Semi-Annual Water Quality Monitoring Report

Prepared for

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

July 2011

Permit Number: 49-03
MESCO Project Number: G11014.0

Submitted: November 1, 2011

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	354 Twin Oaks Road Statesville, NC 28625	49-03	.0500	July 18, 19, 21, 26 & 27, 2011

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.

Madeline German, PG — Geologist — (919) 772-5393

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

Signature — Date: 11/1/2011

Affix NC Licensed Professional Geologist Seal

NORTH CAROLINA LICENSED GEOLOGIST MADELINE GERMAN

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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OPERATION/CONSTRUCTION MANAGERS
CIVIL/SANITARY ENGINEERS
Municipal Services
Engineering Company, P.A.

November 1, 2011

Mr. Ervin Lane
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources (NCDENR)
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Re: Semi-Annual Water Quality Monitoring Report
Iredell County Closed C&D Landfill, Phases 1, 2, and 3
Permit No. 49-03
MESCO Project No. G11014.0

Dear Mr. Lane:

Introduction

The stand alone, unlined Iredell County Closed Construction and Demolition (C&D) Landfill Phases 1, 2, & 3, is located off Twin Oaks Road, in Statesville, North Carolina. A topographical map showing the location of the site is included as **Plate 1**. The landfill operated under permit #49-03 is required to submit semi-annual water quality compliance reports as a condition of the detection monitoring program. This monitoring event was performed between July 18-27, 2011 in accordance with the semi-annual monitoring schedule prescribed by the NC Solid Waste Section (SWS) rules/regulations as promulgated in 15A NCAC 13B.

As specified in rule 15A NCAC 13B.0601 and the SWS Environmental Monitoring Report Form, this report contains sampling procedures, field and laboratory results, groundwater and surface water characterization, and findings. A detections table, field data results, a potentiometric map, field observations table, quality assurance/quality control data, and laboratory analytical data results with chain-of-custody (C-O-C) are included.

Sampling Procedure

Municipal Engineering Services Company, P.A. (MESCO) personnel performed the sampling event in accordance with 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 one surface water point (SW-3). Quality control measures implemented during this event included submittal and subsequent quantification of blanks equipment (EB), field (FB), and travel (TB). Analytical results from supplemental surface water samples collected from the unnamed perennial tributary of Fourth Creek (SW-NEofMW-16, SW-SofConfluence and SW-2) are presented. Background well MW-1B and upstream SW-6 were dry. Monitoring locations are shown on the enclosed potentiometric map for the facility (**Plate 2**).

Sampling was conducted utilizing portable sampling methodology outlined in the NCDENR SWS guidance document S*olid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling* revised April 2008. Monitoring location function and integrity were visually evaluated 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. During purging, stabilized field parameters pH, specific conductance, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), total dissolved solids (TDS), dissolved carbon dioxide, and turbidity were recorded. The samples were placed into laboratory-prepared, pre-preserved containers via a new disposable polyethylene bailer. Samples were collected/separated based on likelihood of potential cross-contamination, kept on ice, and transported to a NC-certified laboratory under proper C-O-C protocol within the specified hold times for each analysis.

PO Box 97, Garner, North Carolina 27529 (919) 772-5393
PO Box 828, Morehead City, NC 28557 (252) 726-9481 PO Box 349, Boone, North Carolina 28607 (828) 262-1767

Field Parameter Data

A field parameter data summary table is presented as **Table 5** and the field sampling data sheet is enclosed in **Appendix B**.

Laboratory Results

Environmental Conservation Laboratories (ENCO) of Cary, NC performed the laboratory analysis on the collected water samples for at least the Appendix I list of constituents contained in 40 CFR 258 and tetrahydrofuran. A sampling and analysis summary is presented as **Table 1**.

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 above the current SWSL, Groundwater Protection Standards (GWP), North Carolina Groundwater Standards (2L) or the North Carolina Surface Water Standards (2B). Laboratory results and C-O-Cs are presented in **Appendix A**.

Quality Control Samples

Non-quantifiable concentrations of arsenic and copper were detected in the quality control blank(s). Although these blank qualified detections were identified, it appears that the data set's validity was not effected by false positives or high bias attributed to field and/or laboratory artifact contamination.

Groundwater Samples

Total undissolved metals were detected in concentrations above the 2L Standard in MW-23 (cadmium) and MW-24S (chromium). Total metals were also detected above the 2L Standard in upgradient background wells MW-1A (cadmium) and MW-1C (chromium). The volatile organic compound benzene was reported at levels above the respective 2L Standard in samples collected from MW-9R, MW-9RR and MW-16.

Surfacewater Samples

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

Groundwater and Surface Water Characterization

A single-day potentiometric map for the uppermost aquifer created from groundwater elevation data collected during this event, is included as **Plate 2**. Groundwater flow rates and directions were calculated based on collected data and are included in **Table 3**. Groundwater beneath the unlined closed C&D landfill appears to flow, easterly discharging into an unnamed tributary of Fourth Creek, which is believed to serve as the local discharge feature. The groundwater flow rates ranged from approximately 16 foot/year (MW-22) to 285 feet/year (MW-25) averaging approximately 139 feet/year. The flow directions and gradients are generally consistent with reported historical observations. Streams located within the facility boundaries were visually observed with low volume, flow and turbidity.

Findings

Detected metals do not appear to originate from landfill activities, as evidenced by the reported metal exceedances found in samples collected hydrologically upgradient of the closed C&D landfill.

Benzene was detected above the 2L Standard in samples collected from MW-9R, MW-9RR and MW-16. The horizontal migration extent of benzene as detected in MW-9R, MW-9RR and MW-16 appears to be isolated to approximately ½ acre along the west bank of the local discharge feature. Benzene nor any other Appendix I VOCs were detected from surface water samples SW-3 and SW-NEofMW-16 collected directly downgradient.

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 likely originates off site and is diluted to non-detectable levels further downstream at SW-2.

Closing

The Iredell County C&D landfill ceased operation in June 2008 and was closed per the approved closure plan. Semi-annual water quality monitoring is expected to continue and is tentatively scheduled to be performed again in January 2012. If you have any questions or comments regarding this report, please contact us by phone at (919) 772-5393 or by email at jpfohl@mesco.com or mgerman@mesco.com.

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

Jonathan Pfohl
Environmental Specialist

Madeline German, P.G.
Geologist

NORTH CAROLINA LICENSED SE 2. 1/1/2011 GEOLOGIST MADELINE GERMAN

Enclosures

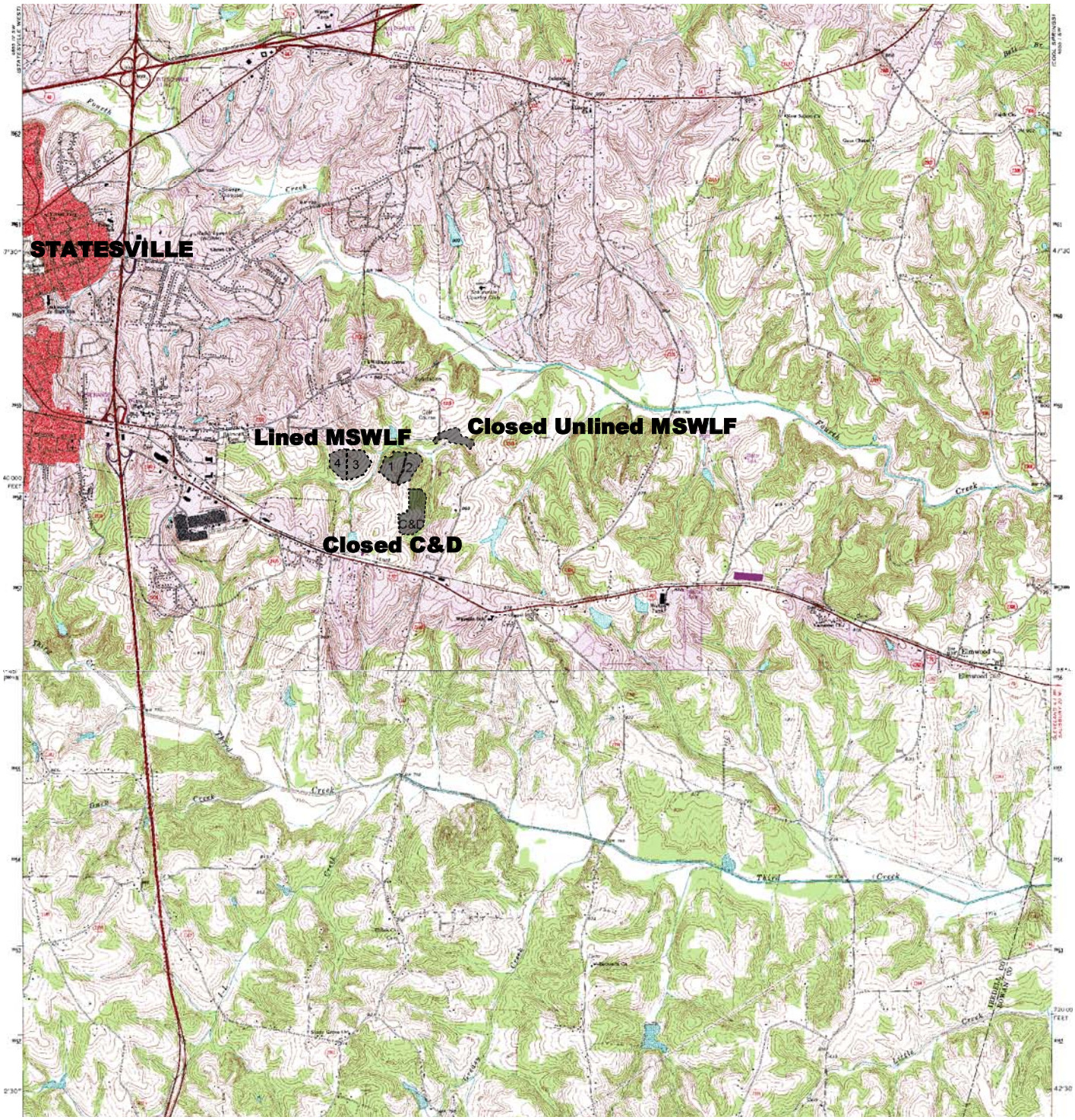
cc: Mr. David Lambert
Iredell County

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

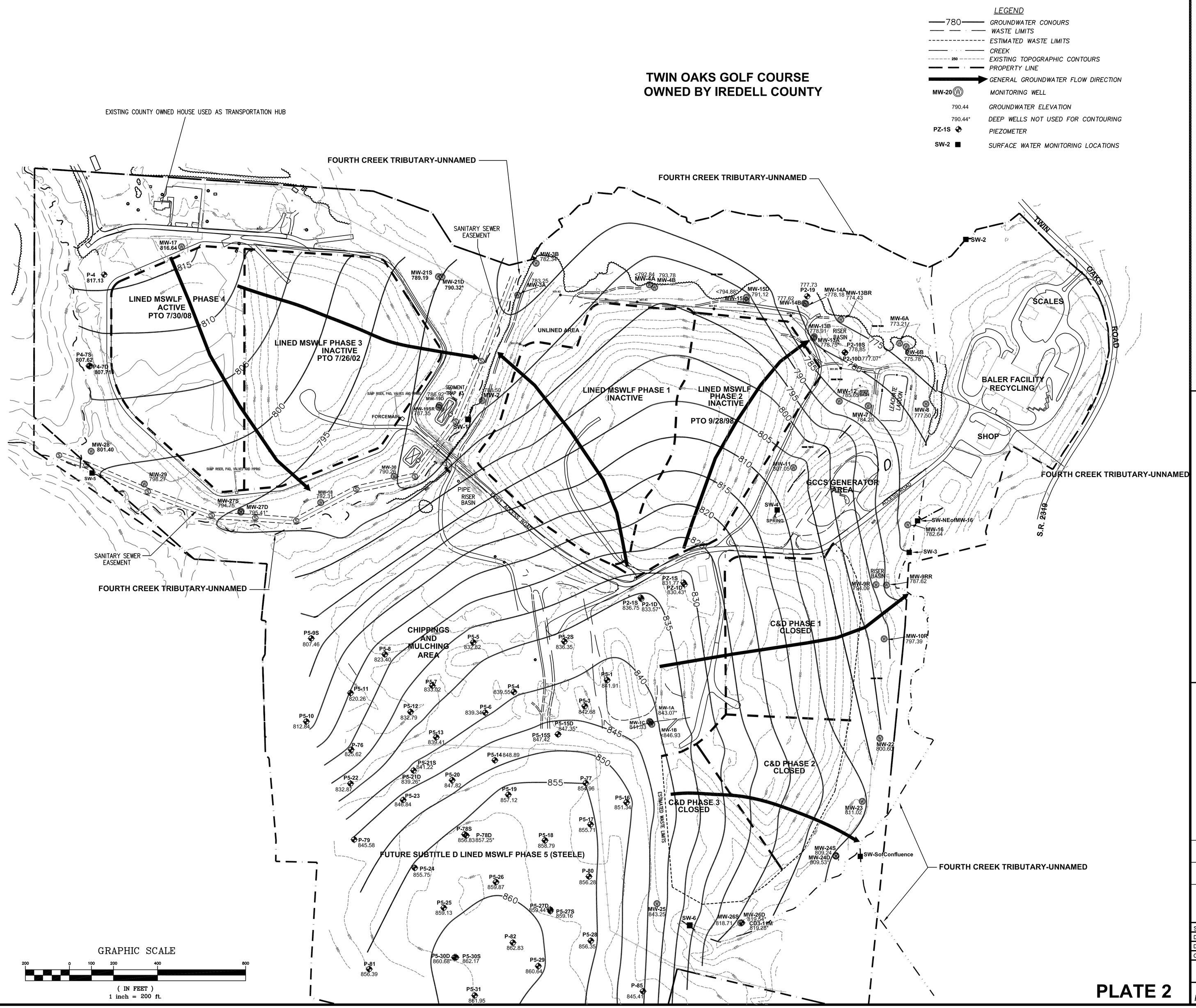
ROAD CLASSIFICATION

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

PLATE 1

TWIN OAKS GOLF COURSE
OWNED BY IREDELL COUNTY



Groundwater Data at Monitoring Well Locations
Iredell County Landfills
July 18, 21 & 25, 2011

WELL #	TOP OF CASING ELEVATION (FT AMSL)	DEPTH TO GROUNDWATER (FT BTOC)	GROUNDWATER POTENTIOMETRIC ELEVATION (FT AMSL)
MW-1A	867.74	24.67	843.07*
MW-1B	867.93	>21.00	<846.93
MW-1C	866.25	24.92	841.33
MW-2	797.62	9.12	788.50
MW-3A	792.10	8.85	783.25
MW-3B	790.61	8.27	782.34
MW-4A	822.70	>29.79	<792.84
MW-4B	825.41	31.63	793.78
MW-6A	793.00	19.79	773.21
MW-6B	798.87	23.09	775.78*
MW-7	798.23	14.03	784.20
MW-8	797.40	19.90	777.50
MW-9R	807.19	13.10	794.09
MW-9RR	806.16	18.54	787.62
MW-10R	820.74	23.35	797.39
MW-11	821.46	14.41	807.05
MW-12	805.64	19.99	785.65
MW-13A	818.41	39.66	778.75*
MW-13B	818.10	39.19	778.91
MW-13BR	811.31	36.88	774.43
MW-14A	818.98	>40.89	<778.18
MW-14B	818.54	40.92	777.62
MW-15	838.99	>44.45	<794.88
MW-15D	837.64	46.52	791.12
MW-16	794.14	11.50	782.64
P2-10S	812.37	33.52	778.85
P2-10D	812.37	35.30	777.07*
P2-1S	858.36	21.61	836.75
P2-1D	860.48	26.91	833.57*
P2-19	814.30	36.57	777.73
MW-17	854.35	37.71	816.64
MW-18	800.72	8.41	792.31
MW-19SR	797.26	9.91	787.35
MW-19D	795.81	8.89	786.92*
MW-21S	823.97	34.78	789.19
MW-21D	822.76	32.44	790.32*
MW-22	832.31	31.71	800.60
MW-23	824.34	13.32	811.02
MW-24S	819.34	10.10	809.24
MW-24D	819.13	9.60	809.53*
MW-25	865.16	21.91	843.25
MW-26S	833.54	14.83	818.71
MW-26D	833.94	14.40	819.54*
MW-27S	807.25	12.50	794.75
MW-27D	806.95	11.54	795.41*
MW-28	810.17	8.77	801.40
MW-29	809.06	10.79	798.27
MW-30	797.91	7.65	790.26
PZ-1S	873.42	41.65	831.77
PZ-1D	871.38	40.95	830.43*
P-4	839.25	22.12	817.13
P4-7S	818.47	10.85	807.62
P4-7D	819.00	11.29	807.71*
CD3-11M	834.35	15.07	819.28*
P5-1	863.37	21.46	841.91
P5-2S	863.25	26.90	836.35
P5-3	868.19	25.51	842.68
P5-4	868.47	28.92	839.55
P5-5	858.89	26.07	832.82
P5-6	869.41	30.07	839.34
P5-7	862.37	29.35	833.02
P5-8	849.91	26.51	823.40
P5-9S	834.49	27.03	807.46
P5-10	839.18	26.34	812.84
P5-11	838.32	18.06	820.26
P5-12	852.40	19.61	832.79
P5-13	867.92	29.51	838.41
P5-14	881.73	32.84	848.89
P5-15S	876.23	28.81	847.42
P5-16	876.90	25.56	851.34
P5-17	881.15	25.44	855.71
P5-18	889.93	31.14	858.79
P5-19	889.26	32.14	857.12
P5-20	876.76	28.94	847.82
P5-21S	870.93	29.71	841.22
P5-22	864.73	31.86	832.87
P5-23	873.89	27.05	846.84
P5-24	884.67	28.92	855.75
P5-25	897.89	38.76	859.13
P5-26	901.01	41.14	859.87
P5-27S	892.60	33.44	859.16
P5-28	890.53	34.18	856.35
P5-29	901.39	40.75	860.64
P5-30S	894.11	31.94	862.17
P5-31	895.26	33.31	861.95
P-76	855.33	29.71	825.62
P-77	884.90	29.94	854.96
P-78S	893.57	36.74	856.83
P-79	880.13	34.55	845.58
P-80	885.87	29.59	856.28
P-81	874.75	18.36	856.39
P-82	897.29	34.46	862.83
P-85	878.67	33.26	845.41

