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August 4, 2014

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

**RE: First Semiannual Water Quality Monitoring Report of 2014
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 *First Semiannual Water Quality Monitoring Report of 2014* in electronic format, including the Environmental Monitoring Form. This report completes the first semiannual compliance monitoring event of 2014 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

A handwritten signature in blue ink that reads "Van Burbach".

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**

**FIRST SEMIANNUAL WATER QUALITY
MONITORING REPORT OF 2014**

AUGUST 2014

PREPARED BY:



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JOYCE PROJECT NO. 00618.1301.12.01

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	April 9-10, 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 Methane gas monitoring data
 Groundwater monitoring data from private water supply wells Corrective action data (specify) _____
 Leachate monitoring data Other(specify) _____
 Surface water monitoring data

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

G. Van Burbach
Signature

8/5/14
Date

Affix Licensed Professional Geologist Seal

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Facility Representative Address

C-0782

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



**First Semiannual Water Quality Monitoring Report of 2014
Coastal Regional Solid Waste Management Authority Tuscarora Landfill
Craven County, North Carolina**

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Site Information	1
1.2	Site Geology	1
1.3	Regulatory Status.....	2
2.0	FACILITY MONITORING PROGRAMS	2
2.1	Tuscarora Interim Regional Landfill Monitoring Program	2
2.2	Tuscarora Long-Term Regional Landfill Monitoring Program	3
2.3	Leachate Storage Lagoon Area Monitoring Program.....	3
2.4	Surface Water Monitoring Program.....	4
2.5	Leachate Monitoring Program	4
3.0	FIRST SEMIANNUAL SAMPLING EVENT OF 2014.....	4
3.1	Field Work.....	4
3.2	Laboratory Analysis and JOYCE Quality Control	5
4.0	HYDROGEOLOGICAL CONDITIONS	6
5.0	DATA ANALYSIS AND STATISTICAL RESULTS	7
5.1	Analytical Results and Comparison to Standards	7
	5.1.1 Tuscarora Interim Regional Landfill	7
	5.1.2 Tuscarora Long-Term Regional Landfill.....	8
	5.1.3 Leachate Storage Lagoon Area.....	8
	5.1.4 Surface Water.....	9
	5.1.5 Leachate	9
5.2	Statistical Methods.....	9
5.3	Statistical Results	10
6.0	CONCLUSION	10
7.0	REFERENCES.....	10

**First Semiannual Water Quality Monitoring Report of 2014
Coastal Regional Solid Waste Management Authority Tuscarora Landfill
Craven County, North Carolina**

TABLE OF CONTENTS CONTINUED

Tables

Table 1	Summary of Groundwater Elevations: Tuscarora Interim Regional Landfill (IRL)
Table 2	Summary of Groundwater Elevations: Tuscarora Long-Term Regional Landfill
Table 3	Summary of Groundwater Elevations: Leachate Storage Area
Table 4	Estimated Hydraulic Gradients and Average Linear Velocities for the Shallow Aquifer
Table 5	Estimated Hydraulic Gradients and Average Linear Velocities for the Deep Aquifer
Table 6	Historical Detections in Groundwater: Tuscarora IRL
Table 7	Summary of Field Parameters: Tuscarora IRL
Table 8A	Historical Detections in Groundwater: Tuscarora Long-Term Regional Landfill Phases 1 & 2
Table 8B	Historical Detections in Groundwater: Tuscarora Long-Term Regional Landfill Phase 3
Table 9A	Summary of Field Parameters: Tuscarora Long-Term Regional Landfill Phases 1 & 2
Table 9B	Summary of Field Parameters: Tuscarora Long-Term Regional Landfill Phase 3
Table 10	Historical Detections in Groundwater: Leachate Storage Area
Table 11	Summary of Field Parameters: Leachate Storage (LST) Area
Table 12	Historical Detections in Surface Water
Table 13	Summary of Field Parameters: Surface Water
Table 14	Historical Detections in Leachate: Leachate Collection System

Figure

Figure No. 1	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

Appendices

Appendix A	Laboratory Analytical Reports and Field Data Logs
Appendix B	Statistical Summary and Worksheets

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 includes 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, 2013. 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
<i>IRL-1S</i>	6/29/93	Background	Detection	18.34	Shallow Aquifer / Sediment
<i>IRL-1D</i>	6/29/93	Background	Detection	45.91	Deep Aquifer / Sediment
<i>IRL-2S</i>	6/30/93	Abandoned	-	-	-
<i>IRL-2SA</i>	1/13/01	Observation	Water Level	17.63	Shallow Aquifer / Sediment
<i>IRL-2D</i>	6/30/93	Abandoned	-	-	-
<i>IRL-2SD</i>	1/13/01	Observation	Water Level	41.76	Deep Aquifer / Sediment
<i>IRL-3S</i>	7/02/93	Compliance	Detection	16.59	Shallow Aquifer / Sediment
<i>IRL-3D</i>	7/02/93	Compliance	Detection	40.91	Deep Aquifer / Sediment
<i>IRL-4S</i>	7/02/93	Compliance	Detection	15.23	Shallow Aquifer / Sediment
<i>IRL-4D</i>	7/02/93	Compliance	Detection	25.87	Deep Aquifer / Sediment
<i>IRL-5S</i>	7/01/93	Compliance	Detection	14.69	Shallow Aquifer / Sediment
<i>IRL-5D</i>	7/01/93	Observation	Water Level	26.10	Deep Aquifer / Sediment
<i>IRL-6S</i>	7/02/93	Abandoned	-	-	-
<i>IRL-6D</i>	7/02/93	Abandoned	-	-	-
<i>MW-A</i>	12/13/00	Compliance	Detection	22.00	Shallow Aquifer / Sediment
<i>MW-B</i>	1/12/01	Observation	Water Level	22.06	Shallow Aquifer / Sediment
<i>PZ-Z</i>	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
<i>Phase 1</i>	<i>MW-7</i>	7/15/99	Compliance	Detection	17.89	Shallow Aquifer / Sediment
	<i>MW-8</i>	7/15/99	Compliance	Detection	15.14	Shallow Aquifer / Sediment
	<i>MW-9</i>	7/15/99	Abandoned	-	-	-
	<i>MW-10</i>	7/15/99	Compliance	Detection	16.92	Shallow Aquifer / Sediment
	<i>MW-11S</i>	7/15/99	Compliance	Detection	12.07	Shallow Aquifer / Sediment
	<i>MW-11D</i>	7/15/99	Compliance	Detection	36.85	Deep Aquifer / Sediment
<i>Phase 2</i>	<i>MW-12S</i>	4/09/02	Background	Detection	18.02	Shallow Aquifer / Sediment
	<i>MW-12D</i>	4/09/02	Background	Detection	38.00	Deep Aquifer / Sediment
	<i>MW-13S</i>	4/21/03	Compliance	Detection	17.48	Shallow Aquifer / Sediment
	<i>MW-13D</i>	4/23/03	Compliance	Detection	42.29	Deep Aquifer / Sediment
	<i>MW-14</i>	4/18/03	Abandoned	-	-	-
	<i>MW-14R</i>	10/04/07	Compliance	Detection	16.85	Shallow Aquifer / Sediment
<i>Phase 3</i>	<i>MW-15S</i>	6/22/09	Compliance	Detection	15.00	Shallow Aquifer / Sediment
	<i>MW-15D</i>	6/23/09	Compliance	Detection	38.00	Deep Aquifer / Sediment
	<i>MW-16S</i>	8/10/09	Compliance	Detection	12.00	Shallow Aquifer / Sediment
	<i>MW-16D</i>	6/24/09	Compliance	Detection	35.00	Deep Aquifer / Sediment
	<i>MW-17S</i>	6/30/09	Compliance	Detection	13.00	Shallow Aquifer / Sediment
	<i>MW-17D</i>	6/30/09	Compliance	Detection	38.00	Deep Aquifer / Sediment
	<i>MW-18S</i>	7/01/09	Compliance	Detection	11.00	Shallow Aquifer / Sediment
	<i>MW-18D</i>	7/01/09	Compliance	Detection	35.00	Deep Aquifer / Sediment
	<i>MW-19S</i>	7/01/09	Compliance	Detection	10.00	Shallow Aquifer / Sediment
	<i>MW-19D</i>	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
<i>LST-1S</i>	6/24/93	Compliance	Detection	15.83	Shallow Aquifer / Sediment
<i>LST-1D</i>	6/24/93	Compliance	Detection	36.01	Deep Aquifer / Sediment
<i>LST-2S</i>	6/24/93	Compliance	Detection	14.74	Shallow Aquifer / Sediment
<i>LST-2D</i>	6/24/93	Observation	Water Level	33.96	Deep Aquifer / Sediment
<i>LST-3S</i>	6/25/93	Compliance	Detection	18.34	Shallow Aquifer / Sediment
<i>LST-3D</i>	6/24/93	Observation	Water Level	35.57	Deep Aquifer / Sediment
<i>LST-4S</i>	6/25/93	Compliance	Detection	18.18	Shallow Aquifer / Sediment
<i>LST-4D</i>	6/24/93	Observation	Water Level	36.39	Deep Aquifer / Sediment
<i>LST-5S</i>	6/28/93	Background	Detection	16.75	Shallow Aquifer / Sediment
<i>LST-5D</i>	6/28/93	Compliance	Detection	39.04	Deep Aquifer / Sediment
<i>LST-6S</i>	6/28/93	Compliance	Detection	17.25	Shallow Aquifer / Sediment
<i>LST-6D</i>	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
<i>SWPT-1</i>	Upstream	Surface Water
<i>SWPT-2</i>	Compliance	Surface Water
<i>UD-1</i>	Compliance	Surface Water
<i>UD-2</i>	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 FIRST SEMIANNUAL SAMPLING EVENT OF 2014

3.1 Field Work

On April 9-10, 2014, 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 April 9-10, 2014 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 April 9, 2014.

Monitoring wells were purged and sampled using decontaminated re-usable Teflon bailers during the April 2014 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 April 2014 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. Care was taken to not 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 April 9-10, 2014 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 April 9-10, 2014 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 Solid Waste Section Limits (SWSLs), groundwater standards, or surface water standards; and
- Detections that are above historical levels.

The laboratory data packages for the April 9-10, 2014, sampling events are included in Appendix A of this report, and the results are summarized in the detection and historical tables (Tables 5 – 14) 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 1 and 2, and were interpreted from the April 2014 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 April 2014 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 0.0028 to 0.0043 ft/ft (Table 4) for the shallow aquifer and 0.0038 to 0.0046 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 gradient and flow velocity calculations are included in Tables 4 and 5.

The calculated linear groundwater flow velocities range from 0.009 to 0.014 ft/day (Table 4) for the shallow aquifer range and 0.083 to 0.100 ft/day (Table 5) for the deep aquifer. The linear velocity equation is based on the simplified assumption of a homogeneous and isotropic aquifer.

5.0 DATA ANALYSIS AND STATISTICAL RESULTS

The data from the laboratory analysis of the April 9-10, 2014 sampling event were received on May 13, 2014, from Environment 1, Inc. and are found in Appendix A of this report. Groundwater data are compared to the relevant North Carolina water quality standard found in 15A NCAC 2L.0202 (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 B 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 April 2014 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	
<i>Barium</i>	700	188	56.2 J	48.4 J	44.3 J	60.4 J	45.7 J	110	51.5 J	ND
<i>Zinc</i>	1000	6.5 J	7.8 J	3.3 J	1.6 J	8.4 J	3.7 J	151	4.7 J	ND

All concentrations are reported in micrograms per liter (µg/L).
J = Estimated concentration below SWSL.

ND = Non-detect
B = Blank-qualified detection.

The inorganic and organic analytical results from the April 2014 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 A. 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 April 2014 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
<i>Barium</i>	700	44.8 J	40.6 J	39.2 J	132	64.2 J	19 J	44.7 J	96.7 J	50.8 J	57.6 J	ND
<i>Zinc</i>	1000	4.7 J	2.4 J	9.9 J	10	7.4 J	9.5 J	ND	5.2 J	ND	3.5 J	ND

All concentrations are reported in micrograms per liter (µg/L).
J = Estimated concentration below SWSL.

ND = Non-detect
B = Blank-qualified detection.

The following inorganic constituents were detected at quantified concentrations during the April 2014 sampling event for the Tuscarora Long-Term Regional Landfill in one or more Phase 3 compliance monitoring wells.

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
<i>Barium</i>	700	147	35.4 J	47 J	119	92.9 J	43.0 J	14.8 J	28.7 J	75 J	51.5 J	ND
<i>Beryllium</i>	(4)	1.0	0.04 J	6	0.08 J	4	0.04 J	6	0.10 J	0.10 J	0.32 J	ND
<i>Cadmium</i>	2	0.14 J	0.06 J	2	0.06 J	0.32 J	ND	1	ND	0.08 J	0.14 J	ND
<i>Cobalt</i>	(1)	12	0.32 J	3.5 J	0.33 J	5.7 J	0.19 J	8.8 J	0.21 J	0.29 J	1.2 J	ND
<i>Zinc</i>	1000	14	1.8 B	12	4.1 J	17	0.92 J	18	0.97 J	1.8 J	22	ND

All concentrations are reported in micrograms per liter (µg/L).
J = Estimated concentration below SWSL.

ND = Non-detect
B = Blank-qualified detection.

Bold = result above the NC 2L or GWPS level

The inorganic and organic analytical results from the April 2014 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 A. See Sections 5.2 and 5.3 of this report for discussion of the statistical background for beryllium and cobalt.

5.1.3 Leachate Storage Lagoon Area

The following inorganic constituent was detected at a quantified concentration during the April 2014 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	
<i>Zinc</i>	1,000	33	4.0 J	2.3 J	5.6 J	24	13	8 J	19	ND

All concentrations are reported in micrograms per liter (µg/L).
 J = Estimated concentration below SWSL.

--- = Data not available.
 B = Blank-qualified detection.

The inorganic and organic analytical results from the April 2014 sampling event at the Leachate Storage Lagoon Area are summarized in Table 10 and field parameters are summarized in 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 A of this report. Quantified detections of zinc were reported, but well below NC 2L Standard. There were no other quantified detections of inorganic or organic constituents during the April 2014 sampling event for the Leachate Storage monitoring area.

5.1.4 Surface Water

There were no quantified detections of inorganic or organic constituents for the surface water monitoring locations during the April 2014 sampling event. The complete inorganic and organic surface water analytical results from the April 9, 2014 sampling events at the CRSWMA landfills are summarized in Table 12 with the field parameters summarized In 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 A of this report.

5.1.5 Leachate

The following constituents were detected at quantified concentrations in the leachate during the April 2014 sampling event.

Constituent	Leachate	Blanks
<i>Antimony</i>	12	0.66 J
<i>Arsenic</i>	130	ND
<i>Barium</i>	923	ND
<i>Cadmium</i>	5	ND
<i>Chromium</i>	58	ND
<i>Cobalt</i>	13	ND
<i>Nickel</i>	108	ND
<i>Selenium</i>	59	ND
<i>Benzene</i>	4.20	ND
<i>Styrene</i>	5.50	ND
<i>1,4-Dichlorobenzene</i>	16.60	ND
<i>1,2-Dichloroethane</i>	1.10	ND
<i>Ethylbenzene</i>	63.50	ND

Constituent	Leachate	Blanks
<i>Toluene</i>	22.60	ND
<i>Xylenes</i>	40.60	ND

All concentrations are reported in micrograms per liter ($\mu\text{g/L}$).
 J = Estimated concentration below SWSL.

ND = Non-detect
 B = Blank-qualified detection.

The leachate analytical results from the April 2014 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 A of this report.

5.2 Statistical Methods

The data were evaluated in accordance with the procedures outlined in NCSWMR Title 15A NCAC 13B.1632.g-h, 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 and cobalt were the only inorganic constituents detected in down-gradient monitoring wells above NC 2L or GWPS levels requiring statistical analysis. The statistical background for cobalt was calculated at 41 $\mu\text{g/L}$ using a Non-parametric Prediction Interval. In accordance with rule .1634.g.5 of the NCSWMR, since the background is higher than the GWPS, the background can be considered the groundwater protection standard (GPS); therefore, the cobalt detected in MW-15S does not constitute a GPS exceedence.

The Statistical Background for beryllium was calculated at 6.0 $\mu\text{g/L}$ using a Non-parametric Prediction Interval; which is higher than the GWPS; therefore, the background can be considered the GPS. Since the detections of beryllium in MW-16S and MW-18S are equal to the background, they are not GPS exceedences. The statistical worksheets and a summary table are presented in Appendix B of this report.

6.0 CONCLUSION

Beryllium was detected in MW-16S and MW-18S at concentrations equal to the GPS (background) during the April 2014 sampling event; therefore, these detections are not

exceedences. However, in the October 2013 sampling event, the beryllium in MW-18S was in exceedance of the GPS. JOYCE believes that the quantified beryllium detections in Phase 3 monitoring wells MW-16S and MW-18S are most likely naturally-occurring for the following reasons: 1) detections in MW-16S and MW-18S have been equal to, or only slightly above, the statistically predicted background level; 2) beryllium is a commonly occurring element in soils and sediment in the North Carolina Coastal Plain; 3) the naturally lower pH of the groundwater at this facility would be expected to dissolve naturally occurring metals out of the sediment; 4) beryllium has been consistently detected, albeit usually at lower concentrations, in numerous other monitoring wells at the facility; 5) Phase 3 only began receiving waste in June 2013, so it is unlikely that the waste could be the source of the beryllium; and 6) concentrations of beryllium in the facility's leachate are significantly lower than those detected in MW-16S and MW-18S. CRSWMA will continue to monitor the wells as required with particular attention to beryllium in the Phase 3 monitoring wells. If DENR requires an ASD to support the above conclusion, CRSWMA will submit one.

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 next semiannual monitoring event is tentatively scheduled for October 2014.

7.0 REFERENCES

Barnett, V. and Lewis, T., 1978, *Outliers in Statistical Data*, John Wiley & Sons.

Brown, Philip M., Chief Geologist, 1985, *Geologic Map of North Carolina*, The North Carolina Geologic Survey, scale 1:500,000.

Fetter, C.W., 1994, *Applied Hydrogeology*, Third Edition: Macmillan College Publishing Company.

Harris, W. Burleigh and Zullo, Victor A., 1991, *Eocene and Oligocene Stratigraphy of the Outer Coastal Plain*, in Horton, J. W., Jr., and Zullo, V. A., eds., *The Geology of the Carolinas: Carolina Geological Society Fiftieth Anniversary Volume*: The University of Tennessee Press, p. 251-262.

HDR Engineering, Inc., 1995, *Site Study: The Tuscarora Long-Term Regional Landfill; The Coastal Regional Solid Waste Management Authority, Craven County, North Carolina*, November 1995.

HDR Engineering, Inc., 1997, *Construction Permit Application: Phase I The Tuscarora Long-Term Regional Landfill: The Coastal Regional Solid Waste Management Authority, Tuscarora, North Carolina*, March 1997.

Joyce Engineering, Inc., 2003, *Design Hydrogeological Report & Groundwater Monitoring Plan, Tuscarora Long-Term Regional Landfill Phase 2 Expansion*, July 2003.

McKim & Creed, P.A., 1997, *The Tuscarora Long-Term Regional Landfill: Subtitle D Landfill Construction Plan Application Modification for The Coastal Regional Solid Waste Management Authority, Tuscarora, North Carolina*, March 1997.

McKim & Creed, P.A., 1999, *The Tuscarora Long-Term Regional Landfill: Subtitle D Landfill Site Application Modification for The Coastal Regional Solid Waste Management Authority, Tuscarora, North Carolina*, September.

North Carolina Dept. Environment, Health, and Natural Resources (NCDEHNR), 1995, *N.C. Water Quality Monitoring Guidance Document for Solid Waste Facilities*, March.

USEPA, 1986, *RCRA Ground Water Monitoring Technical Enforcement Guidance Document (TEGD)*.

USEPA, 1992, “*Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance*”, Chapter 2, July 1992.

Tables

Table 1	Summary of Groundwater Elevations: Tuscarora Interim Regional Landfill
Table 2	Summary of Groundwater Elevations: Tuscarora Long-Term Regional Landfill
Table 3	Summary of Groundwater Elevations: Leachate Storage Area
Table 4	Estimated Hydraulic Gradients and Average Linear Velocities for the Shallow Aquifer
Table 5	Estimated Hydraulic Gradients and Average Linear Velocities for the Deep Aquifer
Table 6	Historical Detections in Groundwater: Tuscarora Interim Regional Landfill
Table 7	Summary of Field Parameters: Tuscarora Interim Regional Landfill
Table 8A	Historical Detections in Groundwater: CRSWMA Tuscarora LTR LF Phase 1 & 2
Table 8B	Historical Detections in Groundwater: CRSWMA Tuscarora LTR LF Phase 3
Table 9A	Summary of Field Parameters: CRSWMA Tuscarora LTR LF Phase 1 & 2
Table 9B	Summary of Field Parameters: CRSWMA Tuscarora LTR LF Phase 3
Table 10	Historical Detections in Groundwater: Leachate Storage Area
Table 11	Summary of Field Parameters: Leachate Storage Area
Table 12	Historical Detections in Surface Water: CRSWMA Tuscarora Landfill
Table 13	Summary of Field Parameters: Surface Water Monitoring
Table 14	Historical Detections in Leachate

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
09-Apr-14	46.28	32.45	45.24	34.58	40.78	34.08	41.30	34.01	41.08	33.56	41.10	40.55	39.08

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
09-Apr-14	44.92	25.27	47.01	46.14	42.93	40.84	34.22	43.98	32.03	44.08	41.82	30.42	40.80	32.53	40.62	34.08	41.60	34.24	41.36	34.69	25.70	26.96

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
09-Apr-14	48.32	46.52	30.30	46.41	29.94	46.86	30.65	46.97	30.14	30.73	45.32	28.26

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

GRADIENT CALCULATION SEGMENT	FLOW LINE LENGTH (feet)	FLOW DIRECTION	APRIL 9, 2014				
			GROUND- WATER ELEV. (feet)	HORIZ. GRADIENT, i (ft/ft)	HYDRAULIC CONDUCTIVITY, K (ft/day)	EFFECTIVE POROSITY n	LINEAR VELOCITY, V (ft/day)
i_1	2236	SE	47 40	0.0031	5.67E-01	0.17	0.010
i_2	1635	SE	47 40	0.0043	5.67E-01	0.17	0.014
i_3	1795	E	46 41	0.0028	5.67E-01	0.17	0.009
			Average	0.0034		Average	0.011

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

GRADIENT CALCULATION SEGMENT	FLOW LINE LENGTH (feet)	FLOW DIRECTION	APRIL 9, 2014				
			GROUND-WATER ELEV. (feet)	HORIZ. GRADIENT, i (ft/ft)	HYDRAULIC CONDUCTIVITY, K (ft/day)	EFFECTIVE POROSITY n	LINEAR VELOCITY, V (ft/day)
i_4	2341	NW	34.0 25.0	0.0038	5.39E+00	0.25	0.083
i_5	465	E	35.0 33.0	0.0043	5.39E+00	0.25	0.093
i_6	1722	NW	33.0 25.0	0.0046	5.39E+00	0.25	0.100
			Average	0.0043		Average	0.092

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

Analyte	Sample		DL	QL	IRL-15	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	Blanks	
	Collection Date	DL																				
Beryllium	1-Jul-93	NR	1	3	1	1	ND	NI	ND	NI	ND	ND	2	ND	ND	8.0	4.0	ND	NI	NI	ND	
	1-Aug-93	NR	1	1	1	1	ND	NI	1.0	NI	ND	1.0	ND	1.0	ND	1.0	ND	ND	NI	NI	ND	
	1-Sep-93	NR	1	1.0	ND	ND	ND	NI	ND	NI	ND	ND	ND	3.0	ND	ND	ND	ND	NI	NI	ND	
	1-Sep-93	NR	1	2	3	ND	NI	ND	NI	ND	2.0	ND	ND	ND	ND	1.0	ND	ND	NI	NI	ND	
	1-Apr-94	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Oct-94	NR	2	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Apr-95	NR	2	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Oct-95	NR	2	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Apr-96	NR	2	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Oct-96	NR	2	ND	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Apr-97	NR	2	3	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Oct-97	NR	2	3	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Apr-98	NR	2	ND	---	---	ND	NI	---	NI	ND	ND	ND	2.5	ND	---	2.0	---	NI	NI	ND	
	1-Oct-98	NR	2	2	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Mar-99	NR	2	ND	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Oct-99	NR	2	ND	---	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Apr-00	NR	2	ND	---	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Oct-00	NR	2	ND	---	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Apr-01	NR	2	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Oct-01	NR	2	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Apr-02	NR	2	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Oct-02	NR	2	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Apr-03	NR	2.0	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	1-Oct-03	NR	2	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	2-Apr-04	NR	2	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	2-Oct-04	NR	2	ND	---	---	6	---	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	3-Apr-04	NR	2	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	3-Oct-04	NR	2.0	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	15-Apr-04	NR	2.0	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	14-Oct-04	NR	2.0	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	5-Apr-05	NR	2	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	5-Oct-05	NR	2	ND	6.0	---	---	---	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	21-Apr-06	NR	2	ND	ND	---	---	---	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	12-Oct-06	NR	2	ND	ND	---	---	---	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	20-Apr-07	NR	1	ND	ND	---	---	---	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
10-Oct-07	0.08	1	0.10	J	ND	---	---	---	ND	0.3	J	0.1	J	0.1	J	ND	---	---	ND	---		
2-Apr-08	0.06	1	0.40	J	0.1	J	---	---	---	0.1	J	0.1	J	0.2	J	0.1	J	ND	---	0.2	J	
28-Oct-08	0.06	1	0.5	J	0.1	J	---	---	---	0.1	J	0.2	J	0.2	J	0.1	J	ND	---	0.2	J	
8-Apr-09	0.06	1	0.6	J	0.1	J	---	---	---	0.2	J	0.2	J	0.2	J	0.1	J	ND	---	0.2	J	
27-Oct-09	0.06	1	0.7	J	0.2	J	---	---	---	0.2	J	0.2	J	0.2	J	0.2	J	ND	---	0.2	J	
8-Apr-10	0.02	1	0.6	J	0.1	B	---	---	---	0.3	B	0.1	B	0.2	B	0.1	B	0.10	B	---	0.2	B
15-Oct-10	0.02	1	0.6	J	0.3	J	---	---	---	0.1	J	0.2	J	0.2	J	0.2	J	0.1	J	---	0.2	J
27-Apr-11	0.02	1	0.59	J	0.06	J	---	---	---	0.1	J	0.13	J	0.26	J	0.13	J	ND	---	0.16	J	
20-Oct-11	0.0	1	0.49	J	0.15	J	---	---	---	0.1	J	0.11	J	0.19	J	0.14	J	ND	---	0.19	J	
26-Apr-12	0.0	1	0.58	J	0.09	J	---	---	---	0.1	J	0.17	J	0.34	J	0.15	J	ND	---	0.15	J	
16-Oct-12	0.1	1	0.54	J	0.08	J	---	---	---	0.1	J	0.13	J	0.25	J	0.15	J	ND	---	0.1	J	
11-Apr-13	0.0	1	0.7	J	0.09	J	---	---	---	0.2	J	0.16	J	0.49	J	0.15	J	ND	---	0.17	J	
30-Oct-13	0.0	1	0.68	J	0.12	B	---	---	---	0.07	B	0.16	B	0.34	J	0.12	B	ND	---	0.18	B	
9-Apr-14	0.0	1	0.63	J	0.08	J	---	---	---	0.1	J	0.16	J	0.45	J	0.19	J	---	---	0.25	J	
Cadmium	1-Jul-93	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Aug-93	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Sep-93	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Sep-93	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Apr-94	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Oct-94	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Apr-95	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Oct-95	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Apr-96	NR	1	ND	ND	ND	NI	ND	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	
	1-Oct-96	NR	1	ND	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Apr-97	NR	1	ND	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Oct-97	NR	1	ND	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Apr-98	NR	1	ND	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Oct-98	NR	1	ND	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Mar-99	NR	1	ND	---	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Oct-99	NR	1	ND	---	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Apr-00	NR	1	ND	---	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Oct-00	NR	1	ND	---	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Apr-01	NR	1	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	1-Oct-01	NR	1	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	2-Apr-02	NR	1	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	ND	---	NI	NI	ND	
	2-Oct-02	NR	1	1	---	---	---	ND	---	ND	ND	1	ND	ND	---	---	---	---	NI	NI	ND	
	3-Apr-02	NR	1	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	3-Oct-02	NR	1	ND	---	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	NI	NI	ND	
	15-Apr-04	NR	1	ND	---	---	3	---	---	1	ND	ND	ND	ND	ND	---	---	---	1	ND	ND	
	14-Oct-04	NR	1	ND	---	---	2	---	---	ND	ND	ND	ND	1	---	---	---	---	ND	ND	ND	
	5-Apr-05	NR	1	ND	---	---	---															

TABLE 6

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

Analyte	Sample		Sample																Blanks								
	Collection Date	DL	QL	IRL-15	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							
Total Chromium	1-Jul-93	NR	5.0	36.0	18	ND	NI	ND	NI	ND	16	ND	49	ND	90.00	44	6	NI	NI	ND							
	1-Aug-93	NR	5.0	14.0	8	ND	NI	7	NI	ND	6	ND	6	ND	18.00	ND	ND	NI	NI	ND							
	1-Sep-93	NR	5.0	11.0	11	ND	NI	ND	NI	ND	10	ND	15	ND	11.00	7	ND	NI	NI	ND							
	1-Sep-93	NR	5.0	19.0	43	ND	NI	6	NI	ND	22	ND	20	ND	21.00	6	ND	NI	NI	ND							
	1-Apr-94	NR	5.0	10	ND	ND	NI	ND	NI	ND	ND	NI	NI	ND													
	1-Oct-94	NR	10.0	ND	ND	ND	NI	ND	NI	ND	ND	NI	NI	ND													
	1-Apr-95	NR	10	ND	ND	ND	NI	ND	NI	ND	ND	NI	NI	ND													
	1-Oct-95	NR	10.0	13	ND	ND	NI	ND	NI	ND	ND	NI	NI	ND													
	1-Apr-96	NR	10.0	ND	ND	ND	NI	ND	NI	ND	ND	NI	NI	ND													
	1-Oct-96	NR	10.0	39	---	ND	NI	---	NI	ND	ND	NI	NI	ND													
	1-Apr-97	NR	10.0	23	---	ND	NI	---	NI	ND	ND	NI	NI	ND													
	1-Oct-97	NR	10.0	50	---	ND	NI	---	NI	ND	ND	18	ND	ND	ND	ND	ND	ND	NI	NI	ND						
	1-Apr-98	NR	10	18	---	ND	NI	---	NI	22.0	ND	14.0	ND	ND	---	25.0	---	---	NI	NI	ND						
	1-Oct-98	NR	10	ND	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	NI	NI	ND						
	1-Mar-99	NR	10	58	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	NI	NI	ND						
	1-Oct-99	NR	10	21	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	NI	NI	ND						
	1-Apr-00	NR	5.0	87	---	---	NI	---	NI	19.0	ND	18.0	ND	ND	---	---	---	---	NI	NI	ND						
	1-Oct-00	NR	10.0	21	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	NI	NI	ND						
	1-Apr-01	NR	10.0	11	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	NI	NI	ND						
	1-Oct-01	NR	10.0	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND						
	2-Apr-01	NR	10.0	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	12	ND	ND					
	2-Oct-01	NR	10.0	15	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND	ND	ND					
	3-Apr-01	NR	10.0	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND	ND	ND					
	3-Oct-01	NR	10.0	12	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND	ND	ND					
	15-Apr-04	NR	10.0	13	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	10	ND	ND					
	14-Oct-04	NR	10.0	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND	ND	ND					
	5-Apr-05	NR	10.0	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND	ND	ND					
	5-Oct-05	NR	10.0	ND	29	---	---	---	---	ND	ND	ND	ND	ND	---	---	---	---	---	ND	---	ND					
	21-Apr-06	NR	10.0	ND	ND	---	---	---	---	ND	ND	ND	ND	ND	---	---	---	---	---	ND	---	ND					
	12-Oct-06	NR	10.0	ND	ND	---	---	---	---	ND	ND	ND	ND	ND	---	---	---	---	---	ND	---	ND					
	26-Apr-07	NR	10.0	ND	ND	---	---	---	---	ND	ND	ND	ND	ND	---	---	---	---	---	ND	---	ND					
	10-Oct-07	0.24	0.10	1.6	B	1.2	B	---	---	---	2.0	B	2.3	B	1.3	B	2.1	B	1.4	B	---	1.3	B	---	1.2	J	
	2-Apr-08	0.11	0.10	1.6	J	ND	---	---	---	0.7	J	0.5	J	ND	0.5	J	ND	---	---	---	0.3	J	---	ND	---		
	28-Oct-08	0.11	0.10	3	J	1.6	J	---	---	1.5	J	1.1	J	0.4	J	1.1	J	0.4	J	---	---	1.8	J	---	ND	---	
	8-Apr-09	0.10	0.10	6.1	J	1.1	J	---	---	2.7	J	5.9	J	1.6	J	1.2	J	0.6	J	---	---	2.1	J	---	ND	---	
	27-Oct-09	0.10	0.10	7.8	J	2.2	J	---	---	3.1	J	2	J	1	J	1.6	J	0.9	J	---	---	1.1	J	---	ND	---	
	8-Apr-10	0.03	0.10	5.9	J	0.9	J	---	---	3.7	J	1.1	J	1	J	0.6	J	0.3	J	---	---	1.1	J	---	ND	---	
	15-Oct-10	0.03	0.10	0.7	J	3.4	J	---	---	1.5	J	3.6	J	0.8	J	1.5	J	0.6	J	---	---	1.7	J	---	ND	---	
	27-Apr-11	0.04	0.10	0.81	B	0.56	B	---	---	1.6	J	1.8	J	0.9	B	1.4	J	0.37	B	---	---	0.98	J	---	0.18	J	
	20-Oct-11	0.0	0.10	1.6	J	2.3	J	---	---	3.2	J	1.7	J	1.5	J	1.9	J	1.1	J	---	---	2.7	J	---	0.18	J	
26-Apr-12	0.04	0.10	3.9	J	1.5	J	---	---	3	J	2.7	J	2.8	J	2	J	0.79	J	---	---	2	J	---	0.09	J		
16-Oct-12	0.18	0.10	1.6	J	1.6	J	---	---	2	J	2.1	J	0.8	J	1.5	J	0.4	J	---	---	0.74	J	---	ND	---		
11-Apr-13	0.04	0.10	4.8	J	0.56	J	---	---	1.6	J	2.1	J	0.72	J	1.3	J	0.32	J	---	---	1.2	J	---	ND	---		
30-Oct-13	0.04	0.10	3.9	J	1.1	J	---	---	1.1	J	1.9	J	2.9	J	1.4	J	0.32	B	---	---	1.1	J	---	0.11	J		
9-Apr-14	0.04	0.10	1.7	J	0.91	J	---	---	0.68	J	1.9	J	1	J	1.8	J	0.38	J	---	---	3.7	J	---	ND	---		
Cobalt	1-Jul-93	NR	20.0	32	41	27	NI	20	NI	21	31	ND	93	29	118	45	25	NI	NI	ND							
	1-Aug-93	NR	20.0	26	27	23	NI	40	NI	37	32	27	33	50	30	22	25	NI	NI	ND							
	1-Sep-93	NR	20.0	22	21.0	ND	NI	21	NI	23	25	ND	38	36.0	32	ND	ND	NI	NI	ND							
	1-Sep-93	NR	20.0	ND	ND	ND	NI	22	NI	ND	ND	31	53	26.0	21	ND	ND	NI	NI	ND							
	1-Apr-94	NR	10.0	27	B	22.0	B	B	NI	41	B	NI	35	B	27	B	41	B	53.0	B	34	B	20	B	ND	NI	18.0
	1-Oct-94	NR	10.0	ND	ND	ND	NI	ND	NI	ND	ND	ND	NI	NI	ND												
	1-Apr-95	NR	10.0	ND	ND	ND	NI	ND	NI	ND	ND	ND	NI	NI	ND												
	1-Oct-95	NR	10.0	ND	ND	ND	NI	ND	NI	ND	ND	ND	NI	NI	ND												
	1-Apr-96	NR	10.0	ND	ND	ND	NI	ND	NI	ND	ND	ND	NI	NI	ND												
	1-Oct-96	NR	10.0	ND	---	ND	NI	---	NI	ND	ND	ND	NI	NI	ND												
	1-Apr-97	NR	10.0	ND	---	ND	NI	---	NI	ND	ND	ND	NI	NI	ND												
	1-Oct-97	NR	10.0	20	---	ND	NI	---	NI	ND	ND	ND	NI	NI	ND												
	1-Apr-98	NR	10.0	ND	---	ND	NI	---	NI	ND	ND	ND	NI	NI	ND												
	1-Oct-98	NR	10.0	ND	---	ND	NI	---	NI	ND	ND	ND	NI	NI	ND												
	1-Mar-99	NR	10	ND	---	ND	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	---	NI	NI	ND					
	1-Oct-99	NR	10	ND	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	---	NI	NI	ND					
	1-Apr-00	NR	10	16	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	---	NI	NI	ND					
	1-Oct-00	NR	10	ND	---	---	NI	---	NI	ND	ND	ND	ND	ND	---	---	---	---	---	NI	NI	ND					
	1-Apr-01	NR	10.0	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	ND					
	1-Oct-01	NR	10.0	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	ND					
	2-Apr-01	NR	10	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	ND	ND				
	2-Oct-01	NR	10	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	ND	ND				
	3-Apr-01	NR	10	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	ND	ND				
	3-Oct-01	NR	10	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	ND	ND				
	15-Apr-04	NR	10	ND	---	---	ND	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	ND	ND				
	14-Oct-04	NR	10	ND	---	---																					

TABLE 6

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

Analyte	Sample		IRL-15	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	Blanks	
	Collection Date	DL																		QL
Organic Compounds																				
1,1-Dichloroethylene NC 2L = 7 µg/L (10/23/07) Resample	10-Oct-07	0.1	5.0	ND	ND	---	---	---	ND	ND	ND	ND	2.8	J	---	---	---	3.1	J	---
	4-Dec-07	0.6	1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2-Apr-08	0.1	5.0	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	28-Oct-08	0.1	5.0	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	8-Apr-09	0.14	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	27-Oct-09	0.17	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	8-Apr-10	0.17	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	13-Oct-10	0.17	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	27-Apr-11	0.17	5.0	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	20-Oct-11	0.17	5.0	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	26-Apr-12	0.17	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	16-Oct-12	0.17	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	11-Apr-13	0.17	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	30-Oct-13	0.17	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
9-Apr-14	0.17	5	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	
2-Butanone NC 2L = 4,200 µg/L (10/23/07) Resample	10-Oct-07	0.85	100	2.7	J	3.3	J	---	---	---	---	---	---	---	---	---	---	---	---	---
	4-Dec-07	0.96	5	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2-Apr-08	0.85	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	28-Oct-08	0.85	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	8-Apr-09	0.85	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	27-Oct-09	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	8-Apr-10	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	13-Oct-10	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	27-Apr-11	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	20-Oct-11	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	26-Apr-12	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	16-Oct-12	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	11-Apr-13	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
	30-Oct-13	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---
9-Apr-14	2.21	100	ND	ND	---	---	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	
Acetone NC 2L = 700 µg/L (10/23/07) Resample	10-Oct-07	1.21	100	2.2	J	2.7	J	---	---	---	---	---	---	---	---	---	---	---	---	---
	4-Dec-07	2.20	25	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2-Apr-08	1.2	100	3.5	B	6.6	B	---	---	---	---	---	---	---	---	---	---	---	---	---
	28-Oct-08	1.2	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8-Apr-09	1.2	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	27-Oct-09	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8-Apr-10	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	13-Oct-10	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	27-Apr-11	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	20-Oct-11	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	26-Apr-12	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Oct-12	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11-Apr-13	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	30-Oct-13	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-14	9.06	100.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chloromethane NC 2L = 2.6 µg/L (10/23/07) Resample	10-Oct-07	0.18	1.0	0.5	J	0.6	J	---	---	---	---	---	---	---	---	---	---	---	---	---
	4-Dec-07	0.11	1.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2-Apr-08	0.2	1.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	28-Oct-08	0.2	1.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8-Apr-09	0.2	1.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	27-Oct-09	0.8	1.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8-Apr-10	0.8	1.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	13-Oct-10	0.8	1.0	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	27-Apr-11	0.77	1	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	20-Oct-11	0.77	1	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	26-Apr-12	0.77	1	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Oct-12	0.77	1	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11-Apr-13	0.77	1	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	30-Oct-13	0.77	1	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-14	0.77	1	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

Notes:
 1. All concentrations are in micrograms per liter.
 2. IRL-1D Interim regional L-1D in mg/l.
 3. IRL-2S = Laboratory reporting limit (µg/L).
 4. --- = Not detected -- over 1-- laboratory reporting limit.
 5. B = Blank-qualified data; result is expected to be biased high based on concentration-- in the blanks.
 6. NC 2L = North Carolina 2L Ground-water Station--ards.
 7. GWPS = Ground-water Protection Station--ards.
 8. When the NC 2L has not been established, the GWPS will be used.
 9. Shaded values are -- over the NC 2L Ground-water Station--ards or Ground-water Protection Station--ards.
 10. NA = Data not available.
 11. DL = Laboratory detection limit.
 12. J = Estimated value between the DL and the RL.
 13. --- = Well Piezometer not installed.
 14. --- = -- sampled.
 15. --- = Not sampled -- or no water level measurements taken.
 16. NR = Not Reported.
 17. --- = May be mis--stored for water levels only.
 18. QL = The higher of the RL or SWSL.

