division of Waste Management, Solid Waste Section. Please feel free to contact me at (336) 323-0092 if you have any questions regarding this submittal.

Sincerely,
JOYCE ENGINEERING

G. Van Burbach, Ph.D., P.G.
Senior Technical Consultant

Enclosure

C: Bobby Darden – Executive Director, CRSWMA (with enclosure)

PREPARED FOR:

COASTAL REGIONAL SOLID WASTE MANAGEMENT AUTHORITY
P.O. BOX 128
COVE CITY, NORTH CAROLINA 28523

COASTAL REGIONAL SOLID WASTE MANAGEMENT AUTHORITY
TUSCARORA LANDFILL
PERMIT NUMBERS 25-04 & 25-09

SECOND SEMIANNUAL WATER QUALITY MONITORING REPORT OF 2014

FEBRUARY 2014

***PREPARED BY*:**

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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):

Joyce Engineering

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

Name: Dan Girdner Phone: (336) 323-0092

E-mail: dgirdner@joyceengineering.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Coastal Regional Solid Waste Management Authority Tuscarora Landfills	7400 Old Hwy 70 West New Bern, NC 28562	25-04 & 25-09	.1600	October 30-31, 2013 December 22, 2013 February 5, 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.

G. Van Burbach, Ph.D., P.G. Sr. Technical Consultant (336) 323-0092

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

Signature 2/26/14 Date

Affix NC Licensed Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1349 GEOLOGIST G. VAN NESS BURBACH

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Facility Representative Address

C-0782

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

Revised 6/2009

Second Semiannual Water Quality Monitoring Report of 2013
Coastal Regional Solid Waste Management Authority Tuscarora Landfill
Craven County, North Carolina

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Craven County, North Carolina

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1.0 INTRODUCTION

1.1 Site Information

The Tuscarora Landfill is owned and operated by the Coastal Regional Solid Waste Management Authority (CRSWMA) and is currently operating under North Carolina Solid Waste Permit Nos. 25-04 and 25-09. The landfill is located off of Old Highway 70, near the town of New Bern in northwestern Craven County, North Carolina. The property boundary is indicated on an excerpt from the 7.5 minute USGS topographic map for Jasper, North Carolina (Figure No. 1).

The Tuscarora Landfill is identified by four contiguous waste cells; the closed Tuscarora Interim Regional Landfill (Permit 25-04-MSWLF-1993) and Phases 1, 2, and 3 of the Tuscarora Long-Term Regional Landfill (Permit 25-09-MSWLF-1999). The Interim Regional Landfill (IRL) was constructed in accordance with the Federal Subtitle D regulations with a composite liner and leachate collection and removal system. The IRL began receiving waste in 1993, and stopped receiving waste by November 1999. The Tuscarora Long-Term Regional (LTR) Landfill (LTR) is constructed in accordance with Subtitle D requirements, beginning with Phase 1, which was constructed and began receiving waste in November 1999 and stopped receiving waste in 2005. Phase 2 was constructed in 2005 and was active from 2005 until June 2013. Phase 3 is the current, active cell and began receiving waste on June 20, 2013. The Permit to Operate Phase 3 was approved by NC DENR Solid Waste Section on June 6, 2012. The current waste footprint comprises approximately 79 acres of the 101 acres approved in the permit.

1.2 Site Geology

The Tuscarora Landfill is located in the Coastal Plain physiographic province. The Coastal Plain consists of a wedge of continental and marine sediments that are Cretaceous, Tertiary, and Quaternary in age. These sediments are approximately 1,500 feet thick in the area of the Tuscarora Landfill according to the North Carolina State Geologic Map (Brown, 1985). Surface water is directed through a network of constructed drainage ditches to the north-northeast towards Jumping Run, a tributary of Bachelor Creek. Shallow groundwater flow is to the east-southeast towards Beaverdam Branch, which is another tributary of Bachelor Creek located approximately 2.25 miles away. Bachelor Creek flows to the east to its confluence with the Neuse River.

The uppermost (shallow) aquifer at the site consists of Miocene to Pleistocene age silty sands, clayey sands, and sandy clays. The uppermost aquifer is separated from a lower aquifer by a lean to fat clay associated with the Pungo River Formation. The Pungo River Formation is Miocene in age and consists mainly of marine fat clay to silty clay, which represents a regressive marine sequence that grades from sandy clay to silty sand at the bottom of the formation (Harris, 1991). The lower aquifer is middle to upper Eocene in age and is part of the Castle Hayne Formation. It consists of a combination of coquina and a weakly cemented calcarenite.

1.3 Regulatory Status

The Tuscarora Landfill groundwater monitoring is completed in accordance with North Carolina Solid Waste Management Regulations (NCSWMR) § 1633 (Detection Monitoring Program). Statistical analyses of the laboratory data has been prepared in accordance with the required compliance demonstration Rule .1632(g), (h), and (i) of the NCSWMR.

2.0 FACILITY MONITORING PROGRAMS

Groundwater programs for the landfill, surface water, and the leachate storage system are discussed in the following sections and locations of monitoring points are shown on Drawing Numbers 1 & 2.

2.1 Tuscarora Interim Regional Landfill Monitoring Program

Groundwater monitoring at the closed Tuscarora Interim Regional Landfill is completed in accordance with NCSWMR § 1633 (Detection Monitoring Program) and the approved Groundwater Monitoring Plan for the facility. Groundwater samples are collected semiannually and are analyzed for the constituents listed in NCSWMR Appendix I.

The groundwater monitoring network at the Closed Interim Regional Landfill consists of two up-gradient/background groundwater monitoring wells (IRL-1S & IRL-1D) and six down-gradient groundwater monitoring wells (IRL-3S, IRL-3D, IRL-4S, IRL-4D, IRL-5S, and MW-A). Wells IRL-2SA, IRL-2DA, IRL-5D, MW-B, and PZ-Z are measured for water levels only.

Monitoring Well	Date Installed	Classification	Monitoring Program	Total Depth from TOC (ft)	Lithology of Screened Interval
IRL-1S	6/29/93	Background	Detection	18.34	Shallow Aquifer / Sediment
IRL-1D	6/29/93	Background	Detection	45.91	Deep Aquifer / Sediment
IRL-2S	6/30/93	Abandoned	-	-	-
IRL-2SA	1/13/01	Observation	Water Level	17.63	Shallow Aquifer / Sediment
IRL-2D	6/30/93	Abandoned	-	-	-
IRL-2SD	1/13/01	Observation	Water Level	41.76	Deep Aquifer / Sediment
IRL-3S	7/02/93	Compliance	Detection	16.59	Shallow Aquifer / Sediment
IRL-3D	7/02/93	Compliance	Detection	40.91	Deep Aquifer / Sediment
IRL-4S	7/02/93	Compliance	Detection	15.23	Shallow Aquifer / Sediment
IRL-4D	7/02/93	Compliance	Detection	25.87	Deep Aquifer / Sediment
IRL-5S	7/01/93	Compliance	Detection	14.69	Shallow Aquifer / Sediment
IRL-5D	7/01/93	Observation	Water Level	26.10	Deep Aquifer / Sediment
IRL-6S	7/02/93	Abandoned	-	-	-
IRL-6D	7/02/93	Abandoned	-	-	-
MW-A	12/13/00	Compliance	Detection	22.00	Shallow Aquifer / Sediment
MW-B	1/12/01	Observation	Water Level	22.06	Shallow Aquifer / Sediment
PZ-Z	12/15/00	Observation	Water Level	32.35	Shallow Aquifer / Sediment

2.2 Tuscarora Long-Term Regional Landfill Monitoring Program

Groundwater monitoring at the Tuscarora Long-Term Regional Landfill is completed in accordance with NCSWMR § 1633 (Detection Monitoring Program) and the approved Groundwater Monitoring Plan for the facility. Groundwater samples are collected semiannually and are analyzed for the constituents listed in NCSWMR Appendix I.

The groundwater monitoring network at the Tuscarora Long-Term Regional (LTR) Landfill area consists of two up-gradient/background wells (MW-12S and MW-12D) and eighteen down-gradient wells (MW-7, MW-8, MW-10, MW-11S, MW-11D, MW-13S, MW-13D, MW-14, MW-15S, MW-15D, MW-16S, MW-16D, MW-17S, MW-17D, MW-18S, MW-18D, MW-19S, and MW-19D). Well MW-9, which was previously monitored, was abandoned on July 15, 2004 to accommodate construction of Phase 2 of the Long-Term Regional Landfill. Well MW-14 was damaged by equipment in 2006 and was replaced by MW-14R prior to the April 2007 sampling event. The shallow and deep aquifer monitoring well pairs numbered MW-15S & MW-15D through MW-19S & MW-19D were installed as part of the hydrogeologic investigation for Phase 3 in the summer of 2009. The individual wells in the LTR landfill are listed in the table below.

Monitoring Well	Date Installed	Classification	Monitoring Program	Total Depth from TOC (ft)	Lithology of Screened Interval
MW-7	7/15/99	Compliance	Detection	17.89	Shallow Aquifer / Sediment
MW-8	7/15/99	Compliance	Detection	15.14	Shallow Aquifer / Sediment
MW-9	7/15/99	Abandoned	-	-	-
MW-10	7/15/99	Compliance	Detection	16.92	Shallow Aquifer / Sediment
MW-11S	7/15/99	Compliance	Detection	12.07	Shallow Aquifer / Sediment
MW-11D	7/15/99	Compliance	Detection	36.85	Deep Aquifer / Sediment
MW-12S	4/09/02	Background	Detection	18.02	Shallow Aquifer / Sediment
MW-12D	4/09/02	Background	Detection	38.00	Deep Aquifer / Sediment
MW-13S	4/21/03	Compliance	Detection	17.48	Shallow Aquifer/ Sediment
MW-13D	4/23/03	Compliance	Detection	42.29	Deep Aquifer / Sediment
MW-14	4/18/03	Abandoned	-	-	-
MW-14R	10/04/07	Compliance	Detection	16.85	Shallow Aquifer / Sediment
MW-15S	6/22/09	Compliance	Detection	15.00	Shallow Aquifer / Sediment
MW-15D	6/23/09	Compliance	Detection	38.00	Deep Aquifer / Sediment
MW-16S	8/10/09	Compliance	Detection	12.00	Shallow Aquifer / Sediment
MW-16D	6/24/09	Compliance	Detection	35.00	Deep Aquifer / Sediment
MW-17S	6/30/09	Compliance	Detection	13.00	Shallow Aquifer / Sediment
MW-17D	6/30/09	Compliance	Detection	38.00	Deep Aquifer / Sediment
MW-18S	7/01/09	Compliance	Detection	11.00	Shallow Aquifer / Sediment
MW-18D	7/01/09	Compliance	Detection	35.00	Deep Aquifer / Sediment
MW-19S	7/01/09	Compliance	Detection	10.00	Shallow Aquifer / Sediment
MW-19D	7/01/09	Compliance	Detection	25.00	Deep Aquifer / Sediment

2.3 Leachate Storage Lagoon Area Monitoring Program

Groundwater monitoring at the Leachate Storage Area Lagoons is completed in accordance with NCSWMR § 1633 (Detection Monitoring Program) and the approved Groundwater Monitoring Plan for the facility. Groundwater samples are collected semiannually and analyzed for the constituents listed in NCSWMR Appendix I.

The groundwater monitoring network at the Leachate Storage Area Lagoons consists of one up-gradient/background well (LST-5S) and seven down-gradient wells (LST-1S, LST-1D, LST-2S, LST-3S, LST-4S, LST-5D, and LST-6S). Well LST-5S replaced LST-6S as the background well due to drawdown effects from the borrow area north of the Leachate Storage Lagoons. Wells LST-2D, LST-3D, LST-4D, and LST-6D are measured for water levels only.

Monitoring Well	Date Installed	Classification	Monitoring Program	Total Depth from TOC (ft)	Lithology of Screened Interval
LST-1S	6/24/93	Compliance	Detection	15.83	Shallow Aquifer / Sediment
LST-1D	6/24/93	Compliance	Detection	36.01	Deep Aquifer / Sediment
LST-2S	6/24/93	Compliance	Detection	14.74	Shallow Aquifer / Sediment
LST-2D	6/24/93	Observation	Water Level	33.96	Deep Aquifer / Sediment
LST-3S	6/25/93	Compliance	Detection	18.34	Shallow Aquifer / Sediment
LST-3D	6/24/93	Observation	Water Level	35.57	Deep Aquifer / Sediment
LST-4S	6/25/93	Compliance	Detection	18.18	Shallow Aquifer / Sediment
LST-4D	6/24/93	Observation	Water Level	36.39	Deep Aquifer / Sediment
LST-5S	6/28/93	Background	Detection	16.75	Shallow Aquifer / Sediment
LST-5D	6/28/93	Compliance	Detection	39.04	Deep Aquifer / Sediment
LST-6S	6/28/93	Compliance	Detection	17.25	Shallow Aquifer / Sediment
LST-6D	9/28/93	Observation	Water Level	35.17	Deep Aquifer / Sediment

2.4 Surface Water Monitoring Program

Surface water monitoring at the Tuscarora Landfill is completed in accordance with NCSWMR and the approved Groundwater Monitoring Plan for the facility. Surface water samples are collected semiannually and analyzed for the constituents listed in NCSWMR Appendix I. The surface water monitoring network includes one upstream surface water sampling point (SWPT-1) a downstream surface water monitoring points (SWPT-2), and two underdrain outlets (UD-1, and UD-2).

Surface Point	Classification	Monitoring Program
SWPT-1	Upstream	Surface Water
SWPT-2	Compliance	Surface Water
UD-1	Compliance	Surface Water
UD-2	Compliance	Surface Water

2.5 Leachate Monitoring Program

One leachate monitoring point (Leachate Manhole) is sampled at the Tuscarora Landfill on a semiannual basis and the laboratory results are included in this report. The following constituents are required for laboratory leachate analysis:

- North Carolina Appendix I Metals
- North Carolina Appendix I 8260 Volatiles

3.0 SECOND SEMIANNUAL SAMPLING EVENT OF 2013

3.1 Field Work

On October 30-31, 2013, personnel from Environment 1, Incorporated visited the facility to obtain depth-to-water measurements to the nearest 0.01 foot, purge, and sample monitoring wells at the closed Tuscarora Interim Regional Landfill, Tuscarora Long-Term Regional Landfill, and Leachate Storage Lagoon areas. Four surface water monitoring points and one leachate monitoring point were also sampled during the October 30-31, 2013 event. In addition, for monitoring wells not part of the compliance network, depth-to-water measurements were also obtained to the nearest 0.01 foot using an electronic water level indicator on October 30, 2013.

Monitoring wells were purged and sampled using decontaminated re-usable Teflon bailers during the October 2013 sampling event. Measurements of temperature, pH, specific conductivity, and turbidity were recorded prior to purging, after each purge volume, and during sampling. Prior to sampling, laboratory-supplied containers were prepared with the following information:

- Monitoring well number (completed by field personnel);
- Date and time of sample collection (completed by field personnel);
- Initials of sampling personnel (completed by field personnel);
- Project name and number (completed by the laboratory);
- Chemical preservative (completed by the laboratory); and
- Requested chemical analysis (completed by the laboratory).

During the October 2013 sampling event, groundwater samples from each monitoring well were collected directly from the bailers in the provided laboratory containers either immediately after purging or within 24 hours of the final purge volume. Immediately after collection, the samples were placed in a laboratory provided cooler and chilled on ice.

Surface water samples were collected directly from stream flow by lowering the prepared sample containers into the stream with the opening facing into the current flow. Care was taken to not the overflow the sample containers (which could lead to preservative loss) and to avoid sample-induced turbidity. At the time of sampling, surface water was also measured for temperature, pH, specific conductivity, and turbidity. After sample collection, the samples were placed in a laboratory provided cooler and chilled on ice.

Leachate samples were collected from a vented manhole with a peristaltic pump and disposable Teflon tubing. Prepared sampling containers were filled, placed in a cooler, and chilled on ice. At the time of sampling, leachate was measured for temperature, pH, specific conductivity, and turbidity.

3.2 Laboratory Analysis and JOYCE Quality Control

Groundwater, surface water, and leachate samples were submitted to Environment 1, Incorporated of Greenville, North Carolina under chain-of-custody control for analysis. As discussed earlier, the groundwater, surface water, and leachate samples were analyzed for North Carolina Appendix I constituents. Joyce Engineering (JOYCE) requested a Level II data report. The samples were received by the laboratory on October 30-31, 2013 in good condition, properly preserved, and within analysis hold times.

In addition to samples collected for compliance monitoring at the CRSWMA Landfills, an Equipment Blank was collected by Environment 1, Inc. personnel as part of the October 30-31, 2013 sampling event. Also, a Trip Blank was prepared by the laboratory to accompany the volatile sampling containers during shipment. The Equipment Blank was analyzed for North Carolina Appendix I constituents while the Trip Blank was analyzed for North Carolina Appendix I volatile organics only.

Upon receipt of laboratory data packages, the data were reviewed by JOYCE personnel for the following:

- General typographical errors;
- Correct analyses performed and within method specified hold times;
- Biased data results based on Surrogate Recoveries, Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Samples;
- Blank qualified data (B-flags);
- Detections above the North Carolina SWSLs, groundwater and surface water standards; and
- Detections that are above historical levels.

The laboratory data packages for the October 30 and 31, 2013, sampling events are included in Appendix 1 of this report, and the results are summarized in the detection and historical tables for the CRSWMA Tuscarora Regional Landfill.

4.0 HYDROGEOLOGICAL CONDITIONS

Depth to groundwater was measured in the compliance monitoring wells prior to sampling. The groundwater elevation at each well was calculated relative to the surveyed measuring point (top of casing) for each monitoring well. Tables 1-3 summarize the groundwater elevations. In general, groundwater elevations for the shallow aquifer are similar to previous events. Groundwater elevations for the deep aquifer have been influenced by borrow area pumping.

Both the upper and lower aquifers at the site are primarily made up of coarse sand and silty sand. The aquifers are separated by a confining layer consisting of marine clays, silty clays, and very fine silty sands.

Groundwater elevation contours for the shallow and deep aquifers are shown on Drawings Numbers 1 and 2, and were interpreted from the October 2013 water level measurements. Groundwater at the site flows predominantly to the southeast for the shallow aquifer. Due to the

borrow area pumping, groundwater in the deep aquifer flows primarily to the northwest, except for beneath the southeastern corner of the Interim Regional Landfill. The borrow area is situated in the northwestern area of the property.

Horizontal groundwater gradients were estimated based on October 2013 groundwater levels. The groundwater contours and the groundwater flow lines were used to calculate hydraulic gradients for the site. The horizontal gradients were estimated to range from 0.0029 to 0.0051 ft/ft (Table 4) for the shallow aquifer and 0.0023 to 0.0037 ft/ft (Table 5) for the deep aquifer. The gradients reported for this event reflect the shallow depth to the uppermost aquifer underlying the site, the flat topography of the site, and wet storm water drainage ditches and basins located within the site.

Linear groundwater flow velocities were computed using the following modified Darcy equation:

$$V = Ki/n$$

where V = average linear velocity (feet per day – ft/day), K = hydraulic conductivity (ft/day), i = horizontal hydraulic gradient, and n = effective porosity. The hydraulic conductivity used to calculate flow velocities was based on the geometric mean of hydraulic conductivities derived from slug tests for the shallow and deep aquifers.

The calculated linear groundwater flow velocities range from 0.010 to 0.017 ft/day (Table 4) for the shallow aquifer range and 0.049 to 0.079 ft/day (Table 5) for the deep aquifer. The linear velocity equation is based on the simplified assumption of a homogeneous and isotropic aquifer. The gradient and flow velocity calculations are included in Tables 4 and 5.

5.0 DATA ANALYSIS AND STATISTICAL RESULTS

The data from the laboratory analysis of the October 30-31, 2013 sampling event were received on December 4, 2013, from Environment 1, Inc. and are found in Appendix 1 of this report. Groundwater data are compared to the relevant North Carolina water quality standard (NC 2L) or Solid Waste Section Groundwater Protection Standards (GWPS) for NCSWMR Appendix I listed constituents. For inorganic constituents, statistical background data is determined in accordance with the procedures outlined in NCSWMR Title 15A NCAC 13B.1632 (g) , (h) and (i). The statistical worksheets are found in Appendix 2 of this report.

5.1 Analytical Results and Comparisons to Standards

5.1.1 Tuscarora Interim Regional Landfill

The following inorganic constituents were detected at quantified concentrations during the October 2013 sampling event for the Tuscarora Interim Regional Landfill in one or more compliance monitoring wells.

Constituent	NC2L/ (GWPS)	Background		Down-gradient						Blanks
		IRL-1S	IRL-1D	IRL-3S	IRL-3D	IRL-4S	IRL-4D	IRL-5S	MW-A	
Barium	700	166	39.7 J	42.5 J	40.7 J	90.5 J	43.9 J	94.4 J	39.5 J	0.24 J
Zinc	1000	15B	6.9 B	5.1 B	3.3 B	11B	3.8 B	112	6.1B	3.2 J

The inorganic and organic analytical results from the October 2013 groundwater sampling event at the closed Tuscarora Interim Regional Landfill are summarized in Table 6 and field parameters are summarized on Table 7 of this report. The results, as reported by the laboratory, the laboratory quality assurance/quality control information, and the chains-of-custody are included in Appendix 1. No quantified detections of inorganic or organic constituents were reported above the NC 2L or GWPS for the Interim Regional Landfill.

5.1.2 Tuscarora Long-Term Regional Landfill

The following inorganic constituents were detected at quantified concentrations during the October 2013, sampling event for the Tuscarora Long-Term Regional Landfill in one or more Phases 1-2 compliance monitoring wells.

Constituent	NC2L/ (GWPS)	Background		Down-gradient								Blanks
		MW-12S	MW-12D	MW-7	MW-8	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14R	
Barium	700	36.5 J	37.5 J	45.3	113	57.0 J	27.1 J	34.7 J	70.0 J	35.2 J	67.3 J	0.24 J
Beryllium	(4)	0.21 J	0.12 B	0.11 B	0.62 J	0.31 J	2	0.12 B	0.40 J	ND	0.08 B	0.04 J

All concentrations are reported in micrograms per liter (µg/L). NS = Not sampled.
J = Estimated concentration below SWSL. ND = Not detected.
B = Blank-qualified detection.

The following inorganic constituents were detected at quantified concentrations during the October 2013 sampling event for the Tuscarora Long-Term Regional Landfill in one or more Phases 3 compliance monitoring wells. Beryllium verification sampling was performed for MW-18S by Environment 1, Inc. on December 23, 2013; and a second resampling event was performed by JOYCE on February 5, 2014..

Constituent	NC2L/ (GWPS)	Down-gradient										Blanks
		MW-15S	MW-15D	MW-16S	MW-16D	MW-17S	MW-17D	MW-18S	MW-18D	MW-19S	MW-19D	
Barium	700	166	48.4 J	111	79.6 J	161	45.8 J	25.1 J	28.5 J	55.3 J	44.6 J	0.24 J
Beryllium (Be)	(4)	2	0.10 J	6	0.05 J	2	0.13 J	7	0.19 J	0.08J	1	0.04 J
Be Resample (12-23-13)	(4)	NS	NS	NS	NS	NS	NS	7	NS	NS	NS	NS
Be Resample (2-5-14)	(4)	NS	NS	NS	NS	NS	NS	7	NS	NS	NS	0.48 J
Dissolved Be (2-5-14)	(4)	NS	NS	NS	NS	NS	NS	7	NS	NS	NS	NS
Cadmium	2	0.17 J	0.16 J	1	0.05 J	0.23 J	0.10 J	1	0.13 J	0.11 J	0.57 J	ND
Cobalt	(1)	11	0.23 B	3.9 J	0.24 B	3.2 J	0.56 J	8.1 J	0.55 J	0.42 J	4.3 J	0.05 J
Zinc	1000	19	5.1 B	18	6.5 J	15 B	7.1 B	26	5.6 B	4.6 B	88	3.2 J

All concentrations are reported in micrograms per liter (µg/L). NS = Not sampled.
J = Estimated concentration below SWSL. ND = Not detected.
B = Blank-qualified detection.

The inorganic and organic analytical results from the October 2013 groundwater sampling event at the Tuscarora Long-Term Regional Landfill are summarized in Table 8A for Phase 1 and Phase 2 monitoring wells and in Table 8B for Phase 3 monitoring wells. The field parameters are summarized in Tables 9A and 9B. The results as reported by the laboratory, the laboratory quality assurance/quality control information, and the chains-of-custody are included in Appendix 1. Of the quantified detections of inorganic constituents that were reported above the NC 2L or GWPS, only the beryllium in MW-18S was also above the statistically determined background level, and therefore an exceedance of the GPS. The statistical analysis worksheets are located in Appendix 2 of this report.

Environment 1, Inc. collected a verification sample for beryllium from MW-18S on December 23, 2013. The results for the verification sample were received on January 14, 2014, and confirmed the initial detection level. DENR SWS was notified of the beryllium detection above GPS in MW-18S in a letter dated January 20, 2014.

JOYCE discussed the beryllium detection with the DENR compliance hydrogeologist and DENR agreed to redeveloping MW-18S and then collecting samples for total and dissolved beryllium before deciding whether an Alternate Source Demonstration (ASD) was needed. The well was redeveloped on February 4, 2014, and sampled for total and dissolved beryllium on February 5th. The results of the February 5th sampling confirmed the earlier concentrations of beryllium in MW-18S for both total and dissolved beryllium.

JOYCE believes that the beryllium detected in MW-18S is naturally-occurring for the following reasons: 1) beryllium is a commonly occurring element in soils and sediment in the North Carolina Coastal Plain; 2) beryllium has been consistently detected, albeit at lower concentrations, in numerous other monitoring wells at the facility; 3) Phase 3 began receiving waste less than five months prior to the October 2013 sampling event, so it is highly unlikely that the waste could be the source of the beryllium in MW-18S; 4) concentrations of beryllium in the facility's leachate are significantly lower than detected in MW-18S; and 5) the naturally highly acidic character of the groundwater at this facility would be expected to dissolve naturally occurring metals in sediment very efficiently, which explains why the dissolved beryllium concentration was the same as the total beryllium concentration. If DENR requires an ASD to support the above conclusion, CRSWMA will submit one.

5.1.3 Leachate Storage Lagoon Area

The following inorganic constituents were detected at quantified concentrations during the October 2013 sampling event for the Leachate Storage Lagoon Area in one or more compliance monitoring wells.

Constituent	NC2L/ (GWPS)	Background	Down-gradient							Blanks
		LST-5S	LST-1S	LST-1D	LST-2S	LST-3S	LST-4S	LST-5D	LST-6S	
Chromium	10	6.0 J	2.9 J	0.67 J	3.3 J	2.5 J	11	0.85 J	4.3 J	0.11 J
Lead	15	4.4 J	2.8 J	0.51 J	2.6 J	2.5 J	11	4.4 J	0.55 J	0.08 J
Zinc	1,000	12 B	6.2 B	5.4 B	6.1 B	26	20	6.6 B	28	3.2 J

All concentrations are reported in micrograms per liter (µg/L). NS = Not sampled.
J = Estimated concentration below SWSL. ND = Not detected.
B = Blank-qualified detection.

The inorganic and organic analytical results from the October 2013 sampling event at the Leachate Storage Lagoon Area are summarized in the Table 10 and field parameters are summarized on the Table 11 of this report. The results as reported by the laboratory, the laboratory quality assurance/quality control information, and the chains-of-custody are included in the Appendix 1 of this report. Quantified detections of chromium, lead, and zinc were reported. The chromium detection in monitoring well LST-4S was also above the NC 2L level, however; the chromium concentration did not represent an increase above background levels below statistical analysis. The statistical analysis methods used are described below, and the worksheets are included in Appendix 2 of this report. There were no other quantified detections of inorganic or organic constituents reported above NC 2L or GWPS standards during the October 2013 sampling event for the Leachate Storage monitoring area.

5.1.4 Surface Water

Zinc was the only constituent detected at quantified concentrations in surface water monitoring points during the October 2013 sampling event. The result for zinc from SWPT-1 was above the relevant Surface Water Quality Standard (NC 2B); however the zinc concentration is historically consistient for the site, and SWPT-1 is not a down-gradient monitoring point for the waste. The complete inorganic and organic surface water analytical results from the October 30, 2013 sampling events at the CRSWMA landfills are summarized in Table 12 and field parameters are summarized on Table 13. The complete results as reported by the laboratory, the laboratory quality assurance/quality control information, and the chains-of-custody are included in the Appendix 1 of this report.

5.1.5 Leachate

The following constituents were detected in leachate during the October 2013 sampling event.

Constituent	Leachate	Blanks
Antimony	12	0.08 J
Arsenic	140	0.20 J
Barium	801	0.24 J
Cadmium	6	ND
Chromium	33	0.11 J
Cobalt	12	0.05 J
Nickel	62	ND
Selenium	47	ND
Zinc	12	3.2 J
Benzene	4.30	ND
Styrene	11.30	ND
1,4-Dichlorobenzene	15.10	ND
Ethylbenzene	91.30	ND
Toluene	32.70	ND
Xylenes	52.00	ND

All concentrations are reported in micrograms per liter (µg/L). NS = Not sampled.
J = Estimated concentration below SWSL. ND = Not detected.
B = Blank-qualified detection.

The leachate analytical results from the October 2013 sampling event at the CRSWMA landfills are summarized in Table 14 of this report. The complete results as reported by the laboratory, the laboratory quality assurance/quality control information, and the chains-of-custody are included in Appendix 1 of this report.

5.2 Statistical Methods

The data were evaluated in accordance with the procedures outlined in NCSWMR Title 15A NCAC 13B.1632, through the use of the Shapiro-Wilk Test, Parametric Prediction Limits, Parametric Tolerance Intervals, Aitchison's Adjustment, Non-parametric Prediction Limits, and Poisson Prediction Limits, as appropriate. Background data, tests for normality, outliers, Aitchison's adjustment, tolerance interval, or prediction limits are used, as appropriate, based on the background data.

The statistical test by which down-gradient data are compared to facility background data is based upon the nature of the data and the number of data values that are less than the laboratory limit of detection. All statistical tests are evaluated at the 0.05 level of significance, 95% confidence level, and are conducted as one-tailed tests. Statistical background values were calculated using a data pool of historical results from pre-waste background monitoring events and from up-gradient wells during successive semiannual monitoring events.

5.3 Statistical Results

Background concentrations for inorganic constituents are determined using statistical procedures as discussed in Section 5.2. Beryllium, chromium, and cobalt were the only inorganic constituents detected in down-gradient monitoring wells above NC 2L or GWPS levels requiring statistical analysis. The detection of beryllium in MW-18S was above the statistically determined background concentration.

6.0 CONCLUSION

Based on the results presented herein, the CRSWMA Tuscarora Landfill shall remain in the Detection Monitoring Program as outlined in Title 15A NCAC 13B .1633. The only exceedence of the NC 2L or GWPS during the second semiannual sampling event of 2013 that was also above the statistical background concentration, and therefore a GPS exceedance, was beryllium in MW-18S. JOYCE believes that the beryllium detected in MW-18S is naturally-occurring. If DENR requires an ASD to support the above conclusion, CRSWMA will submit one. The next semiannual monitoring event is tentatively scheduled for April 2014.

7.0 REFERENCES

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TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
C.R.S.W.M.A. TUSCARORA INTERIM REGIONAL LANDFILL

Well No.	Background		Downgradient										
	IRL-1S	IRL-1D	IRL-2SA	IRL-2DA	IRL-3S	IRL-3D	IRL-4S	IRL-4D	IRL-5S	IRL-5D	MW-A	MW-B	PZ-Z
Well TOC Elev.	50.56	50.19	51.37	51.58	49.02	48.93	48.34	48.35	48.78	48.66	46.04	48.90	49.52
Well Depth	17.73	45.20	17.68	30.95	16.40	39.22	14.99	34.64	14.62	35.42	20.40	14.90	32.35
Jul-93	46.57	36.02	NI	NI	38.68	34.26	43.13	34.24	40.19	34.73	NI	NI	NI
Aug-93	44.94	35.46	NI	NI	38.57	33.68	42.02	33.54	39.58	34.13	NI	NI	NI
Sep-93	44.29	34.70	NI	NI	38.42	32.97	41.77	33.01	39.50	33.39	NI	NI	NI
Sep-93	45.07	34.42	NI	NI	38.85	32.58	41.33	32.69	39.51	33.07	NI	NI	NI
Apr-94	45.55	38.93	NI	NI	37.74	37.27	39.48	37.33	37.95	37.79	NI	NI	NI
Oct-94	44.90	35.97	NI	NI	37.84	34.38	38.54	34.39	37.52	34.86	NI	NI	NI
Apr-95	45.50	38.73	NI	NI	38.02	37.15	38.82	37.16	37.56	37.60	NI	NI	NI
Oct-95	45.12	35.41	NI	NI	37.11	34.06	38.79	34.05	37.41	34.44	NI	NI	NI
Apr-96	46.60	40.25	NI	NI	38.98	38.82	38.58	38.83	37.51	39.28	NI	NI	NI
Oct-96	46.12	NS	NI	NI	37.88	39.01	38.52	39.06	37.29	NS	NI	NI	NI
Dec-96	47.26	40.19	NI	NI	38.12	38.73	37.94	38.85	37.28	39.26	NI	NI	NI
Apr-97	45.35	NS	NI	NI	37.71	37.50	38.82	37.54	37.30	NS	NI	NI	NI
Mar-97	46.65	40.46	NI	NI	37.67	39.00	38.70	39.03	37.40	39.48	NI	NI	NI
Oct-97	43.40	NS	NI	NI	37.68	NS	38.18	32.92	37.04	NS	NI	NI	NI
Apr-98	46.18	NS	NI	NI	38.05	38.57	38.51	38.62	37.52	NS	NI	NI	NI
Oct-98	44.11	36.69	NI	NI	37.52	35.32	37.78	35.38	37.23	35.79	NI	NI	NI
Mar-99	46.10	NS	NI	NI	38.35	37.95	38.35	37.99	38.18	38.39	NI	NI	NI
Jul-99	43.89	36.25	NI	NI	38.31	35.06	39.37	35.10	38.92	35.47	NI	NI	NI
Aug-99	43.27	34.79	NI	NI	38.18	33.34	39.37	33.41	38.96	33.75	NI	NI	NI
Oct-99	47.38	40.16	NI	NI	41.56	38.75	40.85	38.80	40.21	39.20	NI	NI	NI
Nov-99	45.52	39.56	NI	NI	38.70	38.16	39.21	38.23	39.29	38.65	NI	NI	NI
Apr-00	45.71	39.77	NI	NI	39.54	38.35	39.61	38.45	39.34	38.84	NI	NI	NI
Oct-00	44.52	38.90	NI	NI	39.76	37.43	39.46	37.52	39.45	37.94	NI	NI	NI
Apr-01	46.00	39.96	43.70	40.19	40.15	38.62	40.11	38.69	39.59	39.06	40.98	39.55	40.93
Oct-01	43.36	36.31	39.92	37.28	38.61	35.03	38.97	35.08	39.89	35.46	38.76	38.65	38.56
Apr-02	44.88	38.85	41.38	39.20	39.02	37.53	39.66	37.60	39.42	37.99	39.69	40.16	41.43
Oct-02	44.93	34.93	40.97	35.38	39.22	33.76	40.23	33.87	39.79	34.21	39.78	39.35	37.70
Apr-03	46.28	40.03	44.11	40.35	39.75	38.65	42.03	38.73	40.62	39.16	40.41	40.94	40.63
Oct-03	46.72	40.36	44.43	40.67	40.21	38.97	41.68	39.03	40.83	39.46	40.93	40.80	41.70
15-Apr-04	47.23	39.69	44.93	40.05	40.72	38.33	41.40	38.44	40.54	38.83	40.94	40.80	41.25
14-Oct-04	44.14	39.23	42.05	38.60	40.21	37.88	40.27	37.96	40.10	38.41	39.98	39.50	40.74
05-Apr-05	44.81	NS	NS	40.33	40.21	38.56	40.13	38.66	39.92	39.12	37.79	NS	41.27
27-Oct-05	46.74	NS	NS	41.01	40.88	39.18	41.16	39.31	40.44	39.70	40.67	NS	42.03
21-Apr-06	44.90	39.71	NS	39.89	40.41	38.23	40.31	38.35	40.07	38.77	40.15	NS	41.10
12-Oct-06	45.45	39.71	NS	40.00	39.80	38.28	40.86	38.37	40.18	38.79	40.58	NS	41.01
26-Apr-07	45.01	39.44	NS	39.85	39.85	38.13	40.32	38.22	40.08	38.66	40.29	NS	40.80
10-Oct-07	40.44	33.90	NS	34.20	39.19	32.54	39.06	32.65	39.05	33.02	38.21	NS	36.30
02-Apr-08	45.39	38.21	NS	38.64	40.08	37.08	39.79	37.17	39.54	37.49	40.03	NS	38.67
28-Oct-08	42.22	35.12	NS	36.03	40.24	34.70	39.69	34.76	39.27	34.93	39.88	NS	38.53
08-Apr-09	45.28	35.45	43.56	36.66	40.40	35.60	42.62	35.63	40.29	35.65	40.46	40.70	39.67
27-Oct-09	42.34	31.89	39.37	33.38	40.19	32.41	39.09	32.40	38.96	32.30	39.24	39.12	37.48
08-Apr-10	45.27	34.66	44.07	36.19	40.32	35.28	40.83	35.31	40.48	35.16	40.65	39.46	39.64
13-Oct-10	45.69	33.64	43.89	35.23	40.03	34.56	39.80	34.53	39.73	34.30	40.39	40.72	38.42
27-Apr-11	44.45	32.47	42.66	34.28	39.34	33.53	40.22	33.51	39.98	33.24	40.07	40.48	38.40
20-Oct-11	44.95	32.49	42.13	34.23	39.37	33.44	39.64	34.16	39.55	33.21	40.15	39.71	38.19
16-Oct-12	44.55	32.59	42.63	34.44	39.69	33.93	39.72	33.91	39.70	33.52	39.94	40.10	39.30
11-Apr-13	45.06	31.67	44.17	33.58	39.72	33.15	40.14	33.08	39.76	32.68	40.38	39.18	37.78
30-Oct-13	42.95	30.20	42.37	32.16	39.86	31.42	39.44	31.38	39.41	31.07	40.18	39.32	36.88

NOTES:

1. All elevations are in feet above mean sea level.
2. NS = Not sampled and/or groundwater depths not measured.
3. NI = Well/Piezometer not installed.

TABLE 2

SUMMARY OF GROUNDWATER ELEVATIONS
C.R.S.W.M.A. TUSCARORA LONG-TERM REGIONAL LANDFILL

Well No.	Background		Down-gradient								Phase 3											
	MW-12S	MW-12D	MW-7	MW-8	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14R	MW-15S	MW-15D	MW-16SR	MW-16D	MW-17S	MW-17D	MW-18S	MW-18D	MW-19S	MW-19D	MW-20D	MW-21D
Well TOC Elev.	52.12	51.90	50.69	50.94	47.32	47.67	47.55	46.21	45.93	46.98	47.20	47.22	47.25	47.17	45.66	45.93	46.34	46.14	46.80	46.75	46.33	47.21
Well Depth	35.95	17.96	16.22	15.61	15.95	14.03	34.73	15.00	33.00	14.00	15.00	38.00	12.00	35.00	13.00	38.00	11.00	35.00	10.00	25.00	11.00	35.00
Jul-99	NI	NI	46.76	46.16	44.60	38.94	36.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-99	NI	NI	45.10	44.41	43.13	39.19	34.87	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-99	NI	NI	46.94	46.08	43.34	40.79	40.34	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-99	NI	NI	46.19	44.13	42.34	38.85	39.71	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Apr-00	NI	NI	46.96	45.66	42.96	39.04	39.93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-00	NI	NI	45.79	43.94	42.30	38.74	39.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Apr-01	NI	NI	47.33	45.62	43.60	39.37	40.16	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-01	NI	NI	44.81	42.99	41.57	38.92	35.41	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Apr-02	43.69	40.78	43.86	44.74	43.10	39.39	39.09	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-02	45.15	36.77	45.18	44.19	41.28	39.49	35.26	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Apr-03	45.77	42.00	47.26	45.74	43.27	40.40	40.24	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-03	46.32	42.32	47.98	46.34	42.64	41.67	40.44	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
15-Apr-04	46.79	41.70	47.78	46.47	43.40	41.57	38.78	43.27	38.93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
14-Oct-04	45.16	41.09	46.69	45.04	43.09	40.29	39.53	41.28	38.41	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05-Apr-05	44.54	41.89	47.05	44.88	43.29	40.28	40.18	43.29	39.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
27-Oct-05	45.51	42.62	47.16	46.12	42.63	41.93	40.81	44.51	39.82	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
21-Apr-06	45.43	41.59	47.12	46.02	43.53	40.37	39.89	43.17	38.82	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12-Oct-06	45.70	41.72	47.20	46.27	43.05	40.85	39.87	44.03	38.79	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
26-Apr-07	45.52	41.49	47.06	45.66	43.34	41.06	39.74	43.01	38.59	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11-Oct-07	42.18	35.60	43.67	43.94	41.35	39.98	34.08	41.19	33.02	39.25	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03-Apr-08	44.74	39.14	45.99	45.68	42.42	38.85	38.47	44.00	37.32	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
28-Oct-08	44.67	35.23	44.56	45.67	41.58	38.95	35.90	44.07	34.59	42.13	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08-Apr-09	45.31	33.90	46.77	45.98	42.67	39.69	36.40	43.17	34.92	41.94	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
27-Oct-09	43.96	29.37	43.45	44.89	40.72	38.59	33.16	42.66	31.48	41.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
08-Apr-10	45.17	31.48	46.57	45.94	42.74	40.28	36.00	43.01	34.27	41.67	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
13-Oct-10	45.16	29.72	45.69	45.76	41.11	39.74	35.02	43.33	33.29	41.54	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
27-Apr-11	44.73	29.09	45.77	45.63	42.17	39.76	34.01	42.99	32.18	41.30	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
20-Oct-11	44.86	29.42	44.98	45.99	41.12	39.94	33.96	43.31	32.13	43.65	41.20	30.31	40.04	31.76	39.33	32.70	40.99	32.80	39.61	32.78	26.07	27.21
26-Apr-12	44.18	29.11	45.46	45.49	41.80	40.17	34.05	43.32	31.68	42.33	40.86	30.53	39.64	32.00	39.27	33.04	39.62	33.08	37.08	33.08	26.15	19.89
16-Oct-12	43.81	29.59	45.18	45.39	41.51	39.87	34.21	42.77	32.26	42.17	41.02	31.22	39.58	32.88	39.34	34.02	39.91	33.93	38.22	33.82	26.46	27.61
11-Apr-13	44.16	28.14	45.94	45.70	41.90	40.13	33.43	43.41	31.28	42.37	40.97	29.88	39.82	31.84	39.33	33.08	39.54	33.02	39.06	33.01	25.11	27.05
30-Oct-13	43.86	27.48	45.16	45.23	40.78	39.82	31.83	42.95	29.93	42.18	40.90	29.11	39.35	30.75	39.24	31.83	39.64	31.59	38.34	31.45	24.39	25.51

NOTES:

1. All elevations are in feet above mean sea level.
2. NI = Well/Piezometer not installed.
3. NM = Not Measured.

TABLE 3

SUMMARY OF GROUNDWATER ELEVATIONS
C.R.S.W.M.A. TUSCARORA LF - LEACHATE STORAGE AREA

Well No.	Background	Downgradient										
	LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D
Well TOC Elev.	52.37	50.92	50.92	51.00	50.94	52.17	51.87	51.38	51.56	52.27	51.23	51.17
Well Depth	16.12	15.32	34.99	14.59	33.25	17.93	34.69	17.85	36.16	39.11	16.61	34.31
Jul-93	47.21	47.48	36.53	46.95	36.79	47.01	36.85	47.12	37.02	36.68	47.11	37.42
Aug-93	46.38	45.92	35.80	45.71	35.98	45.79	35.98	45.89	36.19	35.86	45.82	36.74
Sep-93	45.91	45.54	35.03	45.63	35.48	45.04	35.27	44.25	34.96	34.37	44.94	35.87
Sep-93	45.93	45.74	34.47	45.35	34.66	45.23	35.08	45.49	34.94	33.67	45.29	35.28
Apr-94	46.71	46.78	37.59	46.29	34.59	45.72	38.01	46.18	39.81	37.16	46.41	40.16
Oct-94	46.14	45.99	36.41	46.00	36.64	45.65	36.63	45.41	36.76	36.47	44.52	37.17
Apr-95	46.92	46.43	39.16	46.39	39.40	46.06	39.42	45.91	39.57	39.26	45.94	39.95
Oct-95	45.86	46.89	35.72	46.06	35.95	45.90	35.95	45.77	36.11	35.83	43.70	36.32
Apr-96	47.56	47.25	40.74	47.23	41.00	46.88	40.91	46.87	41.05	40.84	47.41	41.51
Oct-96	46.88	46.42	40.93	46.81	NS	46.38	NS	46.48	NS	41.05	48.06	NS
Dec-96	46.87	47.62	40.62	47.10	40.94	47.07	40.87	46.08	41.06	40.77	47.73	41.37
Apr-97	46.97	46.40	39.40	46.37	NS	46.05	NS	45.97	NS	39.51	45.89	NS
Mar-97	47.99	47.92	40.88	47.49	41.11	47.12	41.13	47.01	41.28	40.98	47.56	41.63
Oct-97	45.21	45.43	34.80	44.19	NS	45.03	NS	45.06	NS	34.83	44.09	NS
Apr-98	47.20	46.67	40.47	46.47	NS	46.54	NS	46.56	NS	40.54	46.30	41.63
Oct-98	44.65	43.89	37.00	44.10	37.19	44.44	37.22	44.42	37.35	37.06	42.24	37.57
Mar-99	46.50	45.92	39.73	46.00	39.95	46.54	40.00	46.73	40.11	39.81	45.88	40.45
Jul-99	45.86	45.34	37.48	45.37	36.64	45.53	36.75	45.33	36.80	36.55	41.58	36.96
Aug-99	44.90	45.07	34.78	45.30	34.95	45.29	35.05	45.12	35.11	34.84	40.70	35.26
Oct-99	46.97	46.37	40.52	46.86	40.76	47.97	40.85	47.96	40.94	40.62	46.35	41.24
Nov-99	45.85	45.44	39.94	45.51	40.18	46.35	40.20	45.22	40.38	40.06	44.58	40.62
Apr-00	46.87	45.97	40.09	46.04	40.35	46.50	40.42	46.39	40.56	40.27	45.59	40.82
Oct-00	45.34	44.92	39.27	45.10	39.50	45.38	39.54	45.28	39.71	40.37	43.57	39.98
Apr-01	46.85	46.11	40.30	46.14	40.49	46.37	40.56	46.27	40.65	40.39	44.93	40.95
Oct-01	45.22	44.58	36.62	44.79	36.76	44.92	36.87	44.82	36.90	36.72	42.23	37.22
Apr-02	46.47	45.97	39.22	45.98	39.43	46.07	39.51	45.93	39.64	39.29	44.25	39.93
Oct-02	45.97	45.61	35.22	45.57	35.39	45.72	35.44	45.39	35.56	35.27	42.22	35.85
Apr-03	47.04	46.33	40.39	46.37	40.61	46.61	40.68	46.66	40.80	40.51	45.38	41.11
Oct-03	47.21	46.52	40.71	46.76	40.95	46.99	41.02	47.18	41.15	40.83	45.78	41.42
15-Apr-04	47.38	46.62	40.08	46.82	40.30	47.38	40.35	47.75	40.52	40.17	45.91	40.78
14-Oct-04	46.37	45.72	39.58	44.82	39.76	45.76	39.87	45.68	39.95	39.67	44.48	40.22
05-Apr-05	46.35	46.02	40.37	46.03	40.56	46.17	40.60	46.00	40.73	40.45	44.99	40.99
27-Oct-05	46.86	42.38	41.01	46.39	41.23	46.99	41.18	47.50	41.05	41.10	45.55	41.75
21-Apr-06	46.41	46.05	40.07	45.98	40.27	46.05	40.33	45.93	40.41	40.24	44.56	40.75
12-Oct-06	46.92	46.51	40.11	46.38	40.36	46.49	40.43	46.40	40.58	40.24	44.95	40.88
26-Apr-07	46.52	46.05	39.67	45.99	39.78	46.17	40.07	46.03	40.29	39.76	44.93	40.59
10-Oct-07	43.46	43.34	34.12	42.53	34.24	41.99	34.31	41.81	34.44	34.15	41.90	34.70
03-Apr-08	46.54	46.17	38.12	46.00	38.20	46.42	38.31	46.28	38.42	38.23	44.77	38.48
28-Oct-08	45.96	45.99	34.75	45.66	34.71	45.28	34.85	45.13	34.87	34.83	43.99	34.58
08-Apr-09	45.47	46.27	34.56	46.07	34.43	46.40	34.87	46.26	34.66	34.84	44.75	33.79
27-Oct-09	45.15	45.05	30.72	44.55	30.42	44.66	30.85	44.54	30.51	30.94	43.37	29.33
08-Apr-10	46.69	46.00	33.15	45.95	32.79	46.16	33.35	46.09	32.99	33.47	44.77	31.42
13-Oct-10	46.63	45.99	31.83	45.99	31.43	46.41	32.01	46.41	31.58	32.26	44.42	29.69
27-Apr-11	46.27	45.75	30.80	45.72	30.48	45.63	30.99	45.53	30.62	31.17	44.28	28.87
20-Oct-11	46.25	46.25	30.89	46.07	30.59	46.07	31.14	46.18	30.76	31.70	44.89	29.23
26-Apr-12	46.03	45.76	30.36	45.65	30.10	45.72	30.55	45.69	30.31	30.76	44.51	28.72
16-Oct-12	46.05	45.65	30.73	45.53	30.40	45.71	31.02	45.66	30.56	31.15	44.90	28.87
11-Apr-13	46.36	46.20	29.65	45.89	29.37	45.79	30.11	45.62	29.45	30.13	44.79	27.96
30-Oct-13	45.53	45.68	28.53	45.48	28.23	44.96	28.77	44.75	28.42	28.85	44.13	26.94

NOTES:

1. All elevations are in feet above mean sea level.
2. NS = Not sampled and/or groundwater depths not measured.

TABLE 4

ESTIMATED HYDRAULIC GRADIENTS AND AVERAGE LINEAR VELOCITIES FOR THE SHALLOW AQUIFER

			October 30, 2013				
GRADIENT CALCULATION SEGMENT	FLOW LINE LENGTH (feet)	FLOW DIRECTION	GROUND-WATER ELEV. (feet)	HORIZ. GRADIENT, i (ft/ft)	HYDRAULIC CONDUCTIVITY, K (ft/day)	EFFECTIVE POROSITY n	LINEAR VELOCITY, V (ft/day)
i_1	1695	SE	45 40	0.0029	5.67E-01	0.17	0.010
i_2	975	SE	45 40	0.0051	5.67E-01	0.17	0.017
i_3	1346	E	45 39	0.0045	5.67E-01	0.17	0.015
			Average	0.0042		Average	0.014

Notes:

1. The hydraulic conductivity value used to calculate flow velocity was determined by using the geometric mean of hydraulic conductivities of all shallow aquifer monitoring wells listed in Table 6 of the *CRSWMA Tuscarora Long-Term Regional Landfill Phase 2 Expansion, Application for a Permit to Construct* by Joyce Engineering, Inc. (Revised January 2004).
2. Velocity = Ki/n; assume homogeneous isotropic porous aquifer.
3. An effective porosity (n) of 0.17 was assumed in the velocity calculations based on site-specific soil laboratory data.

TABLE 5

ESTIMATED HYDRAULIC GRADIENTS AND AVERAGE LINEAR VELOCITIES FOR THE DEEP AQUIFER

			October 30, 2013				
GRADIENT CALCULATION SEGMENT	FLOW LINE LENGTH (feet)	FLOW DIRECTION	GROUND-WATER ELEV. (feet)	HORIZ. GRADIENT, i (ft/ft)	HYDRAULIC CONDUCTIVITY, K (ft/day)	EFFECTIVE POROSITY n	LINEAR VELOCITY, V (ft/day)
i_4	1997	NW	32.0 27.5	0.0023	5.39E+00	0.25	0.049
i_5	337	E	32.0 31.0	0.0030	5.39E+00	0.25	0.064
i_6	1220	NW	30.0 25.5	0.0037	5.39E+00	0.25	0.079
			Average	0.0030		Average	0.064

Notes:

1. The hydraulic conductivity value used to calculate flow velocity was determined by using the geometric mean of hydraulic conductivities of all deep aquifer monitoring wells listed in Table 7 of the *CRSWMA Tuscarora Long-Term Regional Landfill Phase 2 Expansion, Application for a Permit to Construct* by Joyce Engineering, Inc. (Revised January 2004).
2. Velocity = Ki/n; assume homogeneous isotropic porous aquifer.
3. An effective porosity (n) of 0.25 was assumed in the velocity calculations based on site-specific soil laboratory data.