* Deep wells not used for groundwater contouring

PLATE 2

Municipal Engineering Services Company, P.A.
P.O. BOX 349 BOONE, N.C. 28607 (704) 262-1767
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
LICENSE NUMBER: C-0281

SUBTITLE D LINED MSW PHASES 1,2,3,4
CLOSED C&D PHASES 1,2,3
IREDELL COUNTY
NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

SINGLE-EVENT POTENTIOMETRIC MAP
UPPERMOST AQUIFER

SCALE:	1"=200'
DATE:	10/15/11
DRWN. BY:	J. PFOHL
CHKD. BY:	M. GERMAN
PROJECT NUMBER	G11014.0
DRAWING NO.	PLATE 2
SHEET NO.	1 OF 1

Tables

Table 1
Sampling and Analysis Summary
July 18, 19, 21, 26 & 27, 2011

		App. I		App. II								Misc.	Field Parameter						
	Reason Not Sampled	VOCs	Total Metals	VOCs	Total Metals	Pesticides	Herbicides-Chlorinated	Polychlorinated biphenyl (PCB)	Semivolatile Organics (SVOCs)	Total Cyanide	Sulfide	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 8081B	Lab SW8151A	Lab EPA 8082A	Lab EPA 8270D	Lab EPA 9014	Lab SM18 4500-S D	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	x	x	x	x	x	x
MW-1B	Dry																		
MW-1C				x	x	x	x	x	x	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-NEofMW-16		x											x	x	x	x	x	x	x
SW-6	Dry																		
EB				x	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 (Appendix I)
July 19 & 21, 2011

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	**Cadmium Total**	**7/19/11**	**1.93**	**ug/L**	**0.360**	**1**	**1.75**			**0.18**	**B & N**
MW-1A	Copper Total	7/19/11	13.8	ug/L	1.60	10	1000				
MW-1A	Vanadium Total	7/19/11	18.3 j	ug/L	1.40	25	NE		3.5	14.8	
MW-1A	Zinc Total	7/19/11	26.4	ug/L	3.80	10	1050				
MW-1C	Barium Total	7/19/11	453	ug/L	1.00	100	700				
MW-1C	**Chromium Total**	**7/19/11**	**18.8**	**ug/L**	**1.00**	**10**	**10**			**8.8**	**B & N**
MW-1C	Cobalt Total	7/19/11	18.7	ug/L	1.10	10	NE		70		
MW-1C	Copper Total	7/19/11	50.3	ug/L	1.60	10	1000				
MW-1C	Vanadium Total	7/19/11	101 j	ug/L	1.40	25	NE		3.5	97.5	
MW-1C	Zinc Total	7/19/11	145	ug/L	3.80	10	1050				
MW-9R	**Benzene**	**7/21/11**	**1.3**	**ug/L**	**0.68**	**1**	**1**			**0.3**	**L &/or LFG**
MW-9R	Barium Total	7/21/11	127	ug/L	1.00	100	700				
MW-9R	Cadmium Total	7/21/11	1.3	ug/L	0.360	1	1.75				
MW-9R	Cobalt Total	7/21/11	19.4	ug/L	1.10	10	NE		70		
MW-9RR	**Benzene**	**7/21/11**	**1.9**	**ug/L**	**0.68**	**1**	**1**			**0.9**	**L &/or LFG**
MW-9RR	Barium Total	7/21/11	116	ug/L	1.00	100	700				
MW-9RR	Copper Total	7/21/11	15.1	ug/L	1.60	10	1000				
MW-9RR	Vanadium Total	7/21/11	17.8 j	ug/L	1.40	25	NE		3.5	14.3	
MW-9RR	Zinc Total	7/21/11	16	ug/L	3.80	10	1050				
MW-10R	Barium Total	7/21/11	107	ug/L	1.00	100	700				
MW-16	Tetrahydrofuran	7/21/11	4.6	ug/L	0.80	NE	NE		NE		
MW-16	**Benzene**	**7/21/11**	**1.8**	**ug/L**	**0.68**	**1**	**1**			**0.8**	**L &/or LFG**
MW-16	Barium Total	7/21/11	168	ug/L	1.00	100	700				
MW-16	Vanadium Total	7/21/11	7.49 j	ug/L	1.40	25	NE		3.5	3.99	
MW-16	Zinc Total	7/21/11	19.2	ug/L	3.80	10	1050				
MW-22	Barium Total	7/21/11	145	ug/L	1.00	100	700				
MW-22	Vanadium Total	7/21/11	7.05 j	ug/L	1.40	25	NE		3.5	3.55	
MW-22	Zinc Total	7/21/11	26.3	ug/L	3.80	10	1050				
MW-23	**Cadmium Total**	**7/21/11**	**2.02**	**ug/L**	**0.360**	**1**	**1.75**			**0.27**	**N**
MW-24D	Vanadium Total	7/21/11	9.41 j	ug/L	1.40	25	NE		3.5	5.91	

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause [7]
MW-24S	Barium Total	7/21/11	746	ug/L	1.00	100	700				
MW-24S	Beryllium Total	7/21/11	2.96	ug/L	0.100	1	NE		4		
MW-24S	Cadmium Total	7/21/11	1.33	ug/L	0.360	1	1.75				
MW-24S	**Chromium Total**	**7/21/11**	**24**	**ug/L**	**1.00**	**10**	**10**			**14**	**N**
MW-24S	Copper Total	7/21/11	39.9	ug/L	1.60	10	1000				
MW-24S	Vanadium Total	7/21/11	61.8 j	ug/L	1.40	25	NE		3.5	58.3	
MW-24S	Zinc Total	7/21/11	115	ug/L	3.80	10	1050				
MW-25	Vanadium Total	7/21/11	7.83 j	ug/L	1.40	25	NE		3.5	4.33	
MW-25	Zinc Total	7/21/11	15.8	ug/L	3.80	10	1050				
MW-26D	Vanadium Total	7/21/11	11.9 j	ug/L	1.40	25	NE		3.5	8.4	
MW-26S	Vanadium Total	7/21/11	8.18 j	ug/L	1.40	25	NE		3.5	4.68	
SW-3	**Zinc Total**	**7/21/11**	**111**	**ug/L**	**3.80**	**10**		**50**		**61**	**Offsite**
SW-SofConfluence	Barium Total	7/21/11	106	ug/L	1.00	100		200000			
SW-SofConfluence	**Zinc Total**	**7/21/11**	**816**	**ug/L**	**3.80**	**10**		**50**		**766**	**Offsite**

[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

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 19 & 21, 2011

Monitoring Location	Hydraulic Conductivity (cm/second)	Effective Porosity (%)	Hydraulic Gradient (feet/feet)	Flow 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	0.08	na	na	24.67	843.07	Silty Clayey Sand
MW-1C	na	20.00	0.04	na	N81E	24.92	841.33	Silty Clayey Sand
MW-9R	2.00E-04	15.00	0.07	103	S89E	14.41	792.78	Sandy Silt
MW-9RR	1.53E-04	15.00	0.24	254	S89E	18.54	787.62	Sandy Silt
MW-10R	9.00E-05	15.00	0.12	73	N83E	23.35	797.39	Sandy Silt
MW-16	4.65E-04	15.00	0.06	179	N80E	11.50	782.64	Sandy Silt
MW-22	3.35E-05	16.08	0.07	16	N76E	31.71	800.60	Sandy Silt
MW-23	1.18E-04	16.08	0.09	68	S78E	25.52	798.82	Silty Sand
MW-24S	2.63E-04	16.08	0.04	64	S73E	10.12	809.22	Silty Sand
MW-25	3.72E-04	9.70	0.07	285	S86E	21.91	843.25	Silty Sand
MW-26S	1.81E-04	4.50	0.05	211	S58E	14.83	818.71	Clayey Sand/Sandy Clay
Minimum	3.35E-05	4.50	0.04	16	-	10.12	782.64	-
Average	2.08E-04	14.77	0.08	139	-	20.13	810.49	-
Maximum	4.65E-04	20.00	0.24	285	-	31.71	843.25	-

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 19 & 21, 2011.
na = not available

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

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

Table 4
Field Observations of Monitoring Locations
July 18,19 & 21, 2011

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

Any unusual field conditions, observations, or events:

None to note

Table 5
Field Parameter Data Summary
July 25-26, 2011

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	24.67	841.58	866.25	15.8	186	2.4	6.34	96	48	Slight
MW-1C	24.91	842.83	867.74	15.7	336	1.9	5.63	71	35	Moderate
Minimum	24.67	841.58	866.25	15.7	186	1.9	5.63	71	35	Slight
Average	24.79	842.21	867.00	15.8	261	2.2	5.99	84	42	Slight
Maximum	24.91	842.83	867.74	15.8	336	2.4	6.34	96	48	Moderate
MW-9R	13.10	794.09	807.19	17.7	62	1.2	6.09	623	311	Clear
MW-9RR	18.54	787.62	806.16	16.2	88	1.4	6.66	1518	756	Slight
MW-10R	23.35	797.39	820.74	17.3	111	2.3	6.61	381	180	Slight
MW-16	11.43	782.71	794.14	14.8	79	0.7	6.02	226	113	Clear
MW-22	31.71	800.6	832.31	15.1	271	6.1	6.09	29	14	Slight
MW-23	25.52	798.82	824.34	16.0	264	0.8	5.98	369	183	Clear
MW-24S	10.12	809.22	819.34	14.6	336	3.7	5.34	385	192	Clear
MW-24D	9.60	809.53	819.13	14.4	307	5.7	6.19	91	45	Clear
MW-25	21.90	843.26	865.16	18.1	183	4.8	6.62	63	30	Slight
MW-26S	14.83	818.71	833.54	16.0	162	4.3	6.72	62	30	Slight
MW-26D	14.40	819.54	833.94	16.1	103	3.8	8.10	138	72	Moderate
Minimum	9.60	782.71	794.14	14.4	62	0.7	5.34	29	14	Clear
Average	17.68	805.59	823.27	16.0	179	3.2	6.40	353	175	Slight
Maximum	31.71	843.26	865.16	18.1	336	6.1	8.10	1518	756	Moderate
SW-2	-	-	-	22.8	180	6.4	6.91	136	70	Slight
SW-3	-	-	-	23.6	170	6.1	6.73	168	81	Clear
SW-SofConfluence	-	-	-	2.6	263	6.0	6.67	504	252	Clear
SW-NEofMW-16	-	-	-	2.7	210	6.1	6.90	306	151	Clear
Minimum	-	-	-	2.6	170	6.0	6.67	136	70	Clear
Average				12.9	206	6.2	6.80	279	139	Clear
Maximum	-	-	-	23.6	263	6.4	6.91	504	252	Clear

Background wells MW-1A and MW-1C sampled on 7/19/11

SW-2 sampled 7/18/11

Appendix A
Laboratory Analysis Reports
Chains of Custody

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

Tuesday, August 2, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10013.0 (CD), Project Name/Desc: Iredell C&D LF
ENCO Workorder: C108680

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, July 22, 2011.

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

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

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

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

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 46.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-9R | **Lab ID: C108680-01** | **Sampled: 07/21/11 13:00** | **Received: 07/22/11 10:30**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11	12:52	7/26/2011 11:12
EPA 6020A	01/17/12	07/25/11	12:02	8/2/2011 12:26
EPA 8260B	08/04/11	07/29/11	14:56	7/30/2011 03:18

Client ID: MW-9RR | **Lab ID: C108680-02** | **Sampled: 07/21/11 12:35** | **Received: 07/22/11 10:30**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11	12:52	7/26/2011 11:28
EPA 6020A	01/17/12	07/25/11	12:02	8/2/2011 12:29
EPA 8260B	08/04/11	07/29/11	14:56	7/30/2011 03:47

Client ID: MW-10R | **Lab ID: C108680-03** | **Sampled: 07/21/11 12:00** | **Received: 07/22/11 10:30**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11	12:52	7/26/2011 11:30
EPA 6020A	01/17/12	07/25/11	12:02	8/2/2011 12:33
EPA 8260B	08/04/11	07/29/11	14:56	7/30/2011 04:17

Client ID: MW-16 | **Lab ID: C108680-04** | **Sampled: 07/21/11 13:35** | **Received: 07/22/11 10:30**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11	12:52	7/26/2011 11:32
EPA 6020A	01/17/12	07/25/11	12:02	8/2/2011 12:37
EPA 8260B	08/04/11	07/29/11	14:56	7/30/2011 04:47

Client ID: MW-22 | **Lab ID: C108680-05** | **Sampled: 07/21/11 11:20** | **Received: 07/22/11 10:30**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11	12:52	7/26/2011 11:34
EPA 6020A	01/17/12	07/25/11	12:02	8/2/2011 11:56
EPA 8260B	08/04/11	07/29/11	14:56	7/30/2011 05:17

Client ID: MW-23 | **Lab ID: C108680-06** | **Sampled: 07/21/11 10:45** | **Received: 07/22/11 10:30**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11	12:52	7/26/2011 11:35
EPA 6020A	01/17/12	07/25/11	12:02	8/2/2011 12:40
EPA 8260B	08/04/11	07/29/11	14:56	7/30/2011 05:47

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Client ID: MW-24S	Lab ID: C108680-07	Sampled: 07/21/11 10:15	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11 12:52	7/26/2011 11:37
EPA 6020A	01/17/12	07/25/11 12:02	8/2/2011 12:44
EPA 8260B	08/04/11	07/29/11 14:56	7/30/2011 06:17

Client ID: MW-24D	Lab ID: C108680-08	Sampled: 07/21/11 09:50	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11 12:52	7/26/2011 11:45
EPA 6020A	01/17/12	07/25/11 12:02	8/2/2011 12:48
EPA 8260B	08/04/11	07/29/11 14:56	7/30/2011 06:47

Client ID: MW-25	Lab ID: C108680-09	Sampled: 07/21/11 08:10	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11 12:52	7/26/2011 11:47
EPA 6020A	01/17/12	07/25/11 12:02	8/2/2011 12:51
EPA 8260B	08/04/11	07/29/11 14:56	7/30/2011 07:17

Client ID: MW-26S	Lab ID: C108680-10	Sampled: 07/21/11 09:15	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11 12:52	7/26/2011 11:49
EPA 6020A	01/17/12	07/25/11 12:02	8/2/2011 13:06
EPA 8260B	08/04/11	07/29/11 14:56	7/30/2011 07:46

Client ID: MW-26D	Lab ID: C108680-11	Sampled: 07/21/11 08:45	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11 12:52	7/26/2011 11:50
EPA 6020A	01/17/12	07/25/11 12:02	8/2/2011 13:10
EPA 8260B	08/04/11	07/29/11 14:56	7/30/2011 08:16

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: MW-9R **Lab ID: C108680-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.227	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	4.52	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	127		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	1.3		1	0.68	1.0	1	ug/L	EPA 8260B	
Cadmium - Total	1.30		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	2.43	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.99	J	1	0.72	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	19.4		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	1.98	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Selenium - Total	3.40	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Thallium - Total	0.270	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Zinc - Total	7.85	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-9RR **Lab ID: C108680-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	5.97	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	116		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	1.9		1	0.68	1.0	1	ug/L	EPA 8260B	
Cadmium - Total	0.732	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.49	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.19	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	15.1		1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.91	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	3.78	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Vanadium - Total	17.8	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	16.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-10R **Lab ID: C108680-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	107		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.195	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Copper - Total	1.75	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Selenium - Total	0.845	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Zinc - Total	5.01	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-16 **Lab ID: C108680-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.21	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	168		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	1.8		1	0.68	1.0	1	ug/L	EPA 8260B	
Cadmium - Total	0.625	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	2.87	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	3.2	J	1	0.72	1.0	5	ug/L	EPA 8260B	
Copper - Total	4.00	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.08	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Selenium - Total	1.07	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Tetrahydrofuran	4.6		1	0.80	1.0	NE	ug/L	EPA 8260B	
Vanadium - Total	7.49	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	19.2		1	3.80	10.0	10	ug/L	EPA 6010C	

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Client ID: MW-22 **Lab ID: C108680-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	145		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.248	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	8.87	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.65	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	1.86	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	7.05	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	26.3		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-23 **Lab ID: C108680-06**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.257	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	40.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	2.02		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	1.09	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	1.84	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.79	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	1.31	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Zinc - Total	8.95	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-24S **Lab ID: C108680-07**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	746		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	2.96		1	0.100	1.00	1	ug/L	EPA 6010C	
Cadmium - Total	1.33		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	24.0		1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	8.82	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	39.9		1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	5.15	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	18.9	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	1.56	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Vanadium - Total	61.8		1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	115		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-24D **Lab ID: C108680-08**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	12.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	5.63	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	3.21	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	9.41	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	4.42	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-25 **Lab ID: C108680-09**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	68.5	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.879	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	3.51	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	6.17	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	7.83	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	15.8		1	3.80	10.0	10	ug/L	EPA 6010C	