TABLE 7

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

Analyte	Sample Collection Date	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	
Inorganic Compounds																		
Conductivity (at 25c)	1-Jun-93	1000.00	480.00	30.00	---	580.00	---	430.000	520.000	370.000	600.000	800.000	590.000	310.000	460.000	---	---	
	1-Aug-93	59.00	240.00	110.00	---	360.00	---	370.00	300.00	240.00	330.00	290.00	110.00	260.00	---	---	---	
	1-Sep-93	75.00	300.00	150.00	---	530.00	---	420.00	450.00	250.00	460.00	880.00	400.00	150.00	400.00	---	---	
	1-Sep-93	74	280.00	150	---	520.00	---	360.00	440.00	270.00	460.00	860.00	360.00	130.00	390.00	---	---	
	1-Apr-94	76.00	350.00	140.00	---	570.00	---	390.00	620.00	290.00	560.00	990.00	460.00	77.00	460.00	---	---	
	1-Oct-94	130	280.00	130	---	820.00	---	570.00	820.00	270.00	730.00	1000.00	82.00	42.00	420.00	---	---	
	1-Apr-95	67	360.00	160	---	560.00	---	240.00	670.00	290.00	520.00	1900.00	490.00	69.00	450.00	---	---	
	1-Oct-95	65	270.00	260	---	660.00	---	260.00	700.00	330.00	520.00	1300.00	480.00	75.00	450.00	---	---	
	1-Apr-96	79	360.00	340	---	580.00	---	700.00	520.00	290.00	520.00	1500.00	450.00	77.00	440.00	---	---	
	1-Oct-96	63.00	---	---	---	---	---	---	530.00	290.00	400.00	1000.00	---	---	87.00	---	---	
	1-Apr-97	80	---	640.00	---	---	---	---	330.00	690.00	270.00	530.00	---	---	---	---	---	
	1-Oct-97	84.00	---	630.00	---	---	---	---	720.00	270.00	270.00	490.00	1200.00	---	---	---	---	
	1-Apr-98	73	---	700	---	---	---	---	360.00	770.00	240.00	520.00	1400.00	---	---	---	---	
	1-Oct-98	74	---	600	---	---	---	---	480.00	750.00	230.00	490.00	1200.00	---	110.00	---	---	
	1-Mar-99	77	---	810	---	---	---	---	880.00	760.00	760.00	520.00	1200.00	---	---	---	---	
	1-Oct-99	74	---	---	---	---	---	---	960.00	710.00	490.00	490.00	800.00	---	---	---	---	
	1-Apr-00	74	---	---	---	---	---	---	1100.00	1400.00	170.00	500.00	900.00	---	---	---	---	
	1-Oct-00	76	---	---	---	---	---	---	1100.00	720.00	230.00	500.00	900.00	---	---	---	---	
	1-Apr-14	67	---	64	---	---	---	---	1100.00	710.00	190.00	470.00	840.00	---	---	---	---	
	1-Oct-14	74	---	---	---	---	---	---	1000.00	710.00	200.00	500.00	1700.00	---	---	---	---	
	2-Apr-14	68	---	---	---	---	---	---	950.00	710.00	200.00	450.00	1700.00	---	---	---	90.00	120.00
	2-Oct-14	19	---	---	---	---	---	---	970.00	830.00	192.00	550.00	1848.00	---	---	---	98.00	132.00
	3-Apr-14	100	---	---	---	---	---	---	1082.00	804.00	215.00	486.00	1024.00	---	---	---	86.00	157.00
	3-Oct-14	96	---	---	---	---	---	---	1110.00	849.00	205.00	506.00	1393.00	---	---	---	89.00	180.00
	15-Apr-04	64	---	---	---	---	---	---	700.00	600.00	170.00	360.00	990.00	---	---	---	56.00	100.00
	14-Oct-04	99	---	---	---	---	---	---	775.00	712.00	239.00	482.00	1188.00	---	---	---	86.00	123.00
	5-Apr-05	96	---	---	---	---	---	---	1033.00	942.00	287.00	603.00	1491.00	---	---	---	89.00	---
	27-Oct-05	105	195.00	---	---	---	---	---	876	775.00	250	502	1,323	---	---	---	91	---
	21-Apr-06	104	231.00	---	---	---	---	---	927.00	736.00	271.00	553.00	1424.00	---	---	---	79.00	---
	12-Oct-06	101	164	---	---	---	---	---	784	672.00	278	515	126	---	---	---	87	---
	26-Apr-07	103	155	---	---	---	---	---	850	721.00	287	536	1,287	---	---	---	75	---
	10-Oct-07	105	192	---	---	---	---	---	850	702.00	354	550	1,570	---	---	---	98	---
	4-Dec-07	109.2	357	---	---	---	---	---	963	1052.00	379.00	610	1,829	---	---	---	108.7	---
	2-Apr-08	109	169	---	---	---	---	---	1,096	713.00	253.00	540	1,272	---	---	---	86	---
	28-Oct-08	109	217	---	---	---	---	---	935	831.00	266.00	533	1,468	---	---	---	103	---
	8-Apr-09	106	215	---	---	---	---	---	1,092	894.00	283.00	541	1,265	---	---	---	95	---
	27-Oct-09	93	170	---	---	---	---	---	898	824.00	372.00	522	1,144	---	---	---	91	---
	8-Apr-10	103	220	---	---	---	---	---	1,030	860.00	338.00	576	1,538	---	---	---	94	---
	13-Oct-10	119	187	---	---	---	---	---	889	753.00	464.00	557	1,303	---	---	---	93	---
	27-Apr-11	156	252	---	---	---	---	---	982.00	734.00	505.00	605.00	1472.00	---	---	---	104	---
20-Oct-11	124	178	---	---	---	---	---	839.00	667.00	467.00	576.00	1310.00	---	---	---	102	---	
26-Apr-12	132	219	---	---	---	---	---	933.00	514.00	985.00	985.00	1533.00	---	---	---	107	---	
16-Oct-12	139	193	---	---	---	---	---	886.00	628.00	532.00	574.00	1502.00	---	---	---	102	---	
11-Apr-13	131.00	277	---	---	---	---	---	834.00	605.00	580.00	571.00	1300.00	---	---	---	101	---	
30-Oct-13	131.00	170	---	---	---	---	---	588.00	569.00	---	---	1110.00	---	---	---	101	---	
9-Apr-14	261.00	153	---	---	---	---	---	927.00	595.00	511.00	382.00	1568.00	---	---	---	112	---	
pH (standard units)	1-Jun-93	5.30	6.3	6.10	---	6.20	---	5.40	6.30	5.70	6.10	6.00	6.40	5.80	6.20	---	---	
	1-Aug-93	5.50	6.5	6.30	---	6.80	---	6.80	6.80	6.40	6.9	6.20	6.80	6.30	7.00	---	---	
	1-Sep-93	5.90	6.6	5.70	---	6.50	---	5.90	6.50	6.70	7	6.10	6.60	6.50	6.70	---	---	
	1-Sep-93	6.10	6.5	5.80	---	6.10	---	5.90	6.50	5.70	6.3	6.40	6.90	6.60	6.60	---	---	
	1-Apr-94	5.90	6.1	5.40	---	6.40	---	5.70	6.50	6.20	6.7	6.40	6.80	6.40	6.70	---	---	
	1-Oct-94	5.20	6.4	5.20	---	6.70	---	5.70	6.70	6.00	6.8	6.20	7.00	5.50	6.80	---	---	
	1-Apr-95	5.70	6.1	5.50	---	6.40	---	6.00	6.20	6.20	6.6	6.20	3.80	6.20	6.60	---	---	
	1-Oct-95	5.00	6.4	5.60	---	6.70	---	5.40	6.60	5.90	6.8	6.20	6.90	5.30	7.00	---	---	
	1-Apr-96	5	6.3	5.80	---	6.60	---	6.70	6.00	6.10	6.70	6.40	7.00	5.50	6.60	---	---	
	1-Oct-96	5.2	---	---	---	---	---	---	6.00	6.00	6.4	6.400	5.800	---	6.000	---	---	
	1-Apr-97	6.1	---	6.3	---	---	---	---	6.20	6.50	6.10	6.60	6.20	---	---	---	---	
	1-Oct-97	5.3	---	5.8	---	---	---	---	6	6	6	6.10	5.80	---	---	---	---	
	1-Apr-98	5.8	---	6.5	---	---	---	---	5.4	6.4	5.6	6.80	---	---	5.20	---	---	
	1-Oct-98	5.5	---	6.1	---	---	---	---	5.6	6.3	5.7	6.70	6.00	---	---	---	---	
	1-Mar-99	5.2	---	6.3	---	---	---	---	6	7	6	6.70	6.00	---	---	---	---	
	1-Oct-99	4.9	---	6	---	---	---	---	6	6	7	6.80	5.70	---	---	---	---	
	1-Apr-00	5.2	---	---	---	---	---	---	6	6	6	6.90	5.80	---	---	---	---	
	1-Oct-00	4.8	---	---	---	---	---	---	6	6	6	6.60	5.20	---	---	---	---	
	1-Apr-14	4.9	---	4.8	---	---	---	---	6	7	5	6.60	5.50	---	---	---	---	
	1-Oct-14	5	---	5	---	---	---	---	6	7	6	6.90	6.10	---	---	---	---	
	2-Apr-14	4.7	---	4.3	---	---	---	---	6	6	5	6.40	6.00	---	---	---	5	4.50
	2-Oct-14	5.1	---	4.1	---	---	---	---	6.0	6.4	5	7.00	6.10	---	---	---	5	4.70
	3-Apr-14	5.1	---	4.3	---	---	---	---	6.1	6.5	5.3	6.80	5.80	---	---	---	5	4.70
	3-Oct-14	4.8	---	4.3	---	---	---	---	5.8	6.3	5.1	6.70	5.90	---	---	---	5	4.80
	15-Apr-04	5.3	---	4.4	---	---	---	---	6.4	5.6	5.8	6.8	6.4	---	---	---	5	5.80
	14-Oct-04	4.9	---	4.4	---	---	---	---	6.1	6.5	5.3	6.9	6.1	---	---	---	5	5.80
	5-Apr-05	5.1	6.60	---	---	---	---	---	6.3	6.7	5.2	7.0	6.1	---	---	---	5	---
	27-Oct-05	4.9	6.60	---	---	---	---	---	6.0	6.5	5.1	6.9	6.2	---	---	---	5	---
	21-Apr-06	5	6.30	---	---	---	---	---	6.2	7.00	5.4	7.9	6.0	---	---	---	5	---
	12-Oct-06	5	6.10	---	---	---	---	---	6.2	6.60	5.1	6.8	6.1	---	---	---	5	---
	26-Apr-07	4.9	6.10	---	---	---	---	---	6.2	6.70	5.4	6.9	6.1	---	---	---	5	---
	10-Oct-07	5.2	6.20	---	---	---	---	---	6.2	6.80	5.8	7.0	6.4	---	---	---	5	---
	4-Dec-07	6.6	6.29	---	---	---	---	---	7.1	6.60	6.6	7.4	6.3	---	---	---	7	---
	8-Apr-08	4.9	6.70	---	---	---	---	---	5.6	6.80	5.2	6.8	6	---	---	---	5	---
	28-Oct-08	4.7	6.30	---	---	---	---	---	6.0	6.50	5.3	6.9	6.3	---	---	---	5	---
	8-Apr-09	4.9	6.00	---	---	---	---	---	5.5	6.40	4.9	6.7	8.5	---	---	---	5	---
	27-Oct-09	4.8	6.20	---	---	---	---	---	5.8	6.30	5.3	6.8	6	---	---	---	4.9	---
	8-Apr-10	4.7	6.30	---	---	---	---	---	5.60	6.50	4.80	6.00	6.10	---	---	---	5.00	---
	13-Oct-10	5.2	6.3	---	---	---	---	---	5.8	6.50	5.3	6.7	6.1	---	---	---	5.1	---
	27-Apr-11	4.9	6.3	---	---	---	---	---	5.6	6.60	5	6.7	6	---	---	---	4.9	---
20-Oct-11	4.6	6.3	---	---	---	---	---	5.9	6.70	6.1	6.9	4.7	---	---	---	4.9	---	
26-Apr-12	4.6	6.2	---	---	---	---	---	5.7	6.70	4.9	6.8	6</						

TABLE 7

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

Analyte	Sample Collection Date	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
Temperature (°C)	1-Jun-93	22	20	23	---	20.00	---	23	22.00	23.0	21	23	21	22	21	---	---
	1-Aug-93	23	20	22	---	21.00	---	22	22.00	23.0	20.0	24	21.0	23	20	---	---
	1-Sep-93	23	20	24	---	20.00	---	25.0	20.00	24.0	20.0	25.0	20.0	24.0	21.0	---	---
	1-Sep-93	23	21	24	---	21.00	---	24.0	21.00	23	20	24.0	22	24.0	21.0	---	---
	1-Apr-94	18	18	17	---	17.00	---	16.0	16.00	15.0	16.0	16.0	16.0	15.0	15.0	---	---
	1-Oct-94	21	18	21	---	20.00	---	21.0	19.00	21.0	19.0	21.0	20.0	21.0	20.0	---	---
	1-Apr-95	15	15	15	---	17.00	---	16.0	16.00	16.0	16.0	16.0	16.0	15.0	16.0	---	---
	1-Oct-95	22.00	20	22.00	---	20.00	---	22.00	20.00	22.00	22.0	22.00	21.00	22.0	20.00	---	---
	1-Apr-96	12.0	13	13.0	---	14.00	---	13.0	13.00	13.0	13.0	13	14.0	12.0	12.0	---	---
	1-Oct-96	20.0	---	---	---	---	---	22.0	22.00	22.0	22	22	---	22	---	---	---
	1-Apr-97	13.00	---	14.00	---	---	---	15.00	14.00	15.00	15	14.00	---	---	---	---	---
	1-Oct-97	18.00	---	21.00	---	---	---	17.00	19.00	19.0	18	20.0	---	---	---	---	---
	1-Apr-98	15.0	---	16.0	---	---	---	15.0	16.00	15.0	17	15.0	---	15.0	---	---	---
	1-Oct-98	19.0	---	21.0	---	---	---	21.0	19.00	21.0	20	21.0	---	---	---	---	---
	1-Mar-99	12.0	---	16.0	---	---	---	17.0	17.00	17.0	18	17.0	---	---	---	---	---
	1-Oct-99	21.00	---	---	---	---	---	20.0	20.00	21.0	21.0	21.0	---	---	---	---	---
	1-Apr-00	15.00	---	---	---	---	---	15.0	17.00	19.0	18.0	15.0	---	---	---	---	---
	1-Oct-00	18	---	---	---	---	---	18.00	20.0	21.00	20.00	16.00	---	---	---	---	---
	1-Apr-14	15	---	---	15	---	---	18.0	17.0	16.0	15.0	15.0	---	---	---	---	---
	1-Oct-14	19	---	---	20	---	---	20	20	21	21	21	---	---	---	---	---
	2-Apr-14	15	---	---	15	---	---	15.0	15.0	16.0	17	17	---	---	---	---	---
	2-Oct-14	24	---	---	26	---	---	23.0	22.0	24.0	23	24	---	---	---	---	25.0
	3-Apr-14	15	---	---	17	---	---	16	16	15	16	17	---	---	---	---	16
	3-Oct-14	20	---	---	21	---	---	21.0	20.0	21.0	22	21	---	---	---	---	21.0
	15-Apr-04	13	---	---	14	---	---	13.0	13.0	14.0	14	15	---	---	---	---	13.0
	14-Oct-04	20	---	---	21	---	---	21	21	22	22	22	---	---	---	---	21.0
	5-Apr-05	15	---	---	---	---	---	15.0	15.0	15.0	15	15	---	---	---	---	15.0
	27-Oct-05	20	---	---	22.0	---	---	22.0	23.0	23	23	23	---	---	---	---	21.0
	21-Apr-06	20	---	---	18	---	---	14.0	16.0	15.0	15	18	---	---	---	---	18.0
	12-Oct-06	20	---	---	22.0	---	---	22.0	19.0	23.0	21	23	---	---	---	---	21.0
	26-Apr-07	16	---	---	17.0	---	---	17.0	18.0	16.0	18	17	---	---	---	---	17.0
	10-Oct-07	19	---	---	22.0	---	---	22.0	19.0	23.0	24	24	---	---	---	---	20.0
	4-Dec-07	16.7	16.7	---	---	---	---	18.2	16.8	18.6	18.8	18.7	---	---	---	---	16.9
	2-Apr-08	15	---	---	17.0	---	---	17.0	17.0	16.0	19.0	16.0	---	---	---	---	16.0
	28-Oct-08	19	---	---	20	---	---	20	20	21	21	19	---	---	---	---	19.0
	8-Apr-09	14	---	---	14.0	---	---	14.0	16.0	15.0	16.0	14.0	---	---	---	---	14.0
	27-Oct-09	20	---	---	21.0	---	---	21.0	20.0	21.0	21.0	22.0	---	---	---	---	21.0
	8-Apr-10	17	---	---	15.0	---	---	15.0	16.00	15.0	17.0	16.0	---	---	---	---	16.0
	13-Oct-10	21	---	---	21.0	---	---	21.0	22.0	21.0	23.0	21.0	---	---	---	---	21.0
	27-Apr-11	17	---	---	16.0	---	---	16.0	17.00	17.0	18.0	17.0	---	---	---	---	17.0
20-Oct-11	20	---	---	21.0	---	---	21.0	19.00	21.0	19.0	21.0	---	---	---	---	20.0	
26-Apr-12	17	---	---	17.0	---	---	17.0	17.00	16.0	18.0	17.0	---	---	---	---	17.0	
16-Oct-12	21	---	---	20.00	---	---	21.0	22.0	21.0	22.0	21.0	---	---	---	---	21.0	
11-Apr-13	15	---	---	15.0	---	---	15.0	17.00	14.0	17.0	15.0	---	---	---	---	15.0	
30-Oct-13	20.0	---	---	21.0	---	---	21.0	20.00	21.0	19.0	21.0	---	---	---	---	20.0	
9-Apr-14	16.0	15	---	14.0	---	---	14.0	15.00	13.0	15.0	13.0	---	---	---	---	16.0	
Turbidity (NTU)	1-Jun-93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Aug-93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Sep-93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Sep-93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Apr-94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Oct-94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Apr-95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Oct-95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Apr-96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Oct-96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Apr-97	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Oct-97	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Apr-98	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Oct-98	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1-Mar-99	650	---	290.0	---	---	---	60	180.00	220	190	650	---	---	---	---	---
	1-Oct-99	600	---	---	---	---	---	10	230.0	17	17	5.9	---	---	---	---	---
	1-Apr-00	170.00	---	---	---	---	---	18.00	40.00	33.00	40.0	13.00	---	---	---	---	---
	1-Oct-00	700.0	---	---	---	---	---	31.0	90.00	7.1	34.0	21.0	---	---	---	---	---
	1-Apr-14	140.0	---	50.0	---	---	---	21.0	60.00	12.0	27.0	10.0	---	---	---	---	---
	1-Oct-14	106.00	---	68.0	---	---	---	74.00	139.00	34.00	18	26.00	---	---	---	---	---
	2-Apr-14	90.00	---	12.0	---	---	---	40.0	35.00	5.3	25	19.0	---	---	---	140	5.9
	2-Oct-14	280.0	---	19.0	---	---	---	45.0	100.00	9.2	38	100.0	---	---	---	75	4.0
	3-Apr-14	90.0	---	6.9	---	---	---	45.0	110.00	9.4	39	27.0	---	---	---	110	8.8
	3-Oct-14	65.0	---	13.0	---	---	---	31.0	30.00	19.0	60	55.0	---	---	---	160	40.0
	15-Apr-04	200.0	---	100.0	---	---	---	45.0	35.00	37.0	32.0	36.0	---	---	---	110.0	13.0
	14-Oct-04	75.0	---	13.0	---	---	---	85.0	80.00	8.9	240.0	80.0	---	---	---	95.0	5.9
	5-Apr-05	100	---	---	---	---	---	40.00	18.00	13.00	25.00	32.00	---	---	---	75.00	---
	27-Oct-05	90.0	>1,000	---	---	---	---	22	29.0	14.0	36	19	---	---	---	85	---
	21-Apr-06	8.9	14	---	---	---	---	5.5	32	7.3	53	25	---	---	---	4.1	---
	12-Oct-06	5.1	40	---	---	---	---	21	140	1.6	37	170	---	---	---	20	---
	26-Apr-07	7	4	---	---	---	---	22	160	200	200	90	---	---	---	25	---
	10-Oct-07	11	10	---	---	---	---	58.0	65	12	45	110	---	---	---	22	---
	4-Dec-07	79.4	14.97	---	---	---	---	15	525.0	47.5	64.6	9.42	---	---	---	73.3	---
	2-Apr-08	40	9.5	---	---	---	---	3.5	28	7.7	55	11	---	---	---	20	---
	28-Oct-08	80	50	---	---	---	---	36	37	36	40	38	---	---	---	86	---
	8-Apr-09	130	56	---	---	---	---	90	260	120	38	32	---	---	---	90	---
	27-Oct-09	270	55	---	---	---	---	85	85.0	23	70	62	---	---	---	65	---
	8-Apr-10	160	39	---	---	---	---	75	65	18	40	75	---	---	---	65	---
	13-Oct-10	10	85	---	---	---	---	34	75	35	50	170	---	---	---	140	---
	27-Apr-11	16	29	---	---	---	---	44	110	31	70	65	---	---	---	50	---
20-Oct-11	12	55	---	---	---	---	45	130.00	34	85	90	---	---	---	85	---	
26-Apr-12	8																

TABLE 8A

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

Analyte	Sample Collection Date	Background		Downgradient											Blanks				
		DL	QL	MW-12S	MW-12D	MW-7	MW-8	MW-9	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14		MW-14R			
Inorganic Compound Antimony	Jul-99	---	30	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND		
	Aug-99	---	30	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND		
	Oct-99	---	30	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND		
	Nov-99	---	30	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Apr-00	---	30	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Oct-00	---	30	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Apr-14	---	30	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Oct-14	---	30	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Apr-14	---	30	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Oct-14	---	30	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Apr-14	---	30	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Oct-14	---	30	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	Apr-04	---	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND	
	Oct-04	---	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND	
	Apr-05	---	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND	
	Oct-05	---	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND	
	Apr-06	---	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND	
	Oct-06	---	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND	
	Apr-07	---	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND	
	Oct-07	0.05	6	ND	ND	0.1	B	ND	---	ND	ND	ND	ND	ND	---	---	0.1	B	
	Apr-08	0.44	6	ND	0.5	J	ND	---	ND	ND	0.5	J	0.1	J	ND	---	0.1	J	
	Oct-08	0.44	6	0.1	J	ND	0.9	J	0.2	J	---	0.1	J	ND	ND	ND	---	ND	
	Apr-09	0.06	6	0.1	J	0.2	J	---	ND	ND	ND	0.9	J	0.2	J	---	0.1	J	
	Oct-09	0.06	6	0.1	J	0.6	J	---	ND	ND	ND	0.8	J	0.6	J	---	0.1	J	
	Apr-10	0.22	6	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	0.8	B	
	13-Oct-10	0.22	6	ND	ND	ND	ND	---	0.5	J	ND	ND	ND	ND	---	---	ND	ND	
	27-Apr-11	0.14	6	ND	ND	ND	0.37	J	---	0.22	J	0.17	J	ND	---	---	ND	ND	
	20-Oct-11	0.14	6	ND	ND	0.19	J	ND	---	ND	ND	ND	ND	ND	---	---	0.34	J	
	26-Apr-12	0.14	6	ND	ND	ND	ND	---	ND	ND	0.4	J	ND	ND	---	---	ND	ND	
	16-Oct-12	0.0	6.0	ND	0.76	J	0.15	J	0.17	J	---	0.13	J	0.06	J	0.18	J	0.02	J
	11-Apr-13	0.0	6.0	0.07	J	0.09	J	---	0.12	J	0.43	J	---	0.1	J	0.07	J	0.08	J
	30-Oct-13	0.0	6.0	0.15	B	0.94	J	---	0.24	B	0.12	B	---	0.1	B	0.13	B	0.38	B
	09-Apr-14	0.0	6.0	0.33	B	1	B	---	0.14	B	0.18	B	---	0.79	B	0.41	B	0.11	B
	01-Jul-99	---	10.0	---	---	37	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	01-Aug-99	---	10.0	---	---	13	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	01-Oct-99	---	10.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	01-Nov-99	---	10.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
	01-Apr-00	---	10.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND	
01-Oct-00	---	10.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
01-Apr-14	---	10.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
01-Oct-14	---	10.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
02-Apr-14	---	10.0	ND	ND	10	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
02-Oct-14	---	10.0	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
03-Apr-14	---	10.0	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
03-Oct-14	---	10.0	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
15-Apr-04	---	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND		
14-Oct-04	---	10.0	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
05-Apr-05	---	10.0	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
27-Oct-05	---	10	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
Apr-06	---	10	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
Oct-06	---	10	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
Apr-07	---	10	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
Oct-07	0.47	10	6.6	J	ND	3.5	J	4.3	J	---	1.8	J	0.5	J	ND	9.4	J	ND	
Apr-08	0.57	10	1.4	J	ND	1	B	1.3	J	---	4.1	J	0.2	B	ND	1.3	J	ND	
Oct-08	0.57	10	1	B	0.8	B	2.4	B	5.3	J	---	3.1	J	0.4	B	0.2	B	1.3	B
Apr-09	0.17	10	1.2	J	0.8	B	1.2	J	3.9	J	---	3.5	J	1	B	0	B	2	J
Oct-09	0.17	10	1	J	0.8	J	1.7	J	5	J	---	2.3	J	0	J	0	J	1	J
Apr-10	0.04	10	0.4	J	ND	0.7	J	2.5	J	---	2.9	J	ND	ND	ND	2	J	ND	
Oct-10	0.04	10	0.9	J	1	J	1	J	2.3	J	---	3.4	J	0	J	0	J	2	J
Apr-11	0.10	10	0.28	J	ND	2.9	J	1.5	J	---	2.4	J	0	J	ND	1	J	ND	
Oct-11	0.10	10	0.36	J	0.51	J	2.8	J	1.3	J	---	2.7	J	0.43	J	ND	1	J	0.2
Apr-12	0.10	10	0.24	J	0.56	J	1.9	J	1.6	J	---	8	J	0.55	J	ND	1	J	0.4
Oct-12	0.13	10	0.22	B	ND	1.3	B	1.2	B	---	2.4	J	0.56	B	ND	0.93	B	0.2	B
Apr-13	0.05	10	0.33	B	0.31	B	1.3	J	2.1	J	---	2.1	J	0.92	J	0.41	J	1.6	J
Oct-13	0.05	10	0.46	B	1.4	J	0.93	B	2	J	---	2.8	J	0.58	B	0.19	B	1.2	J
Apr-14	0.05	10	ND	1.6	J	0.82	J	1	J	---	3	J	ND	ND	ND	1.1	J	ND	
Jul-99	---	500	---	---	869	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
Aug-99	---	500	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
Oct-99	---	500	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
Nov-99	---	500	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
Apr-00	---	500	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
Oct-00	---	500	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
Apr-14	---	500	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
Oct-14	---	500	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
02-Apr-14	---	500	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
02-Oct-14	---	500	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
03-Apr-14	---	500	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
03-Oct-14	---	500.0	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND		
15-Apr-04	---	500.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND		
14-Oct-04	---	500.0	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
05-Apr-05	---	500.0	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
27-Oct-05	---	500.0	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
21-Apr-06	---	500.0	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
12-Oct-06	---	500.0	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
26-Apr-07	---	100.0	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	---	ND		
11-Oct-07	0.0	100.0	81.8	J	47.4	J	63.3	J	32.7	J	---	44.8	J	45.7	J	40.7	J	42.2	J
03-Apr-08	0.1	100.0	88.6	J	36.7														

TABLE 8A

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

Analyte	Sample Collection Date	DL		Background		Downgradient										Blanks					
		QL	MW-12S	MW-12D	MW-7	MW-8	MW-9	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14	MW-14R							
Beryllium	Jul-99	---	---	---	5	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND			
	Aug-99	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND			
	Oct-99	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	ND			
	Nov-99	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	ND		
	Apr-00	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	ND		
	Oct-00	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	ND		
	Apr-14	---	---	---	ND	ND	ND	5.0	ND	ND	ND	---	---	---	---	---	---	---	ND		
	Oct-14	---	---	---	ND	ND	ND	2	9.0	ND	ND	---	---	---	---	---	---	---	ND		
	Apr-14	---	---	---	ND	ND	ND	2	ND	ND	ND	---	---	---	---	---	---	---	ND		
	Oct-14	---	---	---	ND	ND	ND	3	ND	ND	ND	---	---	---	---	---	---	---	ND		
	Apr-14	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	ND		
	Oct-14	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	ND		
	Apr-04	---	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	Oct-04	---	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	Apr-05	---	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	Oct-05	---	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	Apr-06	---	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	Oct-06	---	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	Apr-07	---	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	Oct-07	0.08	1	0.1	J	ND	0.2	J	0.2	J	0.2	J	0.1	J	0.1	J	0.1	J	0.1	J	
	Apr-08	0.06	1	0.3	J	ND	0.4	J	0.3	J	---	0.2	J	1.5	0.1	J	0.3	J	ND	---	
	Oct-08	0.06	1	0.9	J	0.1	J	0.4	J	0.8	J	---	0.3	J	1.2	J	0.1	J	0.4	J	ND
	Apr-09	0.06	1	0.6	J	0.1	J	0.1	J	0.7	J	---	0.3	J	2	0.1	J	0.4	J	0.1	J
	Oct-09	0.06	1	0.5	J	0.1	J	0.4	J	0.9	J	---	0.4	J	3	0.1	J	0.4	J	0.1	J
	Apr-10	0.02	1	0.6	J	0.1	B	0.2	B	0.6	J	---	0.3	B	2	0.1	B	0.3	B	0.1	B
	Oct-10	0.02	1	0.5	J	0.1	J	0.1	J	0.7	J	---	0.4	J	3	0.1	J	0.3	J	0.1	J
	Apr-11	0.02	1	0.36	J	ND	0.11	J	0.47	J	---	0.31	J	3	ND	0.25	J	ND	---	---	1.0
	Oct-11	0.02	1	0.40	J	0.1	J	0.2	J	0.54	J	---	0.34	J	4	0.06	J	0.4	J	ND	---
	Apr-12	0.02	1.0	0.27	J	0.06	J	0.15	J	0.59	J	---	0.62	J	4	0.05	J	0.29	J	0.04	J
	Oct-12	0.1	1.0	0.22	J	ND	0.09	J	0.66	J	---	0.54	J	3	ND	0.3	J	ND	---	---	0.1
	Apr-13	0.03	1.0	0.25	J	ND	0.17	J	0.52	J	---	0.25	J	2	0.07	J	0.38	J	ND	---	0.21
	Oct-13	0.03	1	0.21	J	0.1	B	0.11	B	0.62	J	---	0.31	J	2	0.12	B	0.4	J	ND	---
	Apr-14	0.03	1	0.29	J	0.2	J	0.2	J	0.64	J	---	0.36	J	0.94	J	0.06	J	0.47	J	ND
	Cadmium	Jul-99	---	---	---	1	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND
		Aug-99	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND
		Oct-99	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND
		Nov-99	---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND
		Apr-00	---	---	---	ND	ND	ND	ND	1.00	ND	ND	---	---	---	---	---	---	---	---	ND
Oct-00		---	---	---	ND	ND	2	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	
Apr-14		---	---	---	ND	ND	3	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	
Oct-14		---	---	---	ND	ND	2	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	
Apr-14		---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	
Oct-14		---	---	---	ND	ND	1	ND	2	ND	ND	---	---	---	---	---	---	---	---	ND	
Apr-14		---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	
Oct-14		---	---	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	
Apr-04		---	---	---	ND	2	ND	ND	ND	3	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Oct-04		---	---	---	ND	ND	ND	ND	---	ND	ND	ND	1	ND	---	---	---	---	---	ND	
Apr-05		---	---	---	ND	ND	1	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Oct-05		---	---	---	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Apr-06		---	---	---	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Oct-06		---	---	---	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Apr-07		---	---	---	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Oct-07		0.06	1	0.2	B	0.1	B	0.6	J	0.1	B	---	0.1	B	1	B	0.1	B	0.1	B	0.1
Apr-08		0.05	1	0.4	J	0.1	J	0.2	J	0.1	J	---	0.2	J	0	J	0.3	J	0.1	J	ND
Oct-08		0.05	1	0.2	J	0.2	J	0.3	J	0.2	J	---	0.1	J	0.3	J	0.2	J	0.5	J	0.1
Apr-09		0.04	1	0.2	J	0.2	J	0.3	J	0.3	J	---	0.2	J	0.7	J	0.5	J	0.3	J	0.2
Oct-09		0.04	1	0.4	J	0.2	J	0.2	J	0.1	J	---	0.2	J	0.4	J	0.1	J	0.2	J	0.1
Apr-10		0.02	1	0.9	J	0.1	B	0.5	B	2	---	0.1	B	0.7	J	0.2	B	9.0	0.1	B	---
Jun-10		0.02	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.7
Resample		Oct-10	0.02	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-11		0.02	1	0.2	J	0.09	J	0.21	J	0.11	J	---	0.3	J	0.5	J	0.1	J	0.1	J	---
Oct-11	0.02	1	0.46	J	ND	0.11	J	ND	---	---	---	---	---	---	---	---	---	---	---	0.6	
Apr-12	0.02	1	0.1	J	ND	0.26	J	0.12	J	---	0.24	J	ND	0.05	J	0.64	J	0.1	J	---	
Oct-12	0.03	1	0.12	J	0.09	J	0.12	J	0.1	J	---	0.12	J	0.31	J	0.12	J	0.45	J	---	
Apr-13	0.03	1	0.1	J	0.07	J	0.5	J	0.31	J	---	0.08	J	0.49	J	0.05	J	0.21	J	---	
Oct-13	0.05	1	0.08	J	0.52	J	0.58	J	0.16	J	---	0.05	J	0.28	J	0.17	J	0.36	J	---	
Apr-14	0.05	1	0.1	J	0.34	J	0.27	J	0.33	J	---	0.32	J	0.32	J	0.89	J	0.23	J	---	
Chromium	Jul-99	---	10	---	112	35	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	
	Aug-99	---	10	---	29	38	10	ND	23	ND	---	---	---	---	---	---	---	---	---	ND	
	Oct-99	---	1	---	14	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Nov-99	---	10	---	22	36	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Apr-00	---	10	---	11	43	37	ND	24	ND	---	---	---	---	---	---	---	---	---	ND	
	Oct-00	---	10	---	16	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Apr-14	---	10	---	11	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Oct-14	---	10	---	38	65	ND	ND	39	ND	---	---	---	---	---	---	---	---	---	ND	
	Apr-14	---	10	---	43	12	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Oct-14	---	10	---	15	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Apr-14	---	10	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Oct-14	---	10	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Apr-14	---	10	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	ND	
	Oct-14	---	10	---	ND																

TABLE 8A

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

Analyte	Sample		Background				Downgradient										Blanks												
	Collection Date	DL	QL	MW-12S	MW-12D	MW-7	MW-8	MW-9	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14	MW-14R														
Nickel NC 2L = 100 µg/L (10/23/07)	11-Oct-07	0.7	50.0	2	J	1.6	J	2.3	J	ND	---	0.7	J	1.8	J	1.8	J	0.8	J	1.2	J	---	3.6	J	ND				
	03-Apr-08	0.1	50.0	4.3	J	2	J	4	J	0.8	B	---	1.4	B	4.8	J	2.4	J	0.7	B	1.6	J	---	1.4	B	0.3	J		
	28-Oct-08	0.1	50.0	3.5	J	2.7	J	4	J	2.2	J	---	1	B	4.9	J	2	J	1.1	J	2	J	---	1.6	J	0.2	J		
	08-Apr-09	0.0	50.0	2.9	J	2	J	2.5	J	1.6	J	---	1.5	J	8.5	J	1.2	J	1.1	J	1.9	J	---	2.2	J	ND	J		
	27-Oct-09	0.0	50.0	1.9	J	1.8	J	2.5	J	1.9	J	---	1.3	J	8.7	J	1.1	J	0.5	B	1.3	J	---	2.1	J	0.2	J		
	08-Apr-10	0.1	50.0	2.8	J	1.4	J	2.1	J	1.4	J	---	1.8	J	7	J	1	J	1	J	1.6	J	---	2.4	J	ND	J		
	Oct-10	0.05	50	2	J	2.6	J	2.9	J	1.5	J	---	2	J	6.1	J	2.5	J	1.3	J	2.1	J	---	3.2	J	0.1	J		
	Apr-11	0.04	50	1.9	J	1.2	B	2.2	J	1.3	B	---	1.9	J	8.1	J	1.1	B	1.0	B	1.0	B	---	3.1	J	0.3	J		
	Apr-12	0.04	50	2.2	B	1.7	B	2.6	J	1.4	B	---	2.0	B	6.7	J	0.9	B	1.5	B	1.6	B	---	6.0	J	0.56	J		
	Oct-12	0.04	50	1.6	J	1.1	J	2.4	J	4.3	J	---	5.7	J	6.8	J	1.0	J	1	J	1.1	J	---	4.7	J	ND	J		
	Oct-12	0.06	50.0	1.8	J	1.7	J	2.4	J	1.9	J	---	1.6	J	5.4	J	1.3	J	1.0	B	1.5	J	---	9.7	J	0.23	J		
	Apr-13	0.45	50.0	0.5	J	2.1	J	2.2	J	1.2	J	---	1.2	J	5.7	J	1.4	J	0.95	J	2.1	J	---	16.2	J	ND	J		
	Oct-13	0.45	50	1.6	J	2.1	J	2.2	J	2.1	J	---	1.5	J	5	J	1	J	2	J	1.8	J	---	9.5	J	ND	J		
	Apr-14	0.45	50	0.98	J	2.5	J	2.4	J	1.5	J	---	2.0	J	5	J	2	J	2	J	1.6	J	---	14.8	J	ND	J		
	Selenium NC 2L = 50 µg/L (10/23/07)	Oct-07	0.35	10	2.6	B	ND	---	1.4	B	ND	---	0.4	B	0.8	B	ND	ND	ND	ND	ND	ND	---	ND	ND	0.9	J	ND	
Apr-08		0.51	10	3.1	B	ND	---	0.7	B	0.2	B	---	0.7	B	0.3	B	ND	0.3	B	ND	ND	---	0.2	B	1.5	J	ND		
Oct-08		0.51	10	3.1	B	ND	---	0.9	B	0.3	B	---	0.7	B	0.5	B	ND	0.6	B	ND	ND	---	0.6	B	1.9	J	ND		
Apr-09		0.12	10	2.4	J	0.7	J	ND	0.2	J	---	---	0.3	J	0.5	J	ND	0.5	J	ND	ND	---	---	---	0.9	J	ND		
Oct-09		0.12	10	3	J	0.7	J	0.5	J	0.2	J	---	0.3	J	0.4	J	ND	0.8	J	0.2	J	ND	---	---	---	1.6	J	ND	
NC 2L = 20 µg/L (1/1/10)		Apr-10	0.32	10	1.6	J	ND	---	ND	ND	---	---	0.3	J	ND	ND	1.4	J	ND	ND	ND	---	---	---	1.6	J	ND		
		Oct-10	0.32	10	2	J	2	J	0.7	J	ND	---	1.2	J	0.5	J	ND	2.2	J	1.1	J	---	---	---	2.9	J	ND		
		Apr-11	0.20	10	0.83	J	ND	---	0.28	J	ND	---	0.43	J	0.92	J	ND	0.35	J	ND	ND	---	---	---	1.1	J	ND		
		Oct-11	0.20	10	0.53	J	ND	---	0.44	J	ND	---	ND	0.87	J	ND	0.35	J	ND	ND	ND	---	---	---	1.0	J	ND		
		Apr-12	0.20	10	0.56	J	ND	---	0.54	J	ND	---	0.68	J	1.1	J	ND	0.45	J	ND	ND	---	---	---	1.4	J	ND		
		Oct-12	0.17	10	0.48	J	ND	---	0.76	J	ND	---	0.88	J	0.86	J	ND	0.74	J	ND	ND	---	---	---	2.1	J	ND		
		Apr-13	0.06	10	0.77	J	0.19	J	0.66	J	0.27	J	---	1.4	J	0.83	J	0.26	J	1.5	J	0.19	J	---	---	---	3.3	J	ND
		Oct-13	0.06	10	0.52	J	0.18	J	0.62	J	0.16	J	---	0.87	J	0.70	J	ND	1.2	J	ND	ND	---	---	---	2.4	J	ND	
		Apr-14	0.06	10	N		0.18	J	0.26	J	ND	---	---	0.36	J	0.46	J	ND	0.2	J	ND	ND	---	---	---	0.9	J	ND	
		Silver NC 2L = 17.5 µg/L (10/23/07)	Apr-08	0.04	10	ND		0.1	J	ND	0.1	J	---	ND	ND	0.1	J	ND	ND	ND	ND	ND	---	---	---	ND	ND	ND	J
Oct-08	0.04		10	0.1	B	ND	---	0.1	B	0.1	B	---	ND	ND	ND	ND	0.1	B	0.1	B	ND	---	---	---	ND	ND	ND		
Apr-09	0.04		10	0.1	J	ND	---	0.1	J	ND	---	ND	ND	ND	0.1	J	ND	0.1	J	ND	ND	---	---	---	ND	ND	ND		
Oct-09	0.04		10	0.1	J	ND	---	ND	ND	ND	---	ND	0.1	J	ND	0.2	J	ND	ND	ND	ND	---	---	---	ND	ND	ND		
Apr-10	0.03		10	ND		ND	---	0.1	B	ND	---	ND	0.2	B	ND	ND	0.1	B	ND	ND	ND	---	---	---	0.1	B	0.1		
NC 2L = 20 µg/L (1/1/10)	Oct-10		0.03	10	0.1	J	ND	---	ND	ND	---	---	0.1	J	0.1	J	0.1	J	ND	ND	ND	---	---	---	0.1	J	ND		
	27-Apr-11		0.02	10	ND		ND	---	ND	ND	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	ND	ND	ND		
	20-Oct-11		0.02	10	0.10	J	ND	---	ND	ND	---	---	ND	ND	0.12	J	0.09	J	ND	ND	ND	---	---	---	0.17	J	ND		
	26-Apr-12		0.0	10	ND		0.03	J	ND	0.02	J	---	0.02	J	0.04	J	0.02	J	0.05	J	ND	ND	---	---	---	0.03	J	ND	
	16-Oct-12		0.1	10.0	ND		ND	---	ND	ND	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	ND	ND	ND		
	11-Apr-13		0.0	10.0	ND		ND	---	0.03	J	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	ND	ND	ND		
	30-Oct-13		0.03	10.0	0.03	B	ND	---	ND	ND	---	---	ND	ND	ND	ND	0.04	B	ND	ND	ND	---	---	---	0.03	B	0.05		
	09-Apr-14		0.03	10.0	ND		ND	---	ND	ND	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	ND	ND	ND		
	Thallium GWPS = 0.28 µg/L (10/23/07)		11-Oct-07	0.07	5.0	0.2	J	ND	---	0.1	J	ND	---	0.1	J	ND	ND	0.1	J	0.1	J	---	---	---	---	---	---	ND	ND
			03-Apr-08	0.63	5.0	ND		0.1	J	ND	0.1	J	---	ND	ND	0.1	J	ND	ND	ND	ND	ND	---	---	---	---	---	ND	ND
28-Oct-08		0.6	5.0	0.1	J	0.1	J	0.2	J	0.1	J	---	ND	ND	ND	0.1	J	ND	ND	ND	---	---	---	---	---	0.1	J		
08-Apr-09		0.03	5.0	0.1	J	ND	---	0.1	J	0.1	J	---	0.10	J	ND	ND	0.1	J	ND	ND	---	---	---	---	---	ND	ND		
27-Oct-09		0.03	5.0	0.1	J	ND	---	0.1	J	0.1	J	---	ND	ND	ND	0.1	J	ND	ND	ND	---	---	---	---	---	ND	ND		
GWPS = 0.2 µg/L (10/1/10)		08-Apr-10	0.1	5.0	ND		ND	---	0.1	J	ND	---	ND	ND	ND	ND	0.1	J	---	---	---	---	---	---	---	0.1	J	ND	
		13-Oct-10	0.05	5.5	ND		ND	---	ND	ND	---	---	0.1	J	ND	0.1	J	ND	ND	ND	ND	---	---	---	---	---	0.1	J	
		27-Apr-11	0.0	5.5	ND		ND	---	0.12	B	0.06	B	---	0.05	B	0.04	B	0.11	B	ND	ND	---	---	---	---	---	0.07	B	
		20-Oct-11	0.02	5.5	0.0	J	ND	---	0.05	J	ND	---	0.03	J	0.0	J	0.1	J	0.03	J	ND	---	---	---	---	---	0.1	J	
		26-Apr-12	0.0	5.5	0.02	J	ND	---	0.08	J	0.05	J	---	0.13	J	0.12	J	0.03	J	0.02	J	ND	---	---	---	---	0.1	J	
		16-Oct-12	0.1	5.5	0.19	J	ND	---	ND	ND	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND	ND	
		11-Apr-13	0.02	5.5	ND		ND	---	0.12	B	0.06	B	---	0.04	B	0.03	B	ND	ND	ND	ND	---	---	---	---	---	0.22	B	
		30-Oct-13	0.0	5.5	0.23	B	0.02	B	0.08	B	0.07	B	---	0.04	B	0.04	B	ND	0.12	B	ND	ND	---	---	---	---	---	0.06	B
		09-Apr-14	0.0	5.5	ND		0.02	J	0.08	J	0.03	J	---	0.06	J	0.02	J	0.02	J	ND	ND	ND	---	---	---	---	---	0.18	J

