Semi-Annual Water Quality Monitoring Report

Prepared for

Iredell County Subtitle D Lined MSWLF, Phases 1 & 2
Statesville, North Carolina

July 2011

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

Submittal Date: November 4, 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 Subtitle D Lined MSWLF, Phases 1 & 2	354 Twin Oaks Road Statesville, NC 28625	49-03	.1600	July 18-20 & 25, 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: 11/4/2011

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 2275 GEOLOGIST MADELINE GERMAN 11/4/2011

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

Municipal Services

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

November 4, 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 Subtitle D Lined MSWLF, Phases 1 & 2
Permit No. 49-03
MESCO Project No. G11014.0

Dear Mr. Lane:

Introduction

The Iredell County Subtitle D Lined Municipal Solid Waste Landfill (MSWLF) Phases 1 & 2 located in Statesville, NC, is not currently accepting waste, but is required to submit semi-annual compliance reports as a condition of the water quality monitoring program. Two contiguous phases (1 & 2) make up the lined MSWLF; therefore, they are combined and treated as a single unit, in this report, for continuity. Municipal Engineering Services Company, P.A. (MESCO) of Garner NC performed this sampling event July 18-20, & 25, 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.1600. Water quality monitoring has been performed semi-annually, since commencing operations in 1993. The portion of the facility, in close proximity to Phase 2, has been under assessment monitoring since July 2009. The subset of assessment monitoring wells, analyzed for Appendix II monitoring, were chosen during a meeting between MESCO and Mr. Ervin Lane of the SWS on July 14, 2009. The site location topographic map is depicted on **Plate 1**.

As specified in 15A NCAC 13B.1632(j) and the SWS Environmental Monitoring Report Form, this report contains sampling procedures, field and laboratory results, groundwater and surface water characterization, and findings. Detections tables, a hyrdrogeologic properties table, a monitoring network field observations table, field parameter data results, potentiometric map, quality assurance/quality control data and laboratory analytical data results with chain-of-custody (C-O-C) are included.

Sampling Procedure

MESCO performed this sampling event utilizing portable monitoring methodology in accordance with the site-specific SWS Sampling and Analysis Plan (SAP) contained in the *Hydrogeologic Design Study* revised November 1997. This event included water sample collection from 18 downgradient groundwater monitoring wells/piezometers (MW-2, MW-3A, MW-3B, MW-4B, MW-6A, MW-6B, MW-7, MW-8, MW-11, MW-12, MW-13A, MW-13B, MW-13BR, MW-14B, MW-15D, P2-10S, P2-10D, P2-19), two background wells (MW-1A and MW-1C), and a leachate sample (LAGOON). The unnamed tributaries of Fourth Creek, which serve as the local discharge feature, were monitored at three locations (SW-1, SW-2 and SW-5). Quality control measures were implemented during this event including submittal and subsequent blank quantification: equipment blank (EB), field blank (FB) and travel blank (TB). Shallow cluster pair counterparts (MW-1A, MW-4A, MW-14A, MW-15) and surface water SW-4 were dry. Monitoring locations are shown on the single-day potentiometric map formulated for the entire facility on **Plate 2**.

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

Monitoring location function and integrity were visually evaluated, inspection documentation is provided in **Table 6**. The depth to water in each well was electronically gaged prior to purging to quantify the static water level. 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, field parameters pH, specific conductance, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), total dissolved solids (TDS), and visual turbidity were recorded. The samples were then 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 C-O-C protocol within the specified hold times for each analysis.

Field Parameter Data

A field parameter data summary is presented in **Table 7** and the field sampling data sheets are enclosed in **Appendix B**.

Laboratory Results

Environmental Conservation Laboratories (ENCO) of Cary, NC performed the laboratory analysis on the collected groundwater and surface water samples for the Appendix I plus the Appendix II exclusive (defined in this report as not also listed in Appendix I) constituents detected during the previous January 2011 event. A leachate sample collected from the lagoon invert (LAGOON) which serves Phases 1-4 was analyzed for the required leachate specific list. A sampling and analysis summary is presented on **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). **Table 3** summarizes Appendix II exclusive (defined in this report as not also listed in Appendix I) constituents detected above the MDL. Laboratory results and C-O-Cs are presented in **Appendix B**.

Quality Control Samples

Copper was detected in the EB and FB. Additionally arsenic was found in the FB. Both metal concentrations were below the SWSL. Although the low level blank qualified detections were identified, it appears that the last data set's validity was not effected by false positives or high bias attributed to field and/or laboratory artifact contamination.

Groundwater Samples

Total metals were detected in concentrations above their respective 2L Standard in samples collected from MW-3B (arsenic), MW-13A (chromium) and the background wells MW-1A (cadmium), MW-1C (chromium).

VOCs, in quantifiable concentrations were detected in samples from six wells. Chlorinated aliphatic hydrocarbon(s) (CAH) were detected in concentrations above their respective 2L Standard in MW-11 (VCM), MW-13B (PCE, TCE, DCM, 1,2-DCA, VCM), MW-14B (PCE, TCE, DCM, 1,1-DCA,VCM), P2-10S (PCE, TCE, DCM), and MW-15D (PCE, DCM). The aromatic benzene was also detected above the 2L Standard in samples from MW-11, MW-13B, MW-14B and P2-10S.

The only Appendix II exclusive constituent, detected above the SWL but below it's 2L Standard was the pesticide 2,4-D in MW-11.

Surfacewater Samples

There were no constituents detected above the SWSL or applicable 2B Standard in the surface water samples.

Leachate Samples

The leachate sample (LAGOON) contained quantifiable concentrations of seven metals and three VOCs. Detections are summarized in **Table 4**. Of the six VOCs detected in groundwater samples vinyl chloride was the only constituent detected in a quantifiable concentration in the leachate sample. The concentrations of analytes in the leachate samples were not elevated and are consistent with reported historical results.

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 5**. Groundwater flow for the surficial aquifer flows in a general northern direction towards the unnamed tributaries of Fourth Creek, which is believed to serve as the local discharge feature. The groundwater flow rates ranged from approximately <1 foot/year (MW-12) to 198 feet/year (P2-10S) averaging approximately 47 feet/year. The flow directions and gradients are consistent with reported historical observations. Streams located within the facility boundaries were visually observed to have normal seasonal volume and low turbidity.

Findings

The reported metal detections are likely not attributed to leachate but rather attributed to natural deposit erosion.

Appendix I VOCs continue to persist in the uppermost aquifer located predominately directly northeast/downgradient of the Phase 2 sump. Water samples collected from MW-4B, MW-11, MW-13B, MW-14B, MW-15D, and P2-10S contained two or more VOC in concentrations above their respective 2L Standard. The wells yielding VOC detections are located within the relevant point of compliance (250' from the waste boundary). The horizontal extent of groundwater impact as identified in MW-13B is delineated by a clean sample collected from MW-13BR. The horizontal extent of migration beyond MW-14B is limited as evidenced by the lack of detections in a supplemental sample collected from P2-19. The shallow aquifer monitored by MW-11 is centrally located within the facility boundaries. VOCs were absent in samples collected from deeper wells MW-6B, MW-13A and P2-10D which may indicate limited vertical migration. Iredell County owns the property and controls the groundwater resources located between the landfill and the local discharge feature which has not been impacted as indicated by analytical data from SW-2.

Closing

Semi-annual water quality monitoring will continue at this facility; water sample collection is tentatively scheduled to be performed again in January 2012. If you have any questions regarding this report, please contact us 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, PG
Professional Geologist

NORTH CAROLINA LICENSED SEAL 2275 11/4/2011 GEOLOGIST MADELINE GERMAN

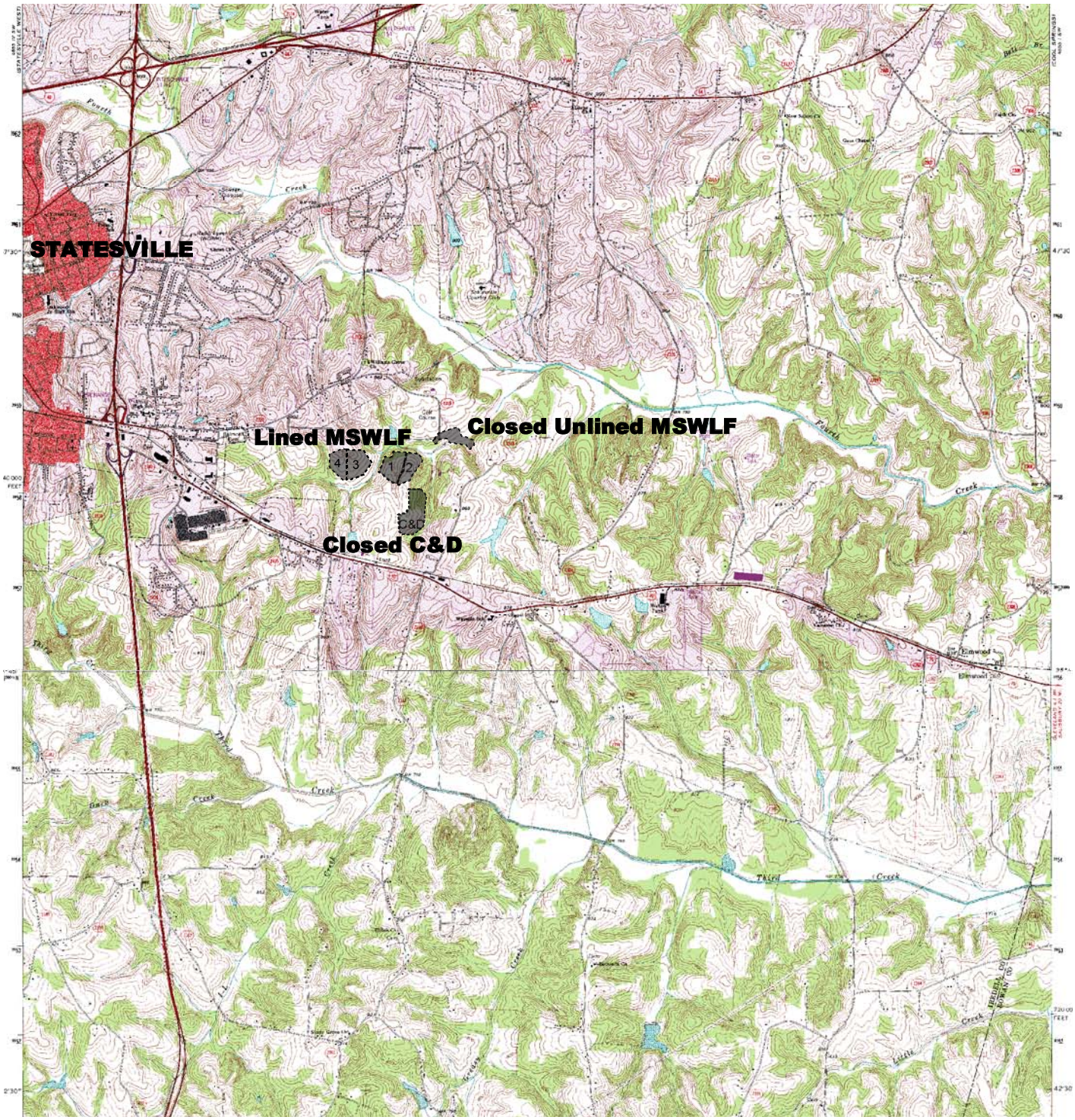
Enclosures
cc: Mr. David Lambert
Iredell County

