Semi-Annual Water Quality Monitoring Report

Prepared for

Iredell County Closed C&D Landfill - Phases 1, 2, 3
Statesville, North Carolina

July 2012

Permit Number: 49-03
MESCO Project Number: G12014.0

Submitted: November 6, 2012

P.O. Box 97
Garner, NC 27529
License No. C-0281

Municipal Services Garner, NC
Engineering Company, P.A. Boone, NC
Municipal Engineering Services Company, P.A.
Garner & Boone, North Carolina

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

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

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

Instructions:

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

Solid Waste Monitoring Data Submittal Information

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

Municipal Engineering Services Co., PA

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

Name: Jonathan Pfohl Phone: (919)772-5393

E-mail: jpfohl@mesco.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Iredell County Closed C&D Landfill Phases 1, 2, 3	354 Twin Oaks Road Statesville, NC 28625	49-03	.0500	July 17-20, 2012

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

D. Mark Durway, L.G. Geologist (919) 772-5393

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

D. Mark Durway 11/5/12

Signature Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 0875 GEOLOGIST D. MARK DURWAY

P.O. Box 97, Garner, NC 27529

Facility Representative Address

C-0281

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

Revised 6/2009

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License No. C-0281

CIVIL/SANITARY/ENVIRONMENTAL ENGINEERS
SOLID WASTE MANAGEMENT

Municipal Services Engineering Company, P.A.

SITE PLANNING/SUBDIVISIONS
SUBSURFACE UTILITY ENGINEERING (SUE)

November 6, 2012

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

Re: Semi-Annual Water Quality Monitoring Report
Iredell County Closed C&D Landfill - Phases 1, 2, 3
Event Date(s):July 18-20, 2012
Permit #49-03
MESCO #G12014.0

Dear Mr. Lane:

Introduction

On behalf of Iredell County, Municipal Engineering Services Company, P.A. (MESCO) is pleased to present this *Semi-Annual Water Quality Report* for the summer 2012 event performed at the Iredell County Closed Construction and Demolition (C&D) Landfill. NCDENR Solid Waste Rules 15A NCAC 13B.0601 requires that Iredell County provide this report to the SWS on a semi-annual basis. This report documents the quality of the ground and surface waters during this monitoring event performed between July 18-20, 2012. Laboratory analytical results indicate the surficial aquifer monitored by monitoring wells MW-9R, MW-9RR, MW-10R and MW-16 contained concentrations of benzene above the 2L Standard.

Background

The Iredell County Closed C&D Landfill, permit #49-03, is located at 354 Twin Oaks Road, Statesville, North Carolina. The site location topographic map is depicted in the attached **Figure 1**.

Water quality monitoring at this portion of the facility has been continuously monitored semi-annually since 1993. Current data was compared to all historical data compiled since 1993.

As specified within 15A NCAC 13B.1632(j) and the SWS Environmental Monitoring Report Form this report contains sampling procedures, field and laboratory results, groundwater and surface water characterization. Detections compared to Standards tables, a field observations table, a field data results table, potentiometric map, quality assurance/quality control data, and laboratory analytical data results are also enclosed.

PO Box 97, Garner, North Carolina 27529 (919) 772-5393 PO Box 349, Boone, NC 28607 (828) 262-1767

Sampling Procedure

MESCO performed the sampling in general accordance with the NCDENR SWS guidance document *Solid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling* revised April 2008 and the current site specific Sampling and Analysis Plan (SAP) dated October 10, 2006. Water samples were collected from eleven downgradient monitoring wells (MW-9R, MW-9RR, MW-10R, MW-16, MW-22, MW-23, MW-24S, MW-24D, MW-25, MW-26S, MW-26D), two upgradient background wells (MW-1A, MW-1C) and two surface water points (SW-3, SW-6). Quality control measures implemented during this event included submittal and subsequent quantification of an equipment blank (EB), field blank (FB), and travel blank (TB). Analytical results from surface water samples collected from the unnamed perennial tributary to Fourth Creek (SW-South of Confluence, SW-NEof MW-16 and SW-2) are also presented. MW-1B, the shallowest of the three upgradient background wells was dry. Monitoring locations are shown on **Figure 2.**

Monitoring location function and integrity were visually evaluated with no deficiency identified and inspection documentation is provided in **Table 4.** The depth to water in each well was electronically gaged prior to purging to quantify the static water level elevation. Low-flow pumping methodology or bailing was utilized to adequately purge the wells to a minimum of three times the volume of standing water in the well or until dry. Surface water samples were collected from previously designated locations. During well purging and surface water sample collection the required field parameters were recorded. The samples were then placed into laboratory-prepared, pre-preserved containers via a new disposable polyethylene bailer. Samples were collected, kept on ice, and transported to a NC-certified laboratory under proper C-O-C protocols within the specified hold times for each analysis.

Field Parameter Data

Stabilized field parameters were recorded during purging which included pH, specific conductance, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), total dissolved solids (TDS) and visual turbidity. A summary of the field parameter data is presented in **Table 5** and the field sampling data sheet is enclosed in **Appendix B.**

Laboratory Results

Pace Analytical Laboratories of Huntersville and Asheville, NC, performed 40 CFR 258 Appendix I lab analysis for all samples by EPA 8260B for volatile organic compounds (VOCs) and tetrahydrofuran, and EPA 6000/7000 for unfiltered metals. A sampling and analysis table summarizing the locations, constituents, and methods is presented on **Table 1**. Laboratory results and C-O-Cs are contained in **Appendix A**.

Water samples were analyzed to the laboratory-established Method Detection Limits (MDL), which are at or below the current Solid Waste Section Limit (SWSL). **Table 2** summarizes constituents detected in groundwater and surface water samples that attain or were above the current SWSL, Groundwater Protection Standards (GWP), North Carolina Groundwater Standards (2L) or the North Carolina Surface Water Standards (2B) for a class C water body. Laboratory results and C-O-Cs are presented in **Appendix A**.

Quality Control Samples

Methylene chloride (DCM) was detected in the quality control blanks EB and FB. Although DCM was identified in the blanks it appears that the data set's validity was likely effected since DCM was not detected in any other water sample.

Groundwater Samples

Total cadmium and total chromium were detected in concentrations above 2L Standards in the designated upgrdaient background wells MW-1A and MW-1C respectively. Benzene was detected in levels slightly exceeding the 2L Standard (1.0 ug/l) in MW-9R (1.4 ug/l), MW-9RR (1.3 ug/l), MW-10R (1.3 ug/l) and MW-16 (1.4 ug/l). A non-quantifiable concentration "j-qualified" of vinyl chloride was also detected in MW-9R (0.69 ug/l) which is above the 2L Standard (0.3 ug/l). The spatial distribution of the impacted wells are shown on **Figure 2**.

Surface Water Samples

The unnamed tributary of Fourth Creek, which serves as the local discharge feature south of the closed C&D landfill, was monitored at six locations. On site surface water point SW-3 contained total zinc in concentrations above the applicable 2B Standard. However, a supplemental sample (SW-SofConfluence) collected at the confluence of a separate drainage upstream of SW-3, which originates off-site, contained total zinc concentrations five times higher than SW-3. No constituents were detected in quantifiable concentrations from surface water points SW-NEofMW-16 and SW-2, located progressively further downstream from the facility.

Groundwater and Surface Water Characterization

A potentiometric map for the surficial aquifer created from groundwater elevation data collected during this event, is included as **Figure 2**. Groundwater flow directions and rates were calculated using modified Darcy's equation and presented as **Table 3**. Groundwater flow at the C&D landfill is to the east toward the unnamed tributary to Fourth Creek. Groundwater flow rates have been calculated to range from approximately 4 ft/yr (MW-23) to 350 ft/yr (MW-10R), averaging approximately 182 ft/yr. Flow directions and gradients are generally consistent with reported historical observations. Streams located within the facility boundaries were visually observed to have low seasonal volume, low flow and low turbidity.

Findings

Benzene was detected slightly above the 2L Standard in samples collected from MW-9R, MW-9RR, MW-10R and MW-16. An estimated (j-qualified) concentration of vinyl chloride in exceedance of the 2L Standard was also found in sample MW-9R. The currently identified horizontal extent of low level VOC(s) appear to encompass an area of approximately 4 acres between the waste boundary and the Fourth Creek tributary discharge feature. Quantifiable concentrations of VOCs were not detected from surface water samples SW-3 and SW-NEofMW-16 collected directly downgradient from the impacted wells.

Zinc currently and historically has been detected in concentrations above the 2B Standard in samples collected from SW-3. The zinc source as reported in SW-3 originates off site and is diluted to non-detectable levels further downstream at SW-2.

Closing

Semi-annual water quality monitoring is tentatively scheduled to be performed again in January 2013. If you have any questions regarding this report, please contact us at (919) 772-5393 or by email at jpfohl@mesco.com or mdurway@mesco.com.

Sincerely,
MUNICIPAL ENGINEERING SERVICES CO., P.A.

Jonathan Pfohl
Environmental Specialist

D. Mark Durway, L.G.
Geologist

NORTH CAROLINA LICENSED SEAL 0875 GEOLOGIST D. MARK DURWAY

Enclosures

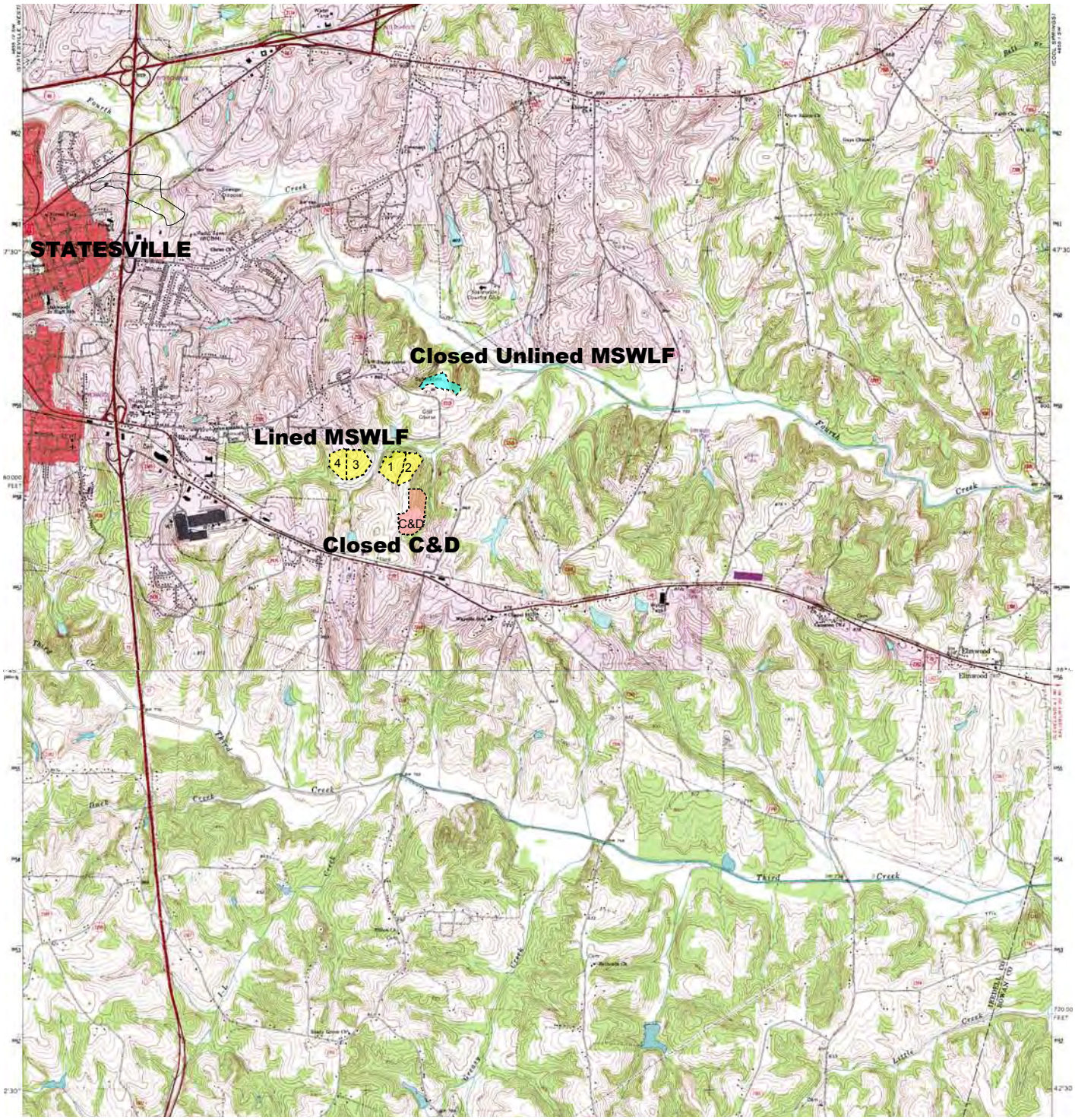
cc: Mr. David Lambert
Iredell County

Figures

Topographic Map with Site Location

Iredell County Landfill

N



354 Twin Oaks Rd
Statesville, NC 28625
Lat:35-46-17.8012
Long:-80-49-22.2973
Northing:740719.35
Easting:1459306.76

STATESVILLE EAST QUADRANGLE

ROAD CLASSIFICATION

Primary highway, hard surface — Light-duty road, hard or improved surface

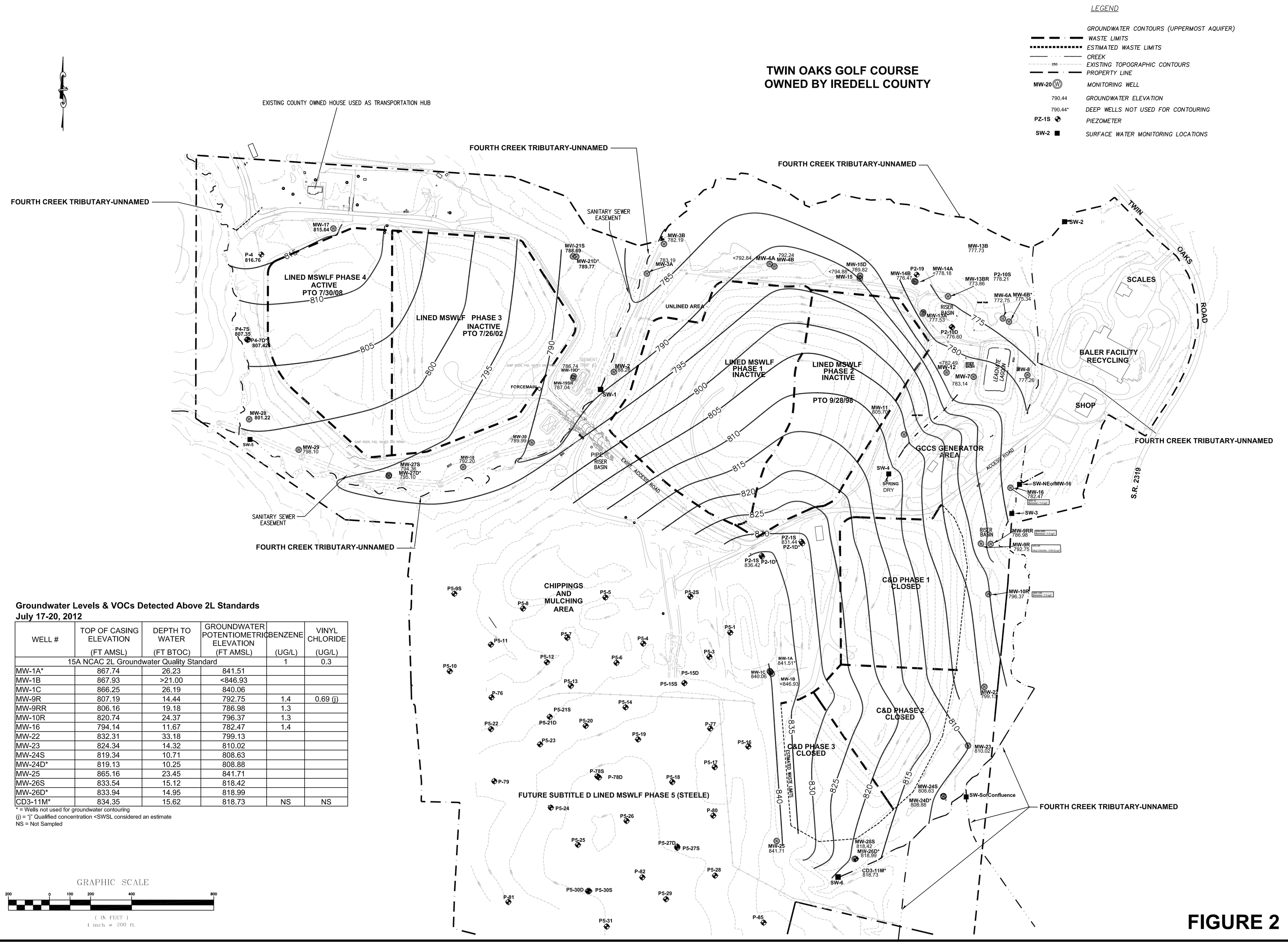
Secondary highway, hard surface — Unimproved road

Interstate Route — U. S. Route — State Route

2.5 0 2.5 MILES

Figure 1

TWIN OAKS GOLF COURSE
OWNED BY IREDELL COUNTY



Groundwater Levels & VOCs Detected Above 2L Standards
July 17-20, 2012

WELL #	TOP OF CASING ELEVATION (FT AMSL)	DEPTH TO WATER (FT BTOC)	GROUNDWATER POTENTIOMETRIC ELEVATION (FT AMSL)	BENZENE (UG/L)	VINYL CHLORIDE (UG/L)
15A NCAC 2L Groundwater Quality Standard				1	0.3
MW-1A*	867.74	26.23	841.51		
MW-1B	867.93	>21.00	<846.93		
MW-1C	866.25	26.19	840.06		
MW-9R	807.19	14.44	792.75	1.4	0.69 (j)
MW-9RR	806.16	19.18	786.98	1.3	
MW-10R	820.74	24.37	796.37	1.3	
MW-16	794.14	11.67	782.47	1.4	
MW-22	832.31	33.18	799.13		
MW-23	824.34	14.32	810.02		
MW-24S	819.34	10.71	808.63		
MW-24D*	819.13	10.25	808.88		
MW-25	865.16	23.45	841.71		
MW-26S	833.54	15.12	818.42		
MW-26D*	833.94	14.95	818.99		
CD3-11M*	834.35	15.62	818.73	NS	NS

* = Wells not used for groundwater contouring
(j) = "j" Qualified concentration <SWSL considered an estimate
NS = Not Sampled

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

FIGURE 2

Municipal Engineering Services Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1767
LICENSE NUMBER: C-0281

SUBTITLE D LINED MSWLF PHASES 1-4
CLOSED C&D PHASES 1-3
IREDELL COUNTY
NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

POTENTIOMETRIC MAP OF UPPERMOST AQUIFER w/ VOCs DETECTED ABOVE 2L STANDARDS

SCALE: 1" = 200'
DATE: 10/14/12
DRWN. BY: J. PFOHL
CHKD. BY: M. DURWAY
PROJECT NUMBER G12014.0
DRAWING NO. FIGURE 2
SHEET NO. 1 OF 1

Tables

Table 1
Sampling and Analysis Summary
July 17-20, 2012

		App. I		App. II		Misc.	Field Parameter						
	Reason Not Sampled	VOCs	Total Metals	VOCs	Total Metals	Tetrahydrofuran	Dissolved Oxygen (DO)	Oxidation Reduction Potential (ORP)	Temperature	Conductivity	Total Dissolved Solids (TDS)	pH	Turbidity
		Lab EPA 8260B	Lab EPA 6000/7000	Lab EPA 8260B	Lab EPA 6000/7000	Lab EPA 8260B	Field Meter	Field Meter	Field Meter	Field Meter	Field Meter	Field Meter	Visual
MW-1A				x	x	x	x	x	x	x	x	x	x
MW-1B	Dry												
MW-1C				x	x	x	x	x	x	x	x	x	x
MW-9R		x	x			x	x	x	x	x	x	x	x
MW-9RR		x	x			x	x	x	x	x	x	x	x
MW-10R		x	x			x	x	x	x	x	x	x	x
MW-16		x	x			x	x	x	x	x	x	x	x
MW-22		x	x			x	x	x	x	x	x	x	x
MW-23		x	x			x	x	x	x	x	x	x	x
MW-24S		x	x			x	x	x	x	x	x	x	x
MW-24D		x	x			x	x	x	x	x	x	x	x
MW-25		x	x			x	x	x	x	x	x	x	x
MW-26S		x	x			x	x	x	x	x	x	x	x
MW-26D		x	x			x	x	x	x	x	x	x	x
SW-2		x	x			x	x	x	x	x	x	x	x
SW-3		x	x			x	x	x	x	x	x	x	x
SW-SofConfluence			x				x	x	x	x	x	x	x
SW-6		x	x			x	x	x	x	x	x	x	x
SW-NEofMW-16		x					x	x	x	x	x	x	x
EB				x	x								
FB				x	x								
TB				x									

Appendix I & II Lists taken from current 40 CFR 258

Table 2
Detections Above SWSL, GWP, 2L or 2B
July 17-20, 2012

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause [7]
MW-1A	Zinc, total	7/19/12	30.1	ug/L	10	10	1050				
MW-1A	**Cadmium, total**	**7/19/12**	**3.9**	**ug/L**	**1**	**1**	**1.75**			**2.15**	**B & N**
MW-1A	Cobalt, total	7/19/12	10.2	ug/L	5	10			70		
MW-1A	Barium, total	7/19/12	126	ug/L	5	100	700				
MW-1A	Vanadium, total	7/19/12	27.7	ug/L	5	25			3.5	24.2	
MW-1A	Copper, total	7/19/12	12.9	ug/L	5	10	1000				
MW-1C	**Chromium, total**	**7/19/12**	**15**	**ug/L**	**5**	**10**	**10**			**5**	**B & N**
MW-1C	Vanadium, total	7/19/12	124	ug/L	5	25			3.5	120.5	
MW-1C	Beryllium, total	7/19/12	3.6	ug/L	1	1			4		
MW-1C	Cobalt, total	7/19/12	21.4	ug/L	5	10			70		
MW-1C	Barium, total	7/19/12	511	ug/L	5	100	700				
MW-1C	Zinc, total	7/19/12	164	ug/L	10	10	1050				
MW-10R	**Benzene**	**7/17/12**	**1.3**	**ug/L**	**0.25**	**1**	**1**			**0.3**	**L &/or LFG**
MW-10R	Mercury, total	7/17/12	0.22	ug/L	0.1	0.2	1.05				
MW-10R	Vanadium, total	7/17/12	9.5j	ug/L	5	25			3.5	6	
MW-10R	Zinc, total	7/17/12	16.4	ug/L	10	10	1050				
MW-16	**Benzene**	**7/19/12**	**1.4**	**ug/L**	**0.25**	**1**	**1**			**0.4**	**L &/or LFG**
MW-16	Tetrahydrofuran	7/19/12	12.9	ug/L	3.1	NE	NE		NE		
MW-16	Barium, total	7/19/12	153	ug/L	5	100	700				
MW-22	Barium, total	7/17/12	110	ug/L	5	100	700				
MW-22	Zinc, total	7/17/12	19.6	ug/L	10	10	1050				
MW-24D	Vanadium, total	7/17/12	9.8j	ug/L	5	25			3.5	6.3	
MW-24S	Barium, total	7/17/12	234	ug/L	5	100	700				
MW-24S	Zinc, total	7/17/12	16.8	ug/L	10	10	1050				
MW-25	Zinc, total	7/17/12	26.4	ug/L	10	10	1050				
MW-25	Vanadium, total	7/17/12	8.6j	ug/L	5	25			3.5	5.1	
MW-26D	Vanadium, total	7/18/12	11.5j	ug/L	5	25			3.5	8	
MW-9R	**Benzene**	**7/18/12**	**1.4**	**ug/L**	**0.25**	**1**	**1**			**0.4**	**L &/or LFG**
MW-9R	Barium, total	7/18/12	267	ug/L	5	100	700				
MW-9R	Tetrahydrofuran	7/18/12	11	ug/L	3.1	NE	NE		NE		
MW-9R	Cobalt, total	7/18/12	35	ug/L	5	10			70		
MW-9R	**Vinyl chloride**	**7/18/12**	**0.69 j**	**ug/L**	**0.62**	**1**	**0.03**			**0.66**	**L &/or LFG**