TABLE 8A

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

Analyte	Sample		Background				Downgradient										Blanks								
	Collection Date	DL	QL	MW-12S	MW-12D	MW-7	MW-8	MW-9	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14	MW-14R										
Vanadium	01-Jul-99	---	40.0	---	---	167	52	ND	ND	ND	ND	---	---	---	---	ND									
	01-Aug-99	---	40.0	---	---	41	47	ND	ND	ND	ND	---	---	---	---	ND									
	01-Oct-99	---	40.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	ND									
	01-Nov-99	---	40.0	---	---	ND	47	ND	ND	ND	ND	---	---	---	---	---	ND								
	Apr-00	---	40	---	---	ND	57	43	ND	ND	ND	---	---	---	---	---	ND								
	Oct-00	---	40	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND								
	Apr-14	---	40	---	---	ND	83	ND	ND	64.0	ND	---	---	---	---	---	ND								
	Oct-14	---	40	---	---	55	83	ND	ND	ND	ND	---	---	---	---	---	ND								
	Apr-14	---	40	ND	ND	67	ND	ND	ND	ND	ND	---	---	---	---	---	ND								
	Oct-14	---	40	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND								
	Apr-14	---	40	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND								
	Oct-14	---	40	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	ND								
	Apr-04	---	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	ND								
	Oct-04	---	40	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	ND								
	Apr-05	---	40	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	ND								
	Oct-05	---	40	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	ND								
	Apr-06	---	40	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	ND								
	Oct-06	---	40	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	ND								
	Apr-07	---	25	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	---	ND								
	Oct-07	0.42	25	0.9	J	ND	8.6	J	3.8	J	---	0.6	J	ND	ND	2.7	J	ND							
	Apr-08	0.07	25	0.3	B	0.3	B	1.7	J	3.6	J	---	2.1	J	1.9	J	0.2	B	---						
	Oct-08	0.07	25	0.4	B	1	B	14.1	J	14	J	---	3.1	J	1.9	J	0.4	B	1.5	J					
	Apr-09	0.28	25	1.5	J	1.7	J	6.9	J	13.5	J	---	6.5	J	2.7	J	0.8	J	2.3	J	1.8	J			
	Oct-09	0.28	25	ND	ND	1.4	B	13.3	J	15.2	J	---	7.4	J	3.2	J	0.9	B	1.5	B	1.5	B	---		
	Apr-10	0.03	25	1.3	B	1.7	B	8.1	J	9.4	J	---	4.9	J	2.1	J	0.7	B	3.1	J	1.3	B	---		
	Oct-10	0.03	25	0.9	B	1.4	B	4.8	J	7.6	J	---	5.4	J	1.4	B	0.8	B	1.5	B	1	B	---		
	Apr-11	0.14	25	ND	ND	ND	4.7	J	6.8	J	---	3.5	J	2.2	J	ND	0.97	J	0.48	J	---	0.6	J		
	Oct-11	0.14	25	ND	0.88	J	6.7	J	3.5	J	---	4.8	J	3.2	J	ND	1.5	J	0.93	J	---	1.9	J		
	Apr-12	0.14	25	0.7	J	1.3	J	6.7	J	6.1	J	---	11.7	J	2.2	J	ND	1.4	J	0.91	J	---	3.2	J	
	Oct-12	0.10	25	ND	0.62	J	4.0	J	3.8	J	---	2.8	J	1.0	J	ND	0.18	J	0.87	J	---	2.4	J		
11-Apr-13	0.07	25	1.2	J	1	J	6.5	J	6.4	J	---	2.5	J	2.4	J	0.5	J	1.7	J	---	1	J			
30-Oct-13	0.07	25	0.38	J	1.7	J	4.2	J	6.6	J	---	3.1	J	1.7	J	0.67	J	0.88	J	0.91	J	---	2.2	J	
09-Apr-14	0.07	25	1.2	J	2.3	J	7.4	J	5.2	J	---	5	J	1.22	J	0.28	J	1.5	J	0.81	J	---	1.5	J	
Zinc	01-Jul-99	---	50.0	---	---	113	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	01-Aug-99	---	50.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	01-Oct-99	---	50.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	01-Nov-99	---	50.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	01-Apr-00	---	50.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	01-Oct-00	---	50.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	01-Apr-14	---	50.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	01-Oct-14	---	50.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	02-Apr-14	---	50.0	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	02-Oct-14	---	50.0	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	03-Apr-14	---	50.0	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	03-Oct-14	---	50.0	11	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	15-Apr-04	---	50.0	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	14-Oct-04	---	50.0	ND	ND	72	ND	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	05-Apr-05	---	50.0	ND	ND	ND	ND	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	27-Oct-05	---	50.0	ND	ND	ND	ND	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	21-Apr-06	---	50.0	ND	ND	ND	ND	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	12-Oct-06	---	50.0	ND	ND	ND	ND	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	26-Apr-07	---	10.0	ND	ND	ND	13	ND	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	ND		
	11-Oct-07	0.2	10.0	22	B	2.1	B	28	B	4.9	B	---	4.7	B	5.4	B	2.5	B	6.1	B	3.4	B	---	14	B
	03-Apr-08	0.0	10.0	26	B	1.9	B	15	---	3.7	B	---	7.8	B	8.7	B	4.7	B	4.7	B	2.1	B	---	5.7	B
	Oct-08	0.04	10	20	---	15	---	22	---	11	---	---	5.8	J	7.6	J	3.8	J	13	---	8.3	J	---	17	---
	Apr-09	0.14	10	23.0	---	1.3	B	16	---	9.4	J	---	7.5	J	14.0	---	1.8	B	5.4	J	1.9	B	---	8.7	J
	Oct-09	0.14	10	16	---	4.2	B	25	---	9.6	J	---	9.3	J	13.0	---	10.0	---	4.9	B	2.3	B	---	8.9	J
Apr-10	0.08	10	19	---	2.2	B	20	---	9.1	J	---	6.8	J	10	J	3.5	B	9.9	J	2.0	B	---	7.7	J	
Oct-10	0.08	10	17.0	B	7.7	B	6.1	B	8	B	---	10	B	9	B	5.2	B	9.3	B	3.3	B	---	12.0	B	
Apr-11	0.24	10	12	---	2	B	14	---	4.9	B	---	10	---	9	J	4	B	5	B	1.2	B	---	7.5	J	
Oct-11	0.24	10	8.1	J	2.1	J	10	---	4.3	J	---	7.2	J	9.9	J	1.0	B	4.7	J	1.7	J	---	9.6	J	
Apr-12	0.24	10	9.7	J	8	B	15	---	7.7	B	---	24.0	---	17.0	---	2.4	B	6.1	B	2.3	B	---	10.0	---	
Oct-12	0.48	10	9.2	J	1.5	J	6.9	J	4.9	J	---	4.8	J	5	J	1.4	J	2.8	J	2.0	J	---	5.4	J	
Apr-13	0.47	10	5.9	J	1.9	B	13	---	7.1	J	---	6.2	J	6.9	J	0.9	B	6.2	J	1.9	B	---	5.1	J	
Oct-13	0.47	10	9	B	5.1	B	10.0	B	11.0	B	---	7	B	11.0	B	5.6	B	9.8	B	6.8	B	---	6.1	B	
Apr-14	0.47	10	4.7	J	2.4	J	9.9	J	10.0	---	---	7	J	9.5	J	---	---	5.2	J	ND	---	---	3.5	J	

TABLE 8A

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

Analyte	Sample		Background		Downgradient										Blanks										
	Collection Date	DL	QL	MW-12S	MW-12D	MW-7	MW-8	MW-9	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14		MW-14R									
Organic Compounds																									
Acetone	Oct-07	1.21	100	ND	ND	1.4	J	ND	---	1.4	J	ND	ND	ND	---	ND									
Resample	Dec-07	2.20	25	---	---	ND	---	---	---	ND	---	---	---	---	---	---									
NC 2L = 700 µg/L (10/23/07)	Apr-08	1.21	100	5.2	B	4.5	B	4.3	B	2.3	B	2.3	B	2	B	5	B	3.8	B	---	4.4	B	2.1	J	
	Oct-08	1.21	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr-09	1.21	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct-09	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
NC 2L = 6,000 µg/L (1/1/10)	Apr-10	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct-10	9.06	100	10.2	J	32.2	J	ND	ND	ND	ND	ND	ND	15	J	22.1	J	---	---	---	---	---	---	---	
	Apr-11	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct-11	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr-12	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct-12	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr-13	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct-13	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr-14	9.06	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	03-Apr-08	0.85	100	0.9	J	ND	---	ND	---	1.5	J	---	1.4	J	ND	ND	ND	ND	ND	---	---	---	---	---	
Resample	15-May-08	1.0	100	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
NC 2L = 4,200 µg/L (10/23/07)	28-Oct-08	0.9	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	08-Apr-09	0.9	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
NC 2L = 4,000 µg/L (1/1/10)	27-Oct-09	2.2	100.0	2.3	J	2.5	J	3.6	J	2.8	J	---	3.3	J	3	J	2.3	J	2.9	J	---	---	---	4.6	J
	08-Apr-10	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	13-Oct-10	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	27-Apr-11	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	20-Oct-11	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	26-Apr-12	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	16-Oct-12	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	11-Apr-13	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	30-Oct-13	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	09-Apr-14	2.2	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloromethane	11-Oct-07	0.2	1.0	0.9	J	0.7	J	0.8	J	0.8	J	---	0.9	J	0.8	J	0.9	J	0.9	J	---	---	---	0.9	J
Resample	04-Dec-07	0.1	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
NC 2L = 2.6 µg/L (10/23/07)	03-Apr-08	0.2	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	28-Oct-08	0.2	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	08-Apr-09	0.2	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
NC 2L = 3 µg/L (1/1/10)	27-Oct-09	0.8	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	08-Apr-10	0.8	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	13-Oct-10	0.8	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	27-Apr-11	0.8	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct-11	0.77	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr-12	0.77	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct-12	0.77	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr-13	0.77	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct-13	0.77	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr-14	0.77	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene Chloride	Oct-07	0.14	1.0	ND	ND	ND	ND	---	ND	0.2	B	ND	ND	ND	ND	---	---	---	---	---	---	---	---	0.2	J
NC 2L = 4.6 µg/L (10/23/07)	Apr-08	0.14	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Oct-08	0.14	1.0	ND	ND	0.2	J	0.2	J	---	---	0.2	J	0	J	---	---	---	---	---	---	---	---	---	
	Apr-09	0.14	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Oct-09	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
NC 2L = 5 µg/L (1/1/10)	Apr-10	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Oct-10	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Apr-11	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Oct-11	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Apr-12	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Oct-12	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Apr-13	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Oct-13	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	
	Apr-14	0.64	1.0	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	

Notes:
 1. All concentrations are in µg/L unless otherwise specified.
 2. ND = Not Detected.
 3. --- = Data not available.
 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. Bold 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.

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

Analyte	Sample		Background				Downgradient										Blanks						
	Collection Date	DL	QL	MW-15S	MW-15D	MW-16S	MW-16D	MW-17S	MW-17D	MW-18S	MW-18D	MW-19S	MW-19D										
Thallium GWPS = 0.28 ug/L	25-Aug-11	0.30	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
	27-Sep-11	0.30	5.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
	26-Oct-11	0.3	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
	29-Nov-11	0.3	5.0	0.5	B,D	0.5	B,D	0.5	B,D	0.4	B,D	0.4	B,D	0.4	B,D	0.4	B,D	0.4	B,D				
	31-Oct-13	0.0	5.5	0.06	B	0.22	B	0.1	B	0.03	B	0.12	B	ND	0.16	B	0.4	B	0.1	B			
	10-Apr-14	0.0	5.5	ND	ND	ND	ND	0.03	J	ND	0.08	J	ND	0.07	J	ND	0.03	J	ND	0.03			
Vanadium GWPS = 0.3 ug/L	25-Aug-11	6.6	2500.0	355	J,D	13	B,D	8.7	B,D	6.6	B,D	10.7	B,D	9.8	B,D	8.3	B,D	13.9	B,D	10.3	B,D	14.4	B,D
	27-Sep-11	0.7	25.0	8.7	B,D	7.1	B,D	9.8	B,D	8.7	B,D	10.8	B,D	10.5	B,D	7.12	B,D	21.6	B,D	4.8	B,D	5.7	B,D
	26-Oct-11	0.7	5.0	12.6	D	2.6	B,D	4.7	B,D	1.8	B,D	23.6	D	4.3	B,D	2.9	B,D	2.4	B,D	4.9	B,D	1	B,D
	29-Nov-11	0.7	5.0	14.4	B,D	11.2	B,D	13.1	B,D	8.5	B,D	11	B,D	11.2	B,D	14.1	B,D	10.9	B,D	9.4	B,D	9	B,D
	31-Oct-13	0.1	25.0	1	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
	10-Apr-14	0.1	25.0	0.72	J	0.9	J	3.8	J	1	J	4.9	J	0.55	J	0.55	J	0.78	J	2.4	J	2.6	J
Zinc NC 2L = 1,000 ug/L	25-Aug-11	2.3	10.0	158	J	8.6	B	8.1	B	5.93	B	9.44	B	6.02	B	14.2	B	13.5	B	9.05	B	33.2	B
	27-Sep-11	2.3	10.0	8.71	J	ND	ND	ND	ND	5.78	J	ND	ND	9.21	J	ND	ND	2.89	J	2.36	J	ND	ND
	26-Oct-11	2.3	10.0	8.92	J	ND	ND	ND	ND	5.08	J	ND	ND	26.5	ND	ND	ND	ND	ND	3.41	J	ND	ND
	29-Nov-11	2.3	10.0	7.47	J	ND	ND	2.78	J	ND	5.94	J	ND	3.15	J	ND	ND	3.26	J	4.49	J	ND	ND
	31-Oct-13	0.5	10.0	19	J	5.1	B	18	J	6.5	B	15	B	7.1	B	26	B	5.6	B	4.6	B	88	B
	10-Apr-14	0.5	10.0	14	J	1.8	J	12	J	4.1	J	17	J	0.92	J	18	J	0.97	J	1.8	J	22	J
Organic Compounds																							
Acetone NC 2L = 6,000 ug/L	25-Aug-11	0.9	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	27-Sep-11	0.9	100.0	ND	ND	ND	ND	ND	ND	2.62	B	ND	ND	3.25	B	1.13	B	ND	ND	ND	ND	1.22	J
	26-Oct-11	0.9	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	29-Nov-11	0.9	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	31-Oct-13	9.1	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10-Apr-14	9.1	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform NC 2L = 4 ug/L	Aug-11	0.10	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Sep-11	0.10	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.8	J	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-11	0.10	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Nov-11	0.10	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-13	0.67	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-14	0.20	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide NC 2L = 700 ug/L	Aug-11	0.11	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Sep-11	0.11	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.450	J	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-11	0.11	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Nov-11	0.11	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-13	0.23	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-14	0.23	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone GWPS = 560 ug/L	Aug-11	0.56	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Sep-11	0.56	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.43	J	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-11	0.56	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Nov-11	0.56	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-13	1.19	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-14	1.19	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

- Notes:
1. GWPS = Groundwater Monitoring
2. DL = Detection limit
3. DL = Reporting 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
11. NS = Not Sampled

TABLE 9A

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

Analyte	Sample	Background		Downgradient										
	Collection Date	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 [uMhos]	1-Jul-99	---	---	180	110	320.00	150.00	200.0	440.0	---	---	---	---	
	1-Aug-99	---	---	210	100	580.00	200.00	170.0	450.0	---	---	---	---	
	1-Oct-99	---	---	140	89	2000.00	150.00	200.0	420.0	---	---	---	---	
	1-Nov-99	---	---	140	91	1600.0	150.0	270	430	---	---	---	---	
	1-Apr-00	---	---	150	88	1800.0	140.0	270	420	---	---	---	---	
	1-Oct-00	---	---	140	92	1200.0	130.0	30	410	---	---	---	---	
	1-Apr-14	---	---	140	88	1300.0	120.0	290	390	---	---	---	---	
	1-Oct-14	---	---	140	98	1200.0	120.0	250.0	410.0	---	---	---	---	
	2-Apr-14	160	460	140	82	1600.0	110.0	290.0	370.0	---	---	---	---	
	2-Oct-14	153	478	356	93	1650.0	132.0	288	500	---	---	---	---	
	3-Apr-14	164	448	482	169	1857.0	167.0	406	440	---	---	---	---	
	3-Oct-14	146	434	373	76	1,497	144	411	426	---	---	---	---	
	15-Apr-04	170	300	220	57	960	87	290	300	79	280.0	56.0	---	
	14-Oct-04	189	405	272	70	---	121	344	406	127	391.0	79.0	---	
	5-Apr-05	146	489	299	67	---	140	417	496	99	475	95	---	
	27-Oct-05	144	419	234	63	---	125	353	430	114	396	138	---	
	21-Apr-06	184	465	216	64	---	147	406	469	121	434	69	---	
	12-Oct-06	182	448	245	59	---	130	358	448	109	416	---	---	
	26-Apr-07	192	452	210	69	---	143	310	448	103	415	---	---	
	11-Oct-07	187	454	273	80	---	128	229	439	119	409	---	78.0	
	Resample	159.2	501	340	83.5	---	128.9	232	497	146.4	482	---	73.1	
	Resample	3-Apr-08	155	481	453	64	---	131	409	443	124	402	---	71.0
	15-May-08	164.2	---	---	67.4	---	129.8	---	---	---	---	---	---	---
	28-Oct-08	140	437	528	63	---	124.0	542	449	152	422	---	75.0	
	8-Apr-09	148	429	475	60	---	131	1,200	460	149	435	---	116.0	
	27-Oct-09	114	430	439	60	---	114	613	427	124	417	---	119.0	
	8-Apr-10	146	433	450	73	---	134	771	460	142	433	---	158.0	
	13-Oct-10	124	450	455	75	---	121	639	474	144	440	---	275	
	27-Apr-11	123	439	551	84	---	139	1115	475	164	437	---	284	
	20-Oct-11	99	420	460	84	---	125	956	464	159	444	---	1082	
	26-Apr-12	107	409	490	82	---	150	1054	477	195	446	---	670	
	16-Oct-12	103	422	435	90	---	141	945	487	163	455	---	1910	
	11-Apr-13	100	422	440	89	---	142	778	485	180	440	---	1668	
30-Oct-13	101	514	434	86	---	133	710	493	168	455	---	1283		
pH [standard units]	1-Jul-99	---	---	5.7	5.4	5.1	5.6	6	7	---	---	---	---	
	1-Aug-99	---	---	5.4	5	4.2	5	5.6	6.4	---	---	---	---	
	1-Oct-99	---	---	5.3	4.8	5.8	5.4	5.1	6.8	---	---	---	---	
	1-Nov-99	---	---	5.2	4.8	5.6	5.3	5.2	6.7	---	---	---	---	
	1-Apr-00	---	---	5	5	6	5.3	5.4	7.2	---	---	---	---	
	1-Oct-00	---	---	5	4.8	5.3	5.3	4.8	6.3	---	---	---	---	
	1-Apr-14	---	---	4.7	4.8	4.7	4.9	4.4	6.3	---	---	---	---	
	1-Oct-14	---	---	5.1	5	4.4	5.2	5	6.6	---	---	---	---	
	2-Apr-14	5.4	6.3	4.7	4.7	5.2	5.2	4.9	6.4	---	---	---	---	
	2-Oct-14	4.9	7.1	5.9	4.9	5	5.5	4.9	7.2	---	---	---	---	
	3-Apr-14	5.1	7.1	5.9	4.6	6.2	5.5	4.5	7	---	---	---	---	
	3-Oct-14	4.6	6.7	6	4.6	5.9	5.1	3.9	6.9	---	---	---	---	
	3-Oct-14	6.6	7.3	7	6.7	6.7	6.4	5.2	7.2	6.8	7.2	8	---	
	14-Oct-04	5.4	7	10	5	---	5.3	4.7	6.8	4.9	6.7	5.3	---	
	5-Apr-05	5.1	7	5.9	5.1	---	5.3	5	7	5	7	5	---	
	27-Oct-05	5.1	6.9	5.8	5.1	---	5.1	4	7	5	7.1	4.8	---	
	21-Apr-06	5.3	7	5.9	5	---	5.2	4	7	5	7.2	4.9	---	
	12-Oct-06	5.3	7	6	4.8	---	5.2	4.2	7.0	5.1	7.1	---	---	
	26-Apr-07	5.4	7.1	6.1	5.0	---	5.3	4.6	7.1	4.9	7.2	---	---	
	11-Oct-07	5.3	7	5.8	5.3	---	5.1	5.1	7.1	5.1	7.2	---	5.3	
	Resample	4-Dec-07	5.46	6.01	6.2	6.55	---	6.2	5	6	5	6.0	---	6.0
	Resample	3-Apr-08	4.9	6.8	6.1	4.9	---	5.3	4	7	5	7.1	---	4.8
	15-May-08	5.66	---	---	5.8	---	5.7	---	---	---	---	---	---	---
	28-Oct-08	4.6	7	6.2	4.9	---	5.0	4	7	5	7.0	---	5.0	
	8-Apr-09	4.9	6.8	6.2	4.9	---	5.0	4	7	5	6.6	---	4.6	
	27-Oct-09	4.6	6.8	6.1	5	---	5.1	3.8	6.9	4.8	6.9	---	4.2	
	8-Apr-10	4.4	6.9	6.4	4.8	---	5.1	4	7	5	7.1	---	4.3	
	13-Oct-10	4.7	6.7	6.2	4.8	---	5.5	4.2	7	5.1	6.9	---	3.9	
	27-Apr-11	4.8	6.8	6.3	4.8	---	5.1	4	6.8	5.1	6.9	---	4.0	
	20-Oct-11	4.5	6.9	6.2	5.1	---	4.9	3.8	6.8	5	6.9	---	5.2	
	26-Apr-12	4.6	6.9	6.2	4.9	---	5	3.9	6.8	5	7	---	4.9	
	16-Oct-12	4.7	7.1	6.3	4.8	---	5	4.1	7.1	4.7	7.1	---	6.0	
	11-Apr-13	4.7	6.8	6.3	4.5	---	4.9	4.2	7	4.7	6.9	---	5.7	
30-Oct-13	4.7	6.5	6.3	4.9	---	5.1	4.6	6.9	5.3	7	---	6.1		
9-Apr-14	154	489	362	95	---	143	623	481	190	441	---	2580.0		

TABLE 9A

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

Analyte	Sample	Background		Downgradient										
	Collection Date	MW-12S	MW-12D	MW-7	MW-8	MW-9	MW-10	MW-11S	MW-11D	MW-13S	MW-13D	MW-14	MW-14R	
Temperature [°C]	1-Jul-99	---	---	20	23	21	23	20	24	---	---	---	---	
	1-Aug-99	---	---	23	23	23	24	23	20	---	---	---	---	
	1-Oct-99	---	---	20	21	20	21	20	21	---	---	---	---	
	1-Nov-99	---	---	17	18	18	18	17	17	---	---	---	---	
	1-Apr-00	---	---	15	15	15	14	14	17	---	---	---	---	
	1-Oct-00	---	---	20	20	20	19	20	20	---	---	---	---	
	1-Apr-14	---	---	17.0	15	14	14	14	14	---	---	---	---	
	1-Oct-14	---	---	20.0	21.0	20	21.0	21.0	19	---	---	---	---	
	2-Apr-14	17	17	17.0	18	17	17	17	16	---	---	---	---	
	2-Oct-14	25	22	25.0	26.0	24	24.0	24.0	23	---	---	---	---	
	3-Apr-14	16	18	15.0	15	16	16	15	15	---	---	---	---	
	3-Oct-14	20	19	20.0	19	20	20	21	21	---	---	---	---	
	15-Apr-04	15	17	15.0	16	14	14	14	12	15.0	14	15.0	---	
	14-Oct-04	21	20	21.0	21	---	21	22	21	21.0	22	21	---	
	5-Apr-05	15	15	16.0	15	---	14	15	15	14.0	14	13	---	
	27-Oct-05	21	21.0	21.0	21	---	21	21	22	20	21	21.0	---	
	21-Apr-06	17	18.0	18.0	17	---	16	15	17	16	17	17.0	---	
	12-Oct-06	22	19.0	22.0	23	---	22	23	19	21	19	---	---	
	26-Apr-07	17	18.0	17.0	17	---	15	16	18	4.9	7.2	---	---	
	11-Oct-07	21	19	22	22	---	21	21	18	20	18	---	---	
	Resample	4-Dec-07	18.2	18.9	17.4	18.5	---	16.7	13.8	17.9	16	17.1	16.9	
	Resample	3-Apr-08	16	18.0	15	15	---	14	15	17	16	17	15	
		15-May-08	17.4	---	---	17.8	---	17.1	---	---	---	---	---	
		28-Oct-08	21	18.0	20	20	---	19	20	20	18	19	20	
		8-Apr-09	14	17.0	14	14	---	13	14	15	14	15	13	
		27-Oct-09	21	19.0	22	21	---	21	22	20	20	20	21	
		8-Apr-10	16	19.0	16	15	---	16	15	16	16	16	16	
		13-Oct-10	22	19.0	23	23	---	22	22	21	22	21	22	
		27-Apr-11	17	18	18	18	---	17	16	17	17	17	18	
		20-Oct-11	20	17	21	19	---	19.0	20.0	19.0	20.0	18.0	20.0	
		26-Apr-12	17	18	18	18	---	17.0	17.0	17.0	17.0	17.0	17.0	
		16-Oct-12	22	19	22	22	---	21.0	21.0	21.0	21.0	20.0	22.0	
		11-Apr-13	16	19	16	15	---	15.0	15	17	15	17.0	15.0	
		30-Oct-13	21	19	21.0	21	---	21	21	20.0	20	19.0	20.0	
		9-Apr-14	14	17	16.0	14	---	13	13	14.0	14	16.0	14.0	
	Turbidity [NTU]	1-Jul-99	---	---	450	650	18.0	3.0	75	70.0	---	---	---	---
		1-Aug-99	---	---	95	500	50.0	100.0	330	120.0	---	---	---	---
		1-Oct-99	---	---	250	110	100.0	31.0	15	26.0	---	---	---	---
		1-Nov-99	---	---	110	290	150	100.0	75	130	---	---	---	---
		1-Apr-00	---	---	50	500	140	37	22	25	---	---	---	---
1-Oct-00		---	---	70	110	17	16	33	31	---	---	---	---	
1-Apr-14		---	---	80	70	14	12	32	34	---	---	---	---	
1-Oct-14		---	---	60	290	5	10	20	70	---	---	---	---	
2-Apr-14		14	24	35	32	25	11	24	8	---	---	---	---	
2-Oct-14		3	14	22	8.3	23	10	6.2	50	---	---	---	---	
3-Apr-14		60	120	33	120	24	22	12	21	---	---	---	---	
3-Oct-14		18	22	55	27	65	25	19	26	---	---	---	---	
15-Apr-04		70	29	65	400	40	32	37	21	220	65	75	---	
14-Oct-04		39	26	38	40	---	60	140	39	45	30	37	---	
5-Apr-05		39	32	70	170	---	65	27	12	190	38	100	---	
27-Oct-05		19	39	200	110	---	37	55	25	26	50	26	---	
21-Apr-06		5.9	17	56	4.8	---	4.2	1.6	37	3.7	132	1.5	---	
12-Oct-06		19	160	50	24	---	34	3.0	60	19	70	---	---	
26-Apr-07		200	130	95	12	---	50	6.6	90	2.5	110	---	---	
11-Oct-07		80	90	90	45	---	8	7.1	60	40	80	---	4.4	
Resample		4-Dec-07	53.1	50.4	90.3	811	---	31.4	34.3	9.86	46.1	17.85	28.8	
Resample		3-Apr-08	35.00	6.4	13	50	---	75.00	7.2	65	26	33.00	5.20	
		15-May-08	26.10	---	---	630	---	31.60	---	---	---	---	---	
		23-Oct-08	18.00	75.00	200	320	---	70.00	60	40	28	60.0	80	
		8-Apr-09	38.00	70.00	75	250	---	90	39	50	40	120	27	
		27-Oct-09	13.00	100.0	170	290	---	70	33	45	29	65	60.0	
		8-Apr-10	19.00	33.0	130	190	---	90.00	38	45	90	55.0	26.0	
		13-Oct-10	11.00	36.0	70	170	---	90.00	31	50	280	70.0	45.0	
		27-Apr-11	16.00	60.0	85	60	---	75.00	27	55	30	75.0	17.0	
		20-Oct-11	9.20	100.0	120	38	---	110.00	68	59	34	70.0	70.0	
		26-Apr-12	29.00	100.0	85	140	---	310.00	65	65	25	95.0	110.0	
		16-Oct-12	7.50	29.0	74.0	65.0	---	40.00	31	40	25	70.0	290.0	
		11-Apr-13	16	45.0	40.0	60	---	35	17	60	40	75	120	
		30-Oct-13	14	45.0	80.0	80	---	70	37	50	34	60	230	
		9-Apr-14	36	70.0	95.0	100	---	33	26	50	30	85	38	

Notes:
1. Measurements taken in the Field by Environment 1
2. --- = No Data Available

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

Analyte	Sample		MW-15S	MW-15D	MW-16S	MW-16D	MW-17S	MW-17D	MW-18S	MW-18D	MW-19S	MW-19D
	Collection Date											
Conductivity [uMhos]	31-Oct-13		189	418	600	514	326	138	1075	382	107	469
	10-Apr-14		290	433	833	649	463	390	1203	407	103	529
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
	10-Apr-14		5.4	6.9	4.1	6.5	3.9	6.4	3.9	6.6	6.5	6.8
Temperature [°C]	31-Oct-13		21	20	21	21	21	22	21	20	22	21
	10-Apr-14		15	17	15	16	15	16	14	16	15	16
Turbidity [NTU]	31-Oct-13		18	65	50	80	270	85.5	80	26.0	65.0	600
	10-Apr-14		21	11	11	55	17	22	12	35.0	55.0	120

Notes:

1. 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

Analyte	Sample		Upgradient		Downgradient											Blanks				
	Collection Date	DL	QL	LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D					
Inorganic Compounds																				
Antimony	1-Jul-93	NR	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Aug-93	NR	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Sep-93	NR	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Sep-93	NR	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-94	NR	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-94	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-95	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-95	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-96	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-96	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-97	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-97	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-98	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-98	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Mar-99	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-99	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-00	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-00	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-14	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-14	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	2-Apr-14	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	2-Oct-14	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	3-Apr-14	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	3-Oct-14	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	15-Apr-04	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	14-Oct-04	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	5-Apr-05	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	27-Oct-05	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	21-Apr-06	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	12-Oct-06	NR	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	26-Apr-07	NR	6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	10-Oct-07	0.05	6.0	0.2	B	0.1	B	0.1	B	0.1	B	0.1	B	0.1	B	0.1	J			
	3-Apr-08	0.08	6.0	0.1	B	ND	0.5	B	ND											
	28-Oct-08	0.08	6.0	0.6	J	ND	0.2	J	ND	ND	0.4	J	ND	0.1	J	ND	ND			
	8-Apr-09	0.06	6.0	0.2	J	0.2	J	0.1	J	ND	ND	ND	ND	0.1	J	ND	ND			
	27-Oct-09	0.06	6.0	0.3	J	0.1	J	0.7	J	0.3	J	ND	ND	0.2	J	0.1	J			
	8-Apr-10	0.22	6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4	B	ND	ND			
	13-Oct-10	0.22	6.0	0.5	J	ND	ND	ND	ND	ND	0.6	J	ND	ND	ND	ND	ND			
	27-Apr-11	0.14	6.0	0.36	J	ND	ND	1.5	J	ND	ND	ND	0.30	J	ND	ND	ND			
	20-Oct-11	0.14	6.0	0.31	J	ND	0.18	J	ND	ND	ND	ND	ND	0.34	J	ND	ND			
	16-Apr-12	0.12	6.0	0.29	J	ND	ND													
	16-Oct-12	0.02	6.0	0.88	J	0.17	J	0.64	J	0.11	J	ND	0.08	J	0.09	J	0.785	0.04	J	
	11-Apr-13	0.02	6.0	0.72	J	0.14	J	0.19	J	0.05	J	ND	0.12	J	0.05	J	0.47	J	0.15	J
30-Oct-13	0.02	6.0	0.86	J	0.11	B	0.80	J	0.19	B	ND	0.14	B	ND	0.43	J	0.10	B	ND	
9-Apr-14	0.02	6.0	0.28	J	0.09	J	0.83	J	0.39	J	ND	0.18	J	ND	0.55	J	0.09	J	ND	
Asenic																				
Antimony	1-Jul-93	NR	5	ND	9	ND	ND	ND	ND	ND	ND	16	ND	5	ND	27				
	1-Aug-93	NR	5	ND	ND	ND	ND	ND	ND	ND	ND	15	ND	ND	ND	6				
	1-Sep-93	NR	5	ND	ND	ND	5	153	ND	ND	17	ND	ND	ND	ND	ND				
	1-Sep-93	NR	5	ND	ND	ND	8	ND	ND	37	ND	ND	ND	ND	ND	ND				
	1-Apr-94	NR	5	ND	ND	ND	ND	ND	ND	9	ND	ND	ND	ND	ND	ND				
	1-Oct-94	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-95	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-95	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-96	NR	10	ND	ND	ND	ND	NA	ND											
	1-Oct-96	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-97	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-97	NR	10	ND	ND	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND				
	1-Apr-98	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-98	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Mar-99	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-99	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-00	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-00	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Apr-14	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	1-Oct-14	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	2-Apr-14	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	2-Oct-14	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	3-Apr-14	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	3-Oct-14	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	15-Apr-04	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	14-Oct-04	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	5-Apr-05	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	27-Oct-05	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	21-Apr-06	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	12-Oct-06	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	26-Apr-07	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	10-Oct-07	0.47	10.0	2.4	J	1.0	J	ND	3.0	J	1.7	J	ND	13	ND	1.0	J			
	4-Dec-07	2.7	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
	3-Apr-08	0.07	10.0	1.2	J	0.6	J	0.4	J	0.3	J	ND	1.7	J	11	ND	0.4	J	0.5	J
	28-Oct-08	0.07	10.0	0.9	J	0.7	J	1.0	J	1.8	J	ND	1.7	J	3.1	J	0.8	J	1.5	J
	8-Apr-09	0.17	10.0	1.9	J	0.8	B	0.8	B	1.0	B	ND	1.0	B	2.1	J	0.9	B	1.5	J
	27-Oct-09	0.17	10.0	1.7	J	0.8	J	0.7	J	0.6	J	ND	0.6	J	4.7	J	1	J	2.1	J
	8-Apr-10	0.04	10.0	1.9	J	0.5	J	0.3	J	0.8	J	ND	0.2	J	0.9	J	1.3	J	0.9	J
	13-Oct-10	0.04	10.0	4.6	J	0.8	J	1.3	J	0.7	J	ND	0.6	J	1.8	J	1.9	J	1	J
	27-Apr-11	0.10	10.0	1.7	J	0.41	J	0.44	J	0.72	J	ND	0.31	J	1.7	J	1.4	J	0.54	J
	20-Oct-11	0.10	10.0	1.6	J	0.53	J	0.70	J	0.72	J	ND	0.54	J	1.4	J	0.77	J	0.39	J
	26-Apr-12	0.10	10.0	1.5	J	0.29	J	0.58	J	0.73	J	ND	0.54	J	1.4	J	0.77	J	0.39	J
	16-Oct-12	0.13	10.0	1.6	B	0.67	B	1.0	B	0.86	B	ND	0.52	B	2.0	B	2.6	J	0.47	B
11-Apr-13	0.05	10.0	1.3	J	0.75	B	0.83	J	0.75	B	ND	0.38	B	1.2	J	1.1	J	0.37	B	
30-Oct-13	0.05	10.0	2.1	J																