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Client ID: MW-26S									Lab ID: C108680-10
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Barium - Total	96.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.203	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	3.22	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.88	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	8.18	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	6.92	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-26D									Lab ID: C108680-11
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Antimony - Total	0.582	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	4.41	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	16.1	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.419	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	1.47	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	3.39	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	11.9	J	1	1.40	10.0	25	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: MW-9R
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-01
Sampled: 07/21/11 13:00
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 03:18	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 03:18	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 03:18	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 03:18	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 03:18	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 03:18	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 03:18	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 03:18	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 03:18	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 03:18	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 03:18	jkg	
Benzene [71-43-2] ^	**1.3**		ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 03:18	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 03:18	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 03:18	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 03:18	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 03:18	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 03:18	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 03:18	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**0.99**	J	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 03:18	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 03:18	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 03:18	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 03:18	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 03:18	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 03:18	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 03:18	jkg	

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Description: MW-9R
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-01
Sampled: 07/21/11 13:00
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 03:18	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 03:18	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 03:18	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*111 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 03:18*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 03:18*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*107 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 03:18*	*jkg*	

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Description: MW-9R
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-01
Sampled: 07/21/11 13:00
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.227**	J	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 12:26	VLO	
Arsenic [7440-38-2] ^	**4.52**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:12	JDH	
Barium [7440-39-3] ^	**127**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:12	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:12	JDH	
Cadmium [7440-43-9] ^	**1.30**		ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:12	JDH	
Chromium [7440-47-3] ^	**2.43**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:12	JDH	
Cobalt [7440-48-4] ^	**19.4**		ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:12	JDH	
Copper [7440-50-8] ^	**1.98**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:12	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:12	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:12	JDH	
Selenium [7782-49-2] ^	**3.40**	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 12:26	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:12	JDH	
Thallium [7440-28-0] ^	**0.270**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 12:26	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:12	JDH	
Zinc [7440-66-6] ^	**7.85**	J	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:12	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-9RR | **Lab Sample ID:** C108680-02 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 12:35 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 03:47	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 03:47	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 03:47	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 03:47	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 03:47	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 03:47	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 03:47	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 03:47	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 03:47	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 03:47	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 03:47	jkg	
Benzene [71-43-2] ^	**1.9**		ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 03:47	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 03:47	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 03:47	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 03:47	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 03:47	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 03:47	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 03:47	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 03:47	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 03:47	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 03:47	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 03:47	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 03:47	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 03:47	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 03:47	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 03:47	jkg	

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Description: MW-9RR
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-02
Sampled: 07/21/11 12:35
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 03:47	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 03:47	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*109 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 03:47*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 03:47*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 03:47*	*jkg*	

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Description: MW-9RR
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-02
Sampled: 07/21/11 12:35
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 12:29	VLO	
Arsenic [7440-38-2] ^	**5.97**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:28	JDH	
Barium [7440-39-3] ^	**116**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:28	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:28	JDH	
Cadmium [7440-43-9] ^	**0.732**	J	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:28	JDH	
Chromium [7440-47-3] ^	**5.49**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:28	JDH	
Cobalt [7440-48-4] ^	**2.19**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:28	JDH	
Copper [7440-50-8] ^	**15.1**		ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:28	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:28	JDH	
Nickel [7440-02-0] ^	**2.91**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:28	JDH	
Selenium [7782-49-2] ^	**3.78**	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 12:29	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:28	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 12:29	VLO	
Vanadium [7440-62-2] ^	**17.8**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:28	JDH	
Zinc [7440-66-6] ^	**16.0**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:28	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-10R
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-03
Sampled: 07/21/11 12:00
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 04:17	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 04:17	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 04:17	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 04:17	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 04:17	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 04:17	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 04:17	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 04:17	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 04:17	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 04:17	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 04:17	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 04:17	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 04:17	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 04:17	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 04:17	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 04:17	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 04:17	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 04:17	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 04:17	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 04:17	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 04:17	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 04:17	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 04:17	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 04:17	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 04:17	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 04:17	jkg	

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Description: MW-10R
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-03
Sampled: 07/21/11 12:00
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 04:17	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 04:17	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*56*	*1*	*50.0*	*111 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 04:17*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 04:17*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*107 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 04:17*	*jkg*	

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Description: MW-10R
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-03
Sampled: 07/21/11 12:00
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 12:33	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:30	JDH	
Barium [7440-39-3] ^	**107**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:30	JDH	
Beryllium [7440-41-7] ^	**0.195**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:30	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:30	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:30	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:30	JDH	
Copper [7440-50-8] ^	**1.75**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:30	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:30	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:30	JDH	
Selenium [7782-49-2] ^	**0.845**	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 12:33	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:30	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 12:33	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:30	JDH	
Zinc [7440-66-6] ^	**5.01**	J	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:30	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-16 | **Lab Sample ID:** C108680-04 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 13:35 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 04:47	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 04:47	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 04:47	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 04:47	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 04:47	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 04:47	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 04:47	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 04:47	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 04:47	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 04:47	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 04:47	jkg	
Benzene [71-43-2] ^	**1.8**		ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 04:47	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 04:47	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 04:47	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 04:47	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 04:47	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 04:47	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 04:47	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**3.2**	J	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 04:47	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 04:47	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 04:47	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 04:47	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Tetrahydrofuran [109-99-9] ^	**4.6**		ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 04:47	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 04:47	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 04:47	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 04:47	jkg	

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Description: MW-16 | **Lab Sample ID:** C108680-04 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 13:35 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 04:47	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 04:47	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*109 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 04:47*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 04:47*	*jkg*	
Toluene-d8	*54*	*1*	*50.0*	*107 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 04:47*	*jkg*	

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Description: MW-16 | **Lab Sample ID:** C108680-04 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 13:35 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 12:37	VLO	
Arsenic [7440-38-2] ^	**3.21**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:32	JDH	
Barium [7440-39-3] ^	**168**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:32	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:32	JDH	
Cadmium [7440-43-9] ^	**0.625**	J	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:32	JDH	
Chromium [7440-47-3] ^	**2.87**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:32	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:32	JDH	
Copper [7440-50-8] ^	**4.00**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:32	JDH	
Lead [7439-92-1] ^	**2.08**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:32	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:32	JDH	
Selenium [7782-49-2] ^	**1.07**	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 12:37	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:32	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 12:37	VLO	
Vanadium [7440-62-2] ^	**7.49**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:32	JDH	
Zinc [7440-66-6] ^	**19.2**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:32	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-22 | **Lab Sample ID:** C108680-05 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 11:20 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 05:17	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 05:17	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 05:17	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 05:17	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 05:17	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 05:17	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 05:17	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 05:17	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 05:17	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 05:17	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 05:17	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 05:17	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 05:17	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 05:17	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 05:17	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 05:17	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 05:17	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 05:17	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 05:17	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 05:17	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 05:17	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 05:17	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 05:17	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 05:17	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 05:17	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 05:17	jkg	

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Description: MW-22 | **Lab Sample ID:** C108680-05 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 11:20 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 05:17	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 05:17	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*56*	*1*	*50.0*	*111 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 05:17*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*99 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 05:17*	*jkg*	
Toluene-d8	*54*	*1*	*50.0*	*107 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 05:17*	*jkg*	

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Description: MW-22 | **Lab Sample ID:** C108680-05 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 11:20 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 11:56	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:34	JDH	
Barium [7440-39-3] ^	**145**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:34	JDH	
Beryllium [7440-41-7] ^	**0.248**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:34	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:34	JDH	
Chromium [7440-47-3] ^	**8.87**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:34	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:34	JDH	
Copper [7440-50-8] ^	**4.65**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:34	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:34	JDH	
Nickel [7440-02-0] ^	**1.86**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:34	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 11:56	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:34	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:56	VLO	
Vanadium [7440-62-2] ^	**7.05**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:34	JDH	
Zinc [7440-66-6] ^	**26.3**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:34	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-23 | **Lab Sample ID:** C108680-06 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 10:45 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 05:47	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 05:47	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 05:47	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 05:47	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 05:47	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 05:47	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 05:47	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 05:47	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 05:47	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 05:47	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 05:47	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 05:47	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 05:47	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 05:47	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 05:47	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 05:47	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 05:47	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 05:47	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 05:47	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 05:47	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 05:47	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 05:47	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 05:47	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 05:47	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 05:47	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 05:47	jkg	

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Description: MW-23 | **Lab Sample ID:** C108680-06 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 10:45 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 05:47	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 05:47	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 05:47*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 05:47*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 05:47*	*jkg*	

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Description: MW-23 | **Lab Sample ID:** C108680-06 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 10:45 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.257**	J	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 12:40	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:35	JDH	
Barium [7440-39-3] ^	**40.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:35	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:35	JDH	
Cadmium [7440-43-9] ^	**2.02**		ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:35	JDH	
Chromium [7440-47-3] ^	**1.09**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:35	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:35	JDH	
Copper [7440-50-8] ^	**1.84**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:35	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:35	JDH	
Nickel [7440-02-0] ^	**3.79**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:35	JDH	
Selenium [7782-49-2] ^	**1.31**	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 12:40	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:35	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 12:40	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:35	JDH	
Zinc [7440-66-6] ^	**8.95**	J	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:35	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-24S
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-07
Sampled: 07/21/11 10:15
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 06:17	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 06:17	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 06:17	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 06:17	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 06:17	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 06:17	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 06:17	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 06:17	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 06:17	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 06:17	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 06:17	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 06:17	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 06:17	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 06:17	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 06:17	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 06:17	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 06:17	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 06:17	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 06:17	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 06:17	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 06:17	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 06:17	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 06:17	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 06:17	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 06:17	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 06:17	jkg	

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Description: MW-24S
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-07
Sampled: 07/21/11 10:15
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 06:17	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 06:17	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*109 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 06:17*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 06:17*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 06:17*	*jkg*	

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Description: MW-24S
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-07
Sampled: 07/21/11 10:15
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 12:44	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:37	JDH	
Barium [7440-39-3] ^	**746**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:37	JDH	
Beryllium [7440-41-7] ^	**2.96**		ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:37	JDH	
Cadmium [7440-43-9] ^	**1.33**		ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:37	JDH	
Chromium [7440-47-3] ^	**24.0**		ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:37	JDH	
Cobalt [7440-48-4] ^	**8.82**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:37	JDH	
Copper [7440-50-8] ^	**39.9**		ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:37	JDH	
Lead [7439-92-1] ^	**5.15**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:37	JDH	
Nickel [7440-02-0] ^	**18.9**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:37	JDH	
Selenium [7782-49-2] ^	**1.56**	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 12:44	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:37	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 12:44	VLO	
Vanadium [7440-62-2] ^	**61.8**		ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:37	JDH	
Zinc [7440-66-6] ^	**115**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:37	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-24D
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-08
Sampled: 07/21/11 09:50
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 06:47	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 06:47	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 06:47	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 06:47	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 06:47	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 06:47	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 06:47	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 06:47	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 06:47	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 06:47	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 06:47	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 06:47	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 06:47	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 06:47	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 06:47	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 06:47	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 06:47	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 06:47	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 06:47	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 06:47	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 06:47	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 06:47	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 06:47	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 06:47	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 06:47	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 06:47	jkg	

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Description: MW-24D
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-08
Sampled: 07/21/11 09:50
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 06:47	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 06:47	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*56*	*1*	*50.0*	*113 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 06:47*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*97 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 06:47*	*jkg*	
Toluene-d8	*54*	*1*	*50.0*	*107 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 06:47*	*jkg*	

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Description: MW-24D
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-08
Sampled: 07/21/11 09:50
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 12:48	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:45	JDH	
Barium [7440-39-3] ^	**12.2**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:45	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:45	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:45	JDH	
Chromium [7440-47-3] ^	**5.63**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:45	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:45	JDH	
Copper [7440-50-8] ^	**3.21**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:45	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:45	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:45	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 12:48	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:45	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 12:48	VLO	
Vanadium [7440-62-2] ^	**9.41**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:45	JDH	
Zinc [7440-66-6] ^	**4.42**	J	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:45	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-25 | **Lab Sample ID:** C108680-09 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 08:10 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 07:17	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 07:17	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 07:17	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 07:17	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 07:17	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 07:17	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 07:17	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 07:17	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 07:17	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 07:17	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 07:17	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 07:17	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 07:17	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 07:17	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 07:17	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 07:17	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 07:17	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 07:17	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 07:17	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 07:17	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 07:17	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 07:17	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 07:17	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 07:17	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 07:17	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 07:17	jkg	

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Description: MW-25 | **Lab Sample ID:** C108680-09 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 08:10 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 07:17	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 07:17	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*56*	*1*	*50.0*	*111 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 07:17*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 07:17*	*jkg*	
Toluene-d8	*54*	*1*	*50.0*	*108 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 07:17*	*jkg*	

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Description: MW-25 | **Lab Sample ID:** C108680-09 | **Received:** 07/22/11 10:30

Matrix: Ground Water | **Sampled:** 07/21/11 08:10 | **Work Order:** C108680

Project: Iredell C&D LF | **Sampled By:** J. Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 12:51	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:47	JDH	
Barium [7440-39-3] ^	**68.5**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:47	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:47	JDH	
Cadmium [7440-43-9] ^	**0.879**	J	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:47	JDH	
Chromium [7440-47-3] ^	**3.51**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:47	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:47	JDH	
Copper [7440-50-8] ^	**6.17**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:47	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:47	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:47	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 12:51	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:47	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 12:51	VLO	
Vanadium [7440-62-2] ^	**7.83**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:47	JDH	
Zinc [7440-66-6] ^	**15.8**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:47	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-26S
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-10
Sampled: 07/21/11 09:15
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 07:46	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 07:46	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 07:46	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 07:46	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 07:46	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 07:46	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 07:46	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 07:46	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 07:46	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 07:46	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 07:46	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 07:46	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 07:46	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 07:46	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 07:46	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 07:46	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 07:46	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 07:46	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 07:46	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 07:46	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 07:46	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 07:46	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 07:46	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 07:46	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 07:46	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 07:46	jkg	

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Description: MW-26S
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-10
Sampled: 07/21/11 09:15
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 07:46	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 07:46	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 07:46*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 07:46*	*jkg*	
Toluene-d8	*54*	*1*	*50.0*	*108 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 07:46*	*jkg*	

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Description: MW-26S
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-10
Sampled: 07/21/11 09:15
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 13:06	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:49	JDH	
Barium [7440-39-3] ^	**96.2**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:49	JDH	
Beryllium [7440-41-7] ^	**0.203**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:49	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:49	JDH	
Chromium [7440-47-3] ^	**3.22**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:49	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:49	JDH	
Copper [7440-50-8] ^	**4.88**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:49	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:49	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:49	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 13:06	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:49	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 13:06	VLO	
Vanadium [7440-62-2] ^	**8.18**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:49	JDH	
Zinc [7440-66-6] ^	**6.92**	J	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:49	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-26D
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-11
Sampled: 07/21/11 08:45
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 08:16	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 08:16	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 08:16	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 08:16	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 08:16	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 08:16	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 08:16	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 08:16	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 08:16	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 08:16	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 08:16	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 08:16	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 08:16	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 08:16	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 08:16	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 08:16	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 08:16	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 08:16	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 08:16	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 08:16	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 08:16	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 08:16	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 08:16	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 08:16	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 08:16	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 08:16	jkg	

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Description: MW-26D
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-11
Sampled: 07/21/11 08:45
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 08:16	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 08:16	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*56*	*1*	*50.0*	*111 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 08:16*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 08:16*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*107 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 08:16*	*jkg*	

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Description: MW-26D
Matrix: Ground Water
Project: Iredell C&D LF

Lab Sample ID: C108680-11
Sampled: 07/21/11 08:45
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108680

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.582**	J	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 13:10	VLO	
Arsenic [7440-38-2] ^	**4.41**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:50	JDH	
Barium [7440-39-3] ^	**16.1**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:50	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:50	JDH	
Cadmium [7440-43-9] ^	**0.419**	J	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:50	JDH	
Chromium [7440-47-3] ^	**1.47**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:50	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:50	JDH	
Copper [7440-50-8] ^	**3.39**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:50	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:50	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:50	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 13:10	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:50	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 13:10	VLO	
Vanadium [7440-62-2] ^	**11.9**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:50	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:50	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G29024 - EPA 5030B_MS

Blank (1G29024-BLK1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 00:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Tetrahydrofuran	0.80	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G29024 - EPA 5030B_MS

Blank (1G29024-BLK1) Continued Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 00:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 4-Bromofluorobenzene	*54*			*ug/L*	*50.0*		*107*	*51-122*			
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*54*			*ug/L*	*50.0*		*107*	*69-110*			

LCS (1G29024-BS1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 01:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0		118	75-133			
Benzene	23		1.0	ug/L	20.0		116	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		98	83-117			
Toluene	23		1.0	ug/L	20.0		115	71-118			
Trichloroethene	18		1.0	ug/L	20.0		88	75-115			

Matrix Spike (1G29024-MS1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 01:48

Source: C109329-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.60 U	116	75-133			
Benzene	23		1.0	ug/L	20.0	0.68 U	117	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	102	83-117			
Toluene	24		1.0	ug/L	20.0	0.85 U	118	71-118			
Trichloroethene	18		1.0	ug/L	20.0	0.72 U	91	75-115			

Matrix Spike Dup (1G29024-MSD1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 02:18