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause [7]
MW-9RR	**Benzene**	**7/18/12**	**1.3**	**ug/L**	**0.25**	**1**	**1**			**0.3**	**L &/or LFG**
MW-9RR	Vanadium, total	7/18/12	7j	ug/L	5	25			3.5	3.5	
SW-3	**Zinc, total**	**7/18/12**	**337**	**ug/L**	**10**	**10**	**1050**	**50**		**287**	**Offsite**
SW-6	Vanadium, total	7/18/12	5.3	ug/L	5	25		NE			
SW-S OF CONFLUENCE	**Zinc, total**	**7/18/12**	**1740**	**ug/L**	**10**	**10**		**50**		**1690**	**Offsite**
SW-S OF CONFLUENCE	Barium, total	7/18/12	134	ug/L	5	100		200000			
FB	**Methylene Chloride**	**7/20/12**	**6.9**	**ug/L**	**0.97**	**1**	**4.6**			**2.3**	**A**
EB	**Methylene Chloride**	**7/20/12**	**6.6**	**ug/L**	**0.97**	**1**	**4.6**			**2**	**A**

[1] Table contains Appendix I constituents detected above SWSL, GWP, 2L, or 2B

[2] MDL = Method Detection Limit

[3] SWSL = Solid Waste Section Reporting Limit

[4] 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard

[5] 2B = North Carolina 15 NCAC 2B Surface Water Quality Standard for this Specific Stream Classification

[6] GWP = Groundwater Protection Standard

[7] Preliminary Cause = Refers to a preliminary analysis of the cause and/or source of a detection over the respective 2L/2B Standard.
A definitive source of the detection was not determined as part of this report.

j =The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable

A = Artifact laboratory or field induced as detected in blank(s)

B = Background

N = Natural from erosion of natural deposits

L = Leachate

LFG = Landfill Gas

Offsite = Confirmed originating from off the property

BOLD = Concentration > 2L, or 2B Standard

Table 3
Hydrologic Properties at Monitoring Well Locations
July 17-20, 2012

Monitoring Location	Hydraulic Conductivity (cm/second)	Effective Porosity (%)	Hydraulic Gradient (feet/feet)	Average Linear Velocity Rate (feet/year)	Flow Direction	Depth to Groundwater (feet btoc)	Groundwater Potentiometric Elevation (feet amsl)	Screened Interval Lithology
MW-1A	2.00E-04	20.00	0.04	na	na	26.23	841.51	Silty Clayey Sand
MW-1C	na	20.00	0.02	na	N83E	26.19	840.06	Silty Clayey Sand
MW-9R	2.00E-04	15.00	0.11	145	S89E	14.44	792.75	Sandy Silt
MW-9RR	1.53E-04	15.00	0.15	155	S89E	19.18	786.98	Sandy Silt
MW-10R	9.00E-05	15.00	0.56	350	N84E	24.37	796.37	Sandy Silt
MW-16	4.65E-04	15.00	0.07	209	N83E	11.67	782.47	Sandy Silt
MW-22	3.35E-05	16.08	0.05	10	N84E	33.18	799.13	Sandy Silt
MW-23	1.18E-04	16.08	0.01	4	N80E	14.32	810.02	Silty Sand
MW-24S	2.63E-04	16.08	0.17	288	S63E	10.71	808.63	Silty Sand
MW-25	3.72E-04	9.70	0.06	237	S75E	23.45	841.71	Silty Sand
MW-26S	1.81E-04	4.50	0.06	243	S76E	15.12	818.42	Clayey Sand/Sandy Clay
Minimum	3.35E-05	4.50	0.01	4	-	10.71	782.47	-
Average	2.08E-04	14.77	0.12	182	-	19.90	810.73	-
Maximum	4.65E-04	20.00	0.56	350	-	33.18	841.71	-

NOTE: Values for hydraulic conductivity determined via slug test by MESCO.
MW-9R and MW-10R replaced MW-9 and MW-10 but use the same hydraulic conductivity and effective porosity values.
Hydrologic Gradient from groundwater elevations recorded July 17-20, 2012.
na = not available
Groundwater average linear velocity rate calculated from modified Darcy's equation:

$$Q = -\frac{K}{n_e} \cdot \frac{dh}{dl}$$

where
K = hydraulic conductivity
ne = effective porosity
dh = head difference
dl = horizontal distance

Table 4
Field Observations of Monitoring Locations
July 17-19, 2012

Sample Location	Viable Monitoring Location	Lack of Any Evidence of Tampering	Locked	Hinge/Hasp Operational	Tagged or Labeled	Concrete Surface Pad Effective	Comments
MW-1A	Yes	Yes	Yes	Yes	Yes	Yes	
MW-1B	No	Yes	Yes	Yes	Yes	Yes	Dry
MW-1C	Yes	Yes	Yes	Yes	Yes	Yes	
MW-9R	Yes	Yes	Yes	Yes	Yes	Yes	
MW-9RR	Yes	Yes	Yes	Yes	Yes	Yes	
MW-10R	Yes	Yes	Yes	Yes	Yes	Yes	
MW-16	Yes	Yes	Yes	Yes	Yes	Yes	
MW-22	Yes	Yes	Yes	Yes	Yes	Yes	
MW-23	Yes	Yes	Yes	Yes	Yes	Yes	Slight constriction
MW-24S	Yes	Yes	Yes	Yes	Yes	Yes	
MW-24D	Yes	Yes	Yes	Yes	Yes	Yes	
MW-25	Yes	Yes	Yes	Yes	Yes	Yes	
MW-26S	Yes	Yes	Yes	Yes	Yes	Yes	
MW-26D	Yes	Yes	Yes	Yes	Yes	Yes	Water white w/ elevated pH
SW-2	Yes	-	-	-	-	-	Low volume & flow
SW-3	Yes	-	-	-	-	-	Low volume & flow
SW-6	Yes	-	-	-	-	-	Low volume & flow
SW-SofConfluence	Yes	-	-	-	-	-	Low volume & flow
SW-NEofMW-16	Yes	-	-	-	-	-	Low volume & flow

Any unusual field conditions, observations, or events:

None to note

SW-SofConfluence is a supplemental sample collected from Fourth Creek tributary originating from offsite.

Table 5
Field Parameter Data Summary
July 17-19, 2012

Location	Depth to Water	Water Elevation	TOC Elevation	Temp.	ORP	DO	pH	Specific Conductance	TDS	Turbidity
Units	**ft (btoc)**	**ft (amsl)**	**ft (amsl)**	**C**	**mV**	**mg/L**	**SU**	**umhos/cm**	**mg/L**	**Visual**
MW-1A	24.98	841.27	866.25	15.9	183	2.4	6.52	100	40	Clear
MW-1C	25.26	842.48	867.74	15.7	101	1.9	5.99	100	40	Slight
Minimum	24.98	841.27	866.25	15.7	101	1.9	5.99	100	40	Clear
Average	25.12	841.88	867.00	15.8	142	2.2	6.26	100	40	Slight
Maximum	25.26	842.48	867.74	15.9	183	2.4	6.52	100	40	Slight
MW-9R	14.44	792.75	807.19	18.1	53	0.9	6.12	632	315	Clear
MW-9RR	19.18	786.98	806.16	17.0	78	1.0	6.48	161	80	Slight
MW-10R	24.37	796.37	820.74	17.1	138	1.6	6.81	310	150	Slight
MW-16	11.67	782.47	794.14	14.9	71	0.2	6.37	280	130	Clear
MW-22	33.18	799.13	832.31	15.8	207	4.9	6.53	60	20	Clear
MW-23	14.32	810.02	824.34	15.9	204	1.1	6.45	400	190	Clear
MW-24S	10.71	808.63	819.34	14.9	301	1.6	5.88	280	130	Clear
MW-24D	10.25	808.88	819.13	15.2	286	3.2	6.23	90	40	Clear
MW-25	23.45	841.71	865.16	18.4	163	4.4	6.98	80	30	Moderate
MW-26S	15.12	818.42	833.54	16.4	148	3.5	6.93	80	40	Slight
MW-26D	14.95	818.99	833.94	16.3	111	3.8	8.19	160	70	Slight
Minimum	10.25	782.47	794.14	14.9	53	0.2	5.88	60	20	Clear
Average	17.42	805.85	823.27	16.4	160	2.4	6.63	230	109	Slight
Maximum	33.18	841.71	865.16	18.4	301	4.9	8.19	632	315	Moderate
SW-2	-	-	-	21.9	197	6.5	7.01	280	130	Clear
SW-3	-	-	-	23.9	247	6.6	6.89	80	40	Clear
SW-6	-	-	-	24.6	282	6.8	7.03	80	40	Clear
SW-SofConfluence	-	-	-	22.7	207	6.3	6.11	300	140	Clear
Minimum	-	-	-	21.9	197	6.3	6.11	80	40	Clear
Average				23.3	233	6.6	6.76	185	88	Clear
Maximum	-	-	-	24.6	282	6.8	7.03	300	140	Clear

Appendix A
Laboratory Analysis Reports
Chains of Custody

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August 03, 2012

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: IREDELL CDLF
Pace Project No.: 92124954

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory between July 19, 2012 and July 20, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: IREDELL CDLF
Pace Project No.: 92124954

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

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

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SAMPLE SUMMARY

Project: IREDELL CDLF
Pace Project No.: 92124954

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92124954003	**MW-10R**	Water	07/17/12 16:50	07/19/12 16:30
92124954004	**MW-22**	Water	07/17/12 15:50	07/19/12 16:30
92124954005	**MW-23**	Water	07/17/12 15:00	07/19/12 16:30
92124954006	**MW-24S**	Water	07/17/12 14:25	07/19/12 16:30
92124954007	**MW-24D**	Water	07/17/12 13:40	07/19/12 16:30
92124954008	**MW-25**	Water	07/17/12 13:00	07/19/12 16:30
92124954009	**MW-26S**	Water	07/18/12 08:40	07/19/12 16:30
92124954010	**MW-26D**	Water	07/18/12 09:10	07/19/12 16:30
92124954011	**SW-6**	Water	07/18/12 09:30	07/19/12 16:30
92124954012	**MW-9R**	Water	07/18/12 10:05	07/20/12 12:15
92124954013	**MW-9RR**	Water	07/18/12 10:50	07/20/12 12:15
92124954014	**MW-16**	Water	07/19/12 10:00	07/20/12 12:15

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SAMPLE ANALYTE COUNT

Project: IREDELL CDLF
Pace Project No.: 92124954

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92124954003	**MW-10R**	EPA 6010	JMW	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954004	**MW-22**	EPA 6010	JDA	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954005	**MW-23**	EPA 6010	JDA	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954006	**MW-24S**	EPA 6010	JDA	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954007	**MW-24D**	EPA 6010	JDA	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954008	**MW-25**	EPA 6010	JDA	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954009	**MW-26S**	EPA 6010	JDA	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954010	**MW-26D**	EPA 6010	JDA	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954011	**SW-6**	EPA 6010	JDA	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954012	**MW-9R**	EPA 6010	JMW	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954013	**MW-9RR**	EPA 6010	JMW	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92124954014	**MW-16**	EPA 6010	JMW	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-10R **Lab ID: 92124954003** Collected: 07/17/12 16:50 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-38-2	
Barium	**77.6J**	ug/L	100	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/21/12 10:35	07/24/12 15:57	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/21/12 10:35	07/24/12 15:57	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/21/12 10:35	07/24/12 15:57	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/21/12 10:35	07/24/12 15:57	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-31-5	
Vanadium	**9.5J**	ug/L	25.0	5.0	1	07/21/12 10:35	07/24/12 15:57	7440-62-2	
Zinc	**16.4**	ug/L	10.0	10.0	1	07/21/12 10:35	07/24/12 15:57	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**0.22**	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:31	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/23/12 12:38	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 12:38	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 12:38	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 12:38	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 12:38	107-05-1	
Benzene	**1.3**	ug/L	1.0	0.25	1		07/23/12 12:38	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 12:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 12:38	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 12:38	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 12:38	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 12:38	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 12:38	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 12:38	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 12:38	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 12:38	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 12:38	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 12:38	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 12:38	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 12:38	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 12:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 12:38	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 12:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 12:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 12:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 12:38	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-10R **Lab ID: 92124954003** Collected: 07/17/12 16:50 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 12:38	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 12:38	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 12:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 12:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 12:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 12:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 12:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 12:38	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 12:38	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 12:38	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 12:38	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 12:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 12:38	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 12:38	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 12:38	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 12:38	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 12:38	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 12:38	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 12:38	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 12:38	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 12:38	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 12:38	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 12:38	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 12:38	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 12:38	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 12:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 12:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 12:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 12:38	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 12:38	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 12:38	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 12:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 12:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 12:38	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 12:38	79-01-6	
Trichlorofluoromethane	**0.39J**	ug/L	1.0	0.20	1		07/23/12 12:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 12:38	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 12:38	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 12:38	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 12:38	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		07/23/12 12:38	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		07/23/12 12:38	1868-53-7	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		07/23/12 12:38	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/23/12 12:38	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-22 **Lab ID: 92124954004** Collected: 07/17/12 15:50 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-38-2	
Barium	**110**	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:29	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:29	7440-43-9	
Chromium	**6.3J**	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:29	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/26/12 13:15	07/28/12 20:29	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	07/26/12 13:15	07/28/12 20:29	7440-62-2	
Zinc	**19.6**	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:29	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:33	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/23/12 12:54	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 12:54	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 12:54	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 12:54	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 12:54	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/23/12 12:54	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 12:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 12:54	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 12:54	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 12:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 12:54	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 12:54	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 12:54	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 12:54	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 12:54	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 12:54	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 12:54	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 12:54	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 12:54	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 12:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 12:54	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 12:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 12:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 12:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 12:54	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-22 **Lab ID: 92124954004** Collected: 07/17/12 15:50 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 12:54	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 12:54	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 12:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 12:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 12:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 12:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 12:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 12:54	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 12:54	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 12:54	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 12:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 12:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 12:54	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 12:54	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 12:54	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 12:54	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 12:54	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 12:54	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 12:54	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 12:54	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 12:54	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 12:54	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 12:54	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 12:54	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 12:54	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 12:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 12:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 12:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 12:54	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 12:54	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 12:54	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 12:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 12:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 12:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 12:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/23/12 12:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 12:54	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 12:54	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 12:54	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 12:54	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		07/23/12 12:54	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		07/23/12 12:54	1868-53-7	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		07/23/12 12:54	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		07/23/12 12:54	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-23 **Lab ID: 92124954005** Collected: 07/17/12 15:00 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-38-2	
Barium	**75.8J**	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:32	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:32	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:32	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/26/12 13:15	07/28/12 20:32	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	07/26/12 13:15	07/28/12 20:32	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:32	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:36	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/23/12 13:11	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 13:11	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 13:11	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 13:11	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 13:11	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/23/12 13:11	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 13:11	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 13:11	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 13:11	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 13:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 13:11	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 13:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 13:11	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 13:11	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 13:11	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 13:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 13:11	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 13:11	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 13:11	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 13:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 13:11	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 13:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 13:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 13:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 13:11	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-23 **Lab ID: 92124954005** Collected: 07/17/12 15:00 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 13:11	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 13:11	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 13:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 13:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 13:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 13:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 13:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 13:11	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 13:11	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 13:11	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 13:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 13:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 13:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 13:11	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 13:11	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 13:11	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 13:11	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 13:11	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 13:11	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 13:11	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 13:11	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 13:11	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 13:11	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 13:11	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 13:11	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 13:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 13:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 13:11	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 13:11	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 13:11	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 13:11	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 13:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 13:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 13:11	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 13:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/23/12 13:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 13:11	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 13:11	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 13:11	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 13:11	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		07/23/12 13:11	460-00-4	
Dibromofluoromethane (S)	114	%	70-130		1		07/23/12 13:11	1868-53-7	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		07/23/12 13:11	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		07/23/12 13:11	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-24S **Lab ID: 92124954006** Collected: 07/17/12 14:25 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-38-2	
Barium	**234**	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:35	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:35	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:35	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/26/12 13:15	07/28/12 20:35	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	07/26/12 13:15	07/28/12 20:35	7440-62-2	
Zinc	**16.8**	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:35	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:39	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/23/12 13:28	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 13:28	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 13:28	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 13:28	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 13:28	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/23/12 13:28	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 13:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 13:28	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 13:28	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 13:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 13:28	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 13:28	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 13:28	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 13:28	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 13:28	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 13:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 13:28	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 13:28	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 13:28	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 13:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 13:28	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 13:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 13:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 13:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 13:28	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-24S **Lab ID: 92124954006** Collected: 07/17/12 14:25 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 13:28	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 13:28	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 13:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 13:28	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 13:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 13:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 13:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 13:28	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 13:28	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 13:28	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 13:28	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 13:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 13:28	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 13:28	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 13:28	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 13:28	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 13:28	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 13:28	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 13:28	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 13:28	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 13:28	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 13:28	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 13:28	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 13:28	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 13:28	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 13:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 13:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 13:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 13:28	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 13:28	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 13:28	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 13:28	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 13:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 13:28	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 13:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/23/12 13:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 13:28	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 13:28	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 13:28	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 13:28	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		07/23/12 13:28	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		07/23/12 13:28	1868-53-7	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		07/23/12 13:28	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/23/12 13:28	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-24D **Lab ID: 92124954007** Collected: 07/17/12 13:40 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-38-2	
Barium	**12.4J**	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:38	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:38	7440-43-9	
Chromium	**6.0J**	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:38	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/26/12 13:15	07/28/12 20:38	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-31-5	
Vanadium	**9.8J**	ug/L	25.0	5.0	1	07/26/12 13:15	07/28/12 20:38	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:38	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:41	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/23/12 13:45	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 13:45	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 13:45	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 13:45	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 13:45	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/23/12 13:45	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 13:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 13:45	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 13:45	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 13:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 13:45	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 13:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 13:45	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 13:45	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 13:45	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 13:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 13:45	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 13:45	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 13:45	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 13:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 13:45	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 13:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 13:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 13:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 13:45	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-24D **Lab ID: 92124954007** Collected: 07/17/12 13:40 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 13:45	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 13:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 13:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 13:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 13:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 13:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 13:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 13:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 13:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 13:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 13:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 13:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 13:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 13:45	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 13:45	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 13:45	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 13:45	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 13:45	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 13:45	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 13:45	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 13:45	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 13:45	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 13:45	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 13:45	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 13:45	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 13:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 13:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 13:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 13:45	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 13:45	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 13:45	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 13:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 13:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 13:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 13:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/23/12 13:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 13:45	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 13:45	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 13:45	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 13:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		07/23/12 13:45	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		07/23/12 13:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		07/23/12 13:45	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/23/12 13:45	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-25 **Lab ID: 92124954008** Collected: 07/17/12 13:00 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-38-2	
Barium	**38.6J**	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:51	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:51	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-48-4	
Copper	**6.4J**	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:51	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/26/12 13:15	07/28/12 20:51	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-31-5	
Vanadium	**8.6J**	ug/L	25.0	5.0	1	07/26/12 13:15	07/28/12 20:51	7440-62-2	
Zinc	**26.4**	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:51	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:44	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/23/12 14:01	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 14:01	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 14:01	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 14:01	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 14:01	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/23/12 14:01	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 14:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 14:01	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 14:01	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 14:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 14:01	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 14:01	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 14:01	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 14:01	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 14:01	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 14:01	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 14:01	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 14:01	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 14:01	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 14:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 14:01	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 14:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 14:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 14:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 14:01	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-25 **Lab ID: 92124954008** Collected: 07/17/12 13:00 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 14:01	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 14:01	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 14:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 14:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 14:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 14:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 14:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 14:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 14:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 14:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 14:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 14:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 14:01	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 14:01	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 14:01	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 14:01	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 14:01	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 14:01	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 14:01	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 14:01	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 14:01	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 14:01	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 14:01	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 14:01	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 14:01	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 14:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 14:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 14:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 14:01	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 14:01	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 14:01	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 14:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 14:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 14:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 14:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/23/12 14:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 14:01	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 14:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 14:01	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 14:01	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		07/23/12 14:01	460-00-4	
Dibromofluoromethane (S)	114	%	70-130		1		07/23/12 14:01	1868-53-7	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		07/23/12 14:01	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/23/12 14:01	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-26S **Lab ID: 92124954009** Collected: 07/18/12 08:40 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-38-2	
Barium	**29.7J**	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:54	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:54	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:54	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/26/12 13:15	07/28/12 20:54	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	07/26/12 13:15	07/28/12 20:54	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:54	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:47	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**2.5J**	ug/L	100	2.2	1		07/23/12 14:18	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 14:18	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 14:18	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 14:18	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 14:18	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/23/12 14:18	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 14:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 14:18	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 14:18	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 14:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 14:18	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 14:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 14:18	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 14:18	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 14:18	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 14:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 14:18	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 14:18	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 14:18	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 14:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 14:18	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 14:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 14:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 14:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 14:18	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-26S **Lab ID: 92124954009** Collected: 07/18/12 08:40 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 14:18	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 14:18	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 14:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 14:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 14:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 14:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 14:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 14:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 14:18	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 14:18	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 14:18	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 14:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 14:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 14:18	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 14:18	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 14:18	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 14:18	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 14:18	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 14:18	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 14:18	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 14:18	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 14:18	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 14:18	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 14:18	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 14:18	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 14:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 14:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 14:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 14:18	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 14:18	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 14:18	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 14:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 14:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 14:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 14:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/23/12 14:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 14:18	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 14:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 14:18	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 14:18	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		07/23/12 14:18	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		07/23/12 14:18	1868-53-7	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		07/23/12 14:18	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		07/23/12 14:18	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-26D **Lab ID: 92124954010** Collected: 07/18/12 09:10 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-38-2	
Barium	**14.0J**	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:57	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 20:57	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:57	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/26/12 13:15	07/28/12 20:57	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-31-5	
Vanadium	**11.5J**	ug/L	25.0	5.0	1	07/26/12 13:15	07/28/12 20:57	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 20:57	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:49	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/23/12 14:34	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 14:34	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 14:34	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 14:34	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 14:34	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/23/12 14:34	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 14:34	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 14:34	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 14:34	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 14:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 14:34	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 14:34	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 14:34	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 14:34	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 14:34	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 14:34	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 14:34	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 14:34	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 14:34	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 14:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 14:34	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 14:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 14:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 14:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 14:34	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-26D **Lab ID: 92124954010** Collected: 07/18/12 09:10 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 14:34	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 14:34	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 14:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 14:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 14:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 14:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 14:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 14:34	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 14:34	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 14:34	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 14:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 14:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 14:34	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 14:34	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 14:34	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 14:34	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 14:34	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 14:34	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 14:34	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 14:34	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 14:34	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 14:34	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 14:34	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 14:34	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 14:34	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 14:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 14:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 14:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 14:34	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 14:34	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 14:34	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 14:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 14:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 14:34	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 14:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/23/12 14:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 14:34	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 14:34	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 14:34	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 14:34	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		07/23/12 14:34	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		07/23/12 14:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		07/23/12 14:34	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/23/12 14:34	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: SW-6 **Lab ID: 92124954011** Collected: 07/18/12 09:30 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-38-2	
Barium	**61.9J**	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 21:00	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/26/12 13:15	07/28/12 21:00	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 21:00	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/26/12 13:15	07/28/12 21:00	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-31-5	
Vanadium	**5.3J**	ug/L	25.0	5.0	1	07/26/12 13:15	07/28/12 21:00	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/26/12 13:15	07/28/12 21:00	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 13:52	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/23/12 14:51	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/23/12 14:51	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/23/12 14:51	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/23/12 14:51	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/23/12 14:51	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/23/12 14:51	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/23/12 14:51	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/23/12 14:51	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/23/12 14:51	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/23/12 14:51	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/23/12 14:51	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/23/12 14:51	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/23/12 14:51	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/23/12 14:51	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/23/12 14:51	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/23/12 14:51	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/23/12 14:51	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/23/12 14:51	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/23/12 14:51	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/23/12 14:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/23/12 14:51	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/23/12 14:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/23/12 14:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/23/12 14:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/23/12 14:51	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: SW-6 **Lab ID: 92124954011** Collected: 07/18/12 09:30 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/23/12 14:51	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/23/12 14:51	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/23/12 14:51	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/23/12 14:51	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/23/12 14:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/23/12 14:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/23/12 14:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/23/12 14:51	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/23/12 14:51	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/23/12 14:51	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/23/12 14:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/23/12 14:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/23/12 14:51	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/23/12 14:51	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/23/12 14:51	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/23/12 14:51	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/23/12 14:51	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/23/12 14:51	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/23/12 14:51	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/23/12 14:51	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/23/12 14:51	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/23/12 14:51	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/23/12 14:51	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/23/12 14:51	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/23/12 14:51	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/23/12 14:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/23/12 14:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/23/12 14:51	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/23/12 14:51	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/23/12 14:51	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/23/12 14:51	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/23/12 14:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/23/12 14:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/23/12 14:51	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/23/12 14:51	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/23/12 14:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/23/12 14:51	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/23/12 14:51	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/23/12 14:51	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/23/12 14:51	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		07/23/12 14:51	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		07/23/12 14:51	1868-53-7	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		07/23/12 14:51	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/23/12 14:51	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-9R **Lab ID: 92124954012** Collected: 07/18/12 10:05 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-38-2	
Barium	**267**	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 21:49	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 21:49	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-47-3	
Cobalt	**35.0**	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 21:49	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/27/12 11:30	07/30/12 21:49	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	07/27/12 11:30	07/30/12 21:49	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 21:49	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 14:08	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**3.5J**	ug/L	100	2.2	1		07/28/12 21:33	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/28/12 21:33	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/28/12 21:33	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 21:33	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/28/12 21:33	107-05-1	
Benzene	**1.4**	ug/L	1.0	0.25	1		07/28/12 21:33	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 21:33	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 21:33	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 21:33	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 21:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 21:33	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 21:33	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 21:33	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 21:33	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 21:33	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 21:33	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 21:33	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/28/12 21:33	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 21:33	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 21:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 21:33	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 21:33	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 21:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/28/12 21:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 21:33	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-9R **Lab ID: 92124954012** Collected: 07/18/12 10:05 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 21:33	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/28/12 21:33	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 21:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 21:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 21:33	75-35-4	
cis-1,2-Dichloroethene	**2.9J**	ug/L	5.0	0.19	1		07/28/12 21:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 21:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 21:33	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 21:33	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/28/12 21:33	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/28/12 21:33	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 21:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 21:33	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 21:33	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/28/12 21:33	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/28/12 21:33	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 21:33	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 21:33	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/28/12 21:33	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/28/12 21:33	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/28/12 21:33	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/28/12 21:33	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 21:33	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/28/12 21:33	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/28/12 21:33	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 21:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 21:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 21:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 21:33	127-18-4	
Tetrahydrofuran	**11.0**	ug/L	10.0	3.1	1		07/28/12 21:33	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 21:33	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/28/12 21:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 21:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 21:33	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 21:33	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 21:33	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 21:33	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 21:33	108-05-4	
Vinyl chloride	**0.69J**	ug/L	1.0	0.62	1		07/28/12 21:33	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 21:33	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	89	%	70-130		1		07/28/12 21:33	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		07/28/12 21:33	1868-53-7	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		07/28/12 21:33	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/28/12 21:33	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-9RR **Lab ID: 92124954013** Collected: 07/18/12 10:50 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-38-2	
Barium	**17.5J**	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 21:53	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 21:53	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 21:53	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/27/12 11:30	07/30/12 21:53	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-31-5	
Vanadium	**7.0J**	ug/L	25.0	5.0	1	07/27/12 11:30	07/30/12 21:53	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 21:53	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 14:22	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**5.1J**	ug/L	100	2.2	1		07/28/12 21:51	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/28/12 21:51	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/28/12 21:51	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 21:51	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/28/12 21:51	107-05-1	
Benzene	**1.3**	ug/L	1.0	0.25	1		07/28/12 21:51	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 21:51	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 21:51	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 21:51	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 21:51	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 21:51	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 21:51	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 21:51	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 21:51	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 21:51	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 21:51	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 21:51	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/28/12 21:51	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 21:51	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 21:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 21:51	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 21:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 21:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/28/12 21:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 21:51	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-9RR **Lab ID: 92124954013** Collected: 07/18/12 10:50 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 21:51	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/28/12 21:51	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 21:51	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 21:51	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 21:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/28/12 21:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 21:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 21:51	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 21:51	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/28/12 21:51	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/28/12 21:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 21:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 21:51	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 21:51	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/28/12 21:51	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/28/12 21:51	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 21:51	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 21:51	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/28/12 21:51	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/28/12 21:51	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/28/12 21:51	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/28/12 21:51	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 21:51	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/28/12 21:51	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/28/12 21:51	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 21:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 21:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 21:51	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 21:51	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/28/12 21:51	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 21:51	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/28/12 21:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 21:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 21:51	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 21:51	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 21:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 21:51	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 21:51	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 21:51	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 21:51	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	70-130		1		07/28/12 21:51	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		07/28/12 21:51	1868-53-7	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		07/28/12 21:51	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/28/12 21:51	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-16 **Lab ID: 92124954014** Collected: 07/19/12 10:00 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-38-2	
Barium	**153**	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 21:57	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 21:57	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 21:57	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/27/12 11:30	07/30/12 21:57	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	07/27/12 11:30	07/30/12 21:57	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 21:57	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 14:37	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		07/28/12 22:09	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/28/12 22:09	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/28/12 22:09	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 22:09	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/28/12 22:09	107-05-1	
Benzene	**1.4**	ug/L	1.0	0.25	1		07/28/12 22:09	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 22:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 22:09	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 22:09	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 22:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 22:09	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 22:09	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 22:09	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 22:09	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 22:09	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 22:09	67-66-3	
Chloromethane	**0.12J**	ug/L	1.0	0.11	1		07/28/12 22:09	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/28/12 22:09	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 22:09	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 22:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 22:09	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 22:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 22:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/28/12 22:09	541-73-1	
1,4-Dichlorobenzene	**0.70J**	ug/L	1.0	0.33	1		07/28/12 22:09	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL CDLF
Pace Project No.: 92124954