TABLE 10

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

Analyte	Sample		Upgradient													Downgradient						Blanks				
	Collection Date	DL	QL	LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D											
Barium	1-Jul-93	NR	50	272	424	260	151	152	128	160	208	204	351	206	NA	ND										
	1-Aug-93	NR	50	196	216	144	133	128	240	242	126	256	292	68	112	ND										
	1-Sep-93	NR	50	92	71	212	75	460	79	104	194	94	120	61	62	ND										
	1-Sep-93	NR	50	113	194	120	94	121	121	170	155	132	184	74	77	ND										
	1-Apr-94	NR	50	ND	84	69	ND	94	ND	52	ND	80	ND	62	90	ND										
	1-Oct-94	NR	500	ND																						
	1-Apr-95	NR	500	ND																						
	1-Oct-95	NR	500	ND																						
	1-Apr-96	NR	500	ND	ND	ND	ND	NA	ND																	
	1-Oct-96	NR	500	ND	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-97	NR	500	ND	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-97	NR	500	ND	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-98	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-98	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Mar-99	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-99	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-00	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-00	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-14	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-14	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	2-Apr-14	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	2-Oct-14	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	3-Apr-14	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	3-Oct-14	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	15-Apr-04	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	14-Oct-04	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	5-Apr-05	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	27-Oct-05	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	21-Apr-06	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	12-Oct-06	NR	500	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	26-Apr-07	NR	100	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	10-Oct-07	0.04	100.0		30.9	J	63.7	J	37.3	J	42	J	---	91.5	J	---	184	J	---	51.8	J	34	J	---	0.2	J
	3-Apr-08	0.11	100.0		27.9	J	66.0	J	38.9	J	36.8	J	---	119	J	---	58.3	J	---	58.4	J	43.8	J	---	0.2	J
	18-Oct-08	0.11	100.0		34	J	53.5	J	47.6	J	64.8	J	---	158	J	---	66.2	J	---	71.8	J	84.8	J	---	0.2	J
	8-Apr-09	0.04	100.0		33.1	J	61.2	J	44.5	J	55.6	J	---	77.3	J	---	52.9	J	---	85.0	J	79.7	J	---	0.2	J
	27-Oct-09	0.04	100.0		37.9	J	48.8	J	35.3	J	43.3	J	---	101	J	---	68.2	J	---	82.7	J	81.7	J	---	0.1	J
	8-Apr-10	0.03	100.0		31.9	J	58.1	J	40.2	J	60.4	J	---	45.7	J	---	33.1	J	---	96.7	J	78.6	J	---	0.1	J
	13-Oct-10	0.03	100.0		161	J	38.3	J	36.2	J	32	J	---	89.1	J	---	53.2	J	---	98.5	J	61	J	---	0.2	J
	27-Apr-11	0.02	100.0		41.5	J	46.4	J	38.5	J	37.8	J	---	59.4	J	---	41.1	J	---	95.4	J	51.6	J	---	0.10	J
	20-Oct-11	0.02	100.0		37.6	J	33.8	J	41.0	J	29.4	J	---	115	J	---	58.6	J	---	68.1	J	41.3	J	---	0.10	J
	26-Apr-12	0.02	100.0		43.7	J	52.5	J	45.2	J	35.8	J	---	68.9	J	---	49.9	J	---	92.7	J	55.6	J	---	0.12	J
	16-Oct-09	0.07	100.0		37.8	J	57.7	J	49.3	J	52.9	J	---	57.1	J	---	58.4	J	---	96.7	J	44.8	J	---	0.28	J
	11-Apr-13	0.06	100.0		35.0	J	57.9	J	40.9	J	31.3	J	---	25.6	J	---	41.7	J	---	78.5	J	56.8	J	---	0.06	J
30-Oct-13	0.06	100.0		31.1	J	37.3	J	47.8	J	32.6	J	---	68.7	J	---	74.9	J	---	85.0	J	50.8	J	---	0.24	J	
9-Apr-14	0.06	100.0		32.7	J	70.9	J	44.9	J	47.3	J	---	42.5	J	---	62	J	---	94.5	J	72.6	J	---	ND		
Beryllium	1-Jul-93	NR	1	3	4	ND	2	ND	2	ND	4	3	3	ND	4	ND										
	1-Aug-93	NR	1	2	2	ND	2	ND	2	ND	3	ND	ND	ND	2	ND										
	1-Sep-93	NR	1	1	ND	ND	ND	2	ND	4	ND	4	ND	ND	ND	ND										
	1-Sep-93	NR	1	2	3	ND	ND	1	2	1	4	ND	ND	ND	ND	ND										
	1-Apr-94	NR	1	ND	ND	ND	ND	ND	2	ND																
	1-Oct-94	NR	2	ND	ND	ND	ND	ND	2	ND	2	ND	ND	ND	ND	ND										
	1-Apr-95	NR	2	ND																						
	1-Oct-95	NR	2	ND																						
	1-Apr-96	NR	2	ND																						
	1-Oct-96	NR	2	ND																						
	1-Apr-97	NR	2	ND	3	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-97	NR	2	3	ND	ND	2	ND	ND	---	3	---	ND	ND	---	ND										
	1-Apr-98	NR	2	ND	ND	ND	2.1	---	ND	---	3.2	---	ND	ND	---	ND										
	1-Oct-98	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Mar-99	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-99	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-00	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-00	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-14	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-14	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	2-Apr-14	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	2-Oct-14	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	3-Apr-14	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	3-Oct-14	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	15-Apr-04	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	14-Oct-04	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	5-Apr-05	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	27-Oct-05	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	21-Apr-06	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	12-Oct-06	NR	2	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	26-Apr-07	NR	1.0	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	10-Oct-07	0.08	1.0	ND	0.5	J	0.1	J	0.3	J	---	0.5	J	---	1.6	J	---	0.1	J	0.1	J	---	ND			
	3-Apr-08	0.06	1.0	ND	0.4	J	0.1	J	0.2	J	---	1.2	J	---	0.4	J	---	0.2	J	0.2	J	---	ND			
28-Oct-08	0.06	1.0	0.1	J	0.5	J	0.1	J	0.6	J	---	1.0	J	---	0.6	J	---	0.3	J	0.4	J	---	ND			
8-Apr-09	0.06	1.0	0.2	J	0.5	J	0.1	J	0.4	J	---	0.5	J	---	0.6	J	---	0.2	J	0.4	J	---	ND			
27-Oct-09	0.06	1.0	0.2	J	0.3	J	0.2	J	0.4	J	---	0.7	J	---	0.8	J	---	0.3	J	0.5	J	---	ND			
8-Apr-10	0.02	1.0	0.1	B	0.3	B	0.1	B	0.4	B	---	0.3	B	---	0.3	B	---	0.3	B	0.3	B	---	0.1	J		
13-Oct-10	0.02	1.0	0.1	J	0.3	J	0.2	J	0.3	J	---	0.6	J	---	0.6	J	---	0.2	J	0.3	J	---	ND			
27-Apr-11	0.02	1.0	0.15	J	0.29	J	0.07																			

TABLE 10

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

Analyte	Sample		Upgradient		Downgradient											Blanks									
	Collection Date	DL	QL	LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D										
Cadmium	1-Jul-93	NR	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
	1-Aug-93	NR	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
	1-Sep-93	NR	1	ND	ND	ND	ND	5	ND																
	1-Sep-93	NR	1	ND	ND	ND	ND	5	ND																
	1-Apr-94	NR	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
	1-Oct-94	NR	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
	1-Apr-95	NR	1	ND	ND	ND	ND	ND	1	ND	1	ND	ND	ND	ND	ND									
	1-Oct-95	NR	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
	1-Apr-96	NR	1	ND	ND	ND	ND	NA	ND																
	1-Oct-96	NR	1	ND	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND									
	1-Apr-97	NR	1	ND	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND									
	1-Oct-97	NR	1	1	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND									
	1-Apr-98	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Oct-98	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Mar-99	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Oct-99	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Apr-00	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Oct-00	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Apr-14	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Oct-14	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	2-Apr-14	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	2-Oct-14	NR	1	2	ND	ND	ND	---	ND	---	ND	---	1	ND	---	ND									
	3-Apr-14	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	3-Oct-14	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	5	2	---	ND									
	15-Apr-04	NR	1	ND	3	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	14-Oct-04	NR	1	1	ND	2	ND	---	ND	---	ND	---	1	1	---	ND									
	5-Apr-05	NR	1	ND	1	1	ND	---	1	---	1	---	ND	2	---	ND									
	27-Oct-05	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	21-Apr-06	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	12-Oct-06	NR	1	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	26-Apr-07	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	10-Oct-07	0.06	1.0	0.4	B	0.5	B	0.1	B	0.5	B	---	0.5	B	---	0.2	B	1.1	---	0.1	J				
	3-Apr-08	0.04	1.0	0.1	J	0.1	J	ND	0.1	J	---	0.3	J	---	0.2	J	---	0.1	J	0.4	J	---	ND		
	28-Oct-08	0.04	1.0	0.1	J	0.3	J	0.3	J	0.1	J	---	0.4	J	---	0.1	J	---	0.1	J	0.1	J	---	ND	
	8-Apr-09	0.04	1.0	0.1	J	0.3	J	0.1	J	0.2	J	---	0.5	J	---	0.2	J	---	0.2	J	0.3	J	---	ND	
	27-Oct-09	0.04	1.0	0.7	J	0.1	J	ND	0.2	J	---	0.1	J	---	0.7	J	---	0.1	J	1	---	---	---	ND	
	8-Apr-10	0.02	1.0	0.1	B	0.3	B	0.1	B	0.3	B	---	0.1	B	---	0.4	B	---	0.8	J	0.1	B	---	0.1	J
	13-Oct-10	0.02	1.0	0.4	J	0.2	J	0.2	J	0.3	J	---	0.1	J	---	0.2	J	---	0.1	J	0.1	J	---	---	ND
	27-Apr-11	0.02	1.0	0.12	J	0.18	J	0.05	J	0.18	J	---	0.07	J	---	0.21	J	---	0.17	J	0.06	J	---	---	ND
	20-Oct-11	0.02	1.0	0.04	J	ND	0.20	J	0.07	J	---	0.06	J	---	0.15	J	---	0.08	J	ND	---	---	---	---	ND
26-Apr-12	0.02	1.0	0.12	J	0.16	J	0.16	J	0.08	J	---	0.18	J	---	0.10	J	---	0.10	J	ND	---	---	---	ND	
16-Oct-12	0.05	1.0	0.17	J	0.28	J	0.13	J	0.44	J	---	0.56	J	---	0.39	J	---	0.50	J	0.14	J	---	---	ND	
11-Apr-13	0.05	1.0	0.24	J	0.51	J	0.13	J	0.06	J	---	0.20	J	---	0.21	J	---	0.22	J	0.05	J	---	---	ND	
30-Oct-13	0.05	1.0	0.28	J	0.05	J	0.17	J	0.17	J	---	0.23	J	---	0.32	J	---	0.15	J	ND	---	---	---	ND	
9-Apr-14	0.05	1.0	0.58	J	0.14	J	0.46	J	0.42	J	---	0.05	J	---	0.22	J	---	0.55	J	0.09	J	---	---	ND	
Chromium	1-Jul-93	NR	5	36	72	14	32	8	7	ND	ND	26	8	ND	35	ND									
	1-Aug-93	NR	5	18	17	ND	16	ND	23	ND	ND	ND	ND	ND	11	ND									
	1-Sep-93	NR	5	19	12	ND	17	136	9	ND	ND	ND	ND	ND	6	ND									
	1-Sep-93	NR	5	19	29	ND	8	9	ND																
	1-Apr-94	NR	5	ND	9	34	ND																		
	1-Oct-94	NR	10	ND	10	ND																			
	1-Apr-95	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
	1-Oct-95	NR	10	ND	ND	ND	22	ND																	
	1-Apr-96	NR	10	ND	ND	ND	ND	NA	ND																
	1-Oct-96	NR	10	ND	13	ND	ND	ND	ND	---	27	---	ND	10	---	ND									
	1-Apr-97	NR	10	16	32	ND	ND	ND	ND	---	20	---	10	14	---	ND									
	1-Oct-97	NR	10	15	ND	ND	16	ND	ND	---	32	---	21	33	---	ND									
	1-Apr-98	NR	10	32	ND	ND	12	---	ND	---	26	---	ND	23	---	ND									
	1-Oct-98	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Mar-99	NR	10	17	11	ND	18	---	ND	---	34	---	ND	10	---	ND									
	1-Oct-99	NR	10	ND	10	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Apr-00	NR	5	28	170	ND	18	---	ND	---	51	---	10	40	---	ND									
	1-Oct-00	NR	10	ND	ND	ND	11	---	ND	---	ND	---	ND	ND	---	ND									
	1-Apr-14	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Oct-14	NR	10	ND	ND	ND	18	---	ND	---	ND	---	ND	ND	---	ND									
	2-Apr-14	NR	10	20	ND	ND	19	---	ND	---	40	---	ND	ND	---	ND									
	2-Oct-14	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	3-Apr-14	NR	10	14	ND	ND	ND	---	ND	---	ND	---	ND	10	---	ND									
	3-Oct-14	NR	10	14	ND	ND	17	---	ND	---	19	---	ND	ND	---	ND									
	15-Apr-04	NR	10	11	20	ND	22	---	ND	---	ND	---	11	13	---	ND									
	14-Oct-04	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	5-Apr-05	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	27-Oct-05	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	21-Apr-06	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	12-Oct-06	NR	10	ND	ND	ND	ND	---	17	---	ND	---	ND	ND	---	ND									
	26-Apr-07	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	10-Oct-07	0.24	10.0	3.2	B	1.1	B	1.2	B	1.4	B	---	2	B	---	1.4	B	2.2	B	---	1.2	J			
	3-Apr-08	0.11	10.0	0.5	J	ND	ND	1.2	J	---	1.5	J	---	2.1	J	---	0.4	J	2.7	J	---	---	ND		
	28-Oct-08	0.11	10.0	3.9	J	5.4	J	1.3	J	8.8	J	---	3.1	J	---	7.7	J	---	1.7	J	9.2	J	---	ND	
	8-Apr-09	0.10	10.0	6.4	J	1.9	J	0.2	J	2.8	J	---	2.4	J	---	6.2	J	---	1.1	J	8.0	J	---	ND	
	27-Oct-09	0.10	10.0	8.7	J	3.8	J	0.7	J	4.2	J	---	1.6	J	---	11	J	---	1	J	11	J	---	ND	
	8-Apr-10	0.03	10.0	6.1	J	2.1	J	0.6	J	4.3	J	---	1.7	J	---	5.5	J	---	1.3	J	7.4	J	---	ND	
	13-Oct-10	0.03	10.0	8.7	J	0.6	J	0.7	J	1.6	J	---	1.3	J	---	6.2	J	---	0.7	J	6.6	J	---	ND	
	27-Apr-11	0.04	10.0	6.7	J	1.5	J	0.40	B	3.9	J	---	1.1	J	---	6.1	J	---	1.2	J	3.9	J	---	0.18	J
	20-Oct-11	0.04	10.0	10	J	2.6	J	1.2	J	3.7	J	---	1.7	J	---	5.9	J	---	1.5	J	4.8	J	---	0.18	J
26-Apr-12	0.04																								

TABLE 10

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

Analyte	Sample		Upgradient													Downgradient						Blanks			
	Collection Date	DL	QL	LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D										
Lead	1-Jul-93	NR	5	34	67	ND	7	ND	ND	ND	8	ND	28	ND	13	ND									
	1-Aug-93	NR	5	33	21	ND	15	ND	17	ND	ND	ND	ND	12	7	ND									
	1-Sep-93	NR	5	17	ND	ND	13	102	ND	ND	ND	ND	ND	5	ND	ND									
	1-Sep-93	NR	5	ND	16	ND	10	5	ND																
	1-Apr-94	NR	5	ND	12	47	ND																		
	1-Oct-94	NR	10	ND	13	ND																			
	1-Apr-95	NR	10	ND																					
	1-Oct-95	NR	10	ND																					
	1-Apr-96	NR	10	ND	ND	ND	ND	NA	ND																
	1-Oct-96	NR	10	ND	ND	ND	ND	ND	ND	---	14	---	ND	ND	---	ND									
	1-Apr-97	NR	10	10	ND	ND	ND	ND	ND	---	18	---	20	---	15	---									
	1-Oct-97	NR	10	15	ND	ND	20	ND	ND	---	41	---	ND	33	---	ND									
	1-Apr-98	NR	10	17	ND	ND	ND	---	22	---	20	---	ND	ND	---	ND									
	1-Oct-98	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Mar-99	NR	10	ND	ND	ND	ND	---	ND	---	12	---	ND	ND	---	ND									
	1-Oct-99	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Apr-00	NR	10	11	23	ND	ND	---	18	---	---	---	---	---	20	---									
	1-Oct-00	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Apr-14	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	1-Oct-14	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	2-Apr-14	NR	10	ND	ND	ND	ND	---	ND	---	14	---	ND	ND	---	ND									
	2-Oct-14	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	3-Apr-14	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	3-Oct-14	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	15-Apr-04	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	14-Oct-04	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	5-Apr-05	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	27-Oct-05	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	21-Apr-06	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	12-Oct-06	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	26-Apr-07	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND									
	10-Oct-07	0.07	10.0	1.6	J	1.0	J	0.1	B	0.8	J	---	1.0	J	---	0.6	J	---	0.1	J					
	3-Apr-08	0.04	10.0	0.8	J	0.6	J	0.2	J	1.1	J	---	13	---	5.0	J	---	0.2	J	2.1	J	---	ND		
	28-Oct-08	0.04	10.0	2.5	J	4	J	0.6	J	8.5	J	---	11	---	9.5	J	---	1	J	12	J	---	0.1	J	
	8-Apr-09	0.04	10.0	4.4	J	1.6	J	0.3	B	3.0	J	---	5.2	J	---	6.2	J	---	0.8	J	9.7	J	---	0.1	J
	27-Oct-09	1.00	10.0	6.4	J	3.2	J	0.5	J	3.9	J	---	3.3	J	---	5.0	J	---	0.9	J	9.7	J	---	ND	
	8-Apr-10	0.01	10.0	5.1	J	1.8	J	0.4	B	4.4	J	---	2.2	J	---	4.3	J	---	1.4	J	8.2	J	---	0.1	J
	13-Oct-10	0.01	10.0	1.4	J	1.7	J	0.6	J	2.2	J	---	2.1	J	---	5.7	J	---	0.6	J	7.5	J	---	0.1	J
	27-Apr-11	0.02	10.0	4.9	J	1.4	J	0.30	J	3.6	J	---	1.7	J	---	5.2	J	---	0.77	J	3.3	J	---	ND	
	20-Oct-11	0.02	10.0	6.2	J	2.9	J	0.54	J	3.4	J	---	2.3	J	---	4.9	J	---	0.70	J	3.7	J	---	ND	
	26-Apr-12	0.02	10.0	5.2	J	2.6	J	0.41	J	4.5	J	---	1.9	J	---	4.6	J	---	0.62	J	5.4	J	---	0.02	J
	16-Oct-12	0.00	10.0	3.0	J	6.7	J	0.67	J	3.7	J	---	2.6	J	---	6.4	J	---	1.7	J	3.1	J	---	ND	
	11-Apr-13	0.02	10.0	5.2	J	3.8	J	0.51	J	3.2	J	---	1.9	J	---	4.6	J	---	0.99	J	3.7	J	---	ND	
30-Oct-13	0.02	10.0	4.4	J	2.8	J	0.51	J	2.6	J	---	2.5	J	---	11	---	---	0.55	J	3.8	J	---	0.08	J	
9-Apr-14	0.02	10.0	4.0	J	3.0	J	0.30	J	4.0	J	---	1.9	J	---	6.3	J	---	1.0	J	3.8	J	---	ND		
Nickel	1-Jul-93	NR	10	35	52	36	18	28	63	17	253	47	ND	23	80	ND									
	1-Aug-93	NR	10	39	46	21	41	B	44	B	103	38	B	164	39	B	37	B	26	B	40	B	11		
	1-Sep-93	NR	10	20	B	22	51	B	240	89	20	B	212	15	B	20	B	12	B	15	B	11			
	1-Sep-93	NR	10	19	ND	ND	12	15	60	16	194	14	13	49	17	ND									
	1-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	
	1-Oct-94	NR	50	ND																					
	1-Apr-95	NR	50	ND																					
	1-Oct-95	NR	50	ND																					
	1-Apr-96	NR	50	ND																					
	1-Oct-96	NR	50	ND																					
	1-Apr-97	NR	50	ND																					
	1-Oct-97	NR	50	ND																					
	1-Apr-98	NR	50	ND																					
	1-Oct-98	NR	50	ND																					
	1-Mar-99	NR	50	ND																					
	1-Oct-99	NR	50	ND																					
	1-Apr-00	NR	50	ND																					
	1-Oct-00	NR	50	ND																					
	1-Apr-14	NR	50	ND																					
	1-Oct-14	NR	50	ND																					
	2-Apr-14	NR	50	ND																					
	2-Oct-14	NR	50	ND																					
	3-Apr-14	NR	50	ND																					
	3-Oct-14	NR	50	ND																					
	15-Apr-04	NR	50	ND																					
	14-Oct-04	NR	50	ND																					
	5-Apr-05	NR	50	ND																					
	27-Oct-05	NR	50	ND																					
	21-Apr-06	NR	50	ND																					
	12-Oct-06	NR	50	ND																					
	26-Apr-07	NR	50	ND																					
	10-Oct-07	0.66	50.0	1.6	J	1.2	J	1.9	J	1.3	J	---	7.4	J	---	25.5	J	---	2.2	J	1	J	---	ND	
	3-Apr-08	0.06	50.0	2.1	J	0.6	B	2.4	J	0.5	B	---	3.5	J	---	2.5	J	---	3.4	J	1.0	B	---	0.3	J
	28-Oct-08	0.06	50.0	1.4	B	1.4	B	3.3	J	1.5	B	---	8	J	---	2.7	J	---	3.3	J	1.9	J	---	0.3	J
	8-Apr-09	0.04	50.0	1.8	J	1.0	J	2.5	J	1.1	J	---	3.5	J	---	2.6	J	---	2.9	J	1.7	J	---	ND	
	27-Oct-09	0.04	50.0	2	J	1.4	J	1.7	J	1.4	J	---	7.6	J	---	3.4	J	---	2.3	J	3.0	J	---	0.2	J
	8-Apr-10	0.05	50.0	1.1	J	0.8	J	1.5	J	0.8	J	---	3.0	J	---	1.7	J	---	2	J	1.0	J	---	ND	
	13-Oct-10	0.05	50.0	11	J	2	J	3.4	J	1	J	---	6.8	J	---	3.1	J	---	3.7	J	1.2	J	---	0.1	J
	27-Apr-11	0.04	50.0	2.3	J	0.72	B	1.4	B	1.0	B	---	3.9	J	---	2.2	J	---</							

TABLE 10

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

Analyte	Sample		Upgradient		Downgradient											Blanks										
	Collection Date	DL	QL	LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D											
Selenium	1-Jul-93	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	1-Aug-93	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	1-Sep-93	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	1-Sep-93	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	1-Apr-94	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	1-Oct-94	NR	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	1-Apr-95	NR	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	1-Oct-95	NR	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	1-Apr-96	NR	20	ND	ND	ND	ND	NA	ND																	
	1-Oct-96	NR	20	ND	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-97	NR	20	ND	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-97	NR	20	ND	ND	ND	ND	ND	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-98	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-98	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Mar-99	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-99	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-00	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-00	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Apr-14	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	1-Oct-14	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	2-Apr-14	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	2-Oct-14	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	2-Apr-14	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	5-Apr-05	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	27-Oct-05	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	21-Apr-06	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	12-Oct-06	NR	20	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	26-Apr-07	NR	10	ND	ND	ND	ND	---	ND	---	ND	---	ND	ND	---	ND										
	10-Oct-07	0.35	10.0	1.4	B	3.4	B	1.1	B	1.4	B	---	1.3	B	---	1.1	B	1.0	B	---	0.9	J				
	3-Apr-08	0.14	10.0	0.9	J	1.7	J	ND	0.2	J	---	0.9	J	---	ND	---	ND	0.2	J	---	ND					
	28-Oct-08	0.14	10.0	0.3	J	0.8	J	ND	0.3	J	---	0.3	J	---	0.2	J	---	0.2	J	0.2	J	---	ND			
	8-Apr-09	0.12	10.0	0.3	J	1.1	J	ND	0.2	J	---	ND	---	---	0.2	J	---	0.2	J	0.3	J	---	ND			
	27-Oct-09	0.12	10.0	0.6	J	0.9	J	0.5	J	0.5	J	---	0.7	J	---	0.8	J	---	0.6	J	1.3	J	---	ND		
	8-Apr-10	0.32	10.0	ND	---	1.9	J	0.4	J	ND	---	ND	---	---	0.3	J	---	0.3	J	ND	---	---	ND			
	13-Oct-10	0.32	10.0	12	---	1.5	J	1.5	J	0.5	J	---	0.6	J	---	0.3	J	---	3.1	J	0.4	J	---	ND		
	27-Apr-11	0.20	10.0	1.1	J	1.1	J	ND	0.26	J	---	ND	---	---	0.42	J	---	0.52	J	ND	---	---	ND			
	20-Oct-11	0.20	10.0	0.50	J	0.51	J	0.32	J	0.28	J	---	0.51	J	---	0.43	J	---	0.38	J	0.30	J	---	ND		
	26-Apr-12	0.20	10.0	0.56	J	0.59	J	ND	0.2	J	---	0.33	J	---	0.29	J	---	0.42	J	0.20	J	---	---	ND		
	16-Oct-12	0.17	10.0	0.57	J	0.57	J	ND	0.92	J	---	0.44	J	---	0.63	J	---	0.80	J	0.35	J	---	---	ND		
	11-Apr-13	0.06	10.0	0.68	J	1.1	J	ND	0.11	J	---	ND	---	---	0.15	J	---	0.58	J	0.11	J	---	---	ND		
30-Oct-13	0.06	10.0	0.51	J	0.42	J	0.43	J	0.49	J	---	0.28	J	---	1.0	J	---	0.59	J	0.36	J	---	---	ND		
9-Apr-14	0.06	10.0	ND	---	0.47	J	ND	ND	---	ND	---	---	---	0.17	J	---	ND	ND	---	---	---	---	ND			
Silver	3-Apr-08	0.04	10.0	0.1	B	0.1	B	ND	ND	---	0.1	B	---	ND	---	---	ND	0.1	B	---	---	---	0.1	J		
	28-Oct-08	0.04	10.0	ND	---	0.1	J	ND	ND	---	0.1	J	---	0.1	J	---	0.1	J	0.1	J	---	---	---	ND		
	8-Apr-09	0.04	10.0	ND	---	ND	---	0.1	J	---	ND	---	---	0.1	J	---	0.1	J	ND	---	---	---	---	ND		
	27-Oct-09	0.04	10.0	ND	---	0.1	J	0.1	J	---	ND	---	---	0.1	J	---	0.1	J	0.2	J	---	---	---	ND		
	8-Apr-10	0.03	10.0	ND	---	ND	---	ND	ND	---	ND	---	---	0.1	B	---	0.1	B	0.5	B	---	---	---	0.1	J	
	13-Oct-10	0.03	10.0	ND	---	ND	---	ND	ND	---	0.1	J	---	---	---	---	---	ND	ND	---	---	---	---	ND		
	27-Apr-11	0.02	10.0	ND	---	ND	---	ND	ND	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	ND		
	20-Oct-11	0.02	10.0	ND	---	ND	---	0.05	J	---	ND	---	---	---	---	---	---	ND	0.04	J	---	---	---	---	ND	
	26-Apr-12	0.02	10.0	0.02	J	0.06	J	0.04	J	0.03	J	---	0.03	J	---	---	---	---	ND	0.03	J	---	---	---	ND	
	16-Oct-12	0.10	10.0	ND	---	ND	---	ND	ND	---	ND	---	---	---	---	---	---	---	ND	---	---	---	---	---	ND	
	11-Apr-13	0.03	10.0	0.04	J	ND	---	ND	ND	---	ND	---	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	
	30-Oct-13	0.03	10.0	ND	---	ND	---	0.05	ND	---	ND	---	---	---	---	---	---	---	ND	ND	---	---	---	---	0.05	
	9-Apr-14	0.03	10.0	ND	---	ND	---	ND	ND	---	ND	---	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	
Thallium	10-Oct-07	0.07	5.0	ND	---	0.2	J	0.2	J	0.1	J	---	ND	---	---	---	---	ND	ND	---	---	---	---	---	ND	
	3-Apr-08	0.04	5.0	0.2	J	0.1	J	ND	0.1	J	---	0.1	J	---	0.1	J	---	0.1	J	0.1	J	---	---	---	ND	
	28-Oct-08	0.04	5.0	0.1	J	0.1	J	ND	0.1	J	---	0.1	J	---	0.1	J	---	ND	0.2	J	---	---	---	---	ND	
	8-Apr-09	0.03	5.0	0.1	J	0.1	J	0.1	J	---	0.1	J	---	---	---	---	---	ND	0.1	J	---	---	---	---	ND	
	27-Oct-09	0.03	5.0	0.1	J	0.1	J	ND	ND	---	ND	---	---	---	0.1	J	---	---	ND	0.3	J	---	---	---	ND	
	8-Apr-10	0.05	5.0	ND	---	ND	---	ND	ND	---	ND	---	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	
	13-Oct-10	0.05	5.5	0.1	J	ND	---	ND	ND	---	0.1	J	---	---	---	---	---	---	ND	0.1	J	---	---	---	ND	
	27-Apr-11	0.02	5.5	0.10	B	0.18	J	0.27	J	0.12	B	---	0.04	B	---	0.10	B	---	ND	0.08	B	---	---	---	0.03	J
	20-Oct-11	0.02	5.5	0.09	J	0.05	J	0.09	J	0.05	J	---	0.05	J	---	0.09	J	---	---	ND	0.09	J	---	---	---	ND
	26-Apr-12	0.02	5.5	0.12	J	0.23	J	0.14	J	0.13	J	---	0.20	J	---	0.12	J	---	0.05	J	0.11	J	---	---	---	ND
	16-Oct-12	0.07	5.5	ND	---	0.07	J	ND	0.24	J	---	ND	---	---	0.08	J	---	---	ND	ND	---	---	---	---	ND	
	11-Apr-13	0.02	5.5	0.13	B	0.05	B	ND	0.04	B	---	0.03	B	---	0.06	B	---	---	ND	0.06	B	---	---	---	0.19	J
	30-Oct-13	0.02	5.5	0.06	B	0.08	B	0.10	B	0.07	B	---	0.06	B	---	0.18	B	---	---	ND	0.08	B	---	---	---	0.13
9-Apr-14	0.02	5.5	0.10	J	0.08	J	0.02	J	0.07	J	---	0.04	J	---	0.09	J	---	---	---	0.07	J	---	---	---	ND	

TABLE 11

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

Analyte	Sample		Downgradient											
	Collection Date	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 [µMhos]	Jul-93	110	80	490	73	460	190	430	390	650	560	60	480	
	Aug-93	140	110	400	81	400	210	360	280	520	500	62	270	
	Sep-93	100	96	440	60	---	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	---	
	Apr-96	120	73	460	54	450	61	370	91	340	490	60	470	
	Oct-96	120	63	380	52	---	56	---	98	---	410	52	---	
	Apr-97	140	65	500	72	---	90	---	110	---	490	55	---	
	Oct-97	120	61	440	72	---	66	---	110	---	460	73	---	
	Apr-98	---	60	60	84	---	84	---	---	---	500	40	---	
	Oct-98	130	64	440	77	---	78	---	78	---	420	87	---	
	Mar-99	160	62	480	75	---	46	---	81	---	500	46	---	
	Oct-99	210	56	450	77	---	32	---	49	---	460	46	---	
	Apr-00	160	53	440	66	---	62	---	81	---	460	34	---	
	Oct-00	160	53	460	68	---	53	---	83	---	470	83	---	
	Apr-14	140	49	430	66	---	---	---	71	---	450	59	---	
	Oct-14	130	51	450	70	---	49	---	61	---	---	62	---	
	Apr-14	160	59	420	62	---	52	---	79	---	430	38	---	
	Oct-14	38	71	296	65	---	64	---	11	---	35	60	---	
	Apr-14	272	65	466	80	---	81	---	72	---	484	70	---	
	Oct-14	196	73	449	95	---	114	---	77	---	479	52	---	
	Apr-04	150	58	330	54	---	41	---	40	---	340	48	---	
	14-Oct-04	126	73	436	87	---	50	---	55	---	464	49	---	
	05-Apr-05	148	538	81	91	---	65	---	61	---	561	40	---	
	27-Oct-05	212	81	468	88	---	72	---	49	---	485	60	---	
	21-Apr-06	150	96	508	100	---	77	---	76	---	525	42	---	
	12-Oct-06	134	87	489	94	---	48	---	52	---	489	50	---	
	26-Apr-07	176	93	488	95	---	47	---	64	---	509	43	---	
	10-Oct-07	190	95	494	100	---	90	---	199	---	531	40	---	
	04-Dec-07	229	89.8	54.5	103	---	333	---	163.5	---	619	46.5	---	
	03-Apr-08	271	86	476	85	---	130	---	46	---	518	44	---	
	Resample	15-May-08	---	---	442	---	---	---	68.7	---	---	---	---	
	Resample	04-Jun-08	222	---	---	---	---	---	---	---	---	---	---	
	Resample	28-Oct-08	185.0	69	475	84	---	117	---	44	---	553	46	---
		08-Apr-09	217	75	473	91	---	77	---	69	---	560	47	---
		27-Oct-09	148	68	472	88	---	123	---	38	---	558	39	---
		08-Apr-10	232	76	487	96	---	65	---	53	---	587	50	---
		13-Oct-10	1413	65	499	75	---	104	---	50	---	608	53	---
		27-Apr-11	390	74	494	76	---	78	---	44	---	603	46	---
		20-Oct-11	177	55	489	67	---	142	---	60	---	551	45	---
		26-Apr-12	256	79	494	76	---	122	---	58	---	625	49	---
		16-Oct-12	249	74	510	104	---	75	---	220	---	589	49	---
		11-Apr-13	248	89	484	76	---	69	---	51	---	564	49	---
		30-Oct-13	150	59	492	73	---	92	---	61	---	568	51	---
		09-Apr-14	249	108	491	93	---	69	---	62	---	575	66	---
	pH [units]	1-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
		Aug-93	6.1	5.8	6.5	5.9	6.4	6	7	5	6	7	6	7
Sep-93		6	5.4	6.6	5.8	---	6	7	5	6.3	6.6	6	6.4	
Sep-93		6.4	6.1	6.5	6.1	6.3	5	6	5	6.2	6.6	6	6.5	
Apr-94		6.3	6	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	6.6	5.2	6.6	4.2	6.5	4.2	6.3	6.6	4.9	6.6	
Apr-95		6	6.2	6	6.4	6.2	5.3	6.0	5.3	6.0	6.5	6.5	6.4	
Oct-95		5.2	5	7	5.2	5.2	5	7	5	6.5	6.8	5	6.9	
Apr-96		5.6	5	6.3	5.9	6.6	5	7	5	6.2	6.5	6	6.6	
Oct-96		5.7	4.7	5.6	5.1	---	5	---	4	---	5.8	5	---	
Apr-97		5.7	5.3	6.1	5.2	---	5	---	5	---	6.4	6	---	
Oct-97		5.1	5.8	6.1	6.9	---	5	---	5	---	5.8	5	---	
Apr-98		---	4.8	4.8	4.8	---	4.6	---	---	---	7.0	4.7	---	
Oct-98		6.2	4.9	6.5	---	---	4.1	---	4.9	---	6.9	4.8	---	
Mar-99		5.8	5	6.6	5	---	4.5	---	4.8	---	6.8	4.9	---	
Oct-99		5.8	5	6.8	4.8	---	4.6	---	4.6	---	6.8	5	---	
Apr-00		5.6	5.2	6.4	5	---	5.4	---	5.4	---	6.5	5	---	
Oct-00		5.2	4.8	6.6	4.8	---	4.4	---	4.1	---	6.7	4.5	---	
Apr-14		5.2	4.7	6.3	4.7	---	4.9	---	4.4	---	6.5	4.6	---	
Oct-14		5.2	5	6	5.2	---	4.7	---	4.4	---	6.8	4.8	---	
Apr-14		6.1	5	6.5	5	---	4.7	---	4.8	---	6.7	4.9	---	
Oct-14		5.9	5.1	7	5	---	4.6	---	4.7	---	7	4.8	---	
Apr-14		6.1	5	6.9	5	---	4.5	---	4.4	---	6.9	4.8	---	
Oct-14		6.4	4.6	6.7	4.4	---	3.4	---	3.9	---	6.7	4.4	---	
Apr-04		6.6	6.0	7.2	5.6	---	5.4	---	5.2	---	7.0	5.6	---	
Oct-04		6.7	4.7	6.7	4.8	---	4.7	---	4.5	---	6.8	5.1	---	
05-Apr-05		6.5	7	5	5.3	---	4.9	---	4.6	---	6.9	4.9	---	
27-Oct-05		6.5	4.8	6.8	4.9	---	4.3	---	4.6	---	6.9	4.8	---	
21-Apr-06		6.6	4.8	7	4.9	---	4.5	---	5.1	---	7.0	5.1	---	
12-Oct-06		6.5	4.8	7.0	4.8	---	4.7	---	5.0	---	6.9	5	---	
26-Apr-07		6.7	4.8	7.1	4.9	---	4.8	---	5.3	---	7.0	5	---	
10-Oct-07		6.1	4.8	7.1	5	---	4.5	---	4.6	---	7.0	4.9	---	
04-Dec-07		7.13	5.8	6.88	5.3	---	3.97	---	4.1	---	7.1	4.95	---	
03-Apr-08		6.1	4.9	6.8	5.2	---	5.5	---	6.3	---	6.9	5.2	---	
Resample		15-May-08	---	---	6.72	---	---	---	---	---	7.4	---	---	
Resample		04-Jun-08	6.13	---	---	---	---	---	---	---	---	---	---	
Resample		28-Oct-08	6	4.9	6.5	5.2	---	4.7	---	4.7	---	6.8	5.4	---
		08-Apr-09	6.1	4.8	6.7	4.9	---	4.6	---	5	---	6.7	6.4	---
		27-Oct-09	6.3	4.7	6.7	4.7	---	4.4	---	4.5	---	6.7	5.1	---
		08-Apr-10	6.2	4.8	6.9	4.8	---	4.4	---	4.4	---	6.8	5.2	---
		13-Oct-10	6.1	4.8	6.6	5	---	4.6	---	4.8	---	6.6	5.4	---
		27-Apr-11	6.2	4.9	6.9	5.1	---	4.7	---	5.1	---	7.2	5.4	---
		20-Oct-11	6.2	4.9	6.7	5.1	---	4.4	---	4.7	---	6.8	5.2	---
		26-Apr-12	6.1	4.9	6.8	5.9	---	4.7	---	4.9	---	6.6	5.2	---
		16-Oct-12	6.1	4.9	7	5	---	4.8	---	4.8	---	6.9	5	---
		11-Apr-13	6.2	5.5	6.9	5	---	4.7	---	4.6	---	6.6	4.9	---
		30-Oct-13	6.4	4.8	6.9	5	---	4.8	---	4.7	---	6.8	5.1	---
		09-Apr-14	6.5	5.2	6.8	5.1	---	4.9	---	4.5	---	6.7	5.1	---

TABLE 11

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

Analyte	Sample	Downgradient											
	Collection Date	LST-5S	LST-1S	LST-1D	LST-2S	LST-2D	LST-3S	LST-3D	LST-4S	LST-4D	LST-5D	LST-6S	LST-6D
Temperature (°C)	01-Jun-93	23.0	25	21	26	22	27	19	23	20	18.0	23	24
	01-Aug-93	25.0	24	21	25	24	24	19	22	20	20.0	24	19
	Sep-93	24	25	19	25	---	24	21	24	20	20	24	21
	Sep-93	24	25	21	25.0	21	24	20	24	21	21	25	21.0
	Apr-94	18	17	17	19.0	18	18	18	17	17	17	18	18.0
	Oct-94	21	20	19	21.0	20	21	19	21	16	19	20	19.0
	Apr-95	17	16	16	17.0	16	15	16	15	20	16	16	17.0
	Oct-95	23	23.0	20	23	20	22	20	22	13	20	21	20.0
	Apr-96	13	12	14	13.0	14.0	12	13	12	---	14	12	14.0
	Oct-96	21	20	20	21.0	---	22	---	21	---	21	22	---
	Apr-97	15	14	15	14.0	---	13	---	13	---	16	13	---
	Oct-97	21	20	17	21.0	---	20	---	19	---	17	18	---
	Apr-98	---	15	15	15	---	15	---	---	---	17	15	---
	Oct-98	21	20	18	21	---	18	---	19	---	19	20	---
	Mar-99	15	13	16	13	---	13	---	15	---	18	15	---
	Oct-99	21	20	20	21	---	20	---	20	---	20	19	---
	Apr-00	15	15	17	15	---	15	---	14	---	19	14	---
	Oct-00	20	19	20	20	---	19	---	19	---	20	20	---
	Apr-14	16	15	15	16	---	15	---	14	---	16	15	---
	Oct-14	21	20	20	21	---	20	---	20	---	21	21	---
	Apr-14	18	16	16	18	---	18	---	16	---	16	18	---
	Oct-14	26	24	24	27	---	25	---	25	---	22	21	---
	Apr-14	16	15	15	15	---	15	---	15	---	16	15	---
	Oct-14	20	20	18	20	---	19	---	20	---	20	20	---
	Apr-04	13	13	13	14	---	12	---	14	---	13	13	---
	Oct-04	22	21	21	21	---	21	---	21	---	21	21	---
	Apr-05	16	15	15	16	---	15	---	15	---	16	15	---
	Oct-05	22	21	21	21	---	21	---	20	---	22	20	---
	21-Apr-06	18	17	18	17	---	17	---	17	---	18	18	---
	12-Oct-06	23	21	19	22	---	21	---	21	---	19	22	---
	26-Apr-07	17.0	16	18	16	---	16	---	16	---	18	17	---
	10-Oct-07	22.00	22	19	22	---	20	---	20	---	20	22	---
	04-Dec-07	18.50	17.1	17.2	17.3	---	15.5	---	16.9	---	17.7	17.3	---
	03-Apr-08	15.00	15	17	15	---	14	---	14	---	18	15	---
	15-May-08	---	---	17.9	---	---	---	---	17.9	---	---	---	---
	04-Jun-08	20.3	---	---	---	---	---	---	---	---	---	---	---
	28-Oct-08	21.0	20	19	19	---	19	---	20	---	20	19	---
	08-Apr-09	14.0	14	16	14	---	14	---	14	---	16	14	---
	27-Oct-09	22.0	21	19	21	---	20	---	21	---	19	21	---
	08-Apr-10	16.0	16	18	16	---	15	---	15	---	18	15	---
	13-Oct-10	23.0	22.0	20	22	---	22	---	21	---	20	23	---
	27-Apr-11	17.0	18.0	18	18	---	17	---	17	---	18	17	---
	20-Oct-11	21.0	21.0	18	21	---	20	---	20	---	19	20	---
	26-Apr-12	18.0	18.0	18	18	---	17	---	17	---	18	17	---
	16-Oct-12	22.0	22.0	19	21	---	21	---	21	---	19	21	---
	11-Apr-13	16	16	19	15	---	15	---	14	---	19	15	---
	30-Oct-13	22	21	19	21	---	20	---	20	---	20	21	---
09-Apr-14	15	15	17	15	---	15	---	14	---	17	15	---	
Turbidity (NTU)	01-Jun-93	---	---	---	---	---	---	---	---	---	---	---	---
	01-Aug-93	---	---	---	---	---	---	---	---	---	---	---	---
	01-Sep-93	---	---	---	---	---	---	---	---	---	---	---	---
	01-Sep-93	---	---	---	---	---	---	---	---	---	---	---	---
	01-Apr-94	---	---	---	---	---	---	---	---	---	---	---	---
	Oct-94	---	---	---	---	---	---	---	---	---	---	---	---
	Apr-95	---	---	---	---	---	---	---	---	---	---	---	---
	Oct-95	---	---	---	---	---	---	---	---	---	---	---	---
	Apr-96	---	---	---	---	---	---	---	---	---	---	---	---
	Oct-96	---	---	---	---	---	---	---	---	---	---	---	---
	Apr-97	---	---	---	---	---	---	---	---	---	---	---	---
	Oct-97	---	---	---	---	---	---	---	---	---	---	---	---
	Apr-98	---	---	---	---	---	---	---	---	---	---	---	---
	Oct-98	150	330	170	270	---	55	---	360	---	140	270	---
	Mar-99	210	150	38	190	---	15	---	400	---	75	---	---
	Oct-99	35	89	22	45	---	39	---	65	---	18	32	---
	Apr-00	80	110	14	110	---	18	---	180	---	24	80	---
	Oct-00	32	70	55	120	---	12.0	---	70	---	22	28	---
	Apr-14	26	36	24	38	---	13	---	27	---	33	26	---
	Oct-14	206	86	60	166	---	20	---	188	---	51	85	---
	Apr-14	70	27	25	130	---	22	---	57	---	23	35	---
	Oct-14	38	7.5	27	85	---	28	---	11	---	35	21	---
	Apr-14	85	33	22	55	---	12	---	45	---	30	22	---
	Oct-14	250	70	26	240	---	16	---	340	---	100	36	---
	Apr-04	45	250	20	270	---	60	---	70	---	55	40	---
	Oct-04	100	75	25	110	---	9.3	---	140	---	80	95	---
	Apr-05	160	32	60	220	---	31	---	100	---	22	80	---
	Oct-05	180	32	25	100	---	36	---	75	---	27	90	---
	Apr-06	14	<1.43	40	5.8	---	1.7	---	7.7	---	7.7	45	---
	Oct-06	25	12	50	<1.54	---	310	---	10	---	60	70	---
	Apr-07	9.6	<1.42	190	<1.42	---	3.2	---	3.5	---	7.5	21	---
	10-Oct-07	45	7.1	50	7.5	---	9.5	---	13	---	70	40	---
	04-Dec-07	72.1	29.6	3.17	62.9	---	91	---	124	---	19.56	885	---
	03-Apr-08	11.00	14	42	23	---	230	---	220	---	95	65	---
	15-May-08	---	---	42.9	---	---	---	---	64	---	---	---	---
	04-Jun-08	212.0	---	---	---	---	---	---	---	---	---	---	---
	28-Oct-08	110.00	90	55	230	---	90	---	230	---	70	650	---
	08-Apr-09	160.0	40	55	85	---	24	---	170	---	75	450	---
	27-Oct-09	450.00	75	65	110	---	60	---	300	---	55	230	---
	08-Apr-10	190.00	55	55	110	---	45	---	150	---	130	370	---
	13-Oct-10	50.00	30	70	65	---	50	---	180	---	130	280	---
	27-Apr-11	190.00	60	55	120	---	23	---	280	---	70	110	---
	20-Oct-11	230.00	60	75	80	---	19	---	130	---	180	180	---
	26-Apr-12	280.0	65	70	110	---	25	---	110	---	60	120	---
	16-Oct-12	70.00	85	55	90	---	55	---	220	---	60	240	---
	11-Apr-13	220.0	110	40	130	---	39	---	160	---	66	70	---
	30-Oct-13	240.0	60	80	80	---	50	---	340	---	100	100	---
09-Apr-14	120.0	90	50	140	---	60	---	280	---	80	170	---	