Source: C109329-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.60 U	120	75-133	3	20	
Benzene	23		1.0	ug/L	20.0	0.68 U	115	81-134	2	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	100	83-117	2	16	
Toluene	23		1.0	ug/L	20.0	0.85 U	115	71-118	2	17	
Trichloroethene	17		1.0	ug/L	20.0	0.72 U	85	75-115	7	18	

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

Batch 1G22023 - EPA 3005A

Blank (1G22023-BLK1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

Blank (1G22023-BLK1) Continued Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1G22023-BS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:10

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	560		10.0	ug/L	500		112	80-120			
Barium	555		10.0	ug/L	500		111	80-120			
Beryllium	282		1.00	ug/L	250		113	80-120			
Cadmium	286		1.00	ug/L	250		114	80-120			
Chromium	559		10.0	ug/L	500		112	80-120			
Cobalt	549		10.0	ug/L	500		110	80-120			
Copper	277		10.0	ug/L	250		111	80-120			
Lead	563		10.0	ug/L	500		113	80-120			
Nickel	552		10.0	ug/L	500		110	80-120			
Silver	291		10.0	ug/L	250		117	80-120			
Vanadium	282		10.0	ug/L	250		113	80-120			
Zinc	555		10.0	ug/L	500		111	80-120			

Matrix Spike (1G22023-MS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:20

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	572		10.0	ug/L	500	4.52	114	75-125			
Barium	667		10.0	ug/L	500	127	108	75-125			
Beryllium	282		1.00	ug/L	250	0.100 U	113	75-125			
Cadmium	278		1.00	ug/L	250	1.30	111	75-125			
Chromium	543		10.0	ug/L	500	2.43	108	75-125			
Cobalt	578		10.0	ug/L	500	19.4	112	75-125			
Copper	274		10.0	ug/L	250	1.98	109	75-125			
Lead	545		10.0	ug/L	500	1.90 U	109	75-125			
Nickel	535		10.0	ug/L	500	1.80 U	107	75-125			
Silver	270		10.0	ug/L	250	1.90 U	108	75-125			
Vanadium	279		10.0	ug/L	250	1.40 U	111	75-125			
Zinc	550		10.0	ug/L	500	7.85	108	75-125			

Matrix Spike Dup (1G22023-MSD1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:22

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	582		10.0	ug/L	500	4.52	115	75-125	2	20	
Barium	678		10.0	ug/L	500	127	110	75-125	2	20	
Beryllium	287		1.00	ug/L	250	0.100 U	115	75-125	2	20	
Cadmium	283		1.00	ug/L	250	1.30	113	75-125	2	20	
Chromium	552		10.0	ug/L	500	2.43	110	75-125	2	20	

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

Matrix Spike Dup (1G22023-MSD1) Continued Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:22

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cobalt	589		10.0	ug/L	500	19.4	114	75-125	2	20	
Copper	278		10.0	ug/L	250	1.98	110	75-125	1	20	
Lead	556		10.0	ug/L	500	1.90 U	111	75-125	2	20	
Nickel	545		10.0	ug/L	500	1.80 U	109	75-125	2	20	
Silver	277		10.0	ug/L	250	1.90 U	111	75-125	3	20	
Vanadium	283		10.0	ug/L	250	1.40 U	113	75-125	1	20	
Zinc	557		10.0	ug/L	500	7.85	110	75-125	1	20	

Post Spike (1G22023-PS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:24

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.05		0.0100	mg/L	1.00	0.00452	105	80-120			
Barium	1.14		0.0100	mg/L	1.00	0.127	101	80-120			
Beryllium	0.525		0.00100	mg/L	0.500	-9.27E-5	105	80-120			
Cadmium	0.518		0.00100	mg/L	0.500	0.00130	103	80-120			
Chromium	1.02		0.0100	mg/L	1.00	0.00243	102	80-120			
Cobalt	1.02		0.0100	mg/L	1.00	0.0194	100	80-120			
Copper	0.516		0.0100	mg/L	0.500	0.00198	103	80-120			
Lead	1.01		0.0100	mg/L	1.00	0.000498	101	80-120			
Nickel	0.995		0.0100	mg/L	1.00	0.00152	99	80-120			
Silver	0.511		0.0100	mg/L	0.500	0.00113	102	80-120			
Vanadium	0.524		0.0100	mg/L	0.500	0.000620	105	80-120			
Zinc	1.01		0.0100	mg/L	1.00	0.00785	100	80-120			

Batch 1G25022 - EPA 3005A

Blank (1G25022-BLK1) Prepared: 07/25/2011 12:02 Analyzed: 08/02/2011 13:03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (1G25022-BS1) Prepared: 07/25/2011 12:02 Analyzed: 08/02/2011 11:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.4		2.00	ug/L	25.0		101	80-120			
Selenium	24.6		1.00	ug/L	25.0		99	80-120			
Thallium	26.8		1.00	ug/L	25.0		107	80-120			

Matrix Spike (1G25022-MS1) Prepared: 07/25/2011 12:02 Analyzed: 08/02/2011 12:00

Source: C108680-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	20.1		2.00	ug/L	25.0	0.220 U	80	75-125			

QUALITY CONTROL

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

Batch 1G25022 - EPA 3005A

Matrix Spike (1G25022-MS1) Continued Prepared: 07/25/2011 12:02 Analyzed: 08/02/2011 12:00

Source: C108680-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Selenium	19.9		1.00	ug/L	25.0	0.830 U	80	75-125			
Thallium	24.4		1.00	ug/L	25.0	0.110 U	98	75-125			

Matrix Spike Dup (1G25022-MSD1) Prepared: 07/25/2011 12:02 Analyzed: 08/02/2011 12:03

Source: C108680-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	19.7		2.00	ug/L	25.0	0.220 U	79	75-125	2	20	
Selenium	18.6		1.00	ug/L	25.0	0.830 U	74	75-125	7	20	QM-07
Thallium	24.7		1.00	ug/L	25.0	0.110 U	99	75-125	0.9	20	

Post Spike (1G25022-PS1) Prepared: 07/25/2011 12:02 Analyzed: 08/02/2011 12:18

Source: C108680-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.0		2.00	ug/L	25.0	0.106	96	80-120			
Selenium	25.6		1.00	ug/L	25.0	0.0670	102	80-120			
Thallium	25.4		1.00	ug/L	25.0	0.0150	102	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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

4810 Executive Park Court, Suite 211
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

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

Client Name: Municipal Equipment Services (MU001)	Project Number:
Address: PO Box 97	Project Name/Desc: Iredell C&D
City/ST/Zip: Garner NC 27529	PO # / Billing Info:
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: J. Pfohl
Sampler(s) Name, Affiliation (Print):	Billing Contact:
Sampler(s) Signature:	Facility # (if required):

Requested Analyses: 8260B Ap 1 (Tetrahydrofuran) extended; Ag, As, Ba, Be, Cd, Co, Cr, Cu, Ni, Pb, Sb, Se, Tl, V, Zn (App I total Metals)

Preservation (See Codes) (Combine as necessary)

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due __/__/__

Lab Workorder: C108680

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers											Sample Comments
	MW-9R	7/21/11	1:00	Grab	GW	4	✓	✓									
	MW-9RR		12:35														
	MW-10R		12:00														
	MW-16		11:35														
	MW-22		11:20														
	MW-23		10:45														
	MW-24S		10:15														
	MW-24D		9:50														
	MW-25		8:10														
	MW-26S		9:15														
	MW-26D	✓	8:45	✓	✓	✓											

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: MESC	Date/Time: 7/21/11 10:30	Received By:	Date/Time: 7/22/11 1030
Comments: SW-6 Dry		Relinquished By:	Date/Time: 7/22/11	Received By:	Date/Time
		Relinquished By	Date/Time: JT	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 2.5°C		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

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

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

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

www.encolabs.com

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

Tuesday, August 2, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10013.0, Project Name/Desc: Iredell-SW-2
ENCO Workorder: C108693

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, July 22, 2011.

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

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

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

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

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 13.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: SW-2	Lab ID: C108693-01	Sampled: 07/18/11 17:00	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/14/12	07/22/11	12:52	7/26/2011 12:02
EPA 6020A	01/14/12	07/22/11	12:48	8/2/2011 11:37
EPA 8260B	08/01/11	07/29/11	14:56	7/30/2011 09:16

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: SW-2 **Lab ID:** C108693-01

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.78	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	28.7	J	1	1.00	10.0	100	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: SW-2 **Lab Sample ID:** C108693-01 **Received:** 07/22/11 10:30

Matrix: Surface Water **Sampled:** 07/18/11 17:00 **Work Order:** C108693

Project: Iredell-SW-2 **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 09:16	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 09:16	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 09:16	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 09:16	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 09:16	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 09:16	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 09:16	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 09:16	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 09:16	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 09:16	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 09:16	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 09:16	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 09:16	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 09:16	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 09:16	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 09:16	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 09:16	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 09:16	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 09:16	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 09:16	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 09:16	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 09:16	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 09:16	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 09:16	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 09:16	jkg	

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Description: SW-2 | **Lab Sample ID:** C108693-01 | **Received:** 07/22/11 10:30

Matrix: Surface Water | **Sampled:** 07/18/11 17:00 | **Work Order:** C108693

Project: Iredell-SW-2 | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 09:16	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 09:16	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 09:16	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 09:16*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*97 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 09:16*	*jkg*	
Toluene-d8	*54*	*1*	*50.0*	*108 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 09:16*	*jkg*	

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Description: SW-2 | **Lab Sample ID:** C108693-01 | **Received:** 07/22/11 10:30

Matrix: Surface Water | **Sampled:** 07/18/11 17:00 | **Work Order:** C108693

Project: Iredell-SW-2 | **Sampled By:** J. Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 11:37	VLO	
Arsenic [7440-38-2] ^	**3.78**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:02	JDH	
Barium [7440-39-3] ^	**28.7**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:02	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:02	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:02	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:02	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:02	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:02	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:02	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:02	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 11:37	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:02	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:37	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:02	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:02	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G29024 - EPA 5030B_MS

Blank (1G29024-BLK1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 00:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Tetrahydrofuran	0.80	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G29024 - EPA 5030B_MS

Blank (1G29024-BLK1) Continued Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 00:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 4-Bromofluorobenzene	*54*			*ug/L*	*50.0*		*107*	*51-122*			
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*54*			*ug/L*	*50.0*		*107*	*69-110*			

LCS (1G29024-BS1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 01:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0		118	75-133			
Benzene	23		1.0	ug/L	20.0		116	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		98	83-117			
Toluene	23		1.0	ug/L	20.0		115	71-118			
Trichloroethene	18		1.0	ug/L	20.0		88	75-115			

Matrix Spike (1G29024-MS1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 01:48

Source: C109329-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.60 U	116	75-133			
Benzene	23		1.0	ug/L	20.0	0.68 U	117	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	102	83-117			
Toluene	24		1.0	ug/L	20.0	0.85 U	118	71-118			
Trichloroethene	18		1.0	ug/L	20.0	0.72 U	91	75-115			

Matrix Spike Dup (1G29024-MSD1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 02:18

Source: C109329-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.60 U	120	75-133	3	20	
Benzene	23		1.0	ug/L	20.0	0.68 U	115	81-134	2	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	100	83-117	2	16	
Toluene	23		1.0	ug/L	20.0	0.85 U	115	71-118	2	17	
Trichloroethene	17		1.0	ug/L	20.0	0.72 U	85	75-115	7	18	

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

Batch 1G22019 - EPA 3005A

Blank (1G22019-BLK1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (1G22019-BS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.8		2.00	ug/L	25.0		99	80-120			

QUALITY CONTROL

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

Batch 1G22019 - EPA 3005A

LCS (1G22019-BS1) Continued Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Selenium	25.2		1.00	ug/L	25.0		101	80-120			
Thallium	26.5		1.00	ug/L	25.0		106	80-120			

Matrix Spike (1G22019-MS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:12

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.8		2.00	ug/L	25.0	0.310	98	75-125			
Selenium	26.1		1.00	ug/L	25.0	0.830 U	105	75-125			
Thallium	26.1		1.00	ug/L	25.0	0.110 U	104	75-125			

Matrix Spike Dup (1G22019-MSD1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:15

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.2		2.00	ug/L	25.0	0.310	100	75-125	1	20	
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125	2	20	
Thallium	26.2		1.00	ug/L	25.0	0.110 U	105	75-125	0.5	20	

Post Spike (1G22019-PS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:19

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.7		2.00	ug/L	25.0	0.310	97	80-120			
Selenium	24.3		1.00	ug/L	25.0	0.553	95	80-120			
Thallium	25.9		1.00	ug/L	25.0	0.0540	103	80-120			

Batch 1G22023 - EPA 3005A

Blank (1G22023-BLK1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1G22023-BS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:10

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

LCS (1G22023-BS1) Continued Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:10

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	560		10.0	ug/L	500		112	80-120			
Barium	555		10.0	ug/L	500		111	80-120			
Beryllium	282		1.00	ug/L	250		113	80-120			
Cadmium	286		1.00	ug/L	250		114	80-120			
Chromium	559		10.0	ug/L	500		112	80-120			
Cobalt	549		10.0	ug/L	500		110	80-120			
Copper	277		10.0	ug/L	250		111	80-120			
Lead	563		10.0	ug/L	500		113	80-120			
Nickel	552		10.0	ug/L	500		110	80-120			
Silver	291		10.0	ug/L	250		117	80-120			
Vanadium	282		10.0	ug/L	250		113	80-120			
Zinc	555		10.0	ug/L	500		111	80-120			

Matrix Spike (1G22023-MS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:20

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	572		10.0	ug/L	500	4.52	114	75-125			
Barium	667		10.0	ug/L	500	127	108	75-125			
Beryllium	282		1.00	ug/L	250	0.100 U	113	75-125			
Cadmium	278		1.00	ug/L	250	1.30	111	75-125			
Chromium	543		10.0	ug/L	500	2.43	108	75-125			
Cobalt	578		10.0	ug/L	500	19.4	112	75-125			
Copper	274		10.0	ug/L	250	1.98	109	75-125			
Lead	545		10.0	ug/L	500	1.90 U	109	75-125			
Nickel	535		10.0	ug/L	500	1.80 U	107	75-125			
Silver	270		10.0	ug/L	250	1.90 U	108	75-125			
Vanadium	279		10.0	ug/L	250	1.40 U	111	75-125			
Zinc	550		10.0	ug/L	500	7.85	108	75-125			

Matrix Spike Dup (1G22023-MSD1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:22

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	582		10.0	ug/L	500	4.52	115	75-125	2	20	
Barium	678		10.0	ug/L	500	127	110	75-125	2	20	
Beryllium	287		1.00	ug/L	250	0.100 U	115	75-125	2	20	
Cadmium	283		1.00	ug/L	250	1.30	113	75-125	2	20	
Chromium	552		10.0	ug/L	500	2.43	110	75-125	2	20	
Cobalt	589		10.0	ug/L	500	19.4	114	75-125	2	20	
Copper	278		10.0	ug/L	250	1.98	110	75-125	1	20	
Lead	556		10.0	ug/L	500	1.90 U	111	75-125	2	20	
Nickel	545		10.0	ug/L	500	1.80 U	109	75-125	2	20	
Silver	277		10.0	ug/L	250	1.90 U	111	75-125	3	20	
Vanadium	283		10.0	ug/L	250	1.40 U	113	75-125	1	20	
Zinc	557		10.0	ug/L	500	7.85	110	75-125	1	20	

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

Post Spike (1G22023-PS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:24

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.05		0.0100	mg/L	1.00	0.00452	105	80-120			
Barium	1.14		0.0100	mg/L	1.00	0.127	101	80-120			
Beryllium	0.525		0.00100	mg/L	0.500	-9.27E-5	105	80-120			
Cadmium	0.518		0.00100	mg/L	0.500	0.00130	103	80-120			
Chromium	1.02		0.0100	mg/L	1.00	0.00243	102	80-120			
Cobalt	1.02		0.0100	mg/L	1.00	0.0194	100	80-120			
Copper	0.516		0.0100	mg/L	0.500	0.00198	103	80-120			
Lead	1.01		0.0100	mg/L	1.00	0.000498	101	80-120			
Nickel	0.995		0.0100	mg/L	1.00	0.00152	99	80-120			
Silver	0.511		0.0100	mg/L	0.500	0.00113	102	80-120			
Vanadium	0.524		0.0100	mg/L	0.500	0.000620	105	80-120			
Zinc	1.01		0.0100	mg/L	1.00	0.00785	100	80-120			

FLAGS/NOTES AND DEFINITIONS

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

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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

4810 Executive Park Court, Suite 211
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

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

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Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0
Address: P.O. Box 97	Project Name/Desc: Iredell-SW-2
City/ST/Zip: Garner, NC 27529	PO # / Billing Info:
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: Jonathan Pfohl
Sampler(s) Name, Affiliation (Print): Jon Pfohl, NESCO	Billing Contact: Accounts Payable
Sampler(s) Signature:	Site Location / Time Zone:

Requested Analyses: 8260B Appendix 1,8260B Extended; Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due __/__/__

Lab Workorder: C108693

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1,8260B Extended	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Sample Comments
	SW-2	7/18/11	5:00	Grab	SW	4	X	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time 7/22/11 10:30	Received By	Date/Time 7/22/11 10:30
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 2.5°C		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

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

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

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

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

Thursday, August 4, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10013.0, Project Name/Desc: Iredell LF Background
ENCO Workorder: C108683

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, July 21, 2011.