Sample: MW-16 **Lab ID: 92124954014** Collected: 07/19/12 10:00 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 22:09	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/28/12 22:09	75-71-8	
1,1-Dichloroethane	**0.40J**	ug/L	5.0	0.32	1		07/28/12 22:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 22:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 22:09	75-35-4	
cis-1,2-Dichloroethene	**2.8J**	ug/L	5.0	0.19	1		07/28/12 22:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 22:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 22:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 22:09	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/28/12 22:09	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/28/12 22:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 22:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 22:09	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 22:09	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/28/12 22:09	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/28/12 22:09	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 22:09	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 22:09	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/28/12 22:09	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/28/12 22:09	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/28/12 22:09	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/28/12 22:09	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 22:09	108-10-1	
Naphthalene	**2.5J**	ug/L	10.0	0.24	1		07/28/12 22:09	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/28/12 22:09	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 22:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 22:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 22:09	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 22:09	127-18-4	
Tetrahydrofuran	**12.9**	ug/L	10.0	3.1	1		07/28/12 22:09	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 22:09	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/28/12 22:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 22:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 22:09	79-00-5	
Trichloroethene	**0.71J**	ug/L	1.0	0.47	1		07/28/12 22:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 22:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 22:09	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 22:09	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 22:09	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 22:09	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	85	%	70-130		1		07/28/12 22:09	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		07/28/12 22:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		07/28/12 22:09	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		07/28/12 22:09	2037-26-5	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

QC Batch: MERP/4404 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92124954003, 92124954004, 92124954005, 92124954006, 92124954007, 92124954008, 92124954009, 92124954010, 92124954011, 92124954012

METHOD BLANK: 805874 Matrix: Water
Associated Lab Samples: 92124954003, 92124954004, 92124954005, 92124954006, 92124954007, 92124954008, 92124954009, 92124954010, 92124954011, 92124954012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	08/02/12 12:56	

LABORATORY CONTROL SAMPLE: 805875

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.4	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 805876 805877

Parameter	Units	92124936003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	2.4	94	94	75-125	0	25	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

QC Batch: MERP/4405 — Analysis Method: EPA 7470
QC Batch Method: EPA 7470 — Analysis Description: 7470 Mercury
Associated Lab Samples: 92124954013, 92124954014

METHOD BLANK: 805878 — Matrix: Water
Associated Lab Samples: 92124954013, 92124954014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	08/02/12 14:10	

LABORATORY CONTROL SAMPLE: 805879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 805880 805881

Parameter	Units	92124954013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	2.4	96	94	75-125	2	25	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

QC Batch: MPRP/11082
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92124954003

METHOD BLANK: 799688
Matrix: Water
Associated Lab Samples: 92124954003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/24/12 14:07	
Arsenic	ug/L	ND	10.0	07/24/12 14:07	
Barium	ug/L	ND	100	07/24/12 14:07	
Beryllium	ug/L	ND	1.0	07/24/12 14:07	
Cadmium	ug/L	ND	1.0	07/24/12 14:07	
Chromium	ug/L	ND	10.0	07/24/12 14:07	
Cobalt	ug/L	ND	10.0	07/24/12 14:07	
Copper	ug/L	ND	10.0	07/24/12 14:07	
Lead	ug/L	ND	10.0	07/24/12 14:07	
Nickel	ug/L	ND	50.0	07/24/12 14:07	
Selenium	ug/L	ND	10.0	07/24/12 14:07	
Silver	ug/L	ND	10.0	07/24/12 14:07	
Thallium	ug/L	ND	5.5	07/24/12 14:07	
Tin	ug/L	ND	100	07/24/12 14:07	
Vanadium	ug/L	ND	25.0	07/24/12 14:07	
Zinc	ug/L	ND	10.0	07/24/12 14:07	

LABORATORY CONTROL SAMPLE: 799689

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	503	101	80-120	
Arsenic	ug/L	500	506	101	80-120	
Barium	ug/L	500	497	99	80-120	
Beryllium	ug/L	500	520	104	80-120	
Cadmium	ug/L	500	507	101	80-120	
Chromium	ug/L	500	498	100	80-120	
Cobalt	ug/L	500	498	100	80-120	
Copper	ug/L	500	509	102	80-120	
Lead	ug/L	500	503	101	80-120	
Nickel	ug/L	500	501	100	80-120	
Selenium	ug/L	500	505	101	80-120	
Silver	ug/L	250	252	101	80-120	
Thallium	ug/L	500	491	98	80-120	
Tin	ug/L	500	514	103	80-120	
Vanadium	ug/L	500	501	100	80-120	
Zinc	ug/L	500	504	101	80-120	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 799690 799691

Parameter	Units	92124612005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	480	493	96	99	75-125	3	25	
Arsenic	ug/L	ND	500	500	496	508	99	102	75-125	2	25	
Barium	ug/L	45.1	500	500	532	548	97	101	75-125	3	25	
Beryllium	ug/L	ND	500	500	506	522	101	104	75-125	3	25	
Cadmium	ug/L	ND	500	500	490	502	98	100	75-125	2	25	
Chromium	ug/L	ND	500	500	491	503	98	100	75-125	2	25	
Cobalt	ug/L	ND	500	500	488	502	98	100	75-125	3	25	
Copper	ug/L	ND	500	500	506	522	101	104	75-125	3	25	
Lead	ug/L	ND	500	500	485	498	97	99	75-125	3	25	
Nickel	ug/L	ND	500	500	489	501	98	100	75-125	2	25	
Selenium	ug/L	ND	500	500	486	502	97	100	75-125	3	25	
Silver	ug/L	ND	250	250	245	251	98	100	75-125	2	25	
Thallium	ug/L	ND	500	500	473	487	95	97	75-125	3	25	
Tin	ug/L	ND	500	500	496	507	99	101	75-125	2	25	
Vanadium	ug/L	8.1	500	500	503	516	99	102	75-125	3	25	
Zinc	ug/L	ND	500	500	492	504	97	100	75-125	2	25	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

QC Batch: MPRP/11117 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92124954004, 92124954005, 92124954006, 92124954007, 92124954008, 92124954009, 92124954010, 92124954011

METHOD BLANK: 802621 | Matrix: Water
Associated Lab Samples: 92124954004, 92124954005, 92124954006, 92124954007, 92124954008, 92124954009, 92124954010, 92124954011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/28/12 19:34	
Arsenic	ug/L	ND	10.0	07/28/12 19:34	
Barium	ug/L	ND	100	07/28/12 19:34	
Beryllium	ug/L	ND	1.0	07/28/12 19:34	
Cadmium	ug/L	ND	1.0	07/28/12 19:34	
Chromium	ug/L	ND	10.0	07/28/12 19:34	
Cobalt	ug/L	ND	10.0	07/28/12 19:34	
Copper	ug/L	ND	10.0	07/28/12 19:34	
Lead	ug/L	ND	10.0	07/28/12 19:34	
Nickel	ug/L	ND	50.0	07/30/12 13:30	
Selenium	ug/L	ND	10.0	07/28/12 19:34	
Silver	ug/L	ND	10.0	07/28/12 19:34	
Thallium	ug/L	ND	5.5	07/28/12 19:34	
Tin	ug/L	ND	100	07/28/12 19:34	
Vanadium	ug/L	ND	25.0	07/28/12 19:34	
Zinc	ug/L	ND	10.0	07/28/12 19:34	

LABORATORY CONTROL SAMPLE: 802622

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	464	93	80-120	
Arsenic	ug/L	500	459	92	80-120	
Barium	ug/L	500	474	95	80-120	
Beryllium	ug/L	500	459	92	80-120	
Cadmium	ug/L	500	466	93	80-120	
Chromium	ug/L	500	459	92	80-120	
Cobalt	ug/L	500	462	92	80-120	
Copper	ug/L	500	482	96	80-120	
Lead	ug/L	500	466	93	80-120	
Nickel	ug/L	500	469	94	80-120	
Selenium	ug/L	500	469	94	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	455	91	80-120	
Tin	ug/L	500	466	93	80-120	
Vanadium	ug/L	500	474	95	80-120	
Zinc	ug/L	500	454	91	80-120	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 802623 802624

Parameter	Units	92124831005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	474	479	95	96	75-125	1	25	
Arsenic	ug/L	ND	500	500	478	485	95	97	75-125	1	25	
Barium	ug/L	135	500	500	604	607	94	94	75-125	0	25	
Beryllium	ug/L	ND	500	500	472	478	94	96	75-125	1	25	
Cadmium	ug/L	ND	500	500	461	468	92	94	75-125	2	25	
Chromium	ug/L	ND	500	500	457	465	91	93	75-125	2	25	
Cobalt	ug/L	ND	500	500	459	464	92	93	75-125	1	25	
Copper	ug/L	ND	500	500	492	493	98	98	75-125	0	25	
Lead	ug/L	ND	500	500	456	461	91	92	75-125	1	25	
Nickel	ug/L	ND	500	500	455	462	91	92	75-125	2	25	
Selenium	ug/L	ND	500	500	476	478	95	96	75-125	0	25	
Silver	ug/L	ND	250	250	236	240	94	96	75-125	2	25	
Thallium	ug/L	ND	500	500	450	452	90	90	75-125	0	25	
Tin	ug/L	ND	500	500	477	481	95	96	75-125	1	25	
Vanadium	ug/L	6.7	500	500	486	491	96	97	75-125	1	25	
Zinc	ug/L	10.7	500	500	465	473	91	92	75-125	2	25	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

QC Batch: MPRP/11132 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92124954012, 92124954013, 92124954014

METHOD BLANK: 803387 | Matrix: Water
Associated Lab Samples: 92124954012, 92124954013, 92124954014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/30/12 20:15	
Arsenic	ug/L	ND	10.0	07/30/12 20:15	
Barium	ug/L	ND	100	07/30/12 20:15	
Beryllium	ug/L	ND	1.0	07/30/12 20:15	
Cadmium	ug/L	ND	1.0	07/30/12 20:15	
Chromium	ug/L	ND	10.0	07/30/12 20:15	
Cobalt	ug/L	ND	10.0	07/30/12 20:15	
Copper	ug/L	ND	10.0	07/30/12 20:15	
Lead	ug/L	ND	10.0	07/30/12 20:15	
Nickel	ug/L	ND	50.0	07/30/12 20:15	
Selenium	ug/L	ND	10.0	07/30/12 20:15	
Silver	ug/L	ND	10.0	07/30/12 20:15	
Thallium	ug/L	ND	5.5	07/30/12 20:15	
Tin	ug/L	ND	100	07/30/12 20:15	
Vanadium	ug/L	ND	25.0	07/30/12 20:15	
Zinc	ug/L	ND	10.0	07/30/12 20:15	

LABORATORY CONTROL SAMPLE: 803388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	465	93	80-120	
Arsenic	ug/L	500	466	93	80-120	
Barium	ug/L	500	469	94	80-120	
Beryllium	ug/L	500	477	95	80-120	
Cadmium	ug/L	500	478	96	80-120	
Chromium	ug/L	500	482	96	80-120	
Cobalt	ug/L	500	471	94	80-120	
Copper	ug/L	500	469	94	80-120	
Lead	ug/L	500	472	94	80-120	
Nickel	ug/L	500	471	94	80-120	
Selenium	ug/L	500	464	93	80-120	
Silver	ug/L	250	240	96	80-120	
Thallium	ug/L	500	442	88	80-120	
Tin	ug/L	500	479	96	80-120	
Vanadium	ug/L	500	480	96	80-120	
Zinc	ug/L	500	469	94	80-120	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

MATRIX SPIKE SAMPLE: 803389

Parameter	Units	92124946005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	455	91	75-125	
Arsenic	ug/L	ND	500	457	91	75-125	
Barium	ug/L	29.3J	500	479	90	75-125	
Beryllium	ug/L	ND	500	464	93	75-125	
Cadmium	ug/L	ND	500	455	91	75-125	
Chromium	ug/L	ND	500	463	93	75-125	
Cobalt	ug/L	ND	500	451	90	75-125	
Copper	ug/L	ND	500	459	92	75-125	
Lead	ug/L	ND	500	445	89	75-125	
Nickel	ug/L	ND	500	454	91	75-125	
Selenium	ug/L	ND	500	449	90	75-125	
Silver	ug/L	ND	250	232	93	75-125	
Thallium	ug/L	ND	500	424	84	75-125	
Tin	ug/L	ND	500	462	92	75-125	
Vanadium	ug/L	ND	500	467	93	75-125	
Zinc	ug/L	46.2	500	498	90	75-125	

SAMPLE DUPLICATE: 803390

Parameter	Units	92124946006 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	ND	ND		25	
Barium	ug/L	68.1J	65.7J	4	25	
Beryllium	ug/L	ND	ND		25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	6.2J	5.5J	12	25	
Cobalt	ug/L	ND	ND		25	
Copper	ug/L	ND	ND		25	
Lead	ug/L	ND	ND		25	
Nickel	ug/L	ND	ND		25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	ND		25	
Thallium	ug/L	ND	ND		25	
Tin	ug/L	ND	ND		25	
Vanadium	ug/L	6.6J	5.6J	17	25	
Zinc	ug/L	11.7	10.7	9	25	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

QC Batch: MSV/19828 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92124954003, 92124954004, 92124954005, 92124954006, 92124954007, 92124954008, 92124954009, 92124954010, 92124954011

METHOD BLANK: 799456 Matrix: Water
Associated Lab Samples: 92124954003, 92124954004, 92124954005, 92124954006, 92124954007, 92124954008, 92124954009, 92124954010, 92124954011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	07/23/12 12:04	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/23/12 12:04	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	07/23/12 12:04	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/23/12 12:04	
1,1-Dichloroethane	ug/L	ND	5.0	07/23/12 12:04	
1,1-Dichloroethene	ug/L	ND	5.0	07/23/12 12:04	
1,1-Dichloropropene	ug/L	ND	5.0	07/23/12 12:04	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/23/12 12:04	
1,2,4-Trichlorobenzene	ug/L	ND	10.0	07/23/12 12:04	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	07/23/12 12:04	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/23/12 12:04	
1,2-Dichlorobenzene	ug/L	ND	5.0	07/23/12 12:04	
1,2-Dichloroethane	ug/L	ND	1.0	07/23/12 12:04	
1,2-Dichloropropane	ug/L	ND	1.0	07/23/12 12:04	
1,3-Dichlorobenzene	ug/L	ND	5.0	07/23/12 12:04	
1,3-Dichloropropane	ug/L	ND	1.0	07/23/12 12:04	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/23/12 12:04	
2,2-Dichloropropane	ug/L	ND	15.0	07/23/12 12:04	
2-Butanone (MEK)	ug/L	ND	100	07/23/12 12:04	
2-Hexanone	ug/L	ND	50.0	07/23/12 12:04	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	07/23/12 12:04	
Acetone	ug/L	ND	100	07/23/12 12:04	
Acetonitrile	ug/L	ND	55.0	07/23/12 12:04	
Acrolein	ug/L	ND	53.0	07/23/12 12:04	
Acrylonitrile	ug/L	ND	200	07/23/12 12:04	
Allyl chloride	ug/L	ND	10.0	07/23/12 12:04	
Benzene	ug/L	ND	1.0	07/23/12 12:04	
Bromochloromethane	ug/L	ND	3.0	07/23/12 12:04	
Bromodichloromethane	ug/L	ND	1.0	07/23/12 12:04	
Bromoform	ug/L	ND	3.0	07/23/12 12:04	
Bromomethane	ug/L	ND	10.0	07/23/12 12:04	
Carbon disulfide	ug/L	ND	100	07/23/12 12:04	
Carbon tetrachloride	ug/L	ND	1.0	07/23/12 12:04	
Chlorobenzene	ug/L	ND	3.0	07/23/12 12:04	
Chloroethane	ug/L	ND	10.0	07/23/12 12:04	
Chloroform	ug/L	ND	5.0	07/23/12 12:04	
Chloromethane	ug/L	ND	1.0	07/23/12 12:04	
Chloroprene	ug/L	ND	20.0	07/23/12 12:04	
cis-1,2-Dichloroethene	ug/L	ND	5.0	07/23/12 12:04	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/23/12 12:04	
Dibromochloromethane	ug/L	ND	3.0	07/23/12 12:04	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

METHOD BLANK: 799456 Matrix: Water

Associated Lab Samples: 92124954003, 92124954004, 92124954005, 92124954006, 92124954007, 92124954008, 92124954009, 92124954010, 92124954011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	ND	10.0	07/23/12 12:04	
Dichlorodifluoromethane	ug/L	ND	5.0	07/23/12 12:04	
Ethyl methacrylate	ug/L	ND	10.0	07/23/12 12:04	
Ethylbenzene	ug/L	ND	1.0	07/23/12 12:04	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	07/23/12 12:04	
Iodomethane	ug/L	ND	10.0	07/23/12 12:04	
Isobutanol	ug/L	ND	100	07/23/12 12:04	
Methacrylonitrile	ug/L	ND	100	07/23/12 12:04	
Methyl methacrylate	ug/L	ND	30.0	07/23/12 12:04	
Methylene Chloride	ug/L	ND	1.0	07/23/12 12:04	
Naphthalene	ug/L	ND	10.0	07/23/12 12:04	
Propionitrile	ug/L	ND	150	07/23/12 12:04	
Styrene	ug/L	ND	1.0	07/23/12 12:04	
Tetrachloroethene	ug/L	ND	1.0	07/23/12 12:04	
Tetrahydrofuran	ug/L	ND	10.0	07/23/12 12:04	
Toluene	ug/L	ND	1.0	07/23/12 12:04	
trans-1,2-Dichloroethene	ug/L	ND	5.0	07/23/12 12:04	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/23/12 12:04	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	07/23/12 12:04	
Trichloroethene	ug/L	ND	1.0	07/23/12 12:04	
Trichlorofluoromethane	ug/L	ND	1.0	07/23/12 12:04	
Vinyl acetate	ug/L	ND	50.0	07/23/12 12:04	
Vinyl chloride	ug/L	ND	1.0	07/23/12 12:04	
Xylene (Total)	ug/L	ND	5.0	07/23/12 12:04	
1,2-Dichloroethane-d4 (S)	%	113	70-130	07/23/12 12:04	
4-Bromofluorobenzene (S)	%	90	70-130	07/23/12 12:04	
Dibromofluoromethane (S)	%	112	70-130	07/23/12 12:04	
Toluene-d8 (S)	%	100	70-130	07/23/12 12:04	

LABORATORY CONTROL SAMPLE: 799457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.9	94	70-130	
1,1,1-Trichloroethane	ug/L	50	51.2	102	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	49.0	98	70-130	
1,1,2-Trichloroethane	ug/L	50	52.0	104	70-130	
1,1-Dichloroethane	ug/L	50	54.0	108	70-130	
1,1-Dichloroethene	ug/L	50	55.5	111	70-132	
1,1-Dichloropropene	ug/L	50	55.5	111	70-130	
1,2,3-Trichloropropane	ug/L	50	49.6	99	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.8	106	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	58.7	117	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.9	98	70-130	
1,2-Dichlorobenzene	ug/L	50	49.9	100	70-130	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