Notes:
1. Measurements taken in the
2. --- = No Data Available

TABLE 12

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

Analyte	Sample	DL		QL		Downgradient				Blanks		
	Collection Date			SWPT-1		SWPT-2	UD-1	UD-2				
Inorganic Compounds												
Antimony NC 2B = NE (5/1/2007)	11-Oct-07	0.05	6.0	0.1	B	0.7	J	Dry	Dry		0.1	J
	3-Apr-08	0.44	6.0	0.3	B	0.4	B	0.1	B	{0.2}	J	0.1 {ND}
	28-Oct-08	0.44	6.0	0.2	J	0.3	J	ND		{0.1}	J	ND {ND}
	7-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
	7-Apr-10	0.22	6.0	0.2	B	0.3	B	0.2	B	0.2	B	0.7
	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	0.2	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	0.2	J	0.15	J	0.04	J	ND
	30-Oct-13	0.02	6.0	0.18	B	0.12	B	0.1	B	0.08	B	0.08
	9-Apr-14	0.02	6.0	0.04	B	0.07	B	0.05	B	0.05	B	0.66
Arsenic NC 2B = 50 µg/L (05/01/07)	1-Jul-93	NR	5	ND		ND		ND		---		ND
	1-Aug-93	NR	5	---		---		---		---		ND
	1-Sep-93	NR	5	---		---		---		---		ND
	1-Sep-93	NR	5	---		---		---		---		ND
	1-Apr-94	NR	5	7		ND		ND		---		ND
	1-Oct-94	NR	10	ND		ND		ND		---		ND
	1-Apr-95	NR	10	ND		ND		ND		---		ND
	1-Oct-95	NR	10	ND		ND		ND		---		ND
	1-Apr-96	NR	10	ND		ND		ND		---		ND
	1-Oct-96	NR	10	ND		ND		ND		---		ND
	1-Apr-97	NR	10	Dry		Dry		ND		---		ND
	1-Oct-97	NR	10	Dry		Dry		ND		---		ND
	1-Apr-98	NR	10	---		Dry		ND		---		ND
	1-Oct-98	NR	10	Dry		ND		Dry		---		ND
	1-Mar-99	NR	10	ND		ND		ND		---		ND
	1-Jul-99	NR	10.0	---		---		---		ND		ND
	1-Aug-99	NR	10.0	---		---		---		ND		ND
	1-Oct-99	NR	10.0	ND		ND		ND		ND		ND
	1-Nov-99	NR	10.0	---		---		---		ND		ND
	1-Apr-00	NR	10.0	ND		ND		ND		---		ND
	1-Oct-00	NR	10.0	ND		ND		ND		ND		ND
	1-Apr-14	NR	10.0	Dry		Dry		ND		---		ND
	1-Oct-14	NR	10.0	ND		ND		ND		ND		ND
	2-Apr-14	NR	10.0	---		ND		ND		ND		ND
	2-Oct-14	NR	10.0	ND		ND		ND		ND		ND
	3-Apr-14	NR	10.0	ND		ND		ND		ND		ND
	3-Oct-14	NR	10.0	ND		ND		ND		15		ND
	15-Apr-04	NR	10.0	ND		ND		ND		ND		ND
	14-Oct-04	NR	10.0	ND		ND		ND		ND		ND
	5-Apr-05	NR	10.0	ND		ND		ND		ND		ND
	27-Oct-05	NR	10.0	ND		ND		ND		ND		ND
	21-Apr-06	NR	10.0	ND		ND		ND		ND		ND
	12-Oct-06	NR	10.0	ND		ND		ND		ND		ND
	26-Apr-07	NR	10.0	ND		ND		ND		ND		ND
	11-Oct-07	0.47	10.0	1.4	J	13		Dry		Dry		ND
	3-Apr-08	0.57	10.0	0.8	J	14		4	J	{2.0}	J	ND {0.2}
28-Oct-08	0.57	10.0	0.8	B	9.7	J	0.9	B	1.3	B	0.5	
7-Apr-09	0.17	10.0	0.7	B	1.8	J	1.7	J	0.9	B	0.2	
27-Oct-09	0.17	10.0	1.2	J	7.2	J	1.3	J	1.1	J	ND	
7-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	0.6	J	ND	
20-Oct-11	0.10	10.0	Dry		1.4	J	0.76	J	0.6	J	ND	
26-Apr-12	0.10	10.0	0.58	J	2.2	J	1.5	J	1.5	J	ND	
16-Oct-12	0.13	10.0	1.2	B	1.3	B	1.1	B	0.4	B	0.4	
11-Apr-13	0.05	10.0	0.57	B	1.7	J	0.81	J	0.4	B	0.15	
30-Oct-13	0.05	10.0	1.1	J	1.1	J	1.4	J	0.66	B	0.2	
9-Apr-14	0.05	10.0	0.34	J	0.46	J	1.0	J	0.41	J	ND	

TABLE 12

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

Analyte	Sample			Downgradient				Blanks						
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2							
Barium	1-Jul-93	NR	50	ND	140	71	---	ND						
	1-Aug-93	NR	50	---	---	---	---	ND						
	1-Sep-93	NR	50	---	---	---	---	ND						
	1-Sep-93	NR	50	---	---	---	---	ND						
	1-Apr-94	NR	50	ND	ND	ND	---	ND						
	1-Oct-94	NR	500	ND	ND	ND	---	ND						
	1-Apr-95	NR	500	ND	ND	ND	---	ND						
	1-Oct-95	NR	500	ND	ND	ND	---	ND						
	1-Apr-96	NR	500	ND	ND	ND	---	ND						
	1-Oct-96	NR	500	ND	ND	ND	---	ND						
	1-Apr-97	NR	500	Dry	Dry	ND	---	ND						
	1-Oct-97	NR	500	Dry	Dry	ND	---	ND						
	1-Apr-98	NR	500	---	Dry	ND	---	ND						
	1-Oct-98	NR	500	Dry	ND	Dry	---	ND						
	1-Mar-99	NR	500	ND	ND	ND	---	ND						
	1-Jul-99	NR	500.0	---	---	---	ND	ND						
	1-Aug-99	NR	500.0	---	---	---	ND	ND						
	1-Oct-99	NR	500.0	ND	ND	ND	ND	ND						
	1-Nov-99	NR	500.0	---	---	---	ND	ND						
	1-Apr-00	NR	500.0	ND	ND	ND	---	ND						
	1-Oct-00	NR	500.0	ND	ND	ND	ND	ND						
	1-Apr-14	NR	500.0	Dry	Dry	ND	---	ND						
	1-Oct-14	NR	500.0	ND	ND	ND	ND	ND						
	2-Apr-14	NR	500.0	---	ND	ND	ND	ND						
	2-Oct-14	NR	500.0	ND	ND	ND	ND	ND						
	3-Apr-14	NR	500.0	ND	ND	ND	ND	ND						
	3-Oct-14	NR	500.0	ND	ND	ND	ND	ND						
	15-Apr-04	NR	500.0	ND	ND	ND	ND	ND						
	14-Oct-04	NR	500.0	ND	ND	ND	ND	ND						
	5-Apr-05	NR	500.0	ND	ND	ND	ND	ND						
	27-Oct-05	NR	500.0	ND	ND	ND	ND	ND						
	21-Apr-06	NR	500.0	ND	ND	ND	ND	ND						
	12-Oct-06	NR	500.0	ND	ND	ND	ND	ND						
	26-Apr-07	NR	100.0	ND	ND	ND	ND	ND						
	11-Oct-07	NC 2B = NE (05/01/07)	0.0	100.0	47.4	J	187	Dry	Dry	0.2	J			
	3-Apr-08		0.1	100.0	30.7	J	72.4	J	{71.1}	J	ND {0.4}	J		
	28-Oct-08		0.11	100.0	30.8	J	122	J	36.9	J	93.6	J	0.7	J
	7-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	J	42.9	J	102.0	J	0.1	J
	7-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	0.1	J
	20-Oct-11		0.02	100.0	Dry		61.7	J	18.2	J	63.8	J	0.1	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	J	0.24	J
	9-Apr-14		0.06	100.0	24.8	J	26.1	J	52.2	J	64	J	ND	

TABLE 12

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

Analyte	Sample			Downgradient				Blanks				
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2					
Beryllium	1-Jul-93	NR	1	ND	ND	ND	---	ND				
	1-Aug-93	NR	1	---	---	---	---	ND				
	1-Sep-93	NR	1	---	---	---	---	ND				
	1-Sep-93	NR	1	---	---	---	---	ND				
	1-Apr-94	NR	1	ND	ND	64	---	ND				
	1-Oct-94	NR	2	ND	ND	ND	---	ND				
	1-Apr-95	NR	2	ND	ND	ND	---	ND				
	1-Oct-95	NR	2	ND	ND	ND	---	ND				
	1-Apr-96	NR	2	ND	ND	ND	---	ND				
	1-Oct-96	NR	2	ND	ND	ND	---	ND				
	1-Apr-97	NR	2	Dry	Dry	ND	---	ND				
	1-Oct-97	NR	2	Dry	Dry	ND	---	ND				
	1-Apr-98	NR	2	---	Dry	ND	---	ND				
	1-Oct-98	NR	2	Dry	ND	Dry	---	ND				
	1-Mar-99	NR	2	ND	ND	ND	---	ND				
	1-Jul-99	NR	2	---	---	---	ND	ND				
	1-Aug-99	NR	2	---	---	---	ND	ND				
	1-Oct-99	NR	2	ND	ND	ND	ND	ND				
	1-Nov-99	NR	2	---	---	---	ND	ND				
	1-Apr-00	NR	2	ND	ND	ND	---	ND				
	1-Oct-00	NR	2	ND	ND	ND	ND	ND				
	1-Apr-14	NR	2	Dry	Dry	ND	---	ND				
	1-Oct-14	NR	2	ND	ND	ND	ND	ND				
	2-Apr-14	NR	2	---	ND	ND	ND	ND				
	2-Oct-14	NR	2	ND	ND	ND	ND	ND				
	3-Apr-14	NR	2	ND	ND	ND	ND	ND				
	3-Oct-14	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				
	5-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				
	11-Oct-07	0.08	1.0	ND	0.4	J	Dry	Dry	ND			
	3-Apr-08	0.06	1.0	ND	ND	ND	ND	ND	ND			
	28-Oct-08	0.06	1.0	ND	0.1	J	ND	ND	ND			
	7-Apr-09	0.06	1.0	ND	ND	ND	ND	ND	ND			
	27-Oct-09	0.06	1.0	ND	0.1	J	ND	ND	ND			
	7-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	ND	ND	ND	ND
	20-Oct-11	0.02	1.0	Dry	ND	0.06	J	ND	ND	ND	ND	ND
	26-Apr-12	0.02	1.0	ND	0.02	J	ND	ND	ND	ND	ND	ND
	16-Oct-12	0.07	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
11-Apr-13	0.03	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	
30-Oct-13	0.03	1.0	0.04	B	ND	ND	ND	ND	0.04	J	ND	
9-Apr-14	0.03	1.0	0.03	J	ND	0.04	J	0.1	J	ND	ND	

NC 2B = 6.5 µg/L (05/01/07)

TABLE 12

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

Analyte	Sample		Downgradient				Blanks		
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1		UD-2	
Cadmium	1-Jul-93	NR	1	ND	ND	ND	---	ND	
	1-Aug-93	NR	1	---	---	---	---	ND	
	1-Sep-93	NR	1	---	---	---	---	ND	
	1-Sep-93	NR	1	---	---	---	---	ND	
	1-Apr-94	NR	1	ND	ND	ND	---	ND	
	1-Oct-94	NR	1	ND	ND	ND	---	ND	
	1-Apr-95	NR	1	ND	ND	ND	---	ND	
	1-Oct-95	NR	1	ND	ND	ND	---	ND	
	1-Apr-96	NR	1	ND	ND	ND	---	ND	
	1-Oct-96	NR	1	ND	ND	ND	---	ND	
	1-Apr-97	NR	1	Dry	Dry	ND	---	ND	
	1-Oct-97	NR	1	Dry	Dry	ND	---	ND	
	1-Apr-98	NR	1	---	Dry	ND	---	ND	
	1-Oct-98	NR	1	Dry	ND	Dry	---	ND	
	1-Mar-99	NR	1	ND	ND	ND	---	ND	
	1-Jul-99	NR	1	---	---	---	ND	ND	
	1-Aug-99	NR	1	---	---	---	ND	ND	
	1-Oct-99	NR	1	ND	ND	ND	ND	ND	
	1-Nov-99	NR	1	---	---	---	ND	ND	
	1-Apr-00	NR	1.0	ND	ND	ND	---	ND	
	1-Oct-00	NR	1.00	ND	ND	ND	ND	ND	
	1-Apr-14	NR	1	Dry	Dry	ND	---	ND	
	1-Oct-14	NR	1.0	ND	ND	ND	ND	ND	
	2-Apr-14	NR	1.0	---	ND	ND	ND	ND	
	2-Oct-14	NR	1.0	ND	ND	ND	ND	ND	
	3-Apr-14	NR	1.0	2.00	ND	ND	ND	ND	
	3-Oct-14	NR	1.0	ND	ND	ND	ND	ND	
	15-Apr-04	NR	1.0	ND	ND	ND	ND	ND	
	14-Oct-04	NR	1.0	ND	2.0	ND	ND	ND	
	5-Apr-05	NR	1.0	ND	ND	ND	ND	ND	
	27-Oct-05	NR	1.0	ND	ND	ND	ND	ND	
	21-Apr-06	NR	1.0	ND	ND	2 (ND)	4 (ND)	ND	
	12-Oct-06	NR	1.0	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
		3-Apr-08	0.05	1.0	0.1 J	0.1 J	0.1 J	0.1 J	ND
		28-Oct-08	0.1	1.0	0.1 J	0.3 J	ND	ND	ND
		7-Apr-09	0.0	1.0	0.2 J	0.1 J	ND	0.1 J	ND
		27-Oct-09	0.0	1.0	0.1 J	0.1 J	0.1 J	0.1 J	ND
		7-Apr-10	0.0	1.0	0.1 B	0.3 B	0.1 B	0.1 B	0.1 J
		13-Oct-10	0.0	1.0	0.1 J	0.1 J	ND	0.1 J	ND
		27-Apr-11	0.0	1.0	0.08 J	ND	0.04 J	0.04 J	ND
		20-Oct-11	0.02	1	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	0.1 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	0.1 J	ND	
	9-Apr-14	0.05	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**

Analyte	Sample			Downgradient				Blanks					
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2						
Chromium	1-Jul-93	NR	5	ND	ND	ND	---	ND					
	1-Aug-93	NR	5	---	---	---	---	ND					
	1-Sep-93	NR	5	---	---	---	---	ND					
	1-Sep-93	NR	5	---	---	---	---	ND					
	1-Apr-94	NR	5	ND	ND	ND	---	ND					
	1-Oct-94	NR	10	ND	ND	ND	---	ND					
	1-Apr-95	NR	10	ND	ND	ND	---	ND					
	1-Oct-95	NR	10	ND	ND	ND	---	ND					
	1-Apr-96	NR	10	ND	ND	ND	---	ND					
	1-Oct-96	NR	10	ND	ND	ND	---	ND					
	1-Apr-97	NR	10	Dry	Dry	ND	---	ND					
	1-Oct-97	NR	10	Dry	Dry	ND	---	ND					
	1-Apr-98	NR	10	---	Dry	18	---	ND					
	1-Oct-98	NR	10	Dry	ND	Dry	---	ND					
	1-Mar-99	NR	10	ND	ND	ND	---	ND					
	1-Jul-99	NR	10	---	---	---	12	ND					
	1-Aug-99	NR	10	---	---	---	13	ND					
	1-Oct-99	NR	10	ND	ND	ND	ND	ND					
	1-Nov-99	NR	10	---	---	---	ND	ND					
	1-Apr-00	NR	5	ND	28	ND	---	ND					
	1-Oct-00	NR	10	ND	16	ND	ND	ND					
	1-Apr-14	NR	10	Dry	Dry	ND	---	ND					
	1-Oct-14	NR	10	ND	ND	ND	ND	ND					
	2-Apr-14	NR	10	---	ND	ND	ND	ND					
	2-Oct-14	NR	10	ND	ND	ND	ND	ND					
	3-Apr-14	NR	10	ND	ND	ND	ND	ND					
	3-Oct-14	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					
	5-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					
	11-Oct-07	0.24	10.0	1.7	B	12	Dry	Dry	1.2	J			
	3-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		
	7-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		
	7-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		ND	
	30-Oct-13	0.04	10.0	0.25	B	0.33	B	0.25	B	ND		0.11	J
9-Apr-14	0.04	10.0	0.73	J	0.16	J	1.2	J	ND		ND		

NC 2B = 50 µg/L (05/01/07)

TABLE 12

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

Analyte	Sample			Downgradient				Blanks						
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2							
Cobalt	1-Jul-93	NR	20	ND	ND	28	---	ND						
	1-Aug-93	NR	20	---	---	---	---	ND						
	1-Sep-93	NR	20	---	---	---	---	ND						
	1-Sep-93	NR	20	---	---	---	---	ND						
	1-Apr-94	NR	10	34	B	45	B	46	B	---	18			
	1-Oct-94	NR	10	ND	ND	ND	ND	---	ND					
	1-Apr-95	NR	10	ND	ND	ND	ND	---	ND					
	1-Oct-95	NR	10	ND	ND	ND	ND	---	ND					
	1-Apr-96	NR	10	ND	ND	ND	ND	---	ND					
	1-Oct-96	NR	10	ND	ND	ND	ND	---	ND					
	1-Apr-97	NR	10	Dry	Dry	ND	ND	---	ND					
	1-Oct-97	NR	10	Dry	Dry	ND	ND	---	ND					
	1-Apr-98	NR	10	---	Dry	ND	ND	---	ND					
	1-Oct-98	NR	10	Dry	ND	Dry	ND	---	ND					
	1-Mar-99	NR	10	ND	ND	ND	ND	---	ND					
	1-Jul-99	NR	10	---	---	---	---	ND	ND					
	1-Aug-99	NR	10	---	---	---	---	ND	ND					
	1-Oct-99	NR	10	ND	ND	ND	ND	ND	ND					
	1-Nov-99	NR	10	---	---	---	---	ND	ND					
	1-Apr-00	NR	10	ND	12	ND	ND	---	ND					
	1-Oct-00	NR	10	ND	ND	ND	ND	ND	ND					
	1-Apr-14	NR	10	Dry	Dry	ND	ND	---	ND					
	1-Oct-14	NR	10	10	ND	ND	ND	ND	ND					
	2-Apr-14	NR	10	---	ND	ND	ND	ND	ND					
	2-Oct-14	NR	10	ND	ND	ND	ND	ND	ND					
	3-Apr-14	NR	10	ND	ND	ND	ND	ND	ND					
	3-Oct-14	NR	10	ND	ND	ND	ND	14	ND					
	15-Apr-04	NR	10	ND	ND	ND	ND	ND	ND					
	14-Oct-04	NR	10	ND	ND	ND	ND	ND	ND					
	5-Apr-05	NR	10	ND	ND	ND	ND	ND	ND					
	27-Oct-05	NR	10	ND	ND	ND	ND	ND	ND					
	21-Apr-06	NR	10	ND	ND	ND	ND	ND	ND					
	12-Oct-06	NR	10	ND	ND	ND	ND	ND	ND					
	26-Apr-07	NR	10	ND	ND	ND	ND	ND	ND					
	11-Oct-07	NC 2B = NE µg/L (05/01/07)	0.41	10.0	1.5	J	3.4	J	Dry	Dry	ND			
	3-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	
	7-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	
	7-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
	9-Apr-14		0.02	10.0	0.39	J	0.54	J	0.96	J	0.49	J	ND	

TABLE 12

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

Analyte	Sample Collection Date	DL	QL	Downgradient				Blanks				
				SWPT-1	SWPT-2	UD-1	UD-2					
Copper	1-Jul-93	NR	10	15	B	13	B	10	B	---	17	
	1-Aug-93	NR	10	---	---	---	---	---	---	---	19	
	1-Sep-93	NR	10	---	---	---	---	---	---	---	11	
	1-Sep-93	NR	10	---	---	---	---	---	---	---	39	
	1-Apr-94	NR	10	28	B	40	B	43	B	---	21	
	1-Oct-94	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	1-Apr-95	NR	200	ND	ND	ND	ND	---	---	---	ND	
	1-Oct-95	NR	200	ND	ND	ND	ND	---	---	---	ND	
	1-Apr-96	NR	200	ND	ND	ND	ND	---	---	---	ND	
	1-Oct-96	NR	200	ND	ND	ND	ND	---	---	---	ND	
	1-Apr-97	NR	200	Dry	Dry	ND	ND	---	---	---	ND	
	1-Oct-97	NR	200	Dry	Dry	ND	ND	---	---	---	ND	
	1-Apr-98	NR	200	---	---	Dry	ND	---	---	---	ND	
	1-Oct-98	NR	200	Dry	ND	Dry	---	---	---	---	ND	
	1-Mar-99	NR	200	ND	ND	15	---	---	---	---	ND	
	1-Jul-99	NR	200	---	---	---	---	ND	---	---	ND	
	1-Aug-99	NR	200	---	---	---	---	11	---	---	ND	
	1-Oct-99	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	1-Nov-99	NR	200	---	---	---	---	ND	---	---	ND	
	1-Apr-00	NR	200	ND	ND	ND	---	---	---	---	ND	
	1-Oct-00	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	1-Apr-14	NR	200	Dry	Dry	ND	---	---	---	---	ND	
	1-Oct-14	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	2-Apr-14	NR	200	---	---	ND	ND	ND	ND	---	ND	
	2-Oct-14	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	3-Apr-14	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	3-Oct-14	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	15-Apr-04	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	14-Oct-04	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	5-Apr-05	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	27-Oct-05	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	21-Apr-06	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	12-Oct-06	NR	200	ND	ND	ND	ND	ND	---	---	ND	
	26-Apr-07	NR	10	ND	ND	ND	ND	ND	---	---	ND	
	11-Oct-07	NC 2B =7 µg/L (05/01/07)	0.20	10.0	0.7	B	3.9	J	Dry	Dry	0.4	J
	3-Apr-08		0.05	10.0	1.0	B	2.8	J	1.7	J	0.7	B
	28-Oct-08		0.05	10.0	0.8	B	3	B	0.7	B	1.4	B
	7-Apr-09		0.04	10.0	0.9	J	1.2	J	1.3	J	1.0	J
	27-Oct-09		0.04	10.0	3.0	J	1.7	J	0.5	B	0.8	J
	7-Apr-10		0.03	10.0	1.8	J	1.3	J	1.2	J	0.7	B
	13-Oct-10		0.03	10.0	1.3	J	0.9	B	1	B	0.5	B
	27-Apr-11		0.02	10.0	0.81	B	0.85	B	1.2	B	1.0	B
	20-Oct-11		0.02	10.0	Dry	Dry	0.96	B	0.66	B	0.48	B
	26-Apr-12		0.02	10.0	0.67	B	1.5	B	1.2	B	0.80	B
	16-Oct-12		0.06	10.0	2.4	J	1.4	J	0.54	B	0.26	B
11-Apr-13		0.06	10.0	0.66	B	1.1	B	1.1	B	0.48	B	
30-Oct-13		0.06	10.0	0.53	B	0.71	B	0.63	B	0.38	B	
9-Apr-14		0.06	10.0	0.28	J	0.31	J	0.41	J	0.18	J	

TABLE 12

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

Analyte	Sample			Downgradient										
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2	Blanks						
Lead	1-Jul-93	NR	5	ND	ND	ND	---	ND						
	1-Aug-93	NR	5	---	---	---	---	ND						
	1-Sep-93	NR	5	---	---	---	---	ND						
	1-Sep-93	NR	5	---	---	---	---	ND						
	1-Apr-94	NR	5	ND	5	ND	---	ND						
	1-Oct-94	NR	10	ND	ND	ND	---	ND						
	1-Apr-95	NR	10	ND	ND	ND	---	ND						
	1-Oct-95	NR	10	ND	ND	ND	---	ND						
	1-Apr-96	NR	10	ND	ND	ND	---	ND						
	1-Oct-96	NR	10	ND	ND	ND	---	ND						
	1-Apr-97	NR	10	Dry	Dry	ND	---	ND						
	1-Oct-97	NR	10	Dry	Dry	ND	---	ND						
	1-Apr-98	NR	10	---	Dry	11	---	ND						
	1-Oct-98	NR	10	Dry	ND	Dry	---	ND						
	1-Mar-99	NR	10	ND	ND	ND	---	ND						
	1-Jul-99	NR	10	---	---	---	ND	ND						
	1-Aug-99	NR	10	---	---	---	ND	ND						
	1-Oct-99	NR	10	ND	ND	ND	ND	ND						
	1-Nov-99	NR	10	---	---	---	ND	ND						
	1-Apr-00	NR	10	ND	ND	ND	---	ND						
	1-Oct-00	NR	10	ND	ND	ND	ND	ND						
	1-Apr-14	NR	10	Dry	Dry	ND	---	ND						
	1-Oct-14	NR	10	ND	ND	ND	ND	ND						
	2-Apr-14	NR	10	---	ND	ND	ND	ND						
	2-Oct-14	NR	10	ND	ND	ND	ND	ND						
	3-Apr-14	NR	10	ND	ND	ND	ND	ND						
	3-Oct-14	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						
	5-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		
		3-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
		7-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	
		7-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
	9-Apr-14	0.02	10.0	0.56	J	0.15	B	0.61	J	0.04	B	0.04	J	

TABLE 12

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

Analyte	Sample			Downgradient				Blanks						
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2							
Nickel	1-Jul-93	NR	10	20	20	24	---	ND						
	1-Aug-93	NR	10	---	---	---	---	11						
	1-Sep-93	NR	10	---	---	---	---	17						
	1-Sep-93	NR	10	---	---	---	---	ND						
	1-Apr-94	NR	10	37	B	51	B	57	B	---	20			
	1-Oct-94	NR	50	ND	ND	ND	ND	---	ND	---	ND			
	1-Apr-95	NR	50	ND	ND	ND	ND	---	ND	---	ND			
	1-Oct-95	NR	50	ND	ND	ND	ND	---	ND	---	ND			
	1-Apr-96	NR	50	ND	ND	ND	ND	---	ND	---	ND			
	1-Oct-96	NR	50	ND	ND	ND	ND	---	ND	---	ND			
	1-Apr-97	NR	50	Dry	Dry	Dry	ND	---	ND	---	ND			
	1-Oct-97	NR	50	Dry	Dry	Dry	ND	---	ND	---	ND			
	1-Apr-98	NR	50	---	---	Dry	ND	---	ND	---	ND			
	1-Oct-98	NR	50	Dry	ND	Dry	---	---	ND	---	ND			
	1-Mar-99	NR	50	ND	ND	ND	ND	---	ND	---	ND			
	1-Jul-99	NR	50	---	---	---	---	ND	ND	---	ND			
	1-Aug-99	NR	50	---	---	---	---	ND	ND	---	ND			
	1-Oct-99	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	1-Nov-99	NR	50	---	---	---	---	ND	ND	---	ND			
	1-Apr-00	NR	50	ND	ND	ND	ND	---	ND	---	ND			
	1-Oct-00	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	1-Apr-14	NR	50	Dry	Dry	Dry	ND	---	ND	---	ND			
	1-Oct-14	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	2-Apr-14	NR	50	---	---	ND	ND	ND	ND	---	ND			
	2-Oct-14	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	3-Apr-14	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	3-Oct-14	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	15-Apr-04	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	14-Oct-04	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	5-Apr-05	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	27-Oct-05	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	21-Apr-06	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	12-Oct-06	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	26-Apr-07	NR	50	ND	ND	ND	ND	ND	ND	---	ND			
	11-Oct-07	NC 2B = 88 µg/L (05/01/07)	0.66	50.0	3.4	J	15.2	J	Dry	Dry	---	ND		
	3-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
	7-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
	7-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	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	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	
9-Apr-14		0.45	50.0	2.4	J	5.2	J	3.0	J	4.6	J	ND		

TABLE 12

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

Analyte	Sample			Downgradient						Blanks	
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2				
Selenium Resample NC 2B = 5 µg/L (05/01/07)	11-Oct-07	0.35	10.0	0.5	B	19	Dry	Dry	0.9	J	
	4-Dec-07	3.8	10.0	---		ND	---	---	ND		
	3-Apr-08	0.51	10.0	0.5	J	7.2	J	ND	{4.5}	B	
	28-Oct-08	0.51	10.0	0.7	B	ND	0.6	B	3.3	B	
	7-Apr-09	0.12	10.0	0.2	J	2.3	J	2.9	J	0.9	
	27-Oct-09	0.12	10.0	0.4	J	3.1	J	1.5	J	2.0	
	7-Apr-10	0.32	10.0	ND		0.3	J	ND	0.6	J	
	13-Oct-10	0.32	10.0	ND		3.1	J	2.9	J	2.5	
	27-Apr-11	0.20	10.0	0.72	J	2.4	J	ND	1.1	J	
	20-Oct-11	0.20	10.0	Dry		1.6	J	ND	0.87	J	
	26-Apr-12	0.20	10.0	0.53	J	1.3	J	ND	1.20	J	
	16-Oct-12	0.17	10.0	0.51	J	2.0	J	0.85	J	0.75	
	11-Apr-13	0.06	10.0	0.52	J	2.1	J	0.78	J	1.4	
	30-Oct-13	0.06	10.0	0.93	J	1.2	J	1.8	J	1.1	
	9-Apr-14	0.06	10.0	ND		0.24	J	0.91	J	0.4	
Silver NC 2B = 0.06 µg/L (05/01/07)	28-Oct-08	0.04	10.0	0.1	B	0.1	B	0.1	B	0.1	
	7-Apr-09	0.04	10.0	ND		0.1	J	ND	0.1	J	
	27-Oct-09	0.04	10.0	0.1	J	ND		ND			
	7-Apr-10	0.03	10.0	0.1	B	ND		0.1	B	ND	
	13-Oct-10	0.03	10.0	ND		ND		0.1	J	ND	
	27-Apr-11	0.02	10.0	ND		ND		ND		ND	
	20-Oct-11	0.02	10.0	Dry		ND		ND		ND	
	26-Apr-12	0.02	10.0	ND		ND		ND		ND	
	16-Oct-12	0.10	10.0	ND		ND		ND		ND	
	11-Apr-13	0.03	10.0	ND		ND		ND		ND	
	30-Oct-13	0.03	10.0	0.04	B	ND		ND		ND	
	9-Apr-14	0.03	10.0	ND		ND		ND		ND	
	Thallium NC 2B = 0.47 µg/L (05/01/07)	11-Oct-07	0.07	5.0	ND		0.1	J	Dry	Dry	ND
3-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	
7-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	
20-Oct-11		0.02	5.5	Dry		ND		ND		ND	
26-Apr-12		0.02	5.5	0.02	J	ND		ND		ND	
16-Oct-12		0.07	5.5	ND		ND		ND		ND	
11-Apr-13		0.02	5.5	ND		ND		ND		0.19	
30-Oct-13		0.02	5.5	0.28	B	0.1	B	ND	ND	0.13	
9-Apr-14	0.02	5.5	ND		ND		ND		ND		

TABLE 12

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

Analyte	Sample Collection Date	DL	QL	Downgradient				Blanks
				SWPT-1	SWPT-2	UD-1	UD-2	
Vanadium NC 2B = NE (05/01/07)	10-Oct-07	0.42	25.0	2.5 J	16.5 J	Dry	Dry	ND
	3-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
	7-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
	7-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
	9-Apr-14	0.07	25.0	1.9 J	0.60 J	2.3 J	0.33 J	ND
	Zinc	1-Jul-93	NR	10	11 B	23 B	11 B	---
1-Aug-93		NR	10	---	---	---	---	ND
1-Sep-93		NR	10	---	---	---	---	ND
1-Sep-93		NR	10	---	---	---	---	ND
1-Apr-94		NR	10	36 B	98 B	65 B	---	20
1-Oct-94		NR	50	ND	ND	ND	---	ND
1-Apr-95		NR	50	ND	ND	ND	---	ND
1-Oct-95		NR	50	ND	ND	ND	---	ND
1-Apr-96		NR	50	ND	ND	ND	---	ND
1-Oct-96		NR	50	ND	ND	ND	---	ND
1-Apr-97		NR	50	Dry	Dry	ND	---	ND
1-Oct-97		NR	50	Dry	Dry	ND	---	ND
1-Apr-98		NR	50	---	Dry	ND	---	ND
1-Oct-98		NR	50	Dry	ND	Dry	---	ND
1-Mar-99		NR	50	ND	ND	ND	---	ND
1-Jul-99		NR	50	---	---	---	ND	ND
1-Aug-99		NR	50	---	---	---	ND	ND
1-Oct-99		NR	50	ND	ND	ND	ND	ND
1-Nov-99		NR	50	---	---	---	ND	ND
1-Apr-00		NR	50	ND	ND	ND	---	ND
1-Oct-00		NR	50	ND	ND	ND	ND	ND
1-Apr-14		NR	50	Dry	Dry	ND	---	ND
1-Oct-14		NR	50	ND	ND	ND	ND	ND
2-Apr-14		NR	50	---	ND	ND	ND	ND
2-Oct-14		NR	50	ND	ND	ND	ND	ND
3-Apr-14		NR	50	ND	ND	ND	ND	ND
3-Oct-14		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
5-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
11-Oct-07		0.20	10.0	44	22 B	Dry	Dry	6.6 J
3-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
7-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
7-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	---	---	---	NR
	30-Oct-13	0.47	10.0	73	3.2 B	38	2.8 B	3.2 J
	9-Apr-14	0.47	10.0	6.8 J	1.6 J	6.7 J	ND	ND

TABLE 12

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

Analyte	Sample			Downgradient				Blanks						
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2							
Organic Compounds														
Acetone	1-Jul-93	NR	---	ND	ND	ND	---	---						
	1-Aug-93	NR	---	---	---	---	---	---						
	1-Sep-93	NR	---	---	---	---	---	---						
	1-Sep-93	NR	---	---	---	---	---	---						
	1-Apr-94	NR	---	ND	ND	ND	---	---						
	1-Oct-94	NR	---	ND	ND	ND	---	---						
	1-Apr-95	NR	---	ND	ND	ND	---	---						
	1-Oct-95	NR	---	ND	ND	ND	---	---						
	1-Apr-96	NR	---	ND	ND	ND	---	---						
	1-Oct-96	NR	---	ND	ND	ND	---	---						
	1-Apr-97	NR	---	Dry	Dry	ND	---	---						
	1-Oct-97	NR	---	Dry	Dry	ND	---	---						
	1-Apr-98	NR	---	---	Dry	ND	---	---						
	1-Oct-98	NR	---	Dry	ND	Dry	---	---						
	1-Mar-99	NR	---	---	---	---	---	---						
	1-Jul-99	NR	---	---	---	---	---	ND						
	1-Aug-99	NR	---	---	---	---	---	ND						
	1-Oct-99	NR	---	ND	172	ND	ND	ND						
	1-Nov-99	NR	---	---	---	---	---	ND						
	1-Apr-00	NR	---	ND	ND	ND	---	---						
	1-Oct-00	NR	---	ND	ND	ND	ND	---						
	1-Apr-14	NR	---	Dry	Dry	ND	---	---						
	1-Oct-14	NR	100	ND	ND	ND	ND	ND						
	2-Apr-14	NR	100	---	ND	ND	ND	ND						
	2-Oct-14	NR	100	ND	ND	ND	ND	ND						
	3-Apr-14	NR	100	ND	ND	ND	ND	ND						
	3-Oct-14	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						
	5-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	4-Dec-07	2.2	25.0	ND		ND		---	---	4.3	J		
	Resample	3-Apr-08	1.21	100.0	2.90	B	9.20	J	5.40	B	{5.60}	B	1.50 {2.10} J,J	
		14-May-08	20.0	100	---		ND		---		---		ND	
		28-Oct-08	1.21	100.0	1.80	B	3.70	B	1.60	B	2.10	B	1.30	J
		7-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		
7-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		
9-Apr-14		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

Analyte	Sample	Downgradient								
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2	Blanks		
2-Butanone	1-Jul-93	NR	---	ND	ND	ND	---	---		
	1-Aug-93	NR	---	---	---	---	---	---		
	1-Sep-93	NR	---	---	---	---	---	---		
	1-Sep-93	NR	---	---	---	---	---	---		
	1-Apr-94	NR	---	ND	ND	ND	---	---		
	1-Oct-94	NR	---	ND	ND	ND	---	---		
	1-Apr-95	NR	---	ND	ND	ND	---	---		
	1-Oct-95	NR	---	ND	ND	ND	---	---		
	1-Apr-96	NR	---	ND	ND	ND	---	---		
	1-Oct-96	NR	---	ND	ND	ND	---	---		
	1-Apr-97	NR	---	Dry	Dry	ND	---	---		
	1-Oct-97	NR	---	Dry	Dry	ND	---	---		
	1-Apr-98	NR	---	---	Dry	ND	---	---		
	1-Oct-98	NR	---	Dry	ND	Dry	---	---		
	1-Mar-99	NR	---	---	---	---	---	---		
	1-Jul-99	NR	---	---	---	---	---	ND		
	1-Aug-99	NR	---	---	---	---	---	ND		
	1-Oct-99	NR	---	ND	137	ND	ND	---		
	1-Nov-99	NR	---	---	---	---	ND	---		
	1-Apr-00	NR	---	ND	ND	ND	---	---		
	1-Oct-00	NR	---	ND	ND	ND	ND	---		
	1-Apr-14	NR	---	Dry	Dry	ND	---	---		
	1-Oct-14	NR	100	ND	ND	ND	ND	ND		
	2-Apr-14	NR	100	---	ND	ND	ND	ND		
	2-Oct-14	NR	100	ND	ND	ND	ND	ND		
	3-Apr-14	NR	100	ND	ND	ND	ND	ND		
	3-Oct-14	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		
	5-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	4-Dec-07	0.96	5.0	---	ND	---	---	ND	
		3-Apr-08	0.85	100.0	1.50	J	2.20	J 1.40	J 2.50	J
		14-May-08	0.96	100.0	ND	ND	ND	ND	ND	ND
		28-Oct-08	0.85	100.0	1.20	J	ND	ND	ND	ND
		7-Apr-09	0.85	100.0	ND	ND	ND	ND	ND	ND
		27-Oct-09	2.21	100.0	4.50	J	ND	2.40	J 6.60	J
		7-Apr-10	2.21	100.0	4.70	J	5.20	J	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	ND
		20-Oct-11	2.21	100.0	Dry	ND	ND	ND	ND	ND
		26-Apr-12	2.21	100.0	ND	ND	ND	ND	ND	ND
		16-Oct-12	2.21	100.0	ND	ND	ND	ND	ND	ND
	11-Apr-13	2.21	100.0	ND	ND	ND	ND	ND	ND	
	30-Oct-13	2.21	100.0	ND	ND	ND	ND	ND	ND	
	9-Apr-14	2.21	100.0	ND	ND	ND	ND	ND	ND	
Carbon Disulfide	11-Oct-07	0.14	100.0	ND	0.30	J Dry	Dry	ND		
Resample	4-Dec-07	1.2	2.0	---	ND	---	---	ND		
NC 2B = NE (05/01/07)	3-Apr-08	0.14	100.0	ND	ND	ND	ND	ND		
	28-Oct-08	0.14	100.0	ND	ND	ND	ND	ND		
	7-Apr-09	0.14	100.0	ND	ND	ND	ND	ND		
	27-Oct-09	0.23	100.0	ND	ND	ND	ND	ND		
	7-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		
	9-Apr-14	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**

Analyte	Sample			Downgradient				Blanks
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2	
Chloromethane Resample NC 2B = 96 µg/L (05/01/07) Resample	11-Oct-07	0.18	1.0	0.80 J	1.10	Dry	Dry	ND
	4-Dec-07	0.11	1.0	ND	ND	---	---	ND
	3-Apr-08	0.18	1.0	ND	0.30 J	0.20 J	0.30 J	ND
	14-May-08	0.11	1.0	---	ND	ND	ND	ND
	28-Oct-08	0.18	1.0	0.20 J	0.20 J	ND	ND	ND
	7-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
	7-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
9-Apr-14	0.77	1.0	ND	ND	ND	ND	ND	
1,1-Dichloroethane NC 2B = 20,000 µg/L (05/01/07)	27-Oct-09	0.02	5.0	ND	0.20 J	ND	ND	ND
	7-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
	9-Apr-14	0.20	5.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene Resample NC 2B = 100 µg/L (05/01/07)	3-Apr-08	0.21	1.0	ND	0.40 J	ND	ND	ND
	14-May-08	0.33	1.0	---	ND	---	---	ND
	28-Oct-08	0.21	1.0	ND	ND	ND	ND	ND
	7-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
	7-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
9-Apr-14	0.39	1.0	ND	ND	ND	ND	ND	
Methylene Chloride NC 2B = 590 µg/L (05/01/07)	11-Oct-07	0.14	1.0	ND	ND	Dry	Dry	0.20 J
	3-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
	7-Apr-09	0.14	1.0	ND	ND	ND	ND	ND
	27-Oct-09	0.64	1.0	ND	ND	ND	ND	ND
	7-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
9-Apr-14	0.64	1.0	ND	ND	ND	ND	ND	
Styrene NC 2B = NE (05/01/07)	27-Oct-09	0.19	1.0	ND	0.50 J	ND	ND	ND
	7-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
9-Apr-14	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**

Analyte	Sample			Downgradient				Blanks		
	Collection Date	DL	QL	SWPT-1	SWPT-2	UD-1	UD-2			
Toluene	1-Jul-93	NR	---	ND	ND	ND	---	---		
	1-Apr-94	NR	---	ND	ND	ND	---	---		
	1-Oct-94	NR	---	12	ND	33	---	---		
	1-Apr-95	NR	---	ND	ND	ND	---	---		
	1-Oct-95	NR	---	ND	ND	ND	---	---		
	1-Apr-96	NR	---	ND	ND	ND	---	---		
	1-Oct-96	NR	---	ND	11	ND	---	---		
	1-Apr-97	NR	---	Dry	Dry	ND	---	---		
	1-Oct-97	NR	---	Dry	Dry	ND	---	---		
	1-Apr-98	NR	---	---	Dry	ND	---	---		
	1-Oct-98	NR	---	Dry	ND	Dry	---	---		
	1-Mar-99	NR	---	---	---	---	---	---		
	1-Jul-99	NR	---	---	---	---	---	ND	---	
	1-Aug-99	NR	---	---	---	---	---	ND	---	
	1-Oct-99	NR	---	ND	ND	ND	ND	ND	---	
	1-Nov-99	NR	---	---	---	---	---	ND	---	
	1-Apr-00	NR	---	ND	ND	ND	---	---	---	
	1-Oct-00	NR	---	ND	ND	ND	ND	ND	---	
	1-Apr-14	NR	---	Dry	Dry	ND	---	---	---	
	1-Oct-14	NR	5	ND	ND	ND	ND	ND	ND	
	2-Apr-14	NR	5	---	ND	ND	ND	ND	ND	
	2-Oct-14	NR	5	ND	ND	ND	ND	ND	ND	
	3-Apr-14	NR	5	ND	ND	ND	ND	ND	ND	
	3-Oct-14	NR	5	ND	ND	ND	ND	ND	ND	
	15-Apr-04	NR	5	ND	ND	ND	ND	ND	ND	
	14-Oct-04	NR	5	ND	ND	ND	ND	ND	ND	
	5-Apr-05	NR	5	ND	ND	ND	ND	ND	ND	
	27-Oct-05	NR	5	ND	ND	ND	ND	ND	ND	
	21-Apr-06	NR	5	ND	ND	ND	ND	ND	ND	
	12-Oct-06	NR	5	ND	ND	ND	ND	ND	ND	
	26-Apr-07	NR	5	ND	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	
		3-Apr-08	0.13	1.0	ND	ND	ND	ND	ND	
		28-Oct-08	0.13	1.0	ND	ND	ND	ND	ND	
		7-Apr-09	0.13	1.0	ND	ND	ND	ND	ND	
		27-Oct-09	0.23	1.0	ND	ND	ND	ND	ND	
		7-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
		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		
	9-Apr-14	0.23	1.0	ND	ND	0.90	J	ND		

Notes:

- All concentrations are in micrograms per Liter (µg/L).
- SWPT = Surface water monitoring point
- UD = Underdrain surface water monitoring point.
- RL = Laboratory reporting limit (NC SWSL or lower October 2007 to present).
- = Data not available
- B = Blank-qualified data; result is expected to be biased high based on concentration--- in the blanks
- Shaded values are above the NC 2B Surface Water Standards (NC2B)
- Dry = Surface water monitoring point was considered to be dry.
- () = Resample event results
- DL = Laboratory detection limit.
- J = Concentrations detected between the DL and RL and are considered estimated.
- Surface waters are classified as Freshwater Aquatic life, nutrient sensitive, and swamp waters (Jumping Run).
- { } = Samples assigned a different Equipment Blank set containing Equipment Blank concentrations higher than the Trip and/or Method Blanks.
- NE = Not established.