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

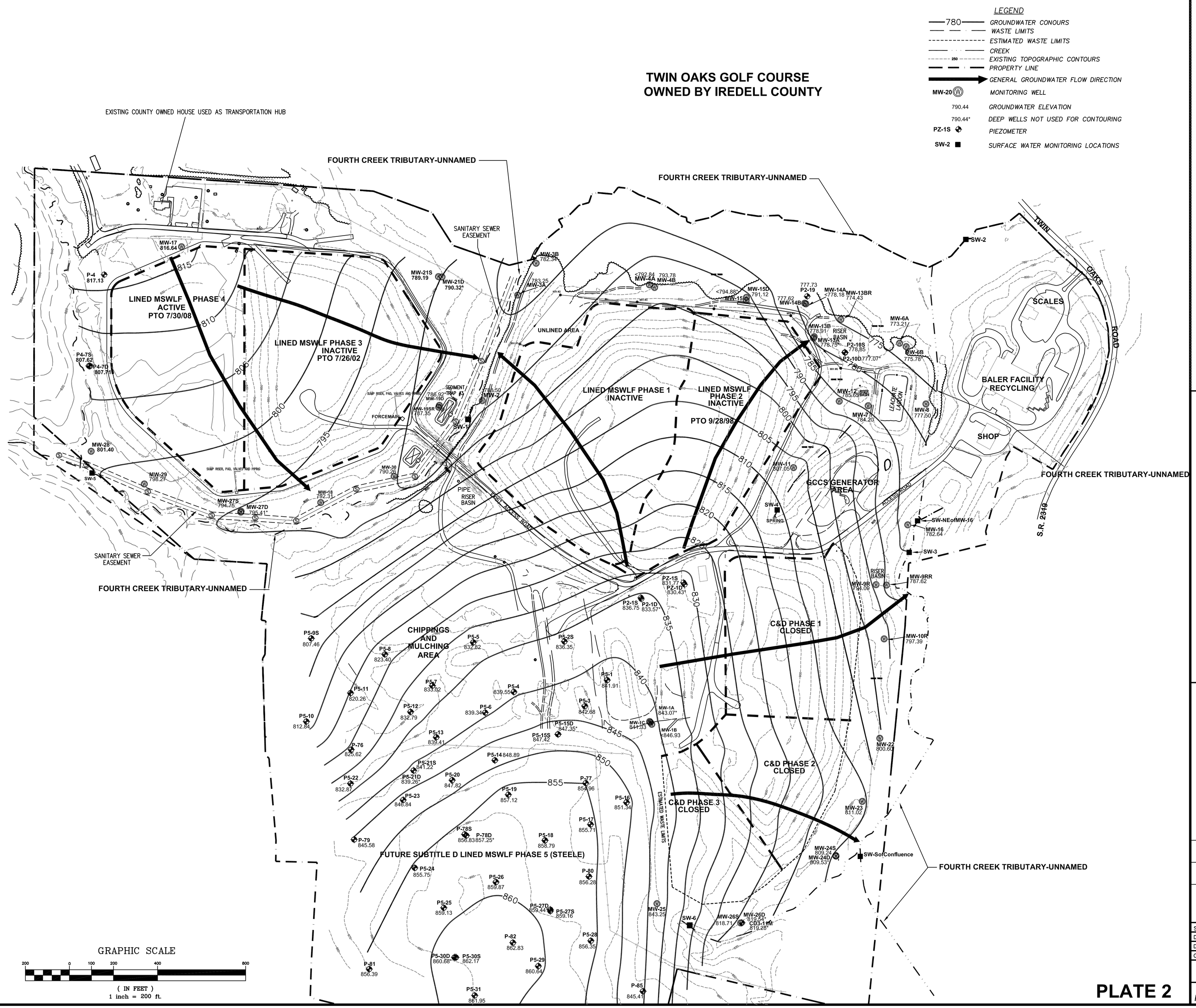
ROAD CLASSIFICATION

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, 2011

		App. I		App. II								Misc.	Field Parameter							Leachate					
	Reason Not Sampled	VOCs	Total Metals	VOCs	Total Metals	delta-BHC	2,4-D	Bis(2-ethylhexyl)phthalate	Total Cyanide	Tin	Sulfide	Tetrahydrofuran	Dissolved Oxygen (DO)	Oxidation Reduction Potential (ORP)	Temperature	Conductivity	Total Dissolved Solids (TDS)	pH	Turbidity	Sulfate	pH	Phosphorus	BOD, 5 day	COD	Nitrate
		Lab EPA 8260B	Lab EPA 6000/7000	Lab EPA 8260B	Lab EPA 6000/7000	Lab EPA 8081B	Lab SW8151A	Lab EPA 8270D	Lab EPA 9014	Lab EPA 6010	Lab SM18 4500-S D	Lab EPA 8260B	Field Meter	Field Meter	Field Meter	Field Meter	Field Meter	Field Meter	Field Visual	Lab ASTM D516-90	Lab SM 4500-H/B	Lab EPA365.4	Lab SM 5210B	Lab SM 5220D	Lab EPA 353.2
MW-1A		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						
MW-2		x	x										x	x	x	x	x	x	x						
MW-3A		x	x										x	x	x	x	x	x	x						
MW-3B		x	x										x	x	x	x	x	x	x						
MW-4A	Dry																								
MW-4B		x	x							X			x	x	x	x	x	x	x						
MW-6A		x	x										x	x	x	x	x	x	x						
MW-6B		x	x										x	x	x	x	x	x	x						
MW-7		x	x					x					x	x	x	x	x	x	x						
MW-8		x	x										x	x	x	x	x	x	x						
MW-11		x	x				x			X			x	x	x	x	x	x	x						
MW-12		x	x							X			x	x	x	x	x	x	x						
MW-13A		x	x										x	x	x	x	x	x	x						
MW-13B		x	x										x	x	x	x	x	x	x						
MW-13BR		x	x																						
MW-14A	Dry																								
MW-14B		x	x							X			x	x	x	x	x	x	x						
MW-15		x	x																						
MW-15D		x	x										x	x	x	x	x	x	x						
P2-10S		x																							
SW-1		x	x										x	x	x	x	x	x	x						
SW-2		x	x										x	x	x	x	x	x	x						
SW-3												x	x	x	x	x	x	x	x						
SW-4	Dry																								
SW-5		x	x										x	x	x	x	x	x	x						
EB				x	x	x	x	x	x		x	x													
FB				x	x																				
TB				x																					
LAGOON				x	x			x	x		x									x	x	x	x	x	x

App I & II = List from current 40 CFR 258

Table 2
Detections in Water Samples above SWSL, GWP, 2L or 2B (Appendix I)
July 18-19, 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**	**07/19/11**	**1.93**	**ug/L**	**0.360**	**1**	**1.75**			**0.18**	**B & N**
MW-1A	Copper Total	07/19/11	13.8	ug/L	1.60	10	1000				
MW-1A	Vanadium Total	07/19/11	18.3 j	ug/L	1.40	25	NE		3.5	14.8	
MW-1A	Zinc Total	07/19/11	26.4	ug/L	3.80	10	1050				
MW-1C	Barium Total	07/19/11	453	ug/L	1.00	100	700				
MW-1C	**Chromium Total**	**07/19/11**	**18.8**	**ug/L**	**1.00**	**10**	**10**			**8.8**	**B & N**
MW-1C	Cobalt Total	07/19/11	18.7	ug/L	1.10	10	NE		70		
MW-1C	Copper Total	07/19/11	50.3	ug/L	1.60	10	1000				
MW-1C	Vanadium Total	07/19/11	101	ug/L	1.40	25	NE		3.5	97.5	
MW-1C	Zinc Total	07/19/11	145	ug/L	3.80	10	1050				
MW-3A	Vanadium Total	07/18/11	12.9 j	ug/L	1.40	25	NE		3.5	9.4	
MW-3B	**Arsenic Total**	**07/18/11**	**10.6**	**ug/L**	**2.80**	**10**	**10**			**0.6**	**N**
MW-3B	Vanadium Total	07/18/11	3.23 j	ug/L	1.40	25	NE		3.5		
MW-3B	Zinc Total	07/18/11	11.9	ug/L	3.80	10	1050				
MW-4B	**1,2-Dichloroethane**	**07/19/11**	**1.6**	**ug/L**	**0.47**	**1**	**0.38**			**1.22**	**L &/or LFG**
MW-4B	1,4-Dichlorobenzene	07/19/11	1.8	ug/L	0.79	1	6				
MW-4B	Barium Total	07/19/11	176	ug/L	1.00	100	700				
MW-4B	**Benzene**	**07/19/11**	**2.7**	**ug/L**	**0.68**	**1**	**1**			**1.7**	**L &/or LFG**
MW-4B	Vanadium Total	07/19/11	9.7 j	ug/L	1.40	25	NE		3.5	6.2	
MW-4B	**Vinyl chloride**	**07/19/11**	**2.1**	**ug/L**	**0.60**	**1**	**0.03**			**2.07**	**L &/or LFG**
MW-4B	Zinc Total	07/19/11	22.6	ug/L	3.80	10	1050				
MW-6A	Barium Total	07/18/11	101	ug/L	1.00	100	700				
MW-6A	Zinc Total	07/18/11	10.9	ug/L	3.80	10	1050				
MW-7	Barium Total	07/19/11	109	ug/L	1.00	100	700				
MW-7	Cadmium Total	07/19/11	1.24	ug/L	0.360	1	1.75				
MW-7	Vanadium Total	07/19/11	7.8 j	ug/L	1.40	25	NE		3.5	4.3	
MW-7	Zinc Total	07/19/11	17.9	ug/L	3.80	10	1050				
MW-8	Barium Total	07/18/11	125	ug/L	1.00	100	700				
MW-8	Vanadium Total	07/18/11	7.01 j	ug/L	1.40	25	NE		3.5	3.51	
MW-8	Zinc Total	07/18/11	12.5	ug/L	3.80	10	1050				
MW-11	Barium Total	07/19/11	256	ug/L	1.00	100	700				
MW-11	**Benzene**	**07/19/11**	**1.2**	**ug/L**	**0.68**	**1**	**1**			**0.2**	**L &/or LFG**
MW-11	Vanadium Total	07/19/11	5.12 j	ug/L	1.40	25	NE		3.5	1.62	
MW-11	**Vinyl chloride**	**07/19/11**	**5**	**ug/L**	**0.60**	**1**	**0.03**			**4.97**	**L &/or LFG**
MW-11	Zinc Total	07/19/11	13.4	ug/L	3.80	10	1050				
MW-12	Barium Total	07/19/11	110	ug/L	1.00	100	700				
MW-12	Vanadium Total	07/19/11	11.4 j	ug/L	1.40	25	NE		3.5	7.9	
MW-12	Zinc Total	07/19/11	17	ug/L	3.80	10	1050				

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause [7]
MW-13A	Barium Total	07/19/11	228	ug/L	1.00	100	700				
MW-13A	**Chromium Total**	**07/19/11**	**31.2**	**ug/L**	**1.00**	**10**	**10**			**21.2**	**N**
MW-13A	Thallium Total	07/19/11	0.306 j	ug/L	0.110	5.5	NE		0.28	0.026	
MW-13A	Vanadium Total	07/19/11	32.7	ug/L	1.40	25	NE		3.5	29.2	
MW-13A	Zinc Total	07/19/11	53.6	ug/L	3.80	10	1050				
MW-13B	**1,2-Dichloroethane**	**07/19/11**	**3.7**	**ug/L**	**0.47**	**1**	**0.38**			**3.32**	**L &/or LFG**
MW-13B	Barium Total	07/19/11	445	ug/L	1.00	100	700				
MW-13B	**Benzene**	**07/19/11**	**7.3**	**ug/L**	**0.68**	**1**	**1**			**6.3**	**L &/or LFG**
MW-13B	Beryllium Total	07/19/11	1.6	ug/L	0.100	1	NE		4		
MW-13B	cis-1,2-Dichloroethene	07/19/11	49	ug/L	0.72	5	70				
MW-13B	**Methylene chloride**	**07/19/11**	**13**	**ug/L**	**0.14**	**1**	**4.6**			**8.4**	**L &/or LFG**
MW-13B	**Tetrachloroethene**	**07/19/11**	**2.7**	**ug/L**	**0.73**	**1**	**0.7**			**2**	**L &/or LFG**
MW-13B	**Trichloroethene**	**07/19/11**	**6.2**	**ug/L**	**0.72**	**1**	**2.8**			**3.4**	**L &/or LFG**
MW-13B	Vanadium Total	07/19/11	3.76 j	ug/L	1.40	25	NE		3.5	0.26	
MW-13B	**Vinyl chloride**	**07/19/11**	**7.7**	**ug/L**	**0.60**	**1**	**0.03**			**7.67**	**L &/or LFG**
MW-13B	Zinc Total	07/19/11	10.6	ug/L	3.80	10	1050				
MW-14B	**1,1-Dichloroethane**	**07/19/11**	**6**	**ug/L**	**0.080**	**5**	**6**			**0**	**L &/or LFG**
MW-14B	Barium Total	07/19/11	178	ug/L	1.00	100	700				
MW-14B	**Benzene**	**07/19/11**	**3.4**	**ug/L**	**0.68**	**1**	**1**			**2.4**	**L &/or LFG**
MW-14B	Cadmium Total	07/19/11	1.35	ug/L	0.360	1	1.75				
MW-14B	cis-1,2-Dichloroethene	07/19/11	30	ug/L	0.72	5	70				
MW-14B	**Methylene chloride**	**07/19/11**	**18**	**ug/L**	**0.14**	**1**	**4.6**			**13.4**	**L &/or LFG**
MW-14B	**Tetrachloroethene**	**07/19/11**	**2.8**	**ug/L**	**0.73**	**1**	**0.7**			**2.1**	**L &/or LFG**
MW-14B	**Trichloroethene**	**07/19/11**	**4.9**	**ug/L**	**0.72**	**1**	**2.8**			**2.1**	**L &/or LFG**
MW-14B	**Vinyl chloride**	**07/19/11**	**5.1**	**ug/L**	**0.60**	**1**	**0.03**			**5.07**	**L &/or LFG**
MW-14B	Zinc Total	07/19/11	10.1	ug/L	3.80	10	1050				
MW-15D	cis-1,2-Dichloroethene	07/19/11	5	ug/L	0.72	5	70				
MW-15D	**Methylene chloride**	**07/19/11**	**6.9**	**ug/L**	**0.14**	**1**	**4.6**			**2.3**	**L &/or LFG**
MW-15D	**Tetrachloroethene**	**07/19/11**	**1.7**	**ug/L**	**0.73**	**1**	**0.7**			**1**	**L &/or LFG**
MW-15D	Trichloroethene	07/19/11	1	ug/L	0.72	1	2.8				
MW-15D	Vanadium Total	07/19/11	3.83 j	ug/L	1.40	25	NE		3.5	0.33	
MW-15D	**Vinyl chloride**	**07/19/11**	**2**	**ug/L**	**0.60**	**1**	**0.03**			**1.97**	**L &/or LFG**