LABORATORY CONTROL SAMPLE: 799457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.0	100	70-130	
1,2-Dichloropropane	ug/L	50	50.8	102	70-130	
1,3-Dichlorobenzene	ug/L	50	48.8	98	70-130	
1,3-Dichloropropane	ug/L	50	50.4	101	70-130	
1,4-Dichlorobenzene	ug/L	50	48.7	97	70-130	
2,2-Dichloropropane	ug/L	50	53.9	108	58-145	
2-Butanone (MEK)	ug/L	100	138	138	70-145	
2-Hexanone	ug/L	100	121	121	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	121	121	70-140	
Acetone	ug/L	100	132	132	50-175	
Acetonitrile	ug/L	500	617	123	70-130	
Acrolein	ug/L	250	288	115	70-130	
Acrylonitrile	ug/L	250	299	119	70-143	
Allyl chloride	ug/L	50	55.4	111	70-130	
Benzene	ug/L	50	50.2	100	70-130	
Bromochloromethane	ug/L	50	50.2	100	70-130	
Bromodichloromethane	ug/L	50	49.2	98	70-130	
Bromoform	ug/L	50	50.5	101	70-130	
Bromomethane	ug/L	50	47.8	96	54-130	
Carbon disulfide	ug/L	50	53.2J	106	70-131	
Carbon tetrachloride	ug/L	50	47.4	95	70-132	
Chlorobenzene	ug/L	50	48.0	96	70-130	
Chloroethane	ug/L	50	57.9	116	64-134	
Chloroform	ug/L	50	51.8	104	70-130	
Chloromethane	ug/L	50	68.3	137	64-130	F3,L3
Chloroprene	ug/L	50	65.2	130	70-130	
cis-1,2-Dichloroethene	ug/L	50	55.6	111	70-131	
cis-1,3-Dichloropropene	ug/L	50	54.2	108	70-130	
Dibromochloromethane	ug/L	50	48.7	97	70-130	
Dibromomethane	ug/L	50	45.6	91	70-131	
Dichlorodifluoromethane	ug/L	50	69.1	138	56-130	F3,L3
Ethyl methacrylate	ug/L	50	59.1	118	70-130	
Ethylbenzene	ug/L	50	49.2	98	70-130	
Hexachloro-1,3-butadiene	ug/L	50	51.0	102	70-130	
Iodomethane	ug/L	100	109	109	49-180	
Isobutanol	ug/L	1000	1440	144	70-130	L3
Methacrylonitrile	ug/L	500	603	121	70-130	
Methyl methacrylate	ug/L	50	61.8	124	70-130	
Methylene Chloride	ug/L	50	60.0	120	63-130	
Naphthalene	ug/L	50	58.2	116	70-138	
Propionitrile	ug/L	500	617	123	70-130	
Styrene	ug/L	50	50.6	101	70-130	
Tetrachloroethene	ug/L	50	48.2	96	70-130	
Tetrahydrofuran	ug/L	500	653	131	70-130	L0
Toluene	ug/L	50	48.7	97	70-130	
trans-1,2-Dichloroethene	ug/L	50	54.1	108	70-130	
trans-1,3-Dichloropropene	ug/L	50	56.4	113	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	67.2J	134	70-141	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

LABORATORY CONTROL SAMPLE: 799457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	50	46.8	94	70-130	
Trichlorofluoromethane	ug/L	50	53.4	107	62-133	
Vinyl acetate	ug/L	100	139	139	66-157	
Vinyl chloride	ug/L	50	53.6	107	69-130	
Xylene (Total)	ug/L	150	149	100	70-130	
1,2-Dichloroethane-d4 (S)	%			106	70-130	
4-Bromofluorobenzene (S)	%			94	70-130	
Dibromofluoromethane (S)	%			107	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 799458 799459

Parameter	Units	92124954003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	45.7	61.2	91	122	70-166	29	30	
Benzene	ug/L	1.3	50	50	39.6	54.0	77	105	70-148	31	30	R1
Chlorobenzene	ug/L	ND	50	50	46.1	62.1	92	124	70-146	30	30	
Toluene	ug/L	ND	50	50	45.2	60.9	90	122	70-155	30	30	
Trichloroethene	ug/L	ND	50	50	44.9	60.0	89	119	69-151	29	30	
1,2-Dichloroethane-d4 (S)	%						102	106	70-130			
4-Bromofluorobenzene (S)	%						90	89	70-130			
Dibromofluoromethane (S)	%						99	99	70-130			
Toluene-d8 (S)	%						98	97	70-130			

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

QC Batch: MSV/19905 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92124954012, 92124954013, 92124954014

METHOD BLANK: 804152 Matrix: Water
Associated Lab Samples: 92124954012, 92124954013, 92124954014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	07/28/12 14:55	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	07/28/12 14:55	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,1-Dichloroethane	ug/L	ND	5.0	07/28/12 14:55	
1,1-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
1,1-Dichloropropene	ug/L	ND	5.0	07/28/12 14:55	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,2,4-Trichlorobenzene	ug/L	ND	10.0	07/28/12 14:55	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	07/28/12 14:55	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/28/12 14:55	
1,2-Dichlorobenzene	ug/L	ND	5.0	07/28/12 14:55	
1,2-Dichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,2-Dichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,3-Dichlorobenzene	ug/L	ND	5.0	07/28/12 14:55	
1,3-Dichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/28/12 14:55	
2,2-Dichloropropane	ug/L	ND	15.0	07/28/12 14:55	
2-Butanone (MEK)	ug/L	ND	100	07/28/12 14:55	
2-Hexanone	ug/L	ND	50.0	07/28/12 14:55	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	07/28/12 14:55	
Acetone	ug/L	ND	100	07/28/12 14:55	
Acetonitrile	ug/L	ND	55.0	07/28/12 14:55	
Acrolein	ug/L	ND	53.0	07/28/12 14:55	
Acrylonitrile	ug/L	ND	200	07/28/12 14:55	
Allyl chloride	ug/L	ND	10.0	07/28/12 14:55	
Benzene	ug/L	ND	1.0	07/28/12 14:55	
Bromochloromethane	ug/L	ND	3.0	07/28/12 14:55	
Bromodichloromethane	ug/L	ND	1.0	07/28/12 14:55	
Bromoform	ug/L	ND	3.0	07/28/12 14:55	
Bromomethane	ug/L	ND	10.0	07/28/12 14:55	
Carbon disulfide	ug/L	ND	100	07/28/12 14:55	
Carbon tetrachloride	ug/L	ND	1.0	07/28/12 14:55	
Chlorobenzene	ug/L	ND	3.0	07/28/12 14:55	
Chloroethane	ug/L	ND	10.0	07/28/12 14:55	
Chloroform	ug/L	ND	5.0	07/28/12 14:55	
Chloromethane	ug/L	ND	1.0	07/28/12 14:55	
Chloroprene	ug/L	ND	20.0	07/28/12 14:55	
cis-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 14:55	
Dibromochloromethane	ug/L	ND	3.0	07/28/12 14:55	
Dibromomethane	ug/L	ND	10.0	07/28/12 14:55	
Dichlorodifluoromethane	ug/L	ND	5.0	07/28/12 14:55	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

METHOD BLANK: 804152 Matrix: Water

Associated Lab Samples: 92124954012, 92124954013, 92124954014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethyl methacrylate	ug/L	ND	10.0	07/28/12 14:55	
Ethylbenzene	ug/L	ND	1.0	07/28/12 14:55	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	07/28/12 14:55	
Iodomethane	ug/L	ND	10.0	07/28/12 14:55	
Isobutanol	ug/L	ND	100	07/28/12 14:55	
Methacrylonitrile	ug/L	ND	100	07/28/12 14:55	
Methyl methacrylate	ug/L	ND	30.0	07/28/12 14:55	
Methylene Chloride	ug/L	ND	1.0	07/28/12 14:55	
Naphthalene	ug/L	ND	10.0	07/28/12 14:55	
Propionitrile	ug/L	ND	150	07/28/12 14:55	
Styrene	ug/L	ND	1.0	07/28/12 14:55	
Tetrachloroethene	ug/L	ND	1.0	07/28/12 14:55	
Tetrahydrofuran	ug/L	ND	10.0	07/28/12 14:55	
Toluene	ug/L	ND	1.0	07/28/12 14:55	
trans-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 14:55	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	07/28/12 14:55	
Trichloroethene	ug/L	ND	1.0	07/28/12 14:55	
Trichlorofluoromethane	ug/L	ND	1.0	07/28/12 14:55	
Vinyl acetate	ug/L	ND	50.0	07/28/12 14:55	
Vinyl chloride	ug/L	ND	1.0	07/28/12 14:55	
Xylene (Total)	ug/L	ND	5.0	07/28/12 14:55	
1,2-Dichloroethane-d4 (S)	%	112	70-130	07/28/12 14:55	
4-Bromofluorobenzene (S)	%	87	70-130	07/28/12 14:55	
Dibromofluoromethane (S)	%	104	70-130	07/28/12 14:55	
Toluene-d8 (S)	%	101	70-130	07/28/12 14:55	

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.8	108	70-130	
1,1,1-Trichloroethane	ug/L	50	54.2	108	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.0	100	70-130	
1,1,2-Trichloroethane	ug/L	50	54.1	108	70-130	
1,1-Dichloroethane	ug/L	50	52.2	104	70-130	
1,1-Dichloroethene	ug/L	50	50.5	101	70-132	
1,1-Dichloropropene	ug/L	50	54.7	109	70-130	
1,2,3-Trichloropropane	ug/L	50	50.7	101	70-130	
1,2,4-Trichlorobenzene	ug/L	50	55.1	110	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	47.4	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.9	106	70-130	
1,2-Dichlorobenzene	ug/L	50	52.0	104	70-130	
1,2-Dichloroethane	ug/L	50	49.1	98	70-130	
1,2-Dichloropropane	ug/L	50	53.0	106	70-130	
1,3-Dichlorobenzene	ug/L	50	52.6	105	70-130	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	51.5	103	70-130	
1,4-Dichlorobenzene	ug/L	50	51.5	103	70-130	
2,2-Dichloropropane	ug/L	50	56.2	112	58-145	
2-Butanone (MEK)	ug/L	100	103	103	70-145	
2-Hexanone	ug/L	100	98.8	99	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-140	
Acetone	ug/L	100	99.3J	99	50-175	
Acetonitrile	ug/L	500	528	106	70-130	
Acrolein	ug/L	250	261	104	70-130	
Acrylonitrile	ug/L	250	254	102	70-143	
Allyl chloride	ug/L	50	53.4	107	70-130	
Benzene	ug/L	50	53.5	107	70-130	
Bromochloromethane	ug/L	50	51.9	104	70-130	
Bromodichloromethane	ug/L	50	52.3	105	70-130	
Bromoform	ug/L	50	42.7	85	70-130	
Bromomethane	ug/L	50	52.8	106	54-130	
Carbon disulfide	ug/L	50	52.0J	104	70-131	
Carbon tetrachloride	ug/L	50	50.9	102	70-132	
Chlorobenzene	ug/L	50	52.7	105	70-130	
Chloroethane	ug/L	50	50.1	100	64-134	
Chloroform	ug/L	50	52.5	105	70-130	
Chloromethane	ug/L	50	59.2	118	64-130	
Chloroprene	ug/L	50	64.2	128	70-130	
cis-1,2-Dichloroethene	ug/L	50	55.7	111	70-131	
cis-1,3-Dichloropropene	ug/L	50	55.4	111	70-130	
Dibromochloromethane	ug/L	50	53.1	106	70-130	
Dibromomethane	ug/L	50	49.6	99	70-131	
Dichlorodifluoromethane	ug/L	50	62.0	124	56-130	
Ethyl methacrylate	ug/L	50	55.2	110	70-130	
Ethylbenzene	ug/L	50	54.2	108	70-130	
Hexachloro-1,3-butadiene	ug/L	50	54.5	109	70-130	
Iodomethane	ug/L	100	105	105	49-180	
Isobutanol	ug/L	1000	1200	120	70-130	
Methacrylonitrile	ug/L	500	526	105	70-130	
Methyl methacrylate	ug/L	50	50.9	102	70-130	
Methylene Chloride	ug/L	50	53.4	107	63-130	
Naphthalene	ug/L	50	49.2	98	70-138	
Propionitrile	ug/L	500	526	105	70-130	
Styrene	ug/L	50	52.0	104	70-130	
Tetrachloroethene	ug/L	50	52.7	105	70-130	
Tetrahydrofuran	ug/L	500	545	109	70-130	
Toluene	ug/L	50	53.0	106	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.9	102	70-130	
trans-1,3-Dichloropropene	ug/L	50	55.2	110	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	51.8J	104	70-141	
Trichloroethene	ug/L	50	52.3	105	70-130	
Trichlorofluoromethane	ug/L	50	51.1	102	62-133	
Vinyl acetate	ug/L	100	111	111	66-157	

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QUALITY CONTROL DATA

Project: IREDELL CDLF
Pace Project No.: 92124954

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl chloride	ug/L	50	53.2	106	69-130	
Xylene (Total)	ug/L	150	170	113	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 804154 804155

Parameter	Units	92124954012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	54.9	54.9	110	110	70-166	0	30	
Benzene	ug/L	1.4	50	50	49.9	49.6	97	96	70-148	1	30	
Chlorobenzene	ug/L	ND	50	50	57.7	57.0	115	114	70-146	1	30	
Toluene	ug/L	ND	50	50	56.7	56.5	113	113	70-155	0	30	
Trichloroethene	ug/L	ND	50	50	55.2	54.8	110	110	69-151	1	30	
1,2-Dichloroethane-d4 (S)	%						102	103	70-130			
4-Bromofluorobenzene (S)	%						87	88	70-130			
Dibromofluoromethane (S)	%						99	99	70-130			
Toluene-d8 (S)	%						97	97	70-130			

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QUALIFIERS

Project: IREDELL CDLF
Pace Project No.: 92124954

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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TNI - The NELAC Institute.

LABORATORIES

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

ANALYTE QUALIFIERS

F3	The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: IREDELL CDLF
Pace Project No.: 92124954

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92124954003	**MW-10R**	EPA 3010	MPRP/11082	EPA 6010	ICP/10177
92124954004	**MW-22**	EPA 3010	MPRP/11117	EPA 6010	ICP/10218
92124954005	**MW-23**	EPA 3010	MPRP/11117	EPA 6010	ICP/10218
92124954006	**MW-24S**	EPA 3010	MPRP/11117	EPA 6010	ICP/10218
92124954007	**MW-24D**	EPA 3010	MPRP/11117	EPA 6010	ICP/10218
92124954008	**MW-25**	EPA 3010	MPRP/11117	EPA 6010	ICP/10218
92124954009	**MW-26S**	EPA 3010	MPRP/11117	EPA 6010	ICP/10218
92124954010	**MW-26D**	EPA 3010	MPRP/11117	EPA 6010	ICP/10218
92124954011	**SW-6**	EPA 3010	MPRP/11117	EPA 6010	ICP/10218
92124954012	**MW-9R**	EPA 3010	MPRP/11132	EPA 6010	ICP/10229
92124954013	**MW-9RR**	EPA 3010	MPRP/11132	EPA 6010	ICP/10229
92124954014	**MW-16**	EPA 3010	MPRP/11132	EPA 6010	ICP/10229
92124954003	**MW-10R**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954004	**MW-22**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954005	**MW-23**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954006	**MW-24S**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954007	**MW-24D**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954008	**MW-25**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954009	**MW-26S**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954010	**MW-26D**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954011	**SW-6**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954012	**MW-9R**	EPA 7470	MERP/4404	EPA 7470	MERC/4323
92124954013	**MW-9RR**	EPA 7470	MERP/4405	EPA 7470	MERC/4324
92124954014	**MW-16**	EPA 7470	MERP/4405	EPA 7470	MERC/4324
92124954003	**MW-10R**	EPA 8260	MSV/19828		
92124954004	**MW-22**	EPA 8260	MSV/19828		
92124954005	**MW-23**	EPA 8260	MSV/19828		
92124954006	**MW-24S**	EPA 8260	MSV/19828		
92124954007	**MW-24D**	EPA 8260	MSV/19828		
92124954008	**MW-25**	EPA 8260	MSV/19828		
92124954009	**MW-26S**	EPA 8260	MSV/19828		
92124954010	**MW-26D**	EPA 8260	MSV/19828		
92124954011	**SW-6**	EPA 8260	MSV/19828		
92124954012	**MW-9R**	EPA 8260	MSV/19905		
92124954013	**MW-9RR**	EPA 8260	MSV/19905		
92124954014	**MW-16**	EPA 8260	MSV/19905		

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Partial submittal
MW-16 to be submitted later

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Municipal Engineering Services	Report To:	Jonathan Pfohl	Attention:	Municipal Engineering Services
Address:	P.O. Box 97	Copy To:		Company Name:	
Garner, NC 27529				Address:	
Email To:	jpfohl@mesco.com	Purchase Order No.		Pace Quote Reference:	
Phone:	919-772-5393 Fax:	Client Project ID:	Iredell CDLF	Pace Project Manager:	Kevin Godwin
Requested Due Date/TAT:	10 Day (Default)	Container Order Number:		Pace Profile #:	

Regulatory Agency	
State / Location	
	North Carolina

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOCs- App 2	Metals-App 2		TETRAHYDROFURAN									92124954
																			N	N	N	N	N	N	N	N	N	N	N	N	
1	MW-9R	WT	G			7/18/12	10:05		4			1	3						x	x		x									
2	MW-9RR	WT	G			7/18/12	10:50		4			1	3						x	x		x									
3	MW-10R ✓	WT	G			7/17/12	4:50		4			1	3						x	x		x									003
4	MW-16	WT	G						4			1	3						x	x		x									
5	MW-22 ✓	WT	G			7/17/12	3:50		4			1	3						x	x		x									004
6	MW-23 ✓	WT	G			7/17/12	3:00		4			1	3						x	x		x									005
7	MW-24S ✓	WT	G			7/17/12	2:25		4			1	3						x	x		x									006
8	MW-24D ✓	WT	G			7/17/12	1:40		4			1	3						x	x		x									007
9	MW-25 ✓	WT	G			7/17/12	1:00		4			1	3						x	x		x									008
10	MW-26S ✓	WT	G			7/18/12	8:40		4			1	3						x	x		x									009
11	MW-26D ✓	WT	G			7/18/12	9:10		4			1	3						x	x		x									010
12	SW-6 ✓	WT	G			7/18/12	9:30		4			1	3						x	x		x									011

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

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] Pace	7/19/12	7:30	[signature] Pace	7/19/12	7:30				
	[signature] Pace	7/19/12	1630	[signature] Pace	7/19/12	1630	6.0	Y	N	Y
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jonathan Pfohl

SIGNATURE of SAMPLER: [signature] DATE Signed: 7/19/12

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 7, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.07**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Project # 92124954

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Quote #
Proj. Due Date:
Proj. Name:

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

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

Thermometer Used: IR Gun ~~T1101~~ T1102 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1101**: No Correction **T1102**: No Correction

Corrected Cooler Temp.: 6.0 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: 07/19/12

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☑No ☐N/A	8. Missing 9R/9RR/16/24S
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:_____	☐Yes ☑No ☐N/A	12. Missing date + time
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):_____		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: MW-9R + MW-9RR received on 7/20/12. KB.

SCURF Review: [illegible] **Date:** 7/19/12 **SRF Review:** BKM **Date:** 7/24/12

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

Final submittal
Combine w/ other
samples previously submitted.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Municipal Engineering Services	Report To:	Jonathan Pfohl	Attention:	Municipal Engineering Services
Address:	P.O. Box 97	Copy To:		Company Name:	
Garner, NC 27529				Address:	
Email To:	jpfohl@mesco.com	Purchase Order No.		Pace Quote Reference:	
Phone:	919-772-5393 Fax:	Client Project ID:	Iredell CDLF	Pace Project Manager:	Kevin Godwin
Requested Due Date/TAT:	10 Day (Default)	Container Order Number:		Pace Profile #:	

Regulatory Agency	
State / Location	
North Carolina	

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOCs- App 2	Metals-App 2		TETRAHYDROFURAN									
																			N	N	N	N	N	N	N	N	N	N	N	N	
1	~~MW-9R~~	WT	G						4			1	3						x	x		x									012
2	~~MW-9RR~~	WT	G						4			1	3						x	x		x									013
3	~~MW-10R~~	WT	G						4			1	3						x	x		x									
4	MW-16	WT	G			7/19/12	10:00		4			1	3						x	x		x									014
5	~~MW-22~~	WT	G						4			1	3						x	x		x									
6	~~MW-23~~	WT	G						4			1	3						x	x		x									
7	~~MW-24S~~	WT	G						4			1	3						x	x		x									
8	~~MW-24D~~	WT	G						4			1	3						x	x		x									
9	~~MW-25~~	WT	G						4			1	3						x	x		x									
10	~~MW-26S~~	WT	G						4			1	3						x	x		x									
11	~~MW-26D~~	WT	G						4			1	3						x	x		x									
12	~~SW-6~~	WT	G						4			1	3						x	x		x									

Preservatives

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
— = Previously submitted	MESCO	7/20/12	7:30	Pace	7/20/12	7:30				
	Pace	7/20/12	12:15		7/20/12	12:15	9.0	Y	N	Y/S

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Jonathan Pfohl		
SIGNATURE of SAMPLER:		DATE Signed:	7/20/12

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 7, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.07**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Project # 92124954

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Optional
Proj. Due Date:
Proj. Name:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1101 T1102 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1101: No Correction T1102: No Correction

Corrected Cooler Temp.: 9.6 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: 7/20/1

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5. no date/time for MWSR+
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6. MWSR
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☐Yes ☑No ☐N/A	12. Rush H1 + H2 on one marked out.
-Includes date/time/ID/Analysis Matrix:_____		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):_____		

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

Person Contacted:_____ Date/Time:_____

Comments/ Resolution:_____

SCURF Review: JG **Date:** 7/20/12 **SRF Review:** BKM **Date:** 7/24/12

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

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

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

August 03, 2012

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Charlotte Certification IDs

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

Asheville Certification IDs

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

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Huntersville, NC 28078
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SAMPLE SUMMARY

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92125095001	**MW-1A**	Water	07/19/12 08:30	07/20/12 12:15
92125095002	**MW-1C**	Water	07/19/12 09:05	07/20/12 12:15

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92125095001	**MW-1A**	EPA 6010	JMW	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C
92125095002	**MW-1C**	EPA 6010	JMW	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	69	PASI-C

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ANALYTICAL RESULTS

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Sample: MW-1A **Lab ID: 92125095001** Collected: 07/19/12 08:30 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-38-2	
Barium	**126**	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 22:01	7440-41-7	
Cadmium	**3.9**	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 22:01	7440-43-9	
Chromium	**9.9J**	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-47-3	
Cobalt	**10.2**	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-48-4	
Copper	**12.9**	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7439-92-1	
Nickel	**5.2J**	ug/L	50.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 22:01	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/27/12 11:30	07/30/12 22:01	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-31-5	
Vanadium	**27.7**	ug/L	25.0	5.0	1	07/27/12 11:30	07/30/12 22:01	7440-62-2	
Zinc	**30.1**	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 22:01	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 14:40	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**6.1J**	ug/L	100	2.2	1		07/28/12 22:27	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/28/12 22:27	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/28/12 22:27	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 22:27	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/28/12 22:27	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/28/12 22:27	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 22:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 22:27	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 22:27	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 22:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 22:27	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 22:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 22:27	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 22:27	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 22:27	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 22:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 22:27	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/28/12 22:27	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 22:27	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 22:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 22:27	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 22:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 22:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/28/12 22:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 22:27	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Sample: MW-1A **Lab ID: 92125095001** Collected: 07/19/12 08:30 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 22:27	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/28/12 22:27	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 22:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 22:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 22:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/28/12 22:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 22:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 22:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 22:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/28/12 22:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/28/12 22:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 22:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 22:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 22:27	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/28/12 22:27	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/28/12 22:27	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 22:27	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 22:27	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/28/12 22:27	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/28/12 22:27	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/28/12 22:27	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/28/12 22:27	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 22:27	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/28/12 22:27	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/28/12 22:27	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 22:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 22:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 22:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 22:27	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/28/12 22:27	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 22:27	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/28/12 22:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 22:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 22:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 22:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 22:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 22:27	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 22:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 22:27	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 22:27	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	87	%	70-130		1		07/28/12 22:27	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		07/28/12 22:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		07/28/12 22:27	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		07/28/12 22:27	2037-26-5	