TABLE 13

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

Analyte	Sample	Upgradient	Downgradient			
	Collection Date	SWPT-1	SWPT-2	UD-1	UD-2	
Conductivity [uMhos]	1-Jul-93	80	340	50	NA	
	1-Apr-94	310	450	610	NA	
	1-Oct-94	490	500	1,100	NA	
	1-Apr-95	500	380	480	NA	
	1-Oct-95	480	910	500	NA	
	1-Apr-96	400	560	390	NA	
	1-Oct-96	460	920	260	NA	
	1-Apr-97	Dry	Dry	840	NA	
	1-Oct-97	Dry	Dry	1,900	NA	
	1-Apr-98	NA	Dry	420	NA	
	1-Oct-98	Dry	680	Dry	NA	
	1-Jul-99	NA	NA	NA	160	
	1-Aug-99	NA	NA	NA	1,300	
	1-Oct-99	450	880	320	980	
	1-Nov-99	NA	NA	NA	780	
	1-Apr-00	420	3,000	470	NA	
	1-Oct-00	110	1,100	480	790	
	1-Apr-14	Dry	Dry	380	NA	
	1-Oct-14	320	320	870	630	
	2-Apr-14	NA	1,800	510	640	
	2-Oct-14	1,000	1,700	620	778	
	3-Apr-14	601	1,048	1,181	894	
	3-Oct-14	741	974	481	1,331	
	15-Apr-04	340	380	120	690	
	14-Oct-04	255	363	375	329	
	5-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	4-Dec-07	2,140	3,630	NS	NS
		3-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
		7-Apr-09	1,038	1,432	583	1,128
		27-Oct-09	521.0	1,820	319	1,004
		7-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
		9-Apr-14	753	893	683	1099

TABLE 13

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

Analyte	Sample	Upgradient	Downgradient			
	Collection Date	SWPT-1	SWPT-2	UD-1	UD-2	
pH [standard units]	1-Jun-93	5.9	6.3	6.3	-	
	1-Apr-94	6.7	7	7.2	NA	
	1-Oct-94	7.2	7.3	7.6	NA	
	1-Apr-95	7.2	7.1	7.3	NA	
	1-Oct-95	7.1	7.5	7.4	NA	
	1-Apr-96	7.1	6	7.1	NA	
	1-Oct-96	6.1	6.8	6.8	NA	
	1-Apr-97	Dry	Dry	6.3	NA	
	1-Oct-97	Dry	Dry	7.1	NA	
	1-Apr-98	NA	Dry	7	NA	
	1-Oct-98	Dry	6.1	Dry	NA	
	1-Jul-99	NA	NA	NA	7.0	
	1-Aug-99	NA	NA	NA	6.2	
	1-Oct-99	7.4	7.2	7.1	7.1	
	1-Nov-99	NA	NA	NA	6.6	
	1-Apr-00	6.9	8.1	6.6	NA	
	1-Oct-00	7	7.6	6.6	6.4	
	1-Apr-14	Dry	Dry	6.5	NA	
	1-Oct-14	7	7.3	7.4	5.2	
	2-Apr-14	NA	7.4	7.4	6.2	
	2-Oct-14	7.5	7.9	7	6.2	
	3-Apr-14	7.2	7.3	7.5	6.2	
	3-Oct-14	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	7	7.2	
	5-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	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	4-Dec-07	8.09	7.5	NS	NS
		3-Apr-08	7.7	6.6	7.4	6.6
	Resample	14-May-08	7.74	7.8	8.1	7.41
		28-Oct-08	7.3	7.4	7.2	6.8
		7-Apr-09	6.8	6.9	6.8	6.4
		27-Oct-09	6.6	7.0	7.3	6.8
		7-Apr-10	6.8	7.0	7.1	6.5
		13-Oct-10	6.8	7.1	7	6.2
		27-Apr-11	6.8	7.0	7	6.6
		20-Oct-11	Dry	7.3	7.7	6.8
		26-Apr-12	7.0	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
		9-Apr-14	7.0	7.2	7.3	6.7

TABLE 13

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

Analyte	Sample	Upgradient	Downgradient			
	Collection Date	SWPT-1	SWPT-2	UD-1	UD-2	
Temperature [oC]	1-Jun-93	17.0	15	15	NA	
	1-Apr-94	23.0	20	23	NA	
	1-Oct-94	17.0	16	18	NA	
	1-Apr-95	20.0	22	18	NA	
	1-Oct-95	19.0	19	22	NA	
	1-Apr-96	11.0	10	11	NA	
	1-Oct-96	21	21	23	NA	
	1-Apr-97	Dry	Dry	15	NA	
	1-Oct-97	Dry	Dry	15	NA	
	1-Apr-98	NA	Dry	19	NA	
	1-Oct-98	Dry	20	Dry	NA	
	1-Jul-99	NA	NA	NA	24	
	1-Aug-99	NA	NA	NA	23.0	
	1-Oct-99	21	18	18	19.0	
	1-Nov-99	NA	NA	NA	14.0	
	1-Apr-00	11	15	19	NA	
	1-Oct-00	13	13	15	15	
	1-Apr-14	Dry	Dry	20	NA	
	1-Oct-14	16	16	18	18	
	2-Apr-14	NA	16	20	18	
	2-Oct-14	25	22	22	22	
	3-Apr-14	20	19	17	24	
	3-Oct-14	17	15	15	15	
	15-Apr-04	13	12	13	13	
	14-Oct-04	20	20	19	19	
	5-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	4-Dec-07	8.5	8.1	NS	NS
		3-Apr-08	14	13	14	15
	Resample	14-May-08	23.5	28.9	22.6	22.6
		28-Oct-08	14.0	9	12	13
		7-Apr-09	15.00	11	15	15
		27-Oct-09	18.00	17	18	18
		7-Apr-10	16.00	18	19	19
		13-Oct-10	21.0	21	19	21
		27-Apr-11	19.0	23	23	23
		20-Oct-11	Dry	16	18	18
		26-Apr-12	12.0	14	15	15
		16-Oct-12	18.0	17	18	18
		11-Apr-13	16.0	19	18	19
		30-Oct-13	17.0	16.0	16.0	16
		9-Apr-14	15.0	16.0	16.0	16

TABLE 13

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

Analyte	Sample	Upgradient	Downgradient			
	Collection Date	SWPT-1	SWPT-2	UD-1	UD-2	
Turbidity [NTU]	1-Jun-93	NA	NA	NA	NA	
	1-Apr-94	NA	NA	NA	NA	
	1-Oct-94	NA	NA	NA	NA	
	1-Apr-95	NA	NA	NA	NA	
	1-Oct-95	NA	NA	NA	NA	
	1-Apr-96	NA	NA	NA	NA	
	1-Oct-96	NA	NA	NA	NA	
	1-Apr-97	Dry	Dry	NA	NA	
	1-Oct-97	Dry	Dry	NA	NA	
	1-Apr-98	NA	Dry	NA	NA	
	1-Oct-98	Dry	38	Dry	NA	
	1-Jul-99	NA	NA	NA	NA	
	1-Aug-99	NA	NA	NA	300	
	1-Oct-99	160	120	65	70	
	1-Nov-99	NA	NA	NA	21	
	1-Apr-00	14	310	25	NA	
	1-Oct-00	100	120	46	11	
	1-Apr-14	Dry	Dry	26	NA	
	1-Oct-14	70	60	4.2	60	
	2-Apr-14	NA	21	8.6	140	
	2-Oct-14	28	32	25	130	
	3-Apr-14	33	60	35	170	
	3-Oct-14	26	14	27	39	
	15-Apr-04	28	55	50	330	
	14-Oct-04	180	90	80	110	
	5-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	4-Dec-07	10.49	21.2	NS	NS
		3-Apr-08	40	65	28	40
Resample	14-May-08	43.2	45.5	11.64	79	
	28-Oct-08	17	120	26	60	
	7-Apr-09	17	15	12	80	
	27-Oct-09	34	150	12	37	
	7-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	9.7	11	8.3	40	
	9-Apr-14	39	8.2	38	65	

Notes:

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

TABLE 13

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

Analyte	Sample	Upgradient	Downgradient			
	Collection Date	SWPT-1	SWPT-2	UD-1	UD-2	
Conductivity [uMhos]	1-Jul-93	80	340	50	NA	
	1-Apr-94	310	450	610	NA	
	1-Oct-94	490	500	1,100	NA	
	1-Apr-95	500	380	480	NA	
	1-Oct-95	480	910	500	NA	
	1-Apr-96	400	560	390	NA	
	1-Oct-96	460	920	260	NA	
	1-Apr-97	Dry	Dry	840	NA	
	1-Oct-97	Dry	Dry	1,900	NA	
	1-Apr-98	NA	Dry	420	NA	
	1-Oct-98	Dry	680	Dry	NA	
	1-Jul-99	NA	NA	NA	160	
	1-Aug-99	NA	NA	NA	1,300	
	1-Oct-99	450	880	320	980	
	1-Nov-99	NA	NA	NA	780	
	1-Apr-00	420	3,000	470	NA	
	1-Oct-00	110	1,100	480	790	
	1-Apr-14	Dry	Dry	380	NA	
	1-Oct-14	320	320	870	630	
	2-Apr-14	NA	1,800	510	640	
	2-Oct-14	1,000	1,700	620	778	
	3-Apr-14	601	1,048	1,181	894	
	3-Oct-14	741	974	481	1,331	
	15-Apr-04	340	380	120	690	
	14-Oct-04	255	363	375	329	
	5-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	4-Dec-07	2,140	3,630	NS	NS
		3-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
		7-Apr-09	1,038	1,432	583	1,128
		27-Oct-09	521.0	1,820	319	1,004
		7-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
		9-Apr-14	753	893	683	1099

TABLE 13

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

Analyte	Sample	Upgradient	Downgradient			
	Collection Date	SWPT-1	SWPT-2	UD-1	UD-2	
pH [standard units]	1-Jun-93	5.9	6.3	6.3	-	
	1-Apr-94	6.7	7	7.2	NA	
	1-Oct-94	7.2	7.3	7.6	NA	
	1-Apr-95	7.2	7.1	7.3	NA	
	1-Oct-95	7.1	7.5	7.4	NA	
	1-Apr-96	7.1	6	7.1	NA	
	1-Oct-96	6.1	6.8	6.8	NA	
	1-Apr-97	Dry	Dry	6.3	NA	
	1-Oct-97	Dry	Dry	7.1	NA	
	1-Apr-98	NA	Dry	7	NA	
	1-Oct-98	Dry	6.1	Dry	NA	
	1-Jul-99	NA	NA	NA	7.0	
	1-Aug-99	NA	NA	NA	6.2	
	1-Oct-99	7.4	7.2	7.1	7.1	
	1-Nov-99	NA	NA	NA	6.6	
	1-Apr-00	6.9	8.1	6.6	NA	
	1-Oct-00	7	7.6	6.6	6.4	
	1-Apr-14	Dry	Dry	6.5	NA	
	1-Oct-14	7	7.3	7.4	5.2	
	2-Apr-14	NA	7.4	7.4	6.2	
	2-Oct-14	7.5	7.9	7	6.2	
	3-Apr-14	7.2	7.3	7.5	6.2	
	3-Oct-14	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	7	7.2	
	5-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	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	4-Dec-07	8.09	7.5	NS	NS
		3-Apr-08	7.7	6.6	7.4	6.6
	Resample	14-May-08	7.74	7.8	8.1	7.41
		28-Oct-08	7.3	7.4	7.2	6.8
		7-Apr-09	6.8	6.9	6.8	6.4
		27-Oct-09	6.6	7.0	7.3	6.8
		7-Apr-10	6.8	7.0	7.1	6.5
		13-Oct-10	6.8	7.1	7	6.2
		27-Apr-11	6.8	7.0	7	6.6
		20-Oct-11	Dry	7.3	7.7	6.8
		26-Apr-12	7.0	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
		9-Apr-14	7.0	7.2	7.3	6.7

TABLE 13

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

Analyte	Sample	Upgradient	Downgradient			
	Collection Date	SWPT-1	SWPT-2	UD-1	UD-2	
Temperature [oC]	1-Jun-93	17.0	15	15	NA	
	1-Apr-94	23.0	20	23	NA	
	1-Oct-94	17.0	16	18	NA	
	1-Apr-95	20.0	22	18	NA	
	1-Oct-95	19.0	19	22	NA	
	1-Apr-96	11.0	10	11	NA	
	1-Oct-96	21	21	23	NA	
	1-Apr-97	Dry	Dry	15	NA	
	1-Oct-97	Dry	Dry	15	NA	
	1-Apr-98	NA	Dry	19	NA	
	1-Oct-98	Dry	20	Dry	NA	
	1-Jul-99	NA	NA	NA	24	
	1-Aug-99	NA	NA	NA	23.0	
	1-Oct-99	21	18	18	19.0	
	1-Nov-99	NA	NA	NA	14.0	
	1-Apr-00	11	15	19	NA	
	1-Oct-00	13	13	15	15	
	1-Apr-14	Dry	Dry	20	NA	
	1-Oct-14	16	16	18	18	
	2-Apr-14	NA	16	20	18	
	2-Oct-14	25	22	22	22	
	3-Apr-14	20	19	17	24	
	3-Oct-14	17	15	15	15	
	15-Apr-04	13	12	13	13	
	14-Oct-04	20	20	19	19	
	5-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	4-Dec-07	8.5	8.1	NS	NS
		3-Apr-08	14	13	14	15
	Resample	14-May-08	23.5	28.9	22.6	22.6
		28-Oct-08	14.0	9	12	13
		7-Apr-09	15.00	11	15	15
		27-Oct-09	18.00	17	18	18
		7-Apr-10	16.00	18	19	19
		13-Oct-10	21.0	21	19	21
		27-Apr-11	19.0	23	23	23
		20-Oct-11	Dry	16	18	18
		26-Apr-12	12.0	14	15	15
		16-Oct-12	18.0	17	18	18
		11-Apr-13	16.0	19	18	19
		30-Oct-13	17.0	16.0	16.0	16
		9-Apr-14	15.0	16.0	16.0	16

TABLE 13

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

Analyte	Sample	Upgradient	Downgradient			
	Collection Date	SWPT-1	SWPT-2	UD-1	UD-2	
Turbidity [NTU]	1-Jun-93	NA	NA	NA	NA	
	1-Apr-94	NA	NA	NA	NA	
	1-Oct-94	NA	NA	NA	NA	
	1-Apr-95	NA	NA	NA	NA	
	1-Oct-95	NA	NA	NA	NA	
	1-Apr-96	NA	NA	NA	NA	
	1-Oct-96	NA	NA	NA	NA	
	1-Apr-97	Dry	Dry	NA	NA	
	1-Oct-97	Dry	Dry	NA	NA	
	1-Apr-98	NA	Dry	NA	NA	
	1-Oct-98	Dry	38	Dry	NA	
	1-Jul-99	NA	NA	NA	NA	
	1-Aug-99	NA	NA	NA	300	
	1-Oct-99	160	120	65	70	
	1-Nov-99	NA	NA	NA	21	
	1-Apr-00	14	310	25	NA	
	1-Oct-00	100	120	46	11	
	1-Apr-14	Dry	Dry	26	NA	
	1-Oct-14	70	60	4.2	60	
	2-Apr-14	NA	21	8.6	140	
	2-Oct-14	28	32	25	130	
	3-Apr-14	33	60	35	170	
	3-Oct-14	26	14	27	39	
	15-Apr-04	28	55	50	330	
	14-Oct-04	180	90	80	110	
	5-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	4-Dec-07	10.49	21.2	NS	NS
		3-Apr-08	40	65	28	40
Resample	14-May-08	43.2	45.5	11.64	79	
	28-Oct-08	17	120	26	60	
	7-Apr-09	17	15	12	80	
	27-Oct-09	34	150	12	37	
	7-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	9.7	11	8.3	40	
	9-Apr-14	39	8.2	38	65	

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**

Analyte	Sample	DL	QL	Leachate	Blanks		
	Collection Date						
Inorganic Compounds							
Antimony	1-Oct-99	---	30	47		ND	
	1-Apr-00	---	30	ND		ND	
	1-Oct-00	---	30	ND		ND	
	1-Apr-01	---	30	ND		ND	
	1-Oct-01	---	30	ND		ND	
	2-Apr-02	---	30	ND		ND	
	3-Apr-03	---	30	ND		ND	
	5-Apr-05	---	30	ND		ND	
	15-Dec-05	---	30	ND		ND	
	21-Apr-06	---	---	---		ND	
	12-Oct-06	---	---	---		ND	
	26-Apr-07	---	6.0	7		ND	
	11-Oct-07	0.05	6.0	4.0	J	0.1	J
	3-Apr-08	0.08	6.0	6.2		ND	
	28-Oct-08	0.08	6.0	8.8		ND	
	7-Apr-09	0.06	6.0	5.7	J	ND	
	27-Oct-09	0.06	6.0	39		ND	
	8-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	
9-Apr-14	0.02	6.0	12		ND		

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Arsenic	1-Oct-99	---	10	ND	ND
	1-Apr-00	---	10	ND	ND
	1-Oct-00	---	10	ND	ND
	1-Apr-01	---	10	ND	ND
	1-Oct-01	---	10	12	ND
	2-Apr-02	---	10	27	ND
	3-Apr-03	---	10	55	ND
	5-Apr-05	---	10	74	ND
	15-Dec-05	---	10	52	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	10	14	ND
	11-Oct-07	0.47	10.0	59	ND
	3-Apr-08	0.07	10.0	45	0.2 J
	28-Oct-08	0.07	10.0	66	0.5 J
	7-Apr-09	0.17	10.0	58	0.2 J
	27-Oct-09	0.17	10.0	124	ND
	8-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	
9-Apr-14	0.05	10.0	130	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks	
	Collection Date					
Barium	1-Oct-99	---	500	ND	ND	
	1-Apr-00	---	500	ND	ND	
	1-Oct-00	---	500	ND	ND	
	1-Apr-01	---	500	ND	ND	
	1-Oct-01	---	500	537	ND	
	2-Apr-02	---	500	1,358	ND	
	3-Apr-03	---	500	794	ND	
	5-Apr-05	---	500	542	ND	
	15-Dec-05	---	500	ND	ND	
	21-Apr-06	---	---	---	ND	
	12-Oct-06	---	---	---	ND	
	26-Apr-07	---	100	112	ND	
	11-Oct-07	0.04	100.0	754	0.2	J
	3-Apr-08	0.11	100.0	838	0.4	J
	28-Oct-08	0.11	100.0	868	0.7	J
	7-Apr-09	0.04	100.0	788	0.2	J
	27-Oct-09	0.04	100.0	1,055	0.1	J
	8-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	
9-Apr-14	0.06	100.0	923	ND		

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks	
	Collection Date						
Beryllium	1-Oct-99	---	2	ND		ND	
	1-Apr-00	---	2	ND		ND	
	1-Oct-00	---	2	ND		ND	
	1-Apr-01	---	2	ND		ND	
	1-Oct-01	---	2	ND		ND	
	2-Apr-02	---	2	ND		ND	
	3-Apr-03	---	2	ND		ND	
	5-Apr-05	---	2	ND		ND	
	15-Dec-05	---	2	ND		ND	
	21-Apr-06	---	---	---		ND	
	12-Oct-06	---	---	---		ND	
	26-Apr-07	---	1.0	ND		ND	
	11-Oct-07	0.08	1.0	0.1	J	ND	
	3-Apr-08	0.06	1.0	0.1	J	ND	
	28-Oct-08	0.06	1.0	0.2	J	ND	
	7-Apr-09	0.06	1.0	0.1	J	ND	
	27-Oct-09	0.06	1.0	0.5	J	ND	
	8-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
9-Apr-14	0.03	1.0	0.15	J	ND		

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks		
	Collection Date						
Cadmium	1-Oct-99	---	1	ND	ND		
	1-Apr-00	---	1	ND	ND		
	1-Oct-00	---	1	ND	ND		
	1-Apr-01	---	1	ND	ND		
	1-Oct-01	---	1	ND	ND		
	2-Apr-02	---	1	2	ND		
	3-Apr-03	---	1	ND	ND		
	5-Apr-05	---	1	ND	ND		
	15-Dec-05	---	1	ND	ND		
	21-Apr-06	---	---	---	---	ND	
	12-Oct-06	---	---	---	---	ND	
	26-Apr-07	---	1	ND	ND		
	11-Oct-07	0.06	1	2	0.1	J	
	3-Apr-08	0.04	1	4	ND		
	28-Oct-08	0.04	1	3.6	ND		
	7-Apr-09	0.04	1	3	ND		
	27-Oct-09	0.04	1	2.5	ND		
	8-Apr-10	0.02	1	5	0.1	J	
	13-Oct-10	0.02	1	7	ND		
	27-Apr-11	0.02	1	4	ND		
	20-Oct-11	0.02	1	3	ND		
	26-Apr-12	0.02	1	3	ND		
	16-Oct-12	0.03	1	5.0	ND		
	11-Apr-13	0.05	1.0	6.0	ND		
	30-Oct-13	0.1	1.0	6.0	ND		
	9-Apr-14	0.1	1.0	5.0	ND		

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks	
	Collection Date					
Total Chromium	1-Oct-99	---	10	ND	ND	
	1-Apr-00	---	10	ND	ND	
	1-Oct-00	---	10	ND	ND	
	1-Apr-01	---	10	20	ND	
	1-Oct-01	---	10	37	ND	
	2-Apr-02	---	10	158	ND	
	3-Apr-03	---	10	50	ND	
	5-Apr-05	---	10	48	ND	
	15-Dec-05	---	10	36	ND	
	21-Apr-06	---	---	---	ND	
	12-Oct-06	---	---	---	ND	
	26-Apr-07	---	10	ND	ND	
	11-Oct-07		0.24	10.0	81	1.2 J
	3-Apr-08		0.11	10.0	61	ND
	28-Oct-08		0.11	10.0	72	ND
	7-Apr-09		0.10	10.0	47	ND
	27-Oct-09		0.10	10.0	108	ND
	8-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	
9-Apr-14		0.04	10.0	58	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks	
	Collection Date					
Cobalt	1-Oct-99	---	10	ND	ND	
	1-Apr-00	---	10	ND	ND	
	1-Oct-00	---	10	ND	ND	
	1-Apr-01	---	10	ND	ND	
	1-Oct-01	---	10	ND	ND	
	2-Apr-02	---	10	ND	ND	
	3-Apr-03	---	10	23	ND	
	5-Apr-05	---	10	15	ND	
	15-Dec-05	---	10	22	ND	
	21-Apr-06	---	---	---	ND	
	12-Oct-06	---	---	---	ND	
	26-Apr-07	---	10	ND	ND	
	11-Oct-07		0.41	10.0	14	ND
	3-Apr-08		0.03	10.0	13	ND
	28-Oct-08		0.03	10.0	15	ND
	7-Apr-09		0.02	10.0	12	ND
	27-Oct-09		0.02	10.0	18	ND
	8-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	
9-Apr-14		0.02	10.0	13	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks		
	Collection Date							
Copper	1-Oct-99	---	200	ND		ND		
	1-Apr-00	---	200	ND		ND		
	1-Oct-00	---	200	ND		ND		
	1-Apr-01	---	200	---		ND		
	1-Oct-01	---	200	ND		ND		
	2-Apr-02	---	200	ND		ND		
	3-Apr-03	---	200	ND		ND		
	5-Apr-05	---	200	ND		ND		
	15-Dec-05	---	200	ND		ND		
	21-Apr-06	---	---	---		ND		
	12-Oct-06	---	---	---		ND		
	26-Apr-07	---	10	ND		ND		
	11-Oct-07		0.20	10.0	9.4	J	0.4	J
	3-Apr-08		0.05	10.0	12		0.2	J
	28-Oct-08		0.05	10.0	6.5	J	1.1	J
	7-Apr-09		0.04	10.0	10		0.1	J
	27-Oct-09		0.04	10.0	31		0.1	J
	8-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
	9-Apr-14		0.06	10	5.8	J	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks		
	Collection Date							
Lead	1-Oct-99	---	10	ND		ND		
	1-Apr-00	---	10	ND		ND		
	1-Oct-00	---	10	ND		ND		
	1-Apr-01	---	10	ND		ND		
	1-Oct-01	---	10	ND		ND		
	2-Apr-02	---	10	30		ND		
	3-Apr-03	---	10	ND		ND		
	5-Apr-05	---	10	11		ND		
	15-Dec-05	---	10	ND		ND		
	21-Apr-06	---	---	---		ND		
	12-Oct-06	---	---	---		ND		
	26-Apr-07	---	10	ND		ND		
	11-Oct-07		0.07	10.0	1.4	J	0.1	J
	3-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
	7-Apr-09		0.04	10.0	0.3	B	0.1	J
	27-Oct-09		0.04	10.0	16		ND	
	8-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
	9-Apr-14		0.02	10	0.26	J	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks	
	Collection Date					
Nickel	1-Oct-99	---	50	ND	ND	
	1-Apr-00	---	50	ND	ND	
	1-Oct-00	---	50	ND	ND	
	1-Apr-01	---	50	ND	ND	
	1-Oct-01	---	50	77	ND	
	2-Apr-02	---	50	394	ND	
	3-Apr-03	---	50	141	ND	
	5-Apr-05	---	50	112	ND	
	15-Dec-05	---	50	84	ND	
	21-Apr-06	---	---	---	ND	
	12-Oct-06	---	---	---	ND	
	26-Apr-07	---	50	ND	ND	
	11-Oct-07		0.66	50.0	77	ND
	3-Apr-08		0.06	50.0	77	0.3 J
	28-Oct-08		0.06	50.0	81	0.2 J
	7-Apr-09		0.04	50.0	70	ND
	27-Oct-09		0.04	50.0	130	0.2 J
	8-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
	9-Apr-14		0.45	50.0	108	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks	
	Collection Date						
Selenium	1-Oct-99	---	20	ND		ND	
	1-Apr-00	---	20	ND		ND	
	1-Oct-00	---	10	ND		ND	
	1-Apr-01	---	20	ND		ND	
	1-Oct-01	---	20	ND		ND	
	2-Apr-02	---	20	ND		ND	
	3-Apr-03	---	20	ND		ND	
	5-Apr-05	---	20	20		ND	
	15-Dec-05	---	20	33		ND	
	21-Apr-06	---	---	---		ND	
	12-Oct-06	---	---	---		ND	
	26-Apr-07	---	10	20		ND	
	11-Oct-07	0.35	10.0	51		0.9	J
	3-Apr-08	0.14	10.0	0.6	B	1.5	J
	28-Oct-08	0.14	10.0	ND		1.9	J
	7-Apr-09	0.12	10.0	42		ND	
	27-Oct-09	0.12	10.0	60		ND	
	8-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	
	9-Apr-14	0.06	10.0	59		ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks	
	Collection Date						
Silver	1-Oct-99	---	10	ND		ND	
	1-Apr-00	---	10	ND		ND	
	1-Oct-00	---	10	ND		ND	
	1-Apr-01	---	10	ND		ND	
	1-Oct-01	---	10	ND		ND	
	2-Apr-02	---	10	ND		ND	
	3-Apr-03	---	10	ND		ND	
	5-Apr-05	---	10	ND		ND	
	15-Dec-05	---	10	ND		ND	
	21-Apr-06	---	---	---		ND	
	12-Oct-06	---	---	---		ND	
	26-Apr-07	---	10	ND		ND	
	11-Oct-07	---	10	ND		ND	
	3-Apr-08	0.04	10.0	0.7	J	ND	
	28-Oct-08	0.04	10.0	0.7	J	0.1	J
	7-Apr-09	0.04	10.0	0.8	J	ND	
	27-Oct-09	0.04	10.0	0.8	J	ND	
	8-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	
9-Apr-14	0.03	10.0	0.92	J	ND		
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
	9-Apr-14	0.02	5.5	ND		ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks		
	Collection Date							
Vanadium	1-Oct-99	---	40	ND		ND		
	1-Apr-00	---	40	ND		ND		
	1-Oct-00	---	40	ND		ND		
	1-Apr-01	---	40	ND		ND		
	1-Oct-01	---	40	ND		ND		
	2-Apr-02	---	40	ND		ND		
	3-Apr-03	---	40	ND		ND		
	5-Apr-05	---	40	ND		ND		
	15-Dec-05	---	40	51		ND		
	21-Apr-06	---	---	---		ND		
	12-Oct-06	---	---	---		ND		
	26-Apr-07	---	25	ND		ND		
	11-Oct-07		0.42	25.0	17.6	J	ND	
	3-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
	7-Apr-09		0.28	25.0	13.3	J	ND	
	27-Oct-09		0.28	25.0	28		0.4	J
	8-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		
9-Apr-14		0.07	25.0	15.3	J	ND		

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks		
	Collection Date						
Zinc	1-Oct-99	---	50	ND	ND		
	1-Apr-00	---	50	ND	ND		
	1-Oct-00	---	50	ND	ND		
	1-Apr-01	---	50	60	ND		
	1-Oct-01	---	50	101	ND		
	2-Apr-02	---	50	298	ND		
	3-Apr-03	---	50	691	ND		
	5-Apr-05	---	50	721	ND		
	15-Dec-05	---	50	ND	ND		
	21-Apr-06	---	---	---	ND		
	12-Oct-06	---	---	---	ND		
	26-Apr-07	---	10	22	ND		
	11-Oct-07	0.20	10.0	42	6.6	J	
	3-Apr-08	0.04	10.0	23	2.2	J	
	28-Oct-08	0.04	10.0	20	0.4	J	
	7-Apr-09	0.14	10.0	11	0.8	J	
	27-Oct-09	0.14	10.0	822	1.4	J	
	8-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
	9-Apr-14	0.47	10	4.4	J	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Organic Compounds					
Acetone	1-Oct-99	---	---	ND	ND
	1-Apr-00	---	---	3,829	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	ND	ND
	1-Oct-01	---	100	---	ND
	2-Apr-02	---	100	9,690	ND
	3-Apr-03	---	500	1,090	ND
	5-Apr-05	---	500	4,570	ND
	15-Dec-05	---	500	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	100	ND	ND
	11-Oct-07	1.21	100.0	81.70 J	ND
	3-Apr-08	1.21	100.0	148.00	2.10 J
	28-Oct-08	1.21	100.0	237.00	1.30 J
	7-Apr-09	1.21	100.0	40.60 J	ND
	27-Oct-09	9.06	100.0	50.20 J	ND
	8-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
	9-Apr-14	9.06	100.0	38.8 J	ND

TABLE 14**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Benzene	1-Oct-99	---	---	ND	ND
	1-Apr-00	---	---	ND	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	12	ND
	1-Oct-01	---	5	---	ND
	2-Apr-02	---	5	---	ND
	3-Apr-03	---	25	ND	ND
	5-Apr-05	---	25	7.3	ND
	15-Dec-05	---	25	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	3.00	ND	ND
	11-Oct-07	0.16	1.0	3.90	ND
	3-Apr-08	0.16	1.0	2.60	ND
	28-Oct-08	0.16	1.0	1.80	ND
	7-Apr-09	0.16	1.0	1.50	ND
	27-Oct-09	0.24	1.0	1.60	ND
	8-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	
9-Apr-14	0.24	1.0	4.20	ND	

TABLE 14**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks
	Collection Date					
Chlorobenzene	11-Oct-07	0.13	3.0	1.80	J	ND
	3-Apr-08	0.13	3.0	1.30	J	ND
	28-Oct-08	0.13	3.0	0.90	J	ND
	7-Apr-09	0.13	3.0	0.60	J	ND
	27-Oct-09	0.30	3.0	0.50	J	ND
	8-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
	9-Apr-14	0.30	3.0	1.40	J	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks
	Collection Date					
Chloroethane	1-Oct-99	---	---	ND		ND
	1-Apr-00	---	---	ND		ND
	1-Oct-00	---	---	ND		ND
	1-Apr-01	---	---	19		ND
	1-Oct-01	---	10	---		ND
	2-Apr-02	---	10	---		ND
	3-Apr-03	---	50	ND		ND
	5-Apr-05	---	50	ND		ND
	15-Dec-05	---	50	ND		ND
	21-Apr-06	---	---	---		ND
	12-Oct-06	---	---	---		ND
	26-Apr-07	---	5.00	ND		ND
	11-Oct-07	0.29	10.0	0.50	J	ND
	3-Apr-08	0.29	10.0	0.40	J	ND
	28-Oct-08	0.29	10.0	ND		ND
	7-Apr-09	0.29	10.0	ND		ND
	27-Oct-09	0.48	10.0	ND		ND
	8-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
	9-Apr-14	0.48	10.0	ND		ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Chloromethane	11-Oct-07	0.18	1.0	2.40	ND
	3-Apr-08	0.18	1.0	ND	ND
	28-Oct-08	0.18	1.0	ND	ND
	7-Apr-09	0.18	1.0	ND	ND
	27-Oct-09	0.77	1.0	ND	ND
	8-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
	9-Apr-14	0.77	1.0	ND	ND
Cis-1,2-Dichloroethene	11-Oct-07	0.14	5.0	2.00 J	ND
	3-Apr-08	0.14	5.0	2.00 J	ND
	28-Oct-08	0.14	5.0	1.40 J	ND
	7-Apr-09	0.14	5.0	0.70 J	ND
	27-Oct-09	0.25	5.0	0.80 J	ND
	8-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
	9-Apr-14	0.25	5.0	1.7 J	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks
	Collection Date					
1,1-Dichloroethane	1-Oct-99	---	---	ND		ND
	1-Apr-00	---	---	15		ND
	1-Oct-00	---	---	ND		ND
	1-Apr-01	---	---	ND		ND
	1-Oct-01	---	5	---		ND
	2-Apr-02	---	5	---		ND
	3-Apr-03	---	25	ND		ND
	5-Apr-05	---	25	ND		ND
	15-Dec-05	---	25	ND		ND
	21-Apr-06	---	---	---		ND
	12-Oct-06	---	---	---		ND
	26-Apr-07	---	5.00	ND		ND
	11-Oct-07	0.16	5.0	0.30	J	ND
	3-Apr-08	0.14	5.0	ND		ND
	28-Oct-08	0.16	5.0	ND		ND
	7-Apr-09	0.16	5.0	ND		ND
	27-Oct-09	0.20	5.0	ND		ND
	8-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
	9-Apr-14	0.20	5.0	0.20	J	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks
	Collection Date					
1,2-Dichloroethane	11-Oct-07	0.12	1.0	0.40	J	ND
	3-Apr-08	0.12	1.0	0.30	J	ND
	28-Oct-08	0.12	1.0	0.20	J	ND
	7-Apr-09	0.12	1.0	ND		ND
	27-Oct-09	0.27	1.0	ND		ND
	8-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
	9-Apr-14	0.27	1.0	1.1		ND
1,2-Dichloropropane	11-Oct-07	0.17	1.0	0.30	J	ND
	3-Apr-08	0.17	1.0	ND		ND
	28-Oct-08	0.17	1.0	0.20	J	ND
	7-Apr-09	0.17	1.0	ND		ND
	27-Oct-09	0.21	1.0	ND		ND
	8-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
	9-Apr-14	0.21	1.0	0.30	J	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks
	Collection Date					
2-Butanone	1-Oct-99	---	---	ND		ND
	1-Apr-00	---	---	5,343		ND
	1-Oct-00	---	---	ND		ND
	1-Apr-01	---	---	ND		ND
	1-Oct-01	---	100	ND		ND
	2-Apr-02	---	100	5,640		ND
	3-Apr-03	---	500	861		ND
	5-Apr-05	---	500	1,580		ND
	15-Dec-05	---	500	ND		ND
	21-Apr-06	---	---	---		ND
	12-Oct-06	---	---	---		ND
	26-Apr-07	---	100.00	ND		ND
	11-Oct-07	0.85	100.0	45.1	J	ND
	3-Apr-08	0.85	100.0	81.9	J	ND
	28-Oct-08	0.85	100.0	166.0		ND
	7-Apr-09	0.85	100.0	33.3	J	ND
	27-Oct-09	2.21	100.0	6.70	J	ND
	8-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	81.7	J	ND
	26-Apr-12	2.21	100.0	3.00	J	ND
	16-Oct-12	2.21	100.0	276.0		ND
	11-Apr-13	2.21	100.0	4.11	J	ND
30-Oct-13	2.21	100.0	11.7	J	ND	
9-Apr-14	2.21	100.0	14.4	J	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
2-Hexanone	5-Apr-05	---	50	67.1	ND
	15-Dec-05	---	250	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	50.00	ND	ND
	11-Oct-07	1.00	50.0	ND	ND
	3-Apr-08	1.00	50.0	ND	ND
	28-Oct-08	1.00	50.0	ND	ND
	7-Apr-09	1.00	50.0	ND	ND
	27-Oct-09	1.57	50.0	ND	ND
	8-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
	9-Apr-14	1.57	50.0	ND	ND
Styrene	5-Apr-05	---	10	33.2	ND
	15-Dec-05	---	50	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	10.00	ND	ND
	11-Oct-07	0.16	1.0	2.10	ND
	3-Apr-08	0.16	1.0	1.70	ND
	28-Oct-08	0.16	1.0	ND	ND
	7-Apr-09	0.16	1.0	2.00	ND
	27-Oct-09	0.19	1.0	1.90	ND
	8-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
	9-Apr-14	0.19	1.0	5.5	ND