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause [7]
P2-10S	**Benzene**	**07/19/11**	**1.1**	**ug/L**	**0.68**	**1**	**1**			**0.1**	**L &/or LFG**
P2-10S	cis-1,2-Dichloroethene	07/19/11	7.1	ug/L	0.72	5	70				
P2-10S	**Methylene chloride**	**07/19/11**	**5.7**	**ug/L**	**0.14**	**1**	**4.6**			**1.1**	**L &/or LFG**
P2-10S	**Tetrachloroethene**	**07/19/11**	**4.4**	**ug/L**	**0.73**	**1**	**0.7**			**3.7**	**L &/or LFG**
P2-10S	**Trichloroethene**	**07/19/11**	**5.4**	**ug/L**	**0.72**	**1**	**3**			**2.4**	**L &/or LFG**

[1] Table contains Appendix I constituents detected at or 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 as detected upgradient/upstream of landfill

N = Natural from erosion of natural deposits

L = Leachate

LFG = Landfill Gas

BOLD = Concentration > 2L, or 2B Standard

Table 3
Detections in Water Samples Above MDL (App II Exclusive)
July 18-19, 2011

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	GWP [5]	Exceedance	Preliminary Cause [6]
MW-4B	Tin Total	07/19/11	3.67 j	ug/L	2.10	100	NE	NE		
MW-7	Bis(2-ethylhexyl)phthalate	07/19/11	2.6 j	ug/L	1.7	15	NE	NE		
MW-11	2,4-D	07/19/11	2.5	ug/L	0.15	2	70			
MW-11	Tin Total	07/19/11	4.13 j	ug/L	2.10	100	NE	NE		
MW-14B	Tin Total	07/19/11	4.18 j	ug/L	2.10	100	NE	NE		

[1] Table contains App II exclusive constituents detected over MDL
[2] MDL = Method Detection Limit
[3] SWSL = Solid Waste Section Reporting Limit
[4] 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard
[5] GWP = Groundwater Protection Standard
[6] 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
NE = Not Established
BOLD = Concentration >2L Standard

Table 4
Detections in Leachate Above SWSL, GWP, 2L, or 2B
July 20, 2011

SAMPLE	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance
LAGOON	Antimony Total	07/20/11	4.07	ug/L	2.20	6	NE			
LAGOON	**Arsenic Total**	**07/20/11**	**10.8**	**ug/L**	**2.80**	**10**	**10**			**0.8**
LAGOON	**Barium Total**	**07/20/11**	**1120**	**ug/L**	**1.00**	**100**	**700**			**420**
LAGOON	**Chromium Total**	**07/20/11**	**76.4**	**ug/L**	**1.00**	**10**	**10**			**66.4**
LAGOON	Nickel Total	07/20/11	67.9	ug/L	1.80	50	100			
LAGOON	Tin Total	07/20/11	18.5 j	ug/L	2.10	100	NE		NE	
LAGOON	Cobalt Total	07/20/11	86.7	ug/L	1.10	10	NE		70	16.7
LAGOON	Vanadium Total	07/20/11	20.9 j	ug/L	1.40	25	NE		3.5	17.4
LAGOON	Zinc Total	07/20/11	38.9	ug/L	3.80	10	1050			
LAGOON	Bis(2-ethylhexyl)phthalate	07/20/11	2.6 j	ug/L	1.7	15	NE			
LAGOON	**Vinyl chloride**	**07/20/11**	**11**	**ug/L**	**3.0**	**1**	**0.03**			**10.97**
LAGOON	Xylenes (Total)	07/20/11	47	ug/L	10	5	530			
LAGOON	Toluene	07/20/11	9.8	ug/L	4.2	1	1000			
LAGOON	BOD	07/20/11	36000	ug/L	2000	NE	NE			
LAGOON	COD	07/20/11	770000	ug/L	10000	NE	NE			
LAGOON	Nitrate as N	07/20/11	100	ug/L	25	10000	10000			
LAGOON	Nitrate/Nitrite as N	07/20/11	110	ug/L	25	NE	NE			
LAGOON	Nitrite as N	07/20/11	7.2	ug/L	3.0	1000	NE			
LAGOON	pH	07/20/11	7.3	pH Units	1.0	NE	NE			
LAGOON	Phosphorus	07/20/11	1000	ug/L	21	NE	NE			
LAGOON	Sulfate as SO4	07/20/11	3200	ug/L	20	250000	NE			

[1] Table contains only constituents detected at or 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 the Nearest Potential Specific Stream Classification

[6] GWP = Groundwater Protection Standard

NE = Not Established

BOLD = Concentration > 2L or 2B Standard

Table 5
Hydrologic Properties at Monitoring Well Locations
July 18, 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	0.08	na	na	24.67	843.07	Silty Clayey Sand
MW-1C	na	20	0.04	na	N81E	24.92	841.33	Silty Clayey Sand
MW-2	5.00E-04	20	0.04	105	N38W	9.12	788.50	Silty Sand
MW-3A	2.00E-04	20	0.03	28	N40W	8.85	783.25	Silty Sand
MW-3B	2.00E-04	20	0.02	25	N46W	8.27	782.34	Silty Sand
MW-4A	7.00E-05	5	na	na	na	>29.79	<792.84	Sandy Clay/Rock
MW-4B	7.00E-05	20	0.02	6	N16W	31.63	793.78	Weathered Rock
MW-6A	7.00E-05	15	0.03	15	N37E	19.79	773.21	Clayey Silt
MW-6B	na	15	0.01	na	na	23.09	775.78	Sandy Clay
MW-7	2.00E-04	15	0.04	53	N36E	14.03	784.20	Sandy Clay
MW-8	1.00E-04	15	0.03	19	N54E	19.90	777.50	Sandy Clay
MW-11	1.30E-05	21	0.03	2	N68E	14.41	807.05	Sand
MW-12	3.90E-06	20	0.03	1	N26E	19.99	785.65	Sandy Silt/Sitly Sand
MW-13A	4.90E-08	15	0.75	na	na	39.66	778.75	Sandy Silt
MW-13B	5.30E-06	21	0.08	2	N55E	39.19	778.91	Silty Sand
MW-13BR	9.24E-04	21	0.03	147	N33E	36.88	774.53	Silty Sand
MW-14A	1.20E-05	21	na	na	na	>40.89	<778.18	Silty Sand
MW-14B	1.20E-05	21	0.06	3	N72E	40.92	777.62	Silty Sand
MW-15	3.10E-06	5	na	na	na	>44.45	<793.16	Silt/Sand/Schist
MW-15D	na	5	0.02	na	N74E	46.52	791.12	Schist
P2-1S	1.42E-04	15	0.20	198	N11W	21.61	838.87	Clayey Silt
PZ-1S	na	15	0.04	na	N46E	41.65	831.77	Sandy Silt
P2-10S	2.38E-04	15	0.03	54	N29E	33.52	778.85	Sandy Silt/Sitly Sand
Minimum	4.90E-08	5	0.01	1	-	8.27	773.21	-
Average	1.56E-04	17	0.08	47	-	25.93	794.30	-
Maximum	9.24E-04	21	0.75	198	-	46.52	843.07	-

NOTE: Hydrologic gradient from groundwater elevations recorded on July 18, 2011
Values for hydraulic conductivity determined via slug test by MESCO
Wells screened in rock or deeper counterparts in cluster pairs not utilized for flow directions/gradients
na = not available

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

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

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-83	901.10	40.04	861.06
P-84S	900.36	42.74	857.62
P-85	878.67	33.26	845.41
P-86	901.15	50.19	850.96

* Deep wells not used for groundwater contouring

Table 6
Field Observations of Monitoring Locations
July 18-20, 2011

Sample Location	Viable Monitoring Location	Lack of Any Evidence of Tampering	Locked	Hinge/Hasp Operates	Tagged or Labeled	Concrete Surface Pad Effective	Degree of Visual Turbidity of Collected Sample	Comments
MW-1A	Yes	Yes	Yes	Yes	Yes	Yes	Slight	
MW-1B	No	Yes	Yes	Yes	Yes	Yes	-	Dry
MW-1C	Yes	Yes	Yes	Yes	Yes	Yes	Moderate	
MW-2	Yes	Yes	Yes	Yes	Yes	Yes	Slight	Surface seal improved
MW-3A	Yes	Yes	Yes	Yes	Yes	Yes	Moderate	Surface seal improved
MW-3B	Yes	Yes	Yes	Yes	Yes	Yes	Clear	Surface seal improved
MW-4A	No	Yes	Yes	Yes	Yes	Yes	-	Dry
MW-4B	Yes	Yes	Yes	Yes	Yes	Yes	Slight	
MW-6A	Yes	Yes	Yes	Yes	Yes	Yes	Slight	
MW-6B	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-7	Yes	Yes	Yes	Yes	Yes	Yes	Moderate	
MW-8	Yes	Yes	Yes	Yes	Yes	Yes	Clear	Surface seal improved
MW-11	Yes	Yes	Yes	Yes	Yes	Yes	Clear	Surface seal improved
MW-12	Yes	Yes	Yes	Yes	Yes	Yes	Slight	Surface seal improved
MW-13A	Yes	Yes	Yes	Yes	Yes	Yes	Slight	Surface seal improved
MW-13B	Yes	Yes	Yes	Yes	Yes	Yes	Slight	Surface seal improved
MW-13BR	Yes	Yes	Yes	Yes	Yes	Yes	Moderate	
MW-14A	No	Yes	Yes	Yes	Yes	Yes	-	Dry
MW-14B	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-15	No	Yes	Yes	Yes	Yes	Yes	-	Dry
MW-15D	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
P2-10S	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
P2-10D	Yes	Yes	na	na	Yes	Yes	-	
P2-19	Yes	Yes	na	na	Yes	Yes	-	Slight constriction at surface
PZ-1S	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
PZ-1D	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
SW-1	Yes	-	-	-	-	-	Clear	
SW-2	Yes	-	-	-	-	-	Clear	
SW-4	No	-	-	-	-	-	-	Dry
SW-5	Yes	-	-	-	-	-	Clear	
LAGOON	Yes	na	na	na	na	na	na	Moderate

na = not available or applicable

Any unusual field conditions, observations, or events:

County improved eight surface seal pads since January 2011. Round plastic 24” diameter corrugated pipe was installed around metal cases and filled with concrete.

Table 7
Field Parameter Data Summary
July 18-19, 2011

Location	Water Depth	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	843.07	867.74	15.7	186	2.4	6.34	96	48	Slight
MW-1B	dry	<846.93	867.93	NR	NR	NR	NR	NR	NR	NR
MW-1C	24.92	841.33	866.25	15.1	363	1.9	6.63	71	35	Moderate
MW-2	9.12	788.50	797.62	16.8	327	1.8	5.54	73	35	Slight
MW-3A	8.85	783.25	792.10	16.5	125	1.4	6.13	172	86	Moderate
MW-3B	8.27	782.34	790.61	15.1	-33	0.9	6.41	244	122	Clear
MW-4A	dry	<792.84	822.7	NR	NR	NR	NR	NR	NR	NR
MW-4B	31.63	793.78	825.41	15.8	151	1.4	5.48	690	144	Slight
MW-6A	19.79	773.21	793.00	15.3	131	5.9	6.12	70	34	Slight
MW-6B	23.09	775.78	798.87	15.7	69	6.1	6.81	72	35	Clear
MW-7	14.03	784.20	798.23	15.0	233	1.8	5.45	41	34	Moderate
MW-8	19.90	777.50	797.40	14.8	119	5.8	5.93	72	34	Clear
MW-11	14.41	807.05	821.46	14.9	183	1.9	5.77	326	163	Clear
MW-12	19.99	785.65	805.64	14.6	356	2.5	5.91	110	54	Slight
MW-13A	39.86	778.55	818.41	17.3	168	1.2	5.64	82	40	Slight
MW-13B	39.19	778.91	818.10	17.2	292	0.9	5.25	80	161	Slight
MW-13BR	36.88	774.53	811.41	15.1	315	3.8	6.27	281	140	Moderate
MW-14A	dry	<778.18	818.54	NR	NR	NR	NR	NR	NR	NR
MW-14B	40.92	777.62	818.54	16.7	263	1.9	5.79	332	166	Clear
MW-15	dry	<794.88	838.99	NR	NR	NR	NR	NR	NR	NR
MW-15D	46.52	791.12	837.64	16.6	260	1.8	6.15	260	130	Clear
P2-10S	33.52	778.85	812.37	15.7	251	1.1	5.53	138	69	Clear
P2-10D	35.30	777.07	812.37	NR	NR	NR	NR	NR	NR	NR
P2-19	36.57	777.73	814.30	NR	NR	NR	NR	NR	NR	NR
PZ-1S	41.65	831.77	873.42	NR	NR	NR	NR	NR	NR	NR
P2-1S	21.65	838.83	860.48	NR	NR	NR	NR	NR	NR	NR
Minimum	8.27	773.21	790.61	14.6	-33	0.9	5.25	41	34	Clear
Average	26.85	792.76	822.29	15.8	209	2.5	5.95	178	85	Clear
Maximum	46.52	843.07	873.42	17.3	363	6.1	6.81	690	166	Slight
SW-1	-	-	-	21.8	167	6.3	6.66	102	51	Clear
SW-2	-	-	-	22.8	180	6.4	6.91	136	70	Clear
SW-5	-	-	-	22.1	165	6.4	6.67	121	60	Clear
Minimum	-	-	-	21.8	165	6.3	6.66	102	51	Clear
Average				22.2	171	6.4	6.75	120	60	Clear
Maximum	-	-	-	22.8	180	6.4	6.91	136	70	Clear

NR = No Reading Attempted

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 23, 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 Lined, Ph. 1&2
ENCO Workorder: C108687

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 82.