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ANALYTICAL RESULTS

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Sample: MW-1C **Lab ID: 92125095002** Collected: 07/19/12 09:05 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-36-0	M1
Arsenic	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 19:20	7440-38-2	
Barium	**511**	ug/L	100	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-39-3	
Beryllium	**3.6**	ug/L	1.0	1.0	1	07/28/12 10:40	07/31/12 23:03	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/28/12 10:40	07/31/12 23:03	7440-43-9	
Chromium	**15.0**	ug/L	10.0	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-47-3	
Cobalt	**21.4**	ug/L	10.0	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-48-4	
Copper	**64.5**	ug/L	10.0	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-50-8	
Lead	**6.7J**	ug/L	10.0	5.0	1	07/28/12 10:40	07/31/12 23:03	7439-92-1	
Nickel	**14.6J**	ug/L	50.0	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/28/12 10:40	07/31/12 23:03	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/28/12 10:40	07/31/12 23:03	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-31-5	
Vanadium	**124**	ug/L	25.0	5.0	1	07/28/12 10:40	07/31/12 23:03	7440-62-2	
Zinc	**164**	ug/L	10.0	10.0	1	07/28/12 10:40	07/31/12 23:03	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 14:43	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**2.6J**	ug/L	100	2.2	1		07/28/12 22:46	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/28/12 22:46	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/28/12 22:46	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 22:46	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/28/12 22:46	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/28/12 22:46	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 22:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 22:46	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 22:46	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 22:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 22:46	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 22:46	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 22:46	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 22:46	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 22:46	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 22:46	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 22:46	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/28/12 22:46	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 22:46	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 22:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 22:46	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 22:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 22:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/28/12 22:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 22:46	106-46-7	

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ANALYTICAL RESULTS

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Sample: MW-1C **Lab ID: 92125095002** Collected: 07/19/12 09:05 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 22:46	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/28/12 22:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 22:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 22:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 22:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/28/12 22:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 22:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 22:46	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 22:46	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/28/12 22:46	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/28/12 22:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 22:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 22:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 22:46	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/28/12 22:46	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/28/12 22:46	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 22:46	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 22:46	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/28/12 22:46	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/28/12 22:46	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/28/12 22:46	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/28/12 22:46	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 22:46	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/28/12 22:46	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/28/12 22:46	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 22:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 22:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 22:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 22:46	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/28/12 22:46	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 22:46	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/28/12 22:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 22:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 22:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 22:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 22:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 22:46	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 22:46	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 22:46	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 22:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	87	%	70-130		1		07/28/12 22:46	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		07/28/12 22:46	1868-53-7	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		07/28/12 22:46	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/28/12 22:46	2037-26-5	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

QC Batch: MERP/4405 — Analysis Method: EPA 7470
QC Batch Method: EPA 7470 — Analysis Description: 7470 Mercury
Associated Lab Samples: 92125095001, 92125095002

METHOD BLANK: 805878 — Matrix: Water
Associated Lab Samples: 92125095001, 92125095002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	08/02/12 14:10	

LABORATORY CONTROL SAMPLE: 805879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 805880 805881

Parameter	Units	92124954013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	2.4	96	94	75-125	2	25	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

QC Batch: MPRP/11132
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92125095001

METHOD BLANK: 803387
Matrix: Water
Associated Lab Samples: 92125095001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/30/12 20:15	
Arsenic	ug/L	ND	10.0	07/30/12 20:15	
Barium	ug/L	ND	100	07/30/12 20:15	
Beryllium	ug/L	ND	1.0	07/30/12 20:15	
Cadmium	ug/L	ND	1.0	07/30/12 20:15	
Chromium	ug/L	ND	10.0	07/30/12 20:15	
Cobalt	ug/L	ND	10.0	07/30/12 20:15	
Copper	ug/L	ND	10.0	07/30/12 20:15	
Lead	ug/L	ND	10.0	07/30/12 20:15	
Nickel	ug/L	ND	50.0	07/30/12 20:15	
Selenium	ug/L	ND	10.0	07/30/12 20:15	
Silver	ug/L	ND	10.0	07/30/12 20:15	
Thallium	ug/L	ND	5.5	07/30/12 20:15	
Tin	ug/L	ND	100	07/30/12 20:15	
Vanadium	ug/L	ND	25.0	07/30/12 20:15	
Zinc	ug/L	ND	10.0	07/30/12 20:15	

LABORATORY CONTROL SAMPLE: 803388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	465	93	80-120	
Arsenic	ug/L	500	466	93	80-120	
Barium	ug/L	500	469	94	80-120	
Beryllium	ug/L	500	477	95	80-120	
Cadmium	ug/L	500	478	96	80-120	
Chromium	ug/L	500	482	96	80-120	
Cobalt	ug/L	500	471	94	80-120	
Copper	ug/L	500	469	94	80-120	
Lead	ug/L	500	472	94	80-120	
Nickel	ug/L	500	471	94	80-120	
Selenium	ug/L	500	464	93	80-120	
Silver	ug/L	250	240	96	80-120	
Thallium	ug/L	500	442	88	80-120	
Tin	ug/L	500	479	96	80-120	
Vanadium	ug/L	500	480	96	80-120	
Zinc	ug/L	500	469	94	80-120	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

MATRIX SPIKE SAMPLE: 803389

Parameter	Units	92124946005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	455	91	75-125	
Arsenic	ug/L	ND	500	457	91	75-125	
Barium	ug/L	29.3J	500	479	90	75-125	
Beryllium	ug/L	ND	500	464	93	75-125	
Cadmium	ug/L	ND	500	455	91	75-125	
Chromium	ug/L	ND	500	463	93	75-125	
Cobalt	ug/L	ND	500	451	90	75-125	
Copper	ug/L	ND	500	459	92	75-125	
Lead	ug/L	ND	500	445	89	75-125	
Nickel	ug/L	ND	500	454	91	75-125	
Selenium	ug/L	ND	500	449	90	75-125	
Silver	ug/L	ND	250	232	93	75-125	
Thallium	ug/L	ND	500	424	84	75-125	
Tin	ug/L	ND	500	462	92	75-125	
Vanadium	ug/L	ND	500	467	93	75-125	
Zinc	ug/L	46.2	500	498	90	75-125	

SAMPLE DUPLICATE: 803390

Parameter	Units	92124946006 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	ND	ND		25	
Barium	ug/L	68.1J	65.7J	4	25	
Beryllium	ug/L	ND	ND		25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	6.2J	5.5J	12	25	
Cobalt	ug/L	ND	ND		25	
Copper	ug/L	ND	ND		25	
Lead	ug/L	ND	ND		25	
Nickel	ug/L	ND	ND		25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	ND		25	
Thallium	ug/L	ND	ND		25	
Tin	ug/L	ND	ND		25	
Vanadium	ug/L	6.6J	5.6J	17	25	
Zinc	ug/L	11.7	10.7	9	25	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

QC Batch: MPRP/11148
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92125095002

METHOD BLANK: 804088
Matrix: Water
Associated Lab Samples: 92125095002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/31/12 22:56	
Arsenic	ug/L	ND	10.0	08/01/12 19:13	
Barium	ug/L	ND	100	07/31/12 22:56	
Beryllium	ug/L	ND	1.0	07/31/12 22:56	
Cadmium	ug/L	ND	1.0	07/31/12 22:56	
Chromium	ug/L	ND	10.0	07/31/12 22:56	
Cobalt	ug/L	ND	10.0	07/31/12 22:56	
Copper	ug/L	ND	10.0	07/31/12 22:56	
Lead	ug/L	ND	10.0	07/31/12 22:56	
Nickel	ug/L	ND	50.0	07/31/12 22:56	
Selenium	ug/L	ND	10.0	07/31/12 22:56	
Silver	ug/L	ND	10.0	07/31/12 22:56	
Thallium	ug/L	ND	5.5	07/31/12 22:56	
Tin	ug/L	ND	100	07/31/12 22:56	
Vanadium	ug/L	ND	25.0	07/31/12 22:56	
Zinc	ug/L	ND	10.0	07/31/12 22:56	

LABORATORY CONTROL SAMPLE: 804089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	495	99	80-120	
Arsenic	ug/L	500	484	97	80-120	
Barium	ug/L	500	488	98	80-120	
Beryllium	ug/L	500	496	99	80-120	
Cadmium	ug/L	500	491	98	80-120	
Chromium	ug/L	500	491	98	80-120	
Cobalt	ug/L	500	491	98	80-120	
Copper	ug/L	500	498	100	80-120	
Lead	ug/L	500	497	99	80-120	
Nickel	ug/L	500	490	98	80-120	
Selenium	ug/L	500	496	99	80-120	
Silver	ug/L	250	246	98	80-120	
Thallium	ug/L	500	488	98	80-120	
Tin	ug/L	500	503	101	80-120	
Vanadium	ug/L	500	495	99	80-120	
Zinc	ug/L	500	481	96	80-120	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

MATRIX SPIKE SAMPLE: 804112

Parameter	Units	92125095002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	372	74	75-125	M1
Arsenic	ug/L	ND	500	460	91	75-125	
Barium	ug/L	511	500	979	94	75-125	
Beryllium	ug/L	3.6	500	492	98	75-125	
Cadmium	ug/L	ND	500	472	94	75-125	
Chromium	ug/L	15.0	500	500	97	75-125	
Cobalt	ug/L	21.4	500	496	95	75-125	
Copper	ug/L	64.5	500	578	103	75-125	
Lead	ug/L	6.7J	500	453	89	75-125	
Nickel	ug/L	14.6J	500	486	94	75-125	
Selenium	ug/L	ND	500	482	95	75-125	
Silver	ug/L	ND	250	246	98	75-125	
Thallium	ug/L	ND	500	445	89	75-125	
Tin	ug/L	ND	500	479	96	75-125	
Vanadium	ug/L	124	500	598	95	75-125	
Zinc	ug/L	164	500	638	95	75-125	

SAMPLE DUPLICATE: 804113

Parameter	Units	92125093004 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	ND	ND		25	
Barium	ug/L	285	274	4	25	
Beryllium	ug/L	1.4	1.4	1	25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	51.8	48.9	6	25	
Cobalt	ug/L	12.7	12.3	3	25	
Copper	ug/L	37.0	35.6	4	25	
Lead	ug/L	9.9J	9.3J	7	25	
Nickel	ug/L	28.7J	27.9J	3	25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	ND		25	
Thallium	ug/L	ND	ND		25	
Tin	ug/L	ND	ND		25	
Vanadium	ug/L	63.6	60.6	5	25	
Zinc	ug/L	101	96.1	5	25	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

QC Batch: MSV/19905
Analysis Method: EPA 8260
QC Batch Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92125095001, 92125095002

METHOD BLANK: 804152
Matrix: Water
Associated Lab Samples: 92125095001, 92125095002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	07/28/12 14:55	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	07/28/12 14:55	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,1-Dichloroethane	ug/L	ND	5.0	07/28/12 14:55	
1,1-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
1,1-Dichloropropene	ug/L	ND	5.0	07/28/12 14:55	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,2,4-Trichlorobenzene	ug/L	ND	10.0	07/28/12 14:55	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	07/28/12 14:55	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/28/12 14:55	
1,2-Dichlorobenzene	ug/L	ND	5.0	07/28/12 14:55	
1,2-Dichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,2-Dichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,3-Dichlorobenzene	ug/L	ND	5.0	07/28/12 14:55	
1,3-Dichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/28/12 14:55	
2,2-Dichloropropane	ug/L	ND	15.0	07/28/12 14:55	
2-Butanone (MEK)	ug/L	ND	100	07/28/12 14:55	
2-Hexanone	ug/L	ND	50.0	07/28/12 14:55	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	07/28/12 14:55	
Acetone	ug/L	ND	100	07/28/12 14:55	
Acetonitrile	ug/L	ND	55.0	07/28/12 14:55	
Acrolein	ug/L	ND	53.0	07/28/12 14:55	
Acrylonitrile	ug/L	ND	200	07/28/12 14:55	
Allyl chloride	ug/L	ND	10.0	07/28/12 14:55	
Benzene	ug/L	ND	1.0	07/28/12 14:55	
Bromochloromethane	ug/L	ND	3.0	07/28/12 14:55	
Bromodichloromethane	ug/L	ND	1.0	07/28/12 14:55	
Bromoform	ug/L	ND	3.0	07/28/12 14:55	
Bromomethane	ug/L	ND	10.0	07/28/12 14:55	
Carbon disulfide	ug/L	ND	100	07/28/12 14:55	
Carbon tetrachloride	ug/L	ND	1.0	07/28/12 14:55	
Chlorobenzene	ug/L	ND	3.0	07/28/12 14:55	
Chloroethane	ug/L	ND	10.0	07/28/12 14:55	
Chloroform	ug/L	ND	5.0	07/28/12 14:55	
Chloromethane	ug/L	ND	1.0	07/28/12 14:55	
Chloroprene	ug/L	ND	20.0	07/28/12 14:55	
cis-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 14:55	
Dibromochloromethane	ug/L	ND	3.0	07/28/12 14:55	
Dibromomethane	ug/L	ND	10.0	07/28/12 14:55	
Dichlorodifluoromethane	ug/L	ND	5.0	07/28/12 14:55	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

METHOD BLANK: 804152 Matrix: Water

Associated Lab Samples: 92125095001, 92125095002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethyl methacrylate	ug/L	ND	10.0	07/28/12 14:55	
Ethylbenzene	ug/L	ND	1.0	07/28/12 14:55	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	07/28/12 14:55	
Iodomethane	ug/L	ND	10.0	07/28/12 14:55	
Isobutanol	ug/L	ND	100	07/28/12 14:55	
Methacrylonitrile	ug/L	ND	100	07/28/12 14:55	
Methyl methacrylate	ug/L	ND	30.0	07/28/12 14:55	
Methylene Chloride	ug/L	ND	1.0	07/28/12 14:55	
Naphthalene	ug/L	ND	10.0	07/28/12 14:55	
Propionitrile	ug/L	ND	150	07/28/12 14:55	
Styrene	ug/L	ND	1.0	07/28/12 14:55	
Tetrachloroethene	ug/L	ND	1.0	07/28/12 14:55	
Tetrahydrofuran	ug/L	ND	10.0	07/28/12 14:55	
Toluene	ug/L	ND	1.0	07/28/12 14:55	
trans-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 14:55	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	07/28/12 14:55	
Trichloroethene	ug/L	ND	1.0	07/28/12 14:55	
Trichlorofluoromethane	ug/L	ND	1.0	07/28/12 14:55	
Vinyl acetate	ug/L	ND	50.0	07/28/12 14:55	
Vinyl chloride	ug/L	ND	1.0	07/28/12 14:55	
Xylene (Total)	ug/L	ND	5.0	07/28/12 14:55	
1,2-Dichloroethane-d4 (S)	%	112	70-130	07/28/12 14:55	
4-Bromofluorobenzene (S)	%	87	70-130	07/28/12 14:55	
Dibromofluoromethane (S)	%	104	70-130	07/28/12 14:55	
Toluene-d8 (S)	%	101	70-130	07/28/12 14:55	

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.8	108	70-130	
1,1,1-Trichloroethane	ug/L	50	54.2	108	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.0	100	70-130	
1,1,2-Trichloroethane	ug/L	50	54.1	108	70-130	
1,1-Dichloroethane	ug/L	50	52.2	104	70-130	
1,1-Dichloroethene	ug/L	50	50.5	101	70-132	
1,1-Dichloropropene	ug/L	50	54.7	109	70-130	
1,2,3-Trichloropropane	ug/L	50	50.7	101	70-130	
1,2,4-Trichlorobenzene	ug/L	50	55.1	110	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	47.4	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.9	106	70-130	
1,2-Dichlorobenzene	ug/L	50	52.0	104	70-130	
1,2-Dichloroethane	ug/L	50	49.1	98	70-130	
1,2-Dichloropropane	ug/L	50	53.0	106	70-130	
1,3-Dichlorobenzene	ug/L	50	52.6	105	70-130	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	51.5	103	70-130	
1,4-Dichlorobenzene	ug/L	50	51.5	103	70-130	
2,2-Dichloropropane	ug/L	50	56.2	112	58-145	
2-Butanone (MEK)	ug/L	100	103	103	70-145	
2-Hexanone	ug/L	100	98.8	99	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-140	
Acetone	ug/L	100	99.3J	99	50-175	
Acetonitrile	ug/L	500	528	106	70-130	
Acrolein	ug/L	250	261	104	70-130	
Acrylonitrile	ug/L	250	254	102	70-143	
Allyl chloride	ug/L	50	53.4	107	70-130	
Benzene	ug/L	50	53.5	107	70-130	
Bromochloromethane	ug/L	50	51.9	104	70-130	
Bromodichloromethane	ug/L	50	52.3	105	70-130	
Bromoform	ug/L	50	42.7	85	70-130	
Bromomethane	ug/L	50	52.8	106	54-130	
Carbon disulfide	ug/L	50	52.0J	104	70-131	
Carbon tetrachloride	ug/L	50	50.9	102	70-132	
Chlorobenzene	ug/L	50	52.7	105	70-130	
Chloroethane	ug/L	50	50.1	100	64-134	
Chloroform	ug/L	50	52.5	105	70-130	
Chloromethane	ug/L	50	59.2	118	64-130	
Chloroprene	ug/L	50	64.2	128	70-130	
cis-1,2-Dichloroethene	ug/L	50	55.7	111	70-131	
cis-1,3-Dichloropropene	ug/L	50	55.4	111	70-130	
Dibromochloromethane	ug/L	50	53.1	106	70-130	
Dibromomethane	ug/L	50	49.6	99	70-131	
Dichlorodifluoromethane	ug/L	50	62.0	124	56-130	
Ethyl methacrylate	ug/L	50	55.2	110	70-130	
Ethylbenzene	ug/L	50	54.2	108	70-130	
Hexachloro-1,3-butadiene	ug/L	50	54.5	109	70-130	
Iodomethane	ug/L	100	105	105	49-180	
Isobutanol	ug/L	1000	1200	120	70-130	
Methacrylonitrile	ug/L	500	526	105	70-130	
Methyl methacrylate	ug/L	50	50.9	102	70-130	
Methylene Chloride	ug/L	50	53.4	107	63-130	
Naphthalene	ug/L	50	49.2	98	70-138	
Propionitrile	ug/L	500	526	105	70-130	
Styrene	ug/L	50	52.0	104	70-130	
Tetrachloroethene	ug/L	50	52.7	105	70-130	
Tetrahydrofuran	ug/L	500	545	109	70-130	
Toluene	ug/L	50	53.0	106	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.9	102	70-130	
trans-1,3-Dichloropropene	ug/L	50	55.2	110	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	51.8J	104	70-141	
Trichloroethene	ug/L	50	52.3	105	70-130	
Trichlorofluoromethane	ug/L	50	51.1	102	62-133	
Vinyl acetate	ug/L	100	111	111	66-157	

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QUALITY CONTROL DATA

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl chloride	ug/L	50	53.2	106	69-130	
Xylene (Total)	ug/L	150	170	113	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 804154 804155

Parameter	Units	92124954012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	54.9	54.9	110	110	70-166	0	30	
Benzene	ug/L	1.4	50	50	49.9	49.6	97	96	70-148	1	30	
Chlorobenzene	ug/L	ND	50	50	57.7	57.0	115	114	70-146	1	30	
Toluene	ug/L	ND	50	50	56.7	56.5	113	113	70-155	0	30	
Trichloroethene	ug/L	ND	50	50	55.2	54.8	110	110	69-151	1	30	
1,2-Dichloroethane-d4 (S)	%						102	103	70-130			
4-Bromofluorobenzene (S)	%						87	88	70-130			
Dibromofluoromethane (S)	%						99	99	70-130			
Toluene-d8 (S)	%						97	97	70-130			

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

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

QUALIFIERS

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

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

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: IREDELL BACKGROUND
Pace Project No.: 92125095

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92125095001	**MW-1A**	EPA 3010	MPRP/11132	EPA 6010	ICP/10229
92125095002	**MW-1C**	EPA 3010	MPRP/11148	EPA 6010	ICP/10235
92125095001	**MW-1A**	EPA 7470	MERP/4405	EPA 7470	MERC/4324
92125095002	**MW-1C**	EPA 7470	MERP/4405	EPA 7470	MERC/4324
92125095001	**MW-1A**	EPA 8260	MSV/19905		
92125095002	**MW-1C**	EPA 8260	MSV/19905		

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

Company:	Municipal Engineering Services
Address:	P.O. Box 97
	Garner, NC 27529
Email To:	jpfohl@mesco.com
Phone: 919-772-5393	Fax:
Requested Due Date/TAT:	10 Day (Default)

Section B Required Project Information:

Report To:	Jonathan Pfohl
Copy To:	
Purchase Order No.	
Client Project ID:	Iredell Background
Container Order Number:	

Section C Invoice Information:

Attention:	Municipal Engineering Services
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	2103-6

Regulatory Agency
State / Location
North Carolina

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	VOCs- App 2	Metals-App 2	TETRAHYDROFURAN									
																			N	N	N	N	N	N	N	N	N	N	N	N
1	MW-1A	WT	G			7/19/12	8:30		4			1	3						x	x		x								
2	MW-1C	WT	G			7/19/12	9:05		4			1	3						x	x		x								
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

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

92125093

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	MESCO	7/20/12	7:30	Pace	7/20/12	7:30				
	Pace	7/20/12	1215		7/20/12	12:15	9.0	yes	no	yes

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Jonathan Pfohl					
SIGNATURE of SAMPLER:		DATE Signed: 7/20/12				

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 7, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.07**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Project # 92125095

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun **T1101** **T1102** **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1101**: No Correction **T1102**: No Correction

Corrected Cooler Temp.: 9.0 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Optional
Proj. Due Date:
Proj. Name:

Date and Initials of person examining contents: Lmm 7/20/12

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: VG **Date:** 7/20/12 **SRF Review:** VG **Date:** 7/23/12

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

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July 26, 2012

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on July 19, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

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

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SAMPLE SUMMARY

Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92124950001	**SW-S OF CONFLUENCE**	Water	07/18/12 11:30	07/19/12 16:30

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SAMPLE ANALYTE COUNT

Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92124950001	**SW-S OF CONFLUENCE**	EPA 6010	JMW	15	PASI-A

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ANALYTICAL RESULTS

Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

Sample: SW-S OF CONFLUENCE **Lab ID: 92124950001** Collected: 07/18/12 11:30 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-38-2	
Barium	**134**	ug/L	100	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/21/12 10:35	07/24/12 15:47	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/21/12 10:35	07/24/12 15:47	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/21/12 10:35	07/24/12 15:47	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/21/12 10:35	07/24/12 15:47	7440-28-0	
Vanadium	ND	ug/L	25.0	5.0	1	07/21/12 10:35	07/24/12 15:47	7440-62-2	
Zinc	**1740**	ug/L	10.0	10.0	1	07/21/12 10:35	07/24/12 15:47	7440-66-6	

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QUALITY CONTROL DATA

Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

QC Batch: MPRP/11082
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92124950001

METHOD BLANK: 799688
Matrix: Water
Associated Lab Samples: 92124950001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/24/12 14:07	
Arsenic	ug/L	ND	10.0	07/24/12 14:07	
Barium	ug/L	ND	100	07/24/12 14:07	
Beryllium	ug/L	ND	1.0	07/24/12 14:07	
Cadmium	ug/L	ND	1.0	07/24/12 14:07	
Chromium	ug/L	ND	10.0	07/24/12 14:07	
Cobalt	ug/L	ND	10.0	07/24/12 14:07	
Copper	ug/L	ND	10.0	07/24/12 14:07	
Lead	ug/L	ND	10.0	07/24/12 14:07	
Nickel	ug/L	ND	50.0	07/24/12 14:07	
Selenium	ug/L	ND	10.0	07/24/12 14:07	
Silver	ug/L	ND	10.0	07/24/12 14:07	
Thallium	ug/L	ND	5.5	07/24/12 14:07	
Vanadium	ug/L	ND	25.0	07/24/12 14:07	
Zinc	ug/L	ND	10.0	07/24/12 14:07	