TABLE 6

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA INTERIM REGIONAL LANDFILL

| Constituent | Date | DL | RL | Concentrations (ug/L) | | |

TABLE 6

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA INTERIM REGIONAL LANDFILL

| Constituent | Date | DL | RL | Concentrations (ug/L) | | |

TABLE 6

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA INTERIM REGIONAL LANDFILL

| Constituent | Date | DL | RL | Concentrations (ug/L) | | |

TABLE 6

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA INTERIM REGIONAL LANDFILL

| Constituent | Date | DL | RL | Concentrations (ug/L) | | |

TABLE 7

SUMMARY OF FIELD PARAMETERS
C.R.S.W.M.A. TUSCARORA INTERIM REGIONAL LANDFILL

Field Parameters	Date	Background		Downgradient													
		IRL-1S	IRL-1D	IRL-2S	IRL-2SA	IRL-2D	IRL-2DA	IRL-3S	IRL-3D	IRL-4S	IRL-4D	IRL-5S	IRL-5D	IRL-6S	IRL-6D	MW-A	MW-B
Conductivity	Jun-93	1,000	480	30	NI	580	NI	430	520	370	600	800	590	310	460	NI	NI
[uMhos]	Aug-93	59	240	110	NI	360	NI	370	300	240	330	600	290	110	260	NI	NI
	Sep-93	75	300	150	NI	530	NI	420	450	250	460	880	400	150	400	NI	NI
	Sep-93	74	280	150	NI	520	NI	360	440	270	460	860	360	130	390	NI	NI
	Apr-94	76	350	140	NI	570	NI	360	620	290	560	990	460	77	460	NI	NI
	Oct-94	130	280	130	NI	820	NI	570	820	270	730	1,000	82	82	420	NI	NI
	Apr-95	67	360	160	NI	560	NI	240	670	290	520	1,900	490	69	450	NI	NI
	Oct-95	65	270	260	NI	660	NI	260	700	330	520	1,300	480	75	450	NI	NI
	Apr-96	79	360	340	NI	580	NI	700	320	290	520	1,500	450	77	440	NI	NI
	Oct-96	63	NS	NA	NI	AB	NI	410	530	250	400	1,000	WL	87	AB	NI	NI
	Apr-97	80	NS	640	NI	AB	NI	330	690	270	530	1,800	WL	NA	AB	NI	NI
	Oct-97	84	NS	630	NI	AB	NI	720	270	270	490	1,200	WL	NA	AB	NI	NI
	Apr-98	73	NS	700	NI	AB	NI	360	770	240	520	1,400	WL	110	AB	NI	NI
	Oct-98	74	NS	600	NI	AB	NI	480	750	230	490	1,200	WL	AB	AB	NI	NI
	Mar-99	77	NS	810	NI	AB	NI	880	760	760	520	1,200	WL	AB	AB	NI	NI
	Oct-99	74	NS	AB	NI	AB	NI	960	710	490	490	800	WL	AB	AB	NI	NI
	Apr-00	74	NS	AB	NI	AB	NI	1,100	1,400	170	500	900	WL	AB	AB	NI	NI
	Oct-00	76	NS	AB	NI	AB	NI	1,100	720	230	500	900	WL	AB	AB	NI	NI
	Apr-01	67	NS	AB	64	AB	WL	1,100	710	190	470	840	WL	AB	AB	NS	NS
	Oct-01	74	NS	AB	170	AB	WL	1,000	710	200	500	1,700	WL	AB	AB	NS	NS
	Apr-02	68	NS	AB	120	AB	WL	950	710	200	450	1,700	WL	AB	AB	90	120
	Oct-02	19	NS	AB	448	AB	WL	970	830	192	550	1,848	WL	AB	AB	98	132
	Apr-03	100	NS	AB	329	AB	WL	1,082	804	215	486	1,024	WL	AB	AB	86	157
	Oct-03	96	NS	AB	182	AB	WL	1,110	849	205	506	1,393	WL	AB	AB	81	180
	15-Apr-04	64	NS	AB	120	AB	WL	700	600	170	360	990	WL	AB	AB	56	100
	14-Oct-04	99	NS	AB	183	AB	WL	775	712	239	482	1,188	WL	AB	AB	86	123
	05-Apr-05	96	NS	AB	WL	AB	WL	1,033	942	287	601	1,491	WL	AB	AB	89	WL
	27-Oct-05	105	195	AB	WL	AB	WL	876	775	250	502	1,323	WL	AB	AB	91	WL
	21-Apr-06	104	231	AB	WL	AB	WL	927	736	271	553	1,424	WL	AB	AB	79	WL
	12-Oct-06	101	164	AB	WL	AB	WL	784	672	278	515	126	WL	AB	AB	87	WL
	26-Apr-07	103	155	AB	WL	AB	WL	850	721	287	536	1,287	WL	AB	AB	75	WL
	10-Oct-07	105	192	AB	WL	AB	WL	850	702	354	550	1,570	WL	AB	AB	98	WL
Resample	04-Dec-07	109.2	357	AB	WL	AB	WL	963	1,052	379	610	1,829	WL	AB	AB	108.7	WL
	02-Apr-08	109	169	AB	WL	AB	WL	1,096	713	253	540	1,272	WL	AB	AB	86	WL
	28-Oct-08	109	217	AB	WL	AB	WL	935	931	266	533	1,468	WL	AB	AB	103	WL
	08-Apr-09	106	215	AB	WL	AB	WL	1,092	894	283	541	1,265	WL	AB	AB	95	WL
	27-Oct-09	93	170	AB	WL	AB	WL	898	824	372	522	1,144	WL	AB	AB	91	WL
	08-Apr-10	103	220	AB	WL	AB	WL	1,030	860	338	576	1,538	WL	AB	AB	94	WL
	13-Oct-10	119	187	AB	WL	AB	WL	889	753	464	557	1,303	WL	AB	AB	93	WL
	27-Apr-11	156	252	AB	WL	AB	WL	982	734	505	605	1,472	WL	AB	AB	104	WL
	20-Oct-11	124	178	AB	WL	AB	WL	839	667	467	576	1,310	WL	AB	AB	102	WL
	26-Apr-12	132	219	AB	WL	AB	WL	931	653	514	585	1,553	WL	AB	AB	107	WL
	16-Oct-12	139	193	AB	WL	AB	WL	886	628	532	574	1,502	WL	AB	AB	102	WL
	11-Apr-13	131	277	AB	WL	AB	WL	834	605	580	571	1,300	WL	AB	AB	101	WL
	30-Oct-13	113	170	AB	WL	AB	WL	731	588	569	572	1,110	WL	AB	AB	101	WL
pH	Jun-93	5.3	6.3	6.1	NI	6.2	NI	5.4	6.3	5.7	6.1	6	6.4	5.8	6.2	NI	NI
[standard units]	Aug-93	5.5	6.5	6.3	NI	6.8	NI	6	6.8	6.4	6.9	6.2	6.8	6.3	7	NI	NI
	Sep-93	5.9	6.6	5.7	NI	6.5	NI	5.9	6.5	6.7	7	6.1	6.6	6.5	6.7	NI	NI
	Sep-93	6.1	6.5	5.8	NI	6.1	NI	5.9	6.5	5.7	6.3	6.4	6.9	6.6	6.6	NI	NI
	Apr-94	5.9	6.1	5.4	NI	6.4	NI	5.7	6.5	6.2	6.7	6.4	6.8	6.4	6.7	NI	NI
	Oct-94	5.2	6.4	5.2	NI	6.7	NI	5.7	6.7	6	6.8	6.2	7	5.5	6.8	NI	NI
	Apr-95	5.7	6.1	5.5	NI	6.4	NI	6	6.2	6.2	6.6	6.2	3.8	6.2	6.6	NI	NI
	Oct-95	5	6.4	5.6	NI	6.7	NI	5.4	6.6	5.9	6.8	6.2	6.9	5.3	7	NI	NI
	Apr-96	5	6.3	5.8	NI	6.6	NI	6.7	6	6.1	6.7	6.4	7	5.5	6.6	NI	NI
	Oct-96	5.2	NS	NA	NI	AB	NI	6	6	6.4	6.4	5.8	WL	6	AB	NI	NI
	Apr-97	6.1	NS	6.3	NI	AB	NI	6.2	6.5	6.1	6.6	6.2	WL	NA	AB	NI	NI
	Oct-97	5.3	NS	5.8	NI	AB	NI	5.9	5.6	5.6	6.1	5.8	WL	NA	AB	NI	NI
	Apr-98	5.8	NS	6.5	NI	AB	NI	5.4	6.4	5.6	6.8	6.1	WL	5.2	AB	NI	NI
	Oct-98	5.5	NS	6.1	NI	AB	NI	5.6	6.3	5.7	6.7	6	WL	AB	AB	NI	NI
	Mar-99	5.2	NS	6.3	NI	AB	NI	5.7	6.5	6.0	6.7	6	WL	AB	AB	NI	NI
	Oct-99	4.9	NS	AB	NI	AB	NI	5.9	6.4	6.8	6.8	5.7	WL	AB	AB	NI	NI
	Apr-00	5.2	NS	AB	NI	AB	NI	5.8	6.4	5.7	6.9	5.8	WL	AB	AB	NI	NI
	Oct-00	4.8	NS	AB	NI	AB	NI	5.7	6.4	5.5	6.6	5.2	WL	AB	AB	NI	NI
	Apr-01	4.9	NS	AB	4.8	AB	WL	5.6	6.5	5.4	6.6	5.5	WL	AB	AB	NS	NS
	Oct-01	5	NS	AB	4.9	AB	WL	5.8	6.6	5.6	6.9	6.1	WL	AB	AB	NS	NS
	Apr-02	4.7	NS	AB	4.3	AB	WL	5.7	6.3	5.3	6.4	6.0	WL	AB	AB	5.2	4.5
	Oct-02	5.1	NS	AB	4.1	AB	WL	6.0	6.4	5.3	7.0	6.1	WL	AB	AB	5.2	4.7
	Apr-03	5.1	NS	AB	4.3	AB	WL	6.1	6.5	5.3	6.8	5.8	WL	AB	AB	5.2	4.7
	Oct-03	4.8	NS	AB	4.3	AB	WL	5.8	6.3	5.1	6.7	5.9	WL	AB	AB	5.0	4.8
	15-Apr-04	5.3	NS	AB	4.4	AB	WL	6.4	5.6	5.8	6.8	6.4	WL	AB	AB	5.4	5.8
	14-Oct-04	4.9	NS	AB	4.4	AB	WL	6.1	6.5	5.3	6.9	6.1	WL	AB	AB	4.9	4.8
	05-Apr-05	5.1	NS	AB	WL	AB	WL	6.3	6.7	5.2	7.0	6.1	WL	AB	AB	5.1	WL
	27-Oct-05	4.9	6.6	AB	WL	AB	WL	6	6.5	5.1	6.9	6.2	WL	AB	AB	5.1	WL
	21-Apr-06	5.0	6.3	AB	WL	AB	WL	6.2	7.0	5.4	7.9	6.0	WL	AB	AB	5.0	WL
	12-Oct-06	5.0	6.1	AB	WL	AB	WL	6.2	6.6	5.1	6.8	6.1	WL	AB	AB	5.2	WL
	26-Apr-07	4.9	6.1	AB	WL	AB	WL	6.2	6.7	5.4	6.9	6.1	WL	AB	AB	5.0	WL
	10-Oct-07	5.2	6.2	AB	WL	AB	WL	6.2	6.8	5.8	7.0	6.4	WL	AB	AB	5.3	WL
Resample	04-Dec-07	6.60	6.29	AB	WL	AB	WL	7.08	6.60	6.64	7.39	6.26	WL	AB	AB	6.61	WL
	08-Apr-08	4.9	6.7	AB	WL	AB	WL	5.6	6.8	5.2	6.8	6.0	WL	AB	AB	5.0	WL
	28-Oct-08	4.7	6.3	AB	WL	AB	WL	6.0	6.5	5.3	6.9	6.3	WL	AB	AB	5.2	WL
	08-Apr-09	4.9	6.0	AB	WL	AB	WL	5.5	6.4	4.9	6.7	8.5	WL	AB	AB	5.1	WL
	27-Oct-09	4.8	6.2	AB	WL	AB	WL	5.8	6.3	5.3	6.8	6.0	WL	AB	AB	4.9	WL
	08-Apr-10	4.7	6.3	AB	WL	AB	WL	5.6	6.5	4.8	6.9	6.1	WL	AB	AB	5.0	WL
	13-Oct-10	5.2	6.3	AB	WL	AB	WL	5.8	6.5	5.3	6.7	6.1	WL	AB	AB	5.1	WL
	27-Apr-11	4.9	6.3	AB	WL	AB	WL	5.6	6.6	5.0	6.7	6.0	WL	AB	AB	4.9	WL
	20-Oct-11	4.6	6.3	AB	WL	AB	WL	5.9	6.7	6.1	6.9	4.7	WL	AB	AB	4.9	WL
	26-Apr-12	4.6	6.2	AB	WL	AB	WL	5.7	6.7	4.9	6.8	6.0	WL	AB	AB	5.0	WL
	16-Oct-12	4.5	6.2	AB	WL	AB	WL	5.9	6.8	4.9	6.9	6.2	WL	AB	AB	5.2	WL
	11-Apr-13	4.8	6.3	AB	WL	AB	WL	5.5	6.7	4.7	6.9	6.1	WL	AB	AB	5	WL
	30-Oct-13	5.1	6.3	AB	WL	AB	WL	6.1	6.9	5.2	6.9	6.2	WL	AB	AB	5.3	WL
Temperature	Jun-93	22	20	23	NI	20	NI	23	22	23	21	23	21	22	21	NI	NI
[^{o}C]	Aug-93	23	20	22	NI	21	NI	22	22	23	20	24	21	23	20	NI	NI
	Sep-93	23	20	24	NI	20	NI	25	20	24	20	25	20	24	21	NI	NI
	Sep-93	23	21	24	NI	21	NI	24	21	23	20	24	22	24	21	NI	NI
	Apr-94	18	18	17	NI	17	NI	16	16	15	16	16	16	15	15	NI	NI
	Oct-94	21	18	21	NI	20	NI	21	19	21	19	21	20	21	20	NI	NI
	Apr-95	15	15	15	NI	17	NI	16	16	16	16	16	16	15	16	NI	NI
	Oct-95	22	20	22	NI	20	NI	22	20	22	22	22	21	22	20	NI	NI
	Apr-96	12	13	13	NI	14	NI	13	13	13	13	13	14	12	12	NI	NI
	Oct-96	20	NS	NA	NI	AB	NI	22	22	22	22	22	WL	22	AB	NI	NI
	Apr-97	13	NS	14	NI	AB	NI	15	14	15	15	14	WL	NA	AB	NI	NI
	Oct-97	18	NS	21	NI	AB	NI	17	19	19	18	20	WL	NA	AB	NI	NI
	Apr-98	15	NS	16	NI	AB	NI	15	16	15	17	15	WL	15	AB	NI	NI
	Oct-98	19	NS	21	NI	AB	NI	21	19	21	20	21	WL	AB	AB	NI	NI
	Mar-99	12	NS	16	NI	AB	NI	17	17	17	18	17	WL	AB	AB	NI	NI
	Oct-99	21	NS	AB	NI	AB	NI	20	20	21	21	21	WL	AB	AB	NI	NI
	Apr-00	15	NS	AB	NI	AB	NI	15	17	19	18	15	WL	AB	AB	NI	NI
	Oct-00	18	NS	AB	NI	AB	NI	18	20	21	20	16	WL	AB	AB	NI	NI
	Apr-01	15	NS	AB	15	AB	WL	18	17	16	15	15	WL	AB	AB	NS	NS
	Oct-01	19	NS	AB	20	AB	WL	20	20	21	21	21	WL	AB	AB	NS	NS
	Apr-02	15	NS	AB	16	AB	WL	15	15	16	17	17	WL	AB	AB	17	16
	Oct-02	24	NS	AB	26	AB	WL	23	22	24	23	24	WL	AB	AB	25	25
	Apr-03	15	NS	AB	17	AB	WL	16	16	15	16	17	WL	AB	AB	16	16
	Oct-03	20	NS	AB	21	AB	WL	21	20	21	22	21	WL	AB	AB	21	21
	15-Apr-04	13	NS	AB	14	AB	WL	13	13	14	14	15	WL	AB	AB	13	13
	14-Oct-04	20	NS	AB	21	AB	WL	21	21	22	22	22	WL	AB	AB	21	21
	05-Apr-05	15	NS	AB	WL	AB	WL	15	15	15	15	15	WL	AB	AB	15	WL
	27-Oct-05	20	17	AB	WL	AB	WL	22	22	23	23	23	WL	AB	AB	21	WL
	21-Apr-06	20	18	AB	WL	AB	WL	14	16	15	15	18	WL	AB	AB	18	WL
	12-Oct-06	20	18	AB	WL	AB	WL	22	19	23	21	23	WL	AB	AB	21	WL
	26-Apr-07	16	17	AB	WL	AB	WL	17	18	16	18	17	WL	AB	AB	17	WL
	10-Oct-07	19	18	AB	WL	AB	WL	22	19	23	20	24	WL	AB	AB	20	WL
Resample	04-Dec-07	16.7	16.7	AB	WL	AB	WL	18.2	16.8	18.6	18.8	18.7	WL	AB	AB	16.9	WL
	02-Apr-08	15	17	AB	WL	AB	WL	17	17	16	19	16	WL	AB	AB	16	WL
	28-Oct-08	19	19	AB	WL	AB	WL	20	20	21	21	19	WL	AB	AB	19	WL
	08-Apr-09	14	16	AB	WL	AB	WL	14	16	15	16	15	WL	AB	AB	14	WL
	27-Oct-09	20	19	AB	WL	AB	WL	21	20	21	21	22	WL	AB	AB	21	WL
	08-Apr-10	17	17	AB	WL	AB	WL	15	16	15	17	16	WL	AB	AB	16	WL
	13-Oct-10	21	20	AB	WL	AB	WL	21	20	22	21	23	WL	AB	AB	22	WL
	27-Apr-11	17	16	AB	WL	AB	WL	16	17	17	18	17	WL	AB	AB	17	WL
	20-Oct-11	20	18	AB	WL	AB	WL	21	19	21	19	21	WL	AB	AB	20	WL
	26-Apr-12	17	17	AB	WL	AB	WL	17	17	16	18	17	WL	AB	AB	17	WL
	16-Oct-12	21	19	AB	WL	AB	WL	21	20	22	21	22	WL	AB	AB	22	WL
	11-Apr-13	15	17	AB	WL	AB	WL	15	17	14	17	15	WL	AB	AB	15	WL
	30-Oct-13	20	19	AB	WL	AB	WL	21	20	21	19	21	WL	AB	AB	21	WL
Turbidity	Jun-93	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
[NTU]	Aug-93	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
	Sep-93	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
	Sep-93	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
	Apr-94	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
	Oct-94	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
	Apr-95	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
	Oct-95	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
	Apr-96	NA	NA	NA	NI	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
	Oct-96	NA	NS	NA	NI	AB	NI	NA	NA	NA	NA	NA	WL	NA	AB	NI	NI
	Apr-97	NA	NS	NA	NI	AB	NI	NA	NA	NA	NA	NA	WL	NA	AB	NI	NI
	Oct-97	NA	NS	NA	NI	AB	NI	NA	NA	NA	NA	NA	WL	NA	AB	NI	NI
	Apr-98	NA	NS	NA	NI	AB	NI	NA	NA	NA	NA	NA	WL	NA	AB	NI	NI
	Oct-98	NA	NS	130	NI	AB	NI	60	180	220	190	650	WL	AB	AB	NI	NI
	Mar-99	650	NS	290	NI	AB	NI	85	180	180	270	95	WL	AB	AB	NI	NI
	Oct-99	600	NS	AB	NI	AB	NI	10	23	17	17	5.9	WL	AB	AB	NI	NI
	Apr-00	170	NS	AB	NI	AB	NI	18	40	33	40	13	WL	AB	AB	NI	NI
	Oct-00	700	NS	AB	NI	AB	NI	31	90	7.1	34	21	WL	AB	AB	NI	NI
	Apr-01	140	NS	AB	50	AB	WL	21	60	12	27	10	WL	AB	AB	NS	NS
	Oct-01	106	NS	AB	68	AB	WL	74	139	34	18	26	WL	AB	AB	NS	NS
	Apr-02	90	NS	AB	12	AB	WL	40	35	5.3	25	19	WL	AB	AB	140	5.9
	Oct-02	280	NS	AB	19	AB	WL	45	100	9.2	38	100	WL	AB	AB	75	4.0
	Apr-03	90	NS	AB	6.9	AB	WL	45	110	9.4	39	27	WL	AB	AB	110	8.8
	Oct-03	65	NS	AB	13	AB	WL	31	30	19	60	55	WL	AB	AB	160	40
	15-Apr-04	200	NS	AB	100	AB	WL	45	35	37	32	36	WL	AB	AB	110	13
	14-Oct-04	75	NS	AB	13	AB	WL	85	80	8.9	240	80	WL	AB	AB	95	5.9
	05-Apr-05	100	NS	AB	WL	AB	WL	40	18	13	25	32	WL	AB	AB	75	WL
	27-Oct-05	90	>1,000	AB	WL	AB	WL	22	29	14	36	19	WL	AB	AB	85	WL
	21-Apr-06	8.9	14	AB	WL	AB	WL	5.5	32	7.3	53	25	WL	AB	AB	4.1	WL
	12-Oct-06	5.1	40	AB	WL	AB	WL	21	140	1.6	37	170	WL	AB	AB	20	WL
	26-Apr-07	7.0	4.0	AB	WL	AB	WL	22	160	200	200	90	WL	AB	AB	25	WL
	10-Oct-07	11	10	AB	WL	AB	WL	58	65	12	45	110	WL	AB	AB	22	WL
Resample	04-Dec-07	79.4	14.97	AB	WL	AB	WL	15.00	525	47.5	64.6	9.42	WL	AB	AB	73.3	WL
	02-Apr-08	40	9.5	AB	WL	AB	WL	3.5	28	7.7	55	11	WL	AB	AB	20	WL
	28-Oct-08	80	50	AB	WL	AB	WL	36	37	36	40	38	WL	AB	AB	86	WL
	08-Apr-09	130	56	AB	WL	AB	WL	90	260	120	38	32	WL	AB	AB	90	WL
	27-Oct-09	270	55	AB	WL	AB	WL	85	85	23	70	62	WL	AB	AB	65	WL
	08-Apr-10	160	39	AB	WL	AB	WL	75	65	18	40	75	WL	AB	AB	65	WL
	13-Oct-10	10	85	AB	WL	AB	WL	34	75	35	50	170	WL	AB	AB	140	WL
	27-Apr-11	16	29	AB	WL	AB	WL	44	110	31	70	65	WL	AB	AB	50	WL
	20-Oct-11	12	55	AB	WL	AB	WL	45	130	34	85	90	WL	AB	AB	85	WL
	26-Apr-12	85	45	AB	WL	AB	WL	31	120	85	60	85	WL	AB	AB	65	WL
	16-Oct-12	18	55	AB	WL	AB	WL	75	110	18	50	140	WL	AB	AB	45	WL
	11-Apr-13	150	25	AB	WL	AB	WL	35	130	19	45	110	WL	AB	AB	65	WL
	30-Oct-13	110	40.0	AB	WL	AB	WL	50.0	180	55.0	65.0	50.0	WL	AB	AB	39.0	WL

Notes:
1. NA = Data not available.
2. NI = Well/Piezometer not installed.
3. AB = Abandoned.
4. NS = Not sampled and/or no water level measurements taken.
5. WL = May be monitored for water levels only.

TABLE 8A

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LONG-TERM REGIONAL LF PHASES 1 and 2

Constituent	Date	Concentrations (µg/L)																											
		DL	RL	Background				Downgradient																				Blanks	
				MW-12S		MW-12D		MW-7		MW-8		MW-9		MW-10		MW-11S		MW-11D		MW-13S		MW-13D		MW-14		MW-14R			
Antimony	Jul-99	NR	30	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	30	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	30	NI		NI		ND		ND		40		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	30	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	30	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	30	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	30	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	30	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	30	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	30	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	30	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	30	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	30	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	30	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	30	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	30	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	30	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	30	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	6.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.05	6.0	ND		ND		0.1	B	ND		AB		ND		ND		ND		ND		ND		AB		0.1	B	0.1	J
GWPS = 1.4 µg/L (10/23/07)	03-Apr-08	0.44	6.0	ND		0.5	J	0.1	J	ND		AB		ND		ND		0.5	J	0.1	J	ND		AB		ND		ND	
	28-Oct-08	0.44	6.0	0.1	J	ND		0.9	J	0.2	J	AB		0.1	J	ND		ND		ND		ND		AB		ND		ND	
	08-Apr-09	0.06	6.0	0.1	J	0.2	J	0.1	J	ND		AB		ND		ND		ND		0.9	J	0.2	J	AB		0.1	J	ND	
	27-Oct-09	0.06	6.0	0.1	J	0.6	J	ND		ND		AB		ND		ND		ND		0.8	J	0.6	J	AB		0.1	J	ND	
	08-Apr-10	0.22	6.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		0.8	B	0.7	J
GWPS = 1 µg/L (8/1/10)	13-Oct-10	0.22	6.0	ND		ND		ND		ND		AB		0.5	J	ND		ND		ND		ND		AB		ND		ND	
	27-Apr-11	0.14	6.0	ND		ND		ND		0.37	J	AB		0.22	J	0.17	J	ND		ND		ND		AB		ND		ND	
	20-Oct-11	0.14	6.0	ND		ND		0.19	J	ND		AB		ND		ND		ND		ND		ND		AB		0.34	J	ND	
	26-Apr-12	0.14	6.0	ND		ND		ND		ND		AB		ND		ND		0.4	J	ND		ND		AB		ND		ND	
	16-Oct-12	0.02	6.0	ND		0.76	J	0.15	J	0.17	J	AB		0.13	J	0.06	J	0.18	J	0.02	J	0.20	J	AB		0.04	J	ND	
	11-Apr-13	0.02	6.0	0.07	J	0.09	J	0.12	J	0.43	J	AB		0.10	J	0.07	J	0.08	J	0.06	J	0.09	J	AB		0.17	J	ND	
	30-Oct-13	0.02	6.0	0.15	B	0.94	J	0.24	B	0.12	B	AB		0.10	B	0.13	B	0.38	B	0.24	B	0.50	J	AB		0.25	B	0.08	J
Arsenic	Jul-99	NR	10	NI		NI		37		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	10	NI		NI		13		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	10	ND		ND		10		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.47	10.0	6.6	J	ND		3.5	J	4.3	J	AB		1.8	J	0.5	J	ND		9.4	J	ND		AB		1.0	J	ND	
NC 2L = 50 µg/L (10/23/07)	03-Apr-08	0.57	10.0	1.4	J	ND		1.0	B	1.3	J	AB		4.1	J	0.2	B	ND		1.3	J	ND		AB		0.2	B	0.2	J
	28-Oct-08	0.57	10.0	1	B	0.8	B	2.4	B	5.3	J	AB		3.1	J	0.4	B	0.2	B	1.3	B	0.5	B	AB		0.7	B	0.5	J
	08-Apr-09	0.17	10.0	1.2	J	0.8	B	1.2	J	3.9	J	AB		3.5	J	0.6	B	0.3	B	1.6	J	0.4	B	AB		0.4	B	0.2	J
	27-Oct-09	0.17	10.0	1	J	0.8	J	1.7	J	5.0	J	AB		2.3	J	0.4	J	0.2	J	1.2	J	0.7	J	AB		0.8	J	ND	
NC 2L = 10 µg/L (1/1/10)	08-Apr-10	0.04	10.0	0.4	J	ND		0.7	J	2.5	J	AB		2.9	J	ND		ND		1.9	J	ND		AB		0.2	J	ND	
	13-Oct-10	0.04	10.0	0.9	J	1	J	1	J	2.3	J	AB		3.4	J	0.3	J	0.4	J	1.8	J	0.7	J	AB		1.2	J	ND	
	27-Apr-11	0.10	10.0	0.28	J	ND		2.9	J	1.5	J	AB		2.4	J	0.26	J	ND		0.86	J	ND		AB		0.20	J	ND	
	20-Oct-11	0.10	10.0	0.36	J	0.51	J	2.8	J	1.3	J	AB		2.7	J	0.43	J	ND		1.0	J	0.24	J	AB		1.4	J	ND	
	26-Apr-12	0.10	10.0	0.24	J	0.56	J	1.9	J	1.6	J	AB		8.0	J	0.55	J	ND		1.0	J	0.39	J	AB		1.9	J	ND	
	16-Oct-12	0.13	10.0	0.22	B	ND		1.3	B	1.2	B	AB		2.4	J	0.56	B	ND		0.93	B	0.21	B	AB		5.1	J	0.4	J
	11-Apr-13	0.05	10.0	0.33	B	0.31	B	1.3	J	2.1	J	AB		2.1	J	0.92	J	0.41	J	1.6	J	0.31	B	AB		4.3	J	0.15	J
	30-Oct-13	0.05	10.0	0.46	B	1.4	J	0.93	B	2.0	J	AB		2.8	J	0.58	B	0.19	B	1.2	J	0.28	B	AB		4.9	J	0.20	J
Barium	Jul-99	NR	500	NI		NI		869		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	500	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	500	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	500	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	500	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	500	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	500	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	500	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	500	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	500	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	500	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	500	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	500	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	500	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	500	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	500	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	500	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	500	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	100	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.04	100.0	81.8	J	47.4	J	63.3	J	32.7	J	AB		44.8	J	45.7	J	40.7	J	42.2	J	46.4	J	AB		42.8	J	0.2	J
NC 2L = 2,000 µg/L (10/23/07)	03-Apr-08	0.11	100.0	88.6	J	36.7	J	67.3	J	43.6	J	AB		40.1	J	45.8	J	44	J	43.0	J	35.0	J	AB		44.9	J	0.4	J
	28-Oct-08	0.11	100.0	85.2	J	30.9	J	115		80.3	J	AB		55.1	J	111		37.9	J	51.1	J	37.9	J	AB		50.7	J	0.7	J
	08-Apr-09	0.04	100.0	109		33.6	J	61.0	J	82.8	J	AB		66.5	J	52.4	J	42.8	J	59.4	J	50.4	J	AB		99.7	J	0.2	J
	27-Oct-09	0.04	100.0	66.5	J	27.3	J	93.0	J	94.1	J	AB		77.7	J	65.4	J	35.9	J	54.9	J	44.8	J	AB		112		0.1	J
NC 2L = 700 µg/L (1/1/10)	08-Apr-10	0.03	100.0	82.1	J	26.8	J	46.4	J	79.9	J	AB		53.9	J	35.2	J	39.2	J	45.5	J	45.4	J	AB		132		0.1	J
	13-Oct-10	0.03	100.0	54.4	J	26.7	J	42.2	J	94.1	J	AB		65.7	J	36.2	J	45.1	J	70.5	J	43.7	J	AB		197		0.2	J
	27-Apr-11	0.02	100.0	64.9	J	26.1	J	52.1	J	86.4	J	AB		55.5	J	33.7	J	38.6	J	56.9	J	44.4	J	AB		128		0.10	J
	20-Oct-11	0.02	100.0	57.4	J	26.7	J	56.0	J	98.2	J	AB		60	J	38.4	J	37.3	J	77.7	J	39.5	J	AB		140		0.10	J
	26-Apr-12	0.02	100.0	55.1	J	24.2	J	53.4	J	92.2	J	AB		78.1	J	28.2	J	43.2	J	71.2	J	50.5	J	AB		94	J	0.12	J
	16-Oct-12	0.07	100.0	40.5	J	25.5	J	40.7	J	104		AB		53.0	J	25.1	J	39.8	J	64.1	J	43.5	J	AB		106		0.28	J
	11-Apr-13	0.06	100.0	42.2	J	47.0	J	43.7	J	99.1	J	AB		48.5	J	23.1	J	42.3	J	82.0	J	47.0	J	AB		69.6	J	0.06	J
	30-Oct-13	0.06	100.0	36.5	J	37.5	J	45.3	J	113		AB		57.0	J	27.1	J	34.7	J	70.0	J	35.2	J	AB		67.3	J	0.24	J
Beryllium	Jul-99	NR	2	NI		NI		5		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	2	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	2	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	2	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	2	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	2	NI		NI		ND		ND		6		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	2	NI		NI		ND		ND		5		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	2	NI		NI		ND		2		9		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	2	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	2	ND		ND		ND		ND		3		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	2	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	2	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	2	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	2	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	2	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	2	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	2	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	2	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.08	1.0	0.1	J	ND		0.2	J	0.2	J	AB		0.2	J	0.1	J	0.1	J	0.1	J	ND		AB		0.1	J	ND	
GWPS = 4 µg/L (10/23/07)	03-Apr-08	0.06	1.0	0.3	J	ND		ND		0.3	J	AB		0.2	J	1.5		0.1	J	0.3	J	ND		AB		0.2	J	ND	
	28-Oct-08	0.06	1.0	0.9	J	0.1	J	0.4	J	0.8	J	AB		0.3	J	1.2	J	0.1	J	0.4	J	ND		AB		0.3	J	ND	
	08-Apr-09	0.06	1.0	0.6	J	0.1	J	0.1	J	0.7	J	AB		0.3	J	2		0.1	J	0.4	J	0.1	J	AB		0.4	J	ND	
	27-Oct-09	0.06	1.0	0.5	J	0.1	J	0.4	J	0.9	J	AB		0.4	J	3		0.1	J	0.4	J	0.1	J	AB		0.7	J	ND	
	08-Apr-10	0.02	1.0	0.6	J	0.1	B	0.2	B	0.6	J	AB		0.3	B	2		0.1	B	0.3	B	0.1	B	AB		0.7	J	0.1	J
GWPS = 4 µg/L (10/1/10)	13-Oct-10	0.02	1.0	0.5	J	0.1	J	0.1	J	0.7	J	AB		0.4	J	3		0.1	J	0.3	J	0.1	J	AB		1.2		ND	
	27-Apr-11	0.02	1.0	0.36	J	ND		0.11	J	0.47	J	AB		0.31	J	3		ND		0.25	J	ND		AB		1.0		ND	
	20-Oct-11	0.02	1.0	0.40	J	0.08	J	0.20	J	0.54	J	AB		0.34	J	4		0.06	J	0.40	J	ND		AB		0.32	J	ND	
	26-Apr-12	0.02	1.0	0.27	J	0.06	J	0.15	J	0.59	J	AB		0.62	J	4		0.05	J	0.29	J	0.04	J	AB		0.63	J	ND	
	16-Oct-12	0.07	1.0	0.22	J	ND		0.09	J	0.66	J	AB		0.34	J	3		ND		0.30	J	ND		AB		0.10	J	ND	
	11-Apr-13	0.03	1.0	0.25	J	ND		0.17	J	0.52	J	AB		0.25	J	2		0.07	J	0.38	J	ND		AB		0.21	J	ND	
	30-Oct-13	0.03	1.0	0.21	J	0.12	B	0.11	B	0.62	J	AB		0.31	J	2		0.12	B	0.40	J	ND		AB		0.08	B	0.04	J

TABLE 8A

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LONG-TERM REGIONAL LF PHASES 1 and 2

Constituent	Date	Concentrations (µg/L)																									
		DL	RL	Background				Downgradient																		Blanks	
				MW-12S		MW-12D		MW-7		MW-8		MW-9		MW-10		MW-11S		MW-11D		MW-13S		MW-13D		MW-14		MW-14R			
Cadmium	Jul-99	NR	1	NI		NI		1		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	1	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	1	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	1	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	1	NI		NI		ND		ND		ND		1		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	1	NI		NI		ND		ND		2		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	1	NI		NI		ND		ND		3		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	1	NI		NI		ND		ND		2		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	1	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	1	ND		ND		1		ND		2		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	1	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	1	ND		ND		ND		ND		ND		1		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	1	ND		2		ND		ND		ND		3		3		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	1	ND		ND		ND		ND		AB		ND		ND		ND		ND		1		ND		NI		ND	
	05-Apr-05	NR	1	ND		ND		1		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	1	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	1	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	1	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.06	1.0	0.2	B	0.1	B	0.6	J	0.1	B	AB		0.1	B	0.5	B	0.1	B	0.1	B	0.1	B	AB		0.9	J	0.1	J
NC 2L = 1.75 µg/L (10/23/07)	03-Apr-08	0.05	1.0	0.4	J	0.1	J	0.2	J	0.1	J	AB		0.2	J	0.2	J	0.3	J	0.1	J	ND		AB		0.1	J	ND	
	28-Oct-08	0.05	1.0	0.2	J	0.2	J	0.3	J	0.2	J	AB		0.1	J	0.3	J	0.2	J	0.5	J	0.1	J	AB		0.2	J	ND	
	08-Apr-09	0.04	1.0	0.2	J	0.2	J	0.3	J	0.3	J	AB		0.2	J	0.7	J	0.5	J	0.3	J	0.2	J	AB		0.2	J	ND	
	27-Oct-09	0.04	1.0	0.4	J	0.2	J	0.2	J	0.1	J	AB		0.2	J	0.4	J	0.1	J	0.2	J	0.1	J	AB		1.5		ND	
NC 2L = 2 µg/L (1/1/10)	08-Apr-10	0.02	1.0	0.9	J	0.1	B	0.3	B	2		AB		0.1	B	0.7	J	0.2	B	9		0.1	B	AB		0.7	J	0.1	J
Resample	01-Jun-10	0.02	1.0	NS		NS		NS		NS		AB		NS		NS		NS		1.6		NS		NS		NS		NS	
	13-Oct-10	0.02	1.0	1		0.2	J	0.1	J	0.6	J	AB		0.8	J	1		0.2	J	1.6		0.1	J	AB		1		ND	
	27-Apr-11	0.02	1.0	0.20	J	0.09	J	0.21	J	0.11	J	AB		0.31	J	0.52	J	0.06	J	0.14	J	0.08	J	AB		0.31	J	ND	
	20-Oct-11	0.02	1.0	0.46	J	ND		0.11	J	ND		AB		0.22	J	1		0.05	J	0.09	J	0.30	J	AB		0.58	J	ND	
	26-Apr-12	0.02	1.0	0.10	J	ND		0.26	J	0.12	J	AB		0.24	J	ND		0.05	J	0.64	J	0.10	J	AB		0.27	J	ND	
	16-Oct-12	0.03	1.0	0.12	J	0.09	J	0.12	J	0.10	J	AB		0.12	J	0.31	J	0.12	J	0.45	J	0.12	J	AB		0.11	J	ND	
	11-Apr-13	0.03	1.0	0.09	J	0.07	J	0.50	J	0.31	J	AB		0.08	J	0.49	J	0.05	J	0.21	J	0.07	J	AB		0.38	J	ND	
	30-Oct-13	0.05	1.0	0.08	J	0.52	J	0.58	J	0.16	J	AB		0.05	J	0.28	J	0.17	J	0.36	J	0.08	J	AB		0.69	J	ND	
Chromium	Jul-99	NR	10	NI		NI		112		35		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	10	NI		NI		29		38		10		ND		23		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	1	NI		NI		14		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	10	NI		NI		22		36		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	10	NI		NI		11		43		37		ND		24		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	10	NI		NI		16		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	10	NI		NI		11		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	10	NI		NI		38		65		ND		ND		39		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	10	ND		ND		43		12		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	10	ND		ND		15		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	10	ND		ND		18		ND		ND		ND		ND		ND		17		ND		ND		NI		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.24	10.0	ND		ND		4.8	B	1.1	B	AB		0.3	B	ND		ND		0.5	B	ND		AB		ND		1.2	J
NC 2L = 50 µg/L (10/23/07)	03-Apr-08	0.11	10.0	ND		ND		0.4	J	1.0	J	AB		0.4	J	0.5	J	ND		0.3	J	ND		AB		ND		ND	
	28-Oct-08	0.11	10.0	ND		0.7	J	7.9	J	9.5	J	AB		0.9	J	0.7	J	ND		0.9	J	0.4	J	AB		3.1	J	ND	
	08-Apr-09	0.10	10.0	0.5	J	0.9	J	3.3	J	8.3	J	AB		3.1	J	1.4	J	ND		1.2	J	0.6	J	AB		1.3	J	ND	
	27-Oct-09	0.10	10.0	ND		1.1	J	8.2	J	9.8	J	AB		2.5	J	1.9	J	ND		1.1	J	0.6	J	AB		1.8	J	ND	
NC 2L = 10 µg/L (1/1/10)	08-Apr-10	0.03	10.0	ND		0.3	J	3.7	J	3.9	J	AB		1.9	J	0.6	J	ND		1.1	J	ND		AB		1.2	J	ND	
	13-Oct-10	0.03	10.0	0.2	J	0.7	J	2.3	J	3.8	J	AB		2.2	J	0.9	J	0.1	J	0.5	J	ND		AB		2.3	J	ND	
	27-Apr-11	0.04	10.0	0.43	B	0.78	B	3.3	J	3.2	J	AB		2.2	J	2.0	J	ND		1.1	J	0.51	B	AB		1.5	J	0.18	J
	20-Oct-11	0.04	10.0	0.6	B	1.6	J	5.1	J	1.9	J	AB		2.6	J	2.5	J	ND		1.8	J	0.87	B	AB		2.1	J	0.18	J
	26-Apr-12	0.04	10.0	0.43	B	1.2	J	4.9	J	12.0		AB		6.8	J	1.8	J	ND		0.99	J	0.44	B	AB		2.2	J	0.09	J
	16-Oct-12	0.18	10.0	ND		0.53	J	2.7	J	1.3	J	AB		1.3	J	1.0	J	ND		0.25	J	0.38	J	AB		1.3	J	ND	
	11-Apr-13	0.04	10.0	0.15	J	0.06	J	3.7	J	2.1	J	AB		1.2	J	1.4	J	ND		0.80	J	0.06	J	AB		0.78	J	ND	
	30-Oct-13	0.04	10.0	0.20	B	1.1	J	2.6	J	2.6	J	AB		1.4	J	1.2	J	0.07	B	0.55	B	0.12	B	AB		0.89	J	0.11	J
Cobalt	Jul-99	NR	10	NI		NI		13		24		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	10	NI		NI		ND		ND		12		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.41	10.0	1.4	J	ND		0.7	J	ND		AB		ND		1.0	J	ND		ND		ND		AB		2.7	J	ND	
GWPS = 70 µg/L (10/23/07)	03-Apr-08	0.03	10.0	4.6	J	0.1	J	1.8	J	0.4	J	AB		0.7	J	3.1	J	0.1	J	0.3	J	0.1	J	AB		0.9	J	ND	
	28-Oct-08	0.03	10.0	2.8	J	0.2	J	0.8	J	1	J	AB		0.5	J	2.8	J	0.1	J	0.4	J	0.2	J	AB		0.7	J	ND	
	08-Apr-09	0.02	10.0	2.3	J	0.2	J	0.6	J	1.1	J	AB		1.1	J	6.1	J	0.1	J	0.5	J	0.2	J	AB		1.2	J	ND	
	27-Oct-09	0.02	10.0	1.6	J	0.2	J	0.7	J	1.0	J	AB		0.6	J	5.9	J	0.2	J	0.5	J	0.3	J	AB		1.2	J	ND	
	08-Apr-10	0.10	10.0	1.8	J	0.2	J	0.5	J	0.7	J	AB		1.2	J	4.4	J	ND		0.5	J	0.2	J	AB		1.5	J	ND	
GWPS = 1 µg/L (10/1/10)	13-Oct-10	0.10	10.0	1.5	J	0.2	J	0.3	J	0.9	J	AB		0.9	J	3.1	J	0.2	J	0.5	J	0.2	J	AB		1.5	J	ND	
	27-Apr-11	0.03	10.0	1.3	J	0.14	J	0.56	J	0.69	J	AB		0.93	J	4.7	J	0.08	J	0.45	J	0.14	J	AB		1.5	J	ND	
	20-Oct-11	0.03	10.0	1.1	J	0.19	J	0.45	J	0.58	J	AB		1.2	J	3.5	J	0.1	J	0.57	J	0.19	J	AB		2.2	J	ND	
	26-Apr-12	0.03	10.0	1.0	J	0.21	J	0.6	J	0.88	J	AB		4	J	3.3	J	0.09	J	0.55	J	0.21	J	AB		2.4	J	ND	
	16-Oct-12	0.02	10.0	1.1	J	0.19	J	0.38	J	0.71	J	AB		0.66	J	2.1	J	0.11	J	0.40	J	0.24	J	AB		1.4	J	ND	
	11-Apr-13	0.02	10.0	0.68	J	0.18	J	0.58	J	0.96	J	AB		0.79	J	2.1	J	0.12	J	0.70	J	1.8	J	AB		1.8	J	0.03	J
	30-Oct-13	0.02	10.0	0.87	J	0.31	J	0.35	J	1.1	J	AB		0.63	J	1.4	J	0.10	B	0.66	J	0.14	B	AB		0.88	J	0.05	J
Copper	Jul-99	NR	200	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	10	NI		NI		10		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	200	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	200	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	200	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	200	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	200	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	200	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	200	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	200	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	200	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	200	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	200	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	200	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	200	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	200	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	200	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	200	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.20	10.0	0.9	B	ND		1.2	B	0.5	B	AB		0.3	B	0.4	B	0.2	B	0.6	B	0.2	B	AB		3.3	J	0.4	J
NC 2L = 1,000 µg/L (10/23/07)	03-Apr-08	0.05	10.0	0.7	B	0.3	B	0.8	B	0.6	B	AB		0.7	B	0.6	B	0.3	B	0.6	B	0.1	B	AB		1.2	J	0.2	J
	28-Oct-08	0.05	10.0	1.1	B	0.8	B	2.1	B	1.7	B	AB		0.9	B	0.8	B	0.3	B	1.5	B	0.9	B	AB		2.8	B	1.1	J
	08-Apr-09	0.04	10.0	2	J	0.9	J	1.5	J	1.5	J	AB		1.6	J	1.0	J	0.4	B	1.1	J	0.7	J	AB		1.9	J	0.1	J
	27-Oct-09	0.04	10.0	1.2	J	3.4	J	3.1	J	1.5	J	AB		1.4	J	0.9	J	0.6	J	1.4	J	0.8	J	AB		3.4	J	0.1	J
	08-Apr-10	0.03	10.0	1.2	J	0.7	B	1.2	J	1.5	J	AB		1.4	J	1.1	J	0.8	B	4.5	J	0.7	B	AB		1.3	J	0.2	J
	13-Oct-10	0.03	10.0	1.6	J	1	B	0.9	B	1	B	AB		1.7	J	0.8	B	0.4	B	2.1	J	0.7	B	AB		2.4	J	0.2	J
	27-Apr-11	0.02	10.0	1.2	B	0.77	B	1.5	B	1.0	B	AB		1.7	B	0.98	B	0.72	B	1.3	B	0.93	B	AB		1.4	B	0.66	J
	20-Oct-11	0.02	10.0	1.2	J	1.5	J	1.3	J	0.5	B	AB		1.4	J	1.2	J	0.54	B	1.7	J	1.0	B	AB		1.7	J	0.20	J
	26-Apr-12	0.02	10.0	0.73	B	5.9	J	1.6	B	0.9	B	AB		2.7	B	5.0	J	0.21	B	1.4	B	0.45	B	AB		1.2	B	0.94	J
	16-Oct-12	0.06	10.0	0.69	B	0.62	B	1.1	B	0.67	B	AB		0.96	B	0.6	B	0.23	B	0.42	B	0.37	B	AB		0.64	B	0.25	J
	11-Apr-13	0.06	10.0	0.43	B	0.74	B	1.3	B	0.76	B	AB		0.96	B	0.66	B	ND		0.64	B	0.74	B	AB		0.60	B	0.28	J
	30-Oct-13	0.06	10.0	1.6	B	1.4	B	1.8	B	1.7	B	AB		1.4	B	2.4	B	1.3	B	1.3	B	1.3	B	AB		0.73	B	1.2	J

TABLE 8A

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LONG-TERM REGIONAL LF PHASES 1 and 2

Constituent	Date	Concentrations (µg/L)																									
		DL	RL	Background				Downgradient																		Blanks	
				MW-12S		MW-12D		MW-7		MW-8		MW-9		MW-10		MW-11S		MW-11D		MW-13S		MW-13D		MW-14		MW-14R			
Lead	Jul-99	NR	10	NI		NI		129		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	10	NI		NI		18		14		ND		ND		17		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	10	NI		NI		12		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	10	NI		NI		ND		14		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	10	NI		NI		ND		17		14		ND		15		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	10	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	10	NI		NI		16		19		ND		ND		18		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	10	ND		ND		21		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		10		ND		ND		NI		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.07	10.0	0.2	B	ND		3.0	J	1.6	J	AB		0.3	B	0.1	B	ND		1.1	J	0.1	B	AB		0.3	B	0.1	J
NC 2L = 15 µg/L (10/23/07)	03-Apr-08	0.32	10.0	0.1	B	0.1	B	0.5	B	1.4	J	AB		0.9	J	1.4	J	0.1	B	0.5	B	ND		AB		0.3	B	0.1	J
	28-Oct-08	0.32	10.0	0.3	B	0.4	B	7.2	J	8	J	AB		1.3	J	1.1	J	0.1	B	0.8	J	0.5	B	AB		2.5	J	0.1	J
	08-Apr-09	0.04	10.0	0.6	J	0.2	B	2.3	J	6.6	J	AB		2.7	J	1.9	J	0.1	B	0.9	J	0.4	B	AB		1	J	0.1	J
	27-Oct-09	0.04	10.0	0.1	J	0.3	J	6.7	J	7.8	J	AB		2.4	J	2.3	J	0.1	J	0.8	J	0.4	J	AB		1.9	J	ND	
	08-Apr-10	0.01	10.0	0.4	B	0.3	B	3.1	J	4.1	J	AB		2.6	J	2.2	J	0.1	B	1.6	J	0.3	B	AB		1.3	J	0.1	J
	13-Oct-10	0.01	10.0	0.4	B	0.3	B	1.4	J	3.8	J	AB		2.3	J	2.3	J	0.2	B	0.6	J	0.2	B	AB		2.6	J	0.1	J
	27-Apr-11	0.02	10.0	0.27	J	0.21	J	2.0	J	2.5	J	AB		2.0	J	2.8	J	0.12	J	0.57	J	0.31	J	AB		1.2	J	ND	
	20-Oct-11	0.02	10.0	0.12	J	0.24	J	3.0	J	1.8	J	AB		1.9	J	4.8	J	0.11	J	0.55	J	0.35	J	AB		0.80	J	ND	
	26-Apr-12	0.02	10.0	0.35	J	0.83	J	2.7	J	3.0	J	AB		6.3	J	2.8	J	0.06	B	0.62	J	0.39	J	AB		1.60	J	0.02	J
	16-Oct-12	0.08	10.0	0.11	J	0.21	J	1.9	J	1.8	J	AB		1.3	J	2.6	J	ND		0.22	J	0.38	J	AB		1.0	J	ND	
	11-Apr-13	0.02	10.0	0.35	J	0.24	J	2.7	J	2.6	J	AB		1.3	J	2.0	J	0.04	J	0.71	J	0.24	J	AB		1.3	J	ND	
	30-Oct-13	0.02	10.0	0.16	B	0.61	J	1.7	J	2.8	J	AB		1.4	J	1.9	J	0.11	B	0.36	B	0.25	B	AB		1.0	J	0.08	J
Nickel	11-Oct-07	0.66	50.0	2.0	J	1.6	J	2.3	J	ND		AB		0.7	J	1.8	J	1.8	J	0.8	J	1.2	J	AB		3.6	J	ND	
NC 2L = 100 µg/L (10/23/07)	03-Apr-08	0.06	50.0	4.3	J	2.0	J	4.0	J	0.8	B	AB		1.4	B	4.8	J	2.4	J	0.7	B	1.6	J	AB		1.4	B	0.3	J
	28-Oct-08	0.06	50.0	3.5	J	2.7	J	4	J	2.2	J	AB		1	B	4.9	J	2	J	1.1	J	2.0	J	AB		1.6	J	0.2	J
	08-Apr-09	0.04	50.0	2.9	J	2	J	2.5	J	1.6	J	AB		1.5	J	8.5	J	1.2	J	1.1	J	1.9	J	AB		2.2	J	ND	
	27-Oct-09	0.04	50.0	1.9	J	1.8	J	2.5	J	1.9	J	AB		1.3	J	8.7	J	1.1	J	0.5	B	1.3	J	AB		2.1	J	0.2	J
	08-Apr-10	0.05	50.0	2.8	J	1.4	J	2.1	J	1.4	J	AB		1.8	J	7	J	1	J	1	J	1.6	J	AB		2.4	J	ND	
	13-Oct-10	0.05	50.0	2	J	2.6	J	2.9	J	1.5	J	AB		2	J	6.1	J	2.5	J	1.3	J	2.1	J	AB		3.2	J	0.1	J
	27-Apr-11	0.04	50.0	1.9	J	1.2	B	2.2	J	1.3	B	AB		1.9	J	8.1	J	1.1	B	1.0	B	1.0	B	AB		3.1	J	0.30	J
	20-Oct-11	0.04	50.0	2.2	B	1.7	B	2.6	J	1.4	B	AB		2.0	B	6.7	J	0.94	B	1.5	B	1.6	B	AB		6.0	J	0.56	J
	26-Apr-12	0.04	50.0	1.6	J	1.1	J	2.4	J	4.3	J	AB		5.7	J	6.8	J	0.97	J	1.4	J	1.1	J	AB		4.7	J	ND	
	16-Oct-12	0.06	50.0	1.8	J	1.7	J	2.4	J	1.9	J	AB		1.6	J	5.4	J	1.3	J	0.98	B	1.5	J	AB		9.7	J	0.23	J
	11-Apr-13	0.45	50.0	0.50	J	2.1	J	2.2	J	1.2	J	AB		1.2	J	5.7	J	1.4	J	0.95	J	2.1	J	AB		16.2	J	ND	
	30-Oct-13	0.45	50.0	1.6	J	2.1	J	2.2	J	2.1	J	AB		1.5	J	4.6	J	1.3	J	1.5	J	1.8	J	AB		9.5	J	ND	
Selenium	11-Oct-07	0.35	10.0	2.6	B	ND		1.4	B	ND		AB		0.4	B	0.8	B	ND		ND		ND		AB		ND		0.9	J
NC 2L = 50 µg/L (10/23/07)	03-Apr-08	0.51	10.0	3.1	B	ND		0.7	B	0.2	B	AB		0.7	B	0.3	B	ND		0.3	B	ND		AB		0.2	B	1.5	J
	28-Oct-08	0.51	10.0	3.1	B	ND		0.9	B	0.3	B	AB		0.7	B	0.5	B	ND		0.6	B	ND		AB		0.6	B	1.9	J
	08-Apr-09	0.12	10.0	2.4	J	0.7	J	ND		0.2	J	AB		0.3	J	0.5	J	ND		0.5	J	ND		AB		0.9	J	ND	
	27-Oct-09	0.12	10.0	3	J	0.7	J	0.5	J	0.2	J	AB		0.3	J	0.4	J	ND		0.8	J	0.2	J	AB		1.6	J	ND	
NC 2L = 20 µg/L (1/1/10)	08-Apr-10	0.32	10.0	1.6	J	ND		ND		ND		AB		0.3	J	ND		ND		1.4	J	ND		AB		1.6	J	ND	
	13-Oct-10	0.32	10.0	2	J	2	J	0.7	J	ND		AB		1.2	J	0.5	J	ND		2.2	J	1.1	J	AB		2.9	J	ND	
	27-Apr-11	0.20	10.0	0.83	J	ND		0.28	J	ND		AB		0.43	J	0.92	J	ND		0.35	J	ND		AB		1.1	J	ND	
	20-Oct-11	0.20	10.0	0.53	J	ND		0.44	J	ND		AB		ND		0.87	J	ND		0.35	J	ND		AB		1.0	J	ND	
	26-Apr-12	0.20	10.0	0.56	J	ND		0.54	J	ND		AB		0.68	J	1.1	J	ND		0.45	J	ND		AB		1.4	J	ND	
	16-Oct-12	0.17	10.0	0.48	J	ND		0.76	J	ND		AB		0.88	J	0.86	J	ND		0.74	J	ND		AB		2.1	J	ND	
	11-Apr-13	0.06	10.0	0.77	J	0.19	J	0.66	J	0.27	J	AB		1.4	J	0.83	J	0.26	J	1.5	J	0.19	J	AB		3.3	J	ND	
	30-Oct-13	0.06	10.0	0.52	J	0.18	J	0.62	J	0.16	J	AB		0.87	J	0.70	J	ND		1.2	J	ND		AB		2.4	J	ND	
Silver	03-Apr-08	0.04	10.0	ND		0.1	J	ND		0.1	J	AB		ND		ND		0.1	J	ND		ND		AB		ND		ND	
NC 2L = 17.5 µg/L (10/23/07)	28-Oct-08	0.04	10.0	0.1	B	ND		0.1	B	0.1	B	AB		ND		ND		ND		0.1	B	0.1	B	AB		ND		0.1	J
	08-Apr-09	0.04	10.0	0.1	J	ND		0.1	J	ND		AB		ND		ND		ND		0.1	J	ND		AB		ND		ND	
	27-Oct-09	0.04	10.0	0.1	J	ND		ND		ND		AB		ND		0.1	J	ND		0.2	J	ND		AB		ND		ND	
NC 2L = 20 µg/L (1/1/10)	08-Apr-10	0.03	10.0	ND		ND		0.1	B	ND		AB		ND		0.2	B	ND		ND		0.1	B	AB		0.1	B	0.1	J
	13-Oct-10	0.03	10.0	0.1	J	ND		ND		ND		AB		0.1	J	0.1	J	0.1	J	ND		ND		AB		0.1	J	ND	
	27-Apr-11	0.02	10.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	20-Oct-11	0.02	10.0	0.10	J	ND		ND		ND		AB		ND		ND		0.12	J	0.09	J	ND		AB		0.17	J	ND	
	26-Apr-12	0.02	10.0	ND		0.03	J	ND		0.02	J	AB		0.02	J	0.04	J	0.02	J	0.05	J	ND		AB		0.03	J	ND	
	16-Oct-12	0.10	10.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	11-Apr-13	0.03	10.0	ND		ND		0.03	J	ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	30-Oct-13	0.03	10.0	0.03	B	ND		ND		ND		AB		ND		ND		ND		0.04	B	ND		AB		0.03	B	0.05	J
Thallium	11-Oct-07	0.07	5.0	0.2	J	ND		0.1	J	ND		AB		0.1	J	ND		ND		0.1	J	0.1	J	AB		ND		ND	
GWPS = 0.28 µg/L (10/23/07)	03-Apr-08	0.63	5.0	ND		0.1	J	0.1	J	ND		AB		ND		ND		0.1	J	ND		ND		AB		ND		ND	
	28-Oct-08	0.63	5.0	0.1	J	0.1	J	0.2	J	0.1	J	AB		ND		ND		ND		0.1	J	ND		AB		0.1	J	ND	
	08-Apr-09	0.03	5.0	0.1	J	ND		0.1	J	0.1	J	AB		0.1	J	ND		ND		0.1	J	ND		AB		ND		ND	
	27-Oct-09	0.03	5.0	0.1	J	ND		0.1	J	0.1	J	AB		ND		ND		ND		0.1	J	ND		AB		ND		ND	
	08-Apr-10	0.05	5.0	ND		ND		0.1	J	ND		AB		ND		ND		ND		ND		0.1	J	AB		0.1	J	ND	
GWPS = 0.2 µg/L (10/1/10)	13-Oct-10	0.05	5.5	ND		ND		ND		ND		AB		0.1	J	ND		0.1	J	ND		ND		AB		0.1	J	ND	
	27-Apr-11	0.02	5.5	ND		ND		0.12	B	0.06	B	AB		0.05	B	0.04	B	0.11	B	ND		ND		AB		0.07	B	0.03	J
	20-Oct-11	0.02	5.5	0.03	J	ND		0.05	J	ND		AB		0.03	J	0.04	J	0.10	J	0.03	J	ND		AB		0.13	J	ND	
	26-Apr-12	0.02	5.5	0.02	J	ND		0.08	J	0.05	J	AB		0.13	J	0.12	J	0.03	J	0.02	J	ND		AB		0.1	J	ND	
	16-Oct-12	0.07	5.5	0.19	J	ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	11-Apr-13	0.02	5.5	ND		ND		0.12	B	0.06	B	AB		0.04	B	0.03	B	ND		ND		ND		AB		0.22	B	0.19	J
	30-Oct-13	0.02	5.5	0.23	B	0.02	B	0.08	B	0.07	B	AB		0.04	B	0.04	B	ND		0.12	B	ND		AB		0.06	B	0.13	J
Vanadium	Jul-99	NR	40	NI		NI		167		52		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	40	NI		NI		41		47		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	40	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	40	NI		NI		ND		47		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	40	NI		NI		ND		57		43		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	40	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	40	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	40	NI		NI		55		83		ND		ND		64		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	40	ND		ND		67		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	40	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	40	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	40	ND		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	40	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	40	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	40	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	40	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	40	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	40	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	25	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.42	25.0	0.9	J	ND		8.6	J	3.8	J	AB		0.6	J	ND		ND		2.7	J	ND		AB		ND		ND	
GWPS = 3.5 µg/L (10/23/07)	03-Apr-08	0.07	25.0	0.3	B	0.3	B	1.7	J	3.6	J	AB		2.1	J	1.9	J	0.2	B	1.1	J	0.2	B	AB		0.3	B	0.1	J
	28-Oct-08	0.07	25.0	0.4	B	1.0	B	14.1	J	14	J	AB		3.1	J	1.9	J	0.4	B	1.5	J	0.9	B	AB		3.9	J	0.2	J
	08-Apr-09	0.28	25.0	1.5	J	1.7	J	6.9	J	13.5	J	AB		6.5	J	2.7	J	0.8	J	2.3	J	1.8	J	AB		2.1	J	ND	
	27-Oct-09	0.28	25.0	ND		1.4	B	13.3	J	15.2	J	AB		7.4	J	3.2	J	0.9	B	1.5	B	1.5	B	AB		2.1	J	0.4	J
	08-Apr-10	0.03	25.0	1.3	B	1.7	B	8.1	J	9.4	J	AB		4.9	J	2.1	J	0.7	B	3.1	J	1.3	B	AB		2.3	J	0.4	J
GWPS = 0.3 µg/L (10/1/10)	13-Oct-10	0.03	25.0	0.9	B	1.4	B	4.8	J	7.6	J	AB		5.4	J	1.4	B	0.8	B	1.5	B	1	B	AB		2.9	B	0.6	J
	27-Apr-11	0.14	25.0	ND		ND		4.7	J	6.8	J	AB		3.5	J	2.2	J	ND		0.97	J	0.48	J	AB		0.62	J	ND	
	20-Oct-11	0.14	25.0	ND		0.88	J	6.7	J	3.5	J	AB		4.8	J	3.2	J	ND		1.5	J	0.93	J	AB		1.9	J	ND	
	26-Apr-12	0.14	25.0	0.7	J	1.30	J	6.7	J	6.1	J	AB		11.7	J	2.2	J	ND		1.4	J	0.91	J	AB		3.2	J	ND	
	16-Oct-12	0.10	25.0	ND		0.62	J	4.0	J	3.8	J	AB		2.8	J	1.0	J	ND		0.18	J	0.87	J	AB		2.4	J	ND	
	11-Apr-13	0.07	25.0	1.2	J	1.0	J	6.5	J	6.4	J	AB		2.5	J	2.4	J	0.50	J	1.7	J	1.0	J	AB		2.5	J	ND	
	30-Oct-13	0.07	25.0	0.38	J	1.7	J	4.2	J	6.6	J	AB		3.1	J	1.7	J	0.67	J	0.88	J	0.91	J	AB		2.2	J	ND	

TABLE 8A

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LONG-TERM REGIONAL LF PHASES 1 and 2

Constituent	Date	Concentrations (µg/L)																									
		DL	RL	Background				Downgradient																		Blanks	
				MW-12S		MW-12D		MW-7		MW-8		MW-9		MW-10		MW-11S		MW-11D		MW-13S		MW-13D		MW-14		MW-14R			
Zinc	Jul-99	NR	50	NI		NI		113		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Aug-99	NR	50	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-99	NR	50	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Nov-99	NR	50	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-00	NR	50	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-00	NR	50	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-01	NR	50	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-01	NR	50	NI		NI		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-02	NR	50	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-02	NR	50	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Apr-03	NR	50	ND		ND		ND		ND		ND		ND		ND		ND		NI		NI		NI		NI		ND	
	Oct-03	NR	50	11		ND		ND		ND		ND		ND		ND		ND		NS		NS		NS		NI		ND	
	15-Apr-04	NR	50	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NI		ND	
	14-Oct-04	NR	50	ND		ND		72		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	05-Apr-05	NR	50	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	27-Oct-05	NR	50	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	21-Apr-06	NR	50	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		ND		NI		ND	
	12-Oct-06	NR	50	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	26-Apr-07	NR	10	ND		ND		13		ND		AB		ND		ND		ND		ND		ND		AB		NI		ND	
	11-Oct-07	0.20	10.0	22	B	2.1	B	28	B	4.9	B	AB		4.7	B	5.4	B	2.5	B	6.1	B	3.4	B	AB		14	B	6.6	J
NC 2L = 1,050 µg/L (10/23/07)	03-Apr-08	0.04	10.0	26		1.9	B	15		3.7	B	AB		7.8	B	8.7	B	4.7	B	4.7	B	2.1	B	AB		5.7	B	2.2	J
	28-Oct-08	0.04	10.0	20		15		22		11		AB		5.8	J	7.6	J	3.8	J	13		8.3	J	AB		17		0.4	J
	08-Apr-09	0.14	10.0	23		1.3	B	16		9.4	J	AB		7.5	J	14		1.8	B	5.4	J	1.9	B	AB		8.7	J	0.8	J
	27-Oct-09	0.14	10.0	16		4.2	B	25		9.6	J	AB		9.3	J	13		10		4.9	B	2.3	B	AB		8.9	J	1.4	J
NC 2L = 1,000 µg/L (1/1/10)	08-Apr-10	0.08	10.0	19		2.2	B	20		9.1	J	AB		6.8	J	9.9	J	3.5	B	9.9	J	2	B	AB		7.7	J	0.7	J
	13-Oct-10	0.08	10.0	17	B	7.7	B	6.1	B	8	B	AB		10	B	8.8	B	5.2	B	9.3	B	3.3	B	AB		12	B	4.1	J
	27-Apr-11	0.24	10.0	12		2.0	B	14		4.9	B	AB		10		9.3	J	3.8	B	4.9	B	1.2	B	AB		7.5	J	1.1	J
	20-Oct-11	0.24	10.0	8.1	J	2.1	J	10		4.3	J	AB		7.2	J	9.9	J	1.0	B	4.7	J	1.7	J	AB		9.6	J	0.28	J
	26-Apr-12	0.24	10.0	9.7	J	8.0	B	15		7.7	B	AB		24		17		2.4	B	6.1	B	2.3	B	AB		10		1.9	J
	16-Oct-12	0.48	10.0	9.2	J	1.5	J	6.9	J	4.9	J	AB		4.8	J	4.6	J	1.4	J	2.8	J	2.0	J	AB		5.4	J	ND	
	11-Apr-13	0.47	10.0	5.9	J	1.9	B	13		7.1	J	AB		6.2	J	6.9	J	0.89	B	6.2	J	1.9	B	AB		5.1	J	0.88	J
	30-Oct-13	0.47	10.0	9.0	B	5.1	B	10	B	11	B	AB		7.3	B	11	B	5.6	B	9.8	B	6.8	B	AB		6.1	B	3.2	J
Acetone	11-Oct-07	1.21	100.0	ND		ND		1.40	J	ND		AB		1.40	J	ND		ND		ND		ND		AB		ND		ND	
Resample	04-Dec-07	2.2	25.0	NS		NS		ND		NS		AB		ND		NS		NS		NS		NS		AB		NS		4.3	J
NC 2L = 700 µg/L (10/23/07)	03-Apr-08	1.21	100.0	5.20	B	4.50	B	4.30	B	2.30	B	AB		2.30	B	2.20	B	2.00	B	5.00	B	3.80	B	AB		4.40	B	2.10	J
	28-Oct-08	1.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		1.30	J
	08-Apr-09	1.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	27-Oct-09	9.06	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
NC 2L = 6,000 µg/L (1/1/10)	08-Apr-10	9.06	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	13-Oct-10	9.06	100.0	10.20	J	32.20	J	ND		ND		AB		ND		ND		ND		15.00	J	22.10	J	AB		ND		ND	
	27-Apr-11	9.06	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	20-Oct-11	9.06	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	26-Apr-12	9.06	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	16-Oct-12	9.06	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	11-Apr-13	9.06	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	30-Oct-13	9.06	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
2-Butanone	03-Apr-08	0.85	100.0	0.90	J	ND		ND		1.50	J	AB		1.40	J	ND		ND		ND		ND		AB		ND		ND	
Resample	15-May-08	0.96	100.0	ND		NS		NS		ND		AB		ND		NS		NS		NS		NS		AB		NS		ND	
NC 2L = 4,200 µg/L (10/23/07)	28-Oct-08	0.85	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	08-Apr-09	0.85	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	27-Oct-09	2.21	100.0	2.30	J	2.50	J	3.60	J	2.80	J	AB		3.30	J	3.00	J	2.30	J	2.90	J	2.90	J	AB		4.60	J	ND	
NC 2L = 4,000 µg/L (1/1/10)	08-Apr-10	2.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	13-Oct-10	2.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	27-Apr-11	2.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	20-Oct-11	2.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	26-Apr-12	2.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	16-Oct-12	2.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	11-Apr-13	2.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	30-Oct-13	2.21	100.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
Chloromethane	11-Oct-07	0.18	1.0	0.90	J	0.70	J	0.80	J	0.80	J	AB		0.90	J	0.80	J	0.90	J	0.90	J	0.70	J	AB		0.90	J	ND	
Resample	04-Dec-07	0.11	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
NC 2L = 2.6 µg/L (10/23/07)	03-Apr-08	0.18	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	28-Oct-08	0.18	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		0.20	J	ND	
	08-Apr-09	0.18	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	27-Oct-09	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		0.90	J	ND	
NC 2L = 3 µg/L (1/1/10)	08-Apr-10	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	13-Oct-10	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	27-Apr-11	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	20-Oct-11	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	26-Apr-12	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	16-Oct-12	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	11-Apr-13	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	30-Oct-13	0.77	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
Methylene Chloride	11-Oct-07	0.14	1.0	ND		ND		ND		ND		AB		ND		0.20	B	ND		ND		ND		AB		ND		0.20	J
NC 2L = 4.6 µg/L (10/23/07)	03-Apr-08	0.14	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	28-Oct-08	0.14	1.0	ND		ND		0.20	J	0.20	J	AB		0.20	J	0.20	J	0.20	J	ND		ND		AB		ND		ND	
	08-Apr-09	0.14	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	27-Oct-09	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
NC 2L = 5 µg/L (1/1/10)	08-Apr-10	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	13-Oct-10	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	27-Apr-11	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	20-Oct-11	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	26-Apr-12	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	16-Oct-12	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	11-Apr-13	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	
	30-Oct-13	0.64	1.0	ND		ND		ND		ND		AB		ND		ND		ND		ND		ND		AB		ND		ND	

Notes:
1. All concentrations are in micrograms per liter (µg/L).
2. RL = Laboratory reporting limit (NC SWSL or lower from October 2007 to present).
3. ND = Not detected above laboratory reporting limit.
4. B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks
5. NC 2L = North Carolina 2L Groundwater Standards.
6. GWPS = Groundwater Protection Standards.
7. When the NC 2L has not been established, the GWPS will be used.
8. Shaded values are above the NC 2L Groundwater Standards or Groundwater Protection Standards.
9. DL = Laboratory detection limit.
10. J = Estimated value between the DL and the RL
11. NI = Well/Piezometer not installed.
12. AB = Abandoned.
13. NS = Not sampled and/or no water level measurements taken.
14. NR = Not Reported.