PROJECT NARRATIVE

Client: Municipal Engineering Services (MU001)
Project: Iredell Lined, Ph. 1&2

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

No Comments

Other Comments

The target analyte Diethyl Ether (Ethyl Ether) was searched for as a TIC during the 8260B analyses of samples MW-4B, MW-11, MW-13B and P2-10S. It was detected in sample MW-13B.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Chuck Smitth
Project Manager

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-2 | **Lab ID: C108687-01** | **Sampled: 07/18/11 12:00** | **Received: 07/21/11 13:51**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/14/12	07/22/11	10:00	7/26/2011 12:19
EPA 6020A	01/14/12	07/22/11	12:48	8/2/2011 10:26
EPA 8260B	08/01/11	07/27/11	10:50	7/28/2011 07:09

Client ID: MW-3A | **Lab ID: C108687-02** | **Sampled: 07/18/11 13:35** | **Received: 07/21/11 13:51**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/14/12	07/22/11	10:00	7/26/2011 12:43
EPA 6020A	01/14/12	07/22/11	12:48	8/2/2011 10:30
EPA 8260B	08/01/11	07/27/11	10:42	7/27/2011 20:20

Client ID: MW-3B | **Lab ID: C108687-03** | **Sampled: 07/18/11 14:00** | **Received: 07/21/11 13:51**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/14/12	07/22/11	10:00	7/26/2011 12:44
EPA 6020A	01/14/12	07/22/11	12:48	8/2/2011 10:34
EPA 8260B	08/01/11	07/27/11	10:42	7/27/2011 20:50

Client ID: MW-4B | **Lab ID: C108687-04** | **Sampled: 07/19/11 11:25** | **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	10:00	7/26/2011 12:46
EPA 6020A	01/15/12	07/22/11	12:48	8/2/2011 10:45
EPA 8260B	08/02/11	07/27/11	10:42	7/27/2011 21:20

Client ID: MW-6A | **Lab ID: C108687-05** | **Sampled: 07/18/11 14:40** | **Received: 07/21/11 13:51**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/14/12	07/22/11	10:00	7/26/2011 12:48
EPA 6020A	01/14/12	07/22/11	12:48	8/2/2011 10:08
EPA 8260B	08/01/11	07/27/11	10:42	7/27/2011 21:50

Client ID: MW-6B | **Lab ID: C108687-06** | **Sampled: 07/18/11 15:15** | **Received: 07/21/11 13:51**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/14/12	07/22/11	10:00	7/26/2011 12:50
EPA 6020A	01/14/12	07/22/11	12:48	8/2/2011 10:49
EPA 8260B	08/01/11	07/27/11	10:42	7/27/2011 22:20

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Client ID: MW-7	Lab ID: C108687-07	Sampled: 07/19/11 10:30	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	10:00	7/26/2011 12:52
EPA 6020A	01/15/12		07/22/11	12:48	8/2/2011 10:53
EPA 8260B	08/02/11		07/27/11	10:42	7/27/2011 22:50
EPA 8270D	07/26/11	09/01/11	07/23/11	02:00	8/4/2011 04:33

Client ID: MW-8	Lab ID: C108687-08	Sampled: 07/18/11 15:50	Received: 07/21/11 13:51

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	01/14/12		07/22/11	10:00	7/26/2011 12:54
EPA 6020A	01/14/12		07/22/11	12:48	8/2/2011 10:56
EPA 8260B	08/01/11		07/27/11	10:42	7/27/2011 23:20

Client ID: MW-11	Lab ID: C108687-09	Sampled: 07/19/11 15:05	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	10:00	7/26/2011 13:02
EPA 6020A	01/15/12		07/22/11	12:48	8/2/2011 11:00
EPA 8151A	07/26/11	08/31/11	07/22/11	09:40	7/26/2011 23:49
EPA 8260B	08/02/11		07/27/11	10:42	7/27/2011 23:50

Client ID: MW-12	Lab ID: C108687-10	Sampled: 07/19/11 09:00	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	10:00	7/26/2011 13:04
EPA 6020A	01/15/12		07/22/11	12:48	8/2/2011 11:04
EPA 8260B	08/02/11		07/27/11	10:42	7/28/2011 00:19

Client ID: MW-13A	Lab ID: C108687-11	Sampled: 07/19/11 17:35	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	10:00	7/26/2011 13:05
EPA 6020A	01/15/12		07/22/11	12:48	8/2/2011 11:08
EPA 8260B	08/02/11		07/27/11	10:42	7/28/2011 00:49

Client ID: MW-13B	Lab ID: C108687-12	Sampled: 07/19/11 18:00	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	10:00	7/26/2011 13:07
EPA 6020A	01/15/12		07/22/11	12:48	8/2/2011 11:11
EPA 8260B	08/02/11		07/27/11	10:42	7/28/2011 01:19

Client ID: MW-13BR	Lab ID: C108687-13	Sampled: 07/19/11 09:40	Received: 07/21/11 13:51

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8260B	08/02/11		07/27/11	10:42	7/28/2011 01:49

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Client ID: MW-14B	Lab ID: C108687-14	Sampled: 07/19/11 15:45	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	10:00	7/26/2011 13:09
EPA 6020A	01/15/12		07/22/11	12:48	8/2/2011 11:15
EPA 8260B	08/02/11		07/27/11	10:42	7/28/2011 02:19

Client ID: MW-15D	Lab ID: C108687-15	Sampled: 07/19/11 16:25	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	10:00	7/26/2011 13:11
EPA 6020A	01/15/12		07/22/11	12:48	8/2/2011 11:19
EPA 8260B	08/02/11		07/27/11	10:42	7/28/2011 02:49

Client ID: P2-10S	Lab ID: C108687-16	Sampled: 07/19/11 17:00	Received: 07/21/11 13:51

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8260B	08/02/11		07/27/11	10:42	7/28/2011 03:19

Client ID: LAGOON	Lab ID: C108687-17	Sampled: 07/20/11 11:00	Received: 07/21/11 13:51

Parameter	Hold Date/Time(s)			Prep Date/Time(s)		Analysis Date/Time(s)
EPA 300.0	08/17/11			07/26/11	06:24	7/26/2011 20:35
EPA 353.2	07/22/11	11:00		07/21/11	14:48	7/21/2011 19:44
EPA 353.2	08/17/11			07/28/11	10:11	7/29/2011 11:49
EPA 353.2	04/14/14			08/03/11	11:46	8/3/2011 12:11
EPA 365.4	08/17/11			07/27/11	10:12	7/28/2011 11:05
EPA 6010C	01/16/12			07/22/11	10:00	7/26/2011 13:13
EPA 6020A	01/16/12			07/22/11	12:48	8/2/2011 11:30
EPA 8260B	08/03/11			07/27/11	10:42	7/28/2011 03:48
EPA 8270D	07/27/11		09/01/11	07/23/11	03:29	8/4/2011 05:02
SM 5210B	07/22/11	11:00		07/21/11	17:38	7/21/2011 17:38
SM 5220D	08/17/11			07/27/11	11:45	7/27/2011 19:21
SM4500-CN/E	08/03/11			07/27/11	09:23	7/27/2011 14:29
SM4500-H/B	07/20/11	11:14		07/22/11	15:40	7/22/2011 15:40

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: MW-2 **Lab ID: C108687-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	53.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.331	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	1.14	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	1.45	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	4.48	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-3A **Lab ID: C108687-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	4.72	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	23.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	6.41	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.39	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	1.95	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	12.9	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	5.26	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-3B **Lab ID: C108687-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	10.6		1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	48.7	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.472	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	1.33	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.30	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	6.07	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	5.25	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	3.23	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	11.9		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-4B **Lab ID: C108687-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	0.57	J	1	0.080	1.0	5	ug/L	EPA 8260B	
1,2-Dichloroethane	1.6		1	0.47	1.0	1	ug/L	EPA 8260B	
1,4-Dichlorobenzene	1.8		1	0.79	1.0	1	ug/L	EPA 8260B	
Barium - Total	176		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	2.7		1	0.68	1.0	1	ug/L	EPA 8260B	
Cadmium - Total	0.715	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.36	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	4.8	J	1	0.72	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	6.04	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	7.80	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	6.72	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tin - Total	3.67	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Vanadium - Total	9.70	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	2.1		1	0.60	1.0	1	ug/L	EPA 8260B	
Zinc - Total	22.6		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-6A **Lab ID: C108687-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes

Client ID: MW-6A **Lab ID: C108687-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.310	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	3.52	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	101		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.222	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	4.14	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.01	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	1.89	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	3.38	J	1	2.70	10.0	10	ug/L	EPA 6010C	
Zinc - Total	10.9		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-6B **Lab ID: C108687-06**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	74.3	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	4.40	J	1	1.00	10.0	10	ug/L	EPA 6010C	

Client ID: MW-7 **Lab ID: C108687-07**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.42	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	109		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.108	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Bis(2-ethylhexyl)phthalate	2.6	J	1	1.7	5.0	15	ug/L	EPA 8270D	
Cadmium - Total	1.24		1	0.360	1.00	1	ug/L	EPA 6010C	
Carbon disulfide	3.1	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Chromium - Total	4.02	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	9.14	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.55	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.59	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	7.80	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	17.9		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-8 **Lab ID: C108687-08**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	125		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.199	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	6.41	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.47	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.15	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	7.01	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	12.5		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-11 **Lab ID: C108687-09**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
2,4-D	2.5		1	0.15	0.50	2	ug/L	EPA 8151A	
Acetone	6.2	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Barium - Total	256		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	1.2		1	0.68	1.0	1	ug/L	EPA 8260B	
Chromium - Total	4.12	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	2.7	J	1	0.72	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	6.60	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.08	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	1.98	J	1	1.80	10.0	50	ug/L	EPA 6010C	

Client ID: MW-11 **Lab ID: C108687-09**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Tin - Total	4.13	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Vanadium - Total	5.12	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	5.0		1	0.60	1.0	1	ug/L	EPA 8260B	
Zinc - Total	13.4		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-12 **Lab ID: C108687-10**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	110		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.304	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	8.70	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.52	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	3.77	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.54	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	11.4	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	17.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-13A **Lab ID: C108687-11**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	228		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	31.2		1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	6.30	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.68	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	4.27	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	14.8	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Thallium - Total	0.306	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vanadium - Total	32.7		1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	53.6		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-13B **Lab ID: C108687-12**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	3.9	J	1	0.080	1.0	5	ug/L	EPA 8260B	
1,2-Dichloroethane	3.7		1	0.47	1.0	1	ug/L	EPA 8260B	
1,4-Dichlorobenzene	0.88	J	1	0.79	1.0	1	ug/L	EPA 8260B	
Barium - Total	445		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	7.3		1	0.68	1.0	1	ug/L	EPA 8260B	
Beryllium - Total	1.60		1	0.100	1.00	1	ug/L	EPA 6010C	
Chloroethane	3.0	J	1	0.75	1.0	10	ug/L	EPA 8260B	
Chromium - Total	3.18	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	49		1	0.72	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	2.85	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Methylene chloride	13		1	0.14	1.0	1	ug/L	EPA 8260B	
Methyl-tert-Butyl Ether	11		1	0.58	1.0	NE	ug/L	EPA 8260B	
Nickel - Total	3.14	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tetrachloroethene	2.7		1	0.73	1.0	1	ug/L	EPA 8260B	
trans-1,2-Dichloroethene	0.77	J	1	0.12	1.0	5	ug/L	EPA 8260B	
Trichloroethene	6.2		1	0.72	1.0	1	ug/L	EPA 8260B	
Vanadium - Total	3.76	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	7.7		1	0.60	1.0	1	ug/L	EPA 8260B	
Xylenes (Total)	4.4	J	1	2.1	3.0	5	ug/L	EPA 8260B	
Zinc - Total	10.6		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-13BR **Lab ID: C108687-13**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
cis-1,2-Dichloroethene	2.3	J	1	0.72	1.0	5	ug/L	EPA 8260B	