LABORATORY CONTROL SAMPLE: 799689

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	503	101	80-120	
Arsenic	ug/L	500	506	101	80-120	
Barium	ug/L	500	497	99	80-120	
Beryllium	ug/L	500	520	104	80-120	
Cadmium	ug/L	500	507	101	80-120	
Chromium	ug/L	500	498	100	80-120	
Cobalt	ug/L	500	498	100	80-120	
Copper	ug/L	500	509	102	80-120	
Lead	ug/L	500	503	101	80-120	
Nickel	ug/L	500	501	100	80-120	
Selenium	ug/L	500	505	101	80-120	
Silver	ug/L	250	252	101	80-120	
Thallium	ug/L	500	491	98	80-120	
Vanadium	ug/L	500	501	100	80-120	
Zinc	ug/L	500	504	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 799690 799691

Parameter	Units	92124612005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	480	493	96	99	75-125	3	25	

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QUALITY CONTROL DATA

Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 799690 799691

Parameter	Units	92124612005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	500	500	496	508	99	102	75-125	2	25	
Barium	ug/L	45.1	500	500	532	548	97	101	75-125	3	25	
Beryllium	ug/L	ND	500	500	506	522	101	104	75-125	3	25	
Cadmium	ug/L	ND	500	500	490	502	98	100	75-125	2	25	
Chromium	ug/L	ND	500	500	491	503	98	100	75-125	2	25	
Cobalt	ug/L	ND	500	500	488	502	98	100	75-125	3	25	
Copper	ug/L	ND	500	500	506	522	101	104	75-125	3	25	
Lead	ug/L	ND	500	500	485	498	97	99	75-125	3	25	
Nickel	ug/L	ND	500	500	489	501	98	100	75-125	2	25	
Selenium	ug/L	ND	500	500	486	502	97	100	75-125	3	25	
Silver	ug/L	ND	250	250	245	251	98	100	75-125	2	25	
Thallium	ug/L	ND	500	500	473	487	95	97	75-125	3	25	
Vanadium	ug/L	8.1	500	500	503	516	99	102	75-125	3	25	
Zinc	ug/L	ND	500	500	492	504	97	100	75-125	2	25	

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QUALIFIERS

Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: IREDELL SOUTH OF CONFLUENCE
Pace Project No.: 92124950

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92124950001	**SW-S OF CONFLUENCE**	EPA 3010	MPRP/11082	EPA 6010	ICP/10177

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A
Required Client Information:

Company:	Municipal Engineering Services
Address:	P.O. Box 97
	Garner, NC 27529
Email To:	jpfohl@mesco.com
Phone:	919-772-5393 Fax:
Requested Due Date/TAT:	10 Day (Default)

Section B
Required Project Information:

Report To:	Jonathan Pfohl
Copy To:	
Purchase Order No.	
Client Project ID:	Iredell South of Confluence
Container Order Number:	

Section C
Invoice Information:

Attention:	Municipal Engineering Services
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	

Regulatory Agency
State / Location
North Carolina

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

ITEM#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test	Metals-App 1											92124950
																		Requested Analysis Filtered (Y/N)	N	N	N	N	N	N	N	N	N	N	N	
1	SW-SofConfluence	WT	G			7/18/12	11:30		1			1								x										001
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Sample taken from tributary leading	MESCO	7/19/12	7:20	Pace	7/19/12	720				
from off-site.	Pace	7/19/12	1630	Pace	7/19/12	1630	6.0	Y	N	Y
History of elevated Zinc										
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jonathan Pfohl

SIGNATURE of SAMPLER: [signature] DATE Signed: 7/19/12

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 7, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.07**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Project # 92124950

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

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

Optional
Proj. Due Date:
Proj. Name:

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

Thermometer Used: IR Gun T1101 T1102 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1101**: No Correction **T1102**: No Correction

Corrected Cooler Temp.: 6.0 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 07/19/12

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: [illegible] **Date:** 7/19/12 **SRF Review:** BKM **Date:** 7/20/12

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

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(704)875-9092

August 03, 2012

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: IREDELL LINED SW-2
Pace Project No.: 92124965

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on July 19, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

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

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

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SAMPLE SUMMARY

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92124965001	**SW-2**	Water	07/18/12 18:15	07/19/12 16:30

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SAMPLE ANALYTE COUNT

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92124965001	**SW-2**	EPA 6010	JMW	15	PASI-A
		EPA 8260	MCK	53	PASI-C

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ANALYTICAL RESULTS

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

Sample: SW-2 **Lab ID: 92124965001** Collected: 07/18/12 18:15 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-38-2	
Barium	**27.0J**	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 21:02	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 21:02	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 21:02	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/27/12 11:30	07/30/12 21:02	7440-28-0	
Vanadium	ND	ug/L	25.0	5.0	1	07/27/12 11:30	07/30/12 21:02	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 21:02	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**4.5J**	ug/L	100	2.2	1		07/28/12 21:15	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 21:15	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		07/28/12 21:15	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 21:15	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 21:15	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 21:15	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 21:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 21:15	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 21:15	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 21:15	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 21:15	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 21:15	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 21:15	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 21:15	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 21:15	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 21:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 21:15	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 21:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 21:15	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 21:15	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 21:15	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 21:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 21:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 21:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/28/12 21:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 21:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 21:15	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 21:15	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 21:15	10061-01-5	

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ANALYTICAL RESULTS

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

Sample: SW-2 **Lab ID: 92124965001** Collected: 07/18/12 18:15 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 21:15	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 21:15	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 21:15	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 21:15	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/28/12 21:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 21:15	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 21:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 21:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 21:15	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 21:15	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/28/12 21:15	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 21:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 21:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 21:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 21:15	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 21:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 21:15	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 21:15	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 21:15	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 21:15	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	89	%	70-130		1		07/28/12 21:15	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		07/28/12 21:15	1868-53-7	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		07/28/12 21:15	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/28/12 21:15	2037-26-5	

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QUALITY CONTROL DATA

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

QC Batch: MPRP/11132
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92124965001

METHOD BLANK: 803387
Matrix: Water
Associated Lab Samples: 92124965001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/30/12 20:15	
Arsenic	ug/L	ND	10.0	07/30/12 20:15	
Barium	ug/L	ND	100	07/30/12 20:15	
Beryllium	ug/L	ND	1.0	07/30/12 20:15	
Cadmium	ug/L	ND	1.0	07/30/12 20:15	
Chromium	ug/L	ND	10.0	07/30/12 20:15	
Cobalt	ug/L	ND	10.0	07/30/12 20:15	
Copper	ug/L	ND	10.0	07/30/12 20:15	
Lead	ug/L	ND	10.0	07/30/12 20:15	
Nickel	ug/L	ND	50.0	07/30/12 20:15	
Selenium	ug/L	ND	10.0	07/30/12 20:15	
Silver	ug/L	ND	10.0	07/30/12 20:15	
Thallium	ug/L	ND	5.5	07/30/12 20:15	
Vanadium	ug/L	ND	25.0	07/30/12 20:15	
Zinc	ug/L	ND	10.0	07/30/12 20:15	

LABORATORY CONTROL SAMPLE: 803388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	465	93	80-120	
Arsenic	ug/L	500	466	93	80-120	
Barium	ug/L	500	469	94	80-120	
Beryllium	ug/L	500	477	95	80-120	
Cadmium	ug/L	500	478	96	80-120	
Chromium	ug/L	500	482	96	80-120	
Cobalt	ug/L	500	471	94	80-120	
Copper	ug/L	500	469	94	80-120	
Lead	ug/L	500	472	94	80-120	
Nickel	ug/L	500	471	94	80-120	
Selenium	ug/L	500	464	93	80-120	
Silver	ug/L	250	240	96	80-120	
Thallium	ug/L	500	442	88	80-120	
Vanadium	ug/L	500	480	96	80-120	
Zinc	ug/L	500	469	94	80-120	

MATRIX SPIKE SAMPLE: 803389

Parameter	Units	92124946005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	455	91	75-125	
Arsenic	ug/L	ND	500	457	91	75-125	

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QUALITY CONTROL DATA

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

MATRIX SPIKE SAMPLE: 803389

Parameter	Units	92124946005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	29.3J	500	479	90	75-125	
Beryllium	ug/L	ND	500	464	93	75-125	
Cadmium	ug/L	ND	500	455	91	75-125	
Chromium	ug/L	ND	500	463	93	75-125	
Cobalt	ug/L	ND	500	451	90	75-125	
Copper	ug/L	ND	500	459	92	75-125	
Lead	ug/L	ND	500	445	89	75-125	
Nickel	ug/L	ND	500	454	91	75-125	
Selenium	ug/L	ND	500	449	90	75-125	
Silver	ug/L	ND	250	232	93	75-125	
Thallium	ug/L	ND	500	424	84	75-125	
Vanadium	ug/L	ND	500	467	93	75-125	
Zinc	ug/L	46.2	500	498	90	75-125	

SAMPLE DUPLICATE: 803390

Parameter	Units	92124946006 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	ND	ND		25	
Barium	ug/L	68.1J	65.7J	4	25	
Beryllium	ug/L	ND	ND		25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	6.2J	5.5J	12	25	
Cobalt	ug/L	ND	ND		25	
Copper	ug/L	ND	ND		25	
Lead	ug/L	ND	ND		25	
Nickel	ug/L	ND	ND		25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	ND		25	
Thallium	ug/L	ND	ND		25	
Vanadium	ug/L	6.6J	5.6J	17	25	
Zinc	ug/L	11.7	10.7	9	25	

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QUALITY CONTROL DATA

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

QC Batch: MSV/19904
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92124965001

METHOD BLANK: 804144
Matrix: Water
Associated Lab Samples: 92124965001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	07/28/12 15:13	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/28/12 15:13	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	07/28/12 15:13	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/28/12 15:13	
1,1-Dichloroethane	ug/L	ND	5.0	07/28/12 15:13	
1,1-Dichloroethene	ug/L	ND	5.0	07/28/12 15:13	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/28/12 15:13	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	07/28/12 15:13	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/28/12 15:13	
1,2-Dichlorobenzene	ug/L	ND	5.0	07/28/12 15:13	
1,2-Dichloroethane	ug/L	ND	1.0	07/28/12 15:13	
1,2-Dichloropropane	ug/L	ND	1.0	07/28/12 15:13	
1,3-Dichloropropane	ug/L	ND	1.0	07/28/12 15:13	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/28/12 15:13	
2-Butanone (MEK)	ug/L	ND	100	07/28/12 15:13	
2-Hexanone	ug/L	ND	50.0	07/28/12 15:13	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	07/28/12 15:13	
Acetone	ug/L	ND	100	07/28/12 15:13	
Acrylonitrile	ug/L	ND	200	07/28/12 15:13	
Benzene	ug/L	ND	1.0	07/28/12 15:13	
Bromochloromethane	ug/L	ND	3.0	07/28/12 15:13	
Bromodichloromethane	ug/L	ND	1.0	07/28/12 15:13	
Bromoform	ug/L	ND	3.0	07/28/12 15:13	
Bromomethane	ug/L	ND	10.0	07/28/12 15:13	
Carbon disulfide	ug/L	ND	100	07/28/12 15:13	
Carbon tetrachloride	ug/L	ND	1.0	07/28/12 15:13	
Chlorobenzene	ug/L	ND	3.0	07/28/12 15:13	
Chloroethane	ug/L	ND	10.0	07/28/12 15:13	
Chloroform	ug/L	ND	5.0	07/28/12 15:13	
Chloromethane	ug/L	0.18J	1.0	07/28/12 15:13	
cis-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 15:13	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 15:13	
Dibromochloromethane	ug/L	ND	3.0	07/28/12 15:13	
Dibromomethane	ug/L	ND	10.0	07/28/12 15:13	
Ethylbenzene	ug/L	ND	1.0	07/28/12 15:13	
Iodomethane	ug/L	ND	10.0	07/28/12 15:13	
Methylene Chloride	ug/L	ND	1.0	07/28/12 15:13	
Styrene	ug/L	ND	1.0	07/28/12 15:13	
Tetrachloroethene	ug/L	ND	1.0	07/28/12 15:13	
Tetrahydrofuran	ug/L	ND	10.0	07/28/12 15:13	
Toluene	ug/L	ND	1.0	07/28/12 15:13	
trans-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 15:13	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 15:13	

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QUALITY CONTROL DATA

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

METHOD BLANK: 804144 Matrix: Water

Associated Lab Samples: 92124965001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	ND	100	07/28/12 15:13	
Trichloroethene	ug/L	ND	1.0	07/28/12 15:13	
Trichlorofluoromethane	ug/L	ND	1.0	07/28/12 15:13	
Vinyl acetate	ug/L	ND	50.0	07/28/12 15:13	
Vinyl chloride	ug/L	ND	1.0	07/28/12 15:13	
Xylene (Total)	ug/L	ND	5.0	07/28/12 15:13	
1,2-Dichloroethane-d4 (S)	%	113	70-130	07/28/12 15:13	
4-Bromofluorobenzene (S)	%	87	70-130	07/28/12 15:13	
Dibromofluoromethane (S)	%	106	70-130	07/28/12 15:13	
Toluene-d8 (S)	%	100	70-130	07/28/12 15:13	

LABORATORY CONTROL SAMPLE: 804145

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.0	108	70-130	
1,1,1-Trichloroethane	ug/L	50	54.6	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	70-130	
1,1,2-Trichloroethane	ug/L	50	54.2	108	70-130	
1,1-Dichloroethane	ug/L	50	52.3	105	70-130	
1,1-Dichloroethene	ug/L	50	51.6	103	70-132	
1,2,3-Trichloropropane	ug/L	50	52.1	104	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.8	94	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	53.1	106	70-130	
1,2-Dichlorobenzene	ug/L	50	52.2	104	70-130	
1,2-Dichloroethane	ug/L	50	49.4	99	70-130	
1,2-Dichloropropane	ug/L	50	53.7	107	70-130	
1,3-Dichloropropane	ug/L	50	52.0	104	70-130	
1,4-Dichlorobenzene	ug/L	50	51.5	103	70-130	
2-Butanone (MEK)	ug/L	100	103	103	70-145	
2-Hexanone	ug/L	100	99.9	100	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-140	
Acetone	ug/L	100	102	102	50-175	
Acrylonitrile	ug/L	250	261	104	70-143	
Benzene	ug/L	50	54.0	108	70-130	
Bromochloromethane	ug/L	50	51.4	103	70-130	
Bromodichloromethane	ug/L	50	53.1	106	70-130	
Bromoform	ug/L	50	42.7	85	70-130	
Bromomethane	ug/L	50	46.9	94	54-130	
Carbon disulfide	ug/L	50	52.6J	105	70-131	
Carbon tetrachloride	ug/L	50	53.2	106	70-132	
Chlorobenzene	ug/L	50	52.6	105	70-130	
Chloroethane	ug/L	50	50.2	100	64-134	
Chloroform	ug/L	50	52.6	105	70-130	
Chloromethane	ug/L	50	59.4	119	64-130	
cis-1,2-Dichloroethene	ug/L	50	55.4	111	70-131	

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(704)875-9092

QUALITY CONTROL DATA

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

LABORATORY CONTROL SAMPLE: 804145

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	50	55.8	112	70-130	
Dibromochloromethane	ug/L	50	53.8	108	70-130	
Dibromomethane	ug/L	50	50.1	100	70-131	
Ethylbenzene	ug/L	50	54.7	109	70-130	
Iodomethane	ug/L	100	108	108	49-180	
Methylene Chloride	ug/L	50	54.8	110	63-130	
Styrene	ug/L	50	52.7	105	70-130	
Tetrachloroethene	ug/L	50	53.2	106	70-130	
Tetrahydrofuran	ug/L	500	555	111	70-130	
Toluene	ug/L	50	53.6	107	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.1	104	70-130	
trans-1,3-Dichloropropene	ug/L	50	56.0	112	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	53.5J	107	70-141	
Trichloroethene	ug/L	50	52.7	105	70-130	
Trichlorofluoromethane	ug/L	50	51.6	103	62-133	
Vinyl acetate	ug/L	100	112	112	66-157	
Vinyl chloride	ug/L	50	52.8	106	69-130	
Xylene (Total)	ug/L	150	171	114	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 804146 804147

Parameter	Units	92124965001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	52.4	40.8	105	82	70-166	25	30	
Benzene	ug/L	ND	50	50	47.8	36.1	96	72	70-148	28	30	
Chlorobenzene	ug/L	ND	50	50	56.7	43.3	113	87	70-146	27	30	
Toluene	ug/L	ND	50	50	56.3	42.7	113	85	70-155	27	30	
Trichloroethene	ug/L	ND	50	50	55.0	41.3	110	83	69-151	28	30	
1,2-Dichloroethane-d4 (S)	%						103	105	70-130			
4-Bromofluorobenzene (S)	%						89	88	70-130			
Dibromofluoromethane (S)	%						98	100	70-130			
Toluene-d8 (S)	%						97	98	70-130			

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QUALIFIERS

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: IREDELL LINED SW-2
Pace Project No.: 92124965

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92124965001	**SW-2**	EPA 3010	MPRP/11132	EPA 6010	ICP/10229
92124965001	**SW-2**	EPA 8260	MSV/19904		

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A
Required Client Information:

Company:	Municipal Engineering Services
Address:	P.O. Box 97
	Garner, NC 27529
Email To:	jpfohl@mesco.com
Phone:	919-772-5393 Fax:
Requested Due Date/TAT:	10 Day (Default)

Section B
Required Project Information:

Report To:	Jonathan Pfohl
Copy To:	
Purchase Order No.	
Client Project ID:	Iredell Lined SW-2
Container Order Number:	

Section C
Invoice Information:

Attention:	Municipal Engineering Services
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	

Regulatory Agency	
State / Location	
	North Carolina

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOCs- App 1	Metals-App 1	TETRAHYDROFURAN									92124965
																			N	N	N	N	N	N	N	N	N	N	N	
1	SW-2 ✓	WT	G			7/18/12	6:15		4			1	3						x	x	x									001
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	MESCO	7/18/12	1730	Pace	7/18/12	730				
		7/18/12	1630	Pace	7/18/12	1630	6.0	Y	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Jonathan Pfohl		
SIGNATURE of SAMPLER:		DATE Signed:	7/19/12

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 7, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.07**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Project # 92124965

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

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

Options
Proj. Due Date
Proj. Name

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

Thermometer Used: IR Gun T1101 T1102 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1101**: No Correction **T1102**: No Correction

Corrected Cooler Temp.: 6.0 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: 07/19/12

Temp should be above freezing to 6°C

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: J.G. **Date:** 7/19/12 **SRF Review:** J.G. / PCS **Date:** 7/20/12

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

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August 03, 2012

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: IREDELL SW-3
Pace Project No.: 92124961

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on July 19, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: IREDELL SW-3
Pace Project No.: 92124961

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

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

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SAMPLE SUMMARY

Project: IREDELL SW-3
Pace Project No.: 92124961

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92124961001	**SW-3**	Water	07/18/12 11:00	07/19/12 16:30

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SAMPLE ANALYTE COUNT

Project: IREDELL SW-3
Pace Project No.: 92124961

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92124961001	**SW-3**	EPA 6010	JMW	15	PASI-A
		EPA 8260	MCK	53	PASI-C

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ANALYTICAL RESULTS

Project: IREDELL SW-3
Pace Project No.: 92124961

Sample: SW-3 **Lab ID: 92124961001** Collected: 07/18/12 11:00 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-38-2	
Barium	**78.5J**	ug/L	100	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 20:59	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/27/12 11:30	07/30/12 20:59	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 20:59	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/27/12 11:30	07/30/12 20:59	7440-28-0	
Vanadium	ND	ug/L	25.0	5.0	1	07/27/12 11:30	07/30/12 20:59	7440-62-2	
Zinc	**337**	ug/L	10.0	10.0	1	07/27/12 11:30	07/30/12 20:59	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**3.1J**	ug/L	100	2.2	1		07/28/12 20:57	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 20:57	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		07/28/12 20:57	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 20:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 20:57	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 20:57	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 20:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 20:57	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 20:57	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 20:57	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 20:57	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 20:57	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 20:57	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 20:57	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 20:57	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 20:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 20:57	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 20:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 20:57	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 20:57	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 20:57	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 20:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 20:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 20:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/28/12 20:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 20:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 20:57	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 20:57	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 20:57	10061-01-5	

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ANALYTICAL RESULTS

Project: IREDELL SW-3
Pace Project No.: 92124961

Sample: SW-3 **Lab ID: 92124961001** Collected: 07/18/12 11:00 Received: 07/19/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 20:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 20:57	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 20:57	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 20:57	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/28/12 20:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 20:57	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 20:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 20:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 20:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 20:57	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		07/28/12 20:57	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 20:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 20:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 20:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 20:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 20:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 20:57	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 20:57	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 20:57	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 20:57	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	87	%	70-130		1		07/28/12 20:57	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		07/28/12 20:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		07/28/12 20:57	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/28/12 20:57	2037-26-5	

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QUALITY CONTROL DATA

Project: IREDELL SW-3
Pace Project No.: 92124961

QC Batch: MPRP/11132
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92124961001

METHOD BLANK: 803387
Matrix: Water
Associated Lab Samples: 92124961001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/30/12 20:15	
Arsenic	ug/L	ND	10.0	07/30/12 20:15	
Barium	ug/L	ND	100	07/30/12 20:15	
Beryllium	ug/L	ND	1.0	07/30/12 20:15	
Cadmium	ug/L	ND	1.0	07/30/12 20:15	
Chromium	ug/L	ND	10.0	07/30/12 20:15	
Cobalt	ug/L	ND	10.0	07/30/12 20:15	
Copper	ug/L	ND	10.0	07/30/12 20:15	
Lead	ug/L	ND	10.0	07/30/12 20:15	
Nickel	ug/L	ND	50.0	07/30/12 20:15	
Selenium	ug/L	ND	10.0	07/30/12 20:15	
Silver	ug/L	ND	10.0	07/30/12 20:15	
Thallium	ug/L	ND	5.5	07/30/12 20:15	
Vanadium	ug/L	ND	25.0	07/30/12 20:15	
Zinc	ug/L	ND	10.0	07/30/12 20:15	

LABORATORY CONTROL SAMPLE: 803388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	465	93	80-120	
Arsenic	ug/L	500	466	93	80-120	
Barium	ug/L	500	469	94	80-120	
Beryllium	ug/L	500	477	95	80-120	
Cadmium	ug/L	500	478	96	80-120	
Chromium	ug/L	500	482	96	80-120	
Cobalt	ug/L	500	471	94	80-120	
Copper	ug/L	500	469	94	80-120	
Lead	ug/L	500	472	94	80-120	
Nickel	ug/L	500	471	94	80-120	
Selenium	ug/L	500	464	93	80-120	
Silver	ug/L	250	240	96	80-120	
Thallium	ug/L	500	442	88	80-120	
Vanadium	ug/L	500	480	96	80-120	
Zinc	ug/L	500	469	94	80-120	

MATRIX SPIKE SAMPLE: 803389

Parameter	Units	92124946005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	455	91	75-125	
Arsenic	ug/L	ND	500	457	91	75-125	

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QUALITY CONTROL DATA

Project: IREDELL SW-3
Pace Project No.: 92124961

MATRIX SPIKE SAMPLE: 803389

Parameter	Units	92124946005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	29.3J	500	479	90	75-125	
Beryllium	ug/L	ND	500	464	93	75-125	
Cadmium	ug/L	ND	500	455	91	75-125	
Chromium	ug/L	ND	500	463	93	75-125	
Cobalt	ug/L	ND	500	451	90	75-125	
Copper	ug/L	ND	500	459	92	75-125	
Lead	ug/L	ND	500	445	89	75-125	
Nickel	ug/L	ND	500	454	91	75-125	
Selenium	ug/L	ND	500	449	90	75-125	
Silver	ug/L	ND	250	232	93	75-125	
Thallium	ug/L	ND	500	424	84	75-125	
Vanadium	ug/L	ND	500	467	93	75-125	
Zinc	ug/L	46.2	500	498	90	75-125	

SAMPLE DUPLICATE: 803390

Parameter	Units	92124946006 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	ND	ND		25	
Barium	ug/L	68.1J	65.7J	4	25	
Beryllium	ug/L	ND	ND		25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	6.2J	5.5J	12	25	
Cobalt	ug/L	ND	ND		25	
Copper	ug/L	ND	ND		25	
Lead	ug/L	ND	ND		25	
Nickel	ug/L	ND	ND		25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	ND		25	
Thallium	ug/L	ND	ND		25	
Vanadium	ug/L	6.6J	5.6J	17	25	
Zinc	ug/L	11.7	10.7	9	25	