TABLE 8B
HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. LONG-TERM REGIONAL LF PHASE 3

Constituent	Date	Concentration (µg/L)																							
		DL	RL	MW-15S		MW-15D		MW-16S		MW-16D		MW-17S		MW-17D		MW-18S		MW-18D		MW-19S		MW-19D		Blanks	
Antimony	25-Aug-11	0.437	60.0	ND		0.500	J,D	ND		ND		ND		0.500	J,D	ND		ND		ND		ND		ND	
GWPS = 1 ug/L	27-Sep-11	0.437	6.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	26-Oct-11	0.437	5.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	29-Nov-11	0.437	5.00	1.00	J,D	0.600	J,D	0.600	J,D	0.500	J,D	0.500	J,D	0.500	J,D	ND		ND		ND		ND		ND	
	31-Oct-13	0.02	6.00	0.07	B	0.59	J	0.05	B	0.10	B	0.04	B	0.88	J	0.11	B	0.43	J	0.13	B	0.20	B	0.08	J
Arsenic	25-Aug-11	3.69	10.0	34.3		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
NC 2L = 10 ug/L	27-Sep-11	3.69	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	26-Oct-11	3.69	10.0	4.13	J	ND		ND		ND		ND		ND		7.36	J	ND		ND		ND		ND	
	29-Nov-11	3.69	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	0.05	10.0	1.8	J	0.93	B	1.3	J	0.92	B	1.5	J	1.3	J	3.9	J	2.1	J	ND		5.0	J	0.20	J
Barium	25-Aug-11	0.394	100	306		26.0	J	32.2	J	73.7	J	17.3	B	34.7	J	89.4	J	39.1	J	5.81	B	36.2	J	5.06	J
NC 2L = 700 ug/L	27-Sep-11	0.394	100	25.0	B	399		65.7	B	69.6	J	40.1	B	37.8	B	66.1	B	2.48	B	40.2	B	8.39	B	13.3	J
	26-Oct-11	0.394	100	66.4	B	41.6	B	64.2	B	65.4	B	54.6	B	41.4	B	56.9	B	36.0	B	20.3	B	44.9	B	15.4	J
	29-Nov-11	0.394	100	79.3	B	48.3	B	94.2	B	76.2	B	96.8	B	45.8	B	55.3	B	43.8	B	38.6	B	54.4	B	31.4	J
	31-Oct-13	0.060	100	166		48.4	J	111		79.6	J	161		45.8	J	25.1	J	28.5	J	55.3	J	44.6	J	0.24	J
Beryllium	25-Aug-11	0.119	2.00	0.120	J,D	ND		0.120	J,D	ND		ND		ND		0.240	J,D	ND		ND		0.140	J,D	ND	
GWPS = 4 ug/L	27-Sep-11	0.119	1.00	ND		ND		0.180	J,D	ND		ND		ND		0.200	J,D	ND		ND		ND		ND	
	26-Oct-11	0.119	1.00	0.120	J,D	ND		0.200	J,D	ND		ND		ND		2.04		ND		ND		ND		ND	
	29-Nov-11	0.119	1.00	0.200	J,D	ND		0.220	J,D	ND		0.220	J,D	ND		0.300	J,D	ND		ND		ND		ND	
	31-Oct-13	0.03	1.0	2		0.10	B	6		0.05	B	2		0.13	B	7		0.19	B	0.08	B	1		0.04	J
Resample	23-Dec-13	0.03	1.0	NS		NS		NS		NS		NS		NS		7		NS		NS		NS			
Resample	05-Feb-14	0.28	1.0	NS		NS		NS		NS		NS		NS		7		NS		NS		NS		0.48	J
Cadmium	25-Aug-11	0.0556	2.00	2.54	J,D	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
NC 2L = 2 ug/L	27-Sep-11	0.0556	1.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	26-Oct-11	0.0556	1.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	29-Nov-11	0.0556	1.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	0.05	1.0	0.17	J	0.16	J	1		0.05	J	0.23	J	0.10	J	1		0.13	J	0.11	J	0.57	J	ND	
Chromium	25-Aug-11	1.47	10.0	160		1.72	J	ND		ND		ND		ND		ND		3.32	J	ND		3.66	J	ND	
NC 2L = 10 ug/L	27-Sep-11	1.47	10.0	1.63	B	1.52	B	1.75	B	ND		1.52	B	ND		1.52	B	5.64	B	3.17	B	2.10	B	1.75	J
	26-Oct-11	1.47	10.0	5.69	B	2.08	B	2.19	B	2.87	B	14.3		2.76	B	2.98	B	2.30	B	2.64	B	2.42	B	2.08	J
	29-Nov-11	1.47	10.0	1.52	J	2.24	J	1.65	J	2.12	J	2.72	J	ND		2.01	J	3.19	J	1.53	J	2.60	J	ND	
	31-Oct-13	0.04	10.0	0.34	B	0.22	B	2.4	J	0.37	B	5.9	J	1.5	J	3.2	J	1.3	J	2.2	J	6.5	J	0.11	J
Cobalt	25-Aug-11	3.39	10.0	35.4		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
GWPS = 1 ug/L	27-Sep-11	3.39	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	26-Oct-11	3.39	10.0	ND		ND		ND		ND		ND		ND		12.1		ND		ND		ND		ND	
	29-Nov-11	3.39	10.0	4.72	J	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	0.02	10.0	11		0.23	B	3.9	J	0.24	B	3.2	J	0.56	J	8.1	J	0.55	J	0.42	J	4.3	J	0.05	J
Copper	25-Aug-11	0.672	10.0	60.7		ND		ND		ND		ND		ND		ND		11.0		1.00	J	ND		ND	
NC 2L = 1,000 ug/L	27-Sep-11	0.672	10.0	1.88	B	3.56	B	3.28	B	4.03	B	4.28	B	3.89	B	3.58	B	4.85	B	3.83	B	2.58	B	3.38	J
	26-Oct-11	0.672	10.0	3.10	B	1.88	B	2.25	B	3.06	B	4.53	B	2.48	B	3.93	B	2.71	B	2.71	B	2.41	B	2.24	J
	29-Nov-11	0.672	10.0	1.77	B	0.880	B	1.61	B	0.920	B	1.73	B	1.22	B	1.21	B	0.920	B	1.74	B	1.64	B	0.740	J
	31-Oct-13	0.06	10.0	1.3	B	0.76	B	1.7	B	0.96	B	1.5	B	1.3	B	1.8	B	0.75	B	1.6	B	2.0	B	1.2	J
Lead	25-Aug-11	5.41	10.0	68.2		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
NC 2L = 15 ug/L	27-Sep-11	5.41	10.0	7.22	J	7.42	J	ND		ND		6.42	J	ND		ND		ND		ND		ND		ND	
	26-Oct-11	5.41	10.0	ND		ND		ND		ND		5.92	J	ND		7.22	J	ND		ND		ND		ND	
	29-Nov-11	5.41	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	0.02	10.0	0.40	B	0.28	B	4.1	J	0.42	J	6.6	J	0.68	J	5.8	J	0.95	J	1.1	J	2.7	J	0.08	J
Nickel	25-Aug-11	3.06	50.0	43.6	J	ND		ND		ND		ND		ND		3.54	J	ND		ND		5.78	J	ND	
NC 2L = 100 ug/L	27-Sep-11	3.06	50.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	26-Oct-11	3.06	50.0	ND		ND		ND		ND		ND		ND		19.8	J	ND		ND		ND		ND	
	29-Nov-11	3.06	50.0	7.70	J	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	0.45	5.0	10.8	J	1.8	J	6.2	J	2.3	J	5.6	J	2.2	J	14.1	J	1.7	J	1.7	J	10.8	J	ND	
Selenium	25-Aug-11	0.824	100	3.90	B,D	ND		ND		ND		ND		ND		ND		ND		ND		ND		1.00	J,D
NC 2L = 20 ug/L	27-Sep-11	0.824	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		1.70	J,D
	26-Oct-11	0.824	5.00	ND		ND		0.900	J,D	ND		ND		ND		3.10	J,D	ND		ND		ND		ND	
	29-Nov-11	0.824	5.00	ND		ND		1.40	J,D	ND		ND		1.00	J,D	ND		ND		ND		ND		ND	
	31-Oct-13	0.06	10.0	0.34	J	0.49	J	5.2	J	0.22	J	0.76	J	0.50	J	4.7	J	0.16	J	ND		1.5	J	ND	
Silver	25-Aug-11	1.05	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
NC 2L = 20 ug/L	27-Sep-11	1.05	10.0	1.08	J	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	26-Oct-11	1.05	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	29-Nov-11	1.05	10.0	2.22	B	2.37	B	2.85	B	2.29	B	1.66	B	2.01	B	2.78	B	2.57	B	3.10	B	3.12	B	2.52	J
	31-Oct-13	0.03	10.0	ND		0.08	B	ND		ND		ND		ND		0.03	B	0.04	B	ND		0.03	B	0.05	J
Thallium	25-Aug-11	0.297	55.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
GWPS = 0.28 ug/L	27-Sep-11	0.297	5.50	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	26-Oct-11	0.297	5.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	29-Nov-11	0.297	5.00	0.500	B,D	0.500	B,D	0.500	B,D	0.400	B,D	0.500	B,D	0.400	B,D	0.400	B,D	0.400	B,D	0.400	B,D	0.400	B,D	0.500	J,D
	31-Oct-13	0.02	5.50	0.06	B	0.22	B	0.06	B	0.03	B	0.12	B	ND		0.16	B	0.40	B	0.10	B	0.26	B	0.13	J
Vanadium	25-Aug-11	6.61	2500	355	J,D	13.0	B,D	8.70	B,D	6.60	B,D	10.7	B,D	9.80	B,D	8.30	B,D	13.9	B,D	10.3	B,D	14.4	B,D	10.1	J,D
GWPS = 0.3 ug/L	27-Sep-11	0.661	25.0	8.70	B,D	7.10	B,D	9.80	B,D	8.70	B,D	10.8	B,D	10.5	B,D	7.12	B,D	21.6	B,D	4.80	B,D	5.70	B,D	7.00	J,D
	26-Oct-11	0.661	5.00	12.6	D	2.60	B,D	4.70	B,D	1.80	B,D	23.6	D	4.30	B,D	2.90	B,D	2.40	B,D	4.90	B,D	1.00	B,D	2.00	J,D
	29-Nov-11	0.661	5.00	14.4	B,D	11.2	B,D	13.1	B,D	8.50	B,D	11.0	B,D	11.2	B,D	14.1	B,D	10.9	B,D	9.40	B,D	9.00	B,D	7.90	D
	31-Oct-13	0.07	25.0	1.0	J	1.2	J	5.3	J	1.2	J	10.2	J	2.9	J	5.4	J	1.2	J	2.1	J	9.9	J	ND	
Zinc	25-Aug-11	2.26	10.0	158		8.61	B	8.06	B	5.93	B	9.44	B	6.02	B	14.2	B	13.5	B	9.05	B	33.2		4.21	J
NC 2L = 1,000 ug/L	27-Sep-11	2.26	10.0	8.71	J	ND		ND		ND		5.78	J	ND		9.21	J	ND		2.89	J	2.36	J	ND	
	26-Oct-11	2.26	10.0	8.92	J	ND		ND		ND		5.08	J	ND		26.5		ND		ND		3.41	J	ND	
	29-Nov-11	2.26	10.0	7.47	J	ND		2.78	J	ND		5.94	J	ND		3.15	J	ND		3.26	J	4.49	J	ND	
	31-Oct-13	0.47	10.0	19		5.1	B	18		6.5	B	15	B	7.1	B	26		5.6	B	4.6	B	88		3.2	J
Acetone	25-Aug-11	0.864	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
NC 2L = 6,000 ug/L	27-Sep-11	0.864	100	ND		ND		ND		ND		ND		2.62	J	ND		3.25	J	1.13	J	ND		1.22	J
	26-Oct-11	0.864	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	29-Nov-11	0.864	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	9.06	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Bromoform	25-Aug-11	0.0974	3.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
NC 2L = 4 ug/L	27-Sep-11	0.0974	3.00	ND		ND		ND		ND		ND		ND		0.750	J	ND		ND		ND		ND	
	26-Oct-11	0.0974	3.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	29-Nov-11	0.0974	3.00	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	0.67	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Carbon Disulfide	25-Aug-11	0.106	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
NC 2L = 700 ug/L	27-Sep-11	0.106	100	ND		ND		ND		ND		ND		ND		ND		0.450	J	ND		ND		ND	
	26-Oct-11	0.106	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	29-Nov-11	0.106	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	0.23	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
4-Methyl-2-pentanone	25-Aug-11	0.558	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
GWPS = 560 ug/L	27-Sep-11	0.558	100	ND		ND		ND		ND		ND		ND		ND		1.43	J	ND		ND		ND	
	26-Oct-11	0.558	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	29-Nov-11	0.558	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	31-Oct-13	1.19	100	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	

Notes:
1. MW = Groundwater monitoring well
2. ND = Not detected
3. DL = Detection limit
4. RL = Reporting limit
5. B = Reported concentration considered to represent blank contamination.
6. J = Reported concentration considered to represent an estimate of constituent concentration.
7. NC 2L = North Carolina 2L Groundwater Standard.
8. GWPS = Groundwater Protection Standard.
9. Highlighted data are quantified detections above the NC 2L/GWPS.
10. D = Sample dilution

TABLE 9A

SUMMARY OF FIELD PARAMETERS
C.R.S.W.M.A. TUSCARORA LONG-TERM REGIONAL LF PHASES 1 and 2

Field Parameters	Date	Background		Downgradient									
		MW-12S	MW-12D	MW-7	MW-8	MW-9	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14	MW-14R
Conductivity	Jul-99	NI	NI	180	110	320	150	200	440	NI	NI	NI	NI
[uMhos]	Aug-99	NI	NI	210	100	580	200	170	450	NI	NI	NI	NI
	Oct-99	NI	NI	140	89	2,000	150	200	420	NI	NI	NI	NI
	Nov-99	NI	NI	140	91	1,600	150	270	430	NI	NI	NI	NI
	Apr-00	NI	NI	150	88	1,800	140	270	420	NI	NI	NI	NI
	Oct-00	NI	NI	140	92	1,200	130	30	410	NI	NI	NI	NI
	Apr-01	NI	NI	140	88	1,300	120	290	390	NI	NI	NI	NI
	Oct-01	NI	NI	140	98	1,200	120	250	410	NI	NI	NI	NI
	Apr-02	160	460	140	82	1,600	110	290	370	NI	NI	NI	NI
	Oct-02	153	478	356	93	1,650	132	288	500	NI	NI	NI	NI
	Apr-03	164	448	482	169	1,857	167	406	440	NI	NI	NI	NI
	Oct-03	146	434	373	76	1,497	144	411	426	NS	NS	NS	NI
	15-Apr-04	170	300	220	57	960	87	290	300	79	280	56	NI
	14-Oct-04	189	405	272	70	AB	121	344	406	127	391	79	NI
	05-Apr-05	146	489	299	67	AB	140	417	496	99	475	95	NI
	27-Oct-05	144	419	234	63	AB	125	353	430	114	396	138	NI
	21-Apr-06	184	465	216	64	AB	147	406	469	121	434	69	NI
	12-Oct-06	182	448	245	59	AB	130	358	448	109	416	AB	NI
	26-Apr-07	192	452	210	69	AB	143	310	448	103	415	AB	NI
	11-Oct-07	187	454	273	80	AB	128	229	439	119	409	AB	78
Resample	04-Dec-07	159.2	501	340	83.5	AB	128.9	232	497	146.4	482	AB	73.1
	03-Apr-08	155	481	453	64	AB	131	409	443	124	402	AB	71
Resample	15-May-08	164.2	NS	NS	67.4	AB	129.8	NS	NS	NS	NS	AB	NS
	28-Oct-08	140	437	528	63	AB	124.0	542	449	152	422	AB	75
	08-Apr-09	148	429	475	60	AB	131	1,200	460	149	435	AB	116
	27-Oct-09	114	430	439	60	AB	114	613	427	124	417	AB	119
	08-Apr-10	146	433	450	73	AB	134	771	460	142	433	AB	158
	13-Oct-10	124	450	455	75	AB	121	639	474	144	440	AB	275
	27-Apr-11	123	439	551	84	AB	139	1115	475	164	437	AB	284
	20-Oct-11	99	420	460	84	AB	125	956	464	159	444	AB	1082
	26-Apr-12	107	409	490	82	AB	150	1054	477	195	446	AB	670
	16-Oct-12	103	422	435	90	AB	141	945	487	163	455	AB	1910
	11-Apr-13	100	422	440	89	AB	142	778	485	180	440	AB	1668
	30-Oct-13	101	514	434	86	AB	133	710	493	168	455	AB	1283
pH	Jul-99	NI	NI	5.7	5.4	5.1	5.6	6.0	7.0	NI	NI	NI	NI
[standard units]	Aug-99	NI	NI	5.4	5.0	4.2	5.0	5.6	6.4	NI	NI	NI	NI
	Oct-99	NI	NI	5.3	4.8	5.8	5.4	5.1	6.8	NI	NI	NI	NI
	Nov-99	NI	NI	5.2	4.8	5.6	5.3	5.2	6.7	NI	NI	NI	NI
	Apr-00	NI	NI	5.0	5.0	6.0	5.3	5.4	7.2	NI	NI	NI	NI
	Oct-00	NI	NI	5.0	4.8	5.3	5.3	4.8	6.3	NI	NI	NI	NI
	Apr-01	NI	NI	4.7	4.8	4.7	4.9	4.4	6.3	NI	NI	NI	NI
	Oct-01	NI	NI	5.1	5.0	4.4	5.2	5.0	6.6	NI	NI	NI	NI
	Apr-02	5.4	6.3	4.7	4.7	5.2	5.2	4.9	6.4	NI	NI	NI	NI
	Oct-02	4.9	7.1	5.9	4.9	5.0	5.5	4.9	7.2	NI	NI	NI	NI
	Apr-03	5.1	7.1	5.9	4.6	6.2	5.5	4.5	7.0	NI	NI	NI	NI
	Oct-03	4.6	6.7	6.0	4.6	5.9	5.1	3.9	6.9	NS	NS	NS	NI
	Oct-03	6.6	7.3	7.0	6.7	6.7	6.4	5.2	7.2	6.8	7.2	8.0	NI
	14-Oct-04	5.4	7.0	10.0	5.0	AB	5.3	4.7	6.8	4.9	6.7	5.3	NI
	05-Apr-05	5.1	7.0	5.9	5.1	AB	5.3	4.5	6.8	5.2	7.1	4.8	NI
	27-Oct-05	5.1	6.9	5.8	5.1	AB	5.1	4.1	6.9	4.9	7.1	4.8	NI
	21-Apr-06	5.3	7.0	5.9	5.0	AB	5.2	4.0	7.1	5.1	7.2	4.9	NI
	12-Oct-06	5.3	7.0	6.0	4.8	AB	5.2	4.2	7.0	5.1	7.1	AB	NI
	26-Apr-07	5.4	7.1	6.1	5.0	AB	5.3	4.6	7.1	4.9	7.2	AB	NI
	11-Oct-07	5.3	7.0	5.8	5.3	AB	5.1	5.1	7.1	5.1	7.2	AB	5.3
Resample	04-Dec-07	5.46	6.01	6.20	6.55	AB	6.22	4.53	5.82	5.17	5.98	AB	5.95
	03-Apr-08	4.9	6.8	6.1	4.9	AB	5.3	3.7	6.7	4.9	7.1	AB	4.8
Resample	15-May-08	5.66	NS	NS	5.80	AB	5.69	NS	NS	NS	NS	AB	NS
	28-Oct-08	4.6	7.0	6.2	4.9	AB	5.0	3.9	6.9	4.7	7.0	AB	5.0
	08-Apr-09	4.9	6.8	6.2	4.9	AB	5.0	4.0	6.7	4.8	6.6	AB	4.6
	27-Oct-09	4.6	6.8	6.1	5.0	AB	5.1	3.8	6.9	4.8	6.9	AB	4.2
	08-Apr-10	4.4	6.9	6.4	4.8	AB	5.1	4.0	7.0	5.0	7.1	AB	4.3
	13-Oct-10	4.7	6.7	6.2	4.8	AB	5.5	4.2	7.0	5.1	6.9	AB	3.9
	27-Apr-11	4.8	6.8	6.3	4.8	AB	5.1	4.0	6.8	5.1	6.9	AB	4.0
	20-Oct-11	4.5	6.9	6.2	5.1	AB	4.9	3.8	6.8	5.0	6.9	AB	5.2
	26-Apr-12	4.6	6.9	6.2	4.9	AB	5.0	3.9	6.8	5.0	7.0	AB	4.9
	16-Oct-12	4.7	7.1	6.3	4.8	AB	5.0	4.1	7.1	4.7	7.1	AB	6.0
	11-Apr-13	4.7	6.8	6.3	4.5	AB	4.9	4.2	7.0	4.7	6.9	AB	5.7
	30-Oct-13	4.7	6.5	6.3	4.9	AB	5.1	4.6	6.9	5.3	7.0	AB	6.1
Temperature	Jul-99	NI	NI	20	23	21	23	20	24	NI	NI	NI	NI
[°C]	Aug-99	NI	NI	23	23	23	24	23	20	NI	NI	NI	NI
	Oct-99	NI	NI	20	21	20	21	20	21	NI	NI	NI	NI
	Nov-99	NI	NI	17	18	18	18	17	17	NI	NI	NI	NI
	Apr-00	NI	NI	15	15	15	14	14	17	NI	NI	NI	NI
	Oct-00	NI	NI	20	20	20	19	20	20	NI	NI	NI	NI
	Apr-01	NI	NI	17	15	14	14	14	14	NI	NI	NI	NI
	Oct-01	NI	NI	20	21	20	21	21	19	NI	NI	NI	NI
	Apr-02	17	17	17	18	17	17	17	16	NI	NI	NI	NI
	Oct-02	25	22	25	26	24	24	24	23	NI	NI	NI	NI
	Apr-03	16	18	15	15	16	16	15	15	NI	NI	NI	NI
	Oct-03	20	19	20	19	20	20	21	21	NS	NS	NS	NI
	15-Apr-04	15	17	15	16	14	14	14	12	15	14	15	NI
	14-Oct-04	21	20	21	21	AB	21	22	21	21	22	21	NI
	05-Apr-05	15	15	16	15	AB	14	15	15	14	14	13	NI
	27-Oct-05	21	21	21	21	AB	21	21	22	20	21	21	NI
	21-Apr-06	17	18	18	17	AB	16	15	17	16	17	17	NI
	12-Oct-06	22	19	22	23	AB	22	23	19	21	19	AB	NI
	26-Apr-07	17	18	17	17	AB	15	16	18	4.9	7.2	AB	NI
	11-Oct-07	21	19	22	22	AB	21	21	18	20	18	AB	22
Resample	04-Dec-07	18.2	18.9	17.4	18.5	AB	16.7	13.8	17.9	16.0	17.1	AB	16.9
	03-Apr-08	16	18	15	15	AB	14	15	17	16	17	AB	15
Resample	15-May-08	17.4	NS	NS	17.8	AB	17.1	NS	NS	NS	NS	AB	NS
	28-Oct-08	21	18	20	20	AB	19	20	20	18	19	AB	20
	08-Apr-09	14	17	14	14	AB	13	14	15	14	15	AB	13
	27-Oct-09	21	19	22	21	AB	21	22	20	20	20	AB	21
	08-Apr-10	16	19	16	15	AB	16	15	16	16	16	AB	16
	13-Oct-10	22	19	23	23	AB	22	22	21	22	21	AB	22
	27-Apr-11	17	18	18	18	AB	17	16	17	17	17	AB	18
	20-Oct-11	20	17	21	19	AB	19	20	19	20	18	AB	20
	26-Apr-12	17	18	18	18	AB	17	17	17	17	17	AB	17
	16-Oct-12	22	19	22	22	AB	21	21	21	21	20	AB	22
	11-Apr-13	16	19	16	15	AB	15	15	17	15	17	AB	15
	30-Oct-13	21	19	21	21	AB	21	21	20	20	19	AB	20
Turbidity	Jul-99	NI	NI	450	650	18	3	75	70	NI	NI	NI	NI
[NTU]	Aug-99	NI	NI	95	500	50	100	330	120	NI	NI	NI	NI
	Oct-99	NI	NI	250	110	100	31	15	26	NI	NI	NI	NI
	Nov-99	NI	NI	110	290	150	100	75	130	NI	NI	NI	NI
	Apr-00	NI	NI	50	500	140	37	22	25	NI	NI	NI	NI
	Oct-00	NI	NI	70	110	17	16	33	31	NI	NI	NI	NI
	Apr-01	NI	NI	80	70	14	12	32	34	NI	NI	NI	NI
	Oct-01	NI	NI	60	290	5	10	20	70	NI	NI	NI	NI
	Apr-02	14	24	35	32	25	11	24	8	NI	NI	NI	NI
	Oct-02	3.0	14	22	8.3	23	10	6.2	50	NI	NI	NI	NI
	Apr-03	60	120	33	120	24	22	12	21	NI	NI	NI	NI
	Oct-03	18	22	55	27	65	25	19	26	NS	NS	NS	NI
	15-Apr-04	70	29	65	400	40	32	37	21	220	65	75	NI
	14-Oct-04	39	26	38	40	AB	60	140	39	45	30	37	NI
	05-Apr-05	39	32	70	170	AB	65	27	12	190	38	100	NI
	27-Oct-05	19	39	200	110	AB	37	55	25	26	50	26	NI
	21-Apr-06	5.9	17	56	4.8	AB	4.2	1.6	37	3.7	132	1.5	NI
	12-Oct-06	19	160	50	24	AB	34	3.0	60	19	70	AB	NI
	26-Apr-07	200	130	95	12	AB	50	6.6	90	2.5	110	AB	NI
	11-Oct-07	80	90	90	45	AB	8.0	7.1	60	40	80	AB	4.4
Resample	04-Dec-07	53.1	50.4	90.3	811.0	AB	31.4	34.3	9.86	46.1	17.85	AB	28.8
	03-Apr-08	35	6.4	13	50	AB	75	7.2	65	26	33	AB	5.2
Resample	15-May-08	26.1	NS	NS	630	AB	31.6	NS	NS	NS	NS	AB	NS
	23-Oct-08	18	75	200	320	AB	70	60	40	28	60	AB	80
	08-Apr-09	38	70	75	250	AB	90	39	50	40	120	AB	27
	27-Oct-09	13	100	170	290	AB	70	33	45	29	65	AB	60
	08-Apr-10	19	33	130	190	AB	90	38	45	90	55	AB	26
	13-Oct-10	11	36	70	170	AB	90	31	50	280	70	AB	45
	27-Apr-11	16	60	85	60	AB	75	27	55	30	75	AB	17
	20-Oct-11	9.2	100	120	38	AB	110	68	59	34	70	AB	70
	26-Apr-12	29.0	100	85	140	AB	310	65	65	25	95	AB	110
	16-Oct-12	7.5	29	74	65	AB	40	31	40	25	70	AB	290
	11-Apr-13	16	45	40	60	AB	35	17	60	40	75	AB	120
	30-Oct-13	14.0	45.0	80.0	80.0	AB	70.0	37.0	50.0	34.0	60.0	AB	230

Notes:
1. NI = Well/Piezometer not installed.
2. AB = Abandoned.
3. NS = Not sampled and/or no water level measurements taken.

TABLE 9B
SUMMARY of FIELD PARAMETERS
C.R.S.W.M.A. LONG-TERM REGIONAL LF PHASE 3

Field Parameters	Date	Downgradient Monitoring Wells									
		MW-15S	MW-15D	MW-16S	MW-16D	MW-17S	MW-17D	MW-18S	MW-18D	MW-19S	MW-19D
Conductivity [uMhos]	31-Oct-13	189	418	600	514	326	138	1075	382	107	469
pH [standard units]	31-Oct-13	4.6	6.9	3.9	6.7	3.9	9.1	3.9	6.5	5.8	6.6
Temperature [°C]	31-Oct-13	21	20	21	21	21	22	21	20	22	21
Turbidity [NTU]	31-Oct-13	18.0	65.0	50.0	80.0	270.0	85.5	80.0	26.0	65.0	600.0

Notes:
1. NS = Not sampled and/or no water level measurements taken.
2. Measurements entered with units and digits as reported by laboratory report.

TABLE 10

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LF - LEACHATE STORAGE AREA

Constituent	Date	Concentrations (µg/L)																										
		DL	RL	Background		Downgradient																						Blanks
				LST-5S		LST-1S		LST-1D		LST-2S		LST-2D		LST-3S		LST-3D		LST-4S		LST-4D		LST-5D		LST-6S		LST-6D		
Antimony	Jul-93	NR	5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
	Aug-93	NR	5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
	Sep-93	NR	5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
	Sep-93	NR	5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
	Apr-94	NR	2	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		2		ND
	Oct-94	NR	30	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
	Apr-95	NR	30	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
	Oct-95	NR	30	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
	Apr-96	NR	30	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND
	Oct-96	NR	30	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND
	Apr-97	NR	30	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND
	Oct-97	NR	30	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND
	Apr-98	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Oct-98	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Mar-99	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Oct-99	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Apr-00	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Oct-00	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Apr-01	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Oct-01	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Apr-02	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Oct-02	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Apr-03	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	Oct-03	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	15-Apr-04	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	14-Oct-04	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	05-Apr-05	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	27-Oct-05	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	21-Apr-06	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	12-Oct-06	NR	30	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	26-Apr-07	NR	6.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND
	10-Oct-07	0.05	6.0	0.2	B	0.1	B	0.1	B	0.1	B	WL		0.1	B	WL		0.5	B	WL		0.1	B	0.1	B	WL		0.1	J
GWPS = 1.4 µg/L (10/23/07)	03-Apr-08	0.08	6.0	0.1	B	ND		ND		ND		WL		ND		WL		ND		WL		ND		0.5	B	WL		0.1	J
	28-Oct-08	0.08	6.0	0.6	J	ND		0.2	J	ND		WL		0.4	J	WL		0.1	J	WL		0.2	J	0.1	J	WL		ND	
	08-Apr-09	0.06	6.0	0.2	J	0.2	J	0.1	J	ND		WL		ND		WL		ND		WL		0.1	J	ND		WL		ND	
	27-Oct-09	0.06	6.0	0.3	J	0.1	J	0.7	J	0.3	J	WL		0.2	J	WL		ND		WL		0.2	J	0.1	J	WL		ND	
	08-Apr-10	0.22	6.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		0.4	B	ND		WL		0.7	J
GWPS = 1 µg/L (8/1/10)	13-Oct-10	0.22	6.0	0.5	J	ND		ND		ND		WL		0.6	J	WL		ND		WL		ND		ND		WL		ND	
	27-Apr-11	0.14	6.0	0.36	J	ND		ND		1.5	J	WL		ND		WL		0.30	J	WL		ND		ND		WL		ND	
	20-Oct-11	0.14	6.0	0.31	J	ND		0.18	J	ND		WL		ND		WL		ND		WL		ND		0.34	J	WL		ND	
	26-Apr-12	0.14	6.0	0.29	J	ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	16-Oct-12	0.02	6.0	0.88	J	0.17	J	0.64	J	0.11	J	WL		0.08	J	WL		0.09	J	WL		0.785		0.04	J	WL		ND	
	11-Apr-13	0.02	6.0	0.72	J	0.14	J	0.19	J	0.05	J	WL		0.12	J	WL		0.05	J	WL		0.47	J	0.15	J	WL		ND	
	30-Oct-13	0.02	6.0	0.86	J	0.11	B	0.80	J	0.19	B	WL		0.14	B	WL		0.14	B	WL		0.43	J	0.10	B	WL		0.08	J
Arsenic	Jul-93	NR	5	ND		9		ND		ND		ND		ND		ND		16		ND		5		ND		27		ND	
	Aug-93	NR	5	ND		ND		ND		ND		ND		ND		ND		15		ND		ND		ND		6		ND	
	Sep-93	NR	5	ND		ND		ND		5		153		ND		ND		17		ND		ND		ND		ND		ND	
	Sep-93	NR	5	ND		ND		ND		ND		8		ND		ND		37		ND		ND		ND		ND		ND	
	Apr-94	NR	5	ND		ND		ND		ND		ND		ND		ND		9		ND		ND		ND		ND		ND	
	Oct-94	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	10	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	10	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-97	NR	10	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	10	ND		ND		ND		ND		ND		ND		WL		18		WL		ND		ND		WL		ND	
	Apr-98	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-98	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-99	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-00	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-02	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.47	10.0	2.4	J	1.0	J	ND		3.0	J	WL		1.7	J	WL		13		WL		ND		1.0	J	WL		ND	
NC 2L = 50 µg/L (10/23/07) Resample	04-Dec-07	2.7	5.0	NS		NS		NS		NS		NS		NS		NS		9.5		NS		NS		NS		NS		ND	
	03-Apr-08	0.07	10.0	1.2	J	0.6	J	0.4	J	0.3	J	WL		1.7	J	WL		11		WL		0.4	J	0.5	J	WL		ND	
	28-Oct-08	0.07	10.0	0.9	J	0.7	J	1.0	J	1.8	J	WL		1.7	J	WL		3.1	J	WL		0.8	J	1.5	J	WL		ND	
	08-Apr-09	0.17	10.0	1.9	J	0.8	B	0.8	B	1.0	B	WL		1.0	B	WL		2.1	J	WL		0.9	B	1.5	J	WL		0.2	J
	27-Oct-09	0.17	10.0	1.7	J	0.8	J	0.7	J	0.6	J	WL		0.6	J	WL		4.7	J	WL		1	J	2.1	J	WL		ND	
NC 2L = 10 µg/L (1/1/10)	08-Apr-10	0.04	10.0	1.9	J	0.5	J	0.3	J	0.8	J	WL		0.2	J	WL		0.9	J	WL		1.3	J	0.9	J	WL		ND	
	13-Oct-10	0.04	10.0	4.6	J	0.8	J	1.3	J	0.7	J	WL		0.6	J	WL		1.8	J	WL		1.9	J	1	J	WL		ND	
	27-Apr-11	0.10	10.0	1.7	J	0.41	J	0.44	J	0.72	J	WL		0.31	J	WL		1.7	J	WL		1.4	J	0.54	J	WL		ND	
	20-Oct-11	0.10	10.0	1.6	J	0.53	J	0.70	J	0.72	J	WL		0.54	J	WL		1.4	J	WL		0.77	J	0.39	J	WL		ND	
	26-Apr-12	0.10	10.0	1.5	J	0.29	J	0.58	J	0.73	J	WL		0.54	J	WL		1.4	J	WL		0.77	J	0.39	J	WL		ND	
	16-Oct-12	0.13	10.0	1.6	B	0.67	B	1.0	B	0.86	B	WL		0.52	B	WL		2.0	B	WL		2.6	J	0.47	B	WL		0.40	J
	11-Apr-13	0.05	10.0	1.3	J	0.75	B	0.83	J	0.75	B	WL		0.38	B	WL		1.2	J	WL		1.1	J	0.37	B	WL		0.15	J
	30-Oct-13	0.05	10.0	2.1	J	0.57	B	0.90	B	0.74	B	WL		0.50	B	WL		3.5	J	WL		1.3	J	0.57	B	WL		0.20	J
Barium	Jul-93	NR	50	272		424		260		151		152		128		160		208		204		351		126		NA		ND	
	Aug-93	NR	50	196		216		144		133		128		240		242		126		256		292		68		112		ND	
	Sep-93	NR	50	92		71		212		75		460		79		104		194		94		120		61		62		ND	
	Sep-93	NR	50	113		194		120		94		121		121		170		155		132		184		74		77		ND	
	Apr-94	NR	50	ND		84		69		ND		94		ND		52		80		ND		62		90		ND		ND	
	Oct-94	NR	500	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	500	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	500	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	500	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	500	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-97	NR	500	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	500	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-98	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-98	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		WL		ND		WL		ND	
	Oct-99	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-00	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-02	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	500	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	100	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.04	100.0	30.9	J	63.7	J	37.3	J	42	J	WL		91.5	J	WL		184		WL		51.8	J	34	J	WL		0.2	J
NC 2L = 2,000 µg/L (10/23/07)	03-Apr-08	0.11	100.0	27.9	J	66.0	J	38.9	J	36.8	J	WL		119		WL		58.3	J	WL		58.4	J	43.8	J	WL		ND	
	28-Oct-08	0.11	100.0	34	J	53.5	J	47.6	J	64.8	J	WL		158		WL		66.2	J	WL		71.8	J	84.8	J	WL		0.2	J
	08-Apr-09	0.04	100.0	33.1	J	61.2	J	44.5	J	55.6	J	WL		77.3	J	WL		52.9	J	WL		85.0	J	79.7	J	WL		0.2	J
	27-Oct-09	0.04	100.0	37.9	J	48.8	J	35.3	J	43.3	J	WL		101		WL		68.2	J	WL		82.7	J	81.7	J	WL		0.1	J
NC 2L = 700 µg/L (1/1/10)	08-Apr-10	0.03	100.0	31.9	J	58.1	J	40.2	J	60.4	J	WL		45.7	J	WL		33.1	J	WL		96.7	J	78.6	J	WL		0.1	J
	13-Oct-10	0.03	100.0	161		38.3	J	36.2	J	32	J	WL		89.1	J	WL		53.2	J	WL		98.5	J	61	J	WL		0.2	J
	27-Apr-11	0.02	100.0	41.5	J	46.4	J	38.5	J	37.8	J	WL		59.4	J	WL		41.1	J	WL		95.4	J	51.6	J	WL		0.10	J
	20-Oct-11	0.02	100.0	37.6	J	33.8	J	41.0	J	29.4	J	WL		115		WL		58.6	J	WL		68.1	J	41.3	J	WL		0.10	J
	26-Apr-12	0.02	100.0	43.7	J	52.5	J	45.2	J	35.8	J	WL		68.9	J	WL		49.9	J	WL		92.7	J	55.6	J	WL		0.12	J
	16-Oct-12	0.07	100.0	37.8	J	57.7	J	49.3	J	52.9	J	WL		57.1	J	WL		58.4	J	WL		96.3	J	44.8	J	WL		0.28	J
	11-Apr-13	0.06	100.0	35.0	J	57.9	J	40.9	J	31.3	J	WL		35.6	J	WL		41.7	J	WL		78.5	J	56.8	J	WL		0.06	J
	30-Oct-13	0.06	100.0	31.1	J	37.3	J	47.8	J	32.6	J	WL		68.7	J	WL		74.9	J	WL		85.0	J	50.8	J	WL		0.24	J

TABLE 10

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LF - LEACHATE STORAGE AREA

Constituent	Date	Concentrations (µg/L)																										
		DL	RL	Background		Downgradient																						Blanks	
				LST-5S		LST-1S		LST-1D		LST-2S		LST-2D		LST-3S		LST-3D		LST-4S		LST-4D		LST-5D		LST-6S		LST-6D			
Beryllium	Jul-93	NR	1	3		4		ND		2		ND		2		ND		4		3		3		ND		4		ND	
	Aug-93	NR	1	2		2		ND		2		ND		4		ND		3		ND		ND		ND		2		ND	
	Sep-93	NR	1	1		ND		ND		2		25		2		ND		4		ND		ND		ND		ND		ND	
	Sep-93	NR	1	2		3		ND		ND		1		2		1		4		ND		ND		ND		ND		ND	
	Apr-94	NR	1	ND		ND		ND		ND		ND		2		ND		ND		ND		ND		ND		ND		ND	
	Oct-94	NR	2	ND		ND		ND		ND		ND		2		ND		2		ND		ND		ND		ND		ND	
	Apr-95	NR	2	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	2	ND		ND		ND		2		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	2	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	2	ND		ND		ND		ND		ND		ND		WL		3		WL		ND		ND		WL		ND	
	Apr-97	NR	2	ND		3		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	2	3		ND		ND		2		ND		ND		WL		3		WL		ND		ND		WL		ND	
	Apr-98	NR	2	ND		ND		ND		2.1		WL		ND		WL		3.2		WL		ND		ND		WL		ND	
	Oct-98	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-99	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-00	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-02	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	2	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	1.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.08	1.0	ND		0.5	J	0.1	J	0.3	J	WL		0.5	J	WL		1.6		WL		0.1	J	0.1	J	WL		ND	
GWPS = 4 µg/L (10/23/07)	03-Apr-08	0.06	1.0	ND		0.4	J	0.1	J	0.2	J	WL		1.2		WL		0.4	J	WL		0.2	J	0.2	J	WL		ND	
	28-Oct-08	0.06	1.0	0.1	J	0.5	J	0.1	J	0.6	J	WL		1.0		WL		0.6	J	WL		0.3	J	0.4	J	WL		ND	
	08-Apr-09	0.06	1.0	0.2	J	0.5	J	0.1	J	0.4	J	WL		0.5	J	WL		0.6	J	WL		0.2	J	0.4	J	WL		ND	
	27-Oct-09	0.06	1.0	0.2	J	0.3	J	0.2	J	0.4	J	WL		0.7	J	WL		0.8	J	WL		0.3	J	0.5	J	WL		ND	
	08-Apr-10	0.02	1.0	0.1	B	0.3	B	0.1	B	0.4	B	WL		0.3	B	WL		0.3	B	WL		0.3	B	0.3	B	WL		0.1	J
GWPS = 4 µg/L (10/1/10)	13-Oct-10	0.02	1.0	0.1	J	0.3	J	0.2	J	0.3	J	WL		0.6	J	WL		0.6	J	WL		0.2	J	0.3	J	WL		ND	
	27-Apr-11	0.02	1.0	0.15	J	0.29	J	0.07	J	0.28	J	WL		0.30	J	WL		0.33	J	WL		0.23	J	0.17	J	WL		ND	
	20-Oct-11	0.02	1.0	0.22	J	0.24	J	0.12	J	0.67	J	WL		0.67	J	WL		0.42	J	WL		0.20	J	0.22	J	WL		ND	
	26-Apr-12	0.02	1.0	0.17	J	0.33	J	0.11	J	0.34	J	WL		0.40	J	WL		0.34	J	WL		0.17	J	0.18	J	WL		ND	
	16-Oct-12	0.07	1.0	ND		0.42	J	0.13	J	0.40	J	WL		0.25	J	WL		0.40	J	WL		0.47	J	0.20	J	WL		ND	
	11-Apr-13	0.03	1.0	0.16	J	0.43	J	0.08	J	0.27	J	WL		0.24	J	WL		0.36	J	WL		0.30	J	0.20	J	WL		ND	
	30-Oct-13	0.03	1.0	0.12	B	0.24	J	0.13	B	0.25	J	WL		0.32	J	WL		0.58	J	WL		0.22	J	0.19	B	WL		0.04	J
Cadmium	Jul-93	NR	1	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		1		ND		ND	
	Aug-93	NR	1	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Sep-93	NR	1	ND		ND		ND		ND		5		ND		ND		ND		ND		ND		ND		ND		ND	
	Sep-93	NR	1	ND		ND		ND		ND		5		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-94	NR	1	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-94	NR	1	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	1	ND		ND		ND		ND		ND		1		ND		1		ND		ND		ND		ND		ND	
	Oct-95	NR	1	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	1	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	1	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-97	NR	1	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	1	1		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-98	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-98	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-99	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-00	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-02	NR	1	2		ND		ND		ND		WL		ND		WL		ND		WL		1		ND		WL		ND	
	Apr-03	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		5		2		WL		ND	
	15-Apr-04	NR	1	ND		3		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	1	1		ND		2		ND		WL		ND		WL		ND		WL		1		1		WL		ND	
	05-Apr-05	NR	1	ND		1		1		ND		WL		1		WL		1		WL		ND		2		WL		ND	
	27-Oct-05	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	1	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	1.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.06	1.0	0.4	B	0.5	B	0.1	B	0.5	B	WL		0.5	B	WL		0.5	B	WL		0.2	B	1.1		WL		0.1	J
NC 2L = 1.75 µg/L (10/23/07)	03-Apr-08	0.04	1.0	0.1	J	0.1	J	ND		0.1	J	WL		0.3	J	WL		0.2	J	WL		0.1	J	0.4	J	WL		ND	
	28-Oct-08	0.04	1.0	0.1	J	0.3	J	0.3	J	0.1	J	WL		0.4	J	WL		0.2	J	WL		0.1	J	0.1	J	WL		ND	
	08-Apr-09	0.04	1.0	0.1	J	0.3	J	0.1	J	0.2	J	WL		0.5	J	WL		0.2	J	WL		0.2	J	0.3	J	WL		ND	
	27-Oct-09	0.04	1.0	0.7	J	0.1	J	ND		0.2	J	WL		0.1	J	WL		0.7	J	WL		0.1	J	1		WL		ND	
NC 2L = 2 µg/L (1/1/10)	08-Apr-10	0.02	1.0	0.1	B	0.3	B	0.1	B	0.3	B	WL		0.1	B	WL		0.4	B	WL		0.8	J	0.1	B	WL		0.1	J
	13-Oct-10	0.02	1.0	0.4	J	0.2	J	0.2	J	0.3	J	WL		0.1	J	WL		0.2	J	WL		0.1	J	0.1	J	WL		ND	
	27-Apr-11	0.02	1.0	0.12	J	0.18	J	0.05	J	0.18	J	WL		0.07	J	WL		0.21	J	WL		0.17	J	0.06	J	WL		ND	
	20-Oct-11	0.02	1.0	0.04	J	ND		0.20	J	0.07	J	WL		0.06	J	WL		0.15	J	WL		0.08	J	ND		WL		ND	
	26-Apr-12	0.02	1.0	0.12	J	0.16	J	0.16	J	0.08	J	WL		0.18	J	WL		0.10	J	WL		0.10	J	ND		WL		ND	
	16-Oct-12	0.03	1.0	0.17	J	0.28	J	0.13	J	0.44	J	WL		0.36	J	WL		0.39	J	WL		0.50	J	0.14	J	WL		ND	
	11-Apr-13	0.05	1.0	0.24	J	0.51	J	0.13	J	0.06	J	WL		0.20	J	WL		0.21	J	WL		0.22	J	0.05	J	WL		ND	
	30-Oct-13	0.05	1.0	0.28	J	0.05	J	0.17	J	0.17	J	WL		0.23	J	WL		0.32	J	WL		0.15	J	ND		WL		ND	
Chromium	Jul-93	NR	5	36		72		14		32		8		7		ND		ND		26		8		ND		35		ND	
	Aug-93	NR	5	18		17		ND		16		ND		23		ND		ND		ND		ND		ND		11		ND	
	Sep-93	NR	5	19		12		ND		17		136		9		ND		ND		ND		ND		ND		6		ND	
	Sep-93	NR	5	19		29		ND		8		9		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-94	NR	5	ND		9		34		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-94	NR	10	ND		10		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	10	ND		ND		ND		22		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	10	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	10	ND		13		ND		ND		ND		ND		WL		27		WL		ND		10		WL		ND	
	Apr-97	NR	10	16		32		ND		ND		ND		ND		WL		20		WL		10		14		WL		ND	
	Oct-97	NR	10	15		ND		ND		16		ND		ND		WL		32		WL		21		33		WL		ND	
	Apr-98	NR	10	32		ND		ND		12		WL		ND		WL		26		WL		ND		23		WL		ND	
	Oct-98	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	10	17		11		ND		18		WL		ND		WL		34		WL		ND		10		WL		ND	
	Oct-99	NR	10	ND		10		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	5	28		170		ND		18		WL		ND		WL		51		WL		10		40		WL		ND	
	Oct-00	NR	10	ND		ND		ND		11		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	10	ND		ND		ND		18		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	10	20		ND		ND		19		WL		ND		WL		40		WL		ND		ND		WL		ND	
	Oct-02	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	10	14		ND		ND		ND		WL		ND		WL		ND		WL		ND		10		WL		ND	
	Oct-03	NR	10	14		ND		ND		17		WL		ND		WL		19		WL		ND		ND		WL		ND	
	15-Apr-04	NR	10	11		20		ND		22		WL		ND		WL		ND		WL		11		13		WL		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		WL		17		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.24	10.0	3.2	B	1.1	B	1.2	B	1.4	B	WL		1.6	B	WL		2	B	WL		1.4	B	2.2	B	WL		1.2	J
NC 2L = 50 µg/L (10/23/07)	03-Apr-08	0.11	10.0	0.5	J	ND		ND		1.2	J	WL		1.5	J	WL		2.1	J	WL		0.4	J	2.7	J	WL		ND	
	28-Oct-08	0.11	10.0	3.9	J	5.4	J	1.3	J	8.8	J	WL		3.1	J	WL		7.7	J	WL		1.7	J	9.2	J	WL		ND	
	08-Apr-09	0.10	10.0	6.4	J	1.9	J	0.2	J	2.8	J	WL		2.4	J	WL		6.2	J	WL		1.1	J	8.0	J	WL		ND	
	27-Oct-09	0.10	10.0	8.7	J	3.8	J	0.7	J	4.2	J	WL		1.6	J	WL		11		WL		1	J	11		WL		ND	
NC 2L = 10 µg/L (1/1/10)	08-Apr-10	0.03	10.0	6.1	J	2.1	J	0.6	J	4.3	J	WL		1.7	J	WL		5.5	J	WL		1.3	J	7.4	J	WL		ND	
	13-Oct-10	0.03	10.0	8.7	J	0.6	J	0.7	J	1.6	J	WL		1.3	J	WL		6.2	J	WL		0.7	J	6.6	J	WL		ND	
	27-Apr-11	0.04	10.0	6.7	J	1.5	J	0.40	B	3.9	J	WL		1.1	J	WL		6.1	J	WL		1.2	J	3.9	J	WL		0.18	J
	20-Oct-11	0.04	10.0	10		2.6	J	1.2	J	3.7	J	WL		1.7	J	WL		5.9	J	WL		1.5	J	4.8	J	WL		0.18	J
	26-Apr-12	0.04	10.0	9.8	J	3.1	J	1.0	J	5.8	J	WL		1.7	J	WL		6.2	J	WL		1.2	J	6.8	J	WL		0.09	J
	16-Oct-12	0.18	10.0	3.1	J	3.9	J	1.0	J	2.8	J	WL		2.4	J	WL		19		WL		2.7	J	3.4	J	WL		ND	
	11-Apr-13	0.04	10.0	6.6	J	3.3	J	0.38	J	3.3	J	WL		1.8	J	WL		5.0	J	WL		1.3	J	3.9	J	WL		ND	
	30-Oct-13	0.04	10.0	6.0	J	2.9	J	0.67	J	3.3	J	WL		2.5	J	WL		11		WL		0.85	J	4.3	J	WL		0.11	J

TABLE 10

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LF - LEACHATE STORAGE AREA

Constituent	Date	Concentrations (µg/L)																											
		DL	RL	Background		Downgradient																						Blanks	
				LST-5S		LST-1S		LST-1D		LST-2S		LST-2D		LST-3S		LST-3D		LST-4S		LST-4D		LST-5D		LST-6S		LST-6D			
Cobalt	Jul-93	NR	20	29		36		28		2		25		71		24		258		28		21		ND		52		ND	
	Aug-93	NR	20	ND		ND		ND		ND		ND		62		ND		117		ND		ND		24		42		ND	
	Sep-93	NR	20	ND		ND		ND		ND		186		83		ND		205		ND		ND		ND		ND		ND	
	Sep-93	NR	20	ND		ND		ND		ND		ND		61		ND		188		ND		ND		ND		ND		ND	
	Apr-94	NR	10	19	B	25		35		18	B	37	B	81	B	41	B	37	B	31	B	31	B	20	B	36	B	18	
	Oct-94	NR	10	ND		ND		ND		ND		ND		ND		ND		14		ND		ND		ND		ND		ND	
	Apr-95	NR	10	ND		ND		ND		ND		ND		53		ND		14		ND		ND		ND		ND		ND	
	Oct-95	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	10	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	10	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-97	NR	10	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	10	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-98	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-98	NR	10	ND		ND		ND		ND		WL		13		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-99	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	10	ND		ND		ND		ND		WL		11		WL		ND		WL		ND		ND		WL		ND	
	Oct-00	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-02	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.41	10.0	0.5	J	0.5	J	ND		0.5	J	WL		5.8	J	WL		20		WL		ND		ND		WL		ND	
GWPS = 70 µg/L (10/23/07)	03-Apr-08	0.03	10.0	0.5	J	0.4	J	0.4	J	0.4	J	WL		2.8	J	WL		2.3	J	WL		0.2	J	0.6	J	WL		ND	
	28-Oct-08	0.03	10.0	0.3	J	0.7	J	0.7	J	0.8	J	WL		6.6	J	WL		1.8	J	WL		0.5	J	0.8	J	WL		ND	
	08-Apr-09	0.02	10.0	0.4	J	0.4	J	0.4	J	0.6	J	WL		2.8	J	WL		1.6	J	WL		0.4	J	0.7	J	WL		ND	
	27-Oct-09	0.02	10.0	0.4	J	0.4	J	0.5	J	0.5	J	WL		7.2	J	WL		2.2	J	WL		0.5	J	0.9	J	WL		ND	
	08-Apr-10	0.10	10.0	0.4	J	0.4	J	0.5	J	0.6	J	WL		2.9	J	WL		1.2	J	WL		0.5	J	0.8	J	WL		ND	
GWPS = 1 µg/L (10/1/10)	13-Oct-10	0.10	10.0	1	J	0.2	J	0.6	J	0.3	J	WL		6	J	WL		2.1	J	WL		0.4	J	0.5	J	WL		ND	
	27-Apr-11	0.03	10.0	0.45	J	0.36	J	0.26	J	0.45	J	WL		3.4	J	WL		1.4	J	WL		0.41	J	0.50	J	WL		ND	
	20-Oct-11	0.03	10.0	0.39	J	0.40	J	0.44	J	0.37	J	WL		6.6	J	WL		2.1	J	WL		0.32	J	0.38	J	WL		ND	
	26-Apr-12	0.03	10.0	0.40	J	0.43	J	0.45	J	0.48	J	WL		5.1	J	WL		1.5	J	WL		0.38	J	0.53	J	WL		ND	
	16-Oct-12	0.02	10.0	0.23	J	0.45	J	0.63	J	0.65	J	WL		2.4	J	WL		1.9	J	WL		0.76	J	0.39	J	WL		ND	
	11-Apr-13	0.02	10.0	0.43	J	0.46	J	0.43	J	0.39	J	WL		2.0	J	WL		1.6	J	WL		0.62	J	0.54	J	WL		0.03	J
	30-Oct-13	0.02	10.0	0.27	J	0.32	J	0.40	J	0.42	J	WL		3.2	J	WL		2.4	J	WL		0.33	J	0.43	J	WL		0.05	J
Copper	Jul-93	NR	10	23	B	62		25		26	B	24	B	17	B	26	B	22	B	28	B	ND		19	B	36	B	17	
	Aug-93	NR	10	17	B	15		21		14	B	10	B	17	B	13	B	ND		12	B	11	B	16	B	33	B	19	
	Sep-93	NR	10	18	B	24		12		ND		195		16	B	14	B	11	B	13	B	14	B	14	B	ND		11	
	Sep-93	NR	10	19	B	27		12		36	B	46	B	29	B	35	B	44	B	31	B	10	B	38	B	37	B	39	
	Apr-94	NR	10	33	B	45		ND		25	B	31	B	15	B	58	B	47	B	41	B	31	B	25	B	27	B	21	
	Oct-94	NR	200	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	200	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	200	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	200	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	200	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-97	NR	200	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	200	ND		ND		ND		ND		ND		ND		WL		ND		WL		17		ND		WL		ND	
	Apr-98	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-98	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-99	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-00	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-02	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	200	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.20	10.0	1.1	B	0.6	B	0.9	B	0.8	B	WL		0.7	B	WL		0.7	B	WL		0.3	B	1.0	B	WL		0.4	J
NC 2L = 1,000 µg/L (10/23/07)	03-Apr-08	0.05	10.0	0.7	B	0.5	B	0.2	B	0.5	B	WL		1.6	J	WL		1.1	J	WL		0.3	B	0.8	B	WL		0.2	J
	28-Oct-08	0.05	10.0	1.6	B	2.2	J	1.1	B	2.6	J	WL		1.9	B	WL		1.9	B	WL		1.2	B	2.3	J	WL		0.4	J
	08-Apr-09	0.04	10.0	2.3	J	1.7	J	0.6	J	1.1	J	WL		1.3	J	WL		1.5	J	WL		0.9	J	1.7	J	WL		0.1	J
	27-Oct-09	0.04	10.0	2.4	J	1.9	J	1.4	J	3.1	J	WL		2.3	J	WL		3.7	J	WL		1.3	J	5.4	J	WL		0.1	J
	08-Apr-10	0.03	10.0	1.8	J	2.8	J	1.7	J	2.0	J	WL		0.9	B	WL		1.9	J	WL		3.5	J	2.1	J	WL		0.2	J
	13-Oct-10	0.03	10.0	3.7	J	1.1	J	1.1	J	1.1	J	WL		0.9	B	WL		1.5	J	WL		0.8	B	1.3	J	WL		0.2	J
	27-Apr-11	0.02	10.0	2.5	B	1.2	B	0.58	B	1.6	B	WL		0.51	B	WL		1.7	B	WL		1.4	B	1.2	B	WL		0.66	J
	20-Oct-11	0.02	10.0	1.8	J	1.0	J	0.88	B	1.2	J	WL		0.86	B	WL		1.7	J	WL		0.84	B	1.3	J	WL		0.20	J
	26-Apr-12	0.02	10.0	1.7	B	1.4	B	0.78	B	1.7	B	WL		0.91	B	WL		1.5	B	WL		1.7	B	0.79	B	WL		0.94	J
	16-Oct-12	0.06	10.0	1.5	J	1.6	J	0.73	B	1.4	J	WL		1.1	B	WL		1.9	J	WL		1.4	J	1.1	B	WL		0.25	J
	11-Apr-13	0.06	10.0	2.0	J	1.5	J	0.87	B	1.2	B	WL		0.65	B	WL		1.3	B	WL		0.98	B	1.1	B	WL		0.28	J
	30-Oct-13	0.06	10.0	1.6	B	0.97	B	0.85	B	1.3	B	WL		1.1	B	WL		2.9	B	WL		0.86	B	1.6	B	WL		1.2	J
Lead	Jul-93	NR	5	34		67		ND		7		ND		ND		ND		ND		8		28		ND		13		ND	
	Aug-93	NR	5	33		21		ND		15		ND		17		ND		ND		ND		ND		12		7		ND	
	Sep-93	NR	5	17		ND		ND		13		102		ND		ND		ND		ND		ND		5		ND		ND	
	Sep-93	NR	5	ND		16		ND		10		5		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-94	NR	5	ND		12		47		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-94	NR	10	ND		13		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	10	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	10	ND		ND		ND		ND		ND		ND		WL		14		WL		ND		ND		WL		ND	
	Apr-97	NR	10	10		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	10	15		ND		ND		20		ND		ND		WL		41		WL		ND		33		WL		ND	
	Apr-98	NR	10	17		ND		ND		ND		WL		22		WL		20		WL		ND		ND		WL		ND	
	Oct-98	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	10	ND		ND		ND		ND		WL		ND		WL		12		WL		ND		ND		WL		ND	
	Oct-99	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	10	11		23		ND		ND		WL		18		WL		20		WL		10		15		WL		ND	
	Oct-00	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	10	ND		ND		ND		ND		WL		ND		WL		14		WL		ND		ND		WL		ND	
	Oct-02	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.07	10.0	1.6	J	1.0	J	0.1	B	0.8	J	WL		1.0	J	WL		0.6	J	WL		0.1	B	1.8	J	WL		0.1	J
NC 2L = 15 µg/L (10/23/07)	03-Apr-08	0.04	10.0	0.8	J	0.6	J	0.2	J	1.1	J	WL		13		WL		5.0	J	WL		0.2	J	2.1	J	WL		ND	
	28-Oct-08	0.04	10.0	2.5	J	4	J	0.6	J	8.5	J	WL		11		WL		9.5	J	WL		1	J	12		WL		0.1	J
	08-Apr-09	0.04	10.0	4.4	J	1.6	J	0.3	B	3.0	J	WL		5.2	J	WL		6.2	J	WL		0.8	J	9.7	J	WL		0.1	J
	27-Oct-09	0.04	10.0	6.4	J	3.2	J	0.5	J	3.9	J	WL		3.3	J	WL		5.0	J	WL		0.9	J	9.7	J	WL		ND	
	08-Apr-10	0.01	10.0	5.1	J	1.8	J	0.4	B	4.4	J	WL		2.2	J	WL		4.3	J	WL		1.4	J	8.2	J	WL		0.1	J
	13-Oct-10	0.01	10.0	1.4	J	1.7	J	0.6	J	2.2	J	WL		2.1	J	WL		5.7	J	WL		0.6	J	7.5	J	WL		0.1	J
	27-Apr-11	0.02	10.0	4.9	J	1.4	J	0.30	J	3.6	J	WL		1.7	J	WL		5.2	J	WL		0.77	J	3.3	J	WL		ND	
	20-Oct-11	0.02	10.0	6.2	J	2.9	J	0.54	J	3.4	J	WL		2.3	J	WL		4.9	J	WL		0.70	J	3.7	J	WL		ND	
	26-Apr-12	0.02	10.0	5.2	J	2.6	J	0.41	J	4.5	J	WL		1.9	J	WL		4.6	J	WL		0.62	J	5.4	J	WL		0.02	J
	16-Oct-12	0.08	10.0	3.0	J	6.7	J	0.67	J	3.7	J	WL		2.6	J	WL		6.4	J	WL		1.7	J	3.1	J	WL		ND	
	11-Apr-13	0.02	10.0	5.2	J	3.8	J	0.51	J	3.2	J	WL		1.9	J	WL		4.6	J	WL		0.99	J	3.7	J	WL		ND	
	30-Oct-13	0.02	10.0	4.4	J	2.8	J	0.51	J	2.6	J	WL		2.5	J	WL		11		WL		0.55	J	3.8	J	WL		0.08	J