Client ID: MW-14B **Lab ID: C108687-14**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	6.0		1	0.080	1.0	5	ug/L	EPA 8260B	
1,2-Dichloroethane	0.53	J	1	0.47	1.0	1	ug/L	EPA 8260B	
Antimony - Total	0.943	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	178		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	3.4		1	0.68	1.0	1	ug/L	EPA 8260B	
Cadmium - Total	1.35		1	0.360	1.00	1	ug/L	EPA 6010C	
Chloroethane	3.9	J	1	0.75	1.0	10	ug/L	EPA 8260B	
Chromium - Total	5.09	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	30		1	0.72	1.0	5	ug/L	EPA 8260B	
Methylene chloride	18		1	0.14	1.0	1	ug/L	EPA 8260B	
Nickel - Total	5.59	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tetrachloroethene	2.8		1	0.73	1.0	1	ug/L	EPA 8260B	
Tin - Total	4.18	J	1	2.10	10.0	100	ug/L	EPA 6010C	
trans-1,2-Dichloroethene	0.42	J	1	0.12	1.0	5	ug/L	EPA 8260B	
Trichloroethene	4.9		1	0.72	1.0	1	ug/L	EPA 8260B	
Trichlorofluoromethane	0.89	J	1	0.66	1.0	1	ug/L	EPA 8260B	
Vanadium - Total	2.52	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	5.1		1	0.60	1.0	1	ug/L	EPA 8260B	
Xylenes (Total)	3.2	J	1	2.1	3.0	5	ug/L	EPA 8260B	
Zinc - Total	10.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-15D **Lab ID: C108687-15**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	1.8	J	1	0.080	1.0	5	ug/L	EPA 8260B	
Arsenic - Total	4.94	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	7.72	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	0.84	J	1	0.68	1.0	1	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	5.0		1	0.72	1.0	5	ug/L	EPA 8260B	
Methylene chloride	6.9		1	0.14	1.0	1	ug/L	EPA 8260B	
Nickel - Total	2.39	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tetrachloroethene	1.7		1	0.73	1.0	1	ug/L	EPA 8260B	
Trichloroethene	1.0		1	0.72	1.0	1	ug/L	EPA 8260B	
Vanadium - Total	3.83	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	2.0		1	0.60	1.0	1	ug/L	EPA 8260B	

Client ID: P2-10S **Lab ID: C108687-16**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	3.4	J	1	0.080	1.0	5	ug/L	EPA 8260B	
Benzene	1.1		1	0.68	1.0	1	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	7.1		1	0.72	1.0	5	ug/L	EPA 8260B	
Methylene chloride	5.7		1	0.14	1.0	1	ug/L	EPA 8260B	
Tetrachloroethene	4.4		1	0.73	1.0	1	ug/L	EPA 8260B	
Trichloroethene	5.4		1	0.72	1.0	1	ug/L	EPA 8260B	

Client ID: LAGOON **Lab ID: C108687-17**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,4-Dichlorobenzene	5.3	D	5	4.0	5.0	1	ug/L	EPA 8260B	

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Client ID: LAGOON						Lab ID: C108687-17			
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Acetone	78	JD	5	6.0	25	100	ug/L	EPA 8260B	
Antimony - Total	4.07	JD	10	2.20	20.0	6	ug/L	EPA 6020A	
Arsenic - Total	10.8		1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	1120		1	1.00	10.0	100	ug/L	EPA 6010C	
Biochemical Oxygen Demand	36000		1	2000	2000	NE	ug/L	SM 5210B	B-04
Bis(2-ethylhexyl)phthalate	2.6	J	1	1.7	5.0	15	ug/L	EPA 8270D	
Chemical Oxygen Demand	770000		1	10000	10000	NE	ug/L	SM 5220D	
Chromium - Total	76.4		1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	11	D	5	3.6	5.0	5	ug/L	EPA 8260B	
Cobalt - Total	86.7		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.14	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Ethylbenzene	4.0	JD	5	3.1	5.0	1	ug/L	EPA 8260B	
Lead - Total	6.29	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	67.9		1	1.80	10.0	50	ug/L	EPA 6010C	
Nitrate as N	100	J	1	25	100	10000	ug/L	EPA 353.2	
Nitrate/Nitrite as N	110		1	25	100	NE	ug/L	EPA 353.2	
Nitrite as N	7.2	J	1	3.0	100	1000	ug/L	EPA 353.2	
pH	7.3		1	1.0	1.0	NE	pH Units	SM4500-H/B	Q
Phosphorus	1000		1	21	100	NE	ug/L	EPA 365.4	
Selenium - Total	5.21	J	1	2.70	10.0	10	ug/L	EPA 6010C	
Silver - Total	3.01	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Sulfate as SO4	3200	J	1	20	5000	250000	ug/L	EPA 300.0	
Tin - Total	18.5	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Toluene	9.8	D	5	4.2	5.0	1	ug/L	EPA 8260B	
Vanadium - Total	20.9	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	11	D	5	3.0	5.0	1	ug/L	EPA 8260B	
Xylenes (Total)	47	D	5	10	15	5	ug/L	EPA 8260B	
Zinc - Total	38.9		1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: MW-2 **Lab Sample ID:** C108687-01 **Received:** 07/21/11 13:51

Matrix: Ground Water **Sampled:** 07/18/11 12:00 **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/28/11 07:09	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 07:09	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 07:09	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 07:09	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 07:09	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 07:09	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 07:09	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 07:09	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 07:09	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 07:09	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 07:09	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 07:09	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 07:09	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 07:09	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 07:09	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 07:09	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 07:09	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 07:09	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 07:09	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 07:09	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 07:09	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 07:09	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 07:09	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 07:09	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 07:09	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 07:09	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 07:09	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 07:09	JKG	

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Description: MW-2 | **Lab Sample ID:** C108687-01 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 12:00 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 07:09	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 07:09	JKG	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 07:09	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 07:09*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*99 %*	*68-117*	*1G27021*	*EPA 8260B*	*07/28/11 07:09*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*97 %*	*69-110*	*1G27021*	*EPA 8260B*	*07/28/11 07:09*	*JKG*	

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Description: MW-2 | **Lab Sample ID:** C108687-01 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 12:00 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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 10:26	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:19	JDH	
Barium [7440-39-3] ^	**53.2**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:19	JDH	
Beryllium [7440-41-7] ^	**0.331**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:19	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:19	JDH	
Chromium [7440-47-3] ^	**1.14**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:19	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:19	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:19	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:19	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:19	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 12:19	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:19	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 10:26	VLO	
Vanadium [7440-62-2] ^	**1.45**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:19	JDH	
Zinc [7440-66-6] ^	**4.48**	J	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:19	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-3A | **Lab Sample ID:** C108687-02 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 13:35 | **Work Order:** C108687

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

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Description: MW-3A
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-02
Sampled: 07/18/11 13:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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	07/27/11 20:20	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*107 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/27/11 20:20*	*jkg*	
Dibromofluoromethane	*47*	*1*	*50.0*	*95 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/27/11 20:20*	*jkg*	
Toluene-d8	*52*	*1*	*50.0*	*105 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/27/11 20:20*	*jkg*	

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Description: MW-3A
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-02
Sampled: 07/18/11 13:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 10:30	VLO	
Arsenic [7440-38-2] ^	**4.72**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:43	JDH	
Barium [7440-39-3] ^	**23.4**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:43	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:43	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:43	JDH	
Chromium [7440-47-3] ^	**6.41**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:43	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:43	JDH	
Copper [7440-50-8] ^	**4.39**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:43	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:43	JDH	
Nickel [7440-02-0] ^	**1.95**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:43	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 12:43	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:43	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 10:30	VLO	
Vanadium [7440-62-2] ^	**12.9**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:43	JDH	
Zinc [7440-66-6] ^	**5.26**	J	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:43	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-3B | **Lab Sample ID:** C108687-03 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 14:00 | **Work Order:** C108687

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

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Description: MW-3B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-03
Sampled: 07/18/11 14:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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	07/27/11 20:50	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*56*	*1*	*50.0*	*111 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/27/11 20:50*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/27/11 20:50*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*105 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/27/11 20:50*	*jkg*	

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Description: MW-3B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-03
Sampled: 07/18/11 14:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 10:34	VLO	
Arsenic [7440-38-2] ^	**10.6**		ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:44	JDH	
Barium [7440-39-3] ^	**48.7**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:44	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:44	JDH	
Cadmium [7440-43-9] ^	**0.472**	J	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:44	JDH	
Chromium [7440-47-3] ^	**1.33**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:44	JDH	
Cobalt [7440-48-4] ^	**2.30**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:44	JDH	
Copper [7440-50-8] ^	**6.07**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:44	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:44	JDH	
Nickel [7440-02-0] ^	**5.25**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:44	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 12:44	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:44	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 10:34	VLO	
Vanadium [7440-62-2] ^	**3.23**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:44	JDH	
Zinc [7440-66-6] ^	**11.9**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:44	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-4B | **Lab Sample ID:** C108687-04 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 11:25 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/27/11 21:20	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/27/11 21:20	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
1,1-Dichloroethane [75-34-3] ^	**0.57**	J	ug/L	1	0.080	1.0	5	EPA 8260B	07/27/11 21:20	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/27/11 21:20	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/27/11 21:20	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/27/11 21:20	jkg	
1,2-Dichloroethane [107-06-2] ^	**1.6**		ug/L	1	0.47	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
1,4-Dichlorobenzene [106-46-7] ^	**1.8**		ug/L	1	0.79	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/27/11 21:20	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/27/11 21:20	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/27/11 21:20	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/27/11 21:20	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/27/11 21:20	jkg	
Benzene [71-43-2] ^	**2.7**		ug/L	1	0.68	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/27/11 21:20	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/27/11 21:20	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/27/11 21:20	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/27/11 21:20	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/27/11 21:20	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/27/11 21:20	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/27/11 21:20	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**4.8**	J	ug/L	1	0.72	1.0	5	EPA 8260B	07/27/11 21:20	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/27/11 21:20	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/27/11 21:20	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/27/11 21:20	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.58	U	ug/L	1	0.58	1.0	NE	EPA 8260B	07/27/11 21:20	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/27/11 21:20	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/27/11 21:20	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/27/11 21:20	jkg	

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Description: MW-4B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-04
Sampled: 07/19/11 11:25
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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] ^	**2.1**		ug/L	1	0.60	1.0	1	EPA 8260B	07/27/11 21:20	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/27/11 21:20	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/27/11 21:20*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/27/11 21:20*	*jkg*	
Toluene-d8	*52*	*1*	*50.0*	*105 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/27/11 21:20*	*jkg*	

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Description: MW-4B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-04
Sampled: 07/19/11 11:25
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

Tentatively Identified Compounds by Volatile GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Tentatively Identified Compounds [NA] ^	0.0		ug/L	1				EPA 8260B	07/27/11 21:20	jkg	

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Description: MW-4B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-04
Sampled: 07/19/11 11:25
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 10:45	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:46	JDH	
Barium [7440-39-3] ^	**176**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:46	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:46	JDH	
Cadmium [7440-43-9] ^	**0.715**	J	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:46	JDH	
Chromium [7440-47-3] ^	**5.36**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:46	JDH	
Cobalt [7440-48-4] ^	**6.04**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:46	JDH	
Copper [7440-50-8] ^	**7.80**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:46	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:46	JDH	
Nickel [7440-02-0] ^	**6.72**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:46	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 12:46	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:46	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 10:45	VLO	
Tin [7440-31-5] ^	**3.67**	J	ug/L	1	2.10	10.0	100	EPA 6010C	07/26/11 12:46	JDH	
Vanadium [7440-62-2] ^	**9.70**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:46	JDH	
Zinc [7440-66-6] ^	**22.6**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:46	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-6A | **Lab Sample ID:** C108687-05 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 14:40 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/27/11 21:50	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/27/11 21:50	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/27/11 21:50	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/27/11 21:50	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/27/11 21:50	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/27/11 21:50	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/27/11 21:50	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/27/11 21:50	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/27/11 21:50	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/27/11 21:50	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/27/11 21:50	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/27/11 21:50	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/27/11 21:50	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/27/11 21:50	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/27/11 21:50	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/27/11 21:50	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/27/11 21:50	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/27/11 21:50	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/27/11 21:50	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/27/11 21:50	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/27/11 21:50	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/27/11 21:50	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/27/11 21:50	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/27/11 21:50	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 21:50	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/27/11 21:50	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/27/11 21:50	jkg	