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

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

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

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

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 22.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-1A **Lab ID: C108683-01** **Sampled: 07/19/11 14:00** **Received: 07/21/11 13:51**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/15/12		07/22/11	12:52	7/26/2011 11:52
EPA 6020A	01/15/12		07/22/11	10:06	8/1/2011 12:32
EPA 8260B	08/02/11		07/27/11	10:50	7/28/2011 05:11

Client ID: MW-1C **Lab ID: C108683-02** **Sampled: 07/19/11 14:35** **Received: 07/21/11 13:51**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/15/12		07/22/11	12:52	7/26/2011 11:54
EPA 6020A	01/15/12		07/22/11	10:06	8/1/2011 12:36
EPA 8081B	07/26/11	09/03/11	07/25/11	07:59	7/26/2011 16:45
EPA 8151A	07/26/11	08/31/11	07/22/11	09:40	7/27/2011 00:15
EPA 8260B	08/02/11		07/27/11	10:50	7/28/2011 05:40
EPA 8270D	07/26/11	09/01/11	07/23/11	02:00	8/4/2011 04:05

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: MW-1A **Lab ID: C108683-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	4.63	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	90.9	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	1.93		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.91	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	4.39	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	13.8		1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.45	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.94	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	18.3	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	26.4		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-1C **Lab ID: C108683-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	2.93	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	453		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.159	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	18.8		1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	18.7		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	50.3		1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	9.99	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	12.9	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	101		1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	145		1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: MW-1A
Matrix: Ground Water
Project: Iredell LF Background

Lab Sample ID: C108683-01
Sampled: 07/19/11 14:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108683

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/28/11 05:11	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/28/11 05:11	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 05:11	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 05:11	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/28/11 05:11	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 05:11	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 05:11	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 05:11	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 05:11	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 05:11	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 05:11	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 05:11	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 05:11	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 05:11	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 05:11	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 05:11	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 05:11	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 05:11	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 05:11	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 05:11	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 05:11	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 05:11	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/28/11 05:11	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 05:11	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/28/11 05:11	JKG	

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Description: MW-1A
Matrix: Ground Water
Project: Iredell LF Background

Lab Sample ID: C108683-01
Sampled: 07/19/11 14:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108683

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 05:11	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 05:11	JKG	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 05:11	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*96 %*	*51-122*	*1G27021*	*EPA 8260B*	*07/28/11 05:11*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G27021*	*EPA 8260B*	*07/28/11 05:11*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*69-110*	*1G27021*	*EPA 8260B*	*07/28/11 05:11*	*JKG*	

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Description: MW-1A
Matrix: Ground Water
Project: Iredell LF Background

Lab Sample ID: C108683-01
Sampled: 07/19/11 14:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108683

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/01/11 12:32	VLO	
Arsenic [7440-38-2] ^	**4.63**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:52	JDH	
Barium [7440-39-3] ^	**90.9**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:52	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:52	JDH	
Cadmium [7440-43-9] ^	**1.93**		ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:52	JDH	
Chromium [7440-47-3] ^	**5.91**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:52	JDH	
Cobalt [7440-48-4] ^	**4.39**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:52	JDH	
Copper [7440-50-8] ^	**13.8**		ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:52	JDH	
Lead [7439-92-1] ^	**2.45**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:52	JDH	
Nickel [7440-02-0] ^	**2.94**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:52	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/01/11 12:32	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:52	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/01/11 12:32	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	07/26/11 11:52	JDH	
Vanadium [7440-62-2] ^	**18.3**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:52	JDH	
Zinc [7440-66-6] ^	**26.4**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:52	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: MW-1C | **Lab Sample ID:** C108683-02 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 14:35 | **Work Order:** C108683

Project: Iredell LF Background | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/28/11 05:40	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/28/11 05:40	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 05:40	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 05:40	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/28/11 05:40	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 05:40	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 05:40	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 05:40	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 05:40	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 05:40	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 05:40	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 05:40	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 05:40	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 05:40	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 05:40	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 05:40	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 05:40	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 05:40	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 05:40	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 05:40	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 05:40	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 05:40	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/28/11 05:40	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 05:40	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/28/11 05:40	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 05:40	JKG	

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Description: MW-1C
Matrix: Ground Water
Project: Iredell LF Background

Lab Sample ID: C108683-02
Sampled: 07/19/11 14:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108683

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 05:40	JKG	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 05:40	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*51-122*	*1G27021*	*EPA 8260B*	*07/28/11 05:40*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27021*	*EPA 8260B*	*07/28/11 05:40*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*98 %*	*69-110*	*1G27021*	*EPA 8260B*	*07/28/11 05:40*	*JKG*	

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Description: MW-1C
Matrix: Ground Water
Project: Iredell LF Background

Lab Sample ID: C108683-02
Sampled: 07/19/11 14:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108683

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	08/04/11 04:05	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2-Fluorobiphenyl	*40*	*1*	*50.0*	*80 %*	*10-149*	*1G22002*	*EPA 8270D*	*08/04/11 04:05*	*DFM*	
Nitrobenzene-d5	*39*	*1*	*50.0*	*77 %*	*10-149*	*1G22002*	*EPA 8270D*	*08/04/11 04:05*	*DFM*	
Terphenyl-d14	*48*	*1*	*50.0*	*96 %*	*10-188*	*1G22002*	*EPA 8270D*	*08/04/11 04:05*	*DFM*	

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Description: MW-1C
Matrix: Ground Water
Project: Iredell LF Background

Lab Sample ID: C108683-02
Sampled: 07/19/11 14:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108683

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
delta-BHC [319-86-8] ^	0.022	U	ug/L	1	0.022	0.050	0.05	EPA 8081B	07/26/11 16:45	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.85*	*1*	*1.00*	*85 %*	*44-134*	*1G25004*	*EPA 8081B*	*07/26/11 16:45*	*MSZ*	
Decachlorobiphenyl	*0.93*	*1*	*1.00*	*93 %*	*37-149*	*1G25004*	*EPA 8081B*	*07/26/11 16:45*	*MSZ*	

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Description: MW-1C
Matrix: Ground Water
Project: Iredell LF Background

Lab Sample ID: C108683-02
Sampled: 07/19/11 14:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108683

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/01/11 12:36	VLO	
Arsenic [7440-38-2] ^	**2.93**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:54	JDH	
Barium [7440-39-3] ^	**453**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:54	JDH	
Beryllium [7440-41-7] ^	**0.159**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:54	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:54	JDH	
Chromium [7440-47-3] ^	**18.8**		ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:54	JDH	
Cobalt [7440-48-4] ^	**18.7**		ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:54	JDH	
Copper [7440-50-8] ^	**50.3**		ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:54	JDH	
Lead [7439-92-1] ^	**9.99**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:54	JDH	
Nickel [7440-02-0] ^	**12.9**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:54	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/01/11 12:36	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:54	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/01/11 12:36	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	07/26/11 11:54	JDH	
Vanadium [7440-62-2] ^	**101**		ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:54	JDH	
Zinc [7440-66-6] ^	**145**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:54	JDH	

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Description: MW-1C
Matrix: Ground Water
Project: Iredell LF Background

Lab Sample ID: C108683-02
Sampled: 07/19/11 14:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108683

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4-D [94-75-7] ^	0.15	U	ug/L	1	0.15	0.50	2	EPA 8151A	07/27/11 00:15	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.6*	*1*	*2.00*	*81 %*	*68-139*	*1G22006*	*EPA 8151A*	*07/27/11 00:15*	*RGG*	

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G27021 - EPA 5030B_MS

Blank (1G27021-BLK1) Prepared: 07/27/2011 10:50 Analyzed: 07/27/2011 22:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Tetrahydrofuran	0.80	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G27021 - EPA 5030B_MS

Blank (1G27021-BLK1) Continued Prepared: 07/27/2011 10:50 Analyzed: 07/27/2011 22:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 4-Bromofluorobenzene	*49*			*ug/L*	*50.0*		*98*	*51-122*			
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*49*			*ug/L*	*50.0*		*98*	*69-110*			

LCS (1G27021-BS1) Prepared: 07/27/2011 10:50 Analyzed: 07/27/2011 23:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	20		1.0	ug/L	20.0		102	75-133			
Benzene	20		1.0	ug/L	20.0		99	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		99	83-117			
Toluene	22		1.0	ug/L	20.0		112	71-118			
Trichloroethene	20		1.0	ug/L	20.0		98	75-115			

Matrix Spike (1G27021-MS1) Prepared: 07/27/2011 10:50 Analyzed: 07/27/2011 23:47

Source: C109100-13

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.60 U	109	75-133			
Benzene	20		1.0	ug/L	20.0	0.68 U	102	81-134			
Chlorobenzene	21		1.0	ug/L	20.0	0.74 U	103	83-117			
Toluene	23		1.0	ug/L	20.0	0.85 U	116	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.72 U	101	75-115			

Matrix Spike Dup (1G27021-MSD1) Prepared: 07/27/2011 10:50 Analyzed: 07/28/2011 00:17

Source: C109100-13

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	20		1.0	ug/L	20.0	0.60 U	102	75-133	7	20	
Benzene	19		1.0	ug/L	20.0	0.68 U	96	81-134	6	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	100	83-117	3	16	
Toluene	23		1.0	ug/L	20.0	0.85 U	113	71-118	3	17	
Trichloroethene	19		1.0	ug/L	20.0	0.72 U	94	75-115	7	18	

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 1G22002 - EPA 3510C_MS

Blank (1G22002-BLK1) Prepared: 07/22/2011 06:00 Analyzed: 08/03/2011 10:05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-ethylhexyl)phthalate	1.7	U	5.0	ug/L							
Surrogate: 2,4,6-Tribromophenol	*99*			*ug/L*	*100*		*99*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*42*			*ug/L*	*50.0*		*83*	*10-149*			
Surrogate: 2-Fluorophenol	*58*			*ug/L*	*100*		*58*	*10-110*			
Surrogate: Nitrobenzene-d5	*40*			*ug/L*	*50.0*		*79*	*10-149*			
Surrogate: Phenol-d5	*51*			*ug/L*	*100*		*51*	*10-88*			
Surrogate: Terphenyl-d14	*53*			*ug/L*	*50.0*		*105*	*10-188*			

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 1G22002 - EPA 3510C_MS

LCS (1G22002-BS1) Prepared: 07/22/2011 06:00 Analyzed: 08/03/2011 10:34

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	40		10	ug/L	50.0		81	40-109			
4-Chloro-3-methylphenol	48		10	ug/L	50.0		96	58-121			
4-Nitrophenol	38		10	ug/L	50.0		75	33-105			
Acenaphthene	39		10	ug/L	50.0		78	39-125			
N-Nitroso-di-n-propylamine	41		10	ug/L	50.0		82	48-126			
Phenol	28		10	ug/L	50.0		57	19-78			
Pyrene	41		10	ug/L	50.0		82	44-137			
Surrogate: 2,4,6-Tribromophenol	*110*			*ug/L*	*100*		*107*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*40*			*ug/L*	*50.0*		*81*	*10-149*			
Surrogate: 2-Fluorophenol	*60*			*ug/L*	*100*		*60*	*10-110*			
Surrogate: Nitrobenzene-d5	*41*			*ug/L*	*50.0*		*82*	*10-149*			
Surrogate: Phenol-d5	*51*			*ug/L*	*100*		*51*	*10-88*			
Surrogate: Terphenyl-d14	*43*			*ug/L*	*50.0*		*86*	*10-188*			

Matrix Spike (1G22002-MS1) Prepared: 07/22/2011 06:00 Analyzed: 08/03/2011 11:03

Source: C109100-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	39		10	ug/L	50.0	1.2 U	78	40-109			
4-Chloro-3-methylphenol	47		10	ug/L	50.0	1.5 U	94	58-121			
4-Nitrophenol	35		10	ug/L	50.0	2.0 U	70	33-105			
Acenaphthene	41		10	ug/L	50.0	1.4 U	81	39-125			
N-Nitroso-di-n-propylamine	40		10	ug/L	50.0	1.5 U	80	48-126			
Phenol	27		10	ug/L	50.0	1.4 U	53	19-78			
Pyrene	41		10	ug/L	50.0	2.1 U	82	44-137			
Surrogate: 2,4,6-Tribromophenol	*100*			*ug/L*	*100*		*101*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*40*			*ug/L*	*50.0*		*81*	*10-149*			
Surrogate: 2-Fluorophenol	*56*			*ug/L*	*100*		*56*	*10-110*			
Surrogate: Nitrobenzene-d5	*40*			*ug/L*	*50.0*		*79*	*10-149*			
Surrogate: Phenol-d5	*47*			*ug/L*	*100*		*47*	*10-88*			
Surrogate: Terphenyl-d14	*43*			*ug/L*	*50.0*		*86*	*10-188*			

Matrix Spike Dup (1G22002-MSD1) Prepared: 07/22/2011 06:00 Analyzed: 08/03/2011 11:33

Source: C109100-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	42		10	ug/L	50.0	1.2 U	83	40-109	6	22	
4-Chloro-3-methylphenol	48		10	ug/L	50.0	1.5 U	96	58-121	2	22	
4-Nitrophenol	39		10	ug/L	50.0	2.0 U	78	33-105	10	27	
Acenaphthene	42		10	ug/L	50.0	1.4 U	83	39-125	2	25	
N-Nitroso-di-n-propylamine	42		10	ug/L	50.0	1.5 U	84	48-126	6	23	
Phenol	29		10	ug/L	50.0	1.4 U	59	19-78	10	18	
Pyrene	43		10	ug/L	50.0	2.1 U	87	44-137	5	24	
Surrogate: 2,4,6-Tribromophenol	*110*			*ug/L*	*100*		*107*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*42*			*ug/L*	*50.0*		*84*	*10-149*			
Surrogate: 2-Fluorophenol	*60*			*ug/L*	*100*		*60*	*10-110*			
Surrogate: Nitrobenzene-d5	*42*			*ug/L*	*50.0*		*83*	*10-149*			

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 1G22002 - EPA 3510C_MS

Matrix Spike Dup (1G22002-MSD1) Continued Prepared: 07/22/2011 06:00 Analyzed: 08/03/2011 11:33

Source: C109100-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Phenol-d5	*52*			*ug/L*	*100*		*52*	*10-88*			
Surrogate: Terphenyl-d14	*45*			*ug/L*	*50.0*		*90*	*10-188*			

Organochlorine Pesticides by GC - Quality Control

Batch 1G25004 - EPA 3510C

Blank (1G25004-BLK1) Prepared: 07/25/2011 07:59 Analyzed: 07/26/2011 15:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
delta-BHC	0.022	U	0.050	ug/L							
Surrogate: 2,4,5,6-TCMX	*0.89*			*ug/L*	*1.00*		*89*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*115*	*37-149*			

LCS (1G25004-BS1) Prepared: 07/25/2011 07:59 Analyzed: 07/26/2011 15:53

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.1		0.050	ug/L	1.00		106	37-139			
Dieldrin	1.0		0.050	ug/L	1.00		104	46-132			
Endrin	0.93		0.050	ug/L	1.00		93	43-133			
Surrogate: 2,4,5,6-TCMX	*0.92*			*ug/L*	*1.00*		*92*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*100*	*37-149*			

Matrix Spike (1G25004-MS1) Prepared: 07/25/2011 07:59 Analyzed: 07/26/2011 16:10

Source: C109185-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.0		0.050	ug/L	1.00	0.049 U	103	37-139			
Dieldrin	0.99		0.050	ug/L	1.00	0.0020 U	99	46-132			
Endrin	0.90		0.050	ug/L	1.00	0.029 U	90	43-133			
Surrogate: 2,4,5,6-TCMX	*0.88*			*ug/L*	*1.00*		*88*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*101*	*37-149*			

Matrix Spike Dup (1G25004-MSD1) Prepared: 07/25/2011 07:59 Analyzed: 07/26/2011 16:26

Source: C109185-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.98		0.050	ug/L	1.00	0.049 U	98	37-139	5	26	
Dieldrin	0.94		0.050	ug/L	1.00	0.0020 U	94	46-132	5	27	
Endrin	0.85		0.050	ug/L	1.00	0.029 U	85	43-133	5	26	
Surrogate: 2,4,5,6-TCMX	*0.85*			*ug/L*	*1.00*		*85*	*44-134*			
Surrogate: Decachlorobiphenyl	*0.94*			*ug/L*	*1.00*		*94*	*37-149*			

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

Batch 1G22011 - EPA 3005A

QUALITY CONTROL

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

Blank (1G22011-BLK1) Prepared: 07/22/2011 10:06 Analyzed: 08/01/2011 11:06

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (1G22011-BS1) Prepared: 07/22/2011 10:06 Analyzed: 08/01/2011 11:02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.6		2.00	ug/L	25.0		99	80-120			
Selenium	25.6		1.00	ug/L	25.0		102	80-120			
Thallium	25.5		1.00	ug/L	25.0		102	80-120			

Matrix Spike (1G22011-MS1) Prepared: 07/22/2011 10:06 Analyzed: 08/01/2011 11:13

Source: C107175-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.0		2.00	ug/L	25.0	0.220 U	100	75-125			
Selenium	25.6		1.00	ug/L	25.0	0.830 U	102	75-125			
Thallium	25.8		1.00	ug/L	25.0	0.110 U	103	75-125			

Matrix Spike Dup (1G22011-MSD1) Prepared: 07/22/2011 10:06 Analyzed: 08/01/2011 11:17

Source: C107175-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.2		2.00	ug/L	25.0	0.220 U	101	75-125	1	20	
Selenium	25.2		1.00	ug/L	25.0	0.830 U	101	75-125	1	20	
Thallium	25.5		1.00	ug/L	25.0	0.110 U	102	75-125	1	20	