TABLE 10

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LF - LEACHATE STORAGE AREA

Constituent	Date	Concentrations (µg/L)																											
		DL	RL	Background		Downgradient																						Blanks	
				LST-5S		LST-1S		LST-1D		LST-2S		LST-2D		LST-3S		LST-3D		LST-4S		LST-4D		LST-5D		LST-6S		LST-6D			
Nickel	Jul-93	NR	10	35		52		36		18		28		63		17		253		47		ND		23		80		ND	
	Aug-93	NR	10	39	B	46		21		41	B	44	B	103		38	B	164		39	B	37	B	26	B	40	B	11	
	Sep-93	NR	10	20	B	23		51		23	B	240		89		20	B	212		15	B	20	B	12	B	15	B	17	
	Sep-93	NR	10	19		ND		ND		12		15		60		16		194		14		13		49		17		ND	
	Apr-94	NR	10	30	B	45		ND		26	B	32	B	87	B	19	B	44	B	45	B	50		17	B	39	B	20	
	Oct-94	NR	50	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	50	ND		ND		ND		ND		ND		61		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	50	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	50	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	50	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-97	NR	50	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	50	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-98	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-98	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-99	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-00	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-02	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.66	50.0	1.6	J	1.2	J	1.9	J	1.3	J	WL		7.4	J	WL		25.5	J	WL		2.2	J	1	J	WL		ND	
NC 2L = 100 µg/L (10/23/07)	03-Apr-08	0.06	50.0	2.1	J	0.6	B	2.4	J	0.5	B	WL		3.5	J	WL		2.5	J	WL		3.4	J	1.0	B	WL		0.3	J
	28-Oct-08	0.06	50.0	1.4	B	1.4	B	3.3	J	1.5	B	WL		8	J	WL		2.7	J	WL		3.3	J	1.9	J	WL		0.3	J
	08-Apr-09	0.04	50.0	1.8	J	1.0	J	2.5	J	1.1	J	WL		3.5	J	WL		2.6	J	WL		2.9	J	1.7	J	WL		ND	
	27-Oct-09	0.04	50.0	2	J	1.4	J	1.7	J	1.4	J	WL		7.6	J	WL		3.4	J	WL		2.3	J	3.0	J	WL		0.2	J
	08-Apr-10	0.05	50.0	1.1	J	0.8	J	1.5	J	0.8	J	WL		3.0	J	WL		1.7	J	WL		2	J	1.0	J	WL		ND	
	13-Oct-10	0.05	50.0	11	J	2	J	3.4	J	1	J	WL		6.8	J	WL		3.1	J	WL		3.7	J	1.2	J	WL		0.1	J
	27-Apr-11	0.04	50.0	2.3	J	0.72	B	1.4	B	1.0	B	WL		3.9	J	WL		2.2	J	WL		1.9	J	0.98	B	WL		0.30	J
	20-Oct-11	0.04	50.0	2.0	B	1.3	B	2.1	B	0.86	B	WL		7.5	J	WL		3.2	J	WL		1.9	B	1.4	B	WL		0.56	J
	26-Apr-12	0.04	50.0	2.7	J	0.85	J	1.8	J	1.10	J	WL		5.3	J	WL		2.3	J	WL		1.8	J	1.5	J	WL		ND	
	16-Oct-12	0.06	50.0	1.7	J	1.5	J	2.8	J	1.6	J	WL		3.2	J	WL		5.8	J	WL		3.5	J	2.2	J	WL		0.23	J
	11-Apr-13	0.45	50.0	3.0	J	1.1	J	2.4	J	0.90	J	WL		3.0	J	WL		2.2	J	WL		2.9	J	0.89	J	WL		ND	
	30-Oct-13	0.45	50.0	1.6	J	0.93	J	2.1	J	1.0	J	WL		4.0	J	WL		3.6	J	WL		2.2	J	2.1	J	WL		ND	
Selenium	Jul-93	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		49		ND		ND		ND	
	Aug-93	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Sep-93	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Sep-93	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-94	NR	10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-94	NR	20	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	20	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	20	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	20	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	20	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-97	NR	20	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	20	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-98	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-98	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-99	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-00	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-02	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	20	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.35	10.0	1.4	B	3.4	B	1.1	B	1.4	B	WL		1.3	B	WL		1.3	B	WL		1.1	B	1.0	B	WL		0.9	J
NC 2L = 50 µg/L (10/23/07)	03-Apr-08	0.14	10.0	0.9	J	1.7	J	ND		0.2	J	WL		0.9	J	WL		ND		WL		ND		0.2	J	WL		ND	
	28-Oct-08	0.14	10.0	0.3	J	0.8	J	ND		0.3	J	WL		0.3	J	WL		0.2	J	WL		0.2	J	0.2	J	WL		ND	
	08-Apr-09	0.12	10.0	0.3	J	1.1	J	ND		0.2	J	WL		ND		WL		0.2	J	WL		0.2	J	0.3	J	WL		ND	
	27-Oct-09	0.12	10.0	0.6	J	0.9	J	0.5	J	0.5	J	WL		0.7	J	WL		0.8	J	WL		0.6	J	1.3	J	WL		ND	
NC 2L = 20 µg/L (1/1/10)	08-Apr-10	0.32	10.0	ND		1.9	J	0.4	J	ND		WL		ND		WL		ND		WL		0.3	J	ND		WL		ND	
	13-Oct-10	0.32	10.0	12		1.5	J	1.5	J	0.5	J	WL		0.6	J	WL		0.3	J	WL		3.1	J	0.4	J	WL		ND	
	27-Apr-11	0.20	10.0	1.1	J	1.1	J	ND		0.26	J	WL		ND		WL		0.42	J	WL		0.52	J	ND		WL		ND	
	20-Oct-11	0.20	10.0	0.50	J	0.51	J	0.32	J	0.28	J	WL		0.51	J	WL		0.43	J	WL		0.38	J	0.30	J	WL		ND	
	26-Apr-12	0.20	10.0	0.56	J	0.59	J	ND		0.2	J	WL		0.33	J	WL		0.29	J	WL		0.42	J	0.20	J	WL		ND	
	16-Oct-12	0.17	10.0	0.57	J	0.57	J	ND		0.92	J	WL		0.44	J	WL		0.63	J	WL		0.80	J	0.35	J	WL		ND	
	11-Apr-13	0.06	10.0	0.68	J	1.1	J	ND		0.11	J	WL		ND		WL		0.15	J	WL		0.58	J	0.11	J	WL		ND	
	30-Oct-13	0.06	10.0	0.51	J	0.42	J	0.43	J	0.49	J	WL		0.28	J	WL		1.0	J	WL		0.59	J	0.36	J	WL		ND	
Silver	03-Apr-08	0.04	10.0	0.1	B	0.1	B	ND		ND		WL		0.1	B	WL		ND		WL		ND		0.1	B	WL		0.1	J
NC 2L = 17.5 µg/L (10/23/07)	28-Oct-08	0.04	10.0	ND		0.1	J	ND		ND		WL		0.1	J	WL		0.1	J	WL		0.1	J	0.1	J	WL		ND	
	08-Apr-09	0.04	10.0	ND		ND		0.1	J	0.1	J	WL		ND		WL		ND		WL		0.1	J	ND		WL		ND	
	27-Oct-09	0.04	10.0	ND		0.1	J	0.1	J	ND		WL		ND		WL		0.1	J	WL		0.1	J	0.2	J	WL		ND	
NC 2L = 20 µg/L (1/1/10)	08-Apr-10	0.03	10.0	ND		ND		ND		ND		WL		ND		WL		0.1	B	WL		0.1	B	0.5	B	WL		0.1	J
	13-Oct-10	0.03	10.0	ND		ND		ND		ND		WL		0.1	J	WL		ND		WL		ND		ND		WL		ND	
	27-Apr-11	0.02	10.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	20-Oct-11	0.02	10.0	ND		ND		0.05	J	ND		WL		ND		WL		ND		WL		ND		0.04	J	WL		ND	
	26-Apr-12	0.02	10.0	0.02	J	0.06	J	0.04	J	0.03	J	WL		0.03	J	WL		ND		WL		ND		0.03	J	WL		ND	
	16-Oct-12	0.10	10.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	11-Apr-13	0.03	10.0	0.04	J	ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	30-Oct-13	0.03	10.0	ND		ND		0.05	B	ND		WL		ND		WL		ND		WL		ND		ND		WL		0.05	J
Thallium	10-Oct-07	0.07	5.0	ND		0.2	J	0.2	J	0.1	J	WL		ND		WL		ND		WL		ND		ND		WL		ND	
GWPS = 0.28 µg/L (10/23/07)	03-Apr-08	0.04	5.0	0.2	J	0.1	J	ND		0.1	J	WL		0.1	J	WL		0.1	J	WL		0.1	J	0.1	J	WL		ND	
	28-Oct-08	0.04	5.0	0.1	J	0.1	J	ND		0.1	J	WL		0.1	J	WL		0.1	J	WL		ND		0.2	J	WL		ND	
	08-Apr-09	0.03	5.0	0.1	J	0.1	J	0.1	J	0.1	J	WL		0.1	J	WL		0.1	J	WL		ND		0.1	J	WL		ND	
	27-Oct-09	0.03	5.0	0.1	J	0.1	J	ND		ND		WL		ND		WL		0.1	J	WL		ND		0.3	J	WL		ND	
	08-Apr-10	0.05	5.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
GWPS = 0.2 µg/L (10/1/10)	13-Oct-10	0.05	5.5	0.1	J	ND		ND		ND		WL		0.1	J	WL		0.1	J	WL		ND		0.1	J	WL		ND	
	27-Apr-11	0.02	5.5	0.10	B	0.18	J	0.27	J	0.12	B	WL		0.04	B	WL		0.10	B	WL		ND		0.08	B	WL		0.03	J
	20-Oct-11	0.02	5.5	0.09	J	0.05	J	0.09	J	0.05	J	WL		0.05	J	WL		0.09	J	WL		ND		0.09	J	WL		ND	
	26-Apr-12	0.02	5.5	0.12	J	0.23	J	0.14	J	0.13	J	WL		0.20	J	WL		0.12	J	WL		0.03	J	0.11	J	WL		ND	
	16-Oct-12	0.07	5.5	ND		0.07	J	ND		0.24	J	WL		ND		WL		0.08	J	WL		ND		ND		WL		ND	
	11-Apr-13	0.02	5..5	0.13	B	0.05	B	ND		0.04	B	WL		0.03	B	WL		0.06	B	WL		ND		0.06	B	WL		0.19	J
	30-Oct-13	0.02	5.5	0.06	B	0.08	B	0.10	B	0.07	B	WL		0.06	B	WL		0.18	B	WL		ND		0.08	B	WL		0.13	J

TABLE 10

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LF - LEACHATE STORAGE AREA

Constituent	Date	Concentrations (µg/L)																											
		DL	RL	Background		Downgradient																						Blanks	
				LST-5S		LST-1S		LST-1D		LST-2S		LST-2D		LST-3S		LST-3D		LST-4S		LST-4D		LST-5D		LST-6S		LST-6D			
Vanadium	Jul-93	NR	2,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Aug-93	NR	2,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Sep-93	NR	2,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Sep-93	NR	2,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-94	NR	40	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-94	NR	40	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-95	NR	40	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	40	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	40	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	40	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-97	NR	40	ND		ND		ND		ND		ND		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-97	NR	40	ND		ND		ND		ND		ND		ND		WL		50		WL		ND		48		WL		ND	
	Apr-98	NR	40	43		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-98	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-99	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	40	40		ND		ND		ND		WL		ND		WL		64		WL		ND		50		WL		ND	
	Oct-00	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	40	ND		ND		ND		ND		WL		ND		WL		55		WL		ND		ND		WL		ND	
	Oct-02	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-03	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	12-Oct-06	NR	40	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	25	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	10-Oct-07	0.42	25.0	4.0	J	0.5	J	ND		1.3	J	WL		0.9	J	WL		3.2	J	WL		ND		3.1	J	WL		ND	
GWPS = 3.5 µg/L (10/23/07)	03-Apr-08	0.07	25.0	2.0	J	0.8	J	0.6	J	2.4	J	WL		2.5	J	WL		9.5	J	WL		0.8	J	4.6	J	WL		ND	
	28-Oct-08	0.07	25.0	6.5	J	6.9	J	1.6	J	11.7	J	WL		4.5	J	WL		10.3	J	WL		2	J	14.8	J	WL		0.2	J
	08-Apr-09	0.28	25.0	12.6	J	4.6	J	2.3	J	6.4	J	WL		5.3	J	WL		10.0	J	WL		2.9	J	14.5	J	WL		ND	
	27-Oct-09	0.28	25.0	14.3	J	6.9	J	2.3	J	7.3	J	WL		3.3	J	WL		17.4	J	WL		2.2	J	17.1	J	WL		0.4	J
	08-Apr-10	0.03	25.0	10.4	J	3.0	J	1.0	B	6.3	J	WL		2.2	J	WL		6.9	J	WL		1.5	B	11.5	J	WL		0.4	J
GWPS = 0.3 µg/L (10/1/10)	13-Oct-10	0.03	25.0	3.6	J	2.1	B	1.9	B	3.5	J	WL		2.7	B	WL		9	J	WL		1.6	B	10.4	J	WL		0.6	J
	27-Apr-11	0.14	25.0	10.2	J	2.1	J	0.66	J	5.3	J	WL		1.6	J	WL		7.8	J	WL		1.4	J	5.9	J	WL		ND	
	20-Oct-11	0.14	25.0	13.9	J	3.5	J	0.76	J	5.1	J	WL		1.9	J	WL		6.5	J	WL		0.93	J	5.7	J	WL		ND	
	26-Apr-12	0.14	25.0	11.7	J	3.9	J	0.65	J	7.3	J	WL		1.4	J	WL		7.7	J	WL		0.76	J	8.5	J	WL		ND	
	16-Oct-12	0.10	25.0	5.6	J	5.7	J	1.5	J	4.1	J	WL		3.3	J	WL		9.6	J	WL		2.9	J	4.6	J	WL		ND	
	11-Apr-13	0.07	25.0	10.4	J	5.1	J	1.2	J	5.5	J	WL		2.8	J	WL		7.0	J	WL		1.8	J	5.7	J	WL		ND	
	30-Oct-13	0.07	25.0	9.8	J	4.3	J	0.70	J	4.5	J	WL		2.9	J	WL		15.3	J	WL		0.55	J	5.5	J	WL		ND	
Zinc	Jul-93	NR	10	71		102		26		24	B	26	B	132		30	B	797		54		84		36	B	257		10	
	Aug-93	NR	10	45		36		17		31		20		182		67		294		20		23		43		116		ND	
	Sep-93	NR	10	13		12		30		23		660		135		22		404		10		ND		19		33		ND	
	Sep-93	NR	10	43		37		25		42		63		130		36		555		18		14		19		29		ND	
	Apr-94	NR	10	42	B	78		50		40	B	33	B	176		32	B	90	B	27	B	32	B	64	B	40	B	20	
	Oct-94	NR	50	800		ND		ND		ND		ND		88		ND		69		ND		ND		ND		ND		ND	
	Apr-95	NR	50	ND		ND		ND		ND		ND		128		ND		ND		ND		ND		ND		ND		ND	
	Oct-95	NR	50	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
	Apr-96	NR	50	ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	
	Oct-96	NR	50	ND		ND		ND		ND		ND		ND		WL		67		WL		ND		ND		WL		ND	
	Apr-97	NR	50	ND		ND		ND		ND		ND		ND		WL		51		WL		ND		ND		WL		ND	
	Oct-97	NR	50	91		ND		ND		ND		ND		ND		WL		129		WL		ND		ND		WL		ND	
	Apr-98	NR	50	ND		ND		ND		ND		WL		ND		WL		62		WL		ND		ND		WL		ND	
	Oct-98	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Mar-99	NR	50	54		ND		ND		ND		WL		ND		WL		60		WL		ND		ND		WL		ND	
	Oct-99	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-00	NR	50	161		ND		ND		ND		WL		52		WL		67		WL		ND		ND		WL		ND	
	Oct-00	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-01	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Oct-01	NR	50	62		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-02	NR	50	105		ND		ND		ND		WL		ND		WL		77		WL		ND		ND		WL		ND	
	Oct-02	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	Apr-03	NR	50	82		ND		ND		ND		WL		ND		WL		ND		WL		ND		148		WL		ND	
	Oct-03	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	15-Apr-04	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	14-Oct-04	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	05-Apr-05	NR	50	55		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-05	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	21-Apr-06	NR	50	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	16-Oct-06	NR	50	ND		ND		ND		ND		WL		68		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-07	NR	10	22		ND		ND		ND		WL		17		WL		ND		WL		ND		11		WL		ND	
	10-Oct-07	0.20	10.0	17	B	3.8	B	4.9	B	7.7	B	WL		30	B	WL		53		WL		1.8	B	7.7	B	WL		6.6	J
NC 2L = 1,050 µg/L (10/23/07)	03-Apr-08	0.04	10.0	25	B	3.1	B	1.3	B	3.5	B	WL		24	B	WL		13	B	WL		4.4	B	15	B	WL		6.3	J
	28-Oct-08	0.04	10.0	18		8	J	6	J	11		WL		35		WL		15		WL		7.5	J	144		WL		0.9	J
	08-Apr-09	0.14	10.0	29		7.4	J	3.7	B	8.0	J	WL		22		WL		15		WL		6.6	J	107		WL		0.8	J
	27-Oct-09	0.14	10.0	21		17		5.4	B	9.2	J	WL		28		WL		22		WL		7.5	J	68		WL		1.4	J
NC 2L = 1,000 µg/L (1/1/10)	08-Apr-10	0.08	10.0	25		12		7.8	J	9.0	J	WL		26		WL		11		WL		8.7	J	78		WL		0.7	J
	13-Oct-10	0.08	10.0	39		5.1	B	8.1	B	5.2	B	WL		44		WL		14	B	WL		4.7	B	62		WL		4.1	J
	27-Apr-11	0.24	10.0	20		4.0	B	2.4	B	5.2	B	WL		28		WL		12		WL		5.3	B	24		WL		1.1	J
	20-Oct-11	0.24	10.0	21		4.5	J	5.6	J	3.2	J	WL		31		WL		15		WL		6.5	J	35		WL		0.28	J
	26-Apr-12	0.24	10.0	17		6.1	B	4.1	B	6.1	B	WL		26		WL		14		WL		4.7	B	46		WL		1.9	J
	16-Oct-12	0.48	10.0	15		10		7.9	J	7.5	J	WL		34		WL		22		WL		12		25		WL		ND	
	11-Apr-13	0.47	10.0	41		8.9	J	7.6	J	5.9	J	WL		21		WL		12		WL		8.6	J	24		WL		0.88	J
	30-Oct-13	0.47	10.0	12	B	6.2	B	5.4	B	6.1	B	WL		26		WL		20		WL		6.6	B	28		WL		3.2	J
2-Butanone	10-Oct-07	0.85	100.0	3.90	J	4.60	J	4.00	J	3.70	J	WL		3.80	J	WL		4.50	J	WL		4.10	J	2.90	J	WL		ND	
NC 2L = 4,200 µg/L (10/23/07) Resample	04-Dec-07	0.96	5.0	ND		ND		ND		ND		NS		ND		NS		ND		NS		ND		ND		NS		ND	
	03-Apr-08	0.85	100.0	ND		ND		0.90	J	ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
Resample	15-May-08	0.96	100	NS		NS		ND		NS		NS		NS		NS		NS		NS		NS		NS		NS		ND	
	28-Oct-08	0.85	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	08-Apr-09	0.85	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-09	2.21	100.0	2.60	J	ND		2.40	J	2.80	J	WL		3.20	J	WL		2.40	J	WL		ND		2.50	J	WL		ND	
NC 2L = 4,000 µg/L (1/1/10)	08-Apr-10	2.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	13-Oct-10	2.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Apr-11	2.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	20-Oct-11	2.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-12	2.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	16-Oct-12	2.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	11-Apr-13	2.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	30-Oct-13	2.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
Acetone	10-Oct-07	1.21	100.0	3.20	J	3.50	J	3.10	J	3.30	J	WL		2.90	J	WL		3.40	J	WL		3.50	J	2.50	J	WL		ND	
NC 2L = 700 µg/L (10/23/07) Resample	04-Dec-07	2.20	25.0	ND		ND		ND		ND		NS		ND		NS		ND		NS		ND		ND		NS		4.6	J
	02-Apr-08	1.21	100.0	2.20	B	2.40	B	1.60	B	2.00	B	WL		1.90	B	WL		2.30	B	WL		2.00	B	2.20	B	WL		1.60	J
	28-Oct-08	1.21	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	08-Apr-09	1.21	100.0	ND		ND		ND		1.30	J	WL		ND		WL		ND		WL		ND		ND		WL		ND	
	27-Oct-09	9.06	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
NC 2L = 6,000 µg/L (1/1/10)	08-Apr-10	9.06	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	13-Oct-10	9.06	100.0	ND		ND		41.90	J	10.70	J	WL		ND		WL		ND		WL		42.60	J	ND		WL		ND	
	27-Apr-11	9.06	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	20-Oct-11	9.06	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	26-Apr-12	9.06	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	16-Oct-12	9.06	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	11-Apr-13	9.06	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	
	30-Oct-13	9.06	100.0	ND		ND		ND		ND		WL		ND		WL		ND		WL		ND		ND		WL		ND	

TABLE 10

HISTORICAL DETECTIONS in GROUNDWATER
C.R.S.W.M.A. TUSCARORA LF - LEACHATE STORAGE AREA

Constituent	Date	Concentrations (µg/L)															
		DL	RL	Background	Downgradient												Blanks
				LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D		
Benzene	13-Oct-10	0.24	1.0	0.30 J	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
NC 2L = 1 µg/L (1/1/10)	27-Apr-11	0.24	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	20-Oct-11	0.24	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	26-Apr-12	0.24	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	16-Oct-12	0.24	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	11-Apr-13	0.24	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	30-Oct-13	0.24	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
Toluene	30-Oct-13	0.23	1.0	ND	ND	ND	0.40 J	WL	ND	WL	ND	WL	ND	ND	WL		ND
NC 2L = 600 ug/L (1/1/10)																	
Bromomethane	10-Oct-07	0.26	10.0	ND	0.30 J	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
NC 2L = NE (10/23/07) Resample	04-Dec-07	0.29	5.0	NS	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		ND
	02-Apr-08	0.26	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	28-Oct-08	0.26	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	08-Apr-09	0.26	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	27-Oct-09	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	08-Apr-10	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
GWPS = 10 (8/1/10)	13-Oct-10	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	27-Apr-11	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	20-Oct-11	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	26-Apr-12	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	16-Oct-12	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	11-Apr-13	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	30-Oct-13	0.67	10.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
Bromodichloromethane	03-Apr-08	0.13	10.0	1.40 J	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
NC 2L = 0.56 µg/L (10/23/07) Resample	04-Jun-08	0.13	10.0	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		ND
	28-Oct-08	0.13	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	08-Apr-09	0.13	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	27-Oct-09	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
NC 2L = 0.6 µg/L (1/1/10)	08-Apr-10	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	13-Oct-10	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	27-Apr-11	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	20-Oct-11	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	26-Apr-12	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	16-Oct-12	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	11-Apr-13	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	30-Oct-13	0.21	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
Chloromethane	10-Oct-07	0.18	1.0	ND	1.00	0.80 J	0.70 J	WL	0.90 J	WL	0.90 J	WL	0.70 J	0.60 J	WL		ND
NC 2L = 2.6 µg/L (10/23/07) Resample	04-Dec-07	0.11	1.0	NS	ND	ND	ND	NS	ND	NS	ND	NS	ND	ND	NS		ND
	03-Apr-08	0.18	1.0	ND	ND	ND	ND	WL	ND	WL	0.20 J	WL	ND	ND	WL		ND
Resample	15-May-08	0.11	1.0	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	NS		ND
	28-Oct-08	0.18	1.0	ND	ND	ND	ND	WL	ND	WL	0.20 J	WL	ND	ND	WL		ND
	08-Apr-09	0.18	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	27-Oct-09	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
NC 2L = 3 µg/L (1/1/10)	08-Apr-10	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	13-Oct-10	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	27-Apr-11	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	20-Oct-11	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	26-Apr-12	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	16-Oct-12	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	11-Apr-13	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	30-Oct-13	0.77	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
Methylene Chloride	10-Oct-07	0.14	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		0.20 J
NC 2L = 4.6 µg/L (10/23/07)	03-Apr-08	0.14	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	28-Oct-08	0.14	1.0	ND	0.30 J	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	08-Apr-09	0.14	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	27-Oct-09	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
NC 2L = 5 µg/L (1/1/10)	08-Apr-10	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	13-Oct-10	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	27-Apr-11	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	20-Oct-11	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	26-Apr-12	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	16-Oct-12	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	11-Apr-13	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND
	30-Oct-13	0.64	1.0	ND	ND	ND	ND	WL	ND	WL	ND	WL	ND	ND	WL		ND

Notes:
1. All concentrations are in µg/L.
2. LST = Leachate storage tank monitoring well.
3. RL = Laboratory reporting limit (NC SWSL or lower from October 2007 to present).
4. ND = Not detected above laboratory reporting limit.
5. B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks.
6. NC 2L = North Carolina 2L Groundwater Standards.
7. GWPS = Groundwater Protection Standards.
8. When the NC 2L has not been established, the GWPS will be used.
9. Shaded values are above the NC 2L Groundwater Standards or Groundwater Protection Standards.
10. NE = Not established.
11. DL = Laboratory detection limit.
12. J = Estimated value between the DL and the RL.
13. NS = Not sampled and/or no water level measurements taken.
14. NR = Not Reported.
15. WL = May be monitored for water levels only.
16. NA = Data not available.

TABLE 11

SUMMARY OF FIELD PARAMETERS
C.R.S.W.M.A. TUSCARORA LF - LEACHATE STORAGE AREA

Field Parameters	Date	Background	Downgradient										
		LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D
Conductivity	Jul-93	110	80	490	73	460	190	430	390	650	560	60	480
[uMhos]	Aug-93	140	110	400	81	400	210	360	280	520	500	62	270
	Sep-93	100	96	440	60	NA	210	330	270	460	680	86	380
	Sep-93	110	85	400	69	380	210	320	280	460	460	81	350
	Apr-94	120	84	470	60	480	230	400	11	430	530	97	480
	Oct-94	110	83	450	72	440	150	340	120	310	700	89	660
	Apr-95	120	77	460	54	460	250	360	120	320	480	56	490
	Oct-95	120	87	470	54	470	93	320	80	290	510	75	NA
	Apr-96	120	73	460	54	450	61	370	91	340	490	60	470
	Oct-96	120	63	380	52	WL	56	WL	98	WL	410	52	WL
	Apr-97	140	65	500	72	WL	90	WL	110	WL	490	55	WL
	Oct-97	120	61	440	72	WL	66	WL	110	WL	460	73	WL
	Apr-98	NA	60	60	84	WL	49	WL	NA	WL	500	40	WL
	Oct-98	130	64	440	77	WL	78	WL	78	WL	420	87	WL
	Mar-99	160	62	480	75	WL	46	WL	81	WL	500	46	WL
	Oct-99	210	56	450	77	WL	32	WL	49	WL	460	46	WL
	Apr-00	160	53	440	66	WL	62	WL	81	WL	460	34	WL
	Oct-00	160	53	460	68	WL	53	WL	83	WL	470	83	WL
	Apr-01	140	49	430	66	WL	NA	WL	71	WL	450	59	WL
	Oct-01	130	51	450	70	WL	49	WL	61	WL	NA	62	WL
	Apr-02	160	59	420	62	WL	52	WL	79	WL	430	38	WL
	Oct-02	38	71	296	65	WL	64	WL	11	WL	35	60	WL
	Apr-03	272	65	466	80	WL	81	WL	72	WL	484	70	WL
	Oct-03	196	73	449	95	WL	114	WL	77	WL	479	52	WL
	15-Apr-04	150	58	330	54	WL	41	WL	40	WL	340	48	WL
	14-Oct-04	126	73	436	87	WL	50	WL	55	WL	464	49	WL
	05-Apr-05	148	538	81	91	WL	65	WL	61	WL	561	40	WL
	27-Oct-05	212	81	468	88	WL	72	WL	49	WL	485	60	WL
	21-Apr-06	150	96	508	100	WL	77	WL	76	WL	525	42	WL
	12-Oct-06	134	87	489	94	WL	48	WL	52	WL	489	50	WL
	26-Apr-07	176	93	488	95	WL	47	WL	64	WL	509	43	WL
	10-Oct-07	190	95	494	100	WL	90	WL	199	WL	531	40	WL
Resample	04-Dec-07	229	89.8	54.5	103.0	NS	333	NS	163.5	NS	619	46.5	NS
	03-Apr-08	271	86	476	85	WL	130	WL	46	WL	518	44	WL
Resample	15-May-08	NS	NS	442	NS	NS	NS	NS	68.7	NS	NS	NS	NS
Resample	04-Jun-08	222	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28-Oct-08	185	69	475	84	WL	117	WL	44	WL	553	46	WL
	08-Apr-09	217	75	473	91	WL	77	WL	69	WL	560	47	WL
	27-Oct-09	148	68	472	88	WL	123	WL	38	WL	558	39	WL
	08-Apr-10	232	76	487	96	WL	65	WL	53	WL	587	50	WL
	13-Oct-10	1413	65	499	75	WL	104	WL	50	WL	608	53	WL
	27-Apr-11	390	74	494	76	WL	78	WL	44	WL	603	46	WL
	20-Oct-11	177	55	489	67	WL	142	WL	60	WL	551	45	WL
	26-Apr-12	256	79	494	76	WL	122	WL	58	WL	625	49	WL
	16-Oct-12	249	74	510	104	WL	75	WL	220	WL	589	49	WL
	11-Apr-13	248	89	484	76	WL	69	WL	51	WL	564	49	WL
	30-Oct-13	150	59	492	73	WL	92	WL	61	WL	568	51	WL
pH	Jun-93	5.5	5.1	6.4	4.9	6.1	5.3	6.4	4.4	6.2	6.1	5.5	6.9
[units]	Aug-93	6.1	5.8	6.5	5.9	6.4	5.7	6.5	4.5	6.4	6.9	5.7	6.8
	Sep-93	6.0	5.4	6.6	5.8	NA	5.9	6.9	4.6	6.3	6.6	5.5	6.4
	Sep-93	6.4	6.1	6.5	6.1	6.3	5.4	6.4	4.5	6.2	6.6	6.0	6.5
	Apr-94	6.3	6.0	6.4	5.9	6.5	5.1	6.3	5.1	6.2	6.4	5.6	6.4
	Oct-94	5.4	5.0	6.6	5.2	6.6	4.2	6.5	4.2	6.3	6.6	4.9	6.6
	Apr-95	6.0	6.2	6.0	6.4	6.2	5.3	6.0	5.3	6.0	6.5	6.5	6.4
	Oct-95	5.2	5.0	7.0	5.2	5.2	4.6	6.8	4.5	6.5	6.8	4.8	6.9
	Apr-96	5.6	5.0	6.3	5.9	6.6	5.4	6.5	4.7	6.2	6.5	5.8	6.6
	Oct-96	5.7	4.7	5.6	5.1	WL	4.6	WL	4.4	WL	5.8	4.8	WL
	Apr-97	5.7	5.3	6.1	5.2	WL	5.0	WL	5.2	WL	6.4	5.7	WL
	Oct-97	5.1	5.8	6.1	6.9	WL	4.9	WL	4.7	WL	5.8	4.7	WL
	Apr-98	NA	4.8	4.8	4.8	WL	4.6	WL	NA	WL	7.0	4.7	WL
	Oct-98	6.2	4.9	6.5	NA	WL	4.1	WL	4.9	WL	6.9	4.8	WL
	Mar-99	5.8	5.0	6.6	5.0	WL	4.5	WL	4.8	WL	6.8	4.9	WL
	Oct-99	5.8	5.0	6.8	4.8	WL	4.6	WL	4.6	WL	6.8	5.0	WL
	Apr-00	5.6	5.2	6.4	5.0	WL	5.4	WL	5.4	WL	6.5	5.0	WL
	Oct-00	5.2	4.8	6.6	4.8	WL	4.4	WL	4.1	WL	6.7	4.5	WL
	Apr-02	5.2	4.7	6.3	4.7	WL	4.9	WL	4.4	WL	6.5	4.6	WL
	Oct-02	5.2	5.0	6.0	5.2	WL	4.7	WL	4.4	WL	6.8	4.8	WL
	Apr-02	6.1	5.0	6.5	5.0	WL	4.7	WL	4.8	WL	6.7	4.9	WL
	Oct-02	5.9	5.1	7.0	5.0	WL	4.6	WL	4.7	WL	7.0	4.8	WL
	Apr-03	6.1	5.0	6.9	5.0	WL	4.5	WL	4.4	WL	6.9	4.8	WL
	Oct-03	6.4	4.6	6.7	4.4	WL	3.4	WL	3.9	WL	6.7	4.4	WL
	15-Apr-04	6.6	6.0	7.2	5.6	WL	5.4	WL	5.2	WL	7.0	5.6	WL
	14-Oct-04	6.7	4.7	6.7	4.8	WL	4.7	WL	4.5	WL	6.8	5.1	WL
	05-Apr-05	6.5	7.0	5.0	5.3	WL	4.9	WL	4.6	WL	6.9	4.9	WL
	27-Oct-05	6.5	4.8	6.8	4.9	WL	4.3	WL	4.6	WL	6.9	4.8	WL
	21-Apr-06	6.6	4.8	7.0	4.9	WL	4.5	WL	5.1	WL	7.0	5.1	WL
	12-Oct-06	6.5	4.8	7.0	4.8	WL	4.7	WL	5.0	WL	6.9	5.0	WL
	26-Apr-07	6.7	4.8	7.1	4.9	WL	4.8	WL	5.3	WL	7.0	5.0	WL
	10-Oct-07	6.1	4.8	7.1	5.0	WL	4.5	WL	4.6	WL	7.0	4.9	WL
Resample	04-Dec-07	7.13	5.81	6.88	5.30	NS	3.97	NS	4.05	NS	7.12	4.95	NS
	03-Apr-08	6.1	4.9	6.8	5.2	WL	5.5	WL	6.3	WL	6.9	5.2	WL
Resample	15-May-08	NS	NS	6.72	NS	NS	NS	NS	7.39	NS	NS	NS	NS
Resample	04-Jun-08	6.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28-Oct-08	6.0	4.9	6.5	5.2	WL	4.7	WL	4.7	WL	6.8	5.4	WL
	08-Apr-09	6.1	4.8	6.7	4.9	WL	4.6	WL	5.0	WL	6.7	6.4	WL
	27-Oct-09	6.3	4.7	6.7	4.7	WL	4.4	WL	4.5	WL	6.7	5.1	WL
	08-Apr-10	6.2	4.8	6.9	4.8	WL	4.4	WL	4.4	WL	6.8	5.2	WL
	13-Oct-10	6.1	4.8	6.6	5.0	WL	4.6	WL	4.8	WL	6.6	5.4	WL
	27-Apr-11	6.2	4.9	6.9	5.1	WL	4.7	WL	5.1	WL	7.2	5.4	WL
	20-Oct-11	6.2	4.9	6.7	5.1	WL	4.4	WL	4.7	WL	6.8	5.2	WL
	26-Apr-12	6.1	4.9	6.8	5.9	WL	4.7	WL	4.9	WL	6.6	5.2	WL
	16-Oct-12	6.1	4.9	7.0	5.0	WL	4.8	WL	4.8	WL	6.9	5.0	WL
	11-Apr-13	6.2	5.5	6.9	5.0	WL	4.7	WL	4.6	WL	6.6	4.9	WL
	30-Oct-13	6.4	4.8	6.9	5.0	WL	4.8	WL	4.7	WL	6.8	5.1	WL
Temperature	Jun-93	23	25	21	26	22	27	19	23	20	18	23	24
[°C]	Aug-93	25	24	21	25	24	24	19	22	20	20	24	19
	Sep-93	24	25	19	25	NA	24	21	24	20	20	24	21
	Sep-93	24	25	21	25	21	24	20	24	21	21	25	21
	Apr-94	18	17	17	19	18	18	18	18	17	17	18	18
	Oct-94	21	20	19	21	20	21	19	21	16	19	20	19
	Apr-95	17	16	16	17	16	15	16	15	20	16	16	17
	Oct-95	23	23	20	23	20	22	20	22	13	20	21	20
	Apr-96	13	12	14	13	14	12	13	12	WL	14	12	14
	Oct-96	21	20	20	21	WL	22	WL	21	WL	21	22	WL
	Apr-97	15	14	15	14	WL	13	WL	13	WL	16	13	WL
	Oct-97	21	20	17	21	WL	20	WL	19	WL	17	18	WL
	Apr-98	NA	15	15	15	WL	15	WL	NA	WL	17	15	WL
	Oct-98	21	20	18	21	WL	18	WL	19	WL	19	20	WL
	Mar-99	15	13	16	13	WL	13	WL	15	WL	18	15	WL
	Oct-99	21	20	20	21	WL	20	WL	20	WL	20	19	WL
	Apr-00	15	15	17	15	WL	15	WL	14	WL	19	14	WL
	Oct-00	20	19	20	20	WL	19	WL	19	WL	20	20	WL
	Apr-02	16	15	15	16	WL	15	WL	14	WL	16	15	WL
	Oct-02	21	20	20	21	WL	20	WL	20	WL	21	21	WL
	Apr-02	18	16	16	18	WL	18	WL	16	WL	16	18	WL
	Oct-02	26	24	24	27	WL	25	WL	25	WL	22	21	WL
	Apr-03	16	15	15	15	WL	15	WL	15	WL	16	15	WL
	Oct-03	20	20	18	20	WL	19	WL	20	WL	20	20	WL
	15-Apr-04	13	13	13	14	WL	12	WL	14	WL	13	13	WL
	14-Oct-04	22	21	21	21	WL	21	WL	21	WL	21	21	WL
	05-Apr-05	16	15	15	16	WL	15	WL	15	WL	16	15	WL
	27-Oct-05	22	21	21	21	WL	21	WL	20	WL	22	20	WL
	21-Apr-06	18	17	18	17	WL	17	WL	17	WL	18	18	WL
	12-Oct-06	23	21	19	22	WL	21	WL	21	WL	19	22	WL
	26-Apr-07	17	16	18	16	WL	16	WL	16	WL	18	17	WL
	10-Oct-07	22	22	19	22	WL	20	WL	20	WL	20	22	WL
Resample	04-Dec-07	18.5	17.1	17.2	17.3	NS	15.5	NS	16.9	NS	17.7	17.3	NS
	03-Apr-08	15	15	17	15	WL	14	WL	14	WL	18	15	WL
Resample	15-May-08	NS	NS	17.9	NS	NS	NS	NS	17.9	NS	NS	NS	NS
Resample	04-Jun-08	20.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28-Oct-08	21	20	19	19	WL	19	WL	20	WL	20	19	WL
	08-Apr-09	14	14	16	14	WL	14	WL	14	WL	16	14	WL
	27-Oct-09	22	21	19	21	WL	20	WL	21	WL	19	21	WL
	08-Apr-10	16	16	18	16	WL	15	WL	15	WL	18	15	WL
	13-Oct-10	23	22	20	22	WL	22	WL	21	WL	20	23	WL
	27-Apr-11	17	18	18	18	WL	17	WL	17	WL	18	17	WL
	20-Oct-11	21	21	18	21	WL	20	WL	20	WL	19	20	WL
	26-Apr-12	18	18	18	18	WL	17	WL	17	WL	18	17	WL
	16-Oct-12	22	22	19	21	WL	21	WL	21	WL	19	21	WL
	11-Apr-13	16	16	19	15	WL	15	WL	14	WL	19	15	WL
	30-Oct-13	22	21	19	21	WL	20	WL	20	WL	20	21	WL
Turbidity	Jun-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
[NTU]	Aug-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sep-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sep-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-96	NA	NA	NA	NA	NA	NA	NA	NA	WL	NA	NA	NA
	Oct-96	NA	NA	NA	NA	WL	NA	WL	NA	WL	NA	NA	WL
	Apr-97	NA	NA	NA	NA	WL	NA	WL	NA	WL	NA	NA	WL
	Oct-97	NA	NA	NA	NA	WL	NA	WL	NA	WL	NA	NA	WL
	Apr-98	NA	NA	NA	NA	WL	NA	WL	NA	WL	NA	NA	WL
	Oct-98	150	330	170	270	WL	55	WL	360	WL	140	270	WL
	Mar-99	210	150	38	190	WL	15	WL	400	WL	75	NA	WL
	Oct-99	35	89	22	45	WL	39	WL	65	WL	18	32	WL
	Apr-00	80	110	14	110	WL	18	WL	180	WL	24	80	WL
	Oct-00	32	70	55	120	WL	12	WL	70	WL	22	28	WL
	Apr-02	26	36	24	38	WL	13	WL	27	WL	33	26	WL
	Oct-02	206	86	60	166	WL	20	WL	188	WL	51	85	WL
	Apr-02	70	27	25	130	WL	22	WL	57	WL	23	35	WL
	Oct-02	38	7.5	27	85	WL	28	WL	11	WL	35	21	WL
	Apr-03	85	33	22	55	WL	12	WL	45	WL	30	22	WL
	Oct-03	250	70	26	240	WL	16	WL	340	WL	100	36	WL
	15-Apr-04	45	250	20	270	WL	60	WL	70	WL	55	40	WL
	14-Oct-04	100	75	25	110	WL	9.3	WL	140	WL	80	95	WL
	05-Apr-05	160	32	60	220	WL	31	WL	100	WL	22	80	WL
	27-Oct-05	180	32	25	100	WL	36	WL	75	WL	27	90	WL
	21-Apr-06	14	<1.43	40	5.8	WL	1.7	WL	7.7	WL	75	45	WL
	12-Oct-06	25	12	50	<1.54	WL	310	WL	10	WL	60	70	WL
	26-Apr-07	9.6	<1.42	190	<1.42	WL	3.2	WL	3.5	WL	75	21	WL
	10-Oct-07	45	7.1	50	7.5	WL	9.5	WL	13	WL	70	40	WL
Resample	04-Dec-07	72.1	29.6	3.17	62.9	NS	91.0	NS	124	NS	19.56	885	NS
	03-Apr-08	11	14	42	23	WL	230	WL	220	WL	95	65	WL
Resample	15-May-08	NS	NS	42.9	NS	NS	NS	NS	64.3	NS	NS	NS	NS
Resample	04-Jun-08	212	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28-Oct-08	110	90	55	230	WL	90	WL	230	WL	70	650	WL
	08-Apr-09	160	40	55	85	WL	24	WL	170	WL	75	450	WL
	27-Oct-09	450	75	65	110	WL	60	WL	300	WL	55	230	WL
	08-Apr-10	190	55	55	110	WL	45	WL	150	WL	130	370	WL
	13-Oct-10	50	30	70	65	WL	50	WL	180	WL	130	280	WL
	27-Apr-11	190	60	55	120	WL	23	WL	280	WL	70	110	WL
	20-Oct-11	230	60	75	80	WL	19	WL	130	WL	180	180	WL
	26-Apr-12	280	65	70	110	WL	25	WL	110	WL	60	120	WL
	16-Oct-12	70	85	55	90	WL	55	WL	220	WL	60	240	WL
	11-Apr-13	220	110	40	130	WL	39	WL	160	WL	66	70	WL
	30-Oct-13	240	60.0	80.0	80.0	WL	50.0	WL	340	WL	100	100	WL

Notes:
1. NS = Not sampled and/or no water level measurements taken.
2. WL = May be monitored for water levels only.
3. NA = Data not available.

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Antimony	11-Oct-07	0.05	6.0	0.1	B	0.7	J	Dry		Dry		0.1	J
NC 2B = NE (5/1/2007)	03-Apr-08	0.44	6.0	0.3	B	0.4	B	0.1	B	{0.2}	J	0.1 {ND}	J
	28-Oct-08	0.44	6.0	0.2	J	0.3	J	ND		{0.1}	J	ND {ND}	
	07-Apr-09	0.06	6.0	0.1	J	0.1	J	ND		0.1	J	ND	
	27-Oct-09	0.06	6.0	0.8	J	0.2	J	ND		ND		ND	
	07-Apr-10	0.22	6.0	0.2	B	0.3	B	0.2	B	0.2	B	0.7	J
	13-Oct-10	0.22	6.0	ND		ND		ND		ND		ND	
	27-Apr-11	0.14	6.0	ND		ND		0.16	J	ND		ND	
	20-Oct-11	0.14	6.0	Dry		0.38	J	0.14	J	0.16	J	ND	
	26-Apr-12	0.14	6.0	ND		ND		ND		ND		ND	
	16-Oct-12	0.02	6.0	0.07	J	0.09	J	0.05	J	ND		ND	
	11-Apr-13	0.02	6.0	0.14	J	0.20	J	0.15	J	0.04	J	ND	
	30-Oct-13	0.02	6.0	0.18	B	0.12	B	0.10	B	0.08	B	0.08	J
Arsenic	Jul-93	NR	5	ND		ND		ND		NA		ND	
	Aug-93	NR	5	NA		NA		NA		NA		ND	
	Sep-93	NR	5	NA		NA		NA		NA		ND	
	Sep-93	NR	5	NA		NA		NA		NA		ND	
	Apr-94	NR	5	7		ND		ND		NA		ND	
	Oct-94	NR	10	ND		ND		ND		NA		ND	
	Apr-95	NR	10	ND		ND		ND		NA		ND	
	Oct-95	NR	10	ND		ND		ND		NA		ND	
	Apr-96	NR	10	ND		ND		ND		NA		ND	
	Oct-96	NR	10	ND		ND		ND		NA		ND	
	Apr-97	NR	10	Dry		Dry		ND		NA		ND	
	Oct-97	NR	10	Dry		Dry		ND		NA		ND	
	Apr-98	NR	10	NA		Dry		ND		NA		ND	
	Oct-98	NR	10	Dry		ND		Dry		NA		ND	
	Mar-99	NR	10	ND		ND		ND		NA		ND	
	Jul-99	NR	10	NA		NA		NA		ND		ND	
	Aug-99	NR	10	NA		NA		NA		ND		ND	
	Oct-99	NR	10	ND		ND		ND		ND		ND	
	Nov-99	NR	10	NA		NA		NA		ND		ND	
	Apr-00	NR	10	ND		ND		ND		NA		ND	
	Oct-00	NR	10	ND		ND		ND		ND		ND	
	Apr-01	NR	10	Dry		Dry		ND		NA		ND	
	Oct-01	NR	10	ND		ND		ND		ND		ND	
	Apr-02	NR	10	NA		ND		ND		ND		ND	
	Oct-02	NR	10	ND		ND		ND		ND		ND	
	Apr-03	NR	10	ND		ND		ND		ND		ND	
	Oct-03	NR	10	ND		ND		ND		15		ND	
	15-Apr-04	NR	10	ND		ND		ND		ND		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		ND	
NC 2B = 50 µg/L (05/01/07)	11-Oct-07	0.47	10.0	1.4	J	13		Dry		Dry		ND	
	03-Apr-08	0.57	10.0	0.8	J	14		4.0	J	{2.0}	J	ND {0.2}	J
	28-Oct-08	0.57	10.0	0.8	B	9.7	J	0.9	B	1.3	B	0.5	J
	07-Apr-09	0.17	10.0	0.7	B	1.8	J	1.7	J	0.9	B	0.2	J
	27-Oct-09	0.17	10.0	1.2	J	7.2	J	1.3	J	1.1	J	ND	
	07-Apr-10	0.04	10.0	1.2	J	3.9	J	1.0	J	1.3	J	ND	
	13-Oct-10	0.04	10.0	0.8	J	2.2	J	1.9	J	1.7	J	ND	
	27-Apr-11	0.10	10.0	0.79	J	2.6	J	0.63	J	0.55	J	ND	
	20-Oct-11	0.10	10.0	Dry		1.4	J	0.76	J	0.59	J	ND	
	26-Apr-12	0.10	10.0	0.58	J	2.2	J	1.50	J	1.50	J	ND	
	16-Oct-12	0.13	10.0	1.2	B	1.3	B	1.1	B	0.37	B	0.40	J
	11-Apr-13	0.05	10.0	0.57	B	1.7	J	0.81	J	0.36	B	0.15	J
	30-Oct-13	0.05	10.0	1.1	J	1.1	J	1.40	J	0.66	B	0.20	J

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Barium	Jul-93	NR	50	ND		140		71		NA		ND	
	Aug-93	NR	50	NA		NA		NA		NA		ND	
	Sep-93	NR	50	NA		NA		NA		NA		ND	
	Sep-93	NR	50	NA		NA		NA		NA		ND	
	Apr-94	NR	50	ND		ND		ND		NA		ND	
	Oct-94	NR	500	ND		ND		ND		NA		ND	
	Apr-95	NR	500	ND		ND		ND		NA		ND	
	Oct-95	NR	500	ND		ND		ND		NA		ND	
	Apr-96	NR	500	ND		ND		ND		NA		ND	
	Oct-96	NR	500	ND		ND		ND		NA		ND	
	Apr-97	NR	500	Dry		Dry		ND		NA		ND	
	Oct-97	NR	500	Dry		Dry		ND		NA		ND	
	Apr-98	NR	500	NA		Dry		ND		NA		ND	
	Oct-98	NR	500	Dry		ND		Dry		NA		ND	
	Mar-99	NR	500	ND		ND		ND		NA		ND	
	Jul-99	NR	500	NA		NA		NA		ND		ND	
	Aug-99	NR	500	NA		NA		NA		ND		ND	
	Oct-99	NR	500	ND		ND		ND		ND		ND	
	Nov-99	NR	500	NA		NA		NA		ND		ND	
	Apr-00	NR	500	ND		ND		ND		NA		ND	
	Oct-00	NR	500	ND		ND		ND		ND		ND	
	Apr-01	NR	500	Dry		Dry		ND		NA		ND	
	Oct-01	NR	500	ND		ND		ND		ND		ND	
	Apr-02	NR	500	NA		ND		ND		ND		ND	
	Oct-02	NR	500	ND		ND		ND		ND		ND	
	Apr-03	NR	500	ND		ND		ND		ND		ND	
	Oct-03	NR	500	ND		ND		ND		ND		ND	
	15-Apr-04	NR	500	ND		ND		ND		ND		ND	
	14-Oct-04	NR	500	ND		ND		ND		ND		ND	
	05-Apr-05	NR	500	ND		ND		ND		ND		ND	
	27-Oct-05	NR	500	ND		ND		ND		ND		ND	
	21-Apr-06	NR	500	ND		ND		ND		ND		ND	
	12-Oct-06	NR	500	ND		ND		ND		ND		ND	
	26-Apr-07	NR	100	ND		ND		ND		ND		ND	
NC 2B = NE (05/01/07)	11-Oct-07	0.04	100.0	47.4	J	187		Dry		Dry		0.2	J
	03-Apr-08	0.11	100.0	30.7	J	72.4	J	94.6	J	{71.1}	J	ND {0.4}	J
	28-Oct-08	0.11	100.0	30.8	J	122		36.9	J	93.6	J	0.7	J
	07-Apr-09	0.04	100.0	31.3	J	48.3	J	73.1	J	64.2	J	0.2	J
	27-Oct-09	0.04	100.0	25.5	J	106		42.9	J	102		0.1	J
	07-Apr-10	0.03	100.0	58.7	J	85.9	J	26.1	J	56.1	J	0.1	J
	13-Oct-10	0.03	100.0	14.7	J	61.4	J	62.9	J	85.3	J	0.2	J
	27-Apr-11	0.02	100.0	86.4	J	45.5	J	19.1	J	46.7	J	0.10	J
	20-Oct-11	0.02	100.0	Dry		61.7	J	18.2	J	63.8	J	0.10	J
	26-Apr-12	0.02	100.0	75.4	J	28.5	J	7.4	J	21.8	J	0.12	J
	16-Oct-12	0.07	100.0	29.9	J	38.4	J	39.5	J	60.5	J	0.28	J
	11-Apr-13	0.06	100.0	24.3	J	14.2	J	31.2	J	47.7	J	0.06	J
	30-Oct-13	0.06	100.0	46.8	J	55.4	J	53.2	J	58.2	J	0.24	J

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Beryllium	Jul-93	NR	1	ND		ND		ND		NA		ND	
	Aug-93	NR	1	NA		NA		NA		NA		ND	
	Sep-93	NR	1	NA		NA		NA		NA		ND	
	Sep-93	NR	1	NA		NA		NA		NA		ND	
	Apr-94	NR	1	ND		ND		64		NA		ND	
	Oct-94	NR	2	ND		ND		ND		NA		ND	
	Apr-95	NR	2	ND		ND		ND		NA		ND	
	Oct-95	NR	2	ND		ND		ND		NA		ND	
	Apr-96	NR	2	ND		ND		ND		NA		ND	
	Oct-96	NR	2	ND		ND		ND		NA		ND	
	Apr-97	NR	2	Dry		Dry		ND		NA		ND	
	Oct-97	NR	2	Dry		Dry		ND		NA		ND	
	Apr-98	NR	2	NA		Dry		ND		NA		ND	
	Oct-98	NR	2	Dry		ND		Dry		NA		ND	
	Mar-99	NR	2	ND		ND		ND		NA		ND	
	Jul-99	NR	2	NA		NA		NA		ND		ND	
	Aug-99	NR	2	NA		NA		NA		ND		ND	
	Oct-99	NR	2	ND		ND		ND		ND		ND	
	Nov-99	NR	2	NA		NA		NA		ND		ND	
	Apr-00	NR	2	ND		ND		ND		NA		ND	
	Oct-00	NR	2	ND		ND		ND		ND		ND	
	Apr-01	NR	2	Dry		Dry		ND		NA		ND	
	Oct-01	NR	2	ND		ND		ND		ND		ND	
	Apr-02	NR	2	NA		ND		ND		ND		ND	
	Oct-02	NR	2	ND		ND		ND		ND		ND	
	Apr-03	NR	2	ND		ND		ND		ND		ND	
	Oct-03	NR	2	ND		ND		ND		ND		ND	
	15-Apr-04	NR	2	ND		ND		ND		ND		ND	
	14-Oct-04	NR	2	ND		ND		ND		ND		ND	
	05-Apr-05	NR	2	ND		ND		ND		ND		ND	
	27-Oct-05	NR	2	ND		ND		ND		ND		ND	
	21-Apr-06	NR	2	ND		ND		ND		ND		ND	
	12-Oct-06	NR	2	ND		ND		ND		ND		ND	
	26-Apr-07	NR	1.0	ND		ND		ND		ND		ND	
NC 2B = 6.5 µg/L (05/01/07)	11-Oct-07	0.08	1.0	ND		0.4	J	Dry		Dry		ND	
	03-Apr-08	0.06	1.0	ND		ND		ND		ND		ND	
	28-Oct-08	0.06	1.0	ND		0.1	J	ND		ND		ND	
	07-Apr-09	0.06	1.0	ND		ND		ND		ND		ND	
	27-Oct-09	0.06	1.0	ND		0.1	J	ND		ND		ND	
	07-Apr-10	0.02	1.0	0.1	B	ND		0.1	B	0.1	B	0.1	J
	13-Oct-10	0.02	1.0	0.1	J	0.1	J	0.1	J	0.1	J	ND	
	27-Apr-11	0.02	1.0	ND		ND		ND		ND		ND	
	20-Oct-11	0.02	1.0	Dry		ND		0.06	J	ND		ND	
	26-Apr-12	0.02	1.0	ND		0.02	J	ND		ND		ND	
	16-Oct-12	0.07	1.0	ND		ND		ND		ND		ND	
	11-Apr-13	0.03	1.0	ND		ND		ND		ND		ND	
	30-Oct-13	0.03	1.0	0.04	B	ND		ND		ND		0.04	J

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Cadmium	Jul-93	NR	1	ND		ND		ND		NA		ND	
	Aug-93	NR	1	NA		NA		NA		NA		ND	
	Sep-93	NR	1	NA		NA		NA		NA		ND	
	Sep-93	NR	1	NA		NA		NA		NA		ND	
	Apr-94	NR	1	ND		ND		ND		NA		ND	
	Oct-94	NR	1	ND		ND		ND		NA		ND	
	Apr-95	NR	1	ND		ND		ND		NA		ND	
	Oct-95	NR	1	ND		ND		ND		NA		ND	
	Apr-96	NR	1	ND		ND		ND		NA		ND	
	Oct-96	NR	1	ND		ND		ND		NA		ND	
	Apr-97	NR	1	Dry		Dry		ND		NA		ND	
	Oct-97	NR	1	Dry		Dry		ND		NA		ND	
	Apr-98	NR	1	NA		Dry		ND		NA		ND	
	Oct-98	NR	1	Dry		ND		Dry		NA		ND	
	Mar-99	NR	1	ND		ND		ND		NA		ND	
	Jul-99	NR	1	NA		NA		NA		ND		ND	
	Aug-99	NR	1	NA		NA		NA		ND		ND	
	Oct-99	NR	1	ND		ND		ND		ND		ND	
	Nov-99	NR	1	NA		NA		NA		ND		ND	
	Apr-00	NR	1	ND		ND		ND		NA		ND	
	Oct-00	NR	1	ND		ND		ND		ND		ND	
	Apr-01	NR	1	Dry		Dry		ND		NA		ND	
	Oct-01	NR	1	ND		ND		ND		ND		ND	
	Apr-02	NR	1	NA		ND		ND		ND		ND	
	Oct-02	NR	1	ND		ND		ND		ND		ND	
	Apr-03	NR	1	2		ND		ND		ND		ND	
	Oct-03	NR	1	ND		ND		ND		ND		ND	
	15-Apr-04	NR	1	ND		ND		ND		ND		ND	
	14-Oct-04	NR	1	ND		2		ND		ND		ND	
	05-Apr-05	NR	1	ND		ND		ND		ND		ND	
	27-Oct-05	NR	1	ND		ND		ND		ND		ND	
	21-Apr-06	NR	1	ND		ND		2 (ND)		4 (ND)		ND	
	12-Oct-06	NR	1	ND		ND		ND		ND		ND	
	26-Apr-07	NR	1.0	ND		ND		ND		ND		ND	
NC 2B = 2 µg/L (05/01/07)	11-Oct-07	0.06	1.0	0.1	B	0.2	B	Dry		Dry		0.1	J
	03-Apr-08	0.05	1.0	0.1	J	0.1	J	0.1	J	0.1	J	ND	
	28-Oct-08	0.05	1.0	0.1	J	0.3	J	ND		ND		ND	
	07-Apr-09	0.04	1.0	0.2	J	0.1	J	ND		0.1	J	ND	
	27-Oct-09	0.04	1.0	0.1	J	0.1	J	0.1	J	0.1	J	ND	
	07-Apr-10	0.02	1.0	0.1	B	0.3	B	0.1	B	0.1	B	0.1	J
	13-Oct-10	0.02	1.0	0.1	J	0.1	J	ND		0.1	J	ND	
	27-Apr-11	0.02	1.0	0.08	J	ND		0.04	J	0.04	J	ND	
	20-Oct-11	0.02	1.0	Dry		ND		ND		ND		ND	
	26-Apr-12	0.02	1.0	0.03	J	0.06	J	0.02	J	ND		ND	
	16-Oct-12	0.03	1.0	0.04	J	0.05	J	0.05	J	0.05	J	ND	
	11-Apr-13	0.05	1.0	ND		0.07	J	ND		ND		ND	
	30-Oct-13	0.05	1.0	0.05	J	ND		ND		0.08	J	ND	