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Description: MW-6A
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-05
Sampled: 07/18/11 14:40
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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	07/27/11 21:50	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*107 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/27/11 21:50*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/27/11 21:50*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*105 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/27/11 21:50*	*jkg*	

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Description: MW-6A
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-05
Sampled: 07/18/11 14:40
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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] ^	**0.310**	J	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 10:08	VLO	
Arsenic [7440-38-2] ^	**3.52**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:48	JDH	
Barium [7440-39-3] ^	**101**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:48	JDH	
Beryllium [7440-41-7] ^	**0.222**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:48	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:48	JDH	
Chromium [7440-47-3] ^	**4.14**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:48	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:48	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:48	JDH	
Lead [7439-92-1] ^	**2.01**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:48	JDH	
Nickel [7440-02-0] ^	**1.89**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:48	JDH	
Selenium [7782-49-2] ^	**3.38**	J	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 12:48	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:48	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 10:08	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:48	JDH	
Zinc [7440-66-6] ^	**10.9**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:48	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-6B | **Lab Sample ID:** C108687-06 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 15:15 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/27/11 22:20	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/27/11 22:20	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/27/11 22:20	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/27/11 22:20	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/27/11 22:20	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/27/11 22:20	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/27/11 22:20	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/27/11 22:20	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/27/11 22:20	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/27/11 22:20	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/27/11 22:20	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/27/11 22:20	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/27/11 22:20	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/27/11 22:20	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/27/11 22:20	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/27/11 22:20	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/27/11 22:20	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/27/11 22:20	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/27/11 22:20	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/27/11 22:20	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/27/11 22:20	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/27/11 22:20	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/27/11 22:20	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/27/11 22:20	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 22:20	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/27/11 22:20	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/27/11 22:20	jkg	

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Description: MW-6B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-06
Sampled: 07/18/11 15:15
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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	07/27/11 22:20	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/27/11 22:20*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/27/11 22:20*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/27/11 22:20*	*jkg*	

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Description: MW-6B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-06
Sampled: 07/18/11 15:15
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 10:49	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:50	JDH	
Barium [7440-39-3] ^	**74.3**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:50	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:50	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:50	JDH	
Chromium [7440-47-3] ^	**4.40**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:50	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:50	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:50	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:50	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:50	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 12:50	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:50	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 10:49	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:50	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:50	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-7 | **Lab Sample ID:** C108687-07 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 10:30 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/27/11 22:50	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/27/11 22:50	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/27/11 22:50	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/27/11 22:50	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/27/11 22:50	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/27/11 22:50	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/27/11 22:50	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/27/11 22:50	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/27/11 22:50	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/27/11 22:50	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/27/11 22:50	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/27/11 22:50	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/27/11 22:50	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/27/11 22:50	jkg	
Carbon disulfide [75-15-0] ^	**3.1**	J	ug/L	1	1.5	5.0	100	EPA 8260B	07/27/11 22:50	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/27/11 22:50	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/27/11 22:50	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/27/11 22:50	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/27/11 22:50	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/27/11 22:50	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/27/11 22:50	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/27/11 22:50	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/27/11 22:50	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/27/11 22:50	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 22:50	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/27/11 22:50	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/27/11 22:50	jkg	

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Description: MW-7 | **Lab Sample ID:** C108687-07 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 10:30 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/27/11 22:50	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/27/11 22:50*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/27/11 22:50*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/27/11 22:50*	*jkg*	

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Description: MW-7 | **Lab Sample ID:** C108687-07 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 10:30 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&2 | **Sampled By:** J. Pfohl

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] ^	**2.6**	J	ug/L	1	1.7	5.0	15	EPA 8270D	08/04/11 04:33	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2-Fluorobiphenyl	*35*	*1*	*50.0*	*71 %*	*10-149*	*1G22002*	*EPA 8270D*	*08/04/11 04:33*	*DFM*	
Nitrobenzene-d5	*32*	*1*	*50.0*	*64 %*	*10-149*	*1G22002*	*EPA 8270D*	*08/04/11 04:33*	*DFM*	
Terphenyl-d14	*47*	*1*	*50.0*	*94 %*	*10-188*	*1G22002*	*EPA 8270D*	*08/04/11 04:33*	*DFM*	

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Description: MW-7 | **Lab Sample ID:** C108687-07 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 10:30 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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 10:53	VLO	
Arsenic [7440-38-2] ^	**3.42**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:52	JDH	
Barium [7440-39-3] ^	**109**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:52	JDH	
Beryllium [7440-41-7] ^	**0.108**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:52	JDH	
Cadmium [7440-43-9] ^	**1.24**		ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:52	JDH	
Chromium [7440-47-3] ^	**4.02**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:52	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:52	JDH	
Copper [7440-50-8] ^	**9.14**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:52	JDH	
Lead [7439-92-1] ^	**2.55**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:52	JDH	
Nickel [7440-02-0] ^	**3.59**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:52	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 12:52	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:52	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 10:53	VLO	
Vanadium [7440-62-2] ^	**7.80**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:52	JDH	
Zinc [7440-66-6] ^	**17.9**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:52	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-8 | **Lab Sample ID:** C108687-08 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 15:50 | **Work Order:** C108687

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

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Description: MW-8 | **Lab Sample ID:** C108687-08 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 15:50 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/27/11 23:20	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/27/11 23:20*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/27/11 23:20*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/27/11 23:20*	*jkg*	

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Description: MW-8 | **Lab Sample ID:** C108687-08 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/18/11 15:50 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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 10:56	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 12:54	JDH	
Barium [7440-39-3] ^	**125**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 12:54	JDH	
Beryllium [7440-41-7] ^	**0.199**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 12:54	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 12:54	JDH	
Chromium [7440-47-3] ^	**6.41**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 12:54	JDH	
Cobalt [7440-48-4] ^	**2.47**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 12:54	JDH	
Copper [7440-50-8] ^	**4.15**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 12:54	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:54	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 12:54	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 12:54	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 12:54	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 10:56	VLO	
Vanadium [7440-62-2] ^	**7.01**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 12:54	JDH	
Zinc [7440-66-6] ^	**12.5**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 12:54	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-11 | **Lab Sample ID:** C108687-09 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 15:05 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/27/11 23:50	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	07/27/11 23:50	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/27/11 23:50	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/27/11 23:50	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	07/27/11 23:50	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/27/11 23:50	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/27/11 23:50	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/27/11 23:50	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/27/11 23:50	jkg	
Acetone [67-64-1] ^	**6.2**	J	ug/L	1	1.2	5.0	100	EPA 8260B	07/27/11 23:50	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/27/11 23:50	jkg	
Benzene [71-43-2] ^	**1.2**		ug/L	1	0.68	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/27/11 23:50	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/27/11 23:50	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/27/11 23:50	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/27/11 23:50	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/27/11 23:50	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/27/11 23:50	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/27/11 23:50	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**2.7**	J	ug/L	1	0.72	1.0	5	EPA 8260B	07/27/11 23:50	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/27/11 23:50	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/27/11 23:50	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/27/11 23:50	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.58	U	ug/L	1	0.58	1.0	NE	EPA 8260B	07/27/11 23:50	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/27/11 23:50	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	07/27/11 23:50	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/27/11 23:50	jkg	

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Description: MW-11 | **Lab Sample ID:** C108687-09 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 15:05 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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
Vinyl chloride [75-01-4] ^	**5.0**		ug/L	1	0.60	1.0	1	EPA 8260B	07/27/11 23:50	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/27/11 23:50	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/27/11 23:50*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/27/11 23:50*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/27/11 23:50*	*jkg*	

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Description: MW-11 | **Lab Sample ID:** C108687-09 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 15:05 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&2 | **Sampled By:** J. Pfohl

Tentatively Identified Compounds by Volatile GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Tentatively Identified Compounds [NA] ^	0.0		ug/L	1				EPA 8260B	07/27/11 23:50	jkg	

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Description: MW-11 | **Lab Sample ID:** C108687-09 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 15:05 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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 11:00	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 13:02	JDH	
Barium [7440-39-3] ^	**256**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 13:02	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 13:02	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 13:02	JDH	
Chromium [7440-47-3] ^	**4.12**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 13:02	JDH	
Cobalt [7440-48-4] ^	**6.60**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 13:02	JDH	
Copper [7440-50-8] ^	**4.08**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 13:02	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:02	JDH	
Nickel [7440-02-0] ^	**1.98**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 13:02	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 13:02	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:02	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:00	VLO	
Tin [7440-31-5] ^	**4.13**	J	ug/L	1	2.10	10.0	100	EPA 6010C	07/26/11 13:02	JDH	
Vanadium [7440-62-2] ^	**5.12**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 13:02	JDH	
Zinc [7440-66-6] ^	**13.4**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 13:02	JDH	

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Description: MW-11 | **Lab Sample ID:** C108687-09 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 15:05 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&2 | **Sampled By:** J. Pfohl

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] ^	**2.5**		ug/L	1	0.15	0.50	2	EPA 8151A	07/26/11 23:49	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.3*	*1*	*2.00*	*64 %*	*68-139*	*1G22006*	*EPA 8151A*	*07/26/11 23:49*	*RGG*	*QS-05*

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-12 | **Lab Sample ID:** C108687-10 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 09:00 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/28/11 00:19	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 00:19	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 00:19	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 00:19	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 00:19	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 00:19	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 00:19	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 00:19	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 00:19	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 00:19	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 00:19	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 00:19	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 00:19	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 00:19	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 00:19	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 00:19	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 00:19	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 00:19	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 00:19	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 00:19	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 00:19	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 00:19	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 00:19	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 00:19	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 00:19	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 00:19	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 00:19	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 00:19	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 00:19	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 00:19	jkg	

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Description: MW-12 | **Lab Sample ID:** C108687-10 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 09:00 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 00:19	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/28/11 00:19*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/28/11 00:19*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*105 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/28/11 00:19*	*jkg*	

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Description: MW-12 | **Lab Sample ID:** C108687-10 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 09:00 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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 11:04	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 13:04	JDH	
Barium [7440-39-3] ^	**110**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 13:04	JDH	
Beryllium [7440-41-7] ^	**0.304**	J	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 13:04	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 13:04	JDH	
Chromium [7440-47-3] ^	**8.70**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 13:04	JDH	
Cobalt [7440-48-4] ^	**2.52**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 13:04	JDH	
Copper [7440-50-8] ^	**3.77**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 13:04	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:04	JDH	
Nickel [7440-02-0] ^	**4.54**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 13:04	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 13:04	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:04	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:04	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	07/26/11 13:04	JDH	
Vanadium [7440-62-2] ^	**11.4**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 13:04	JDH	
Zinc [7440-66-6] ^	**17.0**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 13:04	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-13A
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-11
Sampled: 07/19/11 17:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 00:49	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 00:49	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 00:49	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 00:49	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 00:49	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 00:49	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 00:49	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 00:49	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 00:49	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 00:49	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 00:49	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 00:49	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 00:49	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 00:49	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 00:49	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 00:49	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 00:49	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 00:49	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 00:49	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 00:49	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 00:49	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 00:49	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 00:49	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 00:49	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 00:49	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 00:49	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 00:49	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 00:49	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 00:49	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 00:49	jkg	

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Description: MW-13A
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-11
Sampled: 07/19/11 17:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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	07/28/11 00:49	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/28/11 00:49*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/28/11 00:49*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*105 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/28/11 00:49*	*jkg*	

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Description: MW-13A
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-11
Sampled: 07/19/11 17:35
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 11:08	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 13:05	JDH	
Barium [7440-39-3] ^	**228**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 13:05	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 13:05	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 13:05	JDH	
Chromium [7440-47-3] ^	**31.2**		ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 13:05	JDH	
Cobalt [7440-48-4] ^	**6.30**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 13:05	JDH	
Copper [7440-50-8] ^	**4.68**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 13:05	JDH	
Lead [7439-92-1] ^	**4.27**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:05	JDH	
Nickel [7440-02-0] ^	**14.8**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 13:05	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 13:05	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:05	JDH	
Thallium [7440-28-0] ^	**0.306**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:08	VLO	
Vanadium [7440-62-2] ^	**32.7**		ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 13:05	JDH	
Zinc [7440-66-6] ^	**53.6**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 13:05	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-13B | **Lab Sample ID:** C108687-12 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 18:00 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/28/11 01:19	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 01:19	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 01:19	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
1,1-Dichloroethane [75-34-3] ^	**3.9**	J	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 01:19	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 01:19	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 01:19	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 01:19	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 01:19	jkg	
1,2-Dichloroethane [107-06-2] ^	**3.7**		ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
1,4-Dichlorobenzene [106-46-7] ^	**0.88**	J	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 01:19	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 01:19	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 01:19	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 01:19	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 01:19	jkg	
Benzene [71-43-2] ^	**7.3**		ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 01:19	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 01:19	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 01:19	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 01:19	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 01:19	jkg	
Chloroethane [75-00-3] ^	**3.0**	J	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 01:19	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 01:19	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**49**		ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 01:19	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 01:19	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 01:19	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 01:19	jkg	
Methylene chloride [75-09-2] ^	**13**		ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Methyl-tert-Butyl Ether [1634-04-4] ^	**11**		ug/L	1	0.58	1.0	NE	EPA 8260B	07/28/11 01:19	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Tetrachloroethene [127-18-4] ^	**2.7**		ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	**0.77**	J	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 01:19	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 01:19	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 01:19	jkg	
Trichloroethene [79-01-6] ^	**6.2**		ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 01:19	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 01:19	jkg	
Vinyl chloride [75-01-4] ^	**7.7**		ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 01:19	jkg	