Post Spike (1G22011-PS1) Prepared: 07/22/2011 10:06 Analyzed: 08/01/2011 11:21

Source: C107175-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	23.6		2.00	ug/L	25.0	-0.0100	94	80-120			
Selenium	24.6		1.00	ug/L	25.0	-0.139	99	80-120			
Thallium	24.3		1.00	ug/L	25.0	-0.0190	97	80-120			

Batch 1G22023 - EPA 3005A

Blank (1G22023-BLK1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

Blank (1G22023-BLK1) Continued Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Tin	2.10	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1G22023-BS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:10

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	560		10.0	ug/L	500		112	80-120			
Barium	555		10.0	ug/L	500		111	80-120			
Beryllium	282		1.00	ug/L	250		113	80-120			
Cadmium	286		1.00	ug/L	250		114	80-120			
Chromium	559		10.0	ug/L	500		112	80-120			
Cobalt	549		10.0	ug/L	500		110	80-120			
Copper	277		10.0	ug/L	250		111	80-120			
Lead	563		10.0	ug/L	500		113	80-120			
Nickel	552		10.0	ug/L	500		110	80-120			
Silver	291		10.0	ug/L	250		117	80-120			
Tin	585		10.0	ug/L	500		117	80-120			
Vanadium	282		10.0	ug/L	250		113	80-120			
Zinc	555		10.0	ug/L	500		111	80-120			

Matrix Spike (1G22023-MS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:20

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	572		10.0	ug/L	500	4.52	114	75-125			
Barium	667		10.0	ug/L	500	127	108	75-125			
Beryllium	282		1.00	ug/L	250	0.100 U	113	75-125			
Cadmium	278		1.00	ug/L	250	1.30	111	75-125			
Chromium	543		10.0	ug/L	500	2.43	108	75-125			
Cobalt	578		10.0	ug/L	500	19.4	112	75-125			
Copper	274		10.0	ug/L	250	1.98	109	75-125			
Lead	545		10.0	ug/L	500	1.90 U	109	75-125			
Nickel	535		10.0	ug/L	500	1.80 U	107	75-125			
Silver	270		10.0	ug/L	250	1.90 U	108	75-125			
Tin	556		10.0	ug/L	500	7.16	110	75-125			
Vanadium	279		10.0	ug/L	250	1.40 U	111	75-125			
Zinc	550		10.0	ug/L	500	7.85	108	75-125			

Matrix Spike Dup (1G22023-MSD1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:22

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	582		10.0	ug/L	500	4.52	115	75-125	2	20	
Barium	678		10.0	ug/L	500	127	110	75-125	2	20	

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

Matrix Spike Dup (1G22023-MSD1) Continued Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:22

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Beryllium	287		1.00	ug/L	250	0.100 U	115	75-125	2	20	
Cadmium	283		1.00	ug/L	250	1.30	113	75-125	2	20	
Chromium	552		10.0	ug/L	500	2.43	110	75-125	2	20	
Cobalt	589		10.0	ug/L	500	19.4	114	75-125	2	20	
Copper	278		10.0	ug/L	250	1.98	110	75-125	1	20	
Lead	556		10.0	ug/L	500	1.90 U	111	75-125	2	20	
Nickel	545		10.0	ug/L	500	1.80 U	109	75-125	2	20	
Silver	277		10.0	ug/L	250	1.90 U	111	75-125	3	20	
Tin	572		10.0	ug/L	500	7.16	113	75-125	3	20	
Vanadium	283		10.0	ug/L	250	1.40 U	113	75-125	1	20	
Zinc	557		10.0	ug/L	500	7.85	110	75-125	1	20	

Post Spike (1G22023-PS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:24

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.05		0.0100	mg/L	1.00	0.00452	105	80-120			
Barium	1.14		0.0100	mg/L	1.00	0.127	101	80-120			
Beryllium	0.525		0.00100	mg/L	0.500	-9.27E-5	105	80-120			
Cadmium	0.518		0.00100	mg/L	0.500	0.00130	103	80-120			
Chromium	1.02		0.0100	mg/L	1.00	0.00243	102	80-120			
Cobalt	1.02		0.0100	mg/L	1.00	0.0194	100	80-120			
Copper	0.516		0.0100	mg/L	0.500	0.00198	103	80-120			
Lead	1.01		0.0100	mg/L	1.00	0.000498	101	80-120			
Nickel	0.995		0.0100	mg/L	1.00	0.00152	99	80-120			
Silver	0.511		0.0100	mg/L	0.500	0.00113	102	80-120			
Tin	1.03		0.0100	mg/L	1.00	0.00716	102	80-120			
Vanadium	0.524		0.0100	mg/L	0.500	0.000620	105	80-120			
Zinc	1.01		0.0100	mg/L	1.00	0.00785	100	80-120			

QUALITY CONTROL

Chlorinated Herbicides by GC - Quality Control

Batch 1G22006 - EPA 3510C

Blank (1G22006-BLK1) Prepared: 07/22/2011 09:40 Analyzed: 07/26/2011 13:44

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-D	0.15	U	0.50	ug/L							
Surrogate: 2,4-DCAA	*1.9*			*ug/L*	*2.00*		*93*	*68-139*			

LCS (1G22006-BS1) Prepared: 07/22/2011 09:40 Analyzed: 07/26/2011 15:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	2.1		0.50	ug/L	2.00		103	68-154			
2,4-D	2.1		0.50	ug/L	2.00		103	62-144			

QUALITY CONTROL

Chlorinated Herbicides by GC - Quality Control

Batch 1G22006 - EPA 3510C

LCS (1G22006-BS1) Continued Prepared: 07/22/2011 09:40 Analyzed: 07/26/2011 15:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 2,4-DCAA	*1.9*			*ug/L*	*2.00*		*97*	*68-139*			

Matrix Spike (1G22006-MS1) Prepared: 07/22/2011 09:40 Analyzed: 07/26/2011 15:58

Source: A103805-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.8		0.50	ug/L	2.00	0.15 U	89	68-154			
2,4-D	1.8		0.50	ug/L	2.00	0.15 U	89	62-144			
Surrogate: 2,4-DCAA	*1.7*			*ug/L*	*2.00*		*85*	*68-139*			

Matrix Spike Dup (1G22006-MSD1) Prepared: 07/22/2011 09:40 Analyzed: 07/26/2011 16:24

Source: A103805-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.9		0.50	ug/L	2.00	0.15 U	97	68-154	8	15	
2,4-D	1.9		0.50	ug/L	2.00	0.15 U	97	62-144	9	33	
Surrogate: 2,4-DCAA	*1.8*			*ug/L*	*2.00*		*91*	*68-139*			

FLAGS/NOTES AND DEFINITIONS

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

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0
Address: P.O. Box 97	Project Name/Desc: Iredell LF Background
City/ST/Zip: Garner, NC 27529	PO # / Billing Info
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: Jonathan Pfohl
Sampler(s) Name, Affiliation (Print): Jon Pfohl, MESCO	Billing Contact: Accounts Payable
Sampler(s) Signature:	Site Location / Time Zone

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due __/__/__

Lab Workorder: C108683

Requested Analyses

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8081B Appendix 2,8151A Appendix 2,8270D Appendix 2	8260B Appendix 1,8260B Extended	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Sn,Tl,V,Zn	Sample Comments
	MW-1A	7/19/11	2:00	Grab	GW	4		X	X	
	MW-1C	7/19/11	2:35	↓	GW	7	X	X	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: / MESCO	Date/Time: 7/20/11 5:00	Received By: / MESCO	Date/Time: 7/20/11 5:00
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time: 7/21/11 1351
		Cooler #'s & Temps on Receipt: 3.0°C		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

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

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

Tuesday, August 2, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10013.0, Project Name/Desc: Iredell-SW-3
ENCO Workorder: C108694

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, July 22, 2011.

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

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

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

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

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 13.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: SW-3	Lab ID: C108694-01	Sampled: 07/21/11 13:55	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11	12:52	7/26/2011 12:09
EPA 6020A	01/17/12	07/22/11	12:48	8/2/2011 11:41
EPA 8260B	08/04/11	07/29/11	14:56	7/30/2011 09:46

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: SW-3 **Lab ID:** C108694-01

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	93.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cobalt - Total	2.01	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Selenium - Total	1.37	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Zinc - Total	111		1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: SW-3 **Lab Sample ID:** C108694-01 **Received:** 07/22/11 10:30

Matrix: Surface Water **Sampled:** 07/21/11 13:55 **Work Order:** C108694

Project: Iredell-SW-3 **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 09:46	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 09:46	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 09:46	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 09:46	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 09:46	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 09:46	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 09:46	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 09:46	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 09:46	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 09:46	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 09:46	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 09:46	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 09:46	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 09:46	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 09:46	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 09:46	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 09:46	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 09:46	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 09:46	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 09:46	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 09:46	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 09:46	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	07/30/11 09:46	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 09:46	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 09:46	jkg	

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Description: SW-3 | **Lab Sample ID:** C108694-01 | **Received:** 07/22/11 10:30

Matrix: Surface Water | **Sampled:** 07/21/11 13:55 | **Work Order:** C108694

Project: Iredell-SW-3 | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 09:46	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 09:46	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 09:46	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 09:46*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 09:46*	*jkg*	
Toluene-d8	*54*	*1*	*50.0*	*108 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 09:46*	*jkg*	

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Description: SW-3 | **Lab Sample ID:** C108694-01 | **Received:** 07/22/11 10:30

Matrix: Surface Water | **Sampled:** 07/21/11 13:55 | **Work Order:** C108694

Project: Iredell-SW-3 | **Sampled By:** J. Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 11:41	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:09	JDH	
Barium [7440-39-3] ^	**93.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:09	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:09	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:09	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:09	JDH	
Cobalt [7440-48-4] ^	**2.01**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:09	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:09	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:09	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:09	JDH	
Selenium [7782-49-2] ^	**1.37**	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 11:41	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:09	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:41	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:09	JDH	
Zinc [7440-66-6] ^	**111**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:09	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G29024 - EPA 5030B_MS

Blank (1G29024-BLK1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 00:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Tetrahydrofuran	0.80	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G29024 - EPA 5030B_MS

Blank (1G29024-BLK1) Continued Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 00:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 4-Bromofluorobenzene	*54*			*ug/L*	*50.0*		*107*	*51-122*			
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*54*			*ug/L*	*50.0*		*107*	*69-110*			

LCS (1G29024-BS1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 01:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0		118	75-133			
Benzene	23		1.0	ug/L	20.0		116	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		98	83-117			
Toluene	23		1.0	ug/L	20.0		115	71-118			
Trichloroethene	18		1.0	ug/L	20.0		88	75-115			

Matrix Spike (1G29024-MS1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 01:48

Source: C109329-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.60 U	116	75-133			
Benzene	23		1.0	ug/L	20.0	0.68 U	117	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	102	83-117			
Toluene	24		1.0	ug/L	20.0	0.85 U	118	71-118			
Trichloroethene	18		1.0	ug/L	20.0	0.72 U	91	75-115			

Matrix Spike Dup (1G29024-MSD1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 02:18

Source: C109329-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.60 U	120	75-133	3	20	
Benzene	23		1.0	ug/L	20.0	0.68 U	115	81-134	2	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	100	83-117	2	16	
Toluene	23		1.0	ug/L	20.0	0.85 U	115	71-118	2	17	
Trichloroethene	17		1.0	ug/L	20.0	0.72 U	85	75-115	7	18	

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

Batch 1G22019 - EPA 3005A

Blank (1G22019-BLK1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (1G22019-BS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.8		2.00	ug/L	25.0		99	80-120			

QUALITY CONTROL

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

Batch 1G22019 - EPA 3005A

LCS (1G22019-BS1) Continued Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Selenium	25.2		1.00	ug/L	25.0		101	80-120			
Thallium	26.5		1.00	ug/L	25.0		106	80-120			

Matrix Spike (1G22019-MS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:12

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.8		2.00	ug/L	25.0	0.310	98	75-125			
Selenium	26.1		1.00	ug/L	25.0	0.830 U	105	75-125			
Thallium	26.1		1.00	ug/L	25.0	0.110 U	104	75-125			

Matrix Spike Dup (1G22019-MSD1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:15

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.2		2.00	ug/L	25.0	0.310	100	75-125	1	20	
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125	2	20	
Thallium	26.2		1.00	ug/L	25.0	0.110 U	105	75-125	0.5	20	

Post Spike (1G22019-PS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:19

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.7		2.00	ug/L	25.0	0.310	97	80-120			
Selenium	24.3		1.00	ug/L	25.0	0.553	95	80-120			
Thallium	25.9		1.00	ug/L	25.0	0.0540	103	80-120			

Batch 1G22023 - EPA 3005A

Blank (1G22023-BLK1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1G22023-BS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:10

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

LCS (1G22023-BS1) Continued Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:10

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	560		10.0	ug/L	500		112	80-120			
Barium	555		10.0	ug/L	500		111	80-120			
Beryllium	282		1.00	ug/L	250		113	80-120			
Cadmium	286		1.00	ug/L	250		114	80-120			
Chromium	559		10.0	ug/L	500		112	80-120			
Cobalt	549		10.0	ug/L	500		110	80-120			
Copper	277		10.0	ug/L	250		111	80-120			
Lead	563		10.0	ug/L	500		113	80-120			
Nickel	552		10.0	ug/L	500		110	80-120			
Silver	291		10.0	ug/L	250		117	80-120			
Vanadium	282		10.0	ug/L	250		113	80-120			
Zinc	555		10.0	ug/L	500		111	80-120			

Matrix Spike (1G22023-MS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:20

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	572		10.0	ug/L	500	4.52	114	75-125			
Barium	667		10.0	ug/L	500	127	108	75-125			
Beryllium	282		1.00	ug/L	250	0.100 U	113	75-125			
Cadmium	278		1.00	ug/L	250	1.30	111	75-125			
Chromium	543		10.0	ug/L	500	2.43	108	75-125			
Cobalt	578		10.0	ug/L	500	19.4	112	75-125			
Copper	274		10.0	ug/L	250	1.98	109	75-125			
Lead	545		10.0	ug/L	500	1.90 U	109	75-125			
Nickel	535		10.0	ug/L	500	1.80 U	107	75-125			
Silver	270		10.0	ug/L	250	1.90 U	108	75-125			
Vanadium	279		10.0	ug/L	250	1.40 U	111	75-125			
Zinc	550		10.0	ug/L	500	7.85	108	75-125			

Matrix Spike Dup (1G22023-MSD1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:22

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	582		10.0	ug/L	500	4.52	115	75-125	2	20	
Barium	678		10.0	ug/L	500	127	110	75-125	2	20	
Beryllium	287		1.00	ug/L	250	0.100 U	115	75-125	2	20	
Cadmium	283		1.00	ug/L	250	1.30	113	75-125	2	20	
Chromium	552		10.0	ug/L	500	2.43	110	75-125	2	20	
Cobalt	589		10.0	ug/L	500	19.4	114	75-125	2	20	
Copper	278		10.0	ug/L	250	1.98	110	75-125	1	20	
Lead	556		10.0	ug/L	500	1.90 U	111	75-125	2	20	
Nickel	545		10.0	ug/L	500	1.80 U	109	75-125	2	20	
Silver	277		10.0	ug/L	250	1.90 U	111	75-125	3	20	
Vanadium	283		10.0	ug/L	250	1.40 U	113	75-125	1	20	
Zinc	557		10.0	ug/L	500	7.85	110	75-125	1	20	

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

Post Spike (1G22023-PS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:24

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.05		0.0100	mg/L	1.00	0.00452	105	80-120			
Barium	1.14		0.0100	mg/L	1.00	0.127	101	80-120			
Beryllium	0.525		0.00100	mg/L	0.500	-9.27E-5	105	80-120			
Cadmium	0.518		0.00100	mg/L	0.500	0.00130	103	80-120			
Chromium	1.02		0.0100	mg/L	1.00	0.00243	102	80-120			
Cobalt	1.02		0.0100	mg/L	1.00	0.0194	100	80-120			
Copper	0.516		0.0100	mg/L	0.500	0.00198	103	80-120			
Lead	1.01		0.0100	mg/L	1.00	0.000498	101	80-120			
Nickel	0.995		0.0100	mg/L	1.00	0.00152	99	80-120			
Silver	0.511		0.0100	mg/L	0.500	0.00113	102	80-120			
Vanadium	0.524		0.0100	mg/L	0.500	0.000620	105	80-120			
Zinc	1.01		0.0100	mg/L	1.00	0.00785	100	80-120			

FLAGS/NOTES AND DEFINITIONS

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

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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

4810 Executive Park Court, Suite 211
Jacksonville, FL 32216-6069
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102-A Woodwhds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

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Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0
Address: P.O. Box 97	Project Name/Desc: Iredell-SW-3
City/ST/Zip: Garner, NC 27529	PO # / Billing Info:
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: Jonathan Pfohl
Sampler(s) Name, Affiliation (Print): J Pfohl, MESCO	Billing Contact: Accounts Payable
Sampler(s) Signature:	Site Location / Time Zone:

Requested Analyses: 8260B Appendix 1,8260B Extended; Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C108694

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1,8260B Extended	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Sample Comments
	SW-3	7/21/11	1:55	Grab	SW	4	X	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time 7/22/11 10:30	Received By	Date/Time 7/22/11 1030
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 2.5°C		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

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

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

Tuesday, August 2, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10013.0 (CD), Project Name/Desc: Iredell C&D LF - SW
ENCO Workorder: C108681

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, July 22, 2011.