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Chromium	Jul-93	NR	5	ND		ND		ND		NA		ND	
	Aug-93	NR	5	NA		NA		NA		NA		ND	
	Sep-93	NR	5	NA		NA		NA		NA		ND	
	Sep-93	NR	5	NA		NA		NA		NA		ND	
	Apr-94	NR	5	ND		ND		ND		NA		ND	
	Oct-94	NR	10	ND		ND		ND		NA		ND	
	Apr-95	NR	10	ND		ND		ND		NA		ND	
	Oct-95	NR	10	ND		ND		ND		NA		ND	
	Apr-96	NR	10	ND		ND		ND		NA		ND	
	Oct-96	NR	10	ND		ND		ND		NA		ND	
	Apr-97	NR	10	Dry		Dry		ND		NA		ND	
	Oct-97	NR	10	Dry		Dry		ND		NA		ND	
	Apr-98	NR	10	NA		Dry		18		NA		ND	
	Oct-98	NR	10	Dry		ND		Dry		NA		ND	
	Mar-99	NR	10	ND		ND		ND		NA		ND	
	Jul-99	NR	10	NA		NA		NA		12		ND	
	Aug-99	NR	10	NA		NA		NA		13		ND	
	Oct-99	NR	10	ND		ND		ND		ND		ND	
	Nov-99	NR	10	NA		NA		NA		ND		ND	
	Apr-00	NR	5	ND		28		ND		NA		ND	
	Oct-00	NR	10	ND		16		ND		ND		ND	
	Apr-01	NR	10	Dry		Dry		ND		NA		ND	
	Oct-01	NR	10	ND		ND		ND		ND		ND	
	Apr-02	NR	10	NA		ND		ND		ND		ND	
	Oct-02	NR	10	ND		ND		ND		ND		ND	
	Apr-03	NR	10	ND		ND		ND		ND		ND	
	Oct-03	NR	10	ND		ND		ND		20		ND	
	15-Apr-04	NR	10	ND		ND		ND		22		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		ND	
NC 2B = 50 µg/L (05/01/07)	11-Oct-07	0.24	10.0	1.7	B	12		Dry		Dry		1.2	J
	03-Apr-08	0.11	10.0	1.3	J	12		0.8	J	0.5	J	ND	
	28-Oct-08	0.11	10.0	0.3	J	13		0.2	J	0.4	J	ND	
	07-Apr-09	0.10	10.0	0.3	J	1.2	J	0.5	J	ND		ND	
	27-Oct-09	0.10	10.0	0.6	J	11		0.5	J	0.5	J	ND	
	07-Apr-10	0.03	10.0	1.0	J	0.6	J	0.8	J	0.5	J	ND	
	13-Oct-10	0.03	10.0	2.5	J	1.1	J	1.3	J	0.3	J	ND	
	27-Apr-11	0.04	10.0	0.52	B	0.70	B	0.59	B	0.38	B	0.18	J
	20-Oct-11	0.04	10.0	Dry		1.0	J	2.5	J	0.71	B	0.18	J
	26-Apr-12	0.04	10.0	0.28	B	0.7	J	0.42	B	0.38	B	0.09	J
	16-Oct-12	0.18	10.0	1.1	J	0.93	J	0.74	J	ND		ND	
	11-Apr-13	0.04	10.0	ND		0.24	J	ND		ND		ND	
	30-Oct-13	0.04	10.0	0.25	B	0.33	B	0.25	B	ND		0.11	J

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Cobalt	Jul-93	NR	20	ND		ND		28		NA		ND	
	Aug-93	NR	20	NA		NA		NA		NA		ND	
	Sep-93	NR	20	NA		NA		NA		NA		ND	
	Sep-93	NR	20	NA		NA		NA		NA		ND	
	Apr-94	NR	10	34	B	45	B	46	B	NA		18	
	Oct-94	NR	10	ND		ND		ND		NA		ND	
	Apr-95	NR	10	ND		ND		ND		NA		ND	
	Oct-95	NR	10	ND		ND		ND		NA		ND	
	Apr-96	NR	10	ND		ND		ND		NA		ND	
	Oct-96	NR	10	ND		ND		ND		NA		ND	
	Apr-97	NR	10	Dry		Dry		ND		NA		ND	
	Oct-97	NR	10	Dry		Dry		ND		NA		ND	
	Apr-98	NR	10	NA		Dry		ND		NA		ND	
	Oct-98	NR	10	Dry		ND		Dry		NA		ND	
	Mar-99	NR	10	ND		ND		ND		NA		ND	
	Jul-99	NR	10	NA		NA		NA		ND		ND	
	Aug-99	NR	10	NA		NA		NA		ND		ND	
	Oct-99	NR	10	ND		ND		ND		ND		ND	
	Nov-99	NR	10	NA		NA		NA		ND		ND	
	Apr-00	NR	10	ND		12		ND		NA		ND	
	Oct-00	NR	10	ND		ND		ND		ND		ND	
	Apr-01	NR	10	Dry		Dry		ND		NA		ND	
	Oct-01	NR	10	10		ND		ND		ND		ND	
	Apr-02	NR	10	NA		ND		ND		ND		ND	
	Oct-02	NR	10	ND		ND		ND		ND		ND	
	Apr-03	NR	10	ND		ND		ND		ND		ND	
	Oct-03	NR	10	ND		ND		ND		14		ND	
	15-Apr-04	NR	10	ND		ND		ND		ND		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		ND	
NC 2B = NE µg/L (05/01/07)	11-Oct-07	0.41	10.0	1.5	J	3.4	J	Dry		Dry		ND	
	03-Apr-08	0.03	10.0	0.6	J	3.2	J	3.0	J	1.0	J	ND	
	28-Oct-08	0.03	10.0	0.3	J	4.6	J	0.3	J	0.9	J	ND	
	07-Apr-09	0.02	10.0	0.7	J	2.7	J	1.7	J	0.7	J	ND	
	27-Oct-09	0.02	10.0	0.3	J	2.4	J	0.5	J	1.1	J	ND	
	07-Apr-10	0.10	10.0	1.1	J	2.3	J	0.5	J	1.0	J	ND	
	13-Oct-10	0.10	10.0	0.4	J	1.3	J	0.9	J	0.7	J	ND	
	27-Apr-11	0.03	10.0	1.7	J	1.8	J	0.20	J	0.52	J	ND	
	20-Oct-11	0.03	10.0	Dry		0.73	J	0.33	J	0.44	J	ND	
	26-Apr-12	0.03	10.0	0.49	J	1.8	J	0.17	J	0.55	J	ND	
	16-Oct-12	0.02	10.0	0.52	J	0.96	J	0.38	J	0.37	J	ND	
	11-Apr-13	0.02	10.0	0.57	J	1.3	J	0.36	J	0.33	J	0.03	J
	30-Oct-13	0.02	10.0	0.48	J	0.56	J	0.36	J	0.35	J	0.05	J

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Copper	Jul-93	NR	10	15	B	13	B	10	B	NA		17	
	Aug-93	NR	10	NA		NA		NA		NA		19	
	Sep-93	NR	10	NA		NA		NA		NA		11	
	Sep-93	NR	10	NA		NA		NA		NA		39	
	Apr-94	NR	10	28	B	40	B	43	B	NA		21	
	Oct-94	NR	200	ND		ND		ND		NA		ND	
	Apr-95	NR	200	ND		ND		ND		NA		ND	
	Oct-95	NR	200	ND		ND		ND		NA		ND	
	Apr-96	NR	200	ND		ND		ND		NA		ND	
	Oct-96	NR	200	ND		ND		ND		NA		ND	
	Apr-97	NR	200	Dry		Dry		ND		NA		ND	
	Oct-97	NR	200	Dry		Dry		ND		NA		ND	
	Apr-98	NR	200	NA		Dry		ND		NA		ND	
	Oct-98	NR	200	Dry		ND		Dry		NA		ND	
	Mar-99	NR	200	ND		ND		15		NA		ND	
	Jul-99	NR	200	NA		NA		NA		ND		ND	
	Aug-99	NR	200	NA		NA		NA		11		ND	
	Oct-99	NR	200	ND		ND		ND		ND		ND	
	Nov-99	NR	200	NA		NA		NA		ND		ND	
	Apr-00	NR	200	ND		ND		ND		NA		ND	
	Oct-00	NR	200	ND		ND		ND		ND		ND	
	Apr-01	NR	200	Dry		Dry		ND		NA		ND	
	Oct-01	NR	200	ND		ND		ND		ND		ND	
	Apr-02	NR	200	NA		ND		ND		ND		ND	
	Oct-02	NR	200	ND		ND		ND		ND		ND	
	Apr-03	NR	200	ND		ND		ND		ND		ND	
	Oct-03	NR	200	ND		ND		ND		ND		ND	
	15-Apr-04	NR	200	ND		ND		ND		ND		ND	
	14-Oct-04	NR	200	ND		ND		ND		ND		ND	
	05-Apr-05	NR	200	ND		ND		ND		ND		ND	
	27-Oct-05	NR	200	ND		ND		ND		ND		ND	
	21-Apr-06	NR	200	ND		ND		ND		ND		ND	
	12-Oct-06	NR	200	ND		ND		ND		ND		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		ND	
NC 2B =7 µg/L (05/01/07)	11-Oct-07	0.20	10.0	0.7	B	3.9	J	Dry		Dry		0.4	J
	03-Apr-08	0.05	10.0	1.0	B	2.8	J	1.7	J	0.7	B	0.2	J
	28-Oct-08	0.05	10.0	0.8	B	3	B	0.7	B	1.4	B	1.1	J
	07-Apr-09	0.04	10.0	0.9	J	1.2	J	1.3	J	1.0	J	0.1	J
	27-Oct-09	0.04	10.0	3.0	J	1.7	J	0.5	B	0.8	J	0.1	J
	07-Apr-10	0.03	10.0	1.8	J	1.3	J	1.2	J	0.7	B	0.2	J
	13-Oct-10	0.03	10.0	1.3	J	0.9	B	1	B	0.5	B	0.2	J
	27-Apr-11	0.02	10.0	0.81	B	0.85	B	1.2	B	1.0	B	0.66	J
	20-Oct-11	0.02	10.0	Dry		0.96	B	0.66	B	0.48	B	0.20	J
	26-Apr-12	0.02	10.0	0.67	B	1.5	B	1.2	B	0.80	B	0.94	J
	16-Oct-12	0.06	10.0	2.4	J	1.4	J	0.54	B	0.26	B	0.25	J
	11-Apr-13	0.06	10.0	0.66	B	1.1	B	1.1	B	0.48	B	0.28	J
	30-Oct-13	0.06	10.0	0.53	B	0.71	B	0.63	B	0.38	B	1.2	J

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Lead	Jul-93	NR	5	ND		ND		ND		NA		ND	
	Aug-93	NR	5	NA		NA		NA		NA		ND	
	Sep-93	NR	5	NA		NA		NA		NA		ND	
	Sep-93	NR	5	NA		NA		NA		NA		ND	
	Apr-94	NR	5	ND		5		ND		NA		ND	
	Oct-94	NR	10	ND		ND		ND		NA		ND	
	Apr-95	NR	10	ND		ND		ND		NA		ND	
	Oct-95	NR	10	ND		ND		ND		NA		ND	
	Apr-96	NR	10	ND		ND		ND		NA		ND	
	Oct-96	NR	10	ND		ND		ND		NA		ND	
	Apr-97	NR	10	Dry		Dry		ND		NA		ND	
	Oct-97	NR	10	Dry		Dry		ND		NA		ND	
	Apr-98	NR	10	NA		Dry		11		NA		ND	
	Oct-98	NR	10	Dry		ND		Dry		NA		ND	
	Mar-99	NR	10	ND		ND		ND		NA		ND	
	Jul-99	NR	10	NA		NA		NA		ND		ND	
	Aug-99	NR	10	NA		NA		NA		ND		ND	
	Oct-99	NR	10	ND		ND		ND		ND		ND	
	Nov-99	NR	10	NA		NA		NA		ND		ND	
	Apr-00	NR	10	ND		ND		ND		NA		ND	
	Oct-00	NR	10	ND		ND		ND		ND		ND	
	Apr-01	NR	10	Dry		Dry		ND		NA		ND	
	Oct-01	NR	10	ND		ND		ND		ND		ND	
	Apr-02	NR	10	NA		ND		ND		ND		ND	
	Oct-02	NR	10	ND		ND		ND		ND		ND	
	Apr-03	NR	10	ND		ND		ND		ND		ND	
	Oct-03	NR	10	ND		ND		ND		15		ND	
	15-Apr-04	NR	10	ND		ND		ND		12		ND	
	14-Oct-04	NR	10	ND		ND		ND		ND		ND	
	05-Apr-05	NR	10	ND		ND		ND		ND		ND	
	27-Oct-05	NR	10	ND		ND		ND		ND		ND	
	21-Apr-06	NR	10	ND		ND		ND		ND		ND	
	12-Oct-06	NR	10	ND		ND		ND		ND		ND	
	26-Apr-07	NR	10	ND		ND		ND		ND		ND	
NC 2B = 25 µg/L (05/01/07)	11-Oct-07	0.07	10.0	1.1	J	8.6	J	Dry		Dry		0.1	J
	03-Apr-08	0.32	10.0	1.0	J	0.8	J	0.3	B	0.1	B	0.1	J
	28-Oct-08	0.32	10.0	0.4	B	3.8	J	0.2	B	0.1	B	0.1	J
	07-Apr-09	0.04	10.0	0.9	J	0.1	B	0.2	B	0.1	B	0.1	J
	27-Oct-09	0.04	10.0	0.9	J	1.8	J	0.2	J	0.5	J	ND	
	07-Apr-10	0.01	10.0	0.8	J	0.3	B	0.5	B	0.3	B	0.1	J
	13-Oct-10	0.01	10.0	1.9	J	0.5	B	0.6	J	0.2	B	0.1	J
	27-Apr-11	0.02	10.0	0.32	J	0.19	J	0.43	J	0.09	J	ND	
	20-Oct-11	0.02	10.0	Dry		0.29	J	0.92	J	0.28	J	ND	
	26-Apr-12	0.02	10.0	0.12	J	0.38	J	0.26	J	0.23	J	0.02	J
	16-Oct-12	0.08	10.0	0.79	J	0.35	J	0.54	J	0.09	J	ND	
	11-Apr-13	0.02	10.0	0.15	J	0.16	J	0.21	J	ND		ND	
	30-Oct-13	0.02	10.0	0.20	B	0.09	B	0.16	B	0.03	B	0.08	J

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Nickel	Jul-93	NR	10	20		20		24		NA		ND	
	Aug-93	NR	10	NA		NA		NA		NA		11	
	Sep-93	NR	10	NA		NA		NA		NA		17	
	Sep-93	NR	10	NA		NA		NA		NA		ND	
	Apr-94	NR	10	37	B	51	B	57	B	NA		20	
	Oct-94	NR	50	ND		ND		ND		NA		ND	
	Apr-95	NR	50	ND		ND		ND		NA		ND	
	Oct-95	NR	50	ND		ND		ND		NA		ND	
	Apr-96	NR	50	ND		ND		ND		NA		ND	
	Oct-96	NR	50	ND		ND		ND		NA		ND	
	Apr-97	NR	50	Dry		Dry		ND		NA		ND	
	Oct-97	NR	50	Dry		Dry		ND		NA		ND	
	Apr-98	NR	50	NA		Dry		ND		NA		ND	
	Oct-98	NR	50	Dry		ND		Dry		NA		ND	
	Mar-99	NR	50	ND		ND		ND		NA		ND	
	Jul-99	NR	50	NA		NA		NA		ND		ND	
	Aug-99	NR	50	NA		NA		NA		ND		ND	
	Oct-99	NR	50	ND		ND		ND		ND		ND	
	Nov-99	NR	50	NA		NA		NA		ND		ND	
	Apr-00	NR	50	ND		ND		ND		NA		ND	
	Oct-00	NR	50	ND		ND		ND		ND		ND	
	Apr-01	NR	50	Dry		Dry		ND		NA		ND	
	Oct-01	NR	50	ND		ND		ND		ND		ND	
	Apr-02	NR	50	NA		ND		ND		ND		ND	
	Oct-02	NR	50	ND		ND		ND		ND		ND	
	Apr-03	NR	50	ND		ND		ND		ND		ND	
	Oct-03	NR	50	ND		ND		ND		ND		ND	
	15-Apr-04	NR	50	ND		ND		ND		ND		ND	
	14-Oct-04	NR	50	ND		ND		ND		ND		ND	
	05-Apr-05	NR	50	ND		ND		ND		ND		ND	
	27-Oct-05	NR	50	ND		ND		ND		ND		ND	
	21-Apr-06	NR	50	ND		ND		ND		ND		ND	
	12-Oct-06	NR	50	ND		ND		ND		ND		ND	
	26-Apr-07	NR	50	ND		ND		ND		ND		ND	
NC 2B = 88 µg/L (05/01/07)	11-Oct-07	0.66	50.0	3.4	J	15.2	J	Dry		Dry		ND	
	03-Apr-08	0.06	50.0	5.2	J	16	J	9.6	J	8.4	J	0.3	J
	28-Oct-08	0.06	50.0	3.8	J	14.6	J	2.2	J	7	J	0.2	J
	07-Apr-09	0.04	50.0	6.9	J	11.8	J	5.7	J	6.5	J	ND	
	27-Oct-09	0.04	50.0	2.3	J	13.5	J	2.7	J	3.7	J	0.2	J
	07-Apr-10	0.05	50.0	4.3	J	4.2	J	1.8	J	3.7	J	ND	
	13-Oct-10	0.05	50.0	1.7	J	6.7	J	3.1	J	6.2	J	0.1	J
	27-Apr-11	0.04	50.0	5.1	J	6.1	J	1.5	B	4.1	J	0.30	J
	20-Oct-11	0.04	50.0	Dry		4.2	J	1.5	B	2.9	J	0.56	J
	26-Apr-12	0.04	50.0	1.7	J	2.7	J	ND		1.9	J	ND	
	16-Oct-12	0.06	50.0	3.1	J	4.7	J	2.3	J	3.6	J	0.23	J
	11-Apr-13	0.45	50.0	4.2	J	6.4	J	2.2	J	5.0	J	ND	
	30-Oct-13	0.45	50.0	3.6	J	4.6	J	3.3	J	4.4	J	ND	
Selenium	11-Oct-07	0.35	10.0	0.5	B	19		Dry		Dry		0.9	J
Resample	04-Dec-07	3.8	10.0	NS		ND		NS		NS		ND	
NC 2B = 5 µg/L (05/01/07)	03-Apr-08	0.51	10.0	0.5	J	7.2	J	ND		{4.5}	B	ND {1.5}	J
	28-Oct-08	0.51	10.0	0.7	B	ND		0.6	B	3.3	B	1.9	J
	07-Apr-09	0.12	10.0	0.2	J	2.3	J	2.9	J	0.9	J	ND	
	27-Oct-09	0.12	10.0	0.4	J	3.1	J	1.5	J	2.0	J	ND	
	07-Apr-10	0.32	10.0	ND		0.3	J	ND		0.6	J	ND	
	13-Oct-10	0.32	10.0	ND		3.1	J	2.9	J	2.5	J	ND	
	27-Apr-11	0.20	10.0	0.72	J	2.4	J	ND		1.1	J	ND	
	20-Oct-11	0.20	10.0	Dry		1.6	J	ND		0.87	J	ND	
	26-Apr-12	0.20	10.0	0.53	J	1.3	J	ND		1.20	J	ND	
	16-Oct-12	0.17	10.0	0.51	J	2.0	J	0.85	J	0.75	J	ND	
	11-Apr-13	0.06	10.0	0.52	J	2.1	J	0.78	J	1.4	J	ND	
	30-Oct-13	0.06	10.0	0.93	J	1.2	J	1.8	J	1.1	J	ND	

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Silver	28-Oct-08	0.04	10.0	0.1	B	0.1	B	0.1	B	0.1	B	0.1	J
NC 2B = 0.06 µg/L (05/01/07)	07-Apr-09	0.04	10.0	ND		0.1	J	ND		0.1	J	ND	
	27-Oct-09	0.04	10.0	0.1	J	ND		ND		ND		ND	
	07-Apr-10	0.03	10.0	0.1	B	ND		0.1	B	ND		0.1	J
	13-Oct-10	0.03	10.0	ND		ND		0.1	J	ND		ND	
	27-Apr-11	0.02	10.0	ND		ND		ND		ND		ND	
	20-Oct-11	0.02	10.0	Dry		ND		ND		ND		ND	
	26-Apr-12	0.02	10.0	ND		ND		ND		ND		ND	
	16-Oct-12	0.10	10.0	ND		ND		ND		ND		ND	
	11-Apr-13	0.03	10.0	ND		ND		ND		ND		ND	
	30-Oct-13	0.03	10.0	0.04	B	ND		ND		ND		0.05	J
Thallium	11-Oct-07	0.07	5.0	ND		0.1	J	Dry		Dry		ND	
NC 2B = 0.47 µg/L (05/01/07)	03-Apr-08	0.63	5.0	ND		ND		ND		ND		ND	
	28-Oct-08	0.63	5.0	ND		ND		ND		ND		ND	
	27-Oct-09	0.03	5.0	0.1	J	ND		ND		ND		ND	
	07-Apr-10	0.05	5.0	ND		ND		ND		ND		ND	
	13-Oct-10	0.05	5.5	ND		ND		ND		ND		ND	
	27-Apr-11	0.02	5.5	ND		ND		0.15	B	0.05	B	0.03	J
	20-Oct-11	0.02	5.5	Dry		ND		ND		ND		ND	
	26-Apr-12	0.02	5.5	0.02	J	ND		ND		ND		ND	
	16-Oct-12	0.07	5.5	ND		ND		ND		ND		ND	
	11-Apr-13	0.02	5.5	ND		ND		ND		ND		0.19	J
	30-Oct-13	0.02	5.5	0.28	B	0.1	B	ND		ND		0.13	J
Vanadium	10-Oct-07	0.42	25.0	2.5	J	16.5	J	Dry		Dry		ND	
NC 2B = NE (05/01/07)	03-Apr-08	0.07	25.0	2.1	J	2.6	J	1.7	J	{0.8}	J	ND {0.1}	J
	28-Oct-08	0.07	25.0	0.5	B	8.7	J	1.2	J	0.5	B	0.2	J
	07-Apr-09	0.28	25.0	1.9	J	1.4	J	2.1	J	2.4	J	ND	
	27-Oct-09	0.28	25.0	1.8	B	3.4	J	1.2	B	1.5	B	0.4	J
	07-Apr-10	0.03	25.0	1.1	B	1.0	B	1.1	B	0.7	B	0.4	J
	13-Oct-10	0.03	25.0	3.8	J	1.9	B	2.8	B	1.1	B	0.6	J
	27-Apr-11	0.14	25.0	0.74	J	0.9	J	0.38	J	ND		ND	
	20-Oct-11	0.14	25.0	Dry		0.55	J	2.8	J	0.41	J	ND	
	26-Apr-12	0.14	25.0	0.16	J	1.0	J	0.39	J	0.37	J	ND	
	16-Oct-12	0.10	25.0	1.5	J	0.88	J	1.3	J	0.35	J	ND	
	11-Apr-13	0.07	25.0	0.59	J	1.1	J	0.47	J	0.52	J	ND	
	30-Oct-13	0.07	25.0	0.52	J	0.70	J	0.80	J	0.10	J	ND	

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Zinc	Jul-93	NR	10	11	B	23	B	11	B	NA		10	
	Aug-93	NR	10	NA		NA		NA		NA		ND	
	Sep-93	NR	10	NA		NA		NA		NA		ND	
	Sep-93	NR	10	NA		NA		NA		NA		ND	
	Apr-94	NR	10	36	B	98	B	65	B	NA		20	
	Oct-94	NR	50	ND		ND		ND		NA		ND	
	Apr-95	NR	50	ND		ND		ND		NA		ND	
	Oct-95	NR	50	ND		ND		ND		NA		ND	
	Apr-96	NR	50	ND		ND		ND		NA		ND	
	Oct-96	NR	50	ND		ND		ND		NA		ND	
	Apr-97	NR	50	Dry		Dry		ND		NA		ND	
	Oct-97	NR	50	Dry		Dry		ND		NA		ND	
	Apr-98	NR	50	NA		Dry		ND		NA		ND	
	Oct-98	NR	50	Dry		ND		Dry		NA		ND	
	Mar-99	NR	50	ND		ND		ND		NA		ND	
	Jul-99	NR	50	NA		NA		NA		ND		ND	
	Aug-99	NR	50	NA		NA		NA		ND		ND	
	Oct-99	NR	50	ND		ND		ND		ND		ND	
	Nov-99	NR	50	NA		NA		NA		ND		ND	
	Apr-00	NR	50	ND		ND		ND		NA		ND	
	Oct-00	NR	50	ND		ND		ND		ND		ND	
	Apr-01	NR	50	Dry		Dry		ND		NA		ND	
	Oct-01	NR	50	ND		ND		ND		ND		ND	
	Apr-02	NR	50	NA		ND		ND		ND		ND	
	Oct-02	NR	50	ND		ND		ND		ND		ND	
	Apr-03	NR	50	ND		ND		ND		ND		ND	
	Oct-03	NR	50	ND		ND		ND		81		ND	
	15-Apr-04	NR	50	ND		ND		ND		ND		ND	
	14-Oct-04	NR	50	ND		ND		ND		ND		ND	
	05-Apr-05	NR	50	ND		ND		ND		ND		ND	
	27-Oct-05	NR	50	ND		ND		ND		ND		ND	
	21-Apr-06	NR	50	100 (ND)		ND		ND		ND		ND	
	12-Oct-06	NR	50	ND		ND		ND		ND		ND	
	26-Apr-07	NR	10	45		ND		17		19		ND	
NC 2B = 50 µg/L (05/01/07)	11-Oct-07	0.20	10.0	44		22	B	Dry		Dry		6.6	J
	03-Apr-08	0.04	10.0	35		9.0	B	9.8	B	{2.1}	B	6.3 {2.2}	J,J
	28-Oct-08	0.04	10.0	27		25		4.1	J	1.5	B	0.4	J
	07-Apr-09	0.14	10.0	44		6.8	J	7.1	J	2.8	B	0.8	J
	27-Oct-09	0.14	10.0	23		16		11		3.8	B	1.4	J
	07-Apr-10	0.08	10.0	24		8	J	8.2	J	3.7	J	0.7	J
	13-Oct-10	0.08	10.0	6.8	B	4.7	B	12		2.8	B	4.1	J
	27-Apr-11	0.24	10.0	77		3.4	B	4.6	B	2.3	B	1.1	J
	20-Oct-11	0.24	10.0	Dry		3.6	J	4.5	J	1.8	J	0.28	J
	26-Apr-12	0.24	10.0	36		7.6	B	6.2	B	1.9	B	1.9	J
	16-Oct-12	0.48	10.0	36		4.3	J	14		1.2	J	ND	
	11-Apr-13	0.47	10.0	183		6.3	J	37		2.0	B	0.88	J
Resample	24-May-13	0.47	10.0	26		NS		NS		NS		NR	
	30-Oct-13	0.47	10.0	73		3.2	B	38		2.8	B	3.2	J

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)											
		DL	RL	Upstream		Downstream						Blanks	
				SWPT-1		SWPT-2		UD-1		UD-2			
Acetone	Jul-93	NR	NA	ND		ND		ND		NA		NA	
	Aug-93	NR	NA	NA		NA		NA		NA		NA	
	Sep-93	NR	NA	NA		NA		NA		NA		NA	
	Sep-93	NR	NA	NA		NA		NA		NA		NA	
	Apr-94	NR	NA	ND		ND		ND		NA		NA	
	Oct-94	NR	NA	ND		ND		ND		NA		NA	
	Apr-95	NR	NA	ND		ND		ND		NA		NA	
	Oct-95	NR	NA	ND		ND		ND		NA		NA	
	Apr-96	NR	NA	ND		ND		ND		NA		NA	
	Oct-96	NR	NA	ND		ND		ND		NA		NA	
	Apr-97	NR	NA	Dry		Dry		ND		NA		NA	
	Oct-97	NR	NA	Dry		Dry		ND		NA		NA	
	Apr-98	NR	NA	NA		Dry		ND		NA		NA	
	Oct-98	NR	NA	Dry		ND		Dry		NA		NA	
	Mar-99	NR	NA	NA		NA		NA		NA		NA	
	Jul-99	NR	NA	NA		NA		NA		ND		NA	
	Aug-99	NR	NA	NA		NA		NA		ND		NA	
	Oct-99	NR	NA	ND		172		ND		ND		NA	
	Nov-99	NR	NA	NA		NA		NA		ND		NA	
	Apr-00	NR	NA	ND		ND		ND		NA		NA	
	Oct-00	NR	NA	ND		ND		ND		ND		NA	
	Apr-01	NR	NA	Dry		Dry		ND		NA		NA	
	Oct-01	NR	100	ND		ND		ND		ND		ND	
	Apr-02	NR	100	NA		ND		ND		ND		ND	
	Oct-02	NR	100	ND		ND		ND		ND		ND	
	Apr-03	NR	100	ND		ND		ND		ND		ND	
	Oct-03	NR	100	ND		ND		ND		ND		ND	
	15-Apr-04	NR	100	ND		ND		ND		ND		ND	
	14-Oct-04	NR	100	ND		ND		ND		ND		ND	
	05-Apr-05	NR	100	ND		ND		ND		ND		ND	
	27-Oct-05	NR	100	ND		ND		ND		ND		ND	
	21-Apr-06	NR	100	ND		ND		ND		ND		ND	
	12-Oct-06	NR	100	ND		ND		ND		ND		ND	
	26-Apr-07	NR	100	ND		ND		ND		ND		ND	
NC 2B = 2,000 µg/L (05/01/07)	11-Oct-07	1.21	100.0	1.40	J	6.40	J	Dry		Dry		ND	
Resample	04-Dec-07	2.2	25.0	ND		ND		NS		NS		4.3	J
	03-Apr-08	1.21	100.0	2.90	B	9.20	J	5.40	B	{5.60}	B	1.50 {2.10}	J,J
Resample	14-May-08	20.0	100	NS		ND		NS		NS		ND	
	28-Oct-08	1.21	100.0	1.80	B	3.70	B	1.60	B	2.10	B	1.30	J
	07-Apr-09	1.21	100.0	ND		1.70	J	2.00	J	2.00	J	ND	
	27-Oct-09	9.06	100.0	ND		ND		ND		ND		ND	
	07-Apr-10	9.06	100.0	ND		ND		ND		ND		ND	
	13-Oct-10	9.06	100.0	ND		ND		ND		9.90	J	ND	
	27-Apr-11	9.06	100.0	ND		ND		ND		ND		ND	
	20-Oct-11	9.06	100.0	Dry		ND		ND		ND		ND	
	26-Apr-12	9.06	100.0	ND		ND		ND		ND		ND	
	16-Oct-12	9.06	100.0	ND		ND		ND		ND		ND	
	11-Apr-13	9.06	100.0	ND		ND		ND		ND		ND	
	30-Oct-13	9.06	100.0	ND		ND		ND		ND		ND	

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)										
		DL	RL	Upstream		Downstream						Blanks
				SWPT-1		SWPT-2		UD-1		UD-2		
2-Butanone	Jul-93	NR	NA	ND		ND		ND		NA		NA
	Aug-93	NR	NA	NA		NA		NA		NA		NA
	Sep-93	NR	NA	NA		NA		NA		NA		NA
	Sep-93	NR	NA	NA		NA		NA		NA		NA
	Apr-94	NR	NA	ND		ND		ND		NA		NA
	Oct-94	NR	NA	ND		ND		ND		NA		NA
	Apr-95	NR	NA	ND		ND		ND		NA		NA
	Oct-95	NR	NA	ND		ND		ND		NA		NA
	Apr-96	NR	NA	ND		ND		ND		NA		NA
	Oct-96	NR	NA	ND		ND		ND		NA		NA
	Apr-97	NR	NA	Dry		Dry		ND		NA		NA
	Oct-97	NR	NA	Dry		Dry		ND		NA		NA
	Apr-98	NR	NA	NA		Dry		ND		NA		NA
	Oct-98	NR	NA	Dry		ND		Dry		NA		NA
	Mar-99	NR	NA	NA		NA		NA		NA		NA
	Jul-99	NR	NA	NA		NA		NA		ND		NA
	Aug-99	NR	NA	NA		NA		NA		ND		NA
	Oct-99	NR	NA	ND		137		ND		ND		NA
	Nov-99	NR	NA	NA		NA		NA		ND		NA
	Apr-00	NR	NA	ND		ND		ND		NA		NA
	Oct-00	NR	NA	ND		ND		ND		ND		NA
	Apr-01	NR	NA	Dry		Dry		ND		NA		NA
	Oct-01	NR	100	ND		ND		ND		ND		ND
	Apr-02	NR	100	NA		ND		ND		ND		ND
	Oct-02	NR	100	ND		ND		ND		ND		ND
	Apr-03	NR	100	ND		ND		ND		ND		ND
	Oct-03	NR	100	ND		ND		ND		ND		ND
	15-Apr-04	NR	100	ND		ND		ND		ND		ND
	14-Oct-04	NR	100	ND		ND		ND		ND		ND
	05-Apr-05	NR	100	ND		ND		ND		ND		ND
	27-Oct-05	NR	100	ND		ND		ND		ND		ND
	21-Apr-06	NR	100	ND		ND		ND		ND		ND
	12-Oct-06	NR	100	ND		ND		ND		ND		ND
	26-Apr-07	NR	100	ND		ND		ND		ND		ND
NC 2B = 160,000 µg/L (05/01/07)	11-Oct-07	0.85	100.0	ND		1.50	J	Dry		Dry		ND
Resample	04-Dec-07	0.96	5.0	NS		ND		NS		NS		ND
	03-Apr-08	0.85	100.0	1.50	J	2.20	J	1.40	J	2.50	J	ND
	14-May-08	0.96	100.0	ND		ND		ND		ND		ND
	28-Oct-08	0.85	100.0	1.20	J	ND		ND		ND		ND
	07-Apr-09	0.85	100.0	ND		ND		ND		ND		ND
	27-Oct-09	2.21	100.0	4.50	J	ND		2.40	J	6.60	J	ND
	07-Apr-10	2.21	100.0	4.70	J	5.20	J	ND		ND		ND
	13-Oct-10	2.21	100.0	ND		ND		ND		4.10	J	ND
	27-Apr-11	2.21	100.0	ND		ND		ND		ND		ND
	20-Oct-11	2.21	100.0	Dry		ND		ND		ND		ND
	26-Apr-12	2.21	100.0	ND		ND		ND		ND		ND
	16-Oct-12	2.21	100.0	ND		ND		ND		ND		ND
	11-Apr-13	2.21	100.0	ND		ND		ND		ND		ND
	30-Oct-13	2.21	100.0	ND		ND		ND		ND		ND
Carbon Disulfide	11-Oct-07	0.14	100.0	ND		0.30	J	Dry		Dry		ND
Resample	04-Dec-07	1.2	2.0	NS		ND		NS		NS		ND
NC 2B = NE (05/01/07)	03-Apr-08	0.14	100.0	ND		ND		ND		ND		ND
	28-Oct-08	0.14	100.0	ND		ND		ND		ND		ND
	07-Apr-09	0.14	100.0	ND		ND		ND		ND		ND
	27-Oct-09	0.23	100.0	ND		ND		ND		ND		ND
	07-Apr-10	0.23	100.0	ND		ND		ND		ND		ND
	13-Oct-10	0.23	100.0	ND		ND		ND		ND		ND
	27-Apr-11	0.23	100.0	ND		ND		ND		ND		ND
	20-Oct-11	0.23	100.0	Dry		ND		ND		ND		ND
	26-Apr-12	0.23	100.0	ND		ND		ND		ND		ND
	16-Oct-12	0.23	100.0	ND		ND		ND		ND		ND
	11-Apr-13	0.23	100.0	ND		ND		ND		ND		ND
	30-Oct-13	0.23	100.0	ND		ND		ND		ND		ND

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)										
		DL	RL	Upstream		Downstream						Blanks
				SWPT-1		SWPT-2		UD-1		UD-2		
Chloromethane	11-Oct-07	0.18	1.0	0.80	J	1.10		Dry		Dry		ND
Resample	04-Dec-07	0.11	1.0	ND		ND		NS		NS		ND
NC 2B = 96 µg/L (05/01/07)	03-Apr-08	0.18	1.0	ND		0.30	J	0.20	J	0.30	J	ND
Resample	14-May-08	0.11	1.0	NS		ND		ND		ND		ND
	28-Oct-08	0.18	1.0	0.20	J	0.20	J	ND		ND		ND
	07-Apr-09	0.18	1.0	ND		ND		ND		ND		ND
	27-Oct-09	0.77	1.0	ND		ND		ND		0.90	J	ND
	07-Apr-10	0.77	1.0	ND		ND		ND		ND		ND
	13-Oct-10	0.77	1.0	ND		ND		ND		ND		ND
	27-Apr-11	0.77	1.0	ND		ND		ND		ND		ND
	20-Oct-11	0.77	1.0	Dry		ND		ND		ND		ND
	26-Apr-12	0.77	1.0	ND		ND		ND		ND		ND
	16-Oct-12	0.77	1.0	ND		ND		ND		ND		ND
	11-Apr-13	0.77	1.0	ND		ND		ND		ND		ND
	30-Oct-13	0.77	1.0	ND		ND		ND		ND		ND
1,1-Dichloroethane	27-Oct-09	0.02	5.0	ND		0.20	J	ND		ND		ND
NC 2B = 20,000 µg/L (05/01/07)	07-Apr-10	0.02	5.0	ND		ND		ND		ND		ND
	13-Oct-10	0.02	5.0	ND		ND		ND		ND		ND
	27-Apr-11	0.20	5.0	ND		ND		ND		ND		ND
	20-Oct-11	0.20	5.0	Dry		ND		ND		ND		ND
	26-Apr-12	0.20	5.0	ND		ND		ND		ND		ND
	16-Oct-12	0.20	5.0	ND		ND		ND		ND		ND
	11-Apr-13	0.20	5.0	ND		ND		ND		ND		ND
	30-Oct-13	0.20	5.0	ND		ND		ND		ND		ND
1,4-Dichlorobenzene	03-Apr-08	0.21	1.0	ND		0.40	J	ND		ND		ND
Resample	14-May-08	0.33	1.0	NS		ND		NS		NS		ND
NC 2B = 100 µg/L (05/01/07)	28-Oct-08	0.21	1.0	ND		ND		ND		ND		ND
	07-Apr-09	0.21	1.0	ND		ND		ND		ND		ND
	27-Oct-09	0.39	1.0	ND		0.50	J	ND		ND		ND
	07-Apr-10	0.39	1.0	ND		ND		ND		ND		ND
	13-Oct-10	0.39	1.0	ND		ND		ND		ND		ND
	27-Apr-11	0.39	1.0	ND		ND		ND		ND		ND
	20-Oct-11	0.39	1.0	Dry		ND		ND		ND		ND
	26-Apr-12	0.39	1.0	ND		ND		ND		ND		ND
	16-Oct-12	0.39	1.0	ND		ND		ND		ND		ND
	11-Apr-13	0.39	1.0	ND		ND		ND		ND		ND
	30-Oct-13	0.39	1.0	ND		ND		ND		ND		ND
Methylene Chloride	11-Oct-07	0.14	1.0	ND		ND		Dry		Dry		0.20 J
NC 2B = 590 µg/L (05/01/07)	03-Apr-08	0.14	1.0	ND		ND		ND		ND		ND
	28-Oct-08	0.14	1.0	0.20	J	0.20	J	0.20	J	0.20	J	ND
	07-Apr-09	0.14	1.0	ND		ND		ND		ND		ND
	27-Oct-09	0.64	1.0	ND		ND		ND		ND		ND
	07-Apr-10	0.64	1.0	ND		ND		ND		ND		ND
	13-Oct-10	0.64	1.0	ND		ND		ND		ND		ND
	27-Apr-11	0.64	1.0	ND		ND		ND		ND		ND
	20-Oct-11	0.64	1.0	Dry		ND		ND		ND		ND
	26-Apr-12	0.64	1.0	ND		ND		ND		ND		ND
	16-Oct-12	0.64	1.0	ND		ND		ND		ND		ND
	11-Apr-13	0.64	1.0	ND		ND		ND		ND		ND
	30-Oct-13	0.64	1.0	ND		ND		ND		ND		ND
Styrene	27-Oct-09	0.19	1.0	ND		0.50	J	ND		ND		ND
NC 2B = NE (05/01/07)	07-Apr-10	0.19	1.0	ND		ND		ND		ND		ND
	13-Oct-10	0.19	1.0	ND		ND		ND		ND		ND
	27-Apr-11	0.19	1.0	ND		ND		ND		ND		ND
	20-Oct-11	0.19	1.0	Dry		ND		ND		ND		ND
	26-Apr-12	0.19	1.0	ND		ND		ND		ND		ND
	16-Oct-12	0.19	1.0	ND		ND		ND		ND		ND
	11-Apr-13	0.19	1.0	ND		ND		ND		ND		ND
	30-Oct-13	0.19	1.0	ND		ND		ND		ND		ND

TABLE 12

HISTORICAL DETECTIONS in SURFACE WATER
C.R.S.W.M.A. TUSCARORA LANDFILL - SURFACE WATER MONITORING

Constituent	Date	Concentrations (µg/L)						
		DL	RL	Upstream	Downstream			Blanks
				SWPT-1	SWPT-2	UD-1	UD-2	
Toluene	Jul-93	NR	NA	ND	ND	ND	NA	NA
	Aug-93	NR	NA	NA	NA	NA	NA	NA
	Sep-93	NR	NA	NA	NA	NA	NA	NA
	Sep-93	NR	NA	NA	NA	NA	NA	NA
	Apr-94	NR	NA	ND	ND	ND	NA	NA
	Oct-94	NR	NA	12	ND	33	NA	NA
	Apr-95	NR	NA	ND	ND	ND	NA	NA
	Oct-95	NR	NA	ND	ND	ND	NA	NA
	Apr-96	NR	NA	ND	ND	ND	NA	NA
	Oct-96	NR	NA	ND	11	ND	NA	NA
	Apr-97	NR	NA	Dry	Dry	ND	NA	NA
	Oct-97	NR	NA	Dry	Dry	ND	NA	NA
	Apr-98	NR	NA	NA	Dry	ND	NA	NA
	Oct-98	NR	NA	Dry	ND	Dry	NA	NA
	Mar-99	NR	NA	NA	NA	NA	NA	NA
	Jul-99	NR	NA	NA	NA	NA	ND	NA
	Aug-99	NR	NA	NA	NA	NA	ND	NA
	Oct-99	NR	NA	ND	ND	ND	ND	NA
	Nov-99	NR	NA	NA	NA	NA	ND	NA
	Apr-00	NR	NA	ND	ND	ND	NA	NA
	Oct-00	NR	NA	ND	ND	ND	ND	NA
	Apr-01	NR	NA	Dry	Dry	ND	NA	NA
	Oct-01	NR	5	ND	ND	ND	ND	ND
	Apr-02	NR	5	NA	ND	ND	ND	ND
	Oct-02	NR	5	ND	ND	ND	ND	ND
	Apr-03	NR	5	ND	ND	ND	ND	ND
	Oct-03	NR	5	ND	ND	ND	ND	ND
	15-Apr-04	NR	5	ND	ND	ND	ND	ND
	14-Oct-04	NR	5	ND	ND	ND	ND	ND
	05-Apr-05	NR	5	ND	ND	ND	ND	ND
	27-Oct-05	NR	5	ND	ND	ND	ND	ND
	21-Apr-06	NR	5	ND	ND	ND	ND	ND
	12-Oct-06	NR	5	ND	ND	ND	ND	ND
	26-Apr-07	NR	5	ND	ND	ND	ND	ND
NC 2B = 11 µg/L (05/01/07)	11-Oct-07	0.13	1.0	ND	ND	Dry	Dry	ND
	03-Apr-08	0.13	1.0	ND	ND	ND	ND	ND
	28-Oct-08	0.13	1.0	ND	ND	ND	ND	ND
	07-Apr-09	0.13	1.0	ND	ND	ND	ND	ND
	27-Oct-09	0.23	1.0	ND	ND	ND	ND	ND
	07-Apr-10	0.23	1.0	ND	ND	ND	ND	ND
	13-Oct-10	0.23	1.0	ND	ND	ND	ND	ND
	27-Apr-11	0.23	1.0	ND	ND	ND	ND	ND
	20-Oct-11	0.23	1.0	Dry	ND	ND	ND	ND
	26-Apr-12	0.23	1.0	ND	0.60 J	0.5 J	2.1	ND
	16-Oct-12	0.23	1.0	ND	ND	ND	ND	ND
	11-Apr-13	0.23	1.0	ND	ND	ND	ND	ND
	30-Oct-13	0.23	1.0	ND	ND	ND	ND	ND

Notes:
1. All concentrations are in micrograms per Liter (µg/L).
2. SWPT = Surface water monitoring point
3. UD = Underdrain surface water monitoring point.
4. RL = Laboratory reporting limit (NC SWSL or lower October 2007 to present).
5. ND = Not detected above laboratory reporting limit.
6. B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks
7. Shaded values are above the NC 2B Surface Water Standards (NC2B)
8. NA = Not available.
9. NR = Not reported.
10. NS = Not sampled.
11. Dry = Surface water monitoring point was considered to be dry.
12. ( ) = Resample event results
13. DL = Laboratory detection limit.
14. J = Concentrations detected between the DL and RL and are considered estimated.
15. Surface waters are classified as Freshwater Aquatic life, nutrient sensitive, and swamp waters (Jumping Run).
16. { } = Samples assigned a different Eequipment Blank set containing Equipment Blank concentrations higher than the Trip and/or Method Blanks.
17. NE = Not established.

TABLE 13

SUMMARY OF FIELD PARAMETERS
C.R.S.W.M.A. TUSCARORA LF - SURFACE WATER MONITORING

Field Parameters	Date	Upstream	Downstream		
		SWPT-1	SWPT-2	UD-1	UD-2
Conductivity	Jul-93	80	340	50	NA
[uMhos]	Apr-94	310	450	610	NA
	Oct-94	490	500	1100	NA
	Apr-95	500	380	480	NA
	Oct-95	480	910	500	NA
	Apr-96	400	560	390	NA
	Oct-96	460	920	260	NA
	Apr-97	Dry	Dry	840	NA
	Oct-97	Dry	Dry	1,900	NA
	Apr-98	NA	Dry	420	NA
	Oct-98	Dry	680	Dry	NA
	Jul-99	NA	NA	NA	160
	Aug-99	NA	NA	NA	1,300
	Oct-99	450	880	320	980
	Nov-99	NA	NA	NA	780
	Apr-00	420	3,000	470	NA
	Oct-00	110	1,100	480	790
	Apr-01	Dry	Dry	380	NA
	Oct-01	320	320	870	630
	Apr-02	NA	1,800	510	640
	Oct-02	1,000	1,700	620	778
	Apr-03	601	1,048	1,181	894
	Oct-03	741	974	481	1,331
	15-Apr-04	340	380	120	690
	14-Oct-04	255	363	375	329
	05-Apr-05	677	795	1,281	1,021
	27-Oct-05	722	522	199	607
	21-Apr-06	616	1,010	1,122	1,034
	12-Oct-06	456	523	530	538
	26-Apr-07	517	758	837	1,022
	11-Oct-07	562	2,820	Dry	Dry
Resample	04-Dec-07	2,140	3,630	NS	NS
	03-Apr-08	643	1,836	1,647	1,220
Resample	14-May-08	2,890	1,198	1,191	1,458
	28-Oct-08	571	2,320	410	1,245
	07-Apr-09	1,038	1,432	583	1,128
	27-Oct-09	521	1,820	319	1,004
	07-Apr-10	991	995	420	978
	13-Oct-10	78	911	625	896
	27-Apr-11	1,196	1,283	268	1,116
	20-Oct-11	Dry	819	295	838
	26-Apr-12	1,124	1,050	250	1,046
	16-Oct-12	625	967	562	1038
[uMhos/ cm]	11-Apr-13	846	992	436	1003
	30-Oct-13	821	935	758	924

TABLE 13

SUMMARY OF FIELD PARAMETERS
C.R.S.W.M.A. TUSCARORA LF - SURFACE WATER MONITORING

Field Parameters	Date	Upstream	Downstream		
		SWPT-1	SWPT-2	UD-1	UD-2
pH	Jun-93	5.9	6.3	6.3	-
[standard units]	Apr-94	6.7	7.0	7.2	NA
	Oct-94	7.2	7.3	7.6	NA
	Apr-95	7.2	7.1	7.3	NA
	Oct-95	7.1	7.5	7.4	NA
	Apr-96	7.1	6.0	7.1	NA
	Oct-96	6.1	6.8	6.8	NA
	Apr-97	Dry	Dry	6.3	NA
	Oct-97	Dry	Dry	7.1	NA
	Apr-98	NA	Dry	7.0	NA
	Oct-98	Dry	6.1	Dry	NA
	Jul-99	NA	NA	NA	7.0
	Aug-99	NA	NA	NA	6.2
	Oct-99	7.4	7.2	7.1	7.1
	Nov-99	NA	NA	NA	6.6
	Apr-00	6.9	8.1	6.6	NA
	Oct-00	7.0	7.6	6.6	6.4
	Apr-01	Dry	Dry	6.5	NA
	Oct-01	7.0	7.3	7.4	5.2
	Apr-02	NA	7.4	7.4	6.2
	Oct-02	7.5	7.9	7.0	6.2
	Apr-03	7.2	7.3	7.5	6.2
	Oct-03	7.3	7.2	6.9	6.4
	15-Apr-04	7.2	7.1	7.6	6.8
	14-Oct-04	7.4	4.0	7.0	7.2
	05-Apr-05	7.4	7.5	8.0	7.3
	27-Oct-05	7.3	7.0	6.9	7.1
	21-Apr-06	7.0	7.1	8.0	6.8
	12-Oct-06	7.1	7.8	7.2	7.1
	26-Apr-07	7.3	8.8	7.5	6.9
	11-Oct-07	7.1	7.1	Dry	Dry
Resample	04-Dec-07	8.09	7.48	NS	NS
	03-Apr-08	7.7	6.6	7.4	6.6
Resample	14-May-08	7.74	7.84	8.07	7.41
	28-Oct-08	7.3	7.4	7.2	6.8
	07-Apr-09	6.8	6.9	6.8	6.4
	27-Oct-09	6.6	7.0	7.3	6.8
	07-Apr-10	6.8	7.0	7.1	6.5
	13-Oct-10	6.8	7.1	7.0	6.2
	27-Apr-11	6.8	7.0	7.0	6.6
	20-Oct-11	Dry	7.3	7.7	6.8
	26-Apr-12	7	7.4	8.8	7.2
	16-Oct-12	7.2	7.2	7.5	6.7
	11-Apr-13	7.4	6.8	7.7	6.7
	30-Oct-13	7.6	7.3	7.6	6.8

TABLE 13

SUMMARY OF FIELD PARAMETERS
C.R.S.W.M.A. TUSCARORA LF - SURFACE WATER MONITORING

Field Parameters	Date	Upstream	Downstream		
		SWPT-1	SWPT-2	UD-1	UD-2
Temperature	Jun-93	17	15	15	NA
[oC]	Apr-94	23	20	23	NA
	Oct-94	17	16	18	NA
	Apr-95	20	22	18	NA
	Oct-95	19	19	22	NA
	Apr-96	11	10	11	NA
	Oct-96	21	21	23	NA
	Apr-97	Dry	Dry	15	NA
	Oct-97	Dry	Dry	15	NA
	Apr-98	NA	Dry	19	NA
	Oct-98	Dry	20	Dry	NA
	Jul-99	NA	NA	NA	24
	Aug-99	NA	NA	NA	23
	Oct-99	21	18	18	19
	Nov-99	NA	NA	NA	14
	Apr-00	11	15	19	NA
	Oct-00	13	13	15	15
	Apr-01	Dry	Dry	20	NA
	Oct-01	16	16	18	18
	Apr-02	NA	16	20	18
	Oct-02	25	22	22	22
	Apr-03	20	19	17	24
	Oct-03	17	15	15	15
	15-Apr-04	13	12	13	13
	14-Oct-04	20	20	19	19
	05-Apr-05	17	15	16	14
	27-Oct-05	15	13	14	14
	21-Apr-06	18	16	24	17
	12-Oct-06	21	26	21	23
	26-Apr-07	19	29	20	17
	11-Oct-07	21	23	Dry	Dry
Resample	04-Dec-07	8.5	8.1	NS	NS
	03-Apr-08	14	13	14	15
Resample	14-May-08	23.5	28.9	22.6	22.6
	28-Oct-08	14	9	12	13
	07-Apr-09	15	11	15	15
	27-Oct-09	18	17	18	18
	07-Apr-10	16	18	19	19
	13-Oct-10	21	21	19	21
	27-Apr-11	19	23	23	23
	20-Oct-11	Dry	16	18	18
	26-Apr-12	12	14	15	15
	16-Oct-12	18	17	18	18
	11-Apr-13	16	19	18	19
	30-Oct-13	17	16	16	16

TABLE 13

SUMMARY OF FIELD PARAMETERS
C.R.S.W.M.A. TUSCARORA LF - SURFACE WATER MONITORING

Field Parameters	Date	Upstream	Downstream		
		SWPT-1	SWPT-2	UD-1	UD-2
Turbidity	Jun-93	NA	NA	NA	NA
[NTU]	Apr-94	NA	NA	NA	NA
	Oct-94	NA	NA	NA	NA
	Apr-95	NA	NA	NA	NA
	Oct-95	NA	NA	NA	NA
	Apr-96	NA	NA	NA	NA
	Oct-96	NA	NA	NA	NA
	Apr-97	Dry	Dry	NA	NA
	Oct-97	Dry	Dry	NA	NA
	Apr-98	NA	Dry	NA	NA
	Oct-98	Dry	38	Dry	NA
	Jul-99	NA	NA	NA	NA
	Aug-99	NA	NA	NA	300
	Oct-99	160	120	65	70
	Nov-99	NA	NA	NA	21
	Apr-00	14	310	25	NA
	Oct-00	100	120	46	11
	Apr-01	Dry	Dry	26	NA
	Oct-01	70	60	4.2	60
	Apr-02	NA	21	8.6	140
	Oct-02	28	32	25	130
	Apr-03	33	60	35	170
	Oct-03	26	14	27	39
	15-Apr-04	28	55	50	330
	14-Oct-04	180	90	80	110
	05-Apr-05	23	80	27	8.1
	27-Oct-05	25	45	27	40
	21-Apr-06	34	21	13	11
	12-Oct-06	50	70	28	80
	26-Apr-07	50	80	31	12
	11-Oct-07	37	350	Dry	Dry
Resample	04-Dec-07	10.49	21.2	NS	NS
	03-Apr-08	40	65	28	40
Resample	14-May-08	43.2	45.5	11.64	79.0
	28-Oct-08	17	120	26	60
	07-Apr-09	17	15	12	80
	27-Oct-09	34	150	12	37
	07-Apr-10	33	26	15	35
	13-Oct-10	60	22	20	110
	27-Apr-11	32	16	15	28
	20-Oct-11	Dry	13	38	36
	26-Apr-12	36	38	7.9	45
	16-Oct-12	32	22	16	45
	11-Apr-13	18	9.7	60	40
	30-Oct-13	9.70	11.0	8.30	40.0

Notes:
1. NA = Not available.
2. NS = Not sampled.
3. Dry = Surface water monitoring point was considered to be dry.