TABLE 14**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample					
	Collection Date	DL	QL	Leachate		Blanks
1,2-Dichlorobenzene	11-Oct-07	0.13	5.0	1.10	J	ND
	3-Apr-08	0.13	5.0	1.10	J	ND
	28-Oct-08	0.13	5.0	0.90	J	ND
	7-Apr-09	0.13	5.0	ND		ND
	27-Oct-09	0.32	5.0	0.80	J	ND
	8-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
	9-Apr-14	0.32	5.0	ND		ND

TABLE 14**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
1,4-Dichlorobenzene	5-Apr-05	---	5	12.5	ND
	15-Dec-05	---	25	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	3.00	13.40	ND
	11-Oct-07	0.21	1.0	15.70	ND
	3-Apr-08	0.21	1.0	14.90	ND
	28-Oct-08	0.21	1.0	13.40	ND
	7-Apr-09	0.21	1.0	9.60	ND
	27-Oct-09	0.39	1.0	11.90	ND
	8-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
	9-Apr-14	0.39	1.0	16.6	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks
	Collection Date					
Trichloroethylene	1-Oct-99	---	---	ND		ND
	1-Apr-00	---	---	5.6		ND
	1-Oct-00	---	---	ND		ND
	1-Apr-01	---	---	ND		ND
	1-Oct-01	---	5	---		ND
	2-Apr-02	---	5	---		ND
	3-Apr-03	---	25	ND		ND
	5-Apr-05	---	25	ND		ND
	15-Dec-05	---	25	ND		ND
	21-Apr-06	---	---	---		ND
	12-Oct-06	---	---	---		ND
	26-Apr-07	---	3.00	ND		ND
	11-Oct-07	0.13	1.0	0.30	J	ND
	3-Apr-08	0.13	1.0	0.20	J	ND
	28-Oct-08	0.13	1.0	0.50	J	ND
	7-Apr-09	0.13	1.0	ND		ND
	27-Oct-09	0.23	1.0	ND		ND
	8-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	---	---	---		ND
	11-Apr-13	0.23	1.0	ND		ND
	30-Oct-13	0.23	1.0	ND		ND
	9-Apr-14	0.23	1.0	ND		ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Tetrachloroethylene	1-Oct-99	---	---	ND	ND
	1-Apr-00	---	---	22	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	ND	ND
	1-Oct-01	---	5	---	ND
	2-Apr-02	---	5	ND	ND
	3-Apr-03	---	25	ND	ND
	5-Apr-05	---	25	ND	ND
	15-Dec-05	---	25	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	3.00	ND	ND
	11-Oct-07	0.16	1.0	ND	ND
	3-Apr-08	0.16	1.0	ND	ND
	28-Oct-08	0.16	1.0	ND	ND
	7-Apr-09	0.16	1.0	ND	ND
	27-Oct-09	0.17	1.0	ND	ND
	8-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	---	---	---	ND
	11-Apr-13	0.17	1.0	ND	ND
	30-Oct-13	0.17	1.0	ND	ND
	9-Apr-14	0.17	1.0	ND	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Ethylbenzene	1-Oct-99	---	---	ND	ND
	1-Apr-00	---	---	ND	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	66	ND
	1-Oct-01	---	5	---	ND
	2-Apr-02	---	5	93.8	ND
	3-Apr-03	---	25	128	ND
	5-Apr-05	---	25	176	ND
	15-Dec-05	---	25	126	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	5.00	9.50	ND
	11-Oct-07	0.16	1.0	179.00	ND
	3-Apr-08	0.16	1.0	160.00	ND
	28-Oct-08	0.16	1.0	105.00	ND
	7-Apr-09	0.16	1.0	34.60	ND
	27-Oct-09	0.21	1.0	37.80	ND
	8-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	
9-Apr-14	0.21	1.0	63.5	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks	
	Collection Date						
Methylene Chloride	1-Oct-99	---	---	32		ND	
	1-Apr-00	---	---	234		ND	
	1-Oct-00	---	---	ND		ND	
	1-Apr-01	---	---	69		ND	
	1-Oct-01	---	10	---		ND	
	2-Apr-02	---	10	---		ND	
	3-Apr-03	---	50	ND		ND	
	5-Apr-05	---	50	ND		ND	
	15-Dec-05	---	50	ND		ND	
	21-Apr-06	---	---	---		ND	
	12-Oct-06	---	---	---		ND	
	26-Apr-07	---	5.00	ND		ND	
	11-Oct-07	0.14	1.0	0.30	B	0.20	J
	3-Apr-08	0.14	1.0	ND		ND	
	28-Oct-08	0.14	1.0	0.20	J	ND	
	7-Apr-09	0.14	1.0	ND		ND	
	27-Oct-09	0.64	1.0	ND		ND	
	8-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	
9-Apr-14	0.64	1.0	ND		ND		

TABLE 14**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Toluene	1-Oct-99	---	---	9	ND
	1-Apr-00	---	---	16	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	251	ND
	1-Oct-01	---	5	---	ND
	2-Apr-02	---	5	148	ND
	3-Apr-03	---	25	125	ND
	5-Apr-05	---	25	108	ND
	15-Dec-05	---	25	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	5.00	5.6	ND
	11-Oct-07	0.13	1.0	22.8	ND
	3-Apr-08	0.13	1.0	20.1	ND
	28-Oct-08	0.13	1.0	24.0	ND
	7-Apr-09	0.13	1.0	12.0	ND
	27-Oct-09	0.23	1.0	14.0	ND
	8-Apr-10	0.23	1.0	23.9	ND
	13-Oct-10	0.23	1.0	20.4	ND
	27-Apr-11	0.23	1.0	36.4	ND
	20-Oct-11	0.23	1.0	31.8	ND
	26-Apr-12	0.23	1.0	13.0	ND
	16-Oct-12	0.23	1.0	8.2	ND
11-Apr-13	0.23	1.0	31.5	ND	
30-Oct-13	0.23	1.0	32.7	ND	
9-Apr-14	0.23	1.0	22.6	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
1,1,1-Trichloroethane	1-Oct-99	---	---	75	ND
	1-Apr-00	---	---	29	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	ND	ND
	1-Oct-01	---	5	---	ND
	2-Apr-02	---	5	---	ND
	3-Apr-03	---	25	ND	ND
	5-Apr-05	---	25	ND	ND
	15-Dec-05	---	25	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	5.00	ND	ND
	11-Oct-07	0.11	1.0	ND	ND
	3-Apr-08	0.11	1.0	ND	ND
	28-Oct-08	0.11	1.0	ND	ND
	7-Apr-09	0.11	1.0	ND	ND
	27-Oct-09	0.19	1.0	ND	ND
	8-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
9-Apr-14	0.19	1.0	ND	ND	

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks
	Collection Date					
1,2,3-Trichloropropane	11-Oct-07	0.06	1.0	0.10	J	ND
	3-Apr-08	0.06	1.0	ND		ND
	28-Oct-08	0.06	1.0	ND		ND
	7-Apr-09	0.06	1.0	ND		ND
	27-Oct-09	0.43	1.0	ND		ND
	8-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
	9-Apr-14	0.43	1.0	ND		ND
1,1,2,2-Tetrachloroethane	11-Oct-07	0.16	3.0	0.30	J	ND
	3-Apr-08	0.16	3.0	ND		ND
	28-Oct-08	0.16	3.0	ND		ND
	7-Apr-09	0.16	3.0	ND		ND
	27-Oct-09	0.26	3.0	ND		ND
	8-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
	9-Apr-14	0.26	3.0	ND		ND

TABLE 14**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Trichlorofluoromethane	1-Oct-99	---	---	220	ND
	1-Apr-00	---	---	37	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	10	ND
	1-Oct-01	---	5	---	ND
	2-Apr-02	---	5	---	ND
	3-Apr-03	---	25	ND	ND
	5-Apr-05	---	25	ND	ND
	15-Dec-05	---	25	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	5.00	ND	ND
	11-Oct-07	0.13	1.0	ND	ND
	3-Apr-08	0.13	1.0	ND	ND
	28-Oct-08	0.13	1.0	ND	ND
	7-Apr-09	0.13	1.0	ND	ND
	27-Oct-09	0.24	1.0	ND	ND
	8-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
	9-Apr-14	0.24	1.0	ND	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Vinyl Chloride	1-Oct-99	---	---	ND	ND
	1-Apr-00	---	---	ND	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	36	ND
	1-Oct-01	---	10	---	ND
	2-Apr-02	---	10	---	ND
	3-Apr-03	---	50	ND	ND
	5-Apr-05	---	50	ND	ND
	15-Dec-05	---	50	ND	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	5.00	ND	ND
	11-Oct-07	0.34	1.0	1.10	ND
	3-Apr-08	0.34	1.0	ND	ND
	28-Oct-08	0.34	1.0	ND	ND
	7-Apr-09	0.34	1.0	ND	ND
	27-Oct-09	0.63	1.0	ND	ND
	8-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
9-Apr-14	0.63	1.0	ND		ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

Analyte	Sample	DL	QL	Leachate		Blanks
	Collection Date					
4-Methyl-2-Pentanone	1-Oct-99	---	---	ND		ND
	1-Apr-00	---	---	116		ND
	1-Oct-00	---	---	ND		ND
	1-Apr-01	---	---	471		ND
	1-Oct-01	---	50	---		ND
	2-Apr-02	---	50	---		ND
	3-Apr-03	---	500	923		ND
	5-Apr-05	---	500	2530		ND
	15-Dec-05	---	500	ND		ND
	21-Apr-06	---	---	---		ND
	12-Oct-06	---	---	---		ND
	26-Apr-07	---	100.00	ND		ND
	11-Oct-07	0.68	100.0	51.50	J	ND
	3-Apr-08	0.68	100.0	130.00		ND
	28-Oct-08	0.68	100.0	230.00		ND
	7-Apr-09	0.68	100.0	25.80	J	ND
	27-Oct-09	1.19	100.0	1.40	J	ND
	8-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
	9-Apr-14	1.19	100.0	5.2	J	ND

TABLE 14

**HISTORICAL DETECTIONS IN LEACHATE
TUSCARORA REGIONAL LANDFILL**

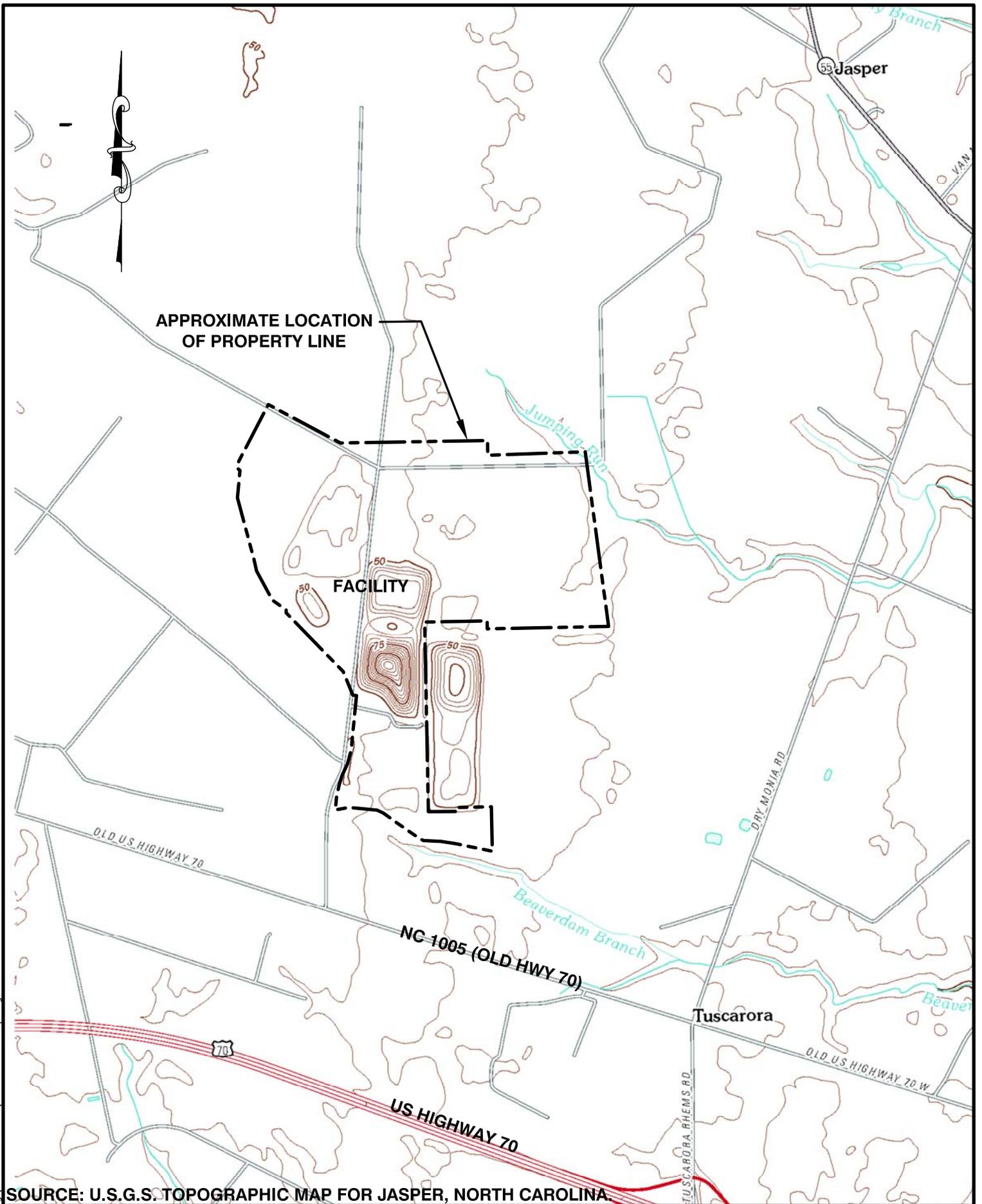
Analyte	Sample	DL	QL	Leachate	Blanks
	Collection Date				
Xylenes	1-Oct-99	---	---	ND	ND
	1-Apr-00	---	---	ND	ND
	1-Oct-00	---	---	ND	ND
	1-Apr-01	---	---	52	ND
	1-Oct-01	---	5	---	ND
	2-Apr-02	---	5	60.6	ND
	3-Apr-03	---	25	102	ND
	5-Apr-05	---	25	147	ND
	15-Dec-05	---	25	189	ND
	21-Apr-06	---	---	---	ND
	12-Oct-06	---	---	---	ND
	26-Apr-07	---	4.00	37.20	ND
	11-Oct-07	0.48	5.0	158.00	ND
	3-Apr-08	0.48	5.0	97.20	ND
	23-Oct-08	0.48	5.0	61.70	ND
	7-Apr-09	0.48	5.0	33.20	ND
	27-Oct-09	0.68	5.0	36.00	ND
	8-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	
9-Apr-14	0.68	5.0	40.6	ND	

Notes:

1. All concentrations are in µg/L.
2. RL = Laboratory reporting limit (NC SWSL or lower from October 2007 to present)
3. --- = No data available
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

Figure

Figure No. 1 Site Location Map



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

FIGURE NO. 1



2211 WEST MEADOWVIEW ROAD
 GREENSBORO, N.C. 27407
 PHONE: (336) 323-0092
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SCALE
 1"=2000'

PROJECT NO.
 618.1301.12

CRSWMA: TUSCARORA LANDFILLS
 SITE LOCATION MAP

L:\CRSWMA\dwg\GW EVENT MAPS\Site Location Map.dwg

Drawings

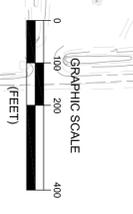
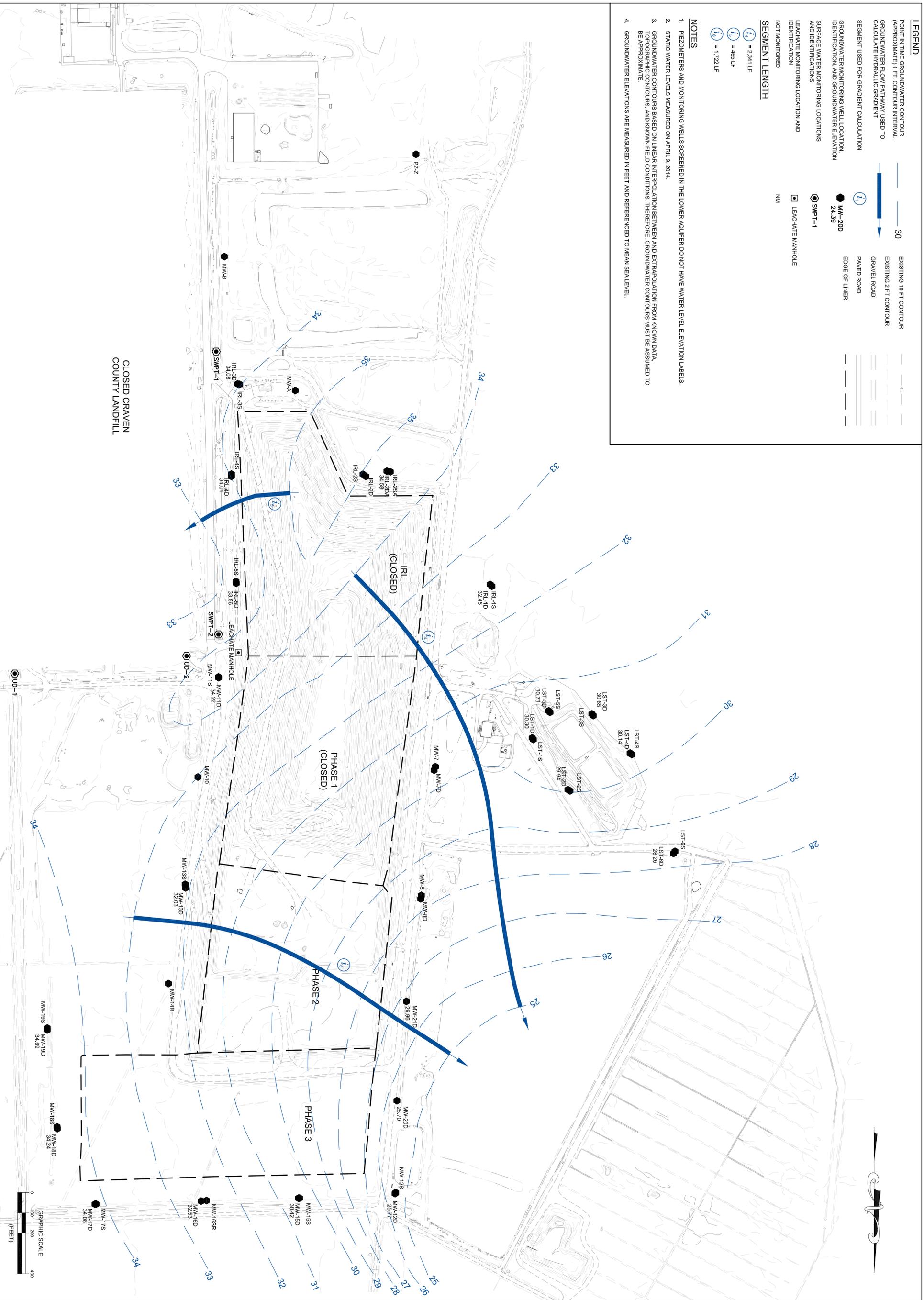
- Drawing No. 1 Shallow Aquifer Potentiometric Surface Contour Map
Drawing No. 2 Deep Aquifer Potentiometric Surface Contour Map

LEGEND

- POINT IN TIME GROUNDWATER CONTOUR (APPROXIMATE) 1 FT. CONTOUR INTERVAL
- GROUNDWATER FLOW PATHWAY USED TO CALCULATE HYDRAULIC GRADIENT
- SEGMENT USED FOR GRADIENT CALCULATION
- GROUNDWATER MONITORING WELL LOCATION, IDENTIFICATION, AND GROUNDWATER ELEVATION
- SURFACE WATER MONITORING LOCATIONS AND IDENTIFICATIONS
- LEACHATE MONITORING LOCATION AND IDENTIFICATION
- NOT MONITORED
- LEACHATE MANHOLE
- MM

- SEGMENT LENGTH**
- L_1 = 2,341 LF
 - L_2 = 465 LF
 - L_3 = 1,722 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 APRIL 9, 2014.
 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.



<p>PROJECT NO. 618</p> <p>SCALE AS NOTED</p> <p>DRAWING NO. 2</p>	<p>CRSWMA: TUSCARORA LANDFILL TUSCARORA, NORTH CAROLINA</p> <p>DEEP AQUIFER POTENTIOMETRIC SURFACE CONTOUR MAP</p> <p>APRIL 9, 2014</p>	<p>JOYCE ENGINEERING</p> <p>2211 W. MEADOWVIEW ROAD GREENSBORO, NC 27407 PHONE: (336) 323-0092 NC CORP LIC: C-0782</p>	<p>DESIGNED ALF DRAWN RWH CHECKED VB APPROVED VB DATE 07/08/14</p>	<p>REVISIONS AND RECORD OF ISSUE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>NO</th> <th>BY</th> <th>CK</th> <th>APP</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	DATE	NO	BY	CK	APP																				
DATE	NO	BY	CK	APP																									

Appendices

Appendix A	Laboratory Analytical Reports and Field Data Logs
Appendix B	Statistical Analysis Worksheets and Summary

Appendix A

Laboratory Analytical Reports and Field Data Logs

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: 04/09/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	IRL1S	IRL1D	IRL2SA	IRL2DA	IRL3S	Analysis		Method Code
								Date	Analyst	
PH (field measurement), Units			6.3	4.8			5.9	04/09/14BF		4500HB-00
Antimony, ug/l	0.02	6.0	0.21 J	1.2 J			0.78 J	04/23/14LFJ		EPA200.8
Arsenic, ug/l	0.05	10.0	0.53 J	1.2 J			1.0 J	04/23/14LFJ		EPA200.8
Barium, ug/l	0.06	100.0	188	56.2 J			48.4 J	04/23/14LFJ		EPA200.8
Beryllium, ug/l	0.03	1.0	0.63 J	0.08 J			0.10 J	04/23/14LFJ		EPA200.8
Cadmium, ug/l	0.05	1.0	0.46 J	0.39 J			0.10 J	04/23/14LFJ		EPA200.8
Cobalt, ug/l	0.02	10.0	1.3 J	0.40 J			0.32 J	04/23/14LFJ		EPA200.8
Copper, ug/l	0.06	10.0	0.75 J	2.0 J			0.22 J	04/23/14LFJ		EPA200.8
Total Chromium, ug/l	0.04	10.0	1.7 J	0.91 J			0.68 J	04/23/14LFJ		EPA200.8
Lead, ug/l	0.02	10.0	1.6 J	0.75 J			0.75 J	04/23/14LFJ		EPA200.8
Nickel, ug/l	0.45	50.0	4.7 J	1.3 J			3.8 J	04/23/14LFJ		EPA200.8
Selenium, ug/l	0.06	10.0	--- U	--- U			0.51 J	05/06/14LFJ		EPA200.8
Silver, ug/l	0.03	10.0	--- U	--- U			--- U	04/23/14LFJ		EPA200.8
Thallium, ug/l	0.02	5.5	0.03 J	--- U			--- U	04/23/14LFJ		EPA200.8
Vanadium, ug/l	0.07	25.0	2.3 J	1.2 J			2.2 J	04/23/14LFJ		EPA200.8
Zinc, ug/l	0.47	10.0	6.5 J	7.8 J			3.3 J	04/23/14LFJ		EPA200.8
Turbidity, NTU	1.0	1.0	31.0	45.0			75.0	04/09/14LW		2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	261	153			927	04/09/14BF		2510B-97
Temperature, °C			16	15			14	04/09/14BF		2550B-00
Static Water Level, feet			4.28	17.74	6.13	17.00	8.24	04/09/14BF		
Well Depth, feet			17.72	43.96	17.78	30.99	16.34	04/09/14BF		

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MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

DATE COLLECTED: 04/09/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	IRL3D	IRL4S	IRL4D	IRL5S	IRL5D	Analysis	
								Date	Analyst
PH (field measurement), Units			6.7	5.1	6.8	6.2		04/09/14BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.21 J	0.18 J	0.12 J	0.16 J		04/23/14LFFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.10 J	0.76 J	0.15 J	2.3 J		04/23/14LFFJ	EPA200.8
Barium, ug/l	0.06	100.0	44.3 J	60.4 J	45.7 J	110		04/23/14LFFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.16 J	0.45 J	0.19 J	---	U	04/23/14LFFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.70 J	0.39 J	0.33 J	0.43 J		04/23/14LFFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.31 J	3.0 J	0.55 J	1.1 J		04/23/14LFFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.39 J	0.83 J	0.44 J	0.47 J		04/23/14LFFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	1.9 J	1.0 J	1.8 J	0.38 J		04/23/14LFFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.80 J	0.40 J	0.71 J	0.44 J		04/23/14LFFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.5 J	4.0 J	3.0 J	7.1 J		04/23/14LFFJ	EPA200.8
Selenium, ug/l	0.06	10.0	---	1.1 J	---	1.8 J		05/06/14LFFJ	EPA200.8
Silver, ug/l	0.03	10.0	---	---	---	---	U	04/23/14LFFJ	EPA200.8
Thallium, ug/l	0.02	5.5	---	0.07 J	---	---	U	04/23/14LFFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	2.3 J	1.1 J	2.6 J	1.7 J		04/23/14LFFJ	EPA200.8
Zinc, ug/l	0.47	10.0	1.6 J	8.4 J	3.7 J	151		04/23/14LFFJ	EPA200.8
Turbidity, NTU	1.0	1.0	80.0	24.0	65.0	100		04/09/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	595	511	582	1568		04/09/14BF	2510B-97
Temperature, °C			15	13	15	13		04/09/14BF	2550B-00
Static Water Level, feet			14.85	7.04	14.34	7.70	15.10	04/09/14BF	
Well Depth, feet			38.50	14.98	34.19	14.61	35.63	04/09/14BF	

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INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY ,NC 28523

DATE COLLECTED: 04/09/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MWA	MWB	Piezometer #1	Trip Blank	Analysis		Method Code
							Date	Analyst	
PH (field measurement), Units			5.1				04/09/14BF		4500HB-00
Antimony, ug/l	0.02	6.0	0.11 J				04/23/14LFJ		EPA200.8
Arsenic, ug/l	0.05	10.0	3.5 J				04/23/14LFJ		EPA200.8
Barium, ug/l	0.06	100.0	51.5 J				04/23/14LFJ		EPA200.8
Beryllium, ug/l	0.03	1.0	0.25 J				04/23/14LFJ		EPA200.8
Cadmium, ug/l	0.05	1.0	0.05 J				04/23/14LFJ		EPA200.8
Cobalt, ug/l	0.02	10.0	0.62 J				04/23/14LFJ		EPA200.8
Copper, ug/l	0.06	10.0	1.0 J				04/23/14LFJ		EPA200.8
Total Chromium, ug/l	0.04	10.0	3.7 J				04/23/14LFJ		EPA200.8
Lead, ug/l	0.02	10.0	2.4 J				04/23/14LFJ		EPA200.8
Nickel, ug/l	0.45	50.0	1.8 J				04/23/14LFJ		EPA200.8
Selenium, ug/l	0.06	10.0	0.22 J				05/06/14LFJ		EPA200.8
Silver, ug/l	0.03	10.0	--- U				04/23/14LFJ		EPA200.8
Thallium, ug/l	0.02	5.5	0.03 J				04/23/14LFJ		EPA200.8
Vanadium, ug/l	0.07	25.0	4.9 J				04/23/14LFJ		EPA200.8
Zinc, ug/l	0.47	10.0	4.7 J				04/23/14LFJ		EPA200.8
Turbidity, NTU	1.0	1.0	130				04/09/14LW		2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	112				04/09/14BF		2510B-97
Temperature, °C			16				04/09/14BF		2550B-00
Static Water Level, feet			4.94	8.35	10.44		04/09/14BF		
Well Depth, feet			20.46				04/09/14BF		

Environment 1, Incorporated

Drinking Water ID: 37715

Wastewater ID: 10

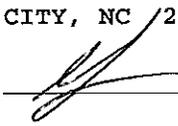
P.O. BOX 7085, 114 OAKMONT DRIVE
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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036
ANALYST: MAO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/22/14
DATE REPORTED: 05/13/14

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	MDL	SWSL	IRL1S	IRL1D	IRL3S	IRL3D	IRL4S
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-Dichloropropane	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

Drinking Water ID: 37715
Wastewater ID: 10

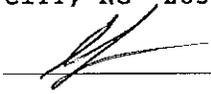
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2504)
INTERIM REGIONAL LANDFILL
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036
ANALYST: MAO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/22/14
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Page: 2

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	MDL	SWSL	IRL4D	IRL5S	MWA	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.

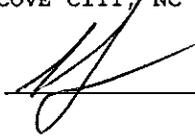
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COVE CITY, NC 28523

CLIENT ID: 6036
ANALYST: MO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/22/14
DATE REPORTED: 05/12/14

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: 04/09/14
DATE ANALYZED: 04/22/14
DATE REPORTED: 05/12/14

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	112	106	106
Laboratory Control std.	70-130	110	106	104
Method Blank	70-130	111	106	104
IRL1S	70-130	111	103	105
IRL1D	70-130	110	102	104
IRL3S	70-130	110	104	105
IRL3D	70-130	111	103	106
IRL4S	70-130	111	102	100
IRL4D	70-130	110	103	103
IRL5S	70-130	111	103	103
MWA	70-130	111	104	104
Trip Blank	70-130	112	105	105
IRL5S M.S.	70-130	112	103	102
IRL5S M.S.D.	70-130	110	103	104

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)
INTERIM REGIONAL LANDFILL
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6036
ANALYST: MO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/22/14
DATE REPORTED: 05/22/14

REVIEWED BY: 

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

Sample Spiked: IRL1S (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	20.40	102	21.03	105	3.0
Benzene	20.0	--- U	20.14	101	20.15	101	0.0
Trichloroethene	20.0	--- U	21.20	106	21.29	106	0.4
Toluene	20.0	--- U	19.31	96.6	19.28	96.4	0.2
Chlorobenzene	20.0	--- U	19.88	99.4	19.99	100	0.6

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	21.86	109
Benzene	20.00	21.61	108
Trichloroethene	20.00	22.40	112
Toluene	20.00	20.37	102
Chlorobenzene	20.00	21.26	106

Environment 3, Inc.
 P.O. Box 7085, 114 Oakmont Dr.
 Greenville, NC 27838

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

CLIENT: 6036 Week: 17

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

(252) 633-1564

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	DISINFECTION			Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	
	DATE	TIME		<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV	<input type="checkbox"/> NONE											TEMPERATURE, °C AT COLLECTION
IRL1S	4-9-14	1240	15.8	P	P	P	C	C	C	C	C	C	C	C	C	CLASSIFICATION: <input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DWQ/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY SAMPLES COLLECTED BY: <u>Tom Bobby</u> (Please Print) N SAMPLES RECEIVED IN LAB AT <u>1.4</u> °C	
IRL1D	4-9-14	1245	15.8	P	P	P	C	C	C	C	C	C	C	C	C		
IRL2SA	4-9-14	1247	1				C	C	C	C	C	C	C	C	C		
IRL2DA	4-9-14	1248	1				C	C	C	C	C	C	C	C	C		
IRL3S	4-9-14	0855	14	S	S	S	C	C	C	C	C	C	C	C	C		
IRL3D	4-9-14	0900	15	S	S	S	C	C	C	C	C	C	C	C	C		
IRL4S	4-9-14	0905	13	S	S	S	C	C	C	C	C	C	C	C	C		
IRL4D	4-9-14	0910	15	S	S	S	C	C	C	C	C	C	C	C	C		
IRL5S	4-9-14	0915	13	S	S	S	C	C	C	C	C	C	C	C	C		
IRL5D	4-9-14	0915	1	S	S	S	C	C	C	C	C	C	C	C	C		
MWA	4-9-14	1250	16	S	S	S	C	C	C	C	C	C	C	C	C		
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME		COMMENTS:
<u>Tom Bobby</u>	4-9-14 1420	<u>[Signature]</u>	4-9-14 231	<u>[Signature]</u>													

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.
 No. 276933

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

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

CLIENT: 6036 Week: 17

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

(252) 633-1564

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		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
	DATE	TIME													
MWB	4-9-14	1255			1										A - NONE D - NaOH B - HNO ₃ E - HCL C - H ₂ SO ₄ F - ZINC ACETATE/NaOH G - Na THIOSULFATE CLASSIFICATION: <input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DWO/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY <input checked="" type="checkbox"/> N SAMPLES COLLECTED BY: (Please Print) Tom / Bobby SAMPLES RECEIVED IN LAB AT 14 °C
Piezometer #1	4-9-14	1257			1										
Trip Blank	4-9-14				2										
RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	COMMENTS:
<i>Tom Bobby</i>	4-9-14 1434	<i>[Signature]</i>	4/9/14 1251	<i>[Signature]</i>	4/9/14 1251	<i>[Signature]</i>									
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	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.
 No. 276932

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: 04/09/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW7	MW8	MW10	MW11S	MW11D	Analysis Date	Method Analyst Code
PH (field measurement), Units			6.6	5.3	5.2	5.1	6.8	04/09/14BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.14 J	0.18 J	0.79 J	0.41 J	0.11 J	04/23/14LFJ	HPA200.8
Arsenic, ug/l	0.05	10.0	0.82 J	1.0 J	3.0 J	---	---	04/23/14LFJ	HPA200.8
Barium, ug/l	0.06	100.0	39.2 J	132	64.2 J	19.0 J	44.7 J	04/23/14LFJ	HPA200.8
Beryllium, ug/l	0.03	1.0	0.20 J	0.64 J	0.36 J	0.94 J	0.06 J	04/23/14LFJ	HPA200.8
Cadmium, ug/l	0.05	1.0	0.27 J	0.33 J	0.32 J	0.32 J	0.89 J	04/23/14LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.56 J	0.86 J	1.1 J	1.6 J	0.11 J	04/23/14LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.0 J	0.97 J	1.1 J	0.39 J	---	04/23/14LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	4.2 J	1.5 J	2.4 J	0.77 J	---	04/23/14LFJ	EPA200.8
Lead, ug/l	0.02	10.0	3.1 J	2.3 J	2.5 J	1.0 J	0.05 J	04/23/14LFJ	HPA200.8
Nickel, ug/l	0.45	50.0	2.4 J	1.5 J	2.0 J	4.9 J	1.7 J	04/23/14LFJ	HPA200.8
Selenium, ug/l	0.06	10.0	0.26 J	---	0.36 J	0.46 J	---	05/06/14LFJ	EPA200.8
Silver, ug/l	0.03	10.0	---	---	---	---	---	04/23/14LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.08 J	0.03 J	0.06 J	0.02 J	0.02 J	04/23/14LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	7.4 J	5.2 J	5.0 J	1.22 J	0.28 J	04/23/14LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	9.9 J	10	7.4 J	9.5 J	---	04/23/14LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	95.0	100.0	33.0	26.0	50.0	04/09/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	362	95	143	623	481	04/09/14BF	2510B-97
Temperature, °C			16	14	13	13	14	04/09/14BF	2550B-00
Static Water Level, feet			3.68	4.80	4.39	6.83	13.33	04/09/14BF	
Well Depth, feet			16.59	15.62	15.95	14.04	34.42	04/09/14BF	

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: 04/09/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW12S	MW12D	MW13S	MW13D	MW14R	Analysis	Method
								Date	Analyst
PH (field measurement), Units			5.1	6.5	5.0	6.9	6.0	04/09/14BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.33 J	1.0 J	0.13 J	0.14 J	0.31 J	04/23/14LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	--- U	1.6 J	1.1 J	--- U	2.7 J	04/23/14LFJ	EPA200.8
Barium, ug/l	0.06	100.0	44.8 J	40.6 J	96.7 J	50.8 J	57.6 J	04/23/14LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.29 J	0.20 J	0.47 J	--- U	0.08 J	04/23/14LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.10 J	0.34 J	0.23 J	0.32 J	0.31 J	04/23/14LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.71 J	0.45 J	0.74 J	0.74 J	1.3 J	04/23/14LFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.53 J	0.64 J	0.47 J	0.12 J	0.25 J	04/23/14LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.37 J	1.6 J	0.69 J	--- U	0.42 J	04/23/14LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.51 J	0.90 J	0.56 J	0.22 J	0.69 J	04/23/14LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	0.98 J	2.5 J	1.6 J	1.6 J	14.8 J	04/23/14LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	--- U	0.18 J	0.20 J	--- U	0.88 J	05/06/14LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	04/23/14LFJ	EPA200.8				
Thallium, ug/l	0.02	5.5	--- U	0.02 J	--- U	--- U	0.18 J	04/23/14LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	1.2 J	2.3 J	1.5 J	0.81 J	1.5 J	04/23/14LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	4.7 J	2.4 J	5.2 J	--- U	3.5 J	04/23/14LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	36.0	70.0	30.0	85.0	38.0	04/09/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	154	489	190	441	2580	04/09/14BF	2510B-97
Temperature, °C			14	17	14	16	14	04/09/14BF	2550B-00
Static Water Level, feet			7.20	26.63	2.23	13.90	2.90	04/09/14BF	
Well Depth, feet			17.99	36.03	17.74	34.31	17.37	04/09/14BF	

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

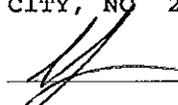
PHONE (252) 756-6208
FAX (252) 756-0633

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: 04/09/14
DATE REPORTED: 05/13/14

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	Date Analyzed		04/21/14	04/21/14	04/21/14	04/21/14	04/21/14
	MDL	SWSL	MW7	MW8	MW10	MW11S	MW11D
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

Drinking Water ID: 37715
Wastewater ID: 10

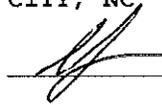
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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: 04/09/14
DATE REPORTED: 05/13/14

Page: 2

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	Date Analyzed:		04/21/14	04/21/14	04/21/14	04/22/14	04/22/14
	MDL	SWSL	MW12S	MW12D	MW13S	MW13D	MW14R
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.