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

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

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

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

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 9.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: SW-NEofMW-16	Lab ID: C108681-01	Sampled: 07/21/11 14:15	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	08/04/11	07/29/11 14:56	7/30/2011 08:46

SAMPLE DETECTION SUMMARY

No positive results detected.

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ANALYTICAL RESULTS

Description: SW-NEofMW-16 **Lab Sample ID:** C108681-01 **Received:** 07/22/11 10:30
Matrix: Surface Water **Sampled:** 07/21/11 14:15 **Work Order:** C108681
Project: Iredell C&D LF - SW **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	07/30/11 08:46	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/30/11 08:46	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/30/11 08:46	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/30/11 08:46	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/30/11 08:46	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/30/11 08:46	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/30/11 08:46	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/30/11 08:46	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/30/11 08:46	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/30/11 08:46	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/30/11 08:46	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/30/11 08:46	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/30/11 08:46	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/30/11 08:46	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/30/11 08:46	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/30/11 08:46	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/30/11 08:46	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/30/11 08:46	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/30/11 08:46	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/30/11 08:46	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/30/11 08:46	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/30/11 08:46	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/30/11 08:46	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/30/11 08:46	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/30/11 08:46	jkg	

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Description: SW-NEofMW-16 | **Lab Sample ID:** C108681-01 | **Received:** 07/22/11 10:30

Matrix: Surface Water | **Sampled:** 07/21/11 14:15 | **Work Order:** C108681

Project: Iredell C&D LF - SW | **Sampled By:** J. Pfohl

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/30/11 08:46	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/30/11 08:46	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/30/11 08:46	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*56*	*1*	*50.0*	*111 %*	*51-122*	*1G29024*	*EPA 8260B*	*07/30/11 08:46*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*1G29024*	*EPA 8260B*	*07/30/11 08:46*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*107 %*	*69-110*	*1G29024*	*EPA 8260B*	*07/30/11 08:46*	*jkg*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G29024 - EPA 5030B_MS

Blank (1G29024-BLK1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 00:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*54*			*ug/L*	*50.0*		*107*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G29024 - EPA 5030B_MS

Blank (1G29024-BLK1) Continued Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 00:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*54*			*ug/L*	*50.0*		*107*	*69-110*			

LCS (1G29024-BS1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 01:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0		118	75-133			
Benzene	23		1.0	ug/L	20.0		116	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		98	83-117			
Toluene	23		1.0	ug/L	20.0		115	71-118			
Trichloroethene	18		1.0	ug/L	20.0		88	75-115			

Matrix Spike (1G29024-MS1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 01:48

Source: C109329-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.60 U	116	75-133			
Benzene	23		1.0	ug/L	20.0	0.68 U	117	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	102	83-117			
Toluene	24		1.0	ug/L	20.0	0.85 U	118	71-118			
Trichloroethene	18		1.0	ug/L	20.0	0.72 U	91	75-115			

Matrix Spike Dup (1G29024-MSD1) Prepared: 07/29/2011 14:56 Analyzed: 07/30/2011 02:18

Source: C109329-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.60 U	120	75-133	3	20	
Benzene	23		1.0	ug/L	20.0	0.68 U	115	81-134	2	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	100	83-117	2	16	
Toluene	23		1.0	ug/L	20.0	0.85 U	115	71-118	2	17	
Trichloroethene	17		1.0	ug/L	20.0	0.72 U	85	75-115	7	18	

FLAGS/NOTES AND DEFINITIONS

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

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Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

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Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0 (CD)
Address: P.O. Box 97	Project Name/Desc: Iredell C&D,LF - SW
City/ST/Zip: Garner, NC 27529	PO # / Billing Info
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: Jonathan Pfohl
Sampler(s) Name, Affiliation (Print): J. Pfohl, MESCO	Billing Contact: Accounts Payable
Sampler(s) Signature:	Site Location / Time Zone

Requested Analyses: 8260B Appendix 1

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C108681

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Sample Comments
	SW-NEofMW-16	7/21/11	2:15	Grab	SW	3	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: J. Pfohl, MESCO	Date/Time: 7/22/11 10:30	Received By: [signature]	Date/Time: 7/22/11 1030
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 2.5°C		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

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

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

Tuesday, August 2, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10013.0, Project Name/Desc: Iredell MSWLF-SW Off Site
ENCO Workorder: C108692

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, July 22, 2011.

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

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

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

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

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 9.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: SW-SofConfluence	Lab ID: C108692-01	Sampled: 07/21/11 14:15	Received: 07/22/11 10:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/17/12	07/22/11	12:52	7/26/2011 12:00
EPA 6020A	01/17/12	07/22/11	12:48	8/2/2011 11:34

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: SW-SofConfluence **Lab ID:** C108692-01

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.280	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	106		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.21	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.74	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	1.04	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Zinc - Total	816		1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: SW-SofConfluence
Matrix: Surface Water
Project: Iredell MSWLF-SW Off Site

Lab Sample ID: C108692-01
Sampled: 07/21/11 14:15
Sampled By: J. Pfohl

Received: 07/22/11 10:30
Work Order: C108692

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.280**	J	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 11:34	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:00	JDH	
Barium [7440-39-3] ^	**106**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:00	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:00	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:00	JDH	
Chromium [7440-47-3] ^	**1.21**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:00	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:00	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:00	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:00	JDH	
Nickel [7440-02-0] ^	**2.74**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:00	JDH	
Selenium [7782-49-2] ^	**1.04**	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/02/11 11:34	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:00	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:34	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:00	JDH	
Zinc [7440-66-6] ^	**816**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:00	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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QUALITY CONTROL

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

Batch 1G22019 - EPA 3005A

Blank (1G22019-BLK1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (1G22019-BS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.8		2.00	ug/L	25.0		99	80-120			
Selenium	25.2		1.00	ug/L	25.0		101	80-120			
Thallium	26.5		1.00	ug/L	25.0		106	80-120			

Matrix Spike (1G22019-MS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:12

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.8		2.00	ug/L	25.0	0.310	98	75-125			
Selenium	26.1		1.00	ug/L	25.0	0.830 U	105	75-125			
Thallium	26.1		1.00	ug/L	25.0	0.110 U	104	75-125			

Matrix Spike Dup (1G22019-MSD1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:15

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.2		2.00	ug/L	25.0	0.310	100	75-125	1	20	
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125	2	20	
Thallium	26.2		1.00	ug/L	25.0	0.110 U	105	75-125	0.5	20	

Post Spike (1G22019-PS1) Prepared: 07/22/2011 12:48 Analyzed: 08/02/2011 10:19

Source: C108687-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.7		2.00	ug/L	25.0	0.310	97	80-120			
Selenium	24.3		1.00	ug/L	25.0	0.553	95	80-120			
Thallium	25.9		1.00	ug/L	25.0	0.0540	103	80-120			

Batch 1G22023 - EPA 3005A

Blank (1G22023-BLK1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

Blank (1G22023-BLK1) Continued Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1G22023-BS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:10

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	560		10.0	ug/L	500		112	80-120			
Barium	555		10.0	ug/L	500		111	80-120			
Beryllium	282		1.00	ug/L	250		113	80-120			
Cadmium	286		1.00	ug/L	250		114	80-120			
Chromium	559		10.0	ug/L	500		112	80-120			
Cobalt	549		10.0	ug/L	500		110	80-120			
Copper	277		10.0	ug/L	250		111	80-120			
Lead	563		10.0	ug/L	500		113	80-120			
Nickel	552		10.0	ug/L	500		110	80-120			
Silver	291		10.0	ug/L	250		117	80-120			
Vanadium	282		10.0	ug/L	250		113	80-120			
Zinc	555		10.0	ug/L	500		111	80-120			

Matrix Spike (1G22023-MS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:20

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	572		10.0	ug/L	500	4.52	114	75-125			
Barium	667		10.0	ug/L	500	127	108	75-125			
Beryllium	282		1.00	ug/L	250	0.100 U	113	75-125			
Cadmium	278		1.00	ug/L	250	1.30	111	75-125			
Chromium	543		10.0	ug/L	500	2.43	108	75-125			
Cobalt	578		10.0	ug/L	500	19.4	112	75-125			
Copper	274		10.0	ug/L	250	1.98	109	75-125			
Lead	545		10.0	ug/L	500	1.90 U	109	75-125			
Nickel	535		10.0	ug/L	500	1.80 U	107	75-125			
Silver	270		10.0	ug/L	250	1.90 U	108	75-125			
Vanadium	279		10.0	ug/L	250	1.40 U	111	75-125			
Zinc	550		10.0	ug/L	500	7.85	108	75-125			

Matrix Spike Dup (1G22023-MSD1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:22

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	582		10.0	ug/L	500	4.52	115	75-125	2	20	
Barium	678		10.0	ug/L	500	127	110	75-125	2	20	
Beryllium	287		1.00	ug/L	250	0.100 U	115	75-125	2	20	
Cadmium	283		1.00	ug/L	250	1.30	113	75-125	2	20	

QUALITY CONTROL

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

Batch 1G22023 - EPA 3005A

Matrix Spike Dup (1G22023-MSD1) Continued Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:22

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chromium	552		10.0	ug/L	500	2.43	110	75-125	2	20	
Cobalt	589		10.0	ug/L	500	19.4	114	75-125	2	20	
Copper	278		10.0	ug/L	250	1.98	110	75-125	1	20	
Lead	556		10.0	ug/L	500	1.90 U	111	75-125	2	20	
Nickel	545		10.0	ug/L	500	1.80 U	109	75-125	2	20	
Silver	277		10.0	ug/L	250	1.90 U	111	75-125	3	20	
Vanadium	283		10.0	ug/L	250	1.40 U	113	75-125	1	20	
Zinc	557		10.0	ug/L	500	7.85	110	75-125	1	20	

Post Spike (1G22023-PS1) Prepared: 07/22/2011 12:52 Analyzed: 07/26/2011 11:24

Source: C108680-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.05		0.0100	mg/L	1.00	0.00452	105	80-120			
Barium	1.14		0.0100	mg/L	1.00	0.127	101	80-120			
Beryllium	0.525		0.00100	mg/L	0.500	-9.27E-5	105	80-120			
Cadmium	0.518		0.00100	mg/L	0.500	0.00130	103	80-120			
Chromium	1.02		0.0100	mg/L	1.00	0.00243	102	80-120			
Cobalt	1.02		0.0100	mg/L	1.00	0.0194	100	80-120			
Copper	0.516		0.0100	mg/L	0.500	0.00198	103	80-120			
Lead	1.01		0.0100	mg/L	1.00	0.000498	101	80-120			
Nickel	0.995		0.0100	mg/L	1.00	0.00152	99	80-120			
Silver	0.511		0.0100	mg/L	0.500	0.00113	102	80-120			
Vanadium	0.524		0.0100	mg/L	0.500	0.000620	105	80-120			
Zinc	1.01		0.0100	mg/L	1.00	0.00785	100	80-120			

FLAGS/NOTES AND DEFINITIONS

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

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(904) 296-3007 Fax (904) 296-6210

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

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Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0
Address: P.O. Box 97	Project Name/Desc: Iredell MSWLF-SW Off Site
City/ST/Zip: Garner, NC 27529	PO # / Billing Info:
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: Jonathan Pfohl
Sampler(s) Name, Affiliation (Print): J. Pfohl, MESCO	Billing Contact: Accounts Payable
Sampler(s) Signature:	Site Location / Time Zone:

Requested Analyses: Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C108692

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Sample Comments
	SW-SofConfluence	7/21/11	2:15	Grab	SW	1	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: MESCO	Date/Time: 7/22/11 10:30	Received By: [signature]	Date/Time: 7/22/11 1030
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 2.5°C		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

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

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

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

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

Wednesday, August 10, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10013.0 (Blanks), Project Name/Desc: Iredell Co. Blanks
ENCO Workorder: C108682

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, July 27, 2011.

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

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

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

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

Sincerely,

Stephanie Franz For Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 20.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: EB	Lab ID: C108682-01	Sampled: 07/26/11 15:10	Received: 07/27/11 08:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/22/12	07/28/11	10:23	8/1/2011 11:10
EPA 6020A	01/22/12	07/28/11	10:31	7/29/2011 11:58
EPA 8260B	08/09/11	08/04/11	07:39	8/4/2011 19:32

Client ID: FB	Lab ID: C108682-02	Sampled: 07/26/11 15:15	Received: 07/27/11 08:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/22/12	07/28/11	10:23	8/1/2011 11:17
EPA 6020A	01/22/12	07/28/11	10:31	7/29/2011 12:01
EPA 8260B	08/09/11	08/04/11	07:39	8/4/2011 20:02

Client ID: TB	Lab ID: C108682-03	Sampled: 07/26/11 15:10	Received: 07/27/11 08:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8260B	08/09/11	08/04/11	13:06	8/5/2011 01:27

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: EB **Lab ID: C108682-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Copper - Total	4.91	J	1	1.60	10.0	10	ug/L	EPA 6010C	

Client ID: FB **Lab ID: C108682-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.27	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Copper - Total	1.74	J	1	1.60	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: EB
Matrix: Water
Project: Iredell Co. Blanks

Lab Sample ID: C108682-01
Sampled: 07/26/11 15:10
Sampled By: J. Pfohl

Received: 07/27/11 08:05
Work Order: C108682

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	08/04/11 19:32	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	08/04/11 19:32	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	08/04/11 19:32	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	08/04/11 19:32	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/04/11 19:32	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	08/04/11 19:32	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	08/04/11 19:32	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	08/04/11 19:32	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/04/11 19:32	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	08/04/11 19:32	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	08/04/11 19:32	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	08/04/11 19:32	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	08/04/11 19:32	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	08/04/11 19:32	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	08/04/11 19:32	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	08/04/11 19:32	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	08/04/11 19:32	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	08/04/11 19:32	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	08/04/11 19:32	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	08/04/11 19:32	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	08/04/11 19:32	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	08/04/11 19:32	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.58	U	ug/L	1	0.58	1.0	NE	EPA 8260B	08/04/11 19:32	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0	NE	EPA 8260B	08/04/11 19:32	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	08/04/11 19:32	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	08/04/11 19:32	JKG	

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Description: EB
Matrix: Water
Project: Iredell Co. Blanks

Lab Sample ID: C108682-01
Sampled: 07/26/11 15:10
Sampled By: J. Pfohl

Received: 07/27/11 08:05
Work Order: C108682

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	08/04/11 19:32	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	08/04/11 19:32	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	08/04/11 19:32	JKG	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	08/04/11 19:32	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*96 %*	*51-122*	*1H04008*	*EPA 8260B*	*08/04/11 19:32*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*1H04008*	*EPA 8260B*	*08/04/11 19:32*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*92 %*	*69-110*	*1H04008*	*EPA 8260B*	*08/04/11 19:32*	*JKG*	

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Description: EB
Matrix: Water
Project: Iredell Co. Blanks

Lab Sample ID: C108682-01
Sampled: 07/26/11 15:10
Sampled By: J. Pfohl

Received: 07/27/11 08:05
Work Order: C108682

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	07/29/11 11:58	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	08/01/11 11:10	JDH	
Barium [7440-39-3] ^	1.00	U	ug/L	1	1.00	10.0	100	EPA 6010C	08/01/11 11:10	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	08/01/11 11:10	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	08/01/11 11:10	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	08/01/11 11:10	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	08/01/11 11:10	JDH	
Copper [7440-50-8] ^	**4.91**	J	ug/L	1	1.60	10.0	10	EPA 6010C	08/01/11 11:10	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/01/11 11:10	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	08/01/11 11:10	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	07/29/11 11:58	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/01/11 11:10	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	07/29/11 11:58	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	08/01/11 11:10	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	08/01/11 11:10	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	08/01/11 11:10	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: FB
Matrix: Water
Project: Iredell Co. Blanks

Lab Sample ID: C108682-02
Sampled: 07/26/11 15:15
Sampled By: J. Pfohl

Received: 07/27/11 08:05
Work Order: C108682

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	08/04/11 20:02	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	08/04/11 20:02	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	08/04/11 20:02	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	08/04/11 20:02	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/04/11 20:02	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	08/04/11 20:02	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	08/04/11 20:02	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	08/04/11 20:02	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/04/11 20:02	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	08/04/11 20:02	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	08/04/11 20:02	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	08/04/11 20:02	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	08/04/11 20:02	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	08/04/11 20:02	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	08/04/11 20:02	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	08/04/11 20:02	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	08/04/11 20:02	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	08/04/11 20:02	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	08/04/11 20:02	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	08/04/11 20:02	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	08/04/11 20:02	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	08/04/11 20:02	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	08/04/11 20:02	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	08/04/11 20:02	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/04/11 20:02	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	08/04/11 20:02	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	08/04/11 20:02	JKG	

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Description: FB
Matrix: Water
Project: Iredell Co. Blanks

Lab Sample ID: C108682-02
Sampled: 07/26/11 15:15
Sampled By: J. Pfohl

Received: 07/27/11 08:05
Work Order: C108682

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	08/04/11 20:02	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*49*	*1*	*50.0*	*98 %*	*51-122*	*1H04008*	*EPA 8260B*	*08/04/11 20:02*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*101 %*	*68-117*	*1H04008*	*EPA 8260B*	*08/04/11 20:02*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*95 %*	*69-110*	*1H04008*	*EPA 8260B*	*08/04/11 20:02*	*JKG*	

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Description: FB
Matrix: Water
Project: Iredell Co. Blanks