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)					
		DL	RL	Leachate		Blanks	
Antimony	Oct-99	NR	30	47		ND	
	Apr-00	NR	30	ND		ND	
	Oct-00	NR	30	ND		ND	
	Apr-01	NR	30	ND		ND	
	Oct-01	NR	30	ND		ND	
	Apr-02	NR	30	ND		ND	
	Apr-03	NR	30	ND		ND	
	05-Apr-05	NR	30	ND		ND	
	15-Dec-05	NR	30	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	6.0	7		ND	
	11-Oct-07	0.05	6.0	4.0	J	0.1	J
	03-Apr-08	0.08	6.0	6.2		ND	
	28-Oct-08	0.08	6.0	8.8		ND	
	07-Apr-09	0.06	6.0	5.7	J	ND	
	27-Oct-09	0.06	6.0	39		ND	
	08-Apr-10	0.22	6.0	1.8	B	0.7	J
	13-Oct-10	0.22	6.0	4.6	J	ND	
	27-Apr-11	0.14	6.0	7		ND	
	20-Oct-11	0.14	6.0	46		ND	
	26-Apr-12	0.14	6.0	12		ND	
	16-Oct-12	0.02	6.0	44		ND	
	11-Apr-13	0.02	6.0	8		ND	
	30-Oct-13	0.02	6.0	12		0.08	J
Arsenic	Oct-99	NR	10	ND		ND	
	Apr-00	NR	10	ND		ND	
	Oct-00	NR	10	ND		ND	
	Apr-01	NR	10	ND		ND	
	Oct-01	NR	10	12		ND	
	Apr-02	NR	10	27		ND	
	Apr-03	NR	10	55		ND	
	05-Apr-05	NR	10	74		ND	
	15-Dec-05	NR	10	52		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	10	14		ND	
	11-Oct-07	0.47	10.0	59		ND	
	03-Apr-08	0.07	10.0	45		0.2	J
	28-Oct-08	0.07	10.0	66		0.5	J
	07-Apr-09	0.17	10.0	58		0.2	J
	27-Oct-09	0.17	10.0	124		ND	
	08-Apr-10	0.04	10.0	86		ND	
	13-Oct-10	0.35	10.0	75		ND	
	27-Apr-11	0.43	10.0	114		ND	
	20-Oct-11	0.10	10.0	120		ND	
	26-Apr-12	0.10	10.0	149		ND	
	16-Oct-12	0.25	10.0	147		0.4	J
	11-Apr-13	0.05	10.0	150		0.15	J
	30-Oct-13	0.05	10.0	140		0.20	J
Barium	Oct-99	NR	500	ND		ND	
	Apr-00	NR	500	ND		ND	
	Oct-00	NR	500	ND		ND	
	Apr-01	NR	500	ND		ND	
	Oct-01	NR	500	537		ND	
	Apr-02	NR	500	1,358		ND	
	Apr-03	NR	500	794		ND	
	05-Apr-05	NR	500	542		ND	
	15-Dec-05	NR	500	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	100	112		ND	
	11-Oct-07	0.04	100.0	754		0.2	J
	03-Apr-08	0.11	100.0	838		0.4	J
	28-Oct-08	0.11	100.0	868		0.7	J
	07-Apr-09	0.04	100.0	788		0.2	J
	27-Oct-09	0.04	100.0	1,055		0.1	J
	08-Apr-10	0.03	100.0	1,001		0.1	J
	13-Oct-10	0.03	100.0	1,022		0.2	J
	27-Apr-11	0.02	100.0	934		0.10	J
	20-Oct-11	0.02	100.0	727		0.10	J
	26-Apr-12	0.02	100.0	983		0.12	J
	16-Oct-12	0.07	100.0	826		0.28	J
	11-Apr-13	0.06	100.0	1050		0.06	J
	30-Oct-13	0.06	100.0	801		0.24	J

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)					
		DL	RL	Leachate		Blanks	
Beryllium	Oct-99	NR	2	ND		ND	
	Apr-00	NR	2	ND		ND	
	Oct-00	NR	2	ND		ND	
	Apr-01	NR	2	ND		ND	
	Oct-01	NR	2	ND		ND	
	Apr-02	NR	2	ND		ND	
	Apr-03	NR	2	ND		ND	
	05-Apr-05	NR	2	ND		ND	
	15-Dec-05	NR	2	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	1.0	ND		ND	
	11-Oct-07	0.08	1.0	0.1	J	ND	
	03-Apr-08	0.06	1.0	0.1	J	ND	
	28-Oct-08	0.06	1.0	0.2	J	ND	
	07-Apr-09	0.06	1.0	0.1	J	ND	
	27-Oct-09	0.06	1.0	0.5	J	ND	
	08-Apr-10	0.02	1.0	0.1	B	0.1	J
	13-Oct-10	0.02	1.0	0.1	J	ND	
	27-Apr-11	0.02	1.0	0.10	J	ND	
	20-Oct-11	0.02	1.0	0.09	J	ND	
	26-Apr-12	0.02	1.0	0.09	J	ND	
	16-Oct-12	0.07	1.0	0.12	J	ND	
	11-Apr-13	0.03	1.0	0.14	J	ND	
	30-Oct-13	0.03	1.0	0.13	B	0.04	J
Cadmium	Oct-99	NR	1	ND		ND	
	Apr-00	NR	1	ND		ND	
	Oct-00	NR	1	ND		ND	
	Apr-01	NR	1	ND		ND	
	Oct-01	NR	1	ND		ND	
	Apr-02	NR	1	2		ND	
	Apr-03	NR	1	ND		ND	
	05-Apr-05	NR	1	ND		ND	
	15-Dec-05	NR	1	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	1.0	ND		ND	
	11-Oct-07	0.06	1.0	2		0.1	J
	03-Apr-08	0.04	1.0	4		ND	
	28-Oct-08	0.04	1.0	3.6		ND	
	07-Apr-09	0.04	1.0	3		ND	
	27-Oct-09	0.04	1.0	2.5		ND	
	08-Apr-10	0.02	1.0	5		0.1	J
	13-Oct-10	0.02	1.0	7		ND	
	27-Apr-11	0.02	1.0	4		ND	
	20-Oct-11	0.02	1.0	3		ND	
	26-Apr-12	0.02	1.0	3		ND	
	16-Oct-12	0.03	1.0	5		ND	
	11-Apr-13	0.05	1.0	6		ND	
	30-Oct-13	0.05	1.0	6		ND	
Chromium	Oct-99	NR	10	ND		ND	
	Apr-00	NR	10	ND		ND	
	Oct-00	NR	10	ND		ND	
	Apr-01	NR	10	20		ND	
	Oct-01	NR	10	37		ND	
	Apr-02	NR	10	158		ND	
	Apr-03	NR	10	50		ND	
	05-Apr-05	NR	10	48		ND	
	15-Dec-05	NR	10	36		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	10	ND		ND	
	11-Oct-07	0.24	10.0	81		1.2	J
	03-Apr-08	0.11	10.0	61		ND	
	28-Oct-08	0.11	10.0	72		ND	
	07-Apr-09	0.10	10.0	47		ND	
	27-Oct-09	0.10	10.0	108		ND	
	08-Apr-10	0.03	10.0	56		ND	
	13-Oct-10	0.03	10.0	49		ND	
	27-Apr-11	0.04	10.0	42		0.18	J
	20-Oct-11	0.04	10.0	43		0.18	J
	26-Apr-12	0.04	10.0	41		0.09	J
	16-Oct-12	0.18	10.0	51		ND	
	11-Apr-13	0.04	10.0	63		ND	
	30-Oct-13	0.04	10.0	33		0.11	J

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)					
		DL	RL	Leachate		Blanks	
Cobalt	Oct-99	NR	10	ND		ND	
	Apr-00	NR	10	ND		ND	
	Oct-00	NR	10	ND		ND	
	Apr-01	NR	10	ND		ND	
	Oct-01	NR	10	ND		ND	
	Apr-02	NR	10	ND		ND	
	Apr-03	NR	10	23		ND	
	05-Apr-05	NR	10	15		ND	
	15-Dec-05	NR	10	22		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	10	ND		ND	
	11-Oct-07	0.41	10.0	14		ND	
	03-Apr-08	0.03	10.0	13		ND	
	28-Oct-08	0.03	10.0	15		ND	
	07-Apr-09	0.02	10.0	12		ND	
	27-Oct-09	0.02	10.0	18		ND	
	08-Apr-10	0.10	10.0	15		ND	
	13-Oct-10	0.10	10.0	15		ND	
	27-Apr-11	0.03	10.0	14		ND	
	20-Oct-11	0.03	10.0	13		ND	
	26-Apr-12	0.03	10.0	13		ND	
	16-Oct-12	0.02	10.0	17		ND	
	11-Apr-13	0.02	10.0	18		0.03	J
	30-Oct-13	0.02	10.0	12		0.05	J
Copper	Oct-99	NR	200	ND		ND	
	Apr-00	NR	200	ND		ND	
	Oct-00	NR	200	ND		ND	
	Apr-01	NR	200	NA		ND	
	Oct-01	NR	200	ND		ND	
	Apr-02	NR	200	ND		ND	
	Apr-03	NR	200	ND		ND	
	05-Apr-05	NR	200	ND		ND	
	15-Dec-05	NR	200	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	10	ND		ND	
	11-Oct-07	0.20	10.0	9.4	J	0.4	J
	03-Apr-08	0.05	10.0	12		0.2	J
	28-Oct-08	0.05	10.0	6.5	J	1.1	J
	07-Apr-09	0.04	10.0	10		0.1	J
	27-Oct-09	0.04	10.0	31		0.1	J
	08-Apr-10	0.03	10.0	10		0.2	J
	13-Oct-10	0.03	10.0	9.6	J	0.2	J
	27-Apr-11	0.02	10.0	6.7	J	0.66	J
	20-Oct-11	0.02	10.0	7.3	J	0.2	J
	26-Apr-12	0.02	10.0	9.6	J	0.94	J
	16-Oct-12	0.06	10.0	25		0.25	J
	11-Apr-13	0.06	10.0	13		0.28	J
	30-Oct-13	0.06	10.0	6.7	J	1.2	J
Lead	Oct-99	NR	10	ND		ND	
	Apr-00	NR	10	ND		ND	
	Oct-00	NR	10	ND		ND	
	Apr-01	NR	10	ND		ND	
	Oct-01	NR	10	ND		ND	
	Apr-02	NR	10	30		ND	
	Apr-03	NR	10	ND		ND	
	05-Apr-05	NR	10	11		ND	
	15-Dec-05	NR	10	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	10	ND		ND	
	11-Oct-07	0.07	10.0	1.4	J	0.1	J
	03-Apr-08	0.04	10.0	0.7	J	0.1	J
	28-Oct-08	0.04	10.0	1.1	J	0.1	J
	07-Apr-09	0.04	10.0	0.3	B	0.1	J
	27-Oct-09	0.04	10.0	16		ND	
	08-Apr-10	0.01	10.0	0.2	B	0.1	J
	13-Oct-10	0.01	10.0	0.2	B	0.1	J
	27-Apr-11	0.02	10.0	0.13	J	ND	
	20-Oct-11	0.02	10.0	0.22	J	ND	
	26-Apr-12	0.02	10.0	0.12	J	0.02	J
	16-Oct-12	0.08	10.0	0.34	J	ND	
	11-Apr-13	0.02	10.0	0.42	J	ND	
	30-Oct-13	0.02	10.0	0.30	B	0.08	J

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)					
		DL	RL	Leachate		Blanks	
Nickel	Oct-99	NR	50	ND		ND	
	Apr-00	NR	50	ND		ND	
	Oct-00	NR	50	ND		ND	
	Apr-01	NR	50	ND		ND	
	Oct-01	NR	50	77		ND	
	Apr-02	NR	50	394		ND	
	Apr-03	NR	50	141		ND	
	05-Apr-05	NR	50	112		ND	
	15-Dec-05	NR	50	84		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	50	ND		ND	
	11-Oct-07	0.66	50.0	77		ND	
	03-Apr-08	0.06	50.0	77		0.3	J
	28-Oct-08	0.06	50.0	81		0.2	J
	07-Apr-09	0.04	50.0	70		ND	
	27-Oct-09	0.04	50.0	130		0.2	J
	08-Apr-10	0.05	50.0	85		ND	
	13-Oct-10	0.05	50.0	82		0.1	J
	27-Apr-11	0.04	50.0	74		0.3	J
	20-Oct-11	0.04	50.0	72		0.56	J
	26-Apr-12	0.04	50.0	68		ND	
	16-Oct-12	0.06	50.0	81		0.23	J
	11-Apr-13	0.45	50.0	91		ND	
	30-Oct-13	0.45	50.0	62		ND	
Selenium	Oct-99	NR	20	ND		ND	
	Apr-00	NR	20	ND		ND	
	Oct-00	NR	10	ND		ND	
	Apr-01	NR	20	ND		ND	
	Oct-01	NR	20	ND		ND	
	Apr-02	NR	20	ND		ND	
	Apr-03	NR	20	ND		ND	
	05-Apr-05	NR	20	20		ND	
	15-Dec-05	NR	20	33		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	10	20		ND	
	11-Oct-07	0.35	10.0	51		0.9	J
	03-Apr-08	0.14	10.0	0.6	B	1.5	J
	28-Oct-08	0.14	10.0	ND		1.9	J
	07-Apr-09	0.12	10.0	42		ND	
	27-Oct-09	0.12	10.0	60		ND	
	08-Apr-10	0.32	10.0	65		ND	
	13-Oct-10	0.30	10.0	ND		ND	
	27-Apr-11	0.32	10.0	ND		ND	
	20-Oct-11	0.32	10.0	ND		ND	
	26-Apr-12	0.32	10.0	28		ND	
	16-Oct-12	0.54	10.0	ND		ND	
	11-Apr-13	0.06	10.0	82		ND	
	30-Oct-13	0.06	10.0	47		ND	
Silver	Oct-99	NR	10	ND		ND	
	Apr-00	NR	10	ND		ND	
	Oct-00	NR	10	ND		ND	
	Apr-01	NR	10	ND		ND	
	Oct-01	NR	10	ND		ND	
	Apr-02	NR	10	ND		ND	
	Apr-03	NR	10	ND		ND	
	05-Apr-05	NR	10	ND		ND	
	15-Dec-05	NR	10	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	10	ND		ND	
	11-Oct-07	NA	10	ND		ND	
	03-Apr-08	0.04	10.0	0.7	J	ND	
	28-Oct-08	0.04	10.0	0.7	J	0.1	J
	07-Apr-09	0.04	10.0	0.8	J	ND	
	27-Oct-09	0.04	10.0	0.8	J	ND	
	08-Apr-10	0.03	10.0	1.0	J	0.1	J
	13-Oct-10	0.03	10.0	1.5	J	ND	
	27-Apr-11	0.02	10.0	0.82	J	ND	
	20-Oct-11	0.02	10.0	0.73	J	ND	
	26-Apr-12	0.02	10.0	0.94	J	ND	
	16-Oct-12	0.10	10.0	1.20	J	ND	
	11-Apr-13	0.03	10.0	1.2	J	ND	
	30-Oct-13	0.03	10.0	1.1	J	0.05	J

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)					
		DL	RL	Leachate		Blanks	
Thallium	27-Apr-11	0.02	5.5	0.04	B	0.03	J
	20-Oct-11	0.02	5.5	ND		ND	
	26-Apr-12	0.02	5.5	ND		ND	
	16-Oct-12	0.07	5.5	0.29	J	ND	
	11-Apr-13	0.02	5.5	0.04	B	0.19	J
	30-Oct-13	0.02	5.5	0.08	B	0.13	J
Vanadium	Oct-99	NR	40	ND		ND	
	Apr-00	NR	40	ND		ND	
	Oct-00	NR	40	ND		ND	
	Apr-01	NR	40	ND		ND	
	Oct-01	NR	40	ND		ND	
	Apr-02	NR	40	ND		ND	
	Apr-03	NR	40	ND		ND	
	05-Apr-05	NR	40	ND		ND	
	15-Dec-05	NR	40	51		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	25	ND		ND	
	11-Oct-07	0.42	25.0	17.6	J	ND	
	03-Apr-08	0.07	25.0	14.9	J	0.1	J
	28-Oct-08	0.07	25.0	18.5	J	0.2	J
	07-Apr-09	0.28	25.0	13.3	J	ND	
	27-Oct-09	0.28	25.0	28		0.4	J
	08-Apr-10	0.03	25.0	17.2		0.4	J
	13-Oct-10	0.03	25.0	15.6	J	0.6	J
	27-Apr-11	0.14	25.0	13.3	J	ND	
	20-Oct-11	0.14	25.0	12.9	J	ND	
	26-Apr-12	0.14	25.0	12.5	J	ND	
	16-Oct-12	0.10	25.0	15.3	J	ND	
	11-Apr-13	0.07	25.0	20.6	J	ND	
	30-Oct-13	0.07	25.0	12.3	J	ND	
Zinc	Oct-99	NR	50	ND		ND	
	Apr-00	NR	50	ND		ND	
	Oct-00	NR	50	ND		ND	
	Apr-01	NR	50	60		ND	
	Oct-01	NR	50	101		ND	
	Apr-02	NR	50	298		ND	
	Apr-03	NR	50	691		ND	
	05-Apr-05	NR	50	721		ND	
	15-Dec-05	NR	50	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	10	22		ND	
	11-Oct-07	0.20	10.0	42		6.6	J
	03-Apr-08	0.04	10.0	23		2.2	J
	28-Oct-08	0.04	10.0	20		0.4	J
	07-Apr-09	0.14	10.0	11		0.8	J
	27-Oct-09	0.14	10.0	822		1.4	J
	08-Apr-10	0.08	10.0	12		0.7	J
	13-Oct-10	0.08	10.0	8.4	B	4.1	J
	27-Apr-11	0.24	10.0	8.2	J	1.1	J
	20-Oct-11	0.24	10.0	5.3	J	0.28	J
	26-Apr-12	0.24	10.0	7.7	J	1.9	J
	16-Oct-12	0.48	10.0	28		ND	
	11-Apr-13	0.47	10.0	12		0.88	J
	30-Oct-13	0.47	10.0	12	B	3.2	J
Acetone	Oct-99	NR	NA	ND		ND	
	Apr-00	NR	NA	3,829		ND	
	Oct-00	NR	NA	ND		ND	
	Apr-01	NR	NA	ND		ND	
	Oct-01	NR	100	NA		ND	
	Apr-02	NR	100	9,690		ND	
	Apr-03	NR	500	1,090		ND	
	05-Apr-05	NR	500	4,570		ND	
	15-Dec-05	NR	500	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	100	ND		ND	
	11-Oct-07	1.21	100.0	81.70	J	ND	
	03-Apr-08	1.21	100.0	148.00		2.10	J
	28-Oct-08	1.21	100.0	237.00		1.30	J
	07-Apr-09	1.21	100.0	40.60	J	ND	
	27-Oct-09	9.06	100.0	50.20	J	ND	
	08-Apr-10	9.06	100.0	13.60	J	ND	
	13-Oct-10	9.06	100.0	26.50	J	ND	
	27-Apr-11	9.06	100.0	ND		ND	
	20-Oct-11	9.06	100.0	211.00		ND	
	26-Apr-12	9.06	100.0	20.20	J	ND	
	16-Oct-12	9.06	100.0	708.00		ND	
	11-Apr-13	9.06	100.0	26.60	J	ND	
	30-Oct-13	9.06	100.0	57.60	J	ND	

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)				
		DL	RL	Leachate		Blanks
Benzene	Oct-99	NR	NA	ND		ND
	Apr-00	NR	NA	ND		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	12		ND
	Oct-01	NR	5	NA		ND
	Apr-02	NR	5	NA		ND
	Apr-03	NR	25	ND		ND
	05-Apr-05	NR	25	7.3		ND
	15-Dec-05	NR	25	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	3.00	ND		ND
	11-Oct-07	0.16	1.0	3.90		ND
	03-Apr-08	0.16	1.0	2.60		ND
	28-Oct-08	0.16	1.0	1.80		ND
	07-Apr-09	0.16	1.0	1.50		ND
	27-Oct-09	0.24	1.0	1.60		ND
	08-Apr-10	0.24	1.0	2.10		ND
	13-Oct-10	0.24	1.0	2.20		ND
	27-Apr-11	0.24	1.0	3.50		ND
	20-Oct-11	0.24	1.0	3.70		ND
	26-Apr-12	0.24	1.0	3.50		ND
	16-Oct-12	0.24	1.0	3.80		ND
	11-Apr-13	0.24	1.0	4.10		ND
	30-Oct-13	0.24	1.0	4.30		ND
Chlorobenzene	11-Oct-07	0.13	3.0	1.80	J	ND
	03-Apr-08	0.13	3.0	1.30	J	ND
	28-Oct-08	0.13	3.0	0.90	J	ND
	07-Apr-09	0.13	3.0	0.60	J	ND
	27-Oct-09	0.30	3.0	0.50	J	ND
	08-Apr-10	0.30	3.0	0.70	J	ND
	13-Oct-10	0.30	3.0	0.70	J	ND
	27-Apr-11	0.30	3.0	1.10	J	ND
	20-Oct-11	0.30	3.0	1.10	J	ND
	26-Apr-12	0.30	3.0	1.10	J	ND
	16-Oct-12	0.30	3.0	1.20	J	ND
	11-Apr-13	0.30	3.0	1.10	J	ND
	30-Oct-13	0.30	3.0	1.40	J	ND
Chloroethane	Oct-99	NR	NA	ND		ND
	Apr-00	NR	NA	ND		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	19		ND
	Oct-01	NR	10	NA		ND
	Apr-02	NR	10	NA		ND
	Apr-03	NR	50	ND		ND
	05-Apr-05	NR	50	ND		ND
	15-Dec-05	NR	50	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	5.00	ND		ND
	11-Oct-07	0.29	10.0	0.50	J	ND
	03-Apr-08	0.29	10.0	0.40	J	ND
	28-Oct-08	0.29	10.0	ND		ND
	07-Apr-09	0.29	10.0	ND		ND
	27-Oct-09	0.48	10.0	ND		ND
	08-Apr-10	0.48	10.0	ND		ND
	13-Oct-10	0.48	10.0	ND		ND
	27-Apr-11	0.48	10.0	ND		ND
	20-Oct-11	0.48	10.0	0.50	J	ND
	26-Apr-12	0.48	10.0	ND		ND
	16-Oct-12	0.48	10.0	ND		ND
	11-Apr-13	0.48	10.0	ND		ND
	30-Oct-13	0.48	10.0	ND		ND
Chloromethane	11-Oct-07	0.18	1.0	2.40		ND
	03-Apr-08	0.18	1.0	ND		ND
	28-Oct-08	0.18	1.0	ND		ND
	07-Apr-09	0.18	1.0	ND		ND
	27-Oct-09	0.77	1.0	ND		ND
	08-Apr-10	0.77	1.0	ND		ND
	13-Oct-10	0.77	1.0	ND		ND
	27-Apr-11	0.77	1.0	ND		ND
	20-Oct-11	0.77	1.0	ND		ND
	26-Apr-12	0.77	1.0	ND		ND
	16-Oct-12	0.77	1.0	ND		ND
	11-Apr-13	0.77	1.0	ND		ND
	30-Oct-13	0.77	1.0	ND		ND
Cis-1,2-Dichloroethylene	11-Oct-07	0.14	5.0	2.00	J	ND
	03-Apr-08	0.14	5.0	2.00	J	ND
	28-Oct-08	0.14	5.0	1.40	J	ND
	07-Apr-09	0.14	5.0	0.70	J	ND
	27-Oct-09	0.25	5.0	0.80	J	ND
	08-Apr-10	0.25	5.0	2.10	J	ND
	13-Oct-10	0.25	5.0	1.70	J	ND
	27-Apr-11	0.25	5.0	3.00	J	ND
	20-Oct-11	0.25	5.0	2.50	J	ND
	26-Apr-12	0.25	5.0	1.90	J	ND
	16-Oct-12	0.25	5.0	1.10	J	ND
	11-Apr-13	0.25	5.0	1.60	J	ND
	30-Oct-13	0.25	5.0	2.80	J	ND

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)				
		DL	RL	Leachate		Blanks
1,1-Dichloroethane	Oct-99	NR	NA	ND		ND
	Apr-00	NR	NA	15		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	ND		ND
	Oct-01	NR	5	NA		ND
	Apr-02	NR	5	NA		ND
	Apr-03	NR	25	ND		ND
	05-Apr-05	NR	25	ND		ND
	15-Dec-05	NR	25	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	5.00	ND		ND
	11-Oct-07	0.16	5.0	0.30	J	ND
	03-Apr-08	0.14	5.0	ND		ND
	28-Oct-08	0.16	5.0	ND		ND
	07-Apr-09	0.16	5.0	ND		ND
	27-Oct-09	0.20	5.0	ND		ND
	08-Apr-10	0.20	5.0	ND		ND
	13-Oct-10	0.20	5.0	ND		ND
	27-Apr-11	0.20	5.0	0.30	J	ND
	20-Oct-11	0.17	5.0	ND		ND
	26-Apr-12	0.17	5.0	ND		ND
	16-Oct-12	0.20	5.0	ND		ND
	11-Apr-13	0.20	5.0	ND		ND
	30-Oct-13	0.20	5.0	0.30	J	ND
1,2-Dichloroethane	11-Oct-07	0.12	1.0	0.40	J	ND
	03-Apr-08	0.12	1.0	0.30	J	ND
	28-Oct-08	0.12	1.0	0.20	J	ND
	07-Apr-09	0.12	1.0	ND		ND
	27-Oct-09	0.27	1.0	ND		ND
	08-Apr-10	0.27	1.0	ND		ND
	13-Oct-10	0.27	1.0	ND		ND
	27-Apr-11	0.27	1.0	ND		ND
	20-Oct-11	0.27	1.0	ND		ND
	26-Apr-12	0.27	1.0	ND		ND
	16-Oct-12	0.27	1.0	ND		ND
	11-Apr-13	0.27	1.0	ND		ND
	30-Oct-13	0.27	1.0	ND		ND
1,2-Dichloropropane	11-Oct-07	0.17	1.0	0.30	J	ND
	03-Apr-08	0.17	1.0	ND		ND
	28-Oct-08	0.17	1.0	0.20	J	ND
	07-Apr-09	0.17	1.0	ND		ND
	27-Oct-09	0.21	1.0	ND		ND
	08-Apr-10	0.21	1.0	ND		ND
	13-Oct-10	0.21	1.0	ND		ND
	27-Apr-11	0.21	1.0	0.30	J	ND
	20-Oct-11	0.21	1.0	0.30	J	ND
	26-Apr-12	0.21	1.0	0.40	J	ND
	16-Oct-12	0.21	1.0	ND		ND
	11-Apr-13	0.21	1.0	ND		ND
	30-Oct-13	0.21	1.0	ND		ND

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)				
		DL	RL	Leachate		Blanks
2-Butanone	Oct-99	NR	NA	ND		ND
	Apr-00	NR	NA	5,343		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	ND		ND
	Oct-01	NR	100	ND		ND
	Apr-02	NR	100	5,640		ND
	Apr-03	NR	500	861		ND
	05-Apr-05	NR	500	1,580		ND
	15-Dec-05	NR	500	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	100.00	ND		ND
	11-Oct-07	0.85	100.0	45.10	J	ND
	03-Apr-08	0.85	100.0	81.90	J	ND
	28-Oct-08	0.85	100.0	166.00		ND
	07-Apr-09	0.85	100.0	33.30	J	ND
	27-Oct-09	2.21	100.0	6.70	J	ND
	08-Apr-10	2.21	100.0	ND		ND
	13-Oct-10	2.21	100.0	5.30	J	ND
	27-Apr-11	2.21	100.0	4.60	J	ND
	20-Oct-11	2.21	100.0	81.70	J	ND
	26-Apr-12	2.21	100.0	3.00	J	ND
	16-Oct-12	2.21	100.0	276.00		ND
	11-Apr-13	2.21	100.0	4.11	J	ND
	30-Oct-13	2.21	100.0	11.70	J	ND
2-Hexanone	05-Apr-05	NR	50	67.1		ND
	15-Dec-05	NR	250	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	50.00	ND		ND
	11-Oct-07	1.00	50.0	ND		ND
	03-Apr-08	1.00	50.0	ND		ND
	28-Oct-08	1.00	50.0	ND		ND
	07-Apr-09	1.00	50.0	ND		ND
	27-Oct-09	1.57	50.0	ND		ND
	08-Apr-10	1.57	50.0	ND		ND
	13-Oct-10	1.57	50.0	ND		ND
	27-Apr-11	1.57	50.0	ND		ND
	20-Oct-11	1.57	50.0	ND		ND
	26-Apr-12	1.57	50.0	ND		ND
	16-Oct-12	1.57	50.0	4.00		ND
	11-Apr-13	1.57	50.0	ND		ND
	30-Oct-13	1.57	50.0	ND		ND
Styrene	05-Apr-05	NR	10	33.2		ND
	15-Dec-05	NR	50	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	10.00	ND		ND
	11-Oct-07	0.16	1.0	2.10		ND
	03-Apr-08	0.16	1.0	1.70		ND
	28-Oct-08	0.16	1.0	ND		ND
	07-Apr-09	0.16	1.0	2.00		ND
	27-Oct-09	0.19	1.0	1.90		ND
	08-Apr-10	0.19	1.0	7.30		ND
	13-Oct-10	0.19	1.0	5.90		ND
	27-Apr-11	0.19	1.0	11.70		ND
	20-Oct-11	0.19	1.0	10.20		ND
	26-Apr-12	0.19	1.0	6.50		ND
	16-Oct-12	0.19	1.0	2.00		ND
	11-Apr-13	0.19	1.0	11.30		ND
	30-Oct-13	0.19	1.0	8.80		ND
1,2-Dichlorobenzene	11-Oct-07	0.13	5.0	1.10	J	ND
	03-Apr-08	0.13	5.0	1.10	J	ND
	28-Oct-08	0.13	5.0	0.90	J	ND
	07-Apr-09	0.13	5.0	ND		ND
	27-Oct-09	0.32	5.0	0.80	J	ND
	08-Apr-10	0.32	5.0	ND		ND
	13-Oct-10	0.32	5.0	ND		ND
	27-Apr-11	0.32	5.0	ND		ND
	20-Oct-11	0.32	5.0	ND		ND
	26-Apr-12	0.32	5.0	0.60	J	ND
	16-Oct-12	0.32	5.0	0.40	J	ND
	11-Apr-13	0.32	5.0	ND		ND
	30-Oct-13	0.32	5.0	ND		ND

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)			
		DL	RL	Leachate	Blanks
1,4-Dichlorobenzene	05-Apr-05	NR	5	12.5	ND
	15-Dec-05	NR	25	ND	ND
	21-Apr-06	NS	NS	NS	ND
	12-Oct-06	NS	NS	NS	ND
	26-Apr-07	NR	3.00	13.40	ND
	11-Oct-07	0.21	1.0	15.70	ND
	03-Apr-08	0.21	1.0	14.90	ND
	28-Oct-08	0.21	1.0	13.40	ND
	07-Apr-09	0.21	1.0	9.60	ND
	27-Oct-09	0.39	1.0	11.90	ND
	08-Apr-10	0.39	1.0	13.10	ND
	13-Oct-10	0.39	1.0	11.30	ND
	27-Apr-11	0.39	1.0	13.90	ND
	20-Oct-11	0.39	1.0	11.80	ND
	26-Apr-12	0.39	1.0	15.30	ND
	16-Oct-12	0.39	1.0	13.20	ND
	11-Apr-13	0.39	1.0	13.80	ND
	30-Oct-13	0.39	1.0	15.10	ND
Trichloroethylene	Oct-99	NR	NA	ND	ND
	Apr-00	NR	NA	5.6	ND
	Oct-00	NR	NA	ND	ND
	Apr-01	NR	NA	ND	ND
	Oct-01	NR	5	NA	ND
	Apr-02	NR	5	NA	ND
	Apr-03	NR	25	ND	ND
	05-Apr-05	NR	25	ND	ND
	15-Dec-05	NR	25	ND	ND
	21-Apr-06	NS	NS	NS	ND
	12-Oct-06	NS	NS	NS	ND
	26-Apr-07	NR	3.00	ND	ND
	11-Oct-07	0.13	1.0	0.30 J	ND
	03-Apr-08	0.13	1.0	0.20 J	ND
	28-Oct-08	0.13	1.0	0.50 J	ND
	07-Apr-09	0.13	1.0	ND	ND
	27-Oct-09	0.23	1.0	ND	ND
	08-Apr-10	0.23	1.0	0.50 J	ND
	13-Oct-10	0.23	1.0	ND	ND
	27-Apr-11	0.23	1.0	1.40	ND
	20-Oct-11	0.23	1.0	2.60	ND
	26-Apr-12	0.23	1.0	0.60 J	ND
	16-Oct-12	NS	NS	NS	ND
	11-Apr-13	0.23	1.0	ND	ND
	30-Oct-13	0.23	1.0	ND	ND
Tetrachloroethylene	Oct-99	NR	NA	ND	ND
	Apr-00	NR	NA	22	ND
	Oct-00	NR	NA	ND	ND
	Apr-01	NR	NA	ND	ND
	Oct-01	NR	5	NA	ND
	Apr-02	NR	5	ND	ND
	Apr-03	NR	25	ND	ND
	05-Apr-05	NR	25	ND	ND
	15-Dec-05	NR	25	ND	ND
	21-Apr-06	NS	NS	NS	ND
	12-Oct-06	NS	NS	NS	ND
	26-Apr-07	NR	3.00	ND	ND
	11-Oct-07	0.16	1.0	ND	ND
	03-Apr-08	0.16	1.0	ND	ND
	28-Oct-08	0.16	1.0	ND	ND
	07-Apr-09	0.16	1.0	ND	ND
	27-Oct-09	0.17	1.0	ND	ND
	08-Apr-10	0.17	1.0	ND	ND
	13-Oct-10	0.17	1.0	ND	ND
	27-Apr-11	0.17	1.0	ND	ND
	20-Oct-11	0.17	1.0	ND	ND
	26-Apr-12	0.17	1.0	ND	ND
	16-Oct-12	NR	NR	NS	ND
	11-Apr-13	0.17	1.0	ND	ND
	30-Oct-13	0.17	1.0	ND	ND

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)					
		DL	RL	Leachate		Blanks	
Ethylbenzene	Oct-99	NR	NA	ND		ND	
	Apr-00	NR	NA	ND		ND	
	Oct-00	NR	NA	ND		ND	
	Apr-01	NR	NA	66		ND	
	Oct-01	NR	5	NA		ND	
	Apr-02	NR	5	93.8		ND	
	Apr-03	NR	25	128		ND	
	05-Apr-05	NR	25	176		ND	
	15-Dec-05	NR	25	126		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	5.00	9.50		ND	
	11-Oct-07	0.16	1.0	179.00		ND	
	03-Apr-08	0.16	1.0	160.00		ND	
	28-Oct-08	0.16	1.0	105.00		ND	
	07-Apr-09	0.16	1.0	34.60		ND	
	27-Oct-09	0.21	1.0	37.80		ND	
	08-Apr-10	0.21	1.0	113.00		ND	
	13-Oct-10	0.21	1.0	93.70		ND	
	27-Apr-11	0.21	1.0	97.60		ND	
	20-Oct-11	0.21	1.0	70.20		ND	
	26-Apr-12	0.21	1.0	80.50		ND	
	16-Oct-12	0.21	1.0	25.00		ND	
	11-Apr-13	0.21	1.0	69.10		ND	
	30-Oct-13	0.21	1.0	91.30		ND	
Methylene Chloride	Oct-99	NR	NA	32		ND	
	Apr-00	NR	NA	234		ND	
	Oct-00	NR	NA	ND		ND	
	Apr-01	NR	NA	69		ND	
	Oct-01	NR	10	NA		ND	
	Apr-02	NR	10	NA		ND	
	Apr-03	NR	50	ND		ND	
	05-Apr-05	NR	50	ND		ND	
	15-Dec-05	NR	50	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	5.00	ND		ND	
	11-Oct-07	0.14	1.0	0.30	B	0.20	J
	03-Apr-08	0.14	1.0	ND		ND	
	28-Oct-08	0.14	1.0	0.20	J	ND	
	07-Apr-09	0.14	1.0	ND		ND	
	27-Oct-09	0.64	1.0	ND		ND	
	08-Apr-10	0.64	1.0	ND		ND	
	13-Oct-10	0.64	1.0	ND		ND	
	27-Apr-11	0.64	1.0	ND		ND	
	20-Oct-11	0.64	1.0	ND		ND	
	26-Apr-12	0.64	1.0	ND		ND	
	16-Oct-12	0.61	1.0	ND		ND	
	11-Apr-13	0.64	1.0	ND		ND	
	30-Oct-13	0.64	1.0	ND		ND	
Toluene	Oct-99	NR	NA	9		ND	
	Apr-00	NR	NA	16		ND	
	Oct-00	NR	NA	ND		ND	
	Apr-01	NR	NA	251		ND	
	Oct-01	NR	5	NA		ND	
	Apr-02	NR	5	148		ND	
	Apr-03	NR	25	125		ND	
	05-Apr-05	NR	25	108		ND	
	15-Dec-05	NR	25	ND		ND	
	21-Apr-06	NS	NS	NS		ND	
	12-Oct-06	NS	NS	NS		ND	
	26-Apr-07	NR	5.00	5.60		ND	
	11-Oct-07	0.13	1.0	22.80		ND	
	03-Apr-08	0.13	1.0	20.10		ND	
	28-Oct-08	0.13	1.0	24.00		ND	
	07-Apr-09	0.13	1.0	12.00		ND	
	27-Oct-09	0.23	1.0	14.00		ND	
	08-Apr-10	0.23	1.0	23.90		ND	
	13-Oct-10	0.23	1.0	20.40		ND	
	27-Apr-11	0.23	1.0	36.40		ND	
	20-Oct-11	0.23	1.0	31.80		ND	
	26-Apr-12	0.23	1.0	13.00		ND	
	16-Oct-12	0.23	1.0	8.20		ND	
	11-Apr-13	0.23	1.0	31.50		ND	
	30-Oct-13	0.23	1.0	32.70		ND	

TABLE 14

HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)				
		DL	RL	Leachate		Blanks
1,1,1-Trichloroethane	Oct-99	NR	NA	75		ND
	Apr-00	NR	NA	29		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	ND		ND
	Oct-01	NR	5	NA		ND
	Apr-02	NR	5	NA		ND
	Apr-03	NR	25	ND		ND
	05-Apr-05	NR	25	ND		ND
	15-Dec-05	NR	25	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	5.00	ND		ND
	11-Oct-07	0.11	1.0	ND		ND
	03-Apr-08	0.11	1.0	ND		ND
	28-Oct-08	0.11	1.0	ND		ND
	07-Apr-09	0.11	1.0	ND		ND
	27-Oct-09	0.19	1.0	ND		ND
	08-Apr-10	0.19	1.0	ND		ND
	13-Oct-10	0.19	1.0	ND		ND
	27-Apr-11	0.19	1.0	ND		ND
	20-Oct-11	0.19	1.0	ND		ND
	26-Apr-12	0.19	1.0	ND		ND
	16-Oct-12	0.19	1.0	ND		ND
	11-Apr-13	0.19	1.0	ND		ND
	30-Oct-13	0.19	1.0	ND		ND
1,2,3-Trichloropropane	11-Oct-07	0.06	1.0	0.10	J	ND
	03-Apr-08	0.06	1.0	ND		ND
	28-Oct-08	0.06	1.0	ND		ND
	07-Apr-09	0.06	1.0	ND		ND
	27-Oct-09	0.43	1.0	ND		ND
	08-Apr-10	0.43	1.0	ND		ND
	13-Oct-10	0.43	1.0	ND		ND
	27-Apr-11	0.43	1.0	ND		ND
	20-Oct-11	0.43	1.0	ND		ND
	26-Apr-12	0.43	1.0	ND		ND
	16-Oct-12	0.43	1.0	ND		ND
	11-Apr-13	0.43	1.0	ND		ND
	30-Oct-13	0.43	1.0	ND		ND
1,1,2,2-Tetrachloroethane	11-Oct-07	0.16	3.0	0.30	J	ND
	03-Apr-08	0.16	3.0	ND		ND
	28-Oct-08	0.16	3.0	ND		ND
	07-Apr-09	0.16	3.0	ND		ND
	27-Oct-09	0.26	3.0	ND		ND
	08-Apr-10	0.26	3.0	ND		ND
	13-Oct-10	0.26	3.0	ND		ND
	27-Apr-11	0.26	3.0	ND		ND
	20-Oct-11	0.26	3.0	ND		ND
	26-Apr-12	0.26	3.0	0.30	J	ND
	16-Oct-12	0.26	3.0	ND		ND
	11-Apr-13	0.26	3.0	ND		ND
	30-Oct-13	0.26	3.0	ND		ND
Trichlorofluoromethane	Oct-99	NR	NA	220		ND
	Apr-00	NR	NA	37		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	10		ND
	Oct-01	NR	5	NA		ND
	Apr-02	NR	5	NA		ND
	Apr-03	NR	25	ND		ND
	05-Apr-05	NR	25	ND		ND
	15-Dec-05	NR	25	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	5.00	ND		ND
	11-Oct-07	0.13	1.0	ND		ND
	03-Apr-08	0.13	1.0	ND		ND
	28-Oct-08	0.13	1.0	ND		ND
	07-Apr-09	0.13	1.0	ND		ND
	27-Oct-09	0.24	1.0	ND		ND
	08-Apr-10	0.24	1.0	ND		ND
	13-Oct-10	0.24	1.0	ND		ND
	27-Apr-11	0.24	1.0	ND		ND
	20-Oct-11	0.24	1.0	ND		ND
	26-Apr-12	0.24	1.0	ND		ND
	16-Oct-12	0.24	1.0	ND		ND
	11-Apr-13	0.24	1.0	ND		ND
	30-Oct-13	0.24	1.0	ND		ND

TABLE 14

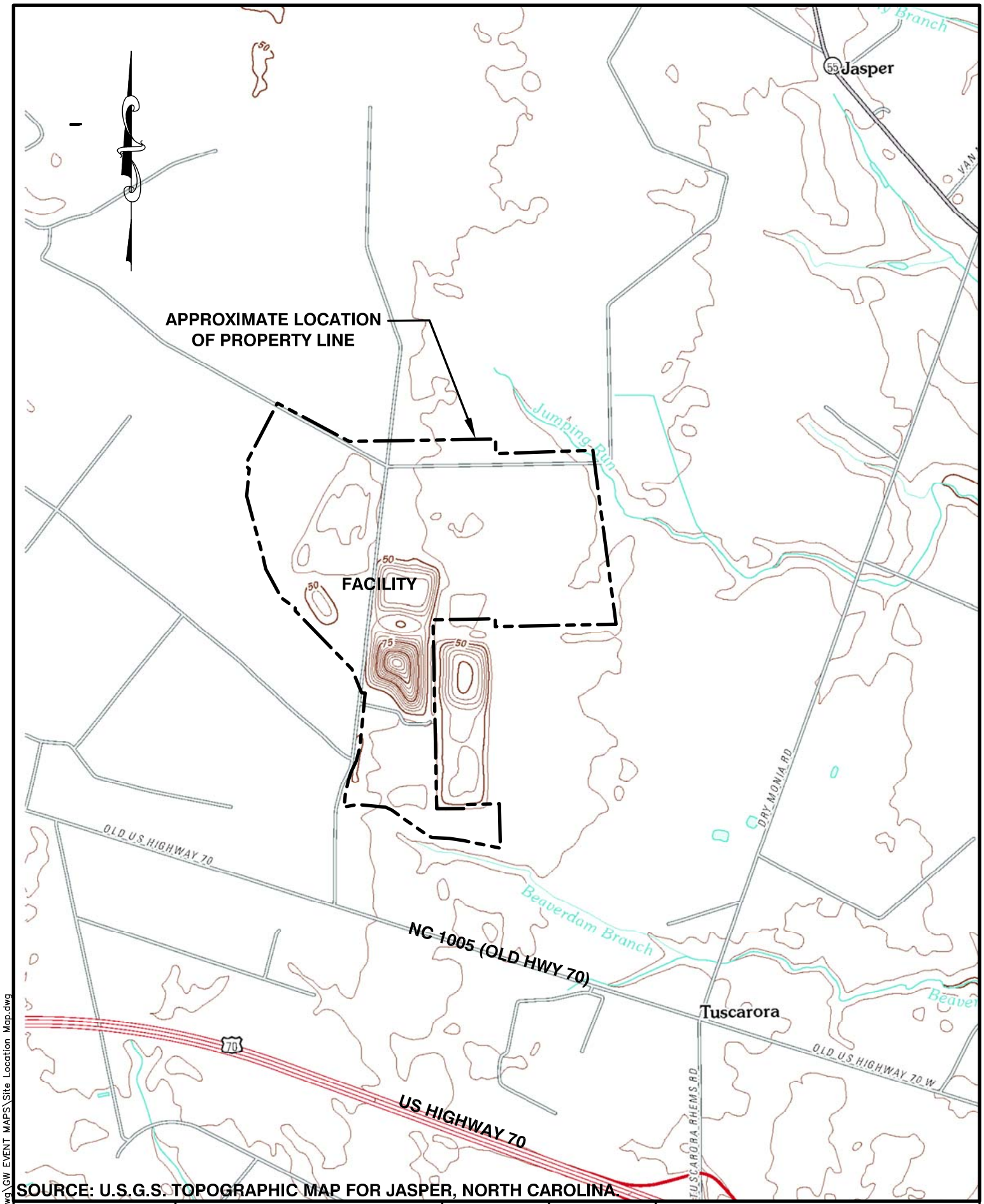
HISTORICAL DETECTIONS in LEACHATE
TUSCARORA REGIONAL LANDFILL

Constituent	Date	Concentration (ug/L)				
		DL	RL	Leachate		Blanks
Vinyl Chloride	Oct-99	NR	NA	ND		ND
	Apr-00	NR	NA	ND		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	36		ND
	Oct-01	NR	10	NA		ND
	Apr-02	NR	10	NA		ND
	Apr-03	NR	50	ND		ND
	05-Apr-05	NR	50	ND		ND
	15-Dec-05	NR	50	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	5.00	ND		ND
	11-Oct-07	0.34	1.0	1.10		ND
	03-Apr-08	0.34	1.0	ND		ND
	28-Oct-08	0.34	1.0	ND		ND
	07-Apr-09	0.34	1.0	ND		ND
	27-Oct-09	0.63	1.0	ND		ND
	08-Apr-10	0.63	1.0	ND		ND
	13-Oct-10	0.63	1.0	ND		ND
	27-Apr-11	0.63	1.0	ND		ND
	20-Oct-11	0.63	1.0	ND		ND
	26-Apr-12	0.63	1.0	ND		ND
	16-Oct-12	0.63	1.0	ND		ND
	11-Apr-13	0.63	1.0	ND		ND
	30-Oct-13	0.63	1.0	0.80	J	ND
4-Methyl-2-Pentanone	Oct-99	NR	NA	ND		ND
	Apr-00	NR	NA	116		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	471		ND
	Oct-01	NR	50	NA		ND
	Apr-02	NR	50	NA		ND
	Apr-03	NR	500	923		ND
	05-Apr-05	NR	500	2530		ND
	15-Dec-05	NR	500	ND		ND
	21-Apr-06	NS	NS	NS		ND
	12-Oct-06	NS	NS	NS		ND
	26-Apr-07	NR	100.00	ND		ND
	11-Oct-07	0.68	100.0	51.50	J	ND
	03-Apr-08	0.68	100.0	130.00		ND
	28-Oct-08	0.68	100.0	230.00		ND
	07-Apr-09	0.68	100.0	25.80	J	ND
	27-Oct-09	1.19	100.0	1.40	J	ND
	08-Apr-10	1.19	100.0	3.60	J	ND
	13-Oct-10	1.19	100.0	7.10	J	ND
	27-Apr-11	1.19	100.0	2.20	J	ND
	20-Oct-11	1.19	100.0	46.50	J	ND
	26-Apr-12	1.19	100.0	3.70	J	ND
	16-Oct-12	1.19	100.0	52.30	J	ND
	11-Apr-13	1.19	100.0	4.00	J	ND
	30-Oct-13	1.19	100.0	11.80	J	ND
Xylenes (total)	Oct-99	NR	NA	ND		ND
	Apr-00	NR	NA	ND		ND
	Oct-00	NR	NA	ND		ND
	Apr-01	NR	NA	52		ND
	Oct-01	NR	5	NA		ND
	Apr-02	NR	5	60.6		ND
	Apr-03	NR	25	102		ND
	05-Apr-05	NR	25	147		ND
	15-Dec-05	NR	25	189		ND
	21-Apr-06	NR	NS	NS		ND
	12-Oct-06	NR	NS	NS		ND
	26-Apr-07	NR	4.00	37.20		ND
	11-Oct-07	0.48	5.0	158.00		ND
	03-Apr-08	0.48	5.0	97.20		ND
	23-Oct-08	0.48	5.0	61.70		ND
	07-Apr-09	0.48	5.0	33.20		ND
	27-Oct-09	0.68	5.0	36.00		ND
	08-Apr-10	0.68	5.0	55.40		ND
	13-Oct-10	0.68	5.0	51.20		ND
	27-Apr-11	0.68	5.0	90.90		ND
	20-Oct-11	0.68	5.0	64.50		ND
	26-Apr-12	0.68	5.0	29.60		ND
	16-Oct-12	0.68	5.0	36.50		ND
	11-Apr-13	0.68	5.0	55.90		ND
	30-Oct-13	0.68	5.0	52.00		ND

Notes:
1. All concentrations are in µg/L.
2. RL = Laboratory reporting limit (NC SWSL or lower from October 2007 to present)
3. ND = Not detected above reporting limit
4. J = Estimated value between the DL and the QL
5. B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks
6. DL = Laboratory detection limit
7. NA = Data not available.
8. NS = Not sampled.
9. NR = Not Reported.

Figure

Figure No. 1 Site Location Map



SOURCE: U.S.G.S. TOPOGRAPHIC MAP FOR JASPER, NORTH CAROLINA.

FIGURE NO. 1	JOYCE ENGINEERING	2211 WEST MEADOWVIEW ROAD GREENSBORO, N.C. 27407 PHONE: (336) 323-0092 © 2014 Joyce Engineering, Inc. All rights reserved.	SCALE 1"=2000'	PROJECT NO. 618.1301.12	CRSWMA: TUSCARORA LANDFILLS SITE LOCATION MAP

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Drawings

Drawing No. 1 Shallow Aquifer Potentiometric Surface Contour Map
Drawing No. 2 Deep Aquifer Potentiometric Surface Contour Map

LEGEND

POINT IN TIME GROUNDWATER CONTOUR (APPROXIMATE) 1 FT. CONTOUR INTERVAL	46
GROUNDWATER FLOW PATHWAY USED TO CALCULATE HYDRAULIC GRADIENT	
SEGMENT USED FOR GRADIENT CALCULATION	i_1
GROUNDWATER MONITORING WELL LOCATION, IDENTIFICATION, AND GROUNDWATER ELEVATION	MW-10 40.78
SURFACE WATER MONITORING LOCATIONS AND IDENTIFICATIONS	SWPT-1
LEACHATE MONITORING LOCATION AND IDENTIFICATION	LEACHATE MANHOLE
NOT MONITORED	NM
EXISTING 10 FT CONTOUR	45
EXISTING 2 FT CONTOUR	
GRAVEL ROAD	
PAVED ROAD	
EDGE OF LINER	

SEGMENT LENGTH

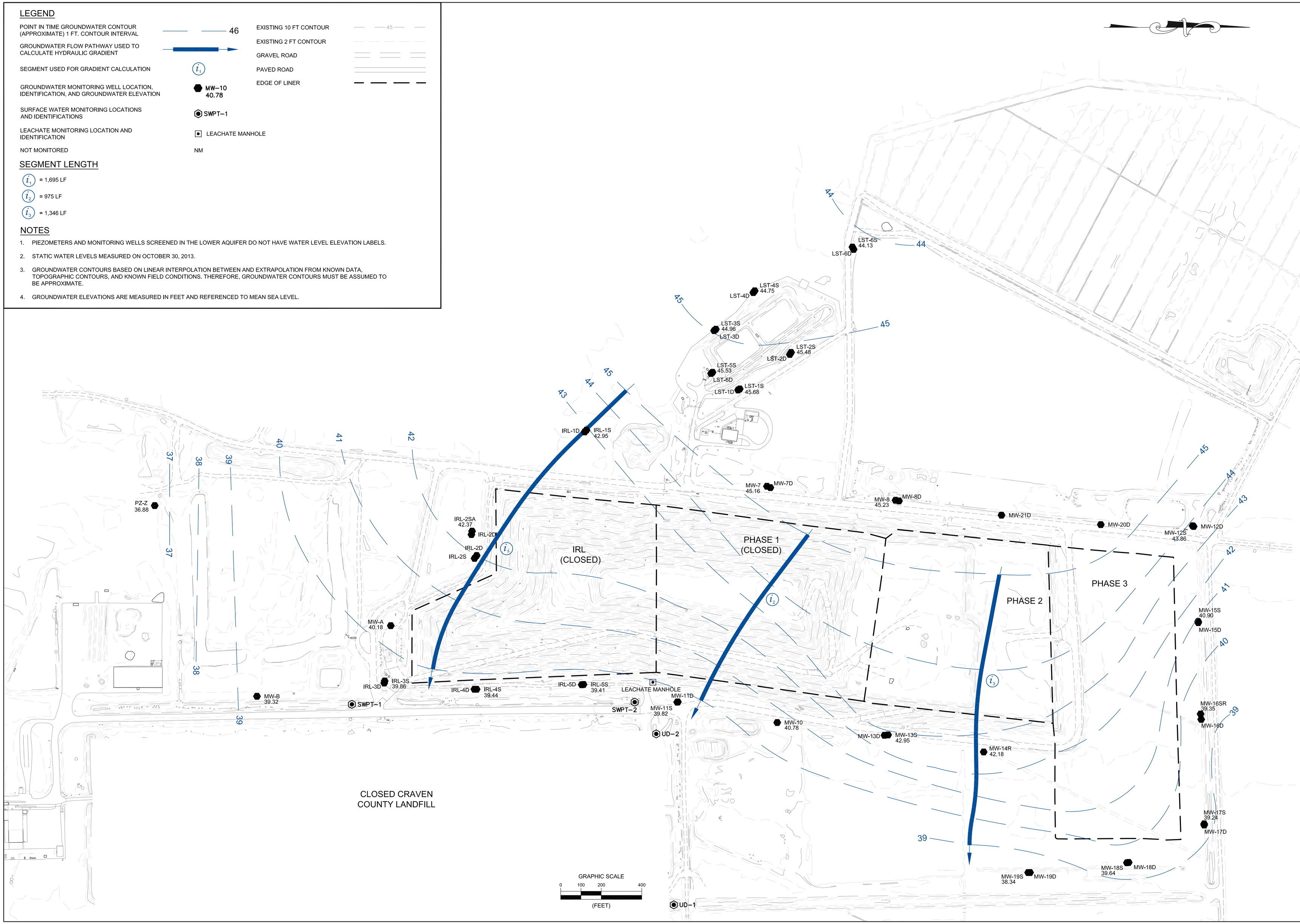
i_1 = 1,695 LF

i_2 = 975 LF

i_3 = 1,346 LF

NOTES

1. PIEZOMETERS AND MONITORING WELLS SCREENED IN THE LOWER AQUIFER DO NOT HAVE WATER LEVEL ELEVATION LABELS.
2. STATIC WATER LEVELS MEASURED ON OCTOBER 30, 2013.
3. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MUST BE ASSUMED TO BE APPROXIMATE.
4. GROUNDWATER ELEVATIONS ARE MEASURED IN FEET AND REFERENCED TO MEAN SEA LEVEL.



NO	BY	CK	APP

REVISIONS AND RECORD OF ISSUE

DATE

DESIGNED DSG
DRAWN RWH
CHECKED DSG
APPROVED TLH
DATE 12/17/13

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JOYCE ENGINEERING
2211 W. MEADOWVIEW ROAD
GREENSBORO, NC 27407
PHONE: (336) 323-0092
NC CORP LIC: C-0782

CRSWMA: TUSCARORA LANDFILL
TUSCARORA, NORTH CAROLINA

SHALLOW AQUIFER POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 30, 2013

PROJECT NO.
618.1301.12.01

SCALE
AS NOTED

DRAWING NO.
1

L:\CRSWMA\dwg\GW EVENT MAPS\CRSWMA GW Event shallow Aquife rOCTOBER 2013.dwg LayoutrLayout1

LEGEND

POINT IN TIME GROUNDWATER CONTOUR (APPROXIMATE) 1 FT. CONTOUR INTERVAL	30
GROUNDWATER FLOW PATHWAY USED TO CALCULATE HYDRAULIC GRADIENT	
SEGMENT USED FOR GRADIENT CALCULATION	i_1
GROUNDWATER MONITORING WELL LOCATION, IDENTIFICATION, AND GROUNDWATER ELEVATION	MW-20D 24.39
SURFACE WATER MONITORING LOCATIONS AND IDENTIFICATIONS	SWPT-1
LEACHATE MONITORING LOCATION AND IDENTIFICATION	LEACHATE MANHOLE
NOT MONITORED	NM
EXISTING 10 FT CONTOUR	45
EXISTING 2 FT CONTOUR	
GRAVEL ROAD	
PAVED ROAD	
EDGE OF LINER	

SEGMENT LENGTH

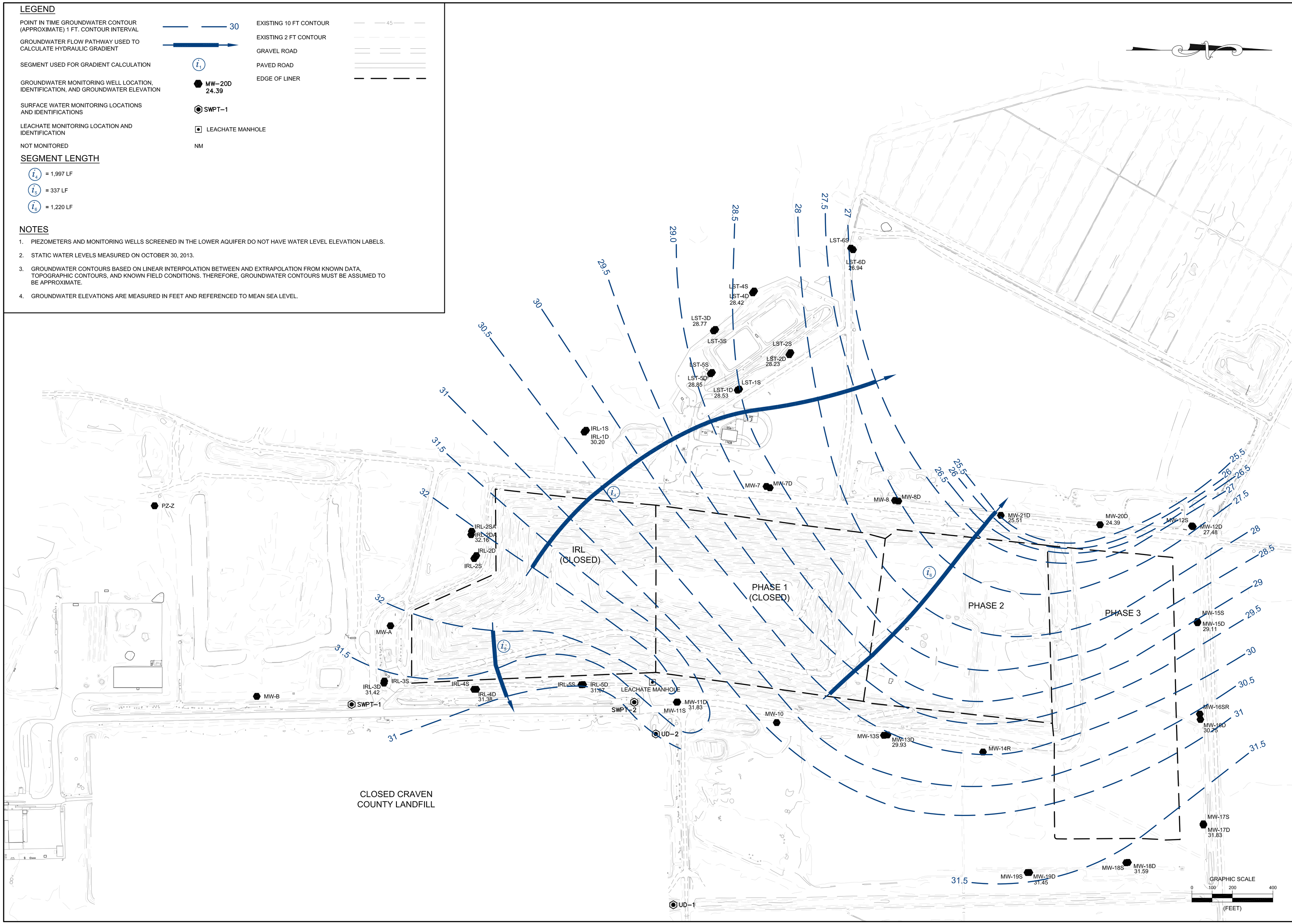
i_4 = 1,997 LF

i_5 = 337 LF

i_6 = 1,220 LF

NOTES

1. PIEZOMETERS AND MONITORING WELLS SCREENED IN THE LOWER AQUIFER DO NOT HAVE WATER LEVEL ELEVATION LABELS.
2. STATIC WATER LEVELS MEASURED ON OCTOBER 30, 2013.
3. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MUST BE ASSUMED TO BE APPROXIMATE.
4. GROUNDWATER ELEVATIONS ARE MEASURED IN FEET AND REFERENCED TO MEAN SEA LEVEL.



DATE	REVISIONS AND RECORD OF ISSUE	NO	BY	CK	APP

DESIGNED	DSG
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CHECKED	VB
APPROVED	TLH
DATE	12/17/13

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PHONE: (336) 323-0092
NC CORP LIC: C-0782

CRSWMA: TUSCARORA LANDFILL
TUSCARORA, NORTH CAROLINA

DEEP AQUIFER POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 30, 2013

PROJECT NO.
618.1301.12.01

SCALE
AS NOTED

DRAWING NO.
2

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Appendix

Appendix 1 Laboratory Analytical Reports and Field Data

Appendix 1

Laboratory Analytical Reports and Field Data

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#: 6035

CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	LST1S	LST1D	LST2S	LST2D	LST3S	Analysis Date	Analyst	Method Code
PH (field measurement), Units			4.8	6.9	5.0		4.8	10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.11 J	0.80 J	0.19 J		0.14 J	11/01/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.57 J	0.90 J	0.74 J		0.50 J	11/01/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	37.3 J	47.8 J	32.6 J		68.7 J	11/01/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.24 J	0.13 J	0.25 J		0.32 J	11/01/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.05 J	0.17 J	0.17 J		0.23 J	11/01/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.32 J	0.40 J	0.42 J		3.2 J	11/01/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.97 J	0.85 J	1.3 J		1.1 J	11/01/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	2.9 J	0.67 J	3.3 J		2.5 J	11/01/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	2.8 J	0.51 J	2.6 J		2.5 J	11/01/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	0.93 J	2.1 J	1.0 J		4.0 J	11/01/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.42 J	0.43 J	0.49 J		0.28 J	11/01/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	0.05 J	--- U		--- U	11/01/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.08 J	0.10 J	0.07 J		0.06 J	11/01/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	4.3 J	0.70 J	4.5 J		2.9 J	11/01/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	6.2 J	5.4 J	6.1 J		26	11/01/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	60.0	80.0	80.0		50.0	10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	59	492	73		92	10/30/13	BF	2510B-97
Temperature, °C			21	19	21		20	10/30/13	BF	2550B-00
Static Water Level, feet			5.24	22.39	5.52	22.71	7.21	10/30/13	BF	
Well Depth, feet			15.04	34.86	14.45	33.29	17.65	10/30/13	BF	

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#: 6035

CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	LST3D	LST4S	LST4D	LST5S	LST5D	Analysis Date	Analyst	Method Code
PH (field measurement), Units				4.7		6.4	6.8	10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0		0.14 J		0.86 J	0.43 J	11/01/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0		3.5 J		2.1 J	1.3 J	11/01/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0		74.9 J		31.1 J	85.0 J	11/01/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0		0.58 J		0.12 J	0.22 J	11/01/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0		0.32 J		0.28 J	0.15 J	11/01/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0		2.4 J		0.27 J	0.33 J	11/01/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0		2.9 J		1.6 J	0.86 J	11/01/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0		11		6.0 J	0.85 J	11/01/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0		11		4.4 J	0.55 J	11/01/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0		3.6 J		1.6 J	2.2 J	11/01/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0		1.0 J		0.51 J	0.59 J	11/01/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0		--- U		--- U	--- U	11/01/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5		0.18 J		0.06 J	--- U	11/01/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0		15.3 J		9.8 J	0.55 J	11/01/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0		20		12	6.6 J	11/01/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0		340		240	100	10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0		61		150	568	10/30/13	BF	2510B-97
Temperature, °C				20		22	20	10/30/13	BF	2550B-00
Static Water Level, feet			23.10	6.63	23.14	6.84	23.42	10/30/13	BF	
Well Depth, feet			34.85	17.62	36.12	15.41	38.66	10/30/13	BF	

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#: 6035

CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	LST6S	LST6D	Trip Blank	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.1			10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.10 J			11/01/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.57 J			11/01/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	50.8 J			11/01/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.19 J			11/01/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	--- U			11/01/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.43 J			11/01/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.6 J			11/01/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	4.3 J			11/01/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	3.8 J			11/01/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.1 J			11/01/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.36 J			11/01/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U			11/01/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.08 J			11/01/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	5.5 J			11/01/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	28			11/01/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	100			10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	51			10/30/13	BF	2510B-97
Temperature, °C			21			10/30/13	BF	2550B-00
Static Water Level, feet			7.10	24.23		10/30/13	BF	
Well Depth, feet			16.44	34.37		10/30/13	BF	

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: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6035

ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/04/13
DATE REPORTED: 11/26/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	LST1S	LST1D	LST2S	LST3S	LST4S
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	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	0.40 J	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6035

ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/04/13
DATE REPORTED: 11/26/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	LST5S	LST5D	LST6S	Trip Blank
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	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U
25. Cis-1,3-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

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

Environment 1, Incorporated

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

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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6035

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/04/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6035

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/04/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	99.5	101	101
Laboratory Control std.	70-130	101	101	100
Method Blank	70-130	99.1	100	96.3
LST1S	70-130	102	101	98.3
LST1D	70-130	100	101	98.3
LST2S	70-130	99.3	101	97.2
LST3S	70-130	99.2	102	99.6
LST4S	70-130	99.8	100	98.0
LST5S	70-130	101	102	98.6
LST5D	70-130	99.6	99.6	98.0
LST6S	70-130	99.3	99.1	96.4
Trip Blank	70-130	101	101	100
LST1S M.S.	70-130	100	99.5	99.7
LST1S M.S.D.	70-130	99.0	99.3	101

Environment 1, Incorporated

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

PHONE (252) 756-6208
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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6035

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/04/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: LST1S (6035)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	19.42	97.1	18.81	94.1	3.2
Benzene	20.0	--- U	19.23	96.2	18.10	90.5	6.1
Trichloroethene	20.0	--- U	19.40	97.0	18.01	90.1	7.0
Toluene	20.0	--- U	19.42	97.1	18.80	94.0	3.2
Chlorobenzene	20.0	--- U	19.07	95.4	18.21	91.1	4.6

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	15.87	79.4
Benzene	20.00	15.59	78.0
Trichloroethene	20.00	15.68	78.4
Toluene	20.00	15.53	77.7
Chlorobenzene	20.00	15.40	77.0

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6035 **Week: 46**

CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	8260 Dup. 3
CHLORINE NEUTRALIZED AT COLLECTION															
pH CHECK (LAB)							12					12	12	12	12
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E	E
LST1S	10-30-13	1225		21	7	G	G	G	G	G	G	G	G	G	G
LST1D	10-30-13	1230		19	5	G	G	G	G	G	G	G	G		
LST2S	10-30-13	1215		21	5	G	G	G	G	G	G	G	G		
LST2D	10-30-13				1						G				
LST3S	10-30-13	1200		20	5	G	G	G	G	G	G	G	G		
LST3D	10-30-13				1						G				
LST4S	10-30-13	1205		20	5	G	G	G	G	G	G	G	G		
LST4D	10-30-13				1						G				
LST5S	10-30-13	1235		22	5	G	G	G	G	G	G	G	G		
LST5D	10-30-13	1240		20	5	G	G	G	G	G	G	G	G		
LST6S	10-30-13	1155		21	6	G	G	G	G	G	G	G	G	G	

PARAMETERS

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	10-30-13 1410	[signature]	10/30/13 221
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.