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Description: MW-13B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-12
Sampled: 07/19/11 18:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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] ^	**4.4**	J	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 01:19	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/28/11 01:19*	*jkg*	
Dibromofluoromethane	*47*	*1*	*50.0*	*95 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/28/11 01:19*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/28/11 01:19*	*jkg*	

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Description: MW-13B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-12
Sampled: 07/19/11 18:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

Tentatively Identified Compounds by Volatile GCMS

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Ethyl ether [000060-29-7]	**11**		ug/L	1				EPA 8260B	07/28/11 01:19	jkg	

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Description: MW-13B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-12
Sampled: 07/19/11 18:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 11:11	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 13:07	JDH	
Barium [7440-39-3] ^	**445**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 13:07	JDH	
Beryllium [7440-41-7] ^	**1.60**		ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 13:07	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 13:07	JDH	
Chromium [7440-47-3] ^	**3.18**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 13:07	JDH	
Cobalt [7440-48-4] ^	**2.85**	J	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 13:07	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 13:07	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:07	JDH	
Nickel [7440-02-0] ^	**3.14**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 13:07	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 13:07	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:07	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:11	VLO	
Vanadium [7440-62-2] ^	**3.76**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 13:07	JDH	
Zinc [7440-66-6] ^	**10.6**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 13:07	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-13BR | **Lab Sample ID:** C108687-13 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 09:40 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/28/11 01:49	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 01:49	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 01:49	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 01:49	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 01:49	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 01:49	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 01:49	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 01:49	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 01:49	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 01:49	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 01:49	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 01:49	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 01:49	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 01:49	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 01:49	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 01:49	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 01:49	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 01:49	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 01:49	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 01:49	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**2.3**	J	ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 01:49	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 01:49	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 01:49	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 01:49	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 01:49	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 01:49	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 01:49	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 01:49	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 01:49	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 01:49	jkg	

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Description: MW-13BR
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-13
Sampled: 07/19/11 09:40
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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	07/28/11 01:49	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/28/11 01:49*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/28/11 01:49*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/28/11 01:49*	*jkg*	

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-14B | **Lab Sample ID:** C108687-14 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 15:45 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/28/11 02:19	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 02:19	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 02:19	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
1,1-Dichloroethane [75-34-3] ^	**6.0**		ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 02:19	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 02:19	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 02:19	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 02:19	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 02:19	jkg	
1,2-Dichloroethane [107-06-2] ^	**0.53**	J	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 02:19	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 02:19	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 02:19	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 02:19	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 02:19	jkg	
Benzene [71-43-2] ^	**3.4**		ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 02:19	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 02:19	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 02:19	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 02:19	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 02:19	jkg	
Chloroethane [75-00-3] ^	**3.9**	J	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 02:19	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 02:19	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**30**		ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 02:19	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 02:19	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 02:19	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 02:19	jkg	
Methylene chloride [75-09-2] ^	**18**		ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Tetrachloroethene [127-18-4] ^	**2.8**		ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	**0.42**	J	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 02:19	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 02:19	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 02:19	jkg	
Trichloroethene [79-01-6] ^	**4.9**		ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Trichlorofluoromethane [75-69-4] ^	**0.89**	J	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 02:19	jkg	
Vinyl chloride [75-01-4] ^	**5.1**		ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 02:19	jkg	
Xylenes (Total) [1330-20-7] ^	**3.2**	J	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 02:19	jkg	

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Description:	MW-14B	**Lab Sample ID:**	C108687-14	**Received:**	07/21/11 13:51
Matrix:	Ground Water	**Sampled:**	07/19/11 15:45	**Work Order:**	C108687
Project:	Iredell Lined, Ph. 1&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

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	**Notes**
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/28/11 02:19*	*jkg*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/28/11 02:19*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*105 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/28/11 02:19*	*jkg*	

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Description: MW-14B
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-14
Sampled: 07/19/11 15:45
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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] ^	**0.943**	J	ug/L	1	0.220	2.00	6	EPA 6020A	08/02/11 11:15	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 13:09	JDH	
Barium [7440-39-3] ^	**178**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 13:09	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 13:09	JDH	
Cadmium [7440-43-9] ^	**1.35**		ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 13:09	JDH	
Chromium [7440-47-3] ^	**5.09**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 13:09	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 13:09	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 13:09	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:09	JDH	
Nickel [7440-02-0] ^	**5.59**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 13:09	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 13:09	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:09	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:15	VLO	
Tin [7440-31-5] ^	**4.18**	J	ug/L	1	2.10	10.0	100	EPA 6010C	07/26/11 13:09	JDH	
Vanadium [7440-62-2] ^	**2.52**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 13:09	JDH	
Zinc [7440-66-6] ^	**10.1**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 13:09	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-15D
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-15
Sampled: 07/19/11 16:25
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 02:49	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 02:49	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 02:49	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
1,1-Dichloroethane [75-34-3] ^	**1.8**	J	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 02:49	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 02:49	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 02:49	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 02:49	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 02:49	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 02:49	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 02:49	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 02:49	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 02:49	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 02:49	jkg	
Benzene [71-43-2] ^	**0.84**	J	ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 02:49	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 02:49	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 02:49	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 02:49	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 02:49	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 02:49	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 02:49	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**5.0**		ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 02:49	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 02:49	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 02:49	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 02:49	jkg	
Methylene chloride [75-09-2] ^	**6.9**		ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Tetrachloroethene [127-18-4] ^	**1.7**		ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 02:49	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 02:49	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 02:49	jkg	
Trichloroethene [79-01-6] ^	**1.0**		ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 02:49	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 02:49	jkg	
Vinyl chloride [75-01-4] ^	**2.0**		ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 02:49	jkg	

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Description: MW-15D
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-15
Sampled: 07/19/11 16:25
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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	07/28/11 02:49	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/28/11 02:49*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/28/11 02:49*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/28/11 02:49*	*jkg*	

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Description: MW-15D
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-15
Sampled: 07/19/11 16:25
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 11:19	VLO	
Arsenic [7440-38-2] ^	**4.94**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 13:11	JDH	
Barium [7440-39-3] ^	**7.72**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 13:11	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 13:11	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 13:11	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 13:11	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 13:11	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 13:11	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:11	JDH	
Nickel [7440-02-0] ^	**2.39**	J	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 13:11	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 13:11	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:11	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/02/11 11:19	VLO	
Vanadium [7440-62-2] ^	**3.83**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 13:11	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 13:11	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: P2-10S | **Lab Sample ID:** C108687-16 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/19/11 17:00 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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	07/28/11 03:19	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 03:19	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 03:19	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
1,1-Dichloroethane [75-34-3] ^	**3.4**	J	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 03:19	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 03:19	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 03:19	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 03:19	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 03:19	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 03:19	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 03:19	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 03:19	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 03:19	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 03:19	jkg	
Benzene [71-43-2] ^	**1.1**		ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 03:19	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 03:19	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 03:19	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 03:19	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 03:19	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 03:19	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 03:19	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**7.1**		ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 03:19	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 03:19	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 03:19	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 03:19	jkg	
Methylene chloride [75-09-2] ^	**5.7**		ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.58	U	ug/L	1	0.58	1.0	NE	EPA 8260B	07/28/11 03:19	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Tetrachloroethene [127-18-4] ^	**4.4**		ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 03:19	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 03:19	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 03:19	jkg	
Trichloroethene [79-01-6] ^	**5.4**		ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 03:19	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 03:19	jkg	

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Description: P2-10S
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-16
Sampled: 07/19/11 17:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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 03:19	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 03:19	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*109 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/28/11 03:19*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/28/11 03:19*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*105 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/28/11 03:19*	*jkg*	

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Description: LAGOON | **Lab Sample ID:** C108687-17 | **Received:** 07/21/11 13:51

Matrix: Ground Water | **Sampled:** 07/20/11 11:00 | **Work Order:** C108687

Project: Iredell Lined, Ph. 1&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] ^	4.5	UD	ug/L	5	4.5	5.0	5	EPA 8260B	07/28/11 03:48	jkg	
1,1,1-Trichloroethane [71-55-6] ^	3.2	UD	ug/L	5	3.2	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	3.8	UD	ug/L	5	3.8	5.0	3	EPA 8260B	07/28/11 03:48	jkg	
1,1,2-Trichloroethane [79-00-5] ^	3.3	UD	ug/L	5	3.3	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
1,1-Dichloroethane [75-34-3] ^	0.40	UD	ug/L	5	0.40	5.0	5	EPA 8260B	07/28/11 03:48	jkg	
1,1-Dichloroethene [75-35-4] ^	3.0	UD	ug/L	5	3.0	5.0	5	EPA 8260B	07/28/11 03:48	jkg	
1,2,3-Trichloropropane [96-18-4] ^	3.6	UD	ug/L	5	3.6	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	2.4	UD	ug/L	5	2.4	5.0	13	EPA 8260B	07/28/11 03:48	jkg	
1,2-Dibromoethane [106-93-4] ^	3.3	UD	ug/L	5	3.3	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.55	UD	ug/L	5	0.55	5.0	5	EPA 8260B	07/28/11 03:48	jkg	
1,2-Dichloroethane [107-06-2] ^	2.4	UD	ug/L	5	2.4	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
1,2-Dichloropropane [78-87-5] ^	3.0	UD	ug/L	5	3.0	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
1,4-Dichlorobenzene [106-46-7] ^	**5.3**	D	ug/L	5	4.0	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
2-Butanone [78-93-3] ^	6.5	UD	ug/L	5	6.5	25	100	EPA 8260B	07/28/11 03:48	jkg	
2-Hexanone [591-78-6] ^	4.4	UD	ug/L	5	4.4	25	50	EPA 8260B	07/28/11 03:48	jkg	
4-Methyl-2-pentanone [108-10-1] ^	5.5	UD	ug/L	5	5.5	25	100	EPA 8260B	07/28/11 03:48	jkg	
Acetone [67-64-1] ^	**78**	JD	ug/L	5	6.0	25	100	EPA 8260B	07/28/11 03:48	jkg	
Acrylonitrile [107-13-1] ^	18	UD	ug/L	5	18	50	200	EPA 8260B	07/28/11 03:48	jkg	
Benzene [71-43-2] ^	3.4	UD	ug/L	5	3.4	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Bromochloromethane [74-97-5] ^	4.4	UD	ug/L	5	4.4	5.0	3	EPA 8260B	07/28/11 03:48	jkg	
Bromodichloromethane [75-27-4] ^	3.8	UD	ug/L	5	3.8	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Bromoform [75-25-2] ^	3.4	UD	ug/L	5	3.4	5.0	3	EPA 8260B	07/28/11 03:48	jkg	
Bromomethane [74-83-9] ^	2.9	UD	ug/L	5	2.9	5.0	10	EPA 8260B	07/28/11 03:48	jkg	
Carbon disulfide [75-15-0] ^	7.5	UD	ug/L	5	7.5	25	100	EPA 8260B	07/28/11 03:48	jkg	
Carbon tetrachloride [56-23-5] ^	3.4	UD	ug/L	5	3.4	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Chlorobenzene [108-90-7] ^	3.7	UD	ug/L	5	3.7	5.0	3	EPA 8260B	07/28/11 03:48	jkg	
Chloroethane [75-00-3] ^	3.8	UD	ug/L	5	3.8	5.0	10	EPA 8260B	07/28/11 03:48	jkg	
Chloroform [67-66-3] ^	3.5	UD	ug/L	5	3.5	5.0	5	EPA 8260B	07/28/11 03:48	jkg	
Chloromethane [74-87-3] ^	2.8	UD	ug/L	5	2.8	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**11**	D	ug/L	5	3.6	5.0	5	EPA 8260B	07/28/11 03:48	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.38	UD	ug/L	5	0.38	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Dibromochloromethane [124-48-1] ^	3.2	UD	ug/L	5	3.2	5.0	3	EPA 8260B	07/28/11 03:48	jkg	
Dibromomethane [74-95-3] ^	4.5	UD	ug/L	5	4.5	5.0	10	EPA 8260B	07/28/11 03:48	jkg	
Ethylbenzene [100-41-4] ^	**4.0**	JD	ug/L	5	3.1	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Iodomethane [74-88-4] ^	8.5	UD	ug/L	5	8.5	25	10	EPA 8260B	07/28/11 03:48	jkg	
Methylene chloride [75-09-2] ^	0.70	UD	ug/L	5	0.70	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Styrene [100-42-5] ^	0.26	UD	ug/L	5	0.26	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Tetrachloroethene [127-18-4] ^	3.6	UD	ug/L	5	3.6	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Toluene [108-88-3] ^	**9.8**	D	ug/L	5	4.2	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.60	UD	ug/L	5	0.60	5.0	5	EPA 8260B	07/28/11 03:48	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	2.5	UD	ug/L	5	2.5	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	3.5	UD	ug/L	5	3.5	5.0	100	EPA 8260B	07/28/11 03:48	jkg	
Trichloroethene [79-01-6] ^	3.6	UD	ug/L	5	3.6	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Trichlorofluoromethane [75-69-4] ^	3.3	UD	ug/L	5	3.3	5.0	1	EPA 8260B	07/28/11 03:48	jkg	
Vinyl acetate [108-05-4] ^	4.8	UD	ug/L	5	4.8	25	50	EPA 8260B	07/28/11 03:48	jkg	
Vinyl chloride [75-01-4] ^	**11**	D	ug/L	5	3.0	5.0	1	EPA 8260B	07/28/11 03:48	jkg	