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

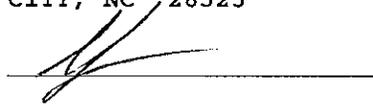
PHONE (252) 756-6208
FAX (252) 756-0633

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: 04/09/14
DATE REPORTED: 05/13/14

Page: 3

REVIEWED BY: 

VOLATILE ORGANICS
EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	Date Analyzed:		04/22/14 Trip Blank
	MDL	SWSL	
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: CRSWA 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: 04/09/14
DATE ANALYZED: 04/21/14-
04/22/14
DATE REPORTED: 05/12/14

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: 04/09/14
DATE ANALYZED: 04/21/14-
04/22/14
DATE REPORTED: 05/12/14

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	111	110	113
Laboratory Control std.	70-130	110	108	109
Method Blank	70-130	109	105	107
MW7	70-130	109	102	103
MW8	70-130	111	105	103
MW10	70-130	110	103	101
MW11S	70-130	110	103	101
MW11D	70-130	109	102	105
MW12S	70-130	109	103	103
MW12D	70-130	108	103	104
MW13S	70-130	110	103	105
MW13D	70-130	109	102	104
MW14R	70-130	110	103	104
Trip Blank	70-130	110	102	101
LST1S M.S.	70-130	110	103	103
LST1S M.S.D.	70-130	112	104	103

Environment 1, Incorporated

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

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

CLIENT: CRSWA 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: 04/09/14
DATE ANALYZED: 04/21/14-
04/22/14
DATE REPORTED: 05/12/14

REVIEWED BY: 

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

Sample Spiked: LSTIS (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	21.57	108	21.95	110	1.7
Benzene	20.0	--- U	20.65	103	21.06	105	2.0
Trichloroethene	20.0	--- U	21.60	108	21.58	108	0.1
Toluene	20.0	--- U	19.82	99.1	20.15	101	1.7
Chlorobenzene	20.0	--- U	20.30	102	20.42	102	0.6

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	20.74	104
Benzene	20.00	20.80	104
Trichloroethene	20.00	21.65	108
Toluene	20.00	20.27	101
Chlorobenzene	20.00	20.58	103

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

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

CLIENT: 6044 Week: 17

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

(252) 633-1564

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION		Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	CLASSIFICATION:
	DATE	TIME				CHLORINE	UV											
MW7	4-9-14	1140		16	6	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW8	4-9-14	1130		14	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW10	4-9-14	1015		13	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW11S	4-9-14	1000		13	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW11D	4-9-14	1005		14	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW12S	4-9-14	1100		14	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW12D	4-9-14	1105		17	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW13S	4-9-14	1025		14	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW13D	4-9-14	1030		16	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
MW14R	4-9-14	1040		14	5	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
Trip Blank	4-9-14				2	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C		
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
<i>Tom Bobby</i>	4-9-14	14:20	<i>Tom Bobby</i>	4/9/14	231													
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

A - NONE D - NAOH
 B - HNO₃ E - HCL
 C - H₂SO₄ F - ZINC ACETATE/NAOH
 G - NATHIOSULFATE

CLASSIFICATION:

WASTEWATER (NPDES)
 DRINKING WATER
 DWQ/GW
 SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY

SAMPLES COLLECTED BY: *Tom Bobby*

SAMPLES RECEIVED IN LAB AT 14 °C

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. **N: 276929**

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: 04/10/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	MW7D SWSL	MW8D	MW15S	MW15D	MW16S	Analysis		
							Date	Analyst	Method Code
PH (field measurement), Units				5.4	6.9	4.1	04/10/14BF	4500HB-00	
Antimony, ug/l	0.02	6.0		0.12 J	0.58 J	0.27 J	04/28/14LFJ	EPA200.8	
Arsenic, ug/l	0.05	10.0		0.95 J	0.34 J	1.1 J	04/28/14LFJ	EPA200.8	
Barium, ug/l	0.06	100.0		147	35.4 J	47.0 J	04/28/14LFJ	EPA200.8	
Beryllium, ug/l	0.03	1.0		1	0.04 J	6	04/28/14LFJ	EPA200.8	
Cadmium, ug/l	0.05	1.0		0.14 J	0.06 J	2	04/28/14LFJ	EPA200.8	
Cobalt, ug/l	0.02	10.0		12	0.32 J	3.5 J	04/28/14LFJ	EPA200.8	
Copper, ug/l	0.06	10.0		0.37 J	0.33 J	1.1 J	04/28/14LFJ	EPA200.8	
Total Chromium, ug/l	0.04	10.0		0.74 J	0.53 J	1.6 J	04/28/14LFJ	EPA200.8	
Lead, ug/l	0.02	10.0		0.37 J	0.25 J	2.6 J	04/28/14LFJ	EPA200.8	
Nickel, ug/l	0.45	50.0		11.7 J	1.8 J	6.3 J	04/28/14LFJ	EPA200.8	
Selenium, ug/l	0.06	10.0		0.13 J	--- U	7.3 J	04/28/14LFJ	EPA200.8	
Silver, ug/l	0.03	10.0		--- U	--- U	--- U	04/28/14LFJ	EPA200.8	
Thallium, ug/l	0.02	5.5		--- U	--- U	0.03 J	04/28/14LFJ	EPA200.8	
Vanadium, ug/l	0.07	25.0		0.72 J	0.90 J	3.8 J	04/28/14LFJ	EPA200.8	
Zinc, ug/l	0.47	10.0		14	1.8 J	12	04/28/14LFJ	EPA200.8	
Turbidity, NTU	1.0	1.0		21	11	11	04/10/14LW	2130B-01	
Conductivity (at 25c), uMhos/cm	1.0	1.0		290	433	833	04/10/14BF	2510B-97	
Temperature, °C				15	17	15	04/10/14BF	2550B-00	
Static Water Level, feet			19.70	19.00	5.38	16.80	6.45	04/10/14BF	
Well Depth, feet					17.95	37.65	15.02	04/10/14BF	

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: 04/10/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW16D	MW17S	MW17D	MW18S	MW18D	Analysis	Method
									Date
PH (field measurement), Units			6.5	3.9	6.4	3.9	6.6	04/10/14BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.29 J	0.11 J	0.16 J	0.17 J	0.19 J	04/28/14LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.85 J	0.49 J	0.39 J	0.96 J	1.5 J	04/28/14LFJ	EPA200.8
Barium, ug/l	0.06	100.0	119	92.9 J	43.0 J	14.8 J	28.7 J	04/28/14LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.08 J	4	0.04 J	6	0.10 J	04/28/14LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.06 J	0.32 J	---	1	---	04/28/14LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.33 J	5.7 J	0.19 J	8.8 J	0.21 J	04/28/14LFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.34 J	0.86 J	0.42 J	1.8 J	0.41 J	04/28/14LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.86 J	3.1 J	0.24 J	1.1 J	0.66 J	04/28/14LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.47 J	3.5 J	0.17 J	4.0 J	0.54 J	04/28/14LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.7 J	9.5 J	1.7 J	14.6 J	1.4 J	04/28/14LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.14 J	0.80 J	---	3.6 J	---	04/28/14LFJ	EPA200.8
Silver, ug/l	0.03	10.0	---	---	---	---	---	04/28/14LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	---	0.08 J	---	0.07 J	---	04/28/14LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	1.0 J	4.9 J	0.55 J	0.55 J	0.78 J	04/28/14LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	4.1 J	17	0.92 J	18	0.97 J	04/28/14LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	55	17	22	12	35	04/10/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	649	463	390	1203	407	04/10/14BF	2510B-97
Temperature, °C			16	15	16	14	16	04/10/14BF	2550B-00
Static Water Level, feet			14.64	5.04	11.85	4.74	11.90	04/10/14BF	
Well Depth, feet			35.00	15.01	38.00	13.70	36.70	04/10/14BF	

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

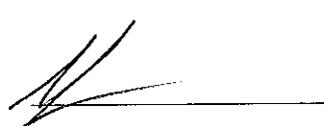
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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: 04/10/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	MW19S SWSL	MW19D	MW20D	MW21D	Analysis		
						Date	Analyst Code	
PH (field measurement), Units			6.5	6.8		04/10/14BF	4500HB-00	
Antimony, ug/l	0.02	6.0	0.26 J	0.15 J		04/28/14LFPJ	EPA200.8	
Arsenic, ug/l	0.05	10.0	0.32 J	1.7 J		04/28/14LFPJ	EPA200.8	
Barium, ug/l	0.06	100.0	75.0 J	51.5 J		04/28/14LFPJ	EPA200.8	
Beryllium, ug/l	0.03	1.0	0.10 J	0.32 J		04/28/14LFPJ	EPA200.8	
Cadmium, ug/l	0.05	1.0	0.08 J	0.14 J		04/28/14LFPJ	EPA200.8	
Cobalt, ug/l	0.02	10.0	0.29 J	1.2 J		04/28/14LFPJ	EPA200.8	
Copper, ug/l	0.06	10.0	1.2 J	0.51 J		04/28/14LFPJ	EPA200.8	
Total Chromium, ug/l	0.04	10.0	2.1 J	1.7 J		04/28/14LFPJ	EPA200.8	
Lead, ug/l	0.02	10.0	1.2 J	0.72 J		04/28/14LFPJ	EPA200.8	
Nickel, ug/l	0.45	50.0	1.1 J	4.2 J		04/28/14LFPJ	EPA200.8	
Selenium, ug/l	0.06	10.0	--- U	0.37 J		04/28/14LFPJ	EPA200.8	
Silver, ug/l	0.03	10.0	--- U	--- U		04/28/14LFPJ	EPA200.8	
Thallium, ug/l	0.02	5.5	0.03 J	--- U		04/28/14LFPJ	EPA200.8	
Vanadium, ug/l	0.07	25.0	2.4 J	2.6 J		04/28/14LFPJ	EPA200.8	
Zinc, ug/l	0.47	10.0	1.8 J	22		04/28/14LFPJ	EPA200.8	
Turbidity, NTU	1.0	1.0	55	120		04/10/14LW	2130B-01	
Conductivity (at 25c), uMhos/cm	1.0	1.0	103	529		04/10/14BF	2510B-97	
Temperature, °C			15	16		04/10/14BF	2550B-00	
Static Water Level, feet			5.44	12.06	20.63	20.25	04/10/14BF	
Well Depth, feet			13.81	26.26			04/10/14BF	

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

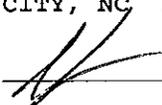
PHONE (252) 756-6208
FAX (252) 756-0633

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: 04/10/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/13/14

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW15S	MW15D	MW16S	MW16D	MW17S
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

Drinking Water ID: 37715
Wastewater ID: 10

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

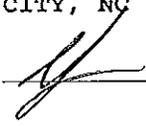
PHONE (252) 756-6208
FAX (252) 756-0633

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: 04/10/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/13/14

Page: 2

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	MW17D	MW18S	MW18D	MW19S	MW19D
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)
PHASE 3
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6046
ANALYST: MO
DATE COLLECTED: 04/10/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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

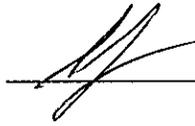
Environment 1, Incorporated

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: 04/10/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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	108	102	104
Laboratory Control std.	70-130	110	103	106
Method Blank	70-130	108	101	105
MW15S	70-130	109	102	103
MW15D	70-130	108	101	104
MW16S	70-130	109	101	101
MW16D	70-130	109	102	106
MW17S	70-130	107	100	102
MW17D	70-130	109	103	102
MW18S	70-130	110	103	102
MW18D	70-130	109	101	104
MW19S	70-130	107	99.5	103
MW19D	70-130	108	99.4	103
MW15S M.S.	70-130	112	103	105
MW15S M.S.D.	70-130	110	101	102

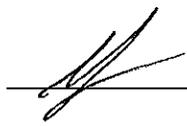
Environment 1, Incorporated

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: 04/10/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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	20.89	104	21.36	107	2.2
Benzene	20.0	--- U	20.62	103	20.82	104	1.0
Trichloroethene	20.0	--- U	21.21	106	21.58	108	1.7
Toluene	20.0	--- U	20.31	102	20.73	104	2.0
Chlorobenzene	20.0	--- U	20.87	104	21.26	106	1.9

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	21.14	106
Benzene	20.00	21.10	106
Trichloroethene	20.00	22.56	113
Toluene	20.00	20.33	102
Chlorobenzene	20.00	21.58	108

CHAIN OF CUSTODY RECORD

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

CLIENT: 6046 Week: 17

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

(252) 633-1564

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	DISINFECTION		# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	CLASSIFICATION:
	DATE	TIME		CHLORINE	UV												
MW7D	4-10-14	10:20		<input type="checkbox"/>	<input type="checkbox"/>	1											
MW8D	4-10-14	10:25		<input type="checkbox"/>	<input type="checkbox"/>	1											
MW15S	4-10-14	10:10		<input type="checkbox"/>	<input type="checkbox"/>	6											
MW15D	4-10-14	10:05		<input type="checkbox"/>	<input type="checkbox"/>	5											
MW16S	4-10-14	09:55		<input type="checkbox"/>	<input type="checkbox"/>	5											
MW16D	4-10-14	10:00		<input type="checkbox"/>	<input type="checkbox"/>	5											
MW17S	4-10-14	09:40		<input type="checkbox"/>	<input type="checkbox"/>	5											
MW17D	4-10-14	09:45		<input type="checkbox"/>	<input type="checkbox"/>	5											
MW18S	4-10-14	09:20		<input type="checkbox"/>	<input type="checkbox"/>	5											
MW18D	4-10-14	09:25		<input type="checkbox"/>	<input type="checkbox"/>	5											
MW19S	4-10-14	09:35		<input type="checkbox"/>	<input type="checkbox"/>	5											
RELINQUISHED BY (SIG.)			RECEIVED BY (SIG.)	DISINFECTION		FIELD PARAMETERS		EPA 8260B		EPA 8260B		EPA 8260B		EPA 8260B		EPA 8260B	
Bobby Tra			Bobby Tra	NONE		A A A A		A A A A		A A A A		E E E E		E E E E		E E E E	
RELINQUISHED BY (SIG.)			RECEIVED BY (SIG.)	DISINFECTION		FIELD PARAMETERS		EPA 8260B		EPA 8260B		EPA 8260B		EPA 8260B		EPA 8260B	
Bobby Tra			Bobby Tra	NONE		A A A A		A A A A		A A A A		E E E E		E E E E		E E E E	
RELINQUISHED BY (SIG.)			RECEIVED BY (SIG.)	DISINFECTION		FIELD PARAMETERS		EPA 8260B		EPA 8260B		EPA 8260B		EPA 8260B		EPA 8260B	
Bobby Tra			Bobby Tra	NONE		A A A A		A A A A		A A A A		E E E E		E E E E		E E E E	

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE/P/G

CHEMICAL PRESERVATION

A - NONE D - NaOH
 B - HNO₃ E - HCL
 C - H₂SO₄ F - ZINC ACETATE/NaOH
 G - Na THIOSULFATE

CLASSIFICATION:

WASTEWATER (NPDES)
 DRINKING WATER
 DW/IGW
 SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY

SAMPLES COLLECTED BY: Bobby Tra

SAMPLES RECEIVED IN LAB AT 0.3 °C

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.

NO. 276927

CHAIN OF CUSTODY RECORD

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

CLIENT: 6046 Week: 17

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

(252) 633-1564

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	DISINFECTION			# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS
	DATE	TIME		CHLORINE	UV	NONE											
MW19D	4-16-14	0930		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	<input checked="" type="checkbox"/>	A - NONE D - NAOH B - HNO ₃ E - HCL C - H ₂ SO ₄ F - ZINC ACETATE/NAOH G - NA THIOSULFATE								
MW20D	4-10-14	1030					1										
MW21D	4-10-14	1035					1										
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)				DATE/TIME										
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)				DATE/TIME										
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)				DATE/TIME										

COMMENTS:

SAMPLES COLLECTED BY: *Robby Kern*
 (Please Print)
 CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
 SOLID WASTE SECTION
 WASTEWATER (NPDES)
 DRINKING WATER
 DWQ/GW
 SAMPLES RECEIVED IN LAB AT 0.3 °C

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.
 NO: 276926

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) 756-0693

ID#: 6035

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

DATE COLLECTED: 04/09/14
DATE REPORTED : 05/16/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	LST1S	LST1D	LST2S	LST2D	LST3S	Analysis	Method
								Date	Analyst
PH (field measurement), Units			5.2	6.8	5.1		4.9	04/09/14BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.09 J	0.83 J	0.39 J		0.18 J	04/23/14LFFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.14 J	1.2 J	1.4 J		0.82 J	04/23/14LFFJ	EPA200.8
Barium, ug/l	0.06	100.0	70.9 J	44.9 J	47.3 J		42.5 J	04/23/14LFFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.43 J	0.07 J	0.35 J		0.23 J	04/23/14LFFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.14 J	0.46 J	0.42 J		0.05 J	04/23/14LFFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.50 J	0.34 J	0.56 J		2.4 J	04/23/14LFFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.92 J	0.22 J	1.2 J		0.42 J	04/23/14LFFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	3.1 J	0.34 J	4.8 J		2.7 J	04/23/14LFFJ	EPA200.8
Lead, ug/l	0.02	10.0	3.0 J	0.30 J	4.0 J		1.9 J	04/23/14LFFJ	EPA200.8
Nickel, ug/l	0.45	50.0	1.0 J	2.3 J	1.2 J		3.0 J	04/23/14LFFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.47 J	--- U	--- U		--- U	05/06/14LFFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	--- U	--- U		--- U	04/23/14LFFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.08 J	0.02 J	0.07 J		0.04 J	04/23/14LFFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	4.9 J	0.66 J	7.5 J		3.4 J	04/23/14LFFJ	EPA200.8
Zinc, ug/l	0.47	10.0	4.0 J	2.3 J	5.6 J		24	04/23/14LFFJ	EPA200.8
Turbidity, NTU	1.0	1.0	90.0	50.0	140		60.0	04/09/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	108	491	93		69	04/09/14BF	2510B-97
Temperature, °C			15	17	15		15	04/09/14BF	2550B-00
Static Water Level, feet			4.40	20.62	4.59	21.00	5.31	04/09/14BF	
Well Depth, feet			15.04	34.86	14.45	33.29	17.65	04/09/14BF	

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: 04/09/14
DATE REPORTED : 05/16/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	LST3D	LST4S	LST4D	LST5S	LST5D	Analysis	
								Date	Analyst Code
PH (field measurement), Units				4.5		6.5	6.7	04/09/14BF	4500HB-00
Antimony, ug/l	0.02	6.0		0.04 J		0.28 J	0.55 J	04/23/14LFFJ	EPA200.8
Arsenic, ug/l	0.05	10.0		2.0 J		1.7 J	2.2 J	04/23/14LFFJ	EPA200.8
Barium, ug/l	0.06	100.0		62.0 J		32.7 J	94.5 J	04/23/14LFFJ	EPA200.8
Beryllium, ug/l	0.03	1.0		0.49 J		0.09 J	0.31 J	04/23/14LFFJ	EPA200.8
Cadmium, ug/l	0.05	1.0		0.22 J		0.58 J	0.55 J	04/23/14LFFJ	EPA200.8
Cobalt, ug/l	0.02	10.0		2.2 J		0.41 J	0.68 J	04/23/14LFFJ	EPA200.8
Copper, ug/l	0.06	10.0		1.2 J		2.8 J	1.6 J	04/23/14LFFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0		7.0 J		4.7 J		04/23/14LFFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0					1.7 J	05/16/14LFFJ	EPA200.8
Lead, ug/l	0.02	10.0		6.3 J		4.0 J	1.0 J	04/23/14LFFJ	EPA200.8
Nickel, ug/l	0.45	50.0		3.1 J		2.1 J	8.5 J	04/23/14LFFJ	EPA200.8
Selenium, ug/l	0.06	10.0		0.17 J		---	---	05/06/14LFFJ	EPA200.8
Silver, ug/l	0.03	10.0		---		---	---	04/23/14LFFJ	EPA200.8
Thallium, ug/l	0.02	5.5		0.09 J		0.10 J	---	04/23/14LFFJ	EPA200.8
Vanadium, ug/l	0.07	25.0		10.0 J		8.3 J	1.7 J	04/23/14LFFJ	EPA200.8
Zinc, ug/l	0.47	10.0		13		33	8.0 J	04/23/14LFFJ	EPA200.8
Turbidity, NTU	1.0	1.0		280		120	80.0	04/09/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0		62		249	575	04/09/14BF	2510B-97
Temperature, °C				14		15	17	04/09/14BF	2550B-00
Static Water Level, feet			21.22	4.41	21.42	4.05	21.54	04/09/14BF	
Well Depth, feet			34.85	17.62	36.12	15.41	38.66	04/09/14BF	

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: 04/09/14
DATE REPORTED : 05/16/14

REVIEWED BY: 

PARAMETERS	MDL	LST6S		LST6D	Trip Blank	Analysis	
		SWSL				Date	Analyst
PH (field measurement), Units			5.1			04/09/14BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.09 J			04/23/14LFFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.40 J			04/23/14LFFJ	EPA200.8
Barium, ug/l	0.06	100.0	72.6 J			04/23/14LFFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.26 J			04/23/14LFFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.09 J			04/23/14LFFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.58 J			04/23/14LFFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.89 J			04/23/14LFFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	4.6 J			04/23/14LFFJ	EPA200.8
Lead, ug/l	0.02	10.0	3.8 J			04/23/14LFFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.1 J			04/23/14LFFJ	EPA200.8
Selenium, ug/l	0.06	10.0	--- U			05/06/14LFFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U			04/23/14LFFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.07 J			04/23/14LFFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	6.7 J			04/23/14LFFJ	EPA200.8
Zinc, ug/l	0.47	10.0	19			04/23/14LFFJ	EPA200.8
Turbidity, NTU	1.0	1.0	170			04/09/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	66			04/09/14BF	2510B-97
Temperature, °C			15			04/09/14BF	2550B-00
Static Water Level, feet			5.91	22.91		04/09/14BF	
Well Depth, feet			16.44	34.37		04/09/14BF	

Environment 1, Incorporated

Drinking Water ID: 37715

Wastewater ID: 10

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

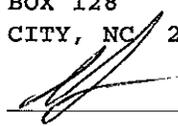
PHONE (252) 756-6208
FAX (252) 756-0633

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: 04/09/14
DATE ANALYZED: 04/21/14
DATE REPORTED: 05/16/14

Page: 1

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

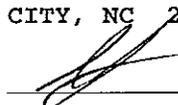
PHONE (252) 756-6208
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CLIENT: CRSWMA TUSCARORA REGIONAL LF (2509)
LEACHATE STORAGE LAGOON
MR. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6035

ANALYST: MAO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/21/14
DATE REPORTED: 05/16/14

Page: 2

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. Iodonethane	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
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CLIENT: CRSWA 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: 04/09/14
DATE ANALYZED: 04/21/14-
04/22/14
DATE REPORTED: 05/12/14

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: 04/09/14
DATE ANALYZED: 04/21/14-
04/22/14
DATE REPORTED: 05/12/14

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	111	110	113
Laboratory Control std.	70-130	110	108	109
Method Blank	70-130	109	105	107
LST1S	70-130	109	105	105
LST1D	70-130	108	105	104
LST2S	70-130	107	103	105
LST3S	70-130	109	105	105
LST4S	70-130	109	105	105
LST5S	70-130	109	104	104
LST5D	70-130	111	105	104
LST6S	70-130	110	105	105
Trip Blank	70-130	110	103	104
LST1S M.S.	70-130	110	103	103
LST1S M.S.D.	70-130	112	104	103

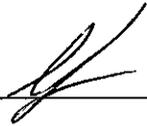
Environment 1, Incorporated

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: 04/09/14
DATE ANALYZED: 04/21/14-
04/22/14
DATE REPORTED: 05/12/14

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	21.57	108	21.95	110	1.7
Benzene	20.0	--- U	20.65	103	21.06	105	2.0
Trichloroethene	20.0	--- U	21.60	108	21.58	108	0.1
Toluene	20.0	--- U	19.82	99.1	20.15	101	1.7
Chlorobenzene	20.0	--- U	20.30	102	20.42	102	0.6

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	20.74	104
Benzene	20.00	20.80	104
Trichloroethene	20.00	21.65	108
Toluene	20.00	20.27	101
Chlorobenzene	20.00	20.58	103

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

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

CLIENT: 6035 Week: 17

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

(252) 633-1564

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	8260 Dup. 3	PARAMETERS	CLASSIFICATION:
	DATE	TIME				CHLORINE	UV	NONE												
LST1S	4-9-14	12:20		15	7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	A	A	A	A	A						A - NONE D - NaOH B - HNO ₃ E - HCL C - H ₂ SO ₄ F - ZINC ACETATE/NaOH G - NaTHIOSULFATE	WASTEWATER (NPDES) DRINKING WATER DWQ/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION
LST1D	4-9-14	12:15		17	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	P	P	P	P	P							
LST2S	4-9-14	12:10		13	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
LST2D	4-9-14	12:10		15	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
LST3S	4-9-14	12:00		15	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
LST3D	4-9-14	12:00			1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
LST4S	4-9-14	12:05		14	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
LST4D	4-9-14	12:05			1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
LST5S	4-9-14	12:30		15	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
LST5D	4-9-14	12:25		17	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
LST6S	4-9-14	11:50		15	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
REINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:														
<i>Bobby Darden</i>	4-9-14 14:30	<i>[Signature]</i>	4/9/14 2:31	<i>[Signature]</i>		SAMPLER MUST BE MAINTAINED DURING SHIPMENT/DELIVERY (Please Print) (Y) N														
REINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	SAMPLER MUST BE MAINTAINED DURING SHIPMENT/DELIVERY (Please Print) (Y) N														
REINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	SAMPLER MUST BE MAINTAINED DURING SHIPMENT/DELIVERY (Please Print) (Y) N														

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. **N: 276935**

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

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

CLIENT: 6035 Week: 17

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

(252) 633-1564

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		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)	CONTAINER TYPE, P/G	CHEMICAL PRESERVATION
	DATE	TIME																	
LST6D	4-9-14	1150			1														
Trip Blank	4-9-14				3														
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
<i>Bobby Darden</i>	4-9-14 11430	<i>[Signature]</i>	4/9/14 231	<i>[Signature]</i>															
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/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.

No. 276934

CLASSIFICATION:
 WASTEWATER (NPDES)
 DRINKING WATER
 DWO/GW
 SOLID WASTE SECTION

SAMPLES COLLECTED BY:
 (Please Print)
Bobby Darden

SAMPLES RECEIVED IN LAB AT *114* °C

PARAMETERS:
 A - NONE D - NaOH
 B - HNO₃ E - HCL
 C - H₂SO₄ F - ZINC ACETATE/NaOH
 G - NaTHIOSULFATE

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

COMMENTS:

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: 04/09/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	SWPT1	SWPT2	UD1	UD2	Trip	Analysis	Method
							Blank	Date	Analyst
PH (field measurement), Units			7.0	7.2	7.3	6.7		04/09/14BF	4500HB-00
Antimony, ug/l	0.02	6.0	0.04 J	0.07 J	0.05 J	0.05 J		04/23/14LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.34 J	0.46 J	1.0 J	0.41 J		04/23/14LFJ	EPA200.8
Barium, ug/l	0.06	100.0	24.8 J	26.1 J	52.2 J	64.2 J		04/23/14LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.03 J	--- U	0.04 J	0.08 J		04/23/14LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	--- U	--- U	--- U	--- U		04/23/14LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.39 J	0.54 J	0.96 J	0.49 J		04/23/14LFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.28 J	0.31 J	0.41 J	0.18 J		04/23/14LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	0.73 J	0.16 J	1.2 J	--- U		04/23/14LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.56 J	0.15 J	0.61 J	0.04 J		04/23/14LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	2.4 J	5.2 J	3.0 J	4.6 J		04/23/14LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	--- U	0.24 J	0.91 J	0.43 J		05/06/14LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	--- U	--- U	--- U		04/23/14LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	--- U	--- U	--- U	--- U		04/23/14LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	1.9 J	0.60 J	2.3 J	0.33 J		04/23/14LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	6.8 J	1.6 J	6.7 J	--- U		04/23/14LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	39.0	8.2	38.0	+65.0		04/09/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	753	893	683	1099		04/09/14BF	2510B-97
Temperature, °C			15	16	16	16		04/09/14BF	2550B-00

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

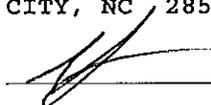
PHONE (252) 756-6208
FAX (252) 756-0633

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: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/13/14

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	SWPT1	SWPT2	UD1	UD2	Trip Blank
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	0.90 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

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: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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)
SURFACE WATER
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6039
ANALYST: MO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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	108	102	104
Laboratory Control std.	70-130	110	103	106
Method Blank	70-130	108	101	105
SWPT1	70-130	111	103	105
SWPT2	70-130	109	99.6	102
UD1	70-130	109	102	103
UD2	70-130	109	100	103
Trip Blank	70-130	109	102	104
MW15S M.S.	70-130	112	103	105
MW15S M.S.D.	70-130	110	101	102

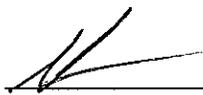
Environment 1, Incorporated

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: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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	20.89	104	21.36	107	2.2
Benzene	20.0	--- U	20.62	103	20.82	104	1.0
Trichloroethene	20.0	--- U	21.21	106	21.58	108	1.7
Toluene	20.0	--- U	20.31	102	20.73	104	2.0
Chlorobenzene	20.0	--- U	20.87	104	21.26	106	1.9

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	21.14	106
Benzene	20.00	21.10	106
Trichloroethene	20.00	22.56	113
Toluene	20.00	20.33	102
Chlorobenzene	20.00	21.58	108

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

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

CLIENT: 6039 Week: 17

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

(252) 633-1564

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION		Field pH	Metals	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	COMMENTS:	PARAMETERS	CLASSIFICATION:
	DATE	TIME				CHLORINE	UV										
SWPT1	4-9-14	0856		15	5	<input type="checkbox"/>	<input type="checkbox"/>	P	P	P	P	P	G	G		A - NONE D - NAOH B - HNO ₃ E - HCL C - H ₂ SO ₄ F - ZINC ACETATE/NAOH G - NA THIOSULFATE	<input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DMQ/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION
SWPT2	4-9-14	0930		16	5	<input type="checkbox"/>	<input type="checkbox"/>	P	P	P	P	P	G	G			
UD1	4-9-14	0935		16	5	<input type="checkbox"/>	<input type="checkbox"/>	P	P	P	P	P	G	G			
UD2	4-9-14	0940		16	5	<input type="checkbox"/>	<input type="checkbox"/>	P	P	P	P	P	G	G			
Trip Blank	4-9-14				2	<input type="checkbox"/>	<input type="checkbox"/>										
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME

FORM #5

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.

NO 276931

CHAIN OF CUSTODY MAINTAINED
 DURING SHIPMENT/DELIVERY
 Y N

SAMPLES COLLECTED BY:
 (Please Print)
 Bobby Tom

SAMPLES RECEIVED IN LAB AT 14 °C

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: 04/09/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	Leachate		Analysis	Method
		SWSL	Manhole	Date	Analyst Code
PH (field measurement), Units			7.3	04/09/14BF	4500HB-00
Antimony, ug/l	0.02	6.0	12	04/23/14LFFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	130	04/23/14LFFJ	EPA200.8
Barium, ug/l	0.06	100.0	923	04/23/14LFFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.15 J	04/23/14LFFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	5	04/23/14LFFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	13	04/23/14LFFJ	EPA200.8
Copper, ug/l	0.06	10.0	5.8 J	04/23/14LFFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	58	04/23/14LFFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.26 J	04/23/14LFFJ	EPA200.8
Nickel, ug/l	0.45	50.0	108	04/23/14LFFJ	EPA200.8
Selenium, ug/l	0.06	10.0	59	05/06/14LFFJ	EPA200.8
Silver, ug/l	0.03	10.0	0.92 J	04/23/14LFFJ	EPA200.8
Thallium, ug/l	0.02	5.5	--- U	04/23/14LFFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	15.3 J	04/23/14LFFJ	EPA200.8
Zinc, ug/l	0.47	10.0	4.4 J	04/23/14LFFJ	EPA200.8
Turbidity, NTU	1.0	1.0	160	04/09/14LW	2130B-01
Conductivity (at 25c), uMhos/cm	1.0	1.0	11190	04/09/14BF	2510B-97
Temperature, °C			26	04/09/14BF	2550B-00

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

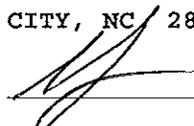
PHONE (252) 756-6208
FAX (252) 756-0633

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: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/13/14

Page: 1

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	--- 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	38.80 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	0.20 J
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	1.70 J
15. 2-Butanone	2.21	100.0	14.40 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	4.20
21. 1,2-Dichloroethane	0.27	1.0	1.10
22. Trichloroethene	0.23	1.0	--- U
23. 1,2-Dichloropropane	0.21	1.0	0.30 J
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	5.20 J
27. Toluene	0.23	1.0	22.60
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	63.50
37. Xylenes	0.68	5.0	40.60
38. Dibromomethane	0.28	10.0	--- U
39. Styrene	0.19	1.0	5.50
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	16.60
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

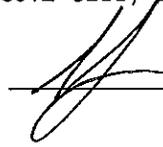
Environment 1, Incorporated

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: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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 MANHOLE
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6045
ANALYST: MO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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	108	102	104
Laboratory Control std.	70-130	110	103	106
Method Blank	70-130	108	101	105
Leachate Manhole	70-130	113	104	104
MW15S M.S.	70-130	112	103	105
MW15S M.S.D.	70-130	110	101	102

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: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

REVIEWED BY: 

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

Sample Spiked: MW158 (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	20.89	104	21.36	107	2.2
Benzene	20.0	--- U	20.62	103	20.82	104	1.0
Trichloroethene	20.0	--- U	21.21	106	21.58	108	1.7
Toluene	20.0	--- U	20.31	102	20.73	104	2.0
Chlorobenzene	20.0	--- U	20.87	104	21.26	106	1.9

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	21.14	106
Benzene	20.00	21.10	106
Trichloroethene	20.00	22.56	113
Toluene	20.00	20.33	102
Chlorobenzene	20.00	21.58	108

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

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

CLIENT: 6045 Week: 17

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

(252) 633-1564

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			Field pH	Metals	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	CLASSIFICATION:	
	DATE	TIME				<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV	<input type="checkbox"/> NONE											
Leachate Manhole	4-9-14	0925		26	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	A	A	A	A	A	E	E	E	A - NONE B - HNO ₃ C - H ₂ SO ₄ G - NATHIOSULFATE D - NAOH E - HCL F - ZINC ACETATE/NAOH	WASTEWATER (NPDES) DRINKING WATER DMQ/GW SOLID WASTE SECTION	
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
<i>Tom Beasley</i>	4-9-14	1426	<i>[Signature]</i>	4/9/14	201	<i>[Signature]</i>													
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
REINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME

FORM #5

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.

No. 276928

CHLORINE NEUTRALIZED AT COLLECTION
 pH CHECK (LAB)
 CONTAINER TYPE P/G
 CHEMICAL PRESERVATION
 A - NONE D - NAOH
 B - HNO₃ E - HCL
 C - H₂SO₄ F - ZINC ACETATE/NAOH
 G - NATHIOSULFATE
 CLASSIFICATION:
 WASTEWATER (NPDES)
 DRINKING WATER
 DMQ/GW
 SOLID WASTE SECTION
 CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
 N
 SAMPLES COLLECTED BY:
 (Please Print)
 Tom / Bobby
 SAMPLES RECEIVED IN LAB AT 14°C

COMMENTS:

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: 04/09/14
DATE REPORTED : 05/13/14

REVIEWED BY: 

PARAMETERS	MDL	Equipment		Analysis		Method Code
		SWSL	Blank	Date	Analyst	
Antimony, ug/l	0.02	6.0	0.66 J	04/23/14LFPJ	EPA200.8	
Arsenic, ug/l	0.05	10.0	--- U	04/23/14LFPJ	EPA200.8	
Barium, ug/l	0.06	100.0	--- U	04/23/14LFPJ	EPA200.8	
Beryllium, ug/l	0.03	1.0	--- U	04/23/14LFPJ	EPA200.8	
Cadmium, ug/l	0.05	1.0	--- U	04/23/14LFPJ	EPA200.8	
Cobalt, ug/l	0.02	10.0	--- U	04/23/14LFPJ	EPA200.8	
Copper, ug/l	0.06	10.0	--- U	04/23/14LFPJ	EPA200.8	
Total Chromium, ug/l	0.04	10.0	--- U	04/23/14LFPJ	EPA200.8	
Lead, ug/l	0.02	10.0	0.04 J	04/23/14LFPJ	EPA200.8	
Nickel, ug/l	0.45	50.0	--- U	04/23/14LFPJ	EPA200.8	
Selenium, ug/l	0.06	10.0	--- U	05/06/14LFPJ	EPA200.8	
Silver, ug/l	0.03	10.0	--- U	04/23/14LFPJ	EPA200.8	
Thallium, ug/l	0.02	5.5	--- U	04/23/14LFPJ	EPA200.8	
Vanadium, ug/l	0.07	25.0	--- U	04/23/14LFPJ	EPA200.8	
Zinc, ug/l	0.47	10.0	--- U	04/23/14LFPJ	EPA200.8	

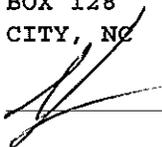
P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/13/14

Page: 1

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

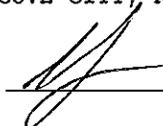
Environment 1, Incorporated

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: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 15/12/14

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

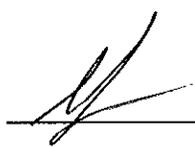
Environment 1, Incorporated

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)
BLANKS
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6043
ANALYST: MO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

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	108	102	104
Laboratory Control std.	70-130	110	103	106
Method Blank	70-130	108	101	105
Equipment Blank	70-130	109	102	102
MW15S M.S.	70-130	112	103	105
MW15S M.S.D.	70-130	110	101	102

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)
BLANKS
Mr. BOBBY DARDEN
P.O. BOX 128
COVE CITY, NC 28523

CLIENT ID: 6043
ANALYST: MO
DATE COLLECTED: 04/09/14
DATE ANALYZED: 04/17/14
DATE REPORTED: 05/12/14

REVIEWED BY: 

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

Sample Spiked: MW158 (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	20.89	104	21.36	107	2.2
Benzene	20.0	--- U	20.62	103	20.82	104	1.0
Trichloroethene	20.0	--- U	21.21	106	21.58	108	1.7
Toluene	20.0	--- U	20.31	102	20.73	104	2.0
Chlorobenzene	20.0	--- U	20.87	104	21.26	106	1.9

LABORATORY CONTROL SAMPLE RESULTS

Sample Compound:	Spike Amount Ug/l	Spike Result Ug/l	Spike Recovery (70-130%)
1,1-Dichloroethene	20.00	21.14	106
Benzene	20.00	21.10	106
Trichloroethene	20.00	22.56	113
Toluene	20.00	20.33	102
Chlorobenzene	20.00	21.58	108

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

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

CLIENT: 6043 Week: 17

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

(252) 633-1564

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			Metals	EPA 8260B	8260 Dup. 1	CHLORINE NEUTRALIZED AT COLLECTION	PH CHECK (LAB)	CONTAINER TYPE, P/G	CHEMICAL PRESERVATION	PARAMETERS	
	DATE	TIME				<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV	<input type="checkbox"/> NONE									A
Equipment Blank	4-9-14	0940			3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>									CLASSIFICATION: <input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DMO/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION
RELINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	COMMENTS:											
<i>Tom Bobby</i>	4-9-14	1430	<i>[Signature]</i>	4/9/14	231	CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY SAMPLES COLLECTED BY: <i>Tom Bobby</i> (Please Print) <i>N</i> SAMPLES RECEIVED IN LAB AT <u>14</u> °C											
RELINQUISHED BY (SIG.)	DATE/TIME	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/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.
 No. 276930

Appendix B

Statistical Analysis Worksheets and Results Summary

APPENDIX B

SUMMARY OF STATISTICAL ANALYSES

FIRST SEMIANNUAL GROUNDWATER MONITORING EVENT of 2014 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	6	NO
Cobalt		1	N/A	Non-parametric Prediction Interval	41.00	MW-15S	12	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.

JOYCE Project: CRSWMA Tuscarora Regional Landfill

Project No: 618.1301.12

Date: 5/30/2014

Analyte: **Beryllium**

Sample No.	Sample Date	Location	Concentration		Quantitation	Sorted Concentration (ug/L)
			(ug/L)	Qualifier	Limit (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
168	4/9/2014	IRL-1S	0.63	J	1
169	4/9/2014	IRL-1D	0.08	J	1
170	4/9/2014	MW-12S	0.29	J	1
171	4/9/2014	MW-12D	0.2	J	1
172	4/9/2014	LST-5S	0.09	J	1

Number of Data	166
Number of Truncated Data	99
Percentage of Truncated Data	60%

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 quantitation limit

ND = Not detected

JOYCE Project: CRSWMA
 Project No: 618.1301.12
 Date: 7/14/2014

Analyte: **Cobalt**

Sample No.	Sample Date	Location	Concentration		Quantitation	Sorted Concentration (ug/L)
			(ug/L)	Qualifier	Limit (ug/L)	
1	4/15/2004	MW-13S	ND		10	
2	10/14/2004	MW-13S	ND		10	
3	4/5/2005	MW-13S	ND		10	
4	10/27/2005	MW-13S	ND		10	
5	4/15/2004	MW-13D	ND		10	
6	10/14/2004	MW-13D	ND		10	
7	4/5/2005	MW-13D	ND		10	
8	10/27/2005	MW-13D	ND		10	
9	4/15/2004	MW-14	ND		10	
10	10/14/2004	MW-14	ND		10	
11	4/5/2005	MW-14	ND		10	
12	10/27/2005	MW-14	ND		10	
13	7/1/1993	IRL-1S	32		20	
14	8/1/1993	IRL-1S	26		20	
15	9/1/1993	IRL-1S	22		20	
16	9/1/1993	IRL-1S	ND		20	
17	4/1/1994	IRL-1S	27	B	10	
18	10/1/1994	IRL-1S	ND		10	
19	4/1/1995	IRL-1S	ND		10	
20	10/1/1995	IRL-1S	ND		10	
21	4/1/1996	IRL-1S	ND		10	
22	10/1/1996	IRL-1S	ND		10	
23	4/1/1997	IRL-1S	ND		10	
24	10/1/1997	IRL-1S	20		10	
25	4/1/1998	IRL-1S	ND		10	
26	10/1/1998	IRL-1S	ND		10	
27	3/1/1999	IRL-1S	ND		10	
28	10/1/1999	IRL-1S	ND		10	
29	4/1/2000	IRL-1S	16		10	
30	10/1/2000	IRL-1S	ND		10	
31	4/1/2001	IRL-1S	ND		10	
32	10/1/2001	IRL-1S	ND		10	
33	4/2/2002	IRL-1S	ND		10	
34	10/3/2002	IRL-1S	ND		10	
35	4/3/2003	IRL-1S	ND		10	
36	10/3/2003	IRL-1S	ND		10	
37	4/15/2004	IRL-1S	ND		10	
38	10/14/2004	IRL-1S	ND		10	
39	4/5/2005	IRL-1S	ND		10	
40	10/27/2005	IRL-1S	ND		10	
41	4/21/2006	IRL-1S	ND		10	
42	10/12/2006	IRL-1S	ND		10	
43	4/26/2007	IRL-1S	ND		10	
44	10/10/2007	IRL-1S	0.6	J	10.0	
45	4/2/2008	IRL-1S	0.9	J	10.0	
46	10/28/2008	IRL-1S	1.1	J	10.0	
47	4/8/2009	IRL-1S	1.3	J	10.0	
48	10/27/2009	IRL-1S	1.2	J	10.0	
49	4/8/2010	IRL-1S	1.3	J	10.0	
50	10/13/2010	IRL-1S	1	J	10.0	
51	4/27/2011	IRL-1S	1.3	J	10.0	
52	10/20/2011	IRL-1S	0.86	J	10.0	
53	7/1/1993	IRL-1D	41		20	
54	8/1/1993	IRL-1D	27		20	
55	9/1/1993	IRL-1D	21		20	
56	9/1/1993	IRL-1D	ND		20	
57	4/1/1994	IRL-1D	22	B	10	
58	10/1/1994	IRL-1D	ND		10	
59	4/1/1995	IRL-1D	ND		10	
60	10/1/1995	IRL-1D	ND		10	
61	4/1/1996	IRL-1D	ND		10	
62	10/27/2005	IRL-1D	ND		10	
63	4/21/2006	IRL-1D	ND		10	
64	10/12/2006	IRL-1D	ND		10	
65	4/26/2007	IRL-1D	ND		10	
66	10/10/2007	IRL-1D	ND		10	
67	4/2/2008	IRL-1D	0.1	J	10	
68	10/28/2008	IRL-1D	0.5	J	10	

69	4/8/2009	IRL-1D	0.8	J	10
70	10/27/2009	IRL-1D	0.5	J	10
71	4/8/2010	IRL-1D	0.9	J	10
72	10/13/2010	IRL-1D	0.7	J	10
73	4/27/2011	IRL-1D	0.24	J	10
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
168	4/9/2014	IRL-1S	0.46	J	10
169	4/9/2014	IRL-1D	0.39	J	10
170	4/9/2014	MW-12S	0.10	J	10
171	4/9/2014	MW-12D	0.34	J	10
172	4/9/2014	LST-5S	0.58	J	10

Number of Data	169
Number of Truncated Data	112
Percentage of Truncated Data	66%

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 quantitation limit

ND = Not detected