№ 271777

FORM #5

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6035 **Week:** 46

CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	8260 Dup. 3
												1,2,2,2			
						P	P	P	P	P		G	G	G	G
						A	A	A	A	A		E	E	E	E
LST6D	10-30-13				1						C				
Trip Blank	10-30-13				3							C	C	C	

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS

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 Fox

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bobby Fox	10-30-13 1410	[signature]	10/30/13 2221
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.

№ 271776

FORM #5

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#: 6036

CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	IRL1S	IRL1D	IRL2SA	IRL2DA	IRL3S	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.1	6.3			6.1	10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.21 J	0.40 J			0.36 J	11/01/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.77 J	1.4 J			0.74 J	11/01/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	166	39.7 J			42.5 J	11/01/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.68 J	0.12 J			0.07 J	11/01/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.97 J	0.12 J			0.07 J	11/01/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	1.1 J	0.37 J			0.33 J	11/01/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	2.6 J	1.4 J			0.52 J	11/01/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	3.9 J	1.1 J			1.1 J	11/01/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	4.7 J	0.94 J			0.66 J	11/01/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.9 J	1.4 J			3.0 J	11/01/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.50 J	0.38 J			2.2 J	11/01/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	0.04 J			--- U	11/01/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.07 J	0.08 J			--- U	11/01/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	5.8 J	1.0 J			2.0 J	11/01/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	15	6.9 J			5.1 J	11/01/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	110	40.0			50.0	10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	113	170			731	10/30/13	BF	2510B-97
Temperature, °C			20	19			21	10/30/13	BF	2550B-00
Static Water Level, feet			7.61	19.99	9.00	19.42	9.16	10/30/13	BF	
Well Depth, feet			17.72	43.96	17.78	30.99	16.34	10/30/13	BF	

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#: 6036

CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	IRL3D	IRL4S	IRL4D	IRL5S	IRL5D	Analysis Date	Analyst	Method Code
PH (field measurement), Units			6.9	5.2	6.9	6.2		10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.79 J	0.09 J	0.17 J	0.12 J		11/01/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	--- U	2.3 J	0.14 J	3.6 J		11/01/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	40.7 J	90.5 J	43.9 J	94.4 J		11/01/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.16 J	0.34 J	0.12 J	--- U		11/01/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.10 J	0.55 J	0.14 J	0.26 J		11/01/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.21 J	2.8 J	0.24 J	0.79 J		11/01/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.63 J	0.85 J	0.51 J	1.4 J		11/01/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	1.9 J	2.9 J	1.4 J	0.32 J		11/01/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.64 J	1.7 J	0.22 J	0.33 J		11/01/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.1 J	4.2 J	2.2 J	5.6 J		11/01/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.28 J	1.7 J	0.17 J	3.4 J		11/01/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	--- U	--- U	0.07 J		11/01/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	--- U	0.05 J	--- U	--- U		11/01/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	1.9 J	3.7 J	1.3 J	1.2 J		11/01/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	3.3 J	11	3.8 J	112		11/01/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	180	55.0	65.0	50.0		10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	588	569	572	1110		10/30/13	BF	2510B-97
Temperature, °C			20	21	19	21		10/30/13	BF	2550B-00
Static Water Level, feet			17.51	8.90	16.97	9.37	17.59	10/30/13	BF	
Well Depth, feet			38.50	14.98	34.19	14.61	35.51	10/30/13	BF	

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#: 6036

CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	MWA	MWB	Piezometer #1	Trip Blank	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.3				10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.31 J				11/01/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	5.0 J				11/01/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	39.5 J				11/01/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.18 J				11/01/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.17 J				11/01/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.35 J				11/01/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.4 J				11/01/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	1.1 J				11/01/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.65 J				11/01/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	1.3 J				11/01/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	1.3 J				11/01/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	0.05 J				11/01/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.20 J				11/01/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	1.4 J				11/01/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	6.1 J				11/01/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	39.0				10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	101				10/30/13	BF	2510B-97
Temperature, °C			21				10/30/13	BF	2550B-00
Static Water Level, feet			5.86	9.58	12.64		10/30/13	BF	
Well Depth, feet			20.46				10/30/13	BF	

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: CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036
ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE REPORTED: 11/26/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/1	MDL	SWSL	Date Analyzed: 11/04/13 IRL1S	11/04/13 IRL1D	11/04/13 IRL3S	11/04/13 IRL3D	11/04/13 IRL4S
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	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036
ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE REPORTED: 11/26/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	11/05/13 IRL4D	11/05/13 IRL5S	11/05/13 MWA	11/05/13 Trip Blank
	Date Analyzed:					
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	10.30 J	--- 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	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U
25. Cis-1,3-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

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

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
INTERIM REGIONAL LANDFILL
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/04/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
INTERIM REGIONAL LANDFILL
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/05/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
INTERIM REGIONAL LANDFILL
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/04/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	99.5	101	101
Laboratory Control std.	70-130	101	101	100
Method Blank	70-130	99.1	100	96.3
IRL1S	70-130	97.4	100	98.1
IRL1D	70-130	99.6	100	99.2
IRL3S	70-130	99.5	100	99.2
IRL3D	70-130	99.8	98.9	96.6
IRL4S	70-130	99.3	99.5	96.8
LST1S M.S.	70-130	100	99.5	99.7
LST1S M.S.D.	70-130	99.0	99.3	101

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
INTERIM REGIONAL LANDFILL
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/05/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	100	101	99.4
Laboratory Control std.	70-130	100	101	100
Method Blank	70-130	100	101	99.3
IRL4D	70-130	99.8	101	99.5
IRL5S	70-130	99.1	101	96.9
MWA	70-130	99.9	99.5	98.4
Trip Blank	70-130	99.3	100	96.2
IRL5S M.S.	70-130	98.2	100	98.6
IRL5S M.S.D.	70-130	99.8	102	99.2

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
INTERIM REGIONAL LANDFILL
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/04/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: LST1S (6035)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	19.42	97.1	18.81	94.1	3.2
Benzene	20.0	--- U	19.23	96.2	18.10	90.5	6.1
Trichloroethene	20.0	--- U	19.40	97.0	18.01	90.1	7.0
Toluene	20.0	--- U	19.42	97.1	18.80	94.0	3.2
Chlorobenzene	20.0	--- U	19.07	95.4	18.21	91.1	4.6

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	15.87	79.4
Benzene	20.00	15.59	78.0
Trichloroethene	20.00	15.68	78.4
Toluene	20.00	15.53	77.7
Chlorobenzene	20.00	15.40	77.0

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
INTERIM REGIONAL LANDFILL
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/05/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: IRL5S (6036)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	16.52	82.6	18.01	90.1	8.6
Benzene	20.0	--- U	17.86	89.3	18.12	90.6	1.4
Trichloroethene	20.0	--- U	17.85	89.3	18.24	91.2	2.2
Toluene	20.0	--- U	17.80	89.0	18.04	90.2	1.3
Chlorobenzene	20.0	--- U	17.61	88.1	17.79	89.0	1.0

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	20.21	101
Benzene	20.00	19.93	99.7
Trichloroethene	20.00	20.58	103
Toluene	20.00	20.49	102
Chlorobenzene	20.00	20.11	101

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6036 **Week:** 46

CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)							✓2					✓2	✓2	✓2
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION (A - NONE, B - HNO_3, C - H_2SO_4, D - NAOH, E - HCL, F - ZINC ACETATE/NAOH, G - NA THIOSULFATE)						A	A	A	A	A		E	E	E
PARAMETERS														
IRL1S	10-30-13	1255		20	6	G	G	G	G	G	G	G	G	G
IRL1D	10-30-13	1250		19	5	G	G	G	G	G	G	G	G	
IRL2SA	10-30-13				1						G			
IRL2DA	10-30-13				1						G			
IRL3S	10-30-13	0925		21	5	G	G	G	G	G	G	G	G	
IRL3D	10-30-13	0920		20	5	G	G	G	G	G	G	G	G	
IRL4S	10-30-13	0935		21	5	G	G	G	G	G	G	G	G	
IRL4D	10-30-13	0930		19	5	G	G	G	G	G	G	G	G	
IRL5S	10-30-13	0940		21	6	G	G	G	G	G	G	G	G	G
IRL5D	10-30-13				1						G			
MWA	10-30-13	1300		21	5	G	G	G	G	G	G	G	G	

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	10-30-13 1410	[signature]	10/30/13 221
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.

№ 271775

FORM #5

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6036 **Week: 46**

CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)												2	12	
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E
MWB	10-30-13	8:00			1						G			
Piezometer #1	10-30-13	8:15			1						G			
Trip Blank	10-30-13	8:15			2							G	G	

PARAMETERS

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 Tox	10-30-13 1410	[signature]	10/30/13 221
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

№ 271774

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#: 6039

CRSWMA TUSCARORA REGIONAL LF (2509)
SURFACE WATER
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	SWPT1	SWPT2	UD1	UD2	Trip Blank	Analysis Date	Analyst	Method Code
PH (field measurement), Units			7.6	7.3	7.6	6.8		10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.18 J	0.12 J				11/05/13	LFJ	EPA200.8
Antimony, ug/l	0.02	6.0			0.10 J	0.08 J		11/01/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	1.1 J	1.1 J				11/05/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0			1.4 J	0.66 J		11/01/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	46.8 J	55.4 J				11/05/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0			53.2 J	58.2 J		11/01/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.04 J	--- U				11/05/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0			--- U	--- U		11/01/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.05 J	--- U				11/05/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0			--- U	0.08 J		11/01/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.48 J	0.56 J				11/05/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0			0.36 J	0.35 J		11/01/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.53 J	0.71 J				11/05/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0			0.63 J	0.38 J		11/01/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.25 J	0.33 J				11/05/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0			0.25 J	--- U		11/01/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.20 J	0.09 J				11/05/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0			0.16 J	0.03 J		11/01/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	3.6 J	4.6 J				11/05/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0			3.3 J	4.4 J		11/01/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.93 J	1.2 J				11/05/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0			1.8 J	1.1 J		11/01/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	0.04 J	--- U				11/05/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0			--- U	--- U		11/01/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.28 J	0.10 J				11/05/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5			--- U	--- U		11/01/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	0.52 J	0.70 J				11/05/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0			0.80 J	0.10 J		11/01/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	73	3.2 J				11/05/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0			38	2.8 J		11/01/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	9.70	11.0	8.30	40.0		10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	821	935	758	924		10/30/13	BF	2510B-97
Temperature, °C			17	16	16	16		10/30/13	BF	2550B-00

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: CRSWMA TUSCARORA REGIONAL LF (2509)
SURFACE WATER
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6039
ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE REPORTED: 11/26/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	11/05/13 SWPT1	11/05/13 SWPT2	11/05/13 UD1	11/05/13 UD2	11/07/13 Trip Blank
	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	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
SURFACE WATER
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6039

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/05/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
SURFACE WATER
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6039

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LANDFILL (2509)
SURFACE WATER
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6039

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/05/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	100	101	99.4
Laboratory Control std.	70-130	100	101	100
Method Blank	70-130	100	101	99.3
SWPT1	70-130	99.3	100	99.3
SWPT2	70-130	101	101	97.7
UD1	70-130	101	100	97.0
UD2	70-130	101	101	98.0
IRL5S M.S.	70-130	98.2	100	98.6
IRL5S M.S.D.	70-130	99.8	102	99.2

Environment 1, Incorporated

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

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CLIENT: CRSWMA TUSCARORA REGIONAL LANDFILL (2509)
SURFACE WATER
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6039
ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	96.2	99.6	97.4
Laboratory Control std.	70-130	96.1	101	98.8
Method Blank	70-130	97.8	102	98.7
Trip Blank	70-130	98.2	102	97.6
MW7 M.S.	70-130	97.3	102	99.2
MW7 M.S.D.	70-130	98.1	101	98.5

Environment 1, Incorporated

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GREENVILLE, N.C. 27835-7085

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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
SURFACE WATER
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6039

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/05/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: IRL5S (6036)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	16.52	82.6	18.01	90.1	8.6
Benzene	20.0	--- U	17.86	89.3	18.12	90.6	1.4
Trichloroethene	20.0	--- U	17.85	89.3	18.24	91.2	2.2
Toluene	20.0	--- U	17.80	89.0	18.04	90.2	1.3
Chlorobenzene	20.0	--- U	17.61	88.1	17.79	89.0	1.0

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	20.21	101
Benzene	20.00	19.93	99.7
Trichloroethene	20.00	20.58	103
Toluene	20.00	20.49	102
Chlorobenzene	20.00	20.11	101

Environment 1, Incorporated

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GREENVILLE, N.C. 27835-7085

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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
SURFACE WATER
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6039

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
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REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: MW7 (6044)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	19.53	97.7	19.20	96.0	1.7
Benzene	20.0	--- U	19.32	96.6	18.55	92.8	4.1
Trichloroethene	20.0	--- U	19.83	99.2	18.97	94.9	4.4
Toluene	20.0	--- U	18.86	94.3	18.23	91.2	3.4
Chlorobenzene	20.0	--- U	18.59	93.0	18.10	90.5	2.7

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	19.29	96.5
Benzene	20.00	19.03	95.2
Trichloroethene	20.00	19.07	95.4
Toluene	20.00	19.25	96.3
Chlorobenzene	20.00	19.01	95.1

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6039 **Week:** 46

CRSWMA TUSCARORA REGIONAL LF (2509)
SURFACE WATER
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1
CHLORINE NEUTRALIZED AT COLLECTION												
pH CHECK (LAB)							✓				✓	✓
CONTAINER TYPE, P/G						P	P	P	P	P	G	G
CHEMICAL PRESERVATION						A	A	A	A	A	E	E
SWPT1	10-30-13	0910		17	4	G	G	G	G	G	G	G
SWPT2	10-30-13	0950		16	4	G	G	G	G	G	G	G
UD1	10-30-13	1015		16	4	G	G	G	G	G	G	G
UD2	10-30-13	0955		16	4	G	G	G	G	G	G	G
Trip Blank	10-30-13				2						G	G

PARAMETERS

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	10-30-13 1410	[signature]	10/30/13 222
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.

№ 271773

FORM #5

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#: 6043

CRSWMA TUSCARORA REGIONAL LF (2509)
BLANKS
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	Equipment Blank	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.02	6.0	0.08 J	11/05/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.20 J	11/05/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	0.24 J	11/05/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.04 J	11/05/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	--- U	11/05/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.05 J	11/05/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.2 J	11/05/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.11 J	11/05/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.08 J	11/05/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	--- U	11/05/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	--- U	11/05/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	0.05 J	11/05/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.13 J	11/05/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	--- U	11/05/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	3.2 J	11/05/13	LFJ	EPA200.8

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
BLANKS
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6043

ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/26/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

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

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

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
BLANKS
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6043

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LANDFILL (2509)
BLANKS
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6043

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	96.2	99.6	97.4
Laboratory Control std.	70-130	96.1	101	98.8
Method Blank	70-130	97.8	102	98.7
Equipment Blank	70-130	97.9	102	97.4
MW7 M.S.	70-130	97.3	102	99.2
MW7 M.S.D.	70-130	98.1	101	98.5

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
BLANKS
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6043

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: MW7 (6044)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	19.53	97.7	19.20	96.0	1.7
Benzene	20.0	--- U	19.32	96.6	18.55	92.8	4.1
Trichloroethene	20.0	--- U	19.83	99.2	18.97	94.9	4.4
Toluene	20.0	--- U	18.86	94.3	18.23	91.2	3.4
Chlorobenzene	20.0	--- U	18.59	93.0	18.10	90.5	2.7

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	19.29	96.5
Benzene	20.00	19.03	95.2
Trichloroethene	20.00	19.07	95.4
Toluene	20.00	19.25	96.3
Chlorobenzene	20.00	19.01	95.1

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6043 **Week: 46**

CRSWMA TUSCARORA REGIONAL LF (2509)
BLANKS
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Metals	EPA 8260B	8260 Dup. 1
						2	2	2
						P	G	G
						A	E	E
Equipment Blank	10-30-13	0925			3	G	G	G

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS

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	10-30-13 1410	[illegible]	10/30/13 2:22
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.

№ 271772

FORM #5

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#: 6044

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW7	MW8	MW10	MW11S	MW11D	Analysis Date	Analyst	Method Code
PH (field measurement), Units			6.3	4.9	5.1	4.6	6.9	10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.24 J	0.12 J	0.10 J	0.13 J	0.38 J	11/05/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.93 J	2.0 J	2.8 J	0.58 J	0.19 J	11/05/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	45.3 J	113	57.0 J	27.1 J	34.7 J	11/05/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.11 J	0.62 J	0.31 J	2	0.12 J	11/05/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.58 J	0.16 J	0.05 J	0.28 J	0.17 J	11/05/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.35 J	1.1 J	0.63 J	1.4 J	0.10 J	11/05/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.8 J	1.7 J	1.4 J	2.4 J	1.3 J	11/05/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	2.6 J	2.6 J	1.4 J	1.2 J	0.07 J	11/05/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	1.7 J	2.8 J	1.4 J	1.9 J	0.11 J	11/05/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.2 J	2.1 J	1.5 J	4.6 J	1.3 J	11/05/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.62 J	0.16 J	0.87 J	0.70 J	--- U	11/05/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	--- U	--- U	--- U	--- U	11/05/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.08 J	0.07 J	0.04 J	0.04 J	--- U	11/05/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	4.2 J	6.6 J	3.1 J	1.7 J	0.67 J	11/05/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	10	11	7.3 J	11	5.6 J	11/05/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	80.0	80.0	70.0	37.0	50.0	10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	434	86	133	710	493	10/30/13	BF	2510B-97
Temperature, °C			21	21	21	21	20	10/30/13	BF	2550B-00
Static Water Level, feet			5.53	5.71	6.54	7.85	15.72	10/30/13	BF	
Well Depth, feet			16.59	15.62	15.95	14.04	34.42	10/30/13	BF	

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#: 6044

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW12S	MW12D	MW13S	MW13D	MW14R	Analysis Date	Analyst	Method Code
PH (field measurement), Units			4.7	6.5	5.3	7.0	6.1	10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.15 J	0.94 J	0.24 J	0.50 J	0.25 J	11/05/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.46 J	1.4 J	1.2 J	0.28 J	4.9 J	11/05/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	36.5 J	37.5 J	70.0 J	35.2 J	67.3 J	11/05/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.21 J	0.12 J	0.40 J	--- U	0.08 J	11/05/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.08 J	0.52 J	0.36 J	0.08 J	0.69 J	11/05/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.87 J	0.31 J	0.66 J	0.14 J	0.88 J	11/05/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.6 J	1.4 J	1.3 J	1.3 J	0.73 J	11/05/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.20 J	1.1 J	0.55 J	0.12 J	0.89 J	11/05/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.16 J	0.61 J	0.36 J	0.25 J	1.0 J	11/05/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	1.6 J	2.1 J	1.5 J	1.8 J	9.5 J	11/05/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.52 J	0.18 J	1.2 J	--- U	2.4 J	11/05/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	0.03 J	--- U	0.04 J	--- U	0.03 J	11/05/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.23 J	0.02 J	0.12 J	--- U	0.06 J	11/05/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	0.38 J	1.7 J	0.88 J	0.91 J	2.2 J	11/05/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	9.0 J	5.1 J	9.8 J	6.8 J	6.1 J	11/05/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	14.0	45.0	34.0	60.0	230	10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	101	514	168	455	1283	10/30/13	BF	2510B-97
Temperature, °C			21	19	20	19	20	10/30/13	BF	2550B-00
Static Water Level, feet			8.26	24.42	3.26	16.00	4.80	10/30/13	BF	
Well Depth, feet			17.99	36.03	17.74	34.31	17.37	10/30/13	BF	

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: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044

ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE REPORTED: 11/26/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	Date Analyzed: 11/07/13 MW7	11/07/13 MW8	11/07/13 MW10	11/07/13 MW11S	11/11/13 MW11D
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	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044
ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE REPORTED: 11/26/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	11/11/13 MW12S	11/11/13 MW12D	11/11/13 MW13S	11/11/13 MW13D	11/11/13 MW14R
	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	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044
ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE REPORTED: 11/26/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

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

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

Environment 1, Incorporated

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

PHONE (252) 756-6208
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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LANDFILL (2509)
PHASE 1 AND 2
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	96.2	99.6	97.4
Laboratory Control std.	70-130	96.1	101	98.8
Method Blank	70-130	97.8	102	98.7
MW7	70-130	96.6	101	97.7
MW8	70-130	96.6	100	97.1
MW10	70-130	97.7	101	97.3
MW11S	70-130	97.6	101	98.7
MW7 M.S.	70-130	97.3	102	99.2
MW7 M.S.D.	70-130	98.1	101	98.5

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LANDFILL (2509)
PHASE 1 AND 2
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	94.4	97.7	96.7
Laboratory Control std.	70-130	94.6	98.2	97.0
Method Blank	70-130	93.6	98.2	97.0
MW11D	70-130	94.7	98.4	98.1
MW12S	70-130	94.2	97.5	95.8
MW12D	70-130	94.5	99.5	96.5
MW13S	70-130	93.7	97.6	95.9
MW13D	70-130	96.1	97.7	96.3
MW14R	70-130	94.2	97.6	96.2
Trip Blank	70-130	94.9	99.5	95.9
MW15S M.S.	70-130	94.2	97.4	97.7
MW15S M.S.D.	70-130	94.1	96.8	97.6

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/07/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: MW7 (6044)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	19.53	97.7	19.20	96.0	1.7
Benzene	20.0	--- U	19.32	96.6	18.55	92.8	4.1
Trichloroethene	20.0	--- U	19.83	99.2	18.97	94.9	4.4
Toluene	20.0	--- U	18.86	94.3	18.23	91.2	3.4
Chlorobenzene	20.0	--- U	18.59	93.0	18.10	90.5	2.7

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	19.29	96.5
Benzene	20.00	19.03	95.2
Trichloroethene	20.00	19.07	95.4
Toluene	20.00	19.25	96.3
Chlorobenzene	20.00	19.01	95.1

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6044

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: MW15S (6046)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	17.42	87.1	17.91	89.6	2.7
Benzene	20.0	--- U	17.62	88.1	17.78	88.9	0.9
Trichloroethene	20.0	--- U	17.83	89.2	18.19	91.0	2.0
Toluene	20.0	--- U	18.43	92.2	18.87	94.4	2.4
Chlorobenzene	20.0	--- U	18.33	91.7	18.32	91.6	0.1

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	17.65	88.3
Benzene	20.00	18.29	91.5
Trichloroethene	20.00	18.36	91.8
Toluene	20.00	19.01	95.1
Chlorobenzene	20.00	19.1	95.5

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6044 **Week: 46**

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 1 AND 2
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)							12					12	12	12
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E
MW7	10-30-13	1145		21	6	G	G	G	G	G	G	G	G	G
MW8	10-30-13	1135		21	5	G	G	G	G	G	G	G	G	
MW10	10-30-13	1045		21	5	G	G	G	G	G	G	G	G	
MW11S	10-30-13	1030		21	5	G	G	G	G	G	G	G	G	
MW11D	10-30-13	1040		20	5	G	G	G	G	G	G	G	G	
MW12S	10-30-13	1120		21 BF ~~18~~	5	G	G	G	G	G	G	G	G	
MW12D	10-30-13	1125		19 BF ~~22~~	5	G	G	G	G	G	G	G	G	
MW13S	10-30-13	1100		20 BF ~~25~~	5	G	G	G	G	G	G	G	G	
MW13D	10-30-13	1055		19	5	G	G	G	G	G	G	G	G	
MW14R	10-30-13	1110		20	5	G	G	G	G	G	G	G	G	
Trip Blank	10-30-13				2							G	G	

PARAMETERS

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 Fr	10-30-13 1410		10/30/13 2:23
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

№ 271771

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#: 6045

CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE MANHOLE
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/30/13
DATE REPORTED : 11/26/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	Leachate Manhole	Analysis Date	Analyst	Method Code
PH (field measurement), Units			7.2	10/30/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	12	11/05/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	140	11/05/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	801	11/05/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.13 J	11/05/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	6	11/05/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	12	11/05/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	6.7 J	11/05/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	33	11/05/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.30 J	11/05/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	62	11/05/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	47	11/05/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	1.1 J	11/05/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.08 J	11/05/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	12.3 J	11/05/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	12	11/05/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	85.0	10/30/13	CMC	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	51550	10/30/13	BF	2510B-97
Temperature, °C			29	10/30/13	BF	2550B-00

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: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE MANHOLE
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6045

ANALYST: MAO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/12/13
DATE REPORTED: 11/26/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	Leachate Manhole
1. Chloromethane	0.77	1.0	--- U
2. Vinyl Chloride	0.63	1.0	0.80 J
3. Bromomethane	0.67	10.0	--- U
4. Chloroethane	0.48	10.0	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U
7. Acetone	9.06	100.0	57.60 J
8. Iodomethane	0.26	10.0	--- U
9. Carbon Disulfide	0.23	100.0	--- U
10. Methylene Chloride	0.64	1.0	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U
12. 1,1-Dichloroethane	0.20	5.0	0.30 J
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	2.80 J
15. 2-Butanone	2.21	100.0	11.70 J
16. Bromochloromethane	0.27	3.0	--- U
17. Chloroform	0.25	5.0	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U
20. Benzene	0.24	1.0	4.30
21. 1,2-Dichloroethane	0.27	1.0	--- U
22. Trichloroethene	0.23	1.0	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U
24. Bromodichloromethane	0.21	1.0	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	11.80 J
27. Toluene	0.23	1.0	32.70
28. trans-1,3-Dichloropropene	0.28	1.0	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U
30. Tetrachloroethene	0.17	1.0	--- U
31. 2-Hexanone	1.57	50.0	--- U
32. Dibromochloromethane	0.24	3.0	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U
34. Chlorobenzene	0.30	3.0	1.40 J
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U
36. Ethylbenzene	0.21	1.0	91.30
37. Xylenes	0.68	5.0	52.00
38. Dibromomethane	0.28	10.0	--- U
39. Styrene	0.19	1.0	8.80
40. Bromoform	0.20	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	15.10
44. 1,2-Dichlorobenzene	0.32	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U
46. Acrylonitrile	2.72	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U

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

NOTE: EPA METHOD 8260B R1 (96): Leachate Manhole received at pH > 2.

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE MANHOLE
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6045

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LANDFILL (2509)
LEACHATE MANHOLE
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6045

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	94.4	97.7	96.7
Laboratory Control std.	70-130	94.6	98.2	97.0
Method Blank	70-130	93.6	98.2	97.0
Leachate Manhole	70-130	96.7	98.2	98.2
MW15S M.S.	70-130	94.2	97.4	97.7
MW15S M.S.D.	70-130	94.1	96.8	97.6

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE MANHOLE
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6045

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: MW15S (6046)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	17.42	87.1	17.91	89.6	2.7
Benzene	20.0	--- U	17.62	88.1	17.78	88.9	0.9
Trichloroethene	20.0	--- U	17.83	89.2	18.19	91.0	2.0
Toluene	20.0	--- U	18.43	92.2	18.87	94.4	2.4
Chlorobenzene	20.0	--- U	18.33	91.7	18.32	91.6	0.1

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	17.65	88.3
Benzene	20.00	18.29	91.5
Trichloroethene	20.00	18.36	91.8
Toluene	20.00	19.01	95.1
Chlorobenzene	20.00	19.1	95.5

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6045 **Week: 46**

CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE MANHOLE
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION													
pH CHECK (LAB)							✓						
CONTAINER TYPE, P/G						P	P	P	P	P	G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A	E	E	E
Leachate Manhole	10-30-13	1005		29	6	G	G	G	G	G	G	G	G

PARAMETERS

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 Darden	10-30-13 1410	[signature]	10/30/13 2:22
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.

№ 271770

FORM #5

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#: 6046

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/31/13
DATE REPORTED : 12/03/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW7D	MW8D	MW15S	MW15D	MW16S	Analysis Date	Analyst	Method Code
PH (field measurement), Units					4.6	6.9	3.9	10/31/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0			0.07 J	0.59 J	0.05 J	11/05/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0			1.8 J	0.93 J	1.3 J	11/05/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0			166	48.4 J	111	11/05/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0			2	0.10 J	6	11/05/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0			0.17 J	0.16 J	1	11/05/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0			11	0.23 J	3.9 J	11/05/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0			1.3 J	0.76 J	1.7 J	11/05/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0			0.34 J	0.22 J	2.4 J	11/05/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0			0.40 J	0.28 J	4.1 J	11/05/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0			10.8 J	1.8 J	6.2 J	11/05/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0			0.34 J	0.49 J	5.2 J	11/05/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0			--- U	0.08 J	--- U	11/05/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5			0.06 J	0.22 J	0.06 J	11/05/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0			1.0 J	1.2 J	5.3 J	11/05/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0			19	5.1 J	18	11/05/13	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0			18.0	65.0	50.0	10/31/13	DRF	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0			189	418	600	10/31/13	BF	2510B-97
Temperature, °C					21	20	21	10/31/13	BF	2550B-00
Static Water Level, feet			21.62	21.56	6.30	18.11	7.90	10/31/13	BF	
Well Depth, feet					17.95	37.65	15.02	10/31/13	BF	

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#: 6046

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/31/13
DATE REPORTED : 12/03/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW16D	MW17S	MW17D	MW18S	MW18D	Analysis Date	Analyst	Method Code
PH (field measurement), Units			6.7	3.9	9.1	3.9	6.5	10/31/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.10 J	0.04 J	0.88 J			11/05/13	LFJ	EPA200.8
Antimony, ug/l	0.02	6.0				0.11 J	0.43 J	11/19/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.92 J	1.5 J	1.3 J			11/05/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0				3.9 J	2.1 J	11/19/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	79.6 J		45.8 J			11/05/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0		161				11/15/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0				25.1 J	28.5 J	11/19/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.05 J	2	0.13 J			11/05/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0				7	0.19 J	11/19/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.05 J	0.23 J	0.10 J			11/05/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0				1	0.13 J	11/19/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.24 J	3.2 J	0.56 J			11/05/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0				8.1 J	0.55 J	11/19/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.96 J	1.5 J	1.3 J			11/05/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0				1.8 J	0.75 J	11/19/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.37 J	5.9 J	1.5 J			11/05/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0				3.2 J	1.3 J	11/19/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.42 J	6.6 J	0.68 J			11/05/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0				5.8 J	0.95 J	11/19/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.3 J	5.6 J	2.2 J			11/05/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0				14.1 J	1.7 J	11/19/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.22 J	0.76 J	0.50 J			11/05/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0				4.7 J	0.16 J	11/19/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	--- U	--- U			11/05/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0				0.03 J	0.04 J	11/26/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.03 J	0.12 J	--- U			11/05/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5				0.16 J	0.40 J	11/19/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	1.2 J	10.2 J	2.9 J			11/05/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0				5.4 J	1.2 J	11/19/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	6.5 J	15	7.1 J			11/05/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0				26	5.6 J	12/02/13	LGJ	EPA200.8
Turbidity, NTU	1.0	1.0	80.0	270.0	85.5	80.0	26.0	10/31/13	DRF	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	514	326	138	1075	382	10/31/13	BF	2510B-97
Temperature, °C			21	21	22	21	20	10/31/13	BF	2550B-00
Static Water Level, feet			16.42	6.42	14.10	6.70	14.55	10/31/13	BF	
Well Depth, feet			35.00	15.01	38.00	13.70	36.70	10/31/13	BF	

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#: 6046

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 10/31/13
DATE REPORTED : 12/03/13

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW19S	MW19D	MW20D	MW21D	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.8	6.6			10/31/13	BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.13 J	0.20 J			11/19/13	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	--- U	5.0 J			11/19/13	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	55.3 J	44.6 J			11/19/13	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.08 J	1			11/19/13	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.11 J	0.57 J			11/19/13	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.42 J	4.3 J			11/19/13	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.6 J	2.0 J			11/19/13	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	2.2 J	6.5 J			11/19/13	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	1.1 J	2.7 J			11/19/13	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	1.7 J	10.8 J			11/19/13	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	--- U	1.5 J			11/19/13	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	0.03 J			11/26/13	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.10 J	0.26 J			11/19/13	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	2.1 J	9.9 J			11/19/13	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	4.6 J	88			12/02/13	LGJ	EPA200.8
Turbidity, NTU	1.0	1.0	65.0	600.0			10/31/13	DRF	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	107	469			10/31/13	BF	2510B-97
Temperature, °C			22	21			10/31/13	BF	2550B-00
Static Water Level, feet			8.46	15.30	21.94	21.70	10/31/13	BF	
Well Depth, feet			13.81	26.26			10/31/13	BF	

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: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6046
ANALYST: MAO
DATE COLLECTED: 10/31/13
DATE REPORTED: 12/03/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	11/11/13 MW15S	11/11/13 MW15D	11/11/13 MW16S	11/11/13 MW16D	11/11/13 MW17S
Date Analyzed:			11/11/13	11/11/13	11/11/13	11/11/13	11/11/13
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	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

PHONE (252) 756-6208
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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6046

ANALYST: MAO
DATE COLLECTED: 10/31/13
DATE REPORTED: 12/03/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	11/11/13 MW17D	11/11/13 MW18S	11/11/13 MW18D	11/11/13 MW19S	11/12/13 MW19D
	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	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6046

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
METHOD BLANK RESULTS

PARAMETERS, ug/l	MDL	SWSL	Concentration
1. Chloromethane	0.77	1.00	--- U
2. Vinyl Chloride	0.63	1.00	--- U
3. Bromomethane	0.67	10.00	--- U
4. Chloroethane	0.48	10.00	--- U
5. Trichlorofluoromethane	0.24	1.00	--- U
6. 1,1-Dichloroethene	0.17	5.00	--- U
7. Acetone	9.06	100.00	--- U
8. Iodomethane	0.26	10.00	--- U
9. Carbon Disulfide	0.23	100.00	--- U
10. Methylene Chloride	0.64	1.00	--- U
11. trans-1,2-Dichloroethene	0.23	5.00	--- U
12. 1,1-Dichloroethane	0.20	5.00	--- U
13. Vinyl Acetate	0.20	50.00	--- U
14. cis-1,2-Dichloroethene	0.25	5.00	--- U
15. 2-Butanone	2.21	100.00	--- U
16. Bromochloromethane	0.27	3.00	--- U
17. Chloroform	0.25	5.00	--- U
18. 1,1,1-Trichloroethane	0.19	1.00	--- U
19. Carbon Tetrachloride	0.22	1.00	--- U
20. Benzene	0.24	1.00	--- U
21. 1,2-Dichloroethane	0.27	1.00	--- U
22. Trichloroethene	0.23	1.00	--- U
23. 1,2-Dichloropropane	0.21	1.00	--- U
24. Bromodichloromethane	0.21	1.00	--- U
25. cis-1,3-Dichloropropene	0.24	1.00	--- U
26. 4-methyl-2-Pentanone	1.19	100.00	--- U
27. Toluene	0.23	1.00	--- U
28. trans-1,3-Dichloropropene	0.28	1.00	--- U
29. 1,1,2-Trichloroethane	0.25	1.00	--- U
30. Tetrachloroethene	0.17	1.00	--- U
31. 2-Hexanone	1.57	50.00	--- U
32. Dibromochloromethane	0.24	3.00	--- U
33. 1,2-Dibromoethane	0.26	1.00	--- U
34. Chlorobenzene	0.30	3.00	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.00	--- U
36. Ethylbenzene	0.21	1.00	--- U
37. Xylenes	0.68	5.00	--- U
38. Dibromomethane	0.28	10.00	--- U
39. Styrene	0.19	1.00	--- U
40. Bromoform	0.20	3.00	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.00	--- U
42. 1,2,3-Trichloropropane	0.43	1.00	--- U
43. 1,4-Dichlorobenzene	0.39	1.00	--- U
44. 1,2-Dichlorobenzene	0.32	5.00	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.00	--- U
46. Acrylonitrile	2.72	200.00	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.00	--- U

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LANDFILL (2509)
PHASE 3
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6046

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
SURROGATE RECOVERY RESULTS

Sample Name	Limits (% recovery)	1,2-DCA-d4 (% recovery)	Toluene-d8 (% recovery)	4-BFB (% recovery)
Continuing Calibration std.	70-130	94.4	97.7	96.7
Laboratory Control std.	70-130	94.6	98.2	97.0
Method Blank	70-130	93.6	98.2	97.0
MW15S	70-130	93.7	97.4	97.0
MW15D	70-130	94.3	97.7	95.6
MW16S	70-130	93.7	97.4	95.4
MW16D	70-130	94.1	97.1	96.6
MW17S	70-130	94.3	97.7	96.6
MW17D	70-130	94.3	97.0	95.6
MW18S	70-130	95.3	96.9	96.4
MW18D	70-130	93.5	96.7	96.4
MW19S	70-130	95.8	98.2	96.6
MW19D	70-130	93.9	96.1	96.4
MW15S M.S.	70-130	94.2	97.4	97.7
MW15S M.S.D.	70-130	94.1	96.8	97.6

Environment 1, Incorporated

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

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

CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6046

ANALYST: MO
DATE COLLECTED: 10/30/13
DATE ANALYZED: 11/11/13-11/12/13
DATE REPORTED: 11/25/13

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Sample Spiked: MW15S (6046)	Spike Amount Ug/l	Sample Result Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)	Spike Dup. Result Ug/l	Spike Dup. Recovery (70-130%)	MS/MSD RPD (50%)
1,1-Dichloroethene	20.0	--- U	17.42	87.1	17.91	89.6	2.7
Benzene	20.0	--- U	17.62	88.1	17.78	88.9	0.9
Trichloroethene	20.0	--- U	17.83	89.2	18.19	91.0	2.0
Toluene	20.0	--- U	18.43	92.2	18.87	94.4	2.4
Chlorobenzene	20.0	--- U	18.33	91.7	18.32	91.6	0.1

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	17.65	88.3
Benzene	20.00	18.29	91.5
Trichloroethene	20.00	18.36	91.8
Toluene	20.00	19.01	95.1
Chlorobenzene	20.00	19.1	95.5

Environment 1, Inc.
P.O. Box 7685, 114 Oakmont Dr.
Greenville, NC 27858

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

CHAIN OF CUSTODY RECORD

CLIENT: 6046 **Week:** 46

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)							L2					L2	L2	L2
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E
MW7D	10-31-13				1						G			
MW8D	10-31-13				1						G			
MW15S	10-31-13	1050		21	6	G	G	G	G	G	G	G	G	G
MW15D	10-31-13	1055		20	5	G	G	G	G	G	G	G	G	
MW16S	10-31-13	1035		21	5	G	G	G	G	G	G	G	G	
MW16D	10-31-13	1040		21	5	G	G	G	G	G	G	G	G	
MW17S	10-31-13	1025		21	5	G	G	G	G	G	G	G	G	
MW17D	10-31-13	1020		22	5	G	G	G	G	G	G	G	G	
MW18S	10-31-13	1005		21	5	G	G	G	G	G	G	G	G	
MW18D	10-31-13	1010		20	5	G	G	G	G	G	G	G	G	
MW19S	10-31-13	0955		22	5	G	G	G	G	G	G	G	G	

PARAMETERS

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 0.4 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Tom Beasley	10-31-13 1235	[signature]	10/31/13 1:00pm
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.

№ 271769

FORM #5

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6046 **Week:** 46

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY NC 28523

(252) 633-1564

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	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2							PARAMETERS
							12					12	12								
						P	P	P	P	P		G	G	G							
						A	A	A	A	A		E	E	E							
MW19D	10-31-13	0950		21	5	G	G	G	G	G	G	G	G								
MW20D	10-31-13				1						G										
MW21D	10-31-13				1						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 0.4 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Tom Beasley	10-31-13 1235	[signature]	10/31/13 1:00 pm
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

№ 271768

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#: 6046

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 12/23/13
DATE REPORTED : 01/14/14

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW18S	Analysis Date	Analyst	Method Code
Beryllium, ug/l	0.03	1.0	7	01/09/14	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	9.2	12/23/13	MDD	2130B-01

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

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6046

CRAVEN TUSCARORA
REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR log1 AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS																	
								12														
								P	P													
									A													
PARAMETERS								BE	TURBIDITY													
MW18S	12-23-13	1040		17				G	G													

CHLORINE NEUTRALIZED AT COLLECTION
pH CHECK (LAB)
CONTAINER TYPE: P/G
CHEMICAL PRESERVATION
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
☐ DW/GW
☐ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY (Please Print)
TOM BEASLEY

SAMPLES RECEIVED IN LAB AT 0.6 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Tom Beasley	12-23-13 1330	B	12/23/13 134pm
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.

№ 267015

FORM #6

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#: 6046

CRSWMA TUSCARORA REGIONAL LF (2509)
PHASE 3
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 02/05/14
DATE REPORTED : 02/13/14

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-18S	Field Blank	Analysis Date	Analyst	Method Code
Beryllium, ug/l	0.28	1.0	7	0.48 J	02/06/14	LFJ	EPA200.7
Beryllium, Total Dissolved, ug/l	0.03	1.0	7		02/06/14	LFJ	EPA200.7

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

Envi[illegible]ment I, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

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

CHAIN OF CUSTODY RECORD

CLIENT: 6046
CRSWMA Tuscarora Regional LF
Permit No. 25-09
Bobby Darden
P.O. Box 128
COVE CITY NC 28523

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION																					N/A	N/A
pH CHECK (LAB)																					<2	<2
CONTAINER TYPE, P/G																					P	P
CHEMICAL PRESERVATION																					A	A
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	TOTAL METALS Beryllium	DISSOLVED METALS* Beryllium (FILTERED)															
2509-MW18S	2-5-14	10:40		12.5	2	G	G															
FIELD BLANK	2-5-14	10:50		13.0	1	G																

PARAMETERS

A - NONE, B - HNO_3, C - H_2SO_4, D - NAOH, E - HCL, 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) Daniel Girdner / JOYCE

SAMPLES RECEIVED IN LAB AT 14.5 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Daniel Girdner	2-5-14 11:30	B Jeff	2/5/14 1:12pm
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS: Please Provide RUSH TURN AROUND Time for analysis + report if needed to receive report by 2/16/14
*Sample was filtered at collection time.

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

№ 274301

DATE: 02/4-5/2014

JOYCE ENGINEERING

GROUND WATER SAMPLING LOG

Project Name: CRSWMA Tuscarora LF **Project No. /Task No.:** 618.1301.12.03

Well ID: 2509-MW18S **Sampler(s):** D. Girdner

Well Location: East end of Phase 3 Cell

Well Diameter: 2 inches

Initial Depth to Water (DTW): 5.83 feet

Depth to Bottom (DTB): 11.00 feet

Water Column Thickness (WCT): 5.17 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 0.8 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 2.4 gallons

Actual Amount Purged/Bailed: 29.5 gallons

Purged with: 12V submersible pump

Sampled with: disposable bailer

Depth to Water before Sampling: - feet

Gallons	Time	Temp(°C)	pH	Cond. (µS)	Turb.(ntu)	Initials
0	1210	14.8	3.97	1356	33.8	DG
0.8	1211	14.1	3.64	1533	605	DG
1.6	1212	14.2	3.66	1536	608	DG
2.4	1213	14.2	3.65	1539	598	DG
Before Sampling	1040	12.5	3.45	1073	27.0*	DG

Comments (weather conditions, odor, color, silt, etc.): Resample for Beryllium

Weather: 02/4/14- Cloudy, 30's. 02/5/14- Cloudy, 40's

Well redevelopment performed 02/4/14

*Parameters taken after first bailer which was used to fill sample bottle. Sample appeared to be the same or less turbid than the bailer measured.

Signature: Daniel L Girdner **Date:** 2/5/14

QA/QC Sign Off: [illegible] **Date:** 2/6/14

Appendix 2

Statistical Analysis Worksheets and Results Summary

JOYCE Project: CRSWMA
Project No: 618.1301.12
Date: 10/30/2013

Analyte: Beryllium

Sample No.	Sample Date	Location	Concentration (ug/L)	Qualifer	Quantitation Limit (ug/L)	Sorted Concentration (ug/L)
1	4/15/2004	MW-13S	ND		2	
2	10/14/2004	MW-13S	ND		2	
3	4/5/2005	MW-13S	ND		2	
4	10/27/2005	MW-13S	ND		2	
5	4/15/2004	MW-13D	ND		2	
6	10/14/2004	MW-13D	ND		2	
7	4/5/2005	MW-13D	ND		2	
8	10/27/2005	MW-13D	ND		2	
9	4/15/2004	MW-14	ND		2	
10	10/14/2004	MW-14	ND		2	
11	4/5/2005	MW-14	ND		2	
12	10/27/2005	MW-14	ND		2	
13	7/1/1993	IRL-1S	3		1	
14	8/1/1993	IRL-1S	1		1	
15	9/1/1993	IRL-1S	1		1	
16	9/1/1993	IRL-1S	2		1	
17	4/1/1994	IRL-1S	ND		1	
18	10/1/1994	IRL-1S	ND		2	
19	4/1/1995	IRL-1S	ND		2	
20	10/1/1995	IRL-1S	ND		2	
21	4/1/1996	IRL-1S	ND		2	
22	10/1/1996	IRL-1S	ND		2	
23	4/1/1997	IRL-1S	3		2	
24	10/1/1997	IRL-1S	3		2	
25	4/1/1998	IRL-1S	ND		2	
26	10/1/1998	IRL-1S	2		2	
27	3/1/1999	IRL-1S	ND		2	
28	10/1/1999	IRL-1S	ND		2	
29	4/1/2000	IRL-1S	ND		2	
30	10/1/2000	IRL-1S	ND		2	
31	4/1/2001	IRL-1S	ND		2	
32	10/1/2001	IRL-1S	ND		2	
33	4/2/2002	IRL-1S	ND		2	
34	10/3/2002	IRL-1S	ND		2	
35	4/3/2003	IRL-1S	ND		2	
36	10/3/2003	IRL-1S	ND		2	
37	4/15/2004	IRL-1S	ND		2	
38	10/14/2004	IRL-1S	ND		2	
39	4/5/2005	IRL-1S	ND		2	
40	10/27/2005	IRL-1S	ND		2	
41	4/21/2006	IRL-1S	ND		2	
42	10/12/2006	IRL-1S	ND		2	
43	4/26/2007	IRL-1S	ND		1.0	
44	10/10/2007	IRL-1S	0.1	J	1.0	
45	4/2/2008	IRL-1S	0.4	J	1.0	
46	10/28/2008	IRL-1S	0.5	J	1.0	
47	4/8/2009	IRL-1S	0.6	J	1.0	
48	10/27/2009	IRL-1S	0.7	J	1.0	
49	4/8/2010	IRL-1S	0.6	J	1.0	
50	10/13/2010	IRL-1S	0.6	J	1.0	
51	4/27/2011	IRL-1S	0.59	J	1.0	
52	10/20/2011	IRL-1S	0.49	J	1.0	
53	7/1/1993	IRL-1D	1		1	
54	8/1/1993	IRL-1D	1		1	
55	9/1/1993	IRL-1D	ND		1	
56	9/1/1993	IRL-1D	3		1	
57	4/1/1994	IRL-1D	ND		1	
58	10/1/1994	IRL-1D	ND		2	
59	4/1/1995	IRL-1D	ND		2	
60	10/1/1995	IRL-1D	ND		2	
61	4/1/1996	IRL-1D	ND		2	
62	10/27/2005	IRL-1D	6		2	
63	4/21/2006	IRL-1D	ND		2	
64	10/12/2006	IRL-1D	ND		2	
65	4/26/2007	IRL-1D	ND		1.0	
66	10/10/2007	IRL-1D	ND		1.0	
67	4/2/2008	IRL-1D	0.1	J	1.0	
68	10/28/2008	IRL-1D	0.1	J	1.0	

69	4/8/2009	IRL-1D	0.1	J	1.0
70	10/27/2009	IRL-1D	0.2	J	1.0
71	4/8/2010	IRL-1D	0.1	B	1.0
72	10/13/2010	IRL-1D	0.3	J	1.0
73	4/27/2011	IRL-1D	0.06	J	1.0
74	10/20/2011	IRL-1D	0.15	J	1.0
75	10/3/2002	LST-5S	ND		2
76	4/2/2003	LST-5S	ND		2
77	10/1/2003	LST-5S	ND		2
78	4/15/2004	LST-5S	ND		2
79	10/14/2004	LST-5S	ND		2
80	4/5/2005	LST-5S	ND		2
81	10/27/2005	LST-5S	ND		2
82	4/21/2006	LST-5S	ND		2
83	10/12/2006	LST-5S	ND		2
84	4/26/2007	LST-5S	ND		1.0
85	10/10/2007	LST-5S	ND		1.0
86	4/3/2008	LST-5S	ND		1.0
87	10/28/2008	LST-5S	0.1	J	1.0
88	4/8/2009	LST-5S	0.2	J	1.0
89	10/27/2009	LST-5S	0.2	J	1.0
90	4/8/2010	LST-5S	0.1	B	1.0
91	10/13/2010	LST-5S	0.1	J	1.0
92	4/27/2011	LST-5S	0.15	J	1.0
93	10/20/2011	LST-5S	0.22	J	1.0
94	7/1/1999	MW-7	5		2
95	8/1/1999	MW-7	ND		2
96	10/1/1999	MW-7	ND		2
97	11/1/1999	MW-7	ND		2
98	4/1/2000	MW-7	ND		2
99	10/1/2000	MW-7	ND		2
100	4/1/2001	MW-7	ND		2
101	10/1/2001	MW-7	ND		2
102	4/2/2002	MW-7	ND		2
103	10/3/2002	MW-7	ND		2
104	4/3/2003	MW-7	ND		2
105	10/3/2003	MW-7	ND		2
106	4/15/2004	MW-7	ND		2
107	10/14/2004	MW-7	ND		2
108	4/2/2002	MW-12S	ND		2
109	10/3/2002	MW-12S	ND		2
110	4/3/2003	MW-12S	ND		2
111	10/3/2003	MW-12S	ND		2
112	4/15/2004	MW-12S	ND		2
113	10/14/2004	MW-12S	ND		2
114	4/5/2005	MW-12S	ND		2
115	10/27/2005	MW-12S	ND		2
116	4/21/2006	MW-12S	ND		2
117	10/12/2006	MW-12S	ND		2
118	4/26/2007	MW-12S	ND		1.0
119	10/10/2007	MW-12S	0.1	J	1.0
120	4/3/2008	MW-12S	0.3	J	1.0
121	10/28/2008	MW-12S	0.9	J	1.0
122	4/8/2009	MW-12S	0.6	J	1.0
123	10/27/2009	MW-12S	0.5	J	1.0
124	4/8/2010	MW-12S	0.6	J	1.0
125	10/13/2010	MW-12S	0.5	J	1.0
126	4/27/2011	MW-12S	0.36	J	1.0
127	10/11/2011	MW-12S	0.2	J	1.0
128	4/2/2002	MW-12D	ND		2
129	10/3/2002	MW-12D	ND		2
130	4/3/2003	MW-12D	ND		2
131	10/3/2003	MW-12D	ND		2
132	4/15/2004	MW-12D	ND		2
133	10/14/2004	MW-12D	ND		2
134	4/5/2005	MW-12D	ND		2
135	10/27/2005	MW-12D	ND		2
136	4/21/2006	MW-12D	ND		2
137	10/12/2006	MW-12D	ND		2
138	4/26/2007	MW-12D	ND		1.0
139	10/10/2007	MW-12D	ND		1.0
140	4/3/2008	MW-12D	ND		1.0
141	10/28/2008	MW-12D	0.1	J	1.0
142	4/8/2009	MW-12D	0.1	J	1.0
143	10/27/2009	MW-12D	0.1	J	1.0
144	4/8/2010	MW-12D	0.1	B	1.0

145	10/13/2010	MW-12D	0.1	J	1.0
146	4/27/2011	MW-12D	ND		1.0
147	10/20/2011	MW-12D	0.08	J	1.0
148	4/26/2012	IRL-1S	0.58	J	1.0
149	4/26/2012	IRL-1D	0.09	J	1.0
150	4/26/2012	MW-12S	0.27	J	1.0
151	4/26/2012	MW-12D	0.06	J	1.0
152	4/26/2012	LST-5S	0.17	J	1.0
153	10/16/2012	IRL-1S	0.54	J	1.0
154	10/16/2012	IRL-1D	0.08	J	1.0
155	10/16/2012	MW-12S	0.22	J	1.0
156	10/16/2012	MW-12D	ND		1.0
157	10/16/2012	LST-5S	ND		1.0
158	4/11/2013	IRL-1S	0.70	J	1.0
159	4/11/2013	IRL-1D	0.09	J	1.0
160	4/11/2013	MW-12S	0.25	J	1.0
161	4/11/2013	MW-12D	ND		1.0
162	4/11/2013	LST-5S	0.16	J	1.0
163	10/30/2013	IRL-1S	0.68	J	1.0
164	10/30/2013	IRL-1D	0.12	B	1.0
165	10/30/2013	MW-12S	0.21	J	1.0
166	10/30/2013	MW-12D	0.12	B	1.0
167	10/30/2013	LST-5S	0.12	B	1.0

Number of Data	161
Number of Truncated Data	99
Percentage of Truncated Data	61%
Nonparametric Prediction Interval:	6.00

Note:
All concentrations in micrograms per liter.
Blank qualified data (B) not used in statistical calculations.
J = Estimated concentration between laboratory detection limit and quatitation limit
ND = Not detected

JOYCE Project: CRSWMA
Project No: 618.1301.12
Date: 10/30/2013

Analyte: Chromium

Sample No.	Sample Date	Location	Concentration (ug/L)	Qualifer	Quantitation Limit (ug/L)	Sorted Concentration (ug/L)	
1	4/15/2004	MW-13S	17.0		10	0.06	112.0
2	10/14/2004	MW-13S	ND		10	0.15	87.0
3	4/5/2005	MW-13S	ND		10	0.2	58.0
4	10/27/2005	MW-13S	ND		10	0.3	50.0
5	4/15/2004	MW-13D	ND		10	0.5	43.0
6	10/14/2004	MW-13D	ND		10	0.5	43.0
7	4/5/2005	MW-13D	ND		10	0.53	39.0
8	10/27/2005	MW-13D	ND		10	0.56	38.0
9	4/15/2004	MW-14	ND		10	0.7	36.0
10	10/14/2004	MW-14	ND		10	0.7	29.0
11	4/5/2005	MW-14	ND		10	0.7	29.0
12	10/27/2005	MW-14	ND		10	0.9	23.0
13	Jul-93	IRL-1S	36.0		5	0.9	22.0
14	Aug-93	IRL-1S	14.0		5	1.1	21.0
15	Sep-93	IRL-1S	11.0		5	1.1	21.0
16	Sep-93	IRL-1S	19.0		5	1.1	19.0
17	Apr-94	IRL-1S	10.0		5	1.1	18.0
18	Oct-94	IRL-1S	ND		10	1.2	18.0
19	Apr-95	IRL-1S	ND		10	1.5	18.0
20	Oct-95	IRL-1S	13.0		10	1.6	17.0
21	Apr-96	IRL-1S	ND		10	1.6	16.0
22	Oct-96	IRL-1S	39.0		10	1.6	15.0
23	Apr-97	IRL-1S	23.0		10	1.6	15.0
24	Oct-97	IRL-1S	50.0		10	1.6	14.0
25	Apr-98	IRL-1S	18.0		10	1.6	14.0
26	Oct-98	IRL-1S	ND		10	2.2	14.0
27	Mar-99	IRL-1S	58.0		10	2.3	14.0
28	Oct-99	IRL-1S	21.0		10	3.0	13.0
29	Apr-00	IRL-1S	87.0		5	3.1	13.0
30	Oct-00	IRL-1S	21.0		10	3.4	12.0
31	Apr-01	IRL-1S	11.0		10	3.9	11.0
32	Oct-01	IRL-1S	ND		10	3.9	11.0
33	Apr-02	IRL-1S	ND		10	3.9	11.0
34	Oct-02	IRL-1S	15.0		10	4.8	11.0
35	Apr-03	IRL-1S	ND		10	5.9	11.0
36	Oct-03	IRL-1S	12.0		10	6.0	11.0
37	15-Apr-04	IRL-1S	13.0		10	6.1	10.0
38	14-Oct-04	IRL-1S	ND		10	6.1	10.0
39	05-Apr-05	IRL-1S	ND		10	6.4	9.8
40	27-Oct-05	IRL-1S	ND		10	6.6	8.7
41	21-Apr-06	IRL-1S	ND		10	6.7	8.7
42	12-Oct-06	IRL-1S	ND		10	7.8	8.0
43	26-Apr-07	IRL-1S	ND		10	8.0	7.8
44	10-Oct-07	IRL-1S	1.6	B	10	8.7	6.7
45	02-Apr-08	IRL-1S	1.6	J	10	8.7	6.6
46	28-Oct-08	IRL-1S	3.0	J	10	9.8	6.4
47	08-Apr-09	IRL-1S	6.1	J	10	10.0	6.1
48	27-Oct-09	IRL-1S	7.8	J	10	10.0	6.1
49	08-Apr-10	IRL-1S	5.9	J	10	11.0	6.0
50	13-Oct-10	IRL-1S	0.7	J	10	11.0	5.9
51	27-Apr-11	IRL-1S	0.8	B	10	11.0	4.8
52	20-Oct-11	IRL-1S	1.6	J	10	11.0	3.9
53	26-Apr-12	IRL-1S	3.9	J	10	11.0	3.9
54	16-Oct-12	IRL-1S	1.6	J	10	11.0	3.9
55	Jul-93	IRL-1D	18.0		5	12.0	3.4
56	Aug-93	IRL-1D	8.0		5	13.0	3.1
57	Sep-93	IRL-1D	11.0		5	13.0	3.0
58	Sep-93	IRL-1D	43.0		5	14.0	2.3
59	Apr-94	IRL-1D	ND		5	14.0	2.2
60	Oct-94	IRL-1D	ND		10	14.0	1.6
61	Apr-95	IRL-1D	ND		10	14.0	1.6
62	Oct-95	IRL-1D	ND		10	15.0	1.6
63	Apr-96	IRL-1D	ND		10	15.0	1.6
64	27-Oct-05	IRL-1D	29.0		10	16.0	1.6
65	21-Apr-06	IRL-1D	ND		10	17.0	1.6
66	12-Oct-06	IRL-1D	ND		10	18.0	1.5
67	26-Apr-07	IRL-1D	ND		10	18.0	1.2
68	10-Oct-07	IRL-1D	1.2	B	10	18.0	1.1
69	02-Apr-08	IRL-1D	ND		10	19.0	1.1
70	28-Oct-08	IRL-1D	1.6	J	10	21.0	1.1
71	08-Apr-09	IRL-1D	1.1	J	10	21.0	1.1
72	27-Oct-09	IRL-1D	2.2	J	10	22.0	0.9

73	08-Apr-10	IRL-1D	0.9	J	10	23.0	0.9
74	13-Oct-10	IRL-1D	3.4	J	10	29.0	0.7
75	27-Apr-11	IRL-1D	0.6	B	10	29.0	0.7
76	20-Oct-11	IRL-1D	2.3	J	10	36.0	0.7
77	26-Apr-12	IRL-1D	1.5	J	10	38.0	0.56
78	16-Oct-12	IRL-1D	1.6	J	10	39.0	0.53
79	Oct-02	LST-5S	ND		10	43.0	0.5
80	Apr-03	LST-5S	14.0		10	43.0	0.5
81	Oct-03	LST-5S	14.0		10	50.0	0.3
82	15-Apr-04	LST-5S	11.0		10	58.0	0.2
83	14-Oct-04	LST-5S	ND		10	87.0	0.15
84	05-Apr-05	LST-5S	ND		10	112.0	0.06
85	27-Oct-05	LST-5S	ND		10		
86	21-Apr-06	LST-5S	ND		10		
87	12-Oct-06	LST-5S	ND		10		
88	26-Apr-07	LST-5S	ND		10		
89	10-Oct-07	LST-5S	3.2	B	10		
90	03-Apr-08	LST-5S	0.5	J	10		
91	28-Oct-08	LST-5S	3.9	J	10		
92	08-Apr-09	LST-5S	6.4	J	10		
93	27-Oct-09	LST-5S	8.7	J	10		
94	08-Apr-10	LST-5S	6.1	J	10		
95	13-Oct-10	LST-5S	8.7	J	10		
96	27-Apr-11	LST-5S	6.7	J	10		
97	20-Oct-11	LST-5S	10.0		10		
98	26-Apr-12	LST-5S	9.8	J	10		
99	16-Oct-12	LST-5S	3.1	J	10		
100	Jul-99	MW-7	112.0		10		
101	Aug-99	MW-7	29.0		10		
102	Oct-99	MW-7	14.0		1		
103	Nov-99	MW-7	22.0		10		
104	Apr-00	MW-7	11.0		10		
105	Oct-00	MW-7	16.0		10		
106	Apr-01	MW-7	11.0		10		
107	Oct-01	MW-7	38.0		10		
108	Apr-02	MW-7	43.0		10		
109	Oct-02	MW-7	15.0		10		
110	Apr-03	MW-7	ND		10		
111	Oct-03	MW-7	ND		10		
112	Apr-04	MW-7	18.0		10		
113	Oct-04	MW-7	ND		10		
114	Apr-02	MW-12S	ND		10		
115	Oct-02	MW-12S	ND		10		
116	Apr-03	MW-12S	ND		10		
117	Oct-03	MW-12S	ND		10		
118	15-Apr-04	MW-12S	ND		10		
119	14-Oct-04	MW-12S	ND		10		
120	05-Apr-05	MW-12S	ND		10		
121	27-Oct-05	MW-12S	ND		10		
122	21-Apr-06	MW-12S	ND		10		
123	12-Oct-06	MW-12S	ND		10		
124	26-Apr-07	MW-12S	ND		10		
125	10-Oct-07	MW-12S	ND		10		
126	03-Apr-08	MW-12S	ND		10		
127	28-Oct-08	MW-12S	ND		10		
128	08-Apr-09	MW-12S	0.5	J	10		
129	27-Oct-09	MW-12S	ND		10		
130	08-Apr-10	MW-12S	ND		10		
131	13-Oct-10	MW-12S	0.2	J	10		
132	27-Apr-11	MW-12S	0.4	B	10		
133	20-Oct-11	MW-12S	0.6	B	10		
134	26-Apr-12	MW-12S	0.4	B	10		
135	16-Oct-12	MW-12S	ND		10		
136	Apr-02	MW-12D	ND		10		
137	Oct-02	MW-12D	ND		10		
138	Apr-03	MW-12D	ND		10		
139	Oct-03	MW-12D	ND		10		
140	15-Apr-04	MW-12D	ND		10		
141	14-Oct-04	MW-12D	ND		10		
142	05-Apr-05	MW-12D	ND		10		
143	27-Oct-05	MW-12D	ND		10		
144	21-Apr-06	MW-12D	ND		10		
145	12-Oct-06	MW-12D	ND		10		
146	26-Apr-07	MW-12D	ND		10		
147	10-Oct-07	MW-12D	ND		10		
148	03-Apr-08	MW-12D	ND		10		
149	28-Oct-08	MW-12D	0.7	J	10		
150	08-Apr-09	MW-12D	0.9	J	10		
151	27-Oct-09	MW-12D	1.1	J	10		

152	08-Apr-10	MW-12D	0.3	J	10
153	13-Oct-10	MW-12D	0.7	J	10
154	27-Apr-11	MW-12D	0.8	B	10
155	20-Oct-11	MW-12D	1.6	J	10
156	26-Apr-12	MW-12D	1.2	J	10
157	16-Oct-12	MW-12D	0.53	J	10
158	4/11/2013	IRL-1S	4.8	J	10
159	4/11/2013	IRL-1D	0.56	J	10
160	4/11/2013	MW-12S	0.15	J	10
161	4/11/2013	MW-12D	0.06	J	10
162	4/11/2013	LST-5S	6.6	J	10
163	10/30/2013	IRL-1S	3.9	J	10
164	10/30/2013	IRL-1D	1.1	J	10
165	10/30/2013	MW-12S	0.20	B	10
166	10/30/2013	MW-12D	1.1	J	10
167	10/30/2013	LST-5S	6.0	J	10

Number of Data	157
Number of Truncated Data	73
Percentage of Truncated Data	46%
Upper Tolerance Limit:	33.17

Note:
All concentrations in micrograms per liter.
Blank qualified data (B) not used in statistical calculations.
J = Estimated concentration between laboratory detection limit and quatitation limit
ND = Not detected

JEI Project: CRSWMA
Project No: 618.1301.12
Date: 30-Oct-13

Shapiro-Francia Test Statistic (W') for normality of total Chromium

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
m(i) = ith order Normal quantile

i	X(i)	ith/n	m(i)	m(i)^2	m(i)X(i)
1	0.06	0.0118	-2.26	5.13	-0.14
2	0.15	0.0235	-1.99	3.94	-0.30
3	0.20	0.0353	-1.81	3.27	-0.36
4	0.30	0.0471	-1.67	2.80	-0.50
5	0.50	0.0588	-1.56	2.45	-0.78
6	0.50	0.0706	-1.47	2.17	-0.74
7	0.53	0.0824	-1.39	1.93	-0.74
8	0.56	0.0941	-1.32	1.73	-0.74
9	0.70	0.1059	-1.25	1.56	-0.87
10	0.70	0.1176	-1.19	1.41	-0.83
11	0.70	0.1294	-1.13	1.28	-0.79
12	0.90	0.1412	-1.08	1.16	-0.97
13	0.90	0.1529	-1.02	1.05	-0.92
14	1.10	0.1647	-0.98	0.95	-1.07
15	1.10	0.1765	-0.93	0.86	-1.02
16	1.10	0.1882	-0.88	0.78	-0.97
17	1.10	0.2000	-0.84	0.71	-0.93
18	1.20	0.2118	-0.80	0.64	-0.96
19	1.50	0.2235	-0.76	0.58	-1.14
20	1.60	0.2353	-0.72	0.52	-1.15
21	1.60	0.2471	-0.68	0.47	-1.09
22	1.60	0.2588	-0.65	0.42	-1.04
23	1.60	0.2706	-0.61	0.37	-0.98
24	1.60	0.2824	-0.58	0.33	-0.92
25	1.60	0.2941	-0.54	0.29	-0.87
26	2.20	0.3059	-0.51	0.26	-1.12
27	2.30	0.3176	-0.47	0.22	-1.09
28	3.00	0.3294	-0.44	0.19	-1.32
29	3.10	0.3412	-0.41	0.17	-1.27

30	3.40	0.3529	-0.38	0.14	-1.28
31	3.90	0.3647	-0.35	0.12	-1.35
32	3.90	0.3765	-0.31	0.10	-1.23
33	3.90	0.3882	-0.28	0.08	-1.11
34	4.80	0.4000	-0.25	0.06	-1.22
35	5.90	0.4118	-0.22	0.05	-1.32
36	6.00	0.4235	-0.19	0.04	-1.16
37	6.10	0.4353	-0.16	0.03	-0.99
38	6.10	0.4471	-0.13	0.02	-0.81
39	6.40	0.4588	-0.10	0.01	-0.66
40	6.60	0.4706	-0.07	0.01	-0.49
41	6.70	0.4824	-0.04	0.00	-0.30
42	7.80	0.4941	-0.01	0.00	-0.12
43	8.00	0.5059	0.01	0.00	0.12
44	8.70	0.5176	0.04	0.00	0.38
45	8.70	0.5294	0.07	0.01	0.64
46	9.80	0.5412	0.10	0.01	1.01
47	10.00	0.5529	0.13	0.02	1.33
48	10.00	0.5647	0.16	0.03	1.63
49	11.00	0.5765	0.19	0.04	2.12
50	11.00	0.5882	0.22	0.05	2.45
51	11.00	0.6000	0.25	0.06	2.79
52	11.00	0.6118	0.28	0.08	3.12
53	11.00	0.6235	0.31	0.10	3.46
54	11.00	0.6353	0.35	0.12	3.80
55	12.00	0.6471	0.38	0.14	4.53
56	13.00	0.6588	0.41	0.17	5.32
57	13.00	0.6706	0.44	0.19	5.74
58	14.00	0.6824	0.47	0.22	6.64
59	14.00	0.6941	0.51	0.26	7.11
60	14.00	0.7059	0.54	0.29	7.58
61	14.00	0.7176	0.58	0.33	8.06
62	15.00	0.7294	0.61	0.37	9.17
63	15.00	0.7412	0.65	0.42	9.70
64	16.00	0.7529	0.68	0.47	10.94
65	17.00	0.7647	0.72	0.52	12.27
66	18.00	0.7765	0.76	0.58	13.69
67	18.00	0.7882	0.80	0.64	14.41
68	18.00	0.8000	0.84	0.71	15.15
69	19.00	0.8118	0.88	0.78	16.80
70	21.00	0.8235	0.93	0.86	19.51
71	21.00	0.8353	0.98	0.95	20.48
72	22.00	0.8471	1.02	1.05	22.53
73	23.00	0.8588	1.08	1.16	24.73

74	29.00	0.8706	1.13	1.28	32.75
75	29.00	0.8824	1.19	1.41	34.42
76	36.00	0.8941	1.25	1.56	44.95
77	38.00	0.9059	1.32	1.73	50.00
78	39.00	0.9176	1.39	1.93	54.19
79	43.00	0.9294	1.47	2.17	63.27
80	43.00	0.9412	1.56	2.45	67.28
81	50.00	0.9529	1.67	2.80	83.70
82	58.00	0.9647	1.81	3.27	104.87
83	87.00	0.9765	1.99	3.94	172.76
84	112.00	0.9882	2.26	5.13	253.65
			Sum	76.6	1181.42

The test statistic W' can be found using:

W' = [(sum(mi*x(I))/((n-1)^.5*SD*(sum(mi^2))^.5]

where:	SD =	standard deviation of the sample	=	18.44
	X =	Mean of the sample	=	13.19
	n =	number of samples	=	84

W' = 0.804

Compare this value to the critical value in Table A-2 of Statistical Analysisof Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance (Draft) July, 1992, to determine if the data is normally distributed.