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QUALITY CONTROL DATA

Project: IREDELL SW-3
Pace Project No.: 92124961

QC Batch: MSV/19904
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92124961001

METHOD BLANK: 804144
Matrix: Water
Associated Lab Samples: 92124961001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	07/28/12 15:13	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/28/12 15:13	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	07/28/12 15:13	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/28/12 15:13	
1,1-Dichloroethane	ug/L	ND	5.0	07/28/12 15:13	
1,1-Dichloroethene	ug/L	ND	5.0	07/28/12 15:13	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/28/12 15:13	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	07/28/12 15:13	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/28/12 15:13	
1,2-Dichlorobenzene	ug/L	ND	5.0	07/28/12 15:13	
1,2-Dichloroethane	ug/L	ND	1.0	07/28/12 15:13	
1,2-Dichloropropane	ug/L	ND	1.0	07/28/12 15:13	
1,3-Dichloropropane	ug/L	ND	1.0	07/28/12 15:13	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/28/12 15:13	
2-Butanone (MEK)	ug/L	ND	100	07/28/12 15:13	
2-Hexanone	ug/L	ND	50.0	07/28/12 15:13	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	07/28/12 15:13	
Acetone	ug/L	ND	100	07/28/12 15:13	
Acrylonitrile	ug/L	ND	200	07/28/12 15:13	
Benzene	ug/L	ND	1.0	07/28/12 15:13	
Bromochloromethane	ug/L	ND	3.0	07/28/12 15:13	
Bromodichloromethane	ug/L	ND	1.0	07/28/12 15:13	
Bromoform	ug/L	ND	3.0	07/28/12 15:13	
Bromomethane	ug/L	ND	10.0	07/28/12 15:13	
Carbon disulfide	ug/L	ND	100	07/28/12 15:13	
Carbon tetrachloride	ug/L	ND	1.0	07/28/12 15:13	
Chlorobenzene	ug/L	ND	3.0	07/28/12 15:13	
Chloroethane	ug/L	ND	10.0	07/28/12 15:13	
Chloroform	ug/L	ND	5.0	07/28/12 15:13	
Chloromethane	ug/L	0.18J	1.0	07/28/12 15:13	
cis-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 15:13	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 15:13	
Dibromochloromethane	ug/L	ND	3.0	07/28/12 15:13	
Dibromomethane	ug/L	ND	10.0	07/28/12 15:13	
Ethylbenzene	ug/L	ND	1.0	07/28/12 15:13	
Iodomethane	ug/L	ND	10.0	07/28/12 15:13	
Methylene Chloride	ug/L	ND	1.0	07/28/12 15:13	
Styrene	ug/L	ND	1.0	07/28/12 15:13	
Tetrachloroethene	ug/L	ND	1.0	07/28/12 15:13	
Tetrahydrofuran	ug/L	ND	10.0	07/28/12 15:13	
Toluene	ug/L	ND	1.0	07/28/12 15:13	
trans-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 15:13	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 15:13	

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QUALITY CONTROL DATA

Project: IREDELL SW-3
Pace Project No.: 92124961

METHOD BLANK: 804144 Matrix: Water

Associated Lab Samples: 92124961001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	ND	100	07/28/12 15:13	
Trichloroethene	ug/L	ND	1.0	07/28/12 15:13	
Trichlorofluoromethane	ug/L	ND	1.0	07/28/12 15:13	
Vinyl acetate	ug/L	ND	50.0	07/28/12 15:13	
Vinyl chloride	ug/L	ND	1.0	07/28/12 15:13	
Xylene (Total)	ug/L	ND	5.0	07/28/12 15:13	
1,2-Dichloroethane-d4 (S)	%	113	70-130	07/28/12 15:13	
4-Bromofluorobenzene (S)	%	87	70-130	07/28/12 15:13	
Dibromofluoromethane (S)	%	106	70-130	07/28/12 15:13	
Toluene-d8 (S)	%	100	70-130	07/28/12 15:13	

LABORATORY CONTROL SAMPLE: 804145

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.0	108	70-130	
1,1,1-Trichloroethane	ug/L	50	54.6	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	70-130	
1,1,2-Trichloroethane	ug/L	50	54.2	108	70-130	
1,1-Dichloroethane	ug/L	50	52.3	105	70-130	
1,1-Dichloroethene	ug/L	50	51.6	103	70-132	
1,2,3-Trichloropropane	ug/L	50	52.1	104	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.8	94	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	53.1	106	70-130	
1,2-Dichlorobenzene	ug/L	50	52.2	104	70-130	
1,2-Dichloroethane	ug/L	50	49.4	99	70-130	
1,2-Dichloropropane	ug/L	50	53.7	107	70-130	
1,3-Dichloropropane	ug/L	50	52.0	104	70-130	
1,4-Dichlorobenzene	ug/L	50	51.5	103	70-130	
2-Butanone (MEK)	ug/L	100	103	103	70-145	
2-Hexanone	ug/L	100	99.9	100	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-140	
Acetone	ug/L	100	102	102	50-175	
Acrylonitrile	ug/L	250	261	104	70-143	
Benzene	ug/L	50	54.0	108	70-130	
Bromochloromethane	ug/L	50	51.4	103	70-130	
Bromodichloromethane	ug/L	50	53.1	106	70-130	
Bromoform	ug/L	50	42.7	85	70-130	
Bromomethane	ug/L	50	46.9	94	54-130	
Carbon disulfide	ug/L	50	52.6J	105	70-131	
Carbon tetrachloride	ug/L	50	53.2	106	70-132	
Chlorobenzene	ug/L	50	52.6	105	70-130	
Chloroethane	ug/L	50	50.2	100	64-134	
Chloroform	ug/L	50	52.6	105	70-130	
Chloromethane	ug/L	50	59.4	119	64-130	
cis-1,2-Dichloroethene	ug/L	50	55.4	111	70-131	

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QUALITY CONTROL DATA

Project: IREDELL SW-3
Pace Project No.: 92124961

LABORATORY CONTROL SAMPLE: 804145

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	50	55.8	112	70-130	
Dibromochloromethane	ug/L	50	53.8	108	70-130	
Dibromomethane	ug/L	50	50.1	100	70-131	
Ethylbenzene	ug/L	50	54.7	109	70-130	
Iodomethane	ug/L	100	108	108	49-180	
Methylene Chloride	ug/L	50	54.8	110	63-130	
Styrene	ug/L	50	52.7	105	70-130	
Tetrachloroethene	ug/L	50	53.2	106	70-130	
Tetrahydrofuran	ug/L	500	555	111	70-130	
Toluene	ug/L	50	53.6	107	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.1	104	70-130	
trans-1,3-Dichloropropene	ug/L	50	56.0	112	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	53.5J	107	70-141	
Trichloroethene	ug/L	50	52.7	105	70-130	
Trichlorofluoromethane	ug/L	50	51.6	103	62-133	
Vinyl acetate	ug/L	100	112	112	66-157	
Vinyl chloride	ug/L	50	52.8	106	69-130	
Xylene (Total)	ug/L	150	171	114	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 804146 804147

Parameter	Units	92124965001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	52.4	40.8	105	82	70-166	25	30	
Benzene	ug/L	ND	50	50	47.8	36.1	96	72	70-148	28	30	
Chlorobenzene	ug/L	ND	50	50	56.7	43.3	113	87	70-146	27	30	
Toluene	ug/L	ND	50	50	56.3	42.7	113	85	70-155	27	30	
Trichloroethene	ug/L	ND	50	50	55.0	41.3	110	83	69-151	28	30	
1,2-Dichloroethane-d4 (S)	%						103	105	70-130			
4-Bromofluorobenzene (S)	%						89	88	70-130			
Dibromofluoromethane (S)	%						98	100	70-130			
Toluene-d8 (S)	%						97	98	70-130			

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QUALIFIERS

Project: IREDELL SW-3
Pace Project No.: 92124961

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: IREDELL SW-3
Pace Project No.: 92124961

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92124961001	**SW-3**	EPA 3010	MPRP/11132	EPA 6010	ICP/10229
92124961001	**SW-3**	EPA 8260	MSV/19904		

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:

Company:	Municipal Engineering Services
Address:	P.O. Box 97
	Garner, NC 27529
Email To:	jpfohl@mesco.com
Phone:	919-772-5393 Fax:
Requested Due Date/TAT:	10 Day (Default)

Section B
Required Project Information:

Report To:	Jonathan Pfohl
Copy To:	
Purchase Order No.	
Client Project ID:	Iredell SW-3
Container Order Number:	

Section C
Invoice Information:

Attention:	Municipal Engineering Services
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	

Regulatory Agency

State / Location
North Carolina

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOCs- App 1 N	Metals-App 1 N		TETRAHYDROFURAN N									92124961
1	SW-3	WT	G			7/18/12	11:00		4			1	3						x	x		x									001
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	MESCO	7/19/12	7:20	Pace	7/19/12	720				
	Pace	7/19/12	1630	Pace	7/19/12	1630	6.0	Y	N	Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Jonathan Pfohl
SIGNATURE of SAMPLER:	
DATE Signed:	7/19/12

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 7, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.07**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Project # 92124961

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Optional
Proj. Due Date:
Proj. Name:

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

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

Thermometer Used: IR Gun T1101 T1102 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1101**: No Correction **T1102**: No Correction

Corrected Cooler Temp.: 6.0 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 07/19/12

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

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

Person Contacted:_____ Date/Time:_____

Comments/ Resolution:_____

SCURF Review: JG **Date:** 7/19/12 **SRF Review:** CAH **Date:** 7/24

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

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July 31, 2012

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

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

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SAMPLE SUMMARY

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92125104001	**SW-NE OF MW-16**	Water	07/19/12 10:15	07/20/12 12:15

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SAMPLE ANALYTE COUNT

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92125104001	**SW-NE OF MW-16**	EPA 8260	MCK	52	PASI-C

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ANALYTICAL RESULTS

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

Sample: SW-NE OF MW-16 **Lab ID: 92125104001** Collected: 07/19/12 10:15 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**4.3J**	ug/L	100	2.2	1		07/29/12 18:37	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		07/29/12 18:37	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		07/29/12 18:37	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/29/12 18:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/29/12 18:37	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/29/12 18:37	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/29/12 18:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/29/12 18:37	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/29/12 18:37	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/29/12 18:37	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/29/12 18:37	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/29/12 18:37	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/29/12 18:37	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/29/12 18:37	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/29/12 18:37	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/29/12 18:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/29/12 18:37	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/29/12 18:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/29/12 18:37	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/29/12 18:37	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/29/12 18:37	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/29/12 18:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/29/12 18:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/29/12 18:37	75-35-4	
cis-1,2-Dichloroethene	**0.33J**	ug/L	5.0	0.19	1		07/29/12 18:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/29/12 18:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/29/12 18:37	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/29/12 18:37	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/29/12 18:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/29/12 18:37	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/29/12 18:37	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/29/12 18:37	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/29/12 18:37	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/29/12 18:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/29/12 18:37	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		07/29/12 18:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/29/12 18:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/29/12 18:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/29/12 18:37	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/29/12 18:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/29/12 18:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/29/12 18:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/29/12 18:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/29/12 18:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/29/12 18:37	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/29/12 18:37	108-05-4	

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ANALYTICAL RESULTS

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

Sample: SW-NE OF MW-16 **Lab ID: 92125104001** Collected: 07/19/12 10:15 Received: 07/20/12 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/29/12 18:37	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/29/12 18:37	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	85	%	70-130		1		07/29/12 18:37	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		07/29/12 18:37	1868-53-7	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		07/29/12 18:37	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		07/29/12 18:37	2037-26-5	

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QUALITY CONTROL DATA

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

QC Batch: MSV/19908
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92125104001

METHOD BLANK: 804187
Matrix: Water
Associated Lab Samples: 92125104001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	07/29/12 14:43	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/29/12 14:43	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	07/29/12 14:43	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/29/12 14:43	
1,1-Dichloroethane	ug/L	ND	5.0	07/29/12 14:43	
1,1-Dichloroethene	ug/L	ND	5.0	07/29/12 14:43	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/29/12 14:43	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	07/29/12 14:43	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/29/12 14:43	
1,2-Dichlorobenzene	ug/L	ND	5.0	07/29/12 14:43	
1,2-Dichloroethane	ug/L	ND	1.0	07/29/12 14:43	
1,2-Dichloropropane	ug/L	ND	1.0	07/29/12 14:43	
1,3-Dichloropropane	ug/L	ND	1.0	07/29/12 14:43	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/29/12 14:43	
2-Butanone (MEK)	ug/L	ND	100	07/29/12 14:43	
2-Hexanone	ug/L	ND	50.0	07/29/12 14:43	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	07/29/12 14:43	
Acetone	ug/L	ND	100	07/29/12 14:43	
Acrylonitrile	ug/L	ND	200	07/29/12 14:43	
Benzene	ug/L	ND	1.0	07/29/12 14:43	
Bromochloromethane	ug/L	ND	3.0	07/29/12 14:43	
Bromodichloromethane	ug/L	ND	1.0	07/29/12 14:43	
Bromoform	ug/L	ND	3.0	07/29/12 14:43	
Bromomethane	ug/L	ND	10.0	07/29/12 14:43	
Carbon disulfide	ug/L	ND	100	07/29/12 14:43	
Carbon tetrachloride	ug/L	ND	1.0	07/29/12 14:43	
Chlorobenzene	ug/L	ND	3.0	07/29/12 14:43	
Chloroethane	ug/L	ND	10.0	07/29/12 14:43	
Chloroform	ug/L	ND	5.0	07/29/12 14:43	
Chloromethane	ug/L	ND	1.0	07/29/12 14:43	
cis-1,2-Dichloroethene	ug/L	ND	5.0	07/29/12 14:43	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/29/12 14:43	
Dibromochloromethane	ug/L	ND	3.0	07/29/12 14:43	
Dibromomethane	ug/L	ND	10.0	07/29/12 14:43	
Ethylbenzene	ug/L	ND	1.0	07/29/12 14:43	
Iodomethane	ug/L	ND	10.0	07/29/12 14:43	
Methylene Chloride	ug/L	ND	1.0	07/29/12 14:43	
Styrene	ug/L	ND	1.0	07/29/12 14:43	
Tetrachloroethene	ug/L	ND	1.0	07/29/12 14:43	
Toluene	ug/L	ND	1.0	07/29/12 14:43	
trans-1,2-Dichloroethene	ug/L	ND	5.0	07/29/12 14:43	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/29/12 14:43	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	07/29/12 14:43	

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QUALITY CONTROL DATA

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

METHOD BLANK: 804187 Matrix: Water

Associated Lab Samples: 92125104001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	07/29/12 14:43	
Trichlorofluoromethane	ug/L	ND	1.0	07/29/12 14:43	
Vinyl acetate	ug/L	ND	50.0	07/29/12 14:43	
Vinyl chloride	ug/L	ND	1.0	07/29/12 14:43	
Xylene (Total)	ug/L	ND	5.0	07/29/12 14:43	
1,2-Dichloroethane-d4 (S)	%	115	70-130	07/29/12 14:43	
4-Bromofluorobenzene (S)	%	86	70-130	07/29/12 14:43	
Dibromofluoromethane (S)	%	108	70-130	07/29/12 14:43	
Toluene-d8 (S)	%	100	70-130	07/29/12 14:43	

LABORATORY CONTROL SAMPLE: 804188

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.7	105	70-130	
1,1,1-Trichloroethane	ug/L	50	53.4	107	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.4	101	70-130	
1,1,2-Trichloroethane	ug/L	50	53.8	108	70-130	
1,1-Dichloroethane	ug/L	50	51.7	103	70-130	
1,1-Dichloroethene	ug/L	50	50.3	101	70-132	
1,2,3-Trichloropropane	ug/L	50	50.6	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.9	94	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.7	105	70-130	
1,2-Dichlorobenzene	ug/L	50	51.6	103	70-130	
1,2-Dichloroethane	ug/L	50	49.0	98	70-130	
1,2-Dichloropropane	ug/L	50	53.2	106	70-130	
1,3-Dichloropropane	ug/L	50	51.1	102	70-130	
1,4-Dichlorobenzene	ug/L	50	51.0	102	70-130	
2-Butanone (MEK)	ug/L	100	116	116	70-145	
2-Hexanone	ug/L	100	104	104	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	70-140	
Acetone	ug/L	100	105	105	50-175	
Acrylonitrile	ug/L	250	260	104	70-143	
Benzene	ug/L	50	53.5	107	70-130	
Bromochloromethane	ug/L	50	51.6	103	70-130	
Bromodichloromethane	ug/L	50	51.1	102	70-130	
Bromoform	ug/L	50	40.2	80	70-130	
Bromomethane	ug/L	50	35.4	71	54-130	
Carbon disulfide	ug/L	50	49.2J	98	70-131	
Carbon tetrachloride	ug/L	50	49.3	99	70-132	
Chlorobenzene	ug/L	50	51.9	104	70-130	
Chloroethane	ug/L	50	45.5	91	64-134	
Chloroform	ug/L	50	51.9	104	70-130	
Chloromethane	ug/L	50	57.0	114	64-130	
cis-1,2-Dichloroethene	ug/L	50	55.2	110	70-131	
cis-1,3-Dichloropropene	ug/L	50	54.8	110	70-130	

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QUALITY CONTROL DATA

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

LABORATORY CONTROL SAMPLE: 804188

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	51.4	103	70-130	
Dibromomethane	ug/L	50	49.8	100	70-131	
Ethylbenzene	ug/L	50	53.7	107	70-130	
Iodomethane	ug/L	100	98.8	99	49-180	
Methylene Chloride	ug/L	50	53.8	108	63-130	
Styrene	ug/L	50	51.5	103	70-130	
Tetrachloroethene	ug/L	50	52.4	105	70-130	
Toluene	ug/L	50	53.1	106	70-130	
trans-1,2-Dichloroethene	ug/L	50	51.6	103	70-130	
trans-1,3-Dichloropropene	ug/L	50	55.0	110	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	51.6J	103	70-141	
Trichloroethene	ug/L	50	52.2	104	70-130	
Trichlorofluoromethane	ug/L	50	48.6	97	62-133	
Vinyl acetate	ug/L	100	111	111	66-157	
Vinyl chloride	ug/L	50	50.9	102	69-130	
Xylene (Total)	ug/L	150	168	112	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Dibromofluoromethane (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 804189 804190

Parameter	Units	92125104001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	43.8	51.0	88	102	70-166	15	30	
Benzene	ug/L	ND	50	50	39.2	44.7	78	89	70-148	13	30	
Chlorobenzene	ug/L	ND	50	50	45.9	52.7	92	105	70-146	14	30	
Toluene	ug/L	ND	50	50	46.1	52.7	92	105	70-155	13	30	
Trichloroethene	ug/L	ND	50	50	44.9	51.3	90	103	69-151	13	30	
1,2-Dichloroethane-d4 (S)	%						102	105	70-130			
4-Bromofluorobenzene (S)	%						86	86	70-130			
Dibromofluoromethane (S)	%						98	99	70-130			
Toluene-d8 (S)	%						97	97	70-130			

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QUALIFIERS

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: IREDELL SW-NE OF MW-16
Pace Project No.: 92125104

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92125104001	**SW-NE OF MW-16**	EPA 8260	MSV/19908		

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A
Required Client Information:

Company:	Municipal Engineering Services
Address:	P.O. Box 97
	Garner, NC 27529
Email To:	jpfohl@mesco.com
Phone:	919-772-5393 Fax:
Requested Due Date/TAT:	10 Day (Default)

Section B
Required Project Information:

Report To:	Jonathan Pfohl
Copy To:	
Purchase Order No.	
Client Project ID:	Iredell SW-NEofMW-16
Container Order Number:	

Section C
Invoice Information:

Attention:	Municipal Engineering Services
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	2103-3

Regulatory Agency
State / Location
North Carolina

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOCs-Appt												
1	SW-NEofMW-16	WT	G			7/19/12	10:15		3				3						X												
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

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

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	MESCO	7/20/12	7:30	Pace	7/20/12	7:30	
	Pace	7/20/12	1215		7/20/12	12:15	

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Jonathan Pfohl
SIGNATURE of SAMPLER:	DATE Signed: 7/20/12

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace 7/20/12

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 7, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.07**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Engineering Services Project # 92125104

Where Received: ☑ Huntersville ☑ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other_____

Optional: Proj. Due Date: Proj. Name:

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

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

Thermometer Used: IR Gun (T1101) T1102 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1101**: No Correction **T1102**: No Correction

Corrected Cooler Temp.: 4.8 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: 7/20/12

Temp should be above freezing to 6°C

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JG **Date:** 7/20/12 **SRF Review:** JG **Date:** 7/23/12

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

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August 03, 2012

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on July 24, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

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

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

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SAMPLE SUMMARY

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92125499001	**EB**	Water	07/20/12 08:00	07/24/12 18:20
92125499002	**FB**	Water	07/20/12 08:05	07/24/12 18:20
92125499003	**TB**	Water	07/20/12 00:00	07/24/12 18:20

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SAMPLE ANALYTE COUNT

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92125499001	**EB**	EPA 6010	JMW	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
92125499002	**FB**	EPA 6010	JMW	16	PASI-A
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	68	PASI-C
92125499003	**TB**	EPA 8260	MCK	68	PASI-C

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ANALYTICAL RESULTS

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Sample: EB **Lab ID: 92125499001** Collected: 07/20/12 08:00 Received: 07/24/12 18:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-38-2	
Barium	ND	ug/L	100	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/28/12 10:40	08/01/12 00:03	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/28/12 10:40	08/01/12 00:03	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/28/12 10:40	08/01/12 00:03	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/28/12 10:40	08/01/12 00:03	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	07/28/12 10:40	08/01/12 00:03	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/28/12 10:40	08/01/12 00:03	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 15:28	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**6.2J**	ug/L	100	2.2	1		07/28/12 23:04	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/28/12 23:04	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/28/12 23:04	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 23:04	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/28/12 23:04	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/28/12 23:04	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 23:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 23:04	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 23:04	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 23:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 23:04	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 23:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 23:04	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 23:04	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 23:04	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 23:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 23:04	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/28/12 23:04	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 23:04	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 23:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 23:04	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 23:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 23:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/28/12 23:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 23:04	106-46-7	

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ANALYTICAL RESULTS

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Sample: EB **Lab ID: 92125499001** Collected: 07/20/12 08:00 Received: 07/24/12 18:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 23:04	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/28/12 23:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 23:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 23:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 23:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/28/12 23:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 23:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 23:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 23:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/28/12 23:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/28/12 23:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 23:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 23:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 23:04	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/28/12 23:04	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/28/12 23:04	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 23:04	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 23:04	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/28/12 23:04	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/28/12 23:04	126-98-7	
Methylene Chloride	**6.6**	ug/L	1.0	0.97	1		07/28/12 23:04	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/28/12 23:04	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 23:04	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/28/12 23:04	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/28/12 23:04	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 23:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 23:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 23:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 23:04	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 23:04	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/28/12 23:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 23:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 23:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 23:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 23:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 23:04	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 23:04	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 23:04	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 23:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	85	%	70-130		1		07/28/12 23:04	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		07/28/12 23:04	1868-53-7	
1,2-Dichloroethane-d4 (S)	120	%	70-130		1		07/28/12 23:04	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/28/12 23:04	2037-26-5	

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ANALYTICAL RESULTS

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Sample: FB **Lab ID: 92125499002** Collected: 07/20/12 08:05 Received: 07/24/12 18:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-38-2	
Barium	ND	ug/L	100	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	07/28/12 10:40	08/01/12 00:07	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	07/28/12 10:40	08/01/12 00:07	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	07/28/12 10:40	08/01/12 00:07	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	07/28/12 10:40	08/01/12 00:07	7440-28-0	
Tin	ND	ug/L	100	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	07/28/12 10:40	08/01/12 00:07	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	07/28/12 10:40	08/01/12 00:07	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	ND	ug/L	0.20	0.10	1	08/01/12 17:40	08/02/12 15:30	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**6.3J**	ug/L	100	2.2	1		07/28/12 23:22	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/28/12 23:22	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/28/12 23:22	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 23:22	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/28/12 23:22	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/28/12 23:22	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 23:22	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 23:22	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 23:22	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 23:22	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 23:22	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 23:22	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 23:22	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 23:22	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 23:22	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 23:22	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 23:22	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/28/12 23:22	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 23:22	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 23:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 23:22	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 23:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 23:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/28/12 23:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 23:22	106-46-7	