Lab Sample ID: C108682-02
Sampled: 07/26/11 15:15
Sampled By: J. Pfohl

Received: 07/27/11 08:05
Work Order: C108682

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	07/29/11 12:01	VLO	
Arsenic [7440-38-2] ^	**3.27**	J	ug/L	1	2.80	10.0	10	EPA 6010C	08/01/11 11:17	JDH	
Barium [7440-39-3] ^	1.00	U	ug/L	1	1.00	10.0	100	EPA 6010C	08/01/11 11:17	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	08/01/11 11:17	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	08/01/11 11:17	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	08/01/11 11:17	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	08/01/11 11:17	JDH	
Copper [7440-50-8] ^	**1.74**	J	ug/L	1	1.60	10.0	10	EPA 6010C	08/01/11 11:17	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/01/11 11:17	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	08/01/11 11:17	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	07/29/11 12:01	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/01/11 11:17	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	07/29/11 12:01	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	08/01/11 11:17	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	08/01/11 11:17	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: TB
Matrix: Water
Project: Iredell Co. Blanks

Lab Sample ID: C108682-03
Sampled: 07/26/11 15:10
Sampled By: ENCO

Received: 07/27/11 08:05
Work Order: C108682

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	08/05/11 01:27	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	08/05/11 01:27	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	08/05/11 01:27	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	08/05/11 01:27	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/05/11 01:27	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	08/05/11 01:27	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	08/05/11 01:27	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	08/05/11 01:27	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/05/11 01:27	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	08/05/11 01:27	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	08/05/11 01:27	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	08/05/11 01:27	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	08/05/11 01:27	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	08/05/11 01:27	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	08/05/11 01:27	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	08/05/11 01:27	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	08/05/11 01:27	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	08/05/11 01:27	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	08/05/11 01:27	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	08/05/11 01:27	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	08/05/11 01:27	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	08/05/11 01:27	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	08/05/11 01:27	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	08/05/11 01:27	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/05/11 01:27	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	08/05/11 01:27	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	08/05/11 01:27	JKG	

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Description: TB
Matrix: Water
Project: Iredell Co. Blanks

Lab Sample ID: C108682-03
Sampled: 07/26/11 15:10
Sampled By: ENCO

Received: 07/27/11 08:05
Work Order: C108682

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	08/05/11 01:27	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*96 %*	*51-122*	*1H04025*	*EPA 8260B*	*08/05/11 01:27*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*1H04025*	*EPA 8260B*	*08/05/11 01:27*	*JKG*	
Toluene-d8	*47*	*1*	*50.0*	*94 %*	*69-110*	*1H04025*	*EPA 8260B*	*08/05/11 01:27*	*JKG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H04008 - EPA 5030B_MS

Blank (1H04008-BLK1) Prepared: 08/04/2011 07:39 Analyzed: 08/04/2011 10:27

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Methyl-tert-Butyl Ether	0.58	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Tetrahydrofuran	0.80	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H04008 - EPA 5030B_MS

Blank (1H04008-BLK1) Continued Prepared: 08/04/2011 07:39 Analyzed: 08/04/2011 10:27

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 4-Bromofluorobenzene	*49*			*ug/L*	*50.0*		*98*	*51-122*			
Surrogate: Dibromofluoromethane	*50*			*ug/L*	*50.0*		*99*	*68-117*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*96*	*69-110*			

LCS (1H04008-BS1) Prepared: 08/04/2011 07:39 Analyzed: 08/04/2011 11:55

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0		112	75-133			
Benzene	20		1.0	ug/L	20.0		99	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		100	83-117			
Toluene	23		1.0	ug/L	20.0		113	71-118			
Trichloroethene	19		1.0	ug/L	20.0		94	75-115			

Matrix Spike (1H04008-MS1) Prepared: 08/04/2011 07:39 Analyzed: 08/04/2011 10:56

Source: C109329-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.60 U	116	75-133			
Benzene	21		1.0	ug/L	20.0	0.68 U	105	81-134			
Chlorobenzene	21		1.0	ug/L	20.0	0.74 U	105	83-117			
Toluene	24		1.0	ug/L	20.0	0.85 U	119	71-118			QM-07
Trichloroethene	20		1.0	ug/L	20.0	0.72 U	100	75-115			

Matrix Spike Dup (1H04008-MSD1) Prepared: 08/04/2011 07:39 Analyzed: 08/04/2011 11:25

Source: C109329-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.60 U	120	75-133	3	20	
Benzene	22		1.0	ug/L	20.0	0.68 U	108	81-134	2	17	
Chlorobenzene	21		1.0	ug/L	20.0	0.74 U	107	83-117	2	16	
Toluene	24		1.0	ug/L	20.0	0.85 U	120	71-118	0.7	17	QM-07
Trichloroethene	20		1.0	ug/L	20.0	0.72 U	99	75-115	0.8	18	

Batch 1H04025 - EPA 5030B_MS

Blank (1H04025-BLK1) Prepared: 08/04/2011 11:14 Analyzed: 08/04/2011 23:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H04025 - EPA 5030B_MS

Blank (1H04025-BLK1) Continued Prepared: 08/04/2011 11:14 Analyzed: 08/04/2011 23:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*50*			*ug/L*	*50.0*		*99*	*51-122*			
Surrogate: Dibromofluoromethane	*49*			*ug/L*	*50.0*		*99*	*68-117*			
Surrogate: Toluene-d8	*47*			*ug/L*	*50.0*		*94*	*69-110*			

LCS (1H04025-BS1) Prepared: 08/04/2011 11:14 Analyzed: 08/05/2011 00:29

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0		114	75-133			
Benzene	20		1.0	ug/L	20.0		102	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		100	83-117			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H04025 - EPA 5030B_MS

LCS (1H04025-BS1) Continued Prepared: 08/04/2011 11:14 Analyzed: 08/05/2011 00:29

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Toluene	23		1.0	ug/L	20.0		113	71-118			
Trichloroethene	19		1.0	ug/L	20.0		96	75-115			

Matrix Spike (1H04025-MS1) Prepared: 08/04/2011 11:14 Analyzed: 08/04/2011 23:30

Source: C109568-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.60 U	114	75-133			
Benzene	21		1.0	ug/L	20.0	0.68 U	106	81-134			
Chlorobenzene	21		1.0	ug/L	20.0	0.74 U	105	83-117			
Toluene	24		1.0	ug/L	20.0	0.85 U	118	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.72 U	96	75-115			

Matrix Spike Dup (1H04025-MSD1) Prepared: 08/04/2011 11:14 Analyzed: 08/04/2011 23:59

Source: C109568-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.60 U	114	75-133	0.4	20	
Benzene	21		1.0	ug/L	20.0	0.68 U	106	81-134	0.2	17	
Chlorobenzene	21		1.0	ug/L	20.0	0.74 U	103	83-117	2	16	
Toluene	24		1.0	ug/L	20.0	0.85 U	118	71-118	0.5	17	
Trichloroethene	20		1.0	ug/L	20.0	0.72 U	99	75-115	3	18	

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

Batch 1G28017 - EPA 3005A

Blank (1G28017-BLK1) Prepared: 07/28/2011 10:23 Analyzed: 08/01/2011 10:42

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Tin	2.10	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1G28017-BS1) Prepared: 07/28/2011 10:23 Analyzed: 08/01/2011 10:47

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	541		10.0	ug/L	500		108	80-120			

QUALITY CONTROL

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

Batch 1G28017 - EPA 3005A

LCS (1G28017-BS1) Continued Prepared: 07/28/2011 10:23 Analyzed: 08/01/2011 10:47

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Barium	527		10.0	ug/L	500		105	80-120			
Beryllium	277		1.00	ug/L	250		111	80-120			
Cadmium	271		1.00	ug/L	250		108	80-120			
Chromium	538		10.0	ug/L	500		108	80-120			
Cobalt	545		10.0	ug/L	500		109	80-120			
Copper	266		10.0	ug/L	250		106	80-120			
Lead	535		10.0	ug/L	500		107	80-120			
Nickel	533		10.0	ug/L	500		107	80-120			
Silver	269		10.0	ug/L	250		107	80-120			
Tin	532		10.0	ug/L	500		106	80-120			
Vanadium	274		10.0	ug/L	250		110	80-120			
Zinc	528		10.0	ug/L	500		106	80-120			

Matrix Spike (1G28017-MS1) Prepared: 07/28/2011 10:23 Analyzed: 08/01/2011 10:58

Source: C109302-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	567		10.0	ug/L	500	3.16	113	75-125			
Barium	549		10.0	ug/L	500	15.9	107	75-125			
Beryllium	287		1.00	ug/L	250	0.100 U	115	75-125			
Cadmium	278		1.00	ug/L	250	0.360 U	111	75-125			
Chromium	553		10.0	ug/L	500	1.00 U	111	75-125			
Cobalt	557		10.0	ug/L	500	1.10 U	111	75-125			
Copper	282		10.0	ug/L	250	8.17	110	75-125			
Lead	550		10.0	ug/L	500	1.90 U	110	75-125			
Nickel	544		10.0	ug/L	500	1.80 U	109	75-125			
Silver	288		10.0	ug/L	250	1.90 U	115	75-125			
Tin	571		10.0	ug/L	500	2.10 U	114	75-125			
Vanadium	284		10.0	ug/L	250	1.40 U	114	75-125			
Zinc	544		10.0	ug/L	500	3.80 U	109	75-125			

Matrix Spike Dup (1G28017-MSD1) Prepared: 07/28/2011 10:23 Analyzed: 08/01/2011 11:00

Source: C109302-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	581		10.0	ug/L	500	3.16	116	75-125	2	20	
Barium	565		10.0	ug/L	500	15.9	110	75-125	3	20	
Beryllium	299		1.00	ug/L	250	0.100 U	120	75-125	4	20	
Cadmium	289		1.00	ug/L	250	0.360 U	116	75-125	4	20	
Chromium	575		10.0	ug/L	500	1.00 U	115	75-125	4	20	
Cobalt	568		10.0	ug/L	500	1.10 U	114	75-125	2	20	
Copper	295		10.0	ug/L	250	8.17	115	75-125	5	20	
Lead	560		10.0	ug/L	500	1.90 U	112	75-125	2	20	
Nickel	568		10.0	ug/L	500	1.80 U	114	75-125	4	20	
Silver	277		10.0	ug/L	250	1.90 U	111	75-125	4	20	
Tin	535		10.0	ug/L	500	2.10 U	107	75-125	7	20	
Vanadium	294		10.0	ug/L	250	1.40 U	118	75-125	4	20	
Zinc	565		10.0	ug/L	500	3.80 U	113	75-125	4	20	

QUALITY CONTROL

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

Batch 1G28017 - EPA 3005A

Post Spike (1G28017-PS1) Prepared: 07/28/2011 10:23 Analyzed: 08/01/2011 11:01

Source: C109302-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.02		0.0100	mg/L	1.00	0.00316	102	80-120			
Barium	0.970		0.0100	mg/L	1.00	0.0159	95	80-120			
Beryllium	0.517		0.00100	mg/L	0.500	-8.63E-6	104	80-120			
Cadmium	0.506		0.00100	mg/L	0.500	-0.000110	101	80-120			
Chromium	1.01		0.0100	mg/L	1.00	0.000300	101	80-120			
Cobalt	0.953		0.0100	mg/L	1.00	-0.000248	95	80-120			
Copper	0.516		0.0100	mg/L	0.500	0.00817	102	80-120			
Lead	0.968		0.0100	mg/L	1.00	0.00135	97	80-120			
Nickel	0.978		0.0100	mg/L	1.00	0.00132	98	80-120			
Silver	0.509		0.0100	mg/L	0.500	0.000232	102	80-120			
Tin	0.960		0.0100	mg/L	1.00	0.00130	96	80-120			
Vanadium	0.521		0.0100	mg/L	0.500	0.000571	104	80-120			
Zinc	0.979		0.0100	mg/L	1.00	0.00181	98	80-120			

Batch 1G28018 - EPA 3005A

Blank (1G28018-BLK1) Prepared: 07/28/2011 10:31 Analyzed: 07/29/2011 10:02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (1G28018-BS1) Prepared: 07/28/2011 10:31 Analyzed: 07/29/2011 10:05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.1		2.00	ug/L	25.0		96	80-120			
Selenium	23.8		1.00	ug/L	25.0		95	80-120			
Thallium	25.5		1.00	ug/L	25.0		102	80-120			

Matrix Spike (1G28018-MS1) Prepared: 07/28/2011 10:31 Analyzed: 07/29/2011 10:13

Source: C108531-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.1		2.00	ug/L	25.0	0.220 U	96	75-125			
Selenium	24.2		1.00	ug/L	25.0	0.830 U	97	75-125			
Thallium	25.6		1.00	ug/L	25.0	0.110 U	102	75-125			

Matrix Spike Dup (1G28018-MSD1) Prepared: 07/28/2011 10:31 Analyzed: 07/29/2011 10:16

Source: C108531-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	23.7		2.00	ug/L	25.0	0.220 U	95	75-125	2	20	
Selenium	23.0		1.00	ug/L	25.0	0.830 U	92	75-125	5	20	
Thallium	25.1		1.00	ug/L	25.0	0.110 U	100	75-125	2	20	

QUALITY CONTROL

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

Batch 1G28018 - EPA 3005A

Post Spike (1G28018-PS1) Prepared: 07/28/2011 10:31 Analyzed: 07/29/2011 10:20

Source: C108531-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	22.0		2.00	ug/L	25.0	0.0190	88	80-120			
Selenium	20.7		1.00	ug/L	25.0	0.0640	83	80-120			
Thallium	23.5		1.00	ug/L	25.0	0.0330	94	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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4810 Executive Park Court, Suite 211 Jacksonville, FL 32216-6069 (904) 296-3007 Fax (904) 296-6210
102-A Woodwinds Industrial Ct. Cary, NC 27511 (919) 467-3090 Fax (919) 467-3515
www.encolabs.com

Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0 (Blanks)
Address: P.O. Box 97	Project Name/Desc: Iredell Co. Blanks
City/ST/Zip: Garner, NC 27529	PO # / Billing Info
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: Jonathan Pfohl
Sampler(s) Name, Affiliation (Print): Jonathan Pfohl, MESCO	Billing Contact: Accounts Payable
Sampler(s) Signature	Site Location / Time Zone

Requested Analyses

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	~~8021B Appendix 2 8151A Appendix 2 8270D Appendix 2~~	8260B Appendix 1	8260B Appendix 1,8260B Extended	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Sn,Tl,V,Zn	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Cyanide Total SM4500-CN E					Sample Comments
	EB	7/26/11	3:10	Grab	WA	8			X	X							
	FB	↓	3:15	↓	WA	4		X			X						
	TB				WA	2		X									

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: MESCO	Date/Time: 8:05 7/27/11	Received By	Date/Time: 7/27/11 8:05
Comments/Special Reporting Requirements: ENCO provided DI H_2O Geotech D. Bottle for EB		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: C-734 1.0°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C108682

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

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

Appendix B
Field Sampling Parameter Data Sheet(s)

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) 7/18/10	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	Water Quality Parameters: CO2 (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 Gas Vapors (ppm)
MW-9R	7/21/11	1:00	NR	13.10	I 1		DB	N	Y	20	NR	1.2	62	6.09	17.7	623	311	C	NR
MW-9RR	7/21/11	12:35		18.54	I		DB	N	Y Bubbles Adjacent Basin	22 Poly	communicating	1.4	88	6.66	16.2	1518	756	ST	NR
MW-10R	7/21/11	12:00		23.35	I		DB	Y	Y	25	NR	2.3	111	6.61	17.3	381	180	ST	NR
MW-16	7/21/11	1:35	11.50	11.43	I 2		P&DB	N	Y	20		0.7	79	6.02	14.8	226	113	C	NR
MW-22	7/21/11	11:20		31.71	I		DB	N	Y	37		6.1	271	6.09	15.1	29	14	ST	NR
MW-23	7/21/11	10:45		13.32	I		DB	N	Y Slight Conductivity	23		0.8	264	5.98	16.0	369	183	C	NR
MW-24S	7/21/11	10:15	10.1'	10.12	I		DB	Y	Y	16		3.7	336	5.34	14.6	385	192	C	NR
MW-24D	7/21/11	9:50		9.60	I		P&DB	N	Y	38		5.7	307	6.19	14.4	91	45	C	NR
MW-25	7/21/11	8:10	21.91	21.90	I		DB	Y	Y	24.93		4.8	183	6.62	18.1	63	30	Slight	NR
MW-26S	7/21/11	9:15		14.83	I		P&DB	Y	Y	20.25		4.3	162	6.72	16.0	62	30	Slight	NR
MW-26D	7/21/11	8:45		14.40	I		P&DB	Y	Y	61.76		3.8	103	8.10	16.1	138	72	White	NR
SW-3	7/21/11	1:45	-	-	I & Dissolved Zn	-	Dip	-	-	-		6.1	170	6.73	23.6	168	81	clear	-
SW-6	NS	DRY	-	-	I	-	—	-	-	-									-
CD3-11M	-	-		15.07	WLR	-	—	-	-	-									-
CD-8M	-	-		8.96	WLR	-	—	-	-	-									-
SW-SofConfluence	7/21/11	2:15	-	-	Total Zn	-		-	-	-		6.2	280	6.05	21.8	277	133	C	-
SW-																			

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 Subtitle D MSWLF, Surface Water SW-2 Furthest Dowstream of Facility

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters								Water Quality Parameters								
			Depth to Water (BTOP) 1/ /10	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)
SW-2	7/18/11		-	-	1	-	Dip	-	-	-	NR	6.4	180	6.91	22.8	136	70	C	-

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