From Table A-2 with (n) samples and a 95% confidence level, the critical value is

W(crit) = 0.972
and the calculated W' = 0.804

Therefore the data is Non Normal

JEI Project: CRSWMA
Project No: 618.1301.12
Date: 30-Oct-13

Shapiro-Francia Test Statistic (W') for log normality of total Chromium

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
m(i) = ith order Normal quantile

i	ln(X(i))	ith/n	m(i)	m(i)^2	m(i)X(i)
1	-2.81	0.0118	-2.26	5.13	6.37
2	-1.90	0.0235	-1.99	3.94	3.77
3	-1.61	0.0353	-1.81	3.27	2.91
4	-1.20	0.0471	-1.67	2.80	2.02
5	-0.69	0.0588	-1.56	2.45	1.08
6	-0.69	0.0706	-1.47	2.17	1.02
7	-0.63	0.0824	-1.39	1.93	0.88
8	-0.58	0.0941	-1.32	1.73	0.76
9	-0.36	0.1059	-1.25	1.56	0.45
10	-0.36	0.1176	-1.19	1.41	0.42
11	-0.36	0.1294	-1.13	1.28	0.40
12	-0.11	0.1412	-1.08	1.16	0.11
13	-0.11	0.1529	-1.02	1.05	0.11
14	0.10	0.1647	-0.98	0.95	-0.09
15	0.10	0.1765	-0.93	0.86	-0.09
16	0.10	0.1882	-0.88	0.78	-0.08
17	0.10	0.2000	-0.84	0.71	-0.08
18	0.18	0.2118	-0.80	0.64	-0.15
19	0.41	0.2235	-0.76	0.58	-0.31
20	0.47	0.2353	-0.72	0.52	-0.34
21	0.47	0.2471	-0.68	0.47	-0.32
22	0.47	0.2588	-0.65	0.42	-0.30
23	0.47	0.2706	-0.61	0.37	-0.29
24	0.47	0.2824	-0.58	0.33	-0.27
25	0.47	0.2941	-0.54	0.29	-0.25
26	0.79	0.3059	-0.51	0.26	-0.40
27	0.83	0.3176	-0.47	0.22	-0.40
28	1.10	0.3294	-0.44	0.19	-0.49
29	1.13	0.3412	-0.41	0.17	-0.46

30	1.22	0.3529	-0.38	0.14	-0.46
31	1.36	0.3647	-0.35	0.12	-0.47
32	1.36	0.3765	-0.31	0.10	-0.43
33	1.36	0.3882	-0.28	0.08	-0.39
34	1.57	0.4000	-0.25	0.06	-0.40
35	1.77	0.4118	-0.22	0.05	-0.40
36	1.79	0.4235	-0.19	0.04	-0.35
37	1.81	0.4353	-0.16	0.03	-0.29
38	1.81	0.4471	-0.13	0.02	-0.24
39	1.86	0.4588	-0.10	0.01	-0.19
40	1.89	0.4706	-0.07	0.01	-0.14
41	1.90	0.4824	-0.04	0.00	-0.08
42	2.05	0.4941	-0.01	0.00	-0.03
43	2.08	0.5059	0.01	0.00	0.03
44	2.16	0.5176	0.04	0.00	0.10
45	2.16	0.5294	0.07	0.01	0.16
46	2.28	0.5412	0.10	0.01	0.24
47	2.30	0.5529	0.13	0.02	0.31
48	2.30	0.5647	0.16	0.03	0.38
49	2.40	0.5765	0.19	0.04	0.46
50	2.40	0.5882	0.22	0.05	0.53
51	2.40	0.6000	0.25	0.06	0.61
52	2.40	0.6118	0.28	0.08	0.68
53	2.40	0.6235	0.31	0.10	0.75
54	2.40	0.6353	0.35	0.12	0.83
55	2.48	0.6471	0.38	0.14	0.94
56	2.56	0.6588	0.41	0.17	1.05
57	2.56	0.6706	0.44	0.19	1.13
58	2.64	0.6824	0.47	0.22	1.25
59	2.64	0.6941	0.51	0.26	1.34
60	2.64	0.7059	0.54	0.29	1.43
61	2.64	0.7176	0.58	0.33	1.52
62	2.71	0.7294	0.61	0.37	1.65
63	2.71	0.7412	0.65	0.42	1.75
64	2.77	0.7529	0.68	0.47	1.90
65	2.83	0.7647	0.72	0.52	2.04
66	2.89	0.7765	0.76	0.58	2.20
67	2.89	0.7882	0.80	0.64	2.31
68	2.89	0.8000	0.84	0.71	2.43
69	2.94	0.8118	0.88	0.78	2.60
70	3.04	0.8235	0.93	0.86	2.83
71	3.04	0.8353	0.98	0.95	2.97
72	3.09	0.8471	1.02	1.05	3.16
73	3.14	0.8588	1.08	1.16	3.37

74	3.37	0.8706	1.13	1.28	3.80
75	3.37	0.8824	1.19	1.41	4.00
76	3.58	0.8941	1.25	1.56	4.47
77	3.64	0.9059	1.32	1.73	4.79
78	3.66	0.9176	1.39	1.93	5.09
79	3.76	0.9294	1.47	2.17	5.53
80	3.76	0.9412	1.56	2.45	5.89
81	3.91	0.9529	1.67	2.80	6.55
82	4.06	0.9647	1.81	3.27	7.34
83	4.47	0.9765	1.99	3.94	8.87
84	4.72	0.9882	2.26	5.13	10.69
			Sum	76.6	122.09

The test statistic W' can be found using:

W' = [(sum(mi*x(I))/((n-1)^.5*SD*(sum(mi^2))^.5]

where:	SD =	standard deviation of the sample	=	1.56
	X =	Mean of the sample	=	1.68
	n =	number of samples	=	84
			W' =	0.98

Compare this value to the critical value in Table A-2 of Statistical Analysisof Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance (Draft) July, 1992, to determine if the data is normally distributed.

From Table A-2 with (n) samples and a 95% confidence level, the critical value is

W(crit) = 0.961
and the calculated W' = 0.984

Therefore the data set is Normal

JEI Project: CRSWMA
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Date: 41577

Probability Plots to determine the distribution of Chromium

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
LN[X(i)] = Natural Log Value of sample concentrations arranged from smallest to largest
[i/(n+1)] = Cumulative probability
n = number of samples = 84

X(i)	LN[X(i)]	i	Rank	[Rank/(n+1)]	Quantiles
0.06	-2.81	1	1	0.012	-2.26
0.15	-1.90	2	2	0.024	-1.99
0.2	-1.61	3	3	0.035	-1.81
0.3	-1.20	4	4	0.047	-1.67
0.5	-0.69	5	5	0.059	-1.56
0.5	-0.69	6	6	0.071	-1.47
0.53	-0.63	7	7	0.082	-1.39
0.56	-0.58	8	8	0.094	-1.32
0.7	-0.36	9	9	0.106	-1.25
0.7	-0.36	10	10	0.118	-1.19
0.7	-0.36	11	11	0.129	-1.13
0.9	-0.11	12	12	0.141	-1.08
0.9	-0.11	13	13	0.153	-1.02
1.1	0.10	14	14	0.165	-0.98
1.1	0.10	15	15	0.176	-0.93
1.1	0.10	16	16	0.188	-0.88
1.1	0.10	17	17	0.200	-0.84
1.2	0.18	18	18	0.212	-0.80
1.5	0.41	19	19	0.224	-0.76
1.6	0.47	20	20	0.235	-0.72
1.6	0.47	21	21	0.247	-0.68
1.6	0.47	22	22	0.259	-0.65
1.6	0.47	23	23	0.271	-0.61
1.6	0.47	24	24	0.282	-0.58
1.6	0.47	25	25	0.294	-0.54
2.2	0.79	26	26	0.306	-0.51
2.3	0.83	27	27	0.318	-0.47
3	1.10	28	28	0.329	-0.44
3.1	1.13	29	29	0.341	-0.41
3.4	1.22	30	30	0.353	-0.38
3.9	1.36	31	31	0.365	-0.35
3.9	1.36	32	32	0.376	-0.31

3.9	1.36	33	33	0.388	-0.28
4.8	1.57	34	34	0.400	-0.25
5.9	1.77	35	35	0.412	-0.22
6	1.79	36	36	0.424	-0.19
6.1	1.81	37	37	0.435	-0.16
6.1	1.81	38	38	0.447	-0.13
6.4	1.86	39	39	0.459	-0.10
6.6	1.89	40	40	0.471	-0.07
6.7	1.90	41	41	0.482	-0.04
7.8	2.05	42	42	0.494	-0.01
8	2.08	43	43	0.506	0.01
8.7	2.16	44	44	0.518	0.04
8.7	2.16	45	45	0.529	0.07
9.8	2.28	46	46	0.541	0.10
10	2.30	47	47	0.553	0.13
10	2.30	48	48	0.565	0.16
11	2.40	49	49	0.576	0.19
11	2.40	50	50	0.588	0.22
11	2.40	51	51	0.600	0.25
11	2.40	52	52	0.612	0.28
11	2.40	53	53	0.624	0.31
11	2.40	54	54	0.635	0.35
12	2.48	55	55	0.647	0.38
13	2.56	56	56	0.659	0.41
13	2.56	57	57	0.671	0.44
14	2.64	58	58	0.682	0.47
14	2.64	59	59	0.694	0.51
14	2.64	60	60	0.706	0.54
14	2.64	61	61	0.718	0.58
15	2.71	62	62	0.729	0.61
15	2.71	63	63	0.741	0.65
16	2.77	64	64	0.753	0.68
17	2.83	65	65	0.765	0.72
18	2.89	66	66	0.776	0.76
18	2.89	67	67	0.788	0.80
18	2.89	68	68	0.800	0.84
19	2.94	69	69	0.812	0.88
21	3.04	70	70	0.824	0.93
21	3.04	71	71	0.835	0.98
22	3.09	72	72	0.847	1.02
23	3.14	73	73	0.859	1.08
29	3.37	74	74	0.871	1.13
29	3.37	75	75	0.882	1.19
36	3.58	76	76	0.894	1.25
38	3.64	77	77	0.906	1.32
39	3.66	78	78	0.918	1.39
43	3.76	79	79	0.929	1.47
43	3.76	80	80	0.941	1.56

50	3.91	81	81	0.953	1.67
58	4.06	82	82	0.965	1.81
87	4.47	83	83	0.976	1.99
112	4.72	84	84	0.988	2.26

Plot analysis indicates that the data more closely follow a normal distribution in the log-transformed format.

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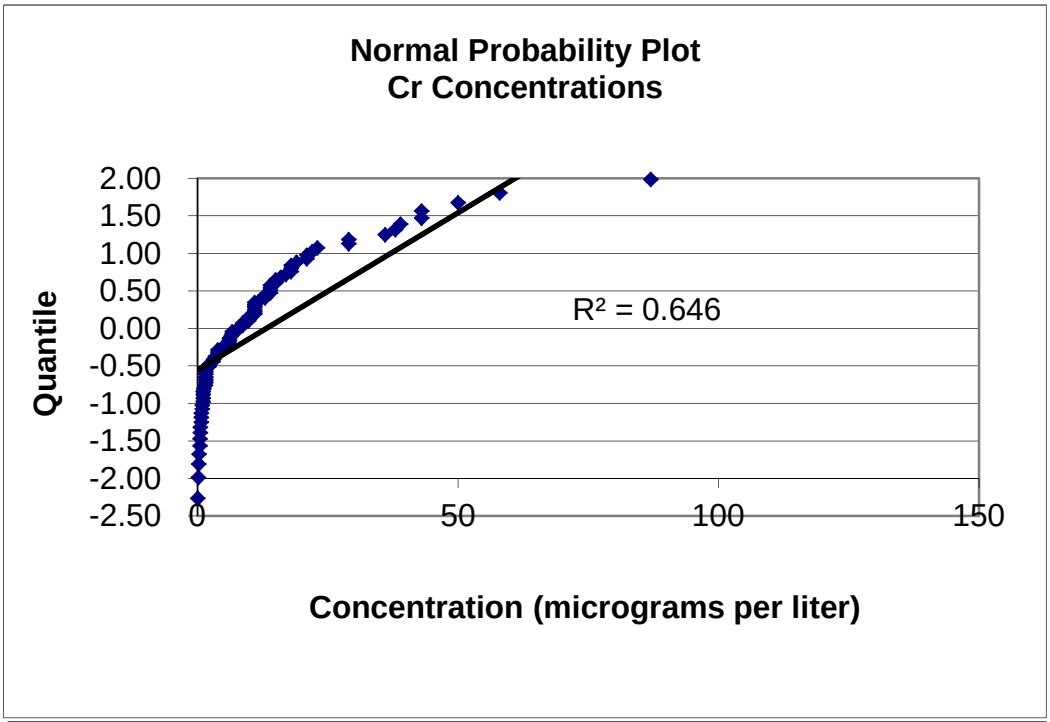
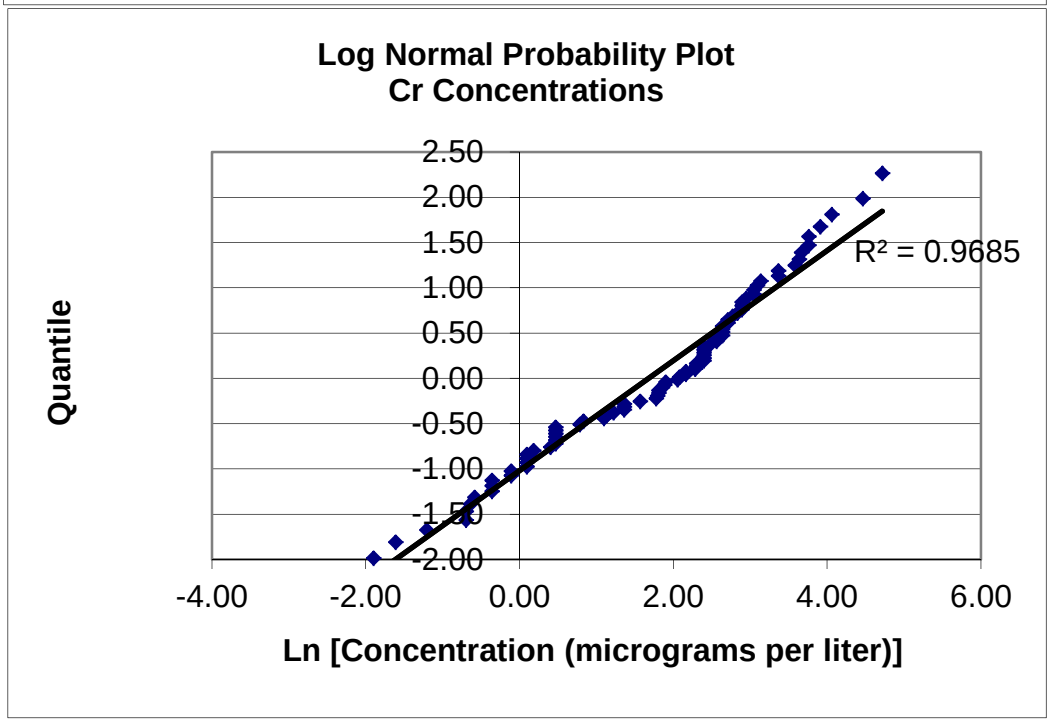
Probability Plots to determine the distribution of Chromium





JEI Project: CRSWMA
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Determination of reported background value as an outlier

Analyte: Chromium

Background Data

Sample No.	Sample Date	Location	ln(Concentration) (ug/l)	Qualifer	Quantitation Limit (ug/l)
1	04/15/04	MW-13S	2.833		10
2	07/01/93	IRL-1S	3.584		5
3	08/01/93	IRL-1S	2.639		5
4	09/01/93	IRL-1S	2.398		5
5	09/01/93	IRL-1S	2.944		5
6	04/01/94	IRL-1S	2.303		5
7	10/01/95	IRL-1S	2.565		10
8	10/01/96	IRL-1S	3.664		10
9	04/01/97	IRL-1S	3.135		10
10	10/01/97	IRL-1S	3.912		10
11	04/01/98	IRL-1S	2.890		10
12	03/01/99	IRL-1S	4.060		10
13	10/01/99	IRL-1S	3.045		10
14	04/01/00	IRL-1S	4.466		5
15	10/01/00	IRL-1S	3.045		10
16	04/01/01	IRL-1S	2.398		10
17	10/03/02	IRL-1S	2.708		10
18	10/03/03	IRL-1S	2.485		10
19	04/15/04	IRL-1S	2.565		10
20	04/02/08	IRL-1S	0.470	J	10
21	10/28/08	IRL-1S	1.099	J	10
22	04/08/09	IRL-1S	1.808	J	10
23	10/27/09	IRL-1S	2.054	J	10
24	04/08/10	IRL-1S	1.775	J	10
25	10/13/10	IRL-1S	-0.357	J	10
26	10/20/11	IRL-1S	0.470	J	10
27	04/26/12	IRL-1S	1.361	J	10
28	10/16/12	IRL-1S	0.470	J	10
29	07/01/93	IRL-1D	2.890		5
30	08/01/93	IRL-1D	2.079		5
31	09/01/93	IRL-1D	2.398		5
32	09/01/93	IRL-1D	3.761		5
33	10/27/05	IRL-1D	3.367		10
34	10/28/08	IRL-1D	0.470	J	10
35	04/08/09	IRL-1D	0.095	J	10
36	10/27/09	IRL-1D	0.788	J	10
37	04/08/10	IRL-1D	-0.105	J	10
38	10/13/10	IRL-1D	1.224	J	10
39	10/20/11	IRL-1D	0.833	J	10

40	04/26/12	IRL-1D	0.405	J	10
41	10/16/12	IRL-1D	0.470	J	10
42	04/02/03	LST-5S	2.639		10
43	10/01/03	LST-5S	2.639		10
44	04/15/04	LST-5S	2.398		10
45	04/03/08	LST-5S	-0.693	J	10
46	10/28/08	LST-5S	1.361	J	10
47	04/08/09	LST-5S	1.856	J	10
48	10/27/09	LST-5S	2.163	J	10
49	04/08/10	LST-5S	1.808	J	10
50	10/13/10	LST-5S	2.163	J	10
51	04/27/11	LST-5S	1.902	J	10
52	10/20/11	LST-5S	2.303		10
53	04/26/12	LST-5S	2.282	J	10
54	10/16/12	LST-5S	1.131	J	10
55	07/01/99	MW-7	4.718		10
56	08/01/99	MW-7	3.367		10
57	10/01/99	MW-7	2.639		1
58	11/01/99	MW-7	3.091		10
59	04/01/00	MW-7	2.398		10
60	10/01/00	MW-7	2.773		10
61	04/01/01	MW-7	2.398		10
62	10/01/01	MW-7	3.638		10
63	04/02/02	MW-7	3.761		10
64	10/03/02	MW-7	2.708		10
65	04/15/04	MW-7	2.890		10
66	04/08/09	MW-12S	-0.693	J	10
67	10/13/10	MW-12S	-1.609	J	10
68	10/28/08	MW-12D	-0.357	J	10
69	04/08/09	MW-12D	-0.105	J	10
70	10/27/09	MW-12D	0.095	J	10
71	04/08/10	MW-12D	-1.204	J	10
72	10/13/10	MW-12D	-0.357	J	10
73	10/20/11	MW-12D	0.470	J	10
74	04/26/12	MW-12D	0.182	J	10
75	10/16/12	MW-12D	-0.635	J	10
76	04/11/13	IRL-1S	1.569	J	10
77	04/11/13	IRL-1D	-0.580	J	10
78	04/11/13	MW-12S	-1.897	J	10
79	04/11/13	MW-12D	-2.813	J	10
80	04/11/13	LST-5S	1.887	J	10
81	10/30/13	IRL-1S	1.361	J	10
82	10/30/13	IRL-1D	0.095	J	10
83	10/30/13	MW-12D	0.095	J	10
84	10/30/13	LST-5S	1.792	J	10
		mean =	1.680		
		STD =	1.556		

Note: All concentrations are micrograms per liter

Using the data listed above, form the statisitc Tn:

Tn = (Xn - mean) / STD

where:	Xn =	largest observed sample value
	mean =	mean of the background values
	STD =	standard deviation of the background values

For	Xn =	4.718
	mean =	1.680
	STD =	1.556
	Tn =	**1.953**

From Table 8 included in the Staistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Interim Final Guidance, the critical value for the given sample group is

Number of samples =	84
Tc =	**3.147**

Since Tc>Tn, the sample result is not considered to be an outlier

JEI Project: CRSWMA
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Aitchison's Adjustment for Chromium

Background Values (positive detects only)

Sample No.	Sample Date	Location	Concentration (ug/l)	ln(conc)	Qualifer
1	04/15/04	MW-13S	17	2.833	
2	10/14/04	MW-13S	ND		
3	04/05/05	MW-13S	ND		
4	10/27/05	MW-13S	ND		
5	04/15/04	MW-13D	ND		
6	10/14/04	MW-13D	ND		
7	04/05/05	MW-13D	ND		
8	10/27/05	MW-13D	ND		
9	04/15/04	MW-14	ND		
10	10/14/04	MW-14	ND		
11	04/05/05	MW-14	ND		
12	10/27/05	MW-14	ND		
13	07/01/93	IRL-1S	36	3.584	
14	08/01/93	IRL-1S	14	2.639	
15	09/01/93	IRL-1S	11	2.398	
16	09/01/93	IRL-1S	19	2.944	
17	04/01/94	IRL-1S	10	2.303	
18	10/01/94	IRL-1S	ND		
19	04/01/95	IRL-1S	ND		
20	10/01/95	IRL-1S	13	2.565	
21	04/01/96	IRL-1S	ND		
22	10/01/96	IRL-1S	39	3.664	
23	04/01/97	IRL-1S	23	3.135	
24	10/01/97	IRL-1S	50	3.912	
25	04/01/98	IRL-1S	18	2.890	
26	10/01/98	IRL-1S	ND		
27	03/01/99	IRL-1S	58	4.060	
28	10/01/99	IRL-1S	21	3.045	
29	04/01/00	IRL-1S	87	4.466	
30	10/01/00	IRL-1S	21	3.045	
31	04/01/01	IRL-1S	11	2.398	
32	10/01/01	IRL-1S	ND		
33	04/02/02	IRL-1S	ND		
34	10/03/02	IRL-1S	15	2.708	
35	04/03/03	IRL-1S	ND		
36	10/03/03	IRL-1S	12	2.485	
37	04/15/04	IRL-1S	13	2.565	
38	10/14/04	IRL-1S	ND		
39	04/05/05	IRL-1S	ND		
40	10/27/05	IRL-1S	ND		

41	04/21/06	IRL-1S	ND		
42	10/12/06	IRL-1S	ND		
43	04/26/07	IRL-1S	ND		
44	10/10/07	IRL-1S	1.6		B
45	04/02/08	IRL-1S	1.6	0.470	J
46	10/28/08	IRL-1S	3	1.099	J
47	04/08/09	IRL-1S	6.1	1.808	J
48	10/27/09	IRL-1S	7.8	2.054	J
49	04/08/10	IRL-1S	5.9	1.775	J
50	10/13/10	IRL-1S	0.7	-0.357	J
51	04/27/11	IRL-1S	0.81		B
52	10/20/11	IRL-1S	1.6	0.470	J
53	04/26/12	IRL-1S	3.9	1.361	J
54	10/16/12	IRL-1S	1.6	0.470	J
55	07/01/93	IRL-1D	18	2.890	
56	08/01/93	IRL-1D	8	2.079	
57	09/01/93	IRL-1D	11	2.398	
58	09/01/93	IRL-1D	43	3.761	
59	04/01/94	IRL-1D	ND		
60	10/01/94	IRL-1D	ND		
61	04/01/95	IRL-1D	ND		
62	10/01/95	IRL-1D	ND		
63	04/01/96	IRL-1D	ND		
64	10/27/05	IRL-1D	29	3.367	
65	04/21/06	IRL-1D	ND		
66	10/12/06	IRL-1D	ND		
67	04/26/07	IRL-1D	ND		
68	10/10/07	IRL-1D	1.2	0.182	B
69	04/02/08	IRL-1D	ND		
70	10/28/08	IRL-1D	1.6	0.470	J
71	04/08/09	IRL-1D	1.1	0.095	J
72	10/27/09	IRL-1D	2.2	0.788	J
73	04/08/10	IRL-1D	0.9	-0.105	J
74	10/13/10	IRL-1D	3.4	1.224	J
75	04/27/11	IRL-1D	0.56		B
76	10/20/11	IRL-1D	2.3	0.833	J
77	04/26/12	IRL-1D	1.5	0.405	J
78	10/16/12	IRL-1D	1.6	0.470	J
79	10/03/02	LST-5S	ND		
80	04/02/03	LST-5S	14	2.639	
81	10/01/03	LST-5S	14	2.639	
82	04/15/04	LST-5S	11	2.398	
83	10/14/04	LST-5S	ND		
84	04/05/05	LST-5S	ND		
85	10/27/05	LST-5S	ND		
86	04/21/06	LST-5S	ND		
87	10/12/06	LST-5S	ND		
88	04/26/07	LST-5S	ND		
89	10/10/07	LST-5S	3.2	1.163	B
90	04/03/08	LST-5S	0.5	-0.693	J
91	10/28/08	LST-5S	3.9	1.361	J
92	04/08/09	LST-5S	6.4	1.856	J

93	10/27/09	LST-5S	8.7	2.163	J
94	04/08/10	LST-5S	6.1	1.808	J
95	10/13/10	LST-5S	8.7	2.163	J
96	04/27/11	LST-5S	6.7	1.902	J
97	10/20/11	LST-5S	10	2.303	
98	04/26/12	LST-5S	9.8	2.282	J
99	10/16/12	LST-5S	3.1	1.131	J
100	07/01/99	MW-7	112	4.718	
101	08/01/99	MW-7	29	3.367	
102	10/01/99	MW-7	14	2.639	
103	11/01/99	MW-7	22	3.091	
104	04/01/00	MW-7	11	2.398	
105	10/01/00	MW-7	16	2.773	
106	04/01/01	MW-7	11	2.398	
107	10/01/01	MW-7	38	3.638	
108	04/02/02	MW-7	43	3.761	
109	10/03/02	MW-7	15	2.708	
110	04/03/03	MW-7	ND		
111	10/03/03	MW-7	ND		
112	04/15/04	MW-7	18	2.890	
113	10/14/04	MW-7	ND		
114	04/02/02	MW-12S	ND		
115	10/03/02	MW-12S	ND		
116	04/03/03	MW-12S	ND		
117	10/03/03	MW-12S	ND		
118	04/15/04	MW-12S	ND		
119	10/14/04	MW-12S	ND		
120	04/05/05	MW-12S	ND		
121	10/27/05	MW-12S	ND		
122	04/21/06	MW-12S	ND		
123	10/12/06	MW-12S	ND		
124	04/26/07	MW-12S	ND		
125	10/10/07	MW-12S	ND		
126	04/03/08	MW-12S	ND		
127	10/28/08	MW-12S	ND		
128	04/08/09	MW-12S	0.5	-0.693	J
129	10/27/09	MW-12S	ND		
130	04/08/10	MW-12S	ND		
131	10/13/10	MW-12S	0.2	-1.609	J
132	04/27/11	MW-12S	0.43		B
133	10/20/11	MW-12S	0.6		B
134	04/26/12	MW-12S	0.43		B
135	10/16/12	MW-12S	ND		
136	04/02/02	MW-12D	ND		
137	10/03/02	MW-12D	ND		
138	04/03/03	MW-12D	ND		
139	10/03/03	MW-12D	ND		
140	04/15/04	MW-12D	ND		
141	10/14/04	MW-12D	ND		
142	04/05/05	MW-12D	ND		
143	10/27/05	MW-12D	ND		
144	04/21/06	MW-12D	ND		

145	10/12/06	MW-12D	ND		
146	04/26/07	MW-12D	ND		
147	10/10/07	MW-12D	ND		
148	04/03/08	MW-12D	ND		
149	10/28/08	MW-12D	0.7	-0.357	J
150	04/08/09	MW-12D	0.9	-0.105	J
151	10/27/09	MW-12D	1.1	0.095	J
152	04/08/10	MW-12D	0.3	-1.204	J
153	10/13/10	MW-12D	0.7	-0.357	J
154	04/27/11	MW-12D	0.78		B
155	10/20/11	MW-12D	1.6	0.470	J
156	04/26/12	MW-12D	1.2	0.182	J
157	10/16/12	MW-12D	0.53	-0.635	J
158	04/11/13	IRL-1S	4.8	1.569	J
159	04/11/13	IRL-1D	0.56	-0.580	J
160	04/11/13	MW-12S	0.15	-1.897	J
161	04/11/13	MW-12D	0.06	-2.813	J
162	04/11/13	LST-5S	6.6	1.887	J
163	10/30/13	IRL-1S	3.9	1.361	J
164	10/30/13	IRL-1D	1.1	0.095	J
165	10/30/13	MW-12S	0.2		B
166	10/30/13	MW-12D	1.1	0.095	J
167	10/30/13	LST-5S	6	1.792	J

Mean of detected values = 1.66
Standard Deviation of detected values = 1.55

The adjusted mean can be found using

$$M(a) = (1-d/n) \times M$$

where:	d =	number non- detected values	=	73
	n =	total number samples	=	157
	M =	mean detected values	=	1.66
		M(a)	**=**	**0.89**

The adjusted standard deviation squared may be found using

$$STD(a) = [(n-(d+1))/(n-1)]\ S + d/n((n-d)/(n-1))MM$$

where:	n =	total number samples	=	157
	d =	number non-detected values	=	73
	S =	std deviation of detected values squared	=	2.39
	MM =	mean of detected values squared	=	2.74
		STD(a)	=	1.96

and the adjusted standard deviation is then

S(a) = SQRT(STD(a)) = 1.40

JEI Project: CRSWMA
Project No: 618.1301.12
Date: 30-Oct-13

Parametric Tolerance Interval for Aitchison's adjusted data

Analyte: Chromium

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)	ln(Concentration) (ug/l)	Qualifer
1	04/15/04	MW-13S	17.00	10.00	2.833	
2	10/14/04	MW-13S	ND	10.00		
3	04/05/05	MW-13S	ND	10.00		
4	10/27/05	MW-13S	ND	10.00		
5	04/15/04	MW-13D	ND	10.00		
6	10/14/04	MW-13D	ND	10.00		
7	04/05/05	MW-13D	ND	10.00		
8	10/27/05	MW-13D	ND	10.00		
9	04/15/04	MW-14	ND	10.00		
10	10/14/04	MW-14	ND	10.00		
11	04/05/05	MW-14	ND	10.00		
12	10/27/05	MW-14	ND	10.00		
13	07/01/93	IRL-1S	36.00	5.00	3.584	
14	08/01/93	IRL-1S	14.00	5.00	2.639	
15	09/01/93	IRL-1S	11.00	5.00	2.398	
16	09/01/93	IRL-1S	19.00	5.00	2.944	
17	04/01/94	IRL-1S	10.00	5.00	2.303	
18	10/01/94	IRL-1S	ND	10.00		
19	04/01/95	IRL-1S	ND	10.00		
20	10/01/95	IRL-1S	13.00	10.00	2.565	
21	04/01/96	IRL-1S	ND	10.00		
22	10/01/96	IRL-1S	39.00	10.00	3.664	
23	04/01/97	IRL-1S	23.00	10.00	3.135	
24	10/01/97	IRL-1S	50.00	10.00	3.912	
25	04/01/98	IRL-1S	18.00	10.00	2.890	
26	10/01/98	IRL-1S	ND	10.00		
27	03/01/99	IRL-1S	58.00	10.00	4.060	
28	10/01/99	IRL-1S	21.00	10.00	3.045	
29	04/01/00	IRL-1S	87.00	5.00	4.466	
30	10/01/00	IRL-1S	21.00	10.00	3.045	
31	04/01/01	IRL-1S	11.00	10.00	2.398	
32	10/01/01	IRL-1S	ND	10.00		
33	04/02/02	IRL-1S	ND	10.00		
34	10/03/02	IRL-1S	15.00	10.00	2.708	
35	04/03/03	IRL-1S	ND	10.00		
36	10/03/03	IRL-1S	12.00	10.00	2.485	
37	04/15/04	IRL-1S	13.00	10.00	2.565	
38	10/14/04	IRL-1S	ND	10.00		
39	04/05/05	IRL-1S	ND	10.00		
40	10/27/05	IRL-1S	ND	10.00		
41	04/21/06	IRL-1S	ND	10.00		

42	10/12/06	IRL-1S	ND	10.00		
43	04/26/07	IRL-1S	ND	10.00		
44	10/10/07	IRL-1S	1.60	10.00		B
45	04/02/08	IRL-1S	1.60	10.00	0.470	J
46	10/28/08	IRL-1S	3.00	10.00	1.099	J
47	04/08/09	IRL-1S	6.10	10.00	1.808	J
48	10/27/09	IRL-1S	7.80	10.00	2.054	J
49	04/08/10	IRL-1S	5.90	10.00	1.775	J
50	10/13/10	IRL-1S	0.70	10.00	-0.357	J
51	04/27/11	IRL-1S	0.81	10.00		B
52	10/20/11	IRL-1S	1.60	10.00	0.470	J
53	04/26/12	IRL-1S	3.90	10.00	1.361	J
54	10/16/12	IRL-1S	1.60	10.00	0.470	J
55	07/01/93	IRL-1D	18.00	5.00	2.890	
56	08/01/93	IRL-1D	8.00	5.00	2.079	
57	09/01/93	IRL-1D	11.00	5.00	2.398	
58	09/01/93	IRL-1D	43.00	5.00	3.761	
59	04/01/94	IRL-1D	ND	5.00		
60	10/01/94	IRL-1D	ND	10.00		
61	04/01/95	IRL-1D	ND	10.00		
62	10/01/95	IRL-1D	ND	10.00		
63	04/01/96	IRL-1D	ND	10.00		
64	10/27/05	IRL-1D	29.00	10.00	3.367	
65	04/21/06	IRL-1D	ND	10.00		
66	10/12/06	IRL-1D	ND	10.00		
67	04/26/07	IRL-1D	ND	10.00		
68	10/10/07	IRL-1D	1.20	10.00		B
69	04/02/08	IRL-1D	ND	10.00		
70	10/28/08	IRL-1D	1.60	10.00	0.470	J
71	04/08/09	IRL-1D	1.10	10.00	0.095	J
72	10/27/09	IRL-1D	2.20	10.00	0.788	J
73	04/08/10	IRL-1D	0.90	10.00	-0.105	J
74	10/13/10	IRL-1D	3.40	10.00	1.224	J
75	04/27/11	IRL-1D	0.56	10.00		B
76	10/20/11	IRL-1D	2.30	10.00	0.833	J
77	04/26/12	IRL-1D	1.50	10.00	0.405	J
78	10/16/12	IRL-1D	1.60	10.00	0.470	J
79	10/03/02	LST-5S	ND	10.00		
80	04/02/03	LST-5S	14.00	10.00	2.639	
81	10/01/03	LST-5S	14.00	10.00	2.639	
82	04/15/04	LST-5S	11.00	10.00	2.398	
83	10/14/04	LST-5S	ND	10.00		
84	04/05/05	LST-5S	ND	10.00		
85	10/27/05	LST-5S	ND	10.00		
86	04/21/06	LST-5S	ND	10.00		
87	10/12/06	LST-5S	ND	10.00		
88	04/26/07	LST-5S	ND	10.00		
89	10/10/07	LST-5S	3.20	10.00	1.163	B
90	04/03/08	LST-5S	0.50	10.00	-0.693	J
91	10/28/08	LST-5S	3.90	10.00	1.361	J
92	04/08/09	LST-5S	6.40	10.00	1.856	J
93	10/27/09	LST-5S	8.70	10.00	2.163	J
94	04/08/10	LST-5S	6.10	10.00	1.808	J
95	10/13/10	LST-5S	8.70	10.00	2.163	J

96	04/27/11	LST-5S	6.70	10.00	1.902	J
97	10/20/11	LST-5S	10.00	10.00	2.303	
98	04/26/12	LST-5S	9.80	10.00	2.282	J
99	10/16/12	LST-5S	3.10	10.00	1.131	J
100	07/01/99	MW-7	112.00	10.00	4.718	
101	08/01/99	MW-7	29.00	10.00	3.367	
102	10/01/99	MW-7	14.00	1.00	2.639	
103	11/01/99	MW-7	22.00	10.00	3.091	
104	04/01/00	MW-7	11.00	10.00	2.398	
105	10/01/00	MW-7	16.00	10.00	2.773	
106	04/01/01	MW-7	11.00	10.00	2.398	
107	10/01/01	MW-7	38.00	10.00	3.638	
108	04/02/02	MW-7	43.00	10.00	3.761	
109	10/03/02	MW-7	15.00	10.00	2.708	
110	04/03/03	MW-7	ND	10.00		
111	10/03/03	MW-7	ND	10.00		
112	04/15/04	MW-7	18.00	10.00	2.890	
113	10/14/04	MW-7	ND	10.00		
114	04/02/02	MW-12S	ND	10.00		
115	10/03/02	MW-12S	ND	10.00		
116	04/03/03	MW-12S	ND	10.00		
117	10/03/03	MW-12S	ND	10.00		
118	04/15/04	MW-12S	ND	10.00		
119	10/14/04	MW-12S	ND	10.00		
120	04/05/05	MW-12S	ND	10.00		
121	10/27/05	MW-12S	ND	10.00		
122	04/21/06	MW-12S	ND	10.00		
123	10/12/06	MW-12S	ND	10.00		
124	04/26/07	MW-12S	ND	10.00		
125	10/10/07	MW-12S	ND	10.00		
126	04/03/08	MW-12S	ND	10.00		
127	10/28/08	MW-12S	ND	10.00		
128	04/08/09	MW-12S	0.50	10.00	-0.693	J
129	10/27/09	MW-12S	ND	10.00		
130	04/08/10	MW-12S	ND	10.00		
131	10/13/10	MW-12S	0.20	10.00	-1.609	J
132	04/27/11	MW-12S	0.43	10.00		B
133	10/20/11	MW-12S	0.60	10.00		B
134	04/26/12	MW-12S	0.43	10.00		B
135	10/16/12	MW-12S	ND	10.00		
136	04/02/02	MW-12D	ND	10.00		
137	10/03/02	MW-12D	ND	10.00		
138	04/03/03	MW-12D	ND	10.00		
139	10/03/03	MW-12D	ND	10.00		
140	04/15/04	MW-12D	ND	10.00		
141	10/14/04	MW-12D	ND	10.00		
142	04/05/05	MW-12D	ND	10.00		
143	10/27/05	MW-12D	ND	10.00		
144	04/21/06	MW-12D	ND	10.00		
145	10/12/06	MW-12D	ND	10.00		
146	04/26/07	MW-12D	ND	10.00		
147	10/10/07	MW-12D	ND	10.00		
148	04/03/08	MW-12D	ND	10.00		
149	10/28/08	MW-12D	0.70	10.00	-0.357	J

150	04/08/09	MW-12D	0.90	10.00	-0.105	J
151	10/27/09	MW-12D	1.10	10.00	0.095	J
152	04/08/10	MW-12D	0.30	10.00	-1.204	J
153	10/13/10	MW-12D	0.70	10.00	-0.357	J
154	04/27/11	MW-12D	0.78	10.00		B
155	10/20/11	MW-12D	1.60	10.00	0.470	J
156	04/26/12	MW-12D	1.20	10.00	0.182	J
157	10/16/12	MW-12D	0.53	10.00	-0.635	J
158	04/11/13	IRL-1S	4.80	10.00	1.569	J
159	04/11/13	IRL-1D	0.56	10.00	-0.580	J
160	04/11/13	MW-12S	0.15	10.00	-1.897	J
161	04/11/13	MW-12D	0.06	10.00	-2.813	J
162	04/11/13	LST-5S	6.60	10.00	1.887	J
163	10/30/13	IRL-1S	3.90	10.00	1.361	J
164	10/30/13	IRL-1D	1.10	10.00	0.095	J
165	10/30/13	MW-12S	0.20	10.00		B
166	10/30/13	MW-12D	1.10	10.00	0.095	J
167	10/30/13	LST-5S	6.00	10.00	1.792	J

Note: All sample concentrations are micrograms per liter

The background mean and standard deviation were modified using Aitchison's Adjustment.
The adjusted mean and standard deviation are as follows:

The ln(adjusted mean) and ln(standard deviation) are

ln(adjusted mean) = 0.89
ln(adjusted standard deviation) = 1.40

Using the background data, the upper Tolerance Limit can be determined using

Upper Tolerance Limit = (Mean Concentration) + K x (Standard Deviation Samples)

where: K = factor for constructing one sided normal tolerance limit taken from table 4-2, page 87, Statistical Methods for Groundwater Monitoring, Gibbons, 1994
n = number of background samples

For: K = 1.868
n = 157

UTL = 33.17

JOYCE Project: CRSWMA
Project No: 618.1301.12
Date: 10/30/2013

Analyte: Cobalt

Sample No.	Sample Date	Location	Concentration (ug/L)	Qualifer	Quantitation Limit (ug/L)	Sorted Concentration (ug/L)	
1	4/15/2004	MW-13S	ND		10	0.1	41
2	10/14/2004	MW-13S	ND		10	0.1	32
3	4/5/2005	MW-13S	ND		10	0.14	29
4	10/27/2005	MW-13S	ND		10	0.18	27
5	4/15/2004	MW-13D	ND		10	0.19	26
6	10/14/2004	MW-13D	ND		10	0.19	22
7	4/5/2005	MW-13D	ND		10	0.2	21
8	10/27/2005	MW-13D	ND		10	0.2	20
9	4/15/2004	MW-14	ND		10	0.2	16
10	10/14/2004	MW-14	ND		10	0.2	13
11	4/5/2005	MW-14	ND		10	0.2	4.6
12	10/27/2005	MW-14	ND		10	0.21	2.8
13	7/1/1993	IRL-1S	32		20	0.23	2.3
14	8/1/1993	IRL-1S	26		20	0.24	1.8
15	9/1/1993	IRL-1S	22		20	0.27	1.6
16	9/1/1993	IRL-1S	ND		20	0.3	1.5
17	4/1/1994	IRL-1S	27	B	10	0.31	1.4
18	10/1/1994	IRL-1S	ND		10	0.33	1.3
19	4/1/1995	IRL-1S	ND		10	0.37	1.3
20	10/1/1995	IRL-1S	ND		10	0.39	1.3
21	4/1/1996	IRL-1S	ND		10	0.4	1.3
22	10/1/1996	IRL-1S	ND		10	0.4	1.3
23	4/1/1997	IRL-1S	ND		10	0.4	1.2
24	10/1/1997	IRL-1S	20		10	0.40	1.1
25	4/1/1998	IRL-1S	ND		10	0.41	1.1
26	10/1/1998	IRL-1S	ND		10	0.43	1.1
27	3/1/1999	IRL-1S	ND		10	0.45	1.1
28	10/1/1999	IRL-1S	ND		10	0.46	1
29	4/1/2000	IRL-1S	16		10	0.46	1
30	10/1/2000	IRL-1S	ND		10	0.5	1.0
31	4/1/2001	IRL-1S	ND		10	0.5	1.0
32	10/1/2001	IRL-1S	ND		10	0.5	0.93
33	4/2/2002	IRL-1S	ND		10	0.5	0.9
34	10/3/2002	IRL-1S	ND		10	0.6	0.9
35	4/3/2003	IRL-1S	ND		10	0.68	0.87
36	10/3/2003	IRL-1S	ND		10	0.7	0.86
37	4/15/2004	IRL-1S	ND		10	0.8	0.8
38	10/14/2004	IRL-1S	ND		10	0.86	0.7
39	4/5/2005	IRL-1S	ND		10	0.87	0.68
40	10/27/2005	IRL-1S	ND		10	0.9	0.6
41	4/21/2006	IRL-1S	ND		10	0.9	0.5
42	10/12/2006	IRL-1S	ND		10	0.93	0.5
43	4/26/2007	IRL-1S	ND		10	1	0.5
44	10/10/2007	IRL-1S	0.6	J	10.0	1	0.5
45	4/2/2008	IRL-1S	0.9	J	10.0	1.0	0.46
46	10/28/2008	IRL-1S	1.1	J	10.0	1.0	0.46
47	4/8/2009	IRL-1S	1.3	J	10.0	1.1	0.45
48	10/27/2009	IRL-1S	1.2	J	10.0	1.1	0.43
49	4/8/2010	IRL-1S	1.3	J	10.0	1.1	0.41
50	10/13/2010	IRL-1S	1	J	10.0	1.1	0.4
51	4/27/2011	IRL-1S	1.3	J	10.0	1.2	0.4
52	10/20/2011	IRL-1S	0.86	J	10.0	1.3	0.4
53	7/1/1993	IRL-1D	41		20	1.3	0.40
54	8/1/1993	IRL-1D	27		20	1.3	0.39
55	9/1/1993	IRL-1D	21		20	1.3	0.37
56	9/1/1993	IRL-1D	ND		20	1.3	0.33
57	4/1/1994	IRL-1D	22	B	10	1.4	0.31
58	10/1/1994	IRL-1D	ND		10	1.5	0.3
59	4/1/1995	IRL-1D	ND		10	1.6	0.27
60	10/1/1995	IRL-1D	ND		10	1.8	0.24
61	4/1/1996	IRL-1D	ND		10	2.3	0.23
62	10/27/2005	IRL-1D	ND		10	2.8	0.21
63	4/21/2006	IRL-1D	ND		10	4.6	0.2
64	10/12/2006	IRL-1D	ND		10	13	0.2
65	4/26/2007	IRL-1D	ND		10	16	0.2
66	10/10/2007	IRL-1D	ND		10	20	0.2
67	4/2/2008	IRL-1D	0.1	J	10	21	0.2
68	10/28/2008	IRL-1D	0.5	J	10	22	0.19

69	4/8/2009	IRL-1D	0.8	J	10	26	0.19
70	10/27/2009	IRL-1D	0.5	J	10	27	0.18
71	4/8/2010	IRL-1D	0.9	J	10	29	0.14
72	10/13/2010	IRL-1D	0.7	J	10	32	0.1
73	4/27/2011	IRL-1D	0.24	J	10	41	0.1
74	10/20/2011	IRL-1D	0.46	J	10		
75	7/1/1993	LST-5S	29		20		
76	8/1/1993	LST-5S	ND		20		
77	9/1/1993	LST-5S	ND		20		
78	9/1/1993	LST-5S	ND		20		
79	4/1/1994	LST-5S	19	B	10		
80	10/1/1994	LST-5S	ND		10		
81	4/1/1995	LST-5S	ND		10		
82	10/1/1995	LST-5S	ND		10		
83	4/1/1996	LST-5S	ND		10		
84	10/1/1996	LST-5S	ND		10		
85	4/1/1997	LST-5S	ND		10		
86	10/1/1997	LST-5S	ND		10		
87	4/1/1998	LST-5S	ND		10		
88	10/1/1998	LST-5S	ND		10		
89	3/1/1999	LST-5S	ND		10		
90	10/1/1999	LST-5S	ND		10		
91	4/1/2000	LST-5S	ND		10		
92	10/1/2000	LST-5S	ND		10		
93	4/1/2001	LST-5S	ND		10		
94	10/1/2001	LST-5S	ND		10		
95	4/2/2002	LST-5S	ND		10		
75	10/3/2002	LST-5S	ND		10		
76	4/2/2003	LST-5S	ND		10		
77	10/1/2003	LST-5S	ND		10		
78	4/15/2004	LST-5S	ND		10		
79	10/14/2004	LST-5S	ND		10		
80	4/5/2005	LST-5S	ND		10		
81	10/27/2005	LST-5S	ND		10		
82	4/21/2006	LST-5S	ND		10		
83	10/12/2006	LST-5S	ND		10		
84	4/26/2007	LST-5S	ND		10		
85	10/10/2007	LST-5S	0.5	J	10		
86	4/3/2008	LST-5S	0.5	J	10		
87	10/28/2008	LST-5S	0.3	J	10		
88	4/8/2009	LST-5S	0.4	J	10		
89	10/27/2009	LST-5S	0.4	J	10		
90	4/8/2010	LST-5S	0.4	J	10		
91	10/13/2010	LST-5S	1	J	10		
92	4/27/2011	LST-5S	0.45	J	10		
93	10/20/2011	LST-5S	0.39	J	10		
94	7/1/1999	MW-7	13		10		
95	8/1/1999	MW-7	ND		10		
96	10/1/1999	MW-7	ND		10		
97	11/1/1999	MW-7	ND		10		
98	4/1/2000	MW-7	ND		10		
99	10/1/2000	MW-7	ND		10		
100	4/1/2001	MW-7	ND		10		
101	10/1/2001	MW-7	ND		10		
102	4/2/2002	MW-7	ND		10		
103	10/3/2002	MW-7	ND		10		
104	4/3/2003	MW-7	ND		10		
105	10/3/2003	MW-7	ND		10		
106	4/15/2004	MW-7	ND		10		
107	10/14/2004	MW-7	ND		10		
108	4/2/2002	MW-12S	ND		10		
109	10/3/2002	MW-12S	ND		10		
110	4/3/2003	MW-12S	ND		10		
111	10/3/2003	MW-12S	ND		10		
112	4/15/2004	MW-12S	ND		10		
113	10/14/2004	MW-12S	ND		10		
114	4/5/2005	MW-12S	ND		10		
115	10/27/2005	MW-12S	ND		10		
116	4/21/2006	MW-12S	ND		10		
117	10/12/2006	MW-12S	ND		10		
118	4/26/2007	MW-12S	ND		10		
119	10/10/2007	MW-12S	1.4	J	10		
120	4/3/2008	MW-12S	4.6	J	10		
121	10/28/2008	MW-12S	2.8	J	10		
122	4/8/2009	MW-12S	2.3	J	10		
123	10/27/2009	MW-12S	1.6	J	10		

124	4/8/2010	MW-12S	1.8	J	10
125	10/13/2010	MW-12S	1.5	J	10
126	4/27/2011	MW-12S	1.3	J	10
127	10/11/2011	MW-12S	1.1	J	10
128	4/2/2002	MW-12D	ND		10
129	10/3/2002	MW-12D	ND		10
130	4/3/2003	MW-12D	ND		10
131	10/3/2003	MW-12D	ND		10
132	4/15/2004	MW-12D	ND		10
133	10/14/2004	MW-12D	ND		10
134	4/5/2005	MW-12D	ND		10
135	10/27/2005	MW-12D	ND		10
136	4/21/2006	MW-12D	ND		10
137	10/12/2006	MW-12D	ND		10
138	4/26/2007	MW-12D	ND		10
139	10/10/2007	MW-12D	ND		10
140	4/3/2008	MW-12D	0.1	J	10
141	10/28/2008	MW-12D	0.2	J	10
142	4/8/2009	MW-12D	0.2	J	10
143	10/27/2009	MW-12D	0.2	J	10
144	4/8/2010	MW-12D	0.2	J	10
145	10/13/2010	MW-12D	0.2	J	10
146	4/27/2011	MW-12D	0.14	J	10
147	10/20/2011	MW-12D	0.19	J	10
148	4/26/2012	IRL-1S	1.0	J	10
149	4/26/2012	IRL-1D	0.41	J	10
150	4/26/2012	MW-12S	1.0	J	10
151	4/26/2012	MW-12D	0.21	J	10
152	4/26/2012	LST-5S	0.40	J	10
153	10/16/2012	IRL-1S	0.93	J	10
154	10/16/2012	IRL-1D	0.46	J	10
155	10/16/2012	MW-12S	1.1	J	10
156	10/16/2012	MW-12D	0.19	J	10
157	10/16/2012	LST-5S	0.23	J	10
158	4/11/2013	IRL-1S	1.3	J	10
159	4/11/2013	IRL-1D	0.33	J	10
160	4/11/2013	MW-12S	0.68	J	10
161	4/11/2013	MW-12D	0.18	J	10
162	4/11/2013	LST-5S	0.43	J	10
163	10/30/2013	IRL-1S	1.1	J	10
164	10/30/2013	IRL-1D	0.37	J	10
165	10/30/2013	MW-12S	0.87	J	10
166	10/30/2013	MW-12D	0.31	J	10
167	10/30/2013	LST-5S	0.27	J	10

Number of Data	164
Number of Truncated Data	112
Percentage of Truncated Data	68%

Nonparametric Prediction Interval: 41.00

Note:
All concentrations in micrograms per liter.
Blank qualified data (B) not used in statistical calculations.
J = Estimated concentration between laboratory detection limit and quatitation limit
ND = Not detected

APPENDIX 2

SUMMARY OF STATISTICAL ANALYSES

SECOND SEMIANNUAL GROUNDWATER MONITORING EVENT of 2013
CRSWMA Tuscarora Landfill

Constituent	NC 2L	GWPS	Data Distribution	Statistical Method used to Establish Background	Calculated Background Concentration	Sample Location	Sample Result in (µg/L)	SSI
Beryllium		4	N/A	Non-parametric Prediction Interval	6.00	MW-16S	6	NO
						MW-18S	7	YES
Chromium	10		Log Normal	Aitchison's Adj. /Upper Tolerance Limit	33.17	LST-4S	11	NO
Cobalt		1	N/A	Non-parametric Prediction Interval	41.00	MW-15S	11	NO

Notes:

1. Concentrations are in micrograms per liter (µg/L).
2. NC 2L = North Carolina 2L Groundwater Standard.
3. GWPS = Groundwater Protection Standard.
4. SSI = Statistically significant increase over background.
5. N/E = Not established.
5. N/A = Not applicable.