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ANALYTICAL RESULTS

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Sample: FB **Lab ID: 92125499002** Collected: 07/20/12 08:05 Received: 07/24/12 18:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 23:22	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/28/12 23:22	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 23:22	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 23:22	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 23:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/28/12 23:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 23:22	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 23:22	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 23:22	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/28/12 23:22	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/28/12 23:22	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 23:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 23:22	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 23:22	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/28/12 23:22	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/28/12 23:22	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 23:22	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 23:22	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/28/12 23:22	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/28/12 23:22	126-98-7	
Methylene Chloride	**6.9**	ug/L	1.0	0.97	1		07/28/12 23:22	75-09-2	
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/28/12 23:22	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 23:22	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/28/12 23:22	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/28/12 23:22	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 23:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 23:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 23:22	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 23:22	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 23:22	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/28/12 23:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 23:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 23:22	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 23:22	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 23:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 23:22	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 23:22	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 23:22	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 23:22	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	87	%	70-130		1		07/28/12 23:22	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		07/28/12 23:22	1868-53-7	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		07/28/12 23:22	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/28/12 23:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Sample: TB **Lab ID: 92125499003** Collected: 07/20/12 00:00 Received: 07/24/12 18:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**4.2J**	ug/L	100	2.2	1		07/28/12 23:40	67-64-1	
Acetonitrile	ND	ug/L	55.0	2.2	1		07/28/12 23:40	75-05-8	
Acrolein	ND	ug/L	53.0	1.6	1		07/28/12 23:40	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		07/28/12 23:40	107-13-1	
Allyl chloride	ND	ug/L	10.0	1.5	1		07/28/12 23:40	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		07/28/12 23:40	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		07/28/12 23:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/28/12 23:40	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		07/28/12 23:40	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		07/28/12 23:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		07/28/12 23:40	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		07/28/12 23:40	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/28/12 23:40	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		07/28/12 23:40	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		07/28/12 23:40	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		07/28/12 23:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/28/12 23:40	74-87-3	
Chloroprene	ND	ug/L	20.0	0.27	1		07/28/12 23:40	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		07/28/12 23:40	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		07/28/12 23:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/28/12 23:40	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		07/28/12 23:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		07/28/12 23:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.24	1		07/28/12 23:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/28/12 23:40	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		07/28/12 23:40	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	0.21	1		07/28/12 23:40	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		07/28/12 23:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/28/12 23:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		07/28/12 23:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		07/28/12 23:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		07/28/12 23:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/28/12 23:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/28/12 23:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	15.0	0.13	1		07/28/12 23:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.49	1		07/28/12 23:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		07/28/12 23:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		07/28/12 23:40	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/28/12 23:40	100-41-4	
Ethyl methacrylate	ND	ug/L	10.0	0.20	1		07/28/12 23:40	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	0.71	1		07/28/12 23:40	87-68-3	
2-Hexanone	ND	ug/L	50.0	0.46	1		07/28/12 23:40	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		07/28/12 23:40	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		07/28/12 23:40	78-83-1	
Methacrylonitrile	ND	ug/L	100	0.93	1		07/28/12 23:40	126-98-7	
Methylene Chloride	ND	ug/L	1.0	0.97	1		07/28/12 23:40	75-09-2	

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ANALYTICAL RESULTS

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Sample: TB **Lab ID: 92125499003** Collected: 07/20/12 00:00 Received: 07/24/12 18:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Methyl methacrylate	ND	ug/L	30.0	2.0	1		07/28/12 23:40	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		07/28/12 23:40	108-10-1	
Naphthalene	ND	ug/L	10.0	0.24	1		07/28/12 23:40	91-20-3	
Propionitrile	ND	ug/L	150	3.6	1		07/28/12 23:40	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		07/28/12 23:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		07/28/12 23:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		07/28/12 23:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/28/12 23:40	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/28/12 23:40	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	0.35	1		07/28/12 23:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/28/12 23:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/28/12 23:40	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/28/12 23:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/28/12 23:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/28/12 23:40	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		07/28/12 23:40	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/28/12 23:40	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		07/28/12 23:40	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	70-130		1		07/28/12 23:40	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		07/28/12 23:40	1868-53-7	
1,2-Dichloroethane-d4 (S)	119	%	70-130		1		07/28/12 23:40	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/28/12 23:40	2037-26-5	

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QUALITY CONTROL DATA

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

QC Batch: MERP/4405 — Analysis Method: EPA 7470
QC Batch Method: EPA 7470 — Analysis Description: 7470 Mercury
Associated Lab Samples: 92125499001, 92125499002

METHOD BLANK: 805878 — Matrix: Water
Associated Lab Samples: 92125499001, 92125499002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	08/02/12 14:10	

LABORATORY CONTROL SAMPLE: 805879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 805880 805881

Parameter	Units	92124954013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	2.4	96	94	75-125	2	25	

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QUALITY CONTROL DATA

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

QC Batch: MPRP/11148
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92125499001, 92125499002

METHOD BLANK: 804088
Matrix: Water
Associated Lab Samples: 92125499001, 92125499002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	07/31/12 22:56	
Arsenic	ug/L	ND	10.0	08/01/12 19:13	
Barium	ug/L	ND	100	07/31/12 22:56	
Beryllium	ug/L	ND	1.0	07/31/12 22:56	
Cadmium	ug/L	ND	1.0	07/31/12 22:56	
Chromium	ug/L	ND	10.0	07/31/12 22:56	
Cobalt	ug/L	ND	10.0	07/31/12 22:56	
Copper	ug/L	ND	10.0	07/31/12 22:56	
Lead	ug/L	ND	10.0	07/31/12 22:56	
Nickel	ug/L	ND	50.0	07/31/12 22:56	
Selenium	ug/L	ND	10.0	07/31/12 22:56	
Silver	ug/L	ND	10.0	07/31/12 22:56	
Thallium	ug/L	ND	5.5	07/31/12 22:56	
Tin	ug/L	ND	100	07/31/12 22:56	
Vanadium	ug/L	ND	25.0	07/31/12 22:56	
Zinc	ug/L	ND	10.0	07/31/12 22:56	

LABORATORY CONTROL SAMPLE: 804089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	495	99	80-120	
Arsenic	ug/L	500	484	97	80-120	
Barium	ug/L	500	488	98	80-120	
Beryllium	ug/L	500	496	99	80-120	
Cadmium	ug/L	500	491	98	80-120	
Chromium	ug/L	500	491	98	80-120	
Cobalt	ug/L	500	491	98	80-120	
Copper	ug/L	500	498	100	80-120	
Lead	ug/L	500	497	99	80-120	
Nickel	ug/L	500	490	98	80-120	
Selenium	ug/L	500	496	99	80-120	
Silver	ug/L	250	246	98	80-120	
Thallium	ug/L	500	488	98	80-120	
Tin	ug/L	500	503	101	80-120	
Vanadium	ug/L	500	495	99	80-120	
Zinc	ug/L	500	481	96	80-120	

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QUALITY CONTROL DATA

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

MATRIX SPIKE SAMPLE: 804112

Parameter	Units	92125095002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	372	74	75-125	M1
Arsenic	ug/L	ND	500	460	91	75-125	
Barium	ug/L	511	500	979	94	75-125	
Beryllium	ug/L	3.6	500	492	98	75-125	
Cadmium	ug/L	ND	500	472	94	75-125	
Chromium	ug/L	15.0	500	500	97	75-125	
Cobalt	ug/L	21.4	500	496	95	75-125	
Copper	ug/L	64.5	500	578	103	75-125	
Lead	ug/L	6.7J	500	453	89	75-125	
Nickel	ug/L	14.6J	500	486	94	75-125	
Selenium	ug/L	ND	500	482	95	75-125	
Silver	ug/L	ND	250	246	98	75-125	
Thallium	ug/L	ND	500	445	89	75-125	
Tin	ug/L	ND	500	479	96	75-125	
Vanadium	ug/L	124	500	598	95	75-125	
Zinc	ug/L	164	500	638	95	75-125	

SAMPLE DUPLICATE: 804113

Parameter	Units	92125093004 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	ND	ND		25	
Barium	ug/L	285	274	4	25	
Beryllium	ug/L	1.4	1.4	1	25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	51.8	48.9	6	25	
Cobalt	ug/L	12.7	12.3	3	25	
Copper	ug/L	37.0	35.6	4	25	
Lead	ug/L	9.9J	9.3J	7	25	
Nickel	ug/L	28.7J	27.9J	3	25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	ND		25	
Thallium	ug/L	ND	ND		25	
Tin	ug/L	ND	ND		25	
Vanadium	ug/L	63.6	60.6	5	25	
Zinc	ug/L	101	96.1	5	25	

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QUALITY CONTROL DATA

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

QC Batch: MSV/19905 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92125499001, 92125499002, 92125499003

METHOD BLANK: 804152 Matrix: Water
Associated Lab Samples: 92125499001, 92125499002, 92125499003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	07/28/12 14:55	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	07/28/12 14:55	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,1-Dichloroethane	ug/L	ND	5.0	07/28/12 14:55	
1,1-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
1,1-Dichloropropene	ug/L	ND	5.0	07/28/12 14:55	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,2,4-Trichlorobenzene	ug/L	ND	10.0	07/28/12 14:55	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	07/28/12 14:55	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/28/12 14:55	
1,2-Dichlorobenzene	ug/L	ND	5.0	07/28/12 14:55	
1,2-Dichloroethane	ug/L	ND	1.0	07/28/12 14:55	
1,2-Dichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,3-Dichlorobenzene	ug/L	ND	5.0	07/28/12 14:55	
1,3-Dichloropropane	ug/L	ND	1.0	07/28/12 14:55	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/28/12 14:55	
2,2-Dichloropropane	ug/L	ND	15.0	07/28/12 14:55	
2-Butanone (MEK)	ug/L	ND	100	07/28/12 14:55	
2-Hexanone	ug/L	ND	50.0	07/28/12 14:55	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	07/28/12 14:55	
Acetone	ug/L	ND	100	07/28/12 14:55	
Acetonitrile	ug/L	ND	55.0	07/28/12 14:55	
Acrolein	ug/L	ND	53.0	07/28/12 14:55	
Acrylonitrile	ug/L	ND	200	07/28/12 14:55	
Allyl chloride	ug/L	ND	10.0	07/28/12 14:55	
Benzene	ug/L	ND	1.0	07/28/12 14:55	
Bromochloromethane	ug/L	ND	3.0	07/28/12 14:55	
Bromodichloromethane	ug/L	ND	1.0	07/28/12 14:55	
Bromoform	ug/L	ND	3.0	07/28/12 14:55	
Bromomethane	ug/L	ND	10.0	07/28/12 14:55	
Carbon disulfide	ug/L	ND	100	07/28/12 14:55	
Carbon tetrachloride	ug/L	ND	1.0	07/28/12 14:55	
Chlorobenzene	ug/L	ND	3.0	07/28/12 14:55	
Chloroethane	ug/L	ND	10.0	07/28/12 14:55	
Chloroform	ug/L	ND	5.0	07/28/12 14:55	
Chloromethane	ug/L	ND	1.0	07/28/12 14:55	
Chloroprene	ug/L	ND	20.0	07/28/12 14:55	
cis-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 14:55	
Dibromochloromethane	ug/L	ND	3.0	07/28/12 14:55	
Dibromomethane	ug/L	ND	10.0	07/28/12 14:55	
Dichlorodifluoromethane	ug/L	ND	5.0	07/28/12 14:55	

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QUALITY CONTROL DATA

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

METHOD BLANK: 804152 Matrix: Water

Associated Lab Samples: 92125499001, 92125499002, 92125499003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethyl methacrylate	ug/L	ND	10.0	07/28/12 14:55	
Ethylbenzene	ug/L	ND	1.0	07/28/12 14:55	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	07/28/12 14:55	
Iodomethane	ug/L	ND	10.0	07/28/12 14:55	
Isobutanol	ug/L	ND	100	07/28/12 14:55	
Methacrylonitrile	ug/L	ND	100	07/28/12 14:55	
Methyl methacrylate	ug/L	ND	30.0	07/28/12 14:55	
Methylene Chloride	ug/L	ND	1.0	07/28/12 14:55	
Naphthalene	ug/L	ND	10.0	07/28/12 14:55	
Propionitrile	ug/L	ND	150	07/28/12 14:55	
Styrene	ug/L	ND	1.0	07/28/12 14:55	
Tetrachloroethene	ug/L	ND	1.0	07/28/12 14:55	
Toluene	ug/L	ND	1.0	07/28/12 14:55	
trans-1,2-Dichloroethene	ug/L	ND	5.0	07/28/12 14:55	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/28/12 14:55	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	07/28/12 14:55	
Trichloroethene	ug/L	ND	1.0	07/28/12 14:55	
Trichlorofluoromethane	ug/L	ND	1.0	07/28/12 14:55	
Vinyl acetate	ug/L	ND	50.0	07/28/12 14:55	
Vinyl chloride	ug/L	ND	1.0	07/28/12 14:55	
Xylene (Total)	ug/L	ND	5.0	07/28/12 14:55	
1,2-Dichloroethane-d4 (S)	%	112	70-130	07/28/12 14:55	
4-Bromofluorobenzene (S)	%	87	70-130	07/28/12 14:55	
Dibromofluoromethane (S)	%	104	70-130	07/28/12 14:55	
Toluene-d8 (S)	%	101	70-130	07/28/12 14:55	

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.8	108	70-130	
1,1,1-Trichloroethane	ug/L	50	54.2	108	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.0	100	70-130	
1,1,2-Trichloroethane	ug/L	50	54.1	108	70-130	
1,1-Dichloroethane	ug/L	50	52.2	104	70-130	
1,1-Dichloroethene	ug/L	50	50.5	101	70-132	
1,1-Dichloropropene	ug/L	50	54.7	109	70-130	
1,2,3-Trichloropropane	ug/L	50	50.7	101	70-130	
1,2,4-Trichlorobenzene	ug/L	50	55.1	110	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	47.4	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.9	106	70-130	
1,2-Dichlorobenzene	ug/L	50	52.0	104	70-130	
1,2-Dichloroethane	ug/L	50	49.1	98	70-130	
1,2-Dichloropropane	ug/L	50	53.0	106	70-130	
1,3-Dichlorobenzene	ug/L	50	52.6	105	70-130	
1,3-Dichloropropane	ug/L	50	51.5	103	70-130	

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Pace Analytical Services, Inc.
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(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

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

QUALITY CONTROL DATA

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	51.5	103	70-130	
2,2-Dichloropropane	ug/L	50	56.2	112	58-145	
2-Butanone (MEK)	ug/L	100	103	103	70-145	
2-Hexanone	ug/L	100	98.8	99	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-140	
Acetone	ug/L	100	99.3J	99	50-175	
Acetonitrile	ug/L	500	528	106	70-130	
Acrolein	ug/L	250	261	104	70-130	
Acrylonitrile	ug/L	250	254	102	70-143	
Allyl chloride	ug/L	50	53.4	107	70-130	
Benzene	ug/L	50	53.5	107	70-130	
Bromochloromethane	ug/L	50	51.9	104	70-130	
Bromodichloromethane	ug/L	50	52.3	105	70-130	
Bromoform	ug/L	50	42.7	85	70-130	
Bromomethane	ug/L	50	52.8	106	54-130	
Carbon disulfide	ug/L	50	52.0J	104	70-131	
Carbon tetrachloride	ug/L	50	50.9	102	70-132	
Chlorobenzene	ug/L	50	52.7	105	70-130	
Chloroethane	ug/L	50	50.1	100	64-134	
Chloroform	ug/L	50	52.5	105	70-130	
Chloromethane	ug/L	50	59.2	118	64-130	
Chloroprene	ug/L	50	64.2	128	70-130	
cis-1,2-Dichloroethene	ug/L	50	55.7	111	70-131	
cis-1,3-Dichloropropene	ug/L	50	55.4	111	70-130	
Dibromochloromethane	ug/L	50	53.1	106	70-130	
Dibromomethane	ug/L	50	49.6	99	70-131	
Dichlorodifluoromethane	ug/L	50	62.0	124	56-130	
Ethyl methacrylate	ug/L	50	55.2	110	70-130	
Ethylbenzene	ug/L	50	54.2	108	70-130	
Hexachloro-1,3-butadiene	ug/L	50	54.5	109	70-130	
Iodomethane	ug/L	100	105	105	49-180	
Isobutanol	ug/L	1000	1200	120	70-130	
Methacrylonitrile	ug/L	500	526	105	70-130	
Methyl methacrylate	ug/L	50	50.9	102	70-130	
Methylene Chloride	ug/L	50	53.4	107	63-130	
Naphthalene	ug/L	50	49.2	98	70-138	
Propionitrile	ug/L	500	526	105	70-130	
Styrene	ug/L	50	52.0	104	70-130	
Tetrachloroethene	ug/L	50	52.7	105	70-130	
Toluene	ug/L	50	53.0	106	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.9	102	70-130	
trans-1,3-Dichloropropene	ug/L	50	55.2	110	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	51.8J	104	70-141	
Trichloroethene	ug/L	50	52.3	105	70-130	
Trichlorofluoromethane	ug/L	50	51.1	102	62-133	
Vinyl acetate	ug/L	100	111	111	66-157	
Vinyl chloride	ug/L	50	53.2	106	69-130	
Xylene (Total)	ug/L	150	170	113	70-130	

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QUALITY CONTROL DATA

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

LABORATORY CONTROL SAMPLE: 804153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 804154 804155

Parameter	Units	92124954012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	54.9	54.9	110	110	70-166	0	30	
Benzene	ug/L	1.4	50	50	49.9	49.6	97	96	70-148	1	30	
Chlorobenzene	ug/L	ND	50	50	57.7	57.0	115	114	70-146	1	30	
Toluene	ug/L	ND	50	50	56.7	56.5	113	113	70-155	0	30	
Trichloroethene	ug/L	ND	50	50	55.2	54.8	110	110	69-151	1	30	
1,2-Dichloroethane-d4 (S)	%						102	103	70-130			
4-Bromofluorobenzene (S)	%						87	88	70-130			
Dibromofluoromethane (S)	%						99	99	70-130			
Toluene-d8 (S)	%						97	97	70-130			

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QUALIFIERS

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

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

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Iredell MSWLF Blanks
Pace Project No.: 92125499

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92125499001	**EB**	EPA 3010	MPRP/11148	EPA 6010	ICP/10235
92125499002	**FB**	EPA 3010	MPRP/11148	EPA 6010	ICP/10235
92125499001	**EB**	EPA 7470	MERP/4405	EPA 7470	MERC/4324
92125499002	**FB**	EPA 7470	MERP/4405	EPA 7470	MERC/4324
92125499001	**EB**	EPA 8260	MSV/19905		
92125499002	**FB**	EPA 8260	MSV/19905		
92125499003	**TB**	EPA 8260	MSV/19905		

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:

Company:	Municipal Engineering Services
Address:	P.O. Box 97
	Garner, NC 27529
Email To:	jpfohl@mesco.com
Phone:	919-772-5393 Fax:
Requested Due Date/TAT:	10 Day (Default)

Section B
Required Project Information:

Report To:	Jonathan Pfohl
Copy To:	
Purchase Order No.	
Client Project ID:	Iredell MSWLF Blanks
Container Order Number:	

Section C
Invoice Information:

Attention:	Municipal Engineering Services
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	2103-6

Regulatory Agency
State / Location
North Carolina

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOCs- App II	Metals-App II										
																			N	N	N	N	N	N	N	N	N	N	N	N
1	EB	WT	G			7/20/12	8:00		4			1	3						x	x										
2	FB	WT	G			7/20/12	8:05		4			1	3						x	x										
3	TB	WT	G			Pace Filed			2				2						X											
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

92125499
001
002
003

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	MESCO	7/24/12	1140	Pace	7/24/12	1140	61.8 Y N Y
	Pace	7/24/12	1820	Pace	7/24/12	1820	
				Pace	7/24/12	1820	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jonathan Pfohl

SIGNATURE of SAMPLER: [signature] DATE Signed: 7/24/12

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 7, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.07**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Project # 92125499

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

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

Optional: Proj. Due Date: Proj. Name:

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

Thermometer Used: IR Gun T1101 T1102 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1101:** No Correction **T1102:** No Correction

Corrected Cooler Temp.: 4.8 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 7/24/12

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

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

Person Contacted:_____ Date/Time:_____

Comments/ Resolution:_____

SCURF Review: JG **Date:** 7/24/12 **SRF Review:** JG **Date:** 7/25/12

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

Appendix B
Field Sampling Parameter Data Sheet(s)

There Are 6 mp's along W. Rd (see diagram of Back

14
+6
20

Sampling Data Sheet

Municipal Services Engineering Company
Garner, NC Boone, NC

Project: Iredell County Closed C&D Landfill

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters: Depth to Water (BTOP) Static	Lab Parameters to be analyzed for	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Comments	Total Depth	Water Quality Parameters: (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 (ppm)
MW-9R	7/18/12	10:05	14.44	I	8	P&DB	N		20 Y		0.9	53	6.12	18.1	632	315	-	NR
MW-9RR	7/18/12	10:50	19.18	I	5	P&DB	Barely Y		22 Y		1.0	78	6.48	17.0	161	80	ST	NR
MW-10R	7/17/12	4:50	24.37	I	1	DB	Y		25		1.6	138	6.81	17.1	310	150	ST	NR
MW-16	7/19/12	10:00	11.67	I	6	P&DB	N	Y	20		0.2	71	6.37	14.9	280	130	C	NR
MW-22	7/17/12	3:50	33.18	I	3	DB	N		37 Y		4.9	207	6.53	15.8	60	20	C	NR
MW-23	7/17/12	3:00	14.32	I	4	DB	N	slight constriction	23 Y		1.1	204	6.45	15.9	400	190	C	NR
MW-24S	7/17/12	2:25	10.71	I	2	P&DB	N		16		1.6	301	5.88	14.9	280	130	C	NR
MW-24D	7/17/12	1:40	10.25	I	15	P&DB	N		38		3.2	286	6.23	15.2	90	40	C	NR
MW-25	7/17/12	1:00	23.45	I	3	DB	Y		28.40 BTOC 24.93		4.4	163	6.98	18.4	80	30	MT	NR
MW-26S	7/18/12	8:40	15.12	I	3	DB	N		20.25		3.5	198	6.93	16.4	80	40	ST	NR
MW-26D	7/18/12	9:10	14.95	I	14	P&DB	Y		61.76		3.8	111	8.19	16.3	160	70	ST White	NR
SW-3	7/18/12	11:00	—	I	-	Dip		VERY LOW	-		6.6	247	6.89	23.9	80	40	C	-
SW-6	7/18/12	9:30	—	I	-	Dip		LOW	-		6.8	282	7.03	24.6	80	40	C	-
CD3-11M	NS			WLR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CD-8M	NS			WLR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-5 Dup	7/18/12	11:30				Dip	-				6.3	207	6.11	22.7	300	140	C	
SW-2	7/18/12	6:15PM			—	Dip	-				6.5	197	7.01	21.9	280	130	C	—

See Pg 1-62

Comments

SS B=Stainless Steel Baler, D B=Disposable Baler, P=Low flow Pump, PD=Purged Dry

VT=Very Turbid, MT=Moderately Turbid, ST=Slightly Turbid, C=Clear

NR=No Reading Attempted, NS=No Sample Obtained

Sampling Data Sheet

Municipal Services Engineering Company
Garner, NC Boone, NC

Project: Iredell County Landfill-Background Wells

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters								Water Quality Parameters								
			Depth to Water (BTOP) 1/ /12	Depth to Water (BTOP) Static Sample Time	Lab Parameters to be analyzed for	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Total Depth Measured as expected	Total Depth Expected	CO2 (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 Gas Vapors (ppm)
MW-1A	7/18/12			26.03		10	P&DB	N	Y	40	NR	2.4	183	6.52	15.9	100	40	C	-
MW-1B	NS			DRY					Y	21	↓								-
MW-1C	7/18/12			26.19		7	P&DB	N	Y	34	↓	1.9	101	5.99	15.7	100	40	ST	

Comments

SS B=Stainless Steel Baler, D B=Disposable Baler, P=Low flow Pump, PD=Purged Dry

VT=Very Turbid, MT=Moderately Turbid, ST=Slightly Turbid, C=Clear

NR=No Reading Attempted, NS=No Sample Obtained