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Description: LAGOON
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-17
Sampled: 07/20/11 11:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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] ^	**47**	D	ug/L	5	10	15	5	EPA 8260B	07/28/11 03:48	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*110 %*	*51-122*	*1G27019*	*EPA 8260B*	*07/28/11 03:48*	*jkg*	
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*1G27019*	*EPA 8260B*	*07/28/11 03:48*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1G27019*	*EPA 8260B*	*07/28/11 03:48*	*jkg*	

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Description: LAGOON
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-17
Sampled: 07/20/11 11:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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] ^	**2.6**	J	ug/L	1	1.7	5.0	15	EPA 8270D	08/04/11 05:02	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2-Fluorobiphenyl	*38*	*1*	*50.0*	*76 %*	*10-149*	*1G22002*	*EPA 8270D*	*08/04/11 05:02*	*DFM*	
Nitrobenzene-d5	*35*	*1*	*50.0*	*70 %*	*10-149*	*1G22002*	*EPA 8270D*	*08/04/11 05:02*	*DFM*	
Terphenyl-d14	*31*	*1*	*50.0*	*62 %*	*10-188*	*1G22002*	*EPA 8270D*	*08/04/11 05:02*	*DFM*	

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Description: LAGOON
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-17
Sampled: 07/20/11 11:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

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] ^	**4.07**	JD	ug/L	10	2.20	20.0	6	EPA 6020A	08/02/11 11:30	VLO	
Arsenic [7440-38-2] ^	**10.8**		ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 13:13	JDH	
Barium [7440-39-3] ^	**1120**		ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 13:13	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 13:13	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 13:13	JDH	
Chromium [7440-47-3] ^	**76.4**		ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 13:13	JDH	
Cobalt [7440-48-4] ^	**86.7**		ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 13:13	JDH	
Copper [7440-50-8] ^	**2.14**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 13:13	JDH	
Lead [7439-92-1] ^	**6.29**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:13	JDH	
Nickel [7440-02-0] ^	**67.9**		ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 13:13	JDH	
Selenium [7782-49-2] ^	**5.21**	J	ug/L	1	2.70	10.0	10	EPA 6010C	07/26/11 13:13	JDH	
Silver [7440-22-4] ^	**3.01**	J	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 13:13	JDH	
Thallium [7440-28-0] ^	1.10	UD	ug/L	10	1.10	10.0	5.5	EPA 6020A	08/02/11 11:30	VLO	
Tin [7440-31-5] ^	**18.5**	J	ug/L	1	2.10	10.0	100	EPA 6010C	07/26/11 13:13	JDH	
Vanadium [7440-62-2] ^	**20.9**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 13:13	JDH	
Zinc [7440-66-6] ^	**38.9**		ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 13:13	JDH	

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Description: LAGOON
Matrix: Ground Water
Project: Iredell Lined, Ph. 1&2

Lab Sample ID: C108687-17
Sampled: 07/20/11 11:00
Sampled By: J. Pfohl

Received: 07/21/11 13:51
Work Order: C108687

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Biochemical Oxygen Demand [ECL-0017] ^	**36000**		ug/L	1	2000	2000	NE	SM 5210B	07/21/11 17:38	JOC	B-04
Chemical Oxygen Demand [ECL-0035] ^	**770000**		ug/L	1	10000	10000	NE	SM 5220D	07/27/11 19:21	JOC	
Cyanide (total) [57-12-5] ^	0.0039	U	mg/L	1	0.0039	0.010	10	SM4500-CN/E	07/27/11 14:29	CCB	
Nitrate as N [14797-55-8] ^	**100**	J	ug/L	1	25	100	10000	EPA 353.2	08/03/11 12:11	CCB	
Nitrate/Nitrite as N [ECL-0010] ^	**110**		ug/L	1	25	100	NE	EPA 353.2	07/29/11 11:49	AJB	
Nitrite as N [14797-65-0] ^	**7.2**	J	ug/L	1	3.0	100	1000	EPA 353.2	07/21/11 19:44	JOC	
pH [ECL-0062] ^	**7.3**		pH Units	1	1.0	1.0	NE	SM4500-H/B	07/22/11 15:40	KLJ	Q
Phosphorus [7723-14-0] ^	**1000**		ug/L	1	21	100	NE	EPA 365.4	07/28/11 11:05	CCB	
Sulfate as SO4 [14808-79-8] ^	**3200**	J	ug/L	1	20	5000	250000	EPA 300.0	07/26/11 20:35	CCB	

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 1G27019 - EPA 5030B_MS

Blank (1G27019-BLK1) Prepared: 07/27/2011 10:42 Analyzed: 07/27/2011 17:50

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							
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 1G27019 - EPA 5030B_MS

Blank (1G27019-BLK1) Continued Prepared: 07/27/2011 10:42 Analyzed: 07/27/2011 17:50

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 4-Bromofluorobenzene	*54*			*ug/L*	*50.0*		*108*	*51-122*			
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*97*	*68-117*			
Surrogate: Toluene-d8	*53*			*ug/L*	*50.0*		*105*	*69-110*			

LCS (1G27019-BS1) Prepared: 07/27/2011 10:42 Analyzed: 07/27/2011 18:20

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		121	75-133			
Benzene	23		1.0	ug/L	20.0		114	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		100	83-117			
Toluene	23		1.0	ug/L	20.0		117	71-118			
Trichloroethene	17		1.0	ug/L	20.0		87	75-115			

Matrix Spike (1G27019-MS1) Prepared: 07/27/2011 10:42 Analyzed: 07/27/2011 18:50

Source: C109100-12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	25		1.0	ug/L	20.0	0.60 U	127	75-133			
Benzene	24		1.0	ug/L	20.0	0.68 U	121	81-134			
Chlorobenzene	21		1.0	ug/L	20.0	0.74 U	106	83-117			
Toluene	25		1.0	ug/L	20.0	0.85 U	125	71-118			
Trichloroethene	18		1.0	ug/L	20.0	0.72 U	92	75-115			

Matrix Spike Dup (1G27019-MSD1) Prepared: 07/27/2011 10:42 Analyzed: 07/27/2011 19:20

Source: C109100-12

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	117	75-133	8	20	
Benzene	23		1.0	ug/L	20.0	0.68 U	113	81-134	6	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	100	83-117	5	16	
Toluene	23		1.0	ug/L	20.0	0.85 U	115	71-118	8	17	
Trichloroethene	17		1.0	ug/L	20.0	0.72 U	86	75-115	6	18	

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							

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
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	*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			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1G27021 - EPA 5030B_MS

LCS (1G27021-BS1) Continued 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
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	

Tentatively Identified Compounds by Volatile GCMS - Quality Control

Batch 1G27019 - EPA 5030B_MS

Blank (1G27019-BLK1) Prepared: 07/27/2011 10:42 Analyzed: 07/27/2011 17:50

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Tentatively Identified Compounds	**0.0**	**U**		ug/L							

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*			

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

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 1G22002 - EPA 3510C_MS

LCS (1G22002-BS1) Continued 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*			

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

Batch 1G22008 - EPA 3005A

Blank (1G22008-BLK1) Prepared: 07/22/2011 10:00 Analyzed: 07/26/2011 12:14

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							
Selenium	2.70	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 (1G22008-BS1) Prepared: 07/22/2011 10:00 Analyzed: 07/26/2011 12:16

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	569		10.0	ug/L	500		114	80-120			
Barium	557		10.0	ug/L	500		111	80-120			
Beryllium	284		1.00	ug/L	250		114	80-120			
Cadmium	285		1.00	ug/L	250		114	80-120			
Chromium	560		10.0	ug/L	500		112	80-120			
Cobalt	550		10.0	ug/L	500		110	80-120			
Copper	279		10.0	ug/L	250		112	80-120			
Lead	561		10.0	ug/L	500		112	80-120			
Nickel	554		10.0	ug/L	500		111	80-120			
Selenium	574		10.0	ug/L	500		115	80-120			
Silver	278		10.0	ug/L	250		111	80-120			
Tin	557		10.0	ug/L	500		111	80-120			
Vanadium	282		10.0	ug/L	250		113	80-120			
Zinc	557		10.0	ug/L	500		111	80-120			

Matrix Spike (1G22008-MS1) Prepared: 07/22/2011 10:00 Analyzed: 07/26/2011 12:21

Source: C108687-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL

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

Batch 1G22008 - EPA 3005A

Matrix Spike (1G22008-MS1) Continued Prepared: 07/22/2011 10:00 Analyzed: 07/26/2011 12:21

Source: C108687-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	563		10.0	ug/L	500	2.80 U	113	75-125			
Barium	617		10.0	ug/L	500	53.2	113	75-125			
Beryllium	285		1.00	ug/L	250	0.331	114	75-125			
Cadmium	288		1.00	ug/L	250	0.360 U	115	75-125			
Chromium	568		10.0	ug/L	500	1.14	113	75-125			
Cobalt	557		10.0	ug/L	500	1.10 U	111	75-125			
Copper	282		10.0	ug/L	250	1.60 U	113	75-125			
Lead	560		10.0	ug/L	500	1.90 U	112	75-125			
Nickel	558		10.0	ug/L	500	1.80 U	112	75-125			
Selenium	577		10.0	ug/L	500	2.70 U	115	75-125			
Silver	280		10.0	ug/L	250	1.90 U	112	75-125			
Tin	555		10.0	ug/L	500	2.78	111	75-125			
Vanadium	288		10.0	ug/L	250	1.45	115	75-125			
Zinc	568		10.0	ug/L	500	4.48	113	75-125			

Matrix Spike Dup (1G22008-MSD1) Prepared: 07/22/2011 10:00 Analyzed: 07/26/2011 12:23

Source: C108687-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	575		10.0	ug/L	500	2.80 U	115	75-125	2	20	
Barium	625		10.0	ug/L	500	53.2	114	75-125	1	20	
Beryllium	293		1.00	ug/L	250	0.331	117	75-125	3	20	
Cadmium	291		1.00	ug/L	250	0.360 U	116	75-125	0.9	20	
Chromium	568		10.0	ug/L	500	1.14	113	75-125	0.1	20	
Cobalt	597		10.0	ug/L	500	1.10 U	119	75-125	7	20	
Copper	282		10.0	ug/L	250	1.60 U	113	75-125	0.2	20	
Lead	584		10.0	ug/L	500	1.90 U	117	75-125	4	20	
Nickel	568		10.0	ug/L	500	1.80 U	114	75-125	2	20	
Selenium	596		10.0	ug/L	500	2.70 U	119	75-125	3	20	
Silver	268		10.0	ug/L	250	1.90 U	107	75-125	4	20	
Tin	558		10.0	ug/L	500	2.78	111	75-125	0.5	20	
Vanadium	288		10.0	ug/L	250	1.45	115	75-125	0.1	20	
Zinc	578		10.0	ug/L	500	4.48	115	75-125	2	20	

Post Spike (1G22008-PS1) Prepared: 07/22/2011 10:00 Analyzed: 07/26/2011 12:25

Source: C108687-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.972		0.0100	mg/L	1.00	0.00239	97	80-120			
Barium	1.03		0.0100	mg/L	1.00	0.0532	98	80-120			
Beryllium	0.499		0.00100	mg/L	0.500	0.000331	100	80-120			
Cadmium	0.502		0.00100	mg/L	0.500	0.000347	100	80-120			
Chromium	0.982		0.0100	mg/L	1.00	0.00114	98	80-120			
Cobalt	0.967		0.0100	mg/L	1.00	0.000842	97	80-120			
Copper	0.487		0.0100	mg/L	0.500	0.00108	97	80-120			
Lead	0.966		0.0100	mg/L	1.00	0.000986	97	80-120			
Nickel	0.971		0.0100	mg/L	1.00	0.000951	97	80-120			

QUALITY CONTROL

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

Batch 1G22008 - EPA 3005A

Post Spike (1G22008-PS1) Continued Prepared: 07/22/2011 10:00 Analyzed: 07/26/2011 12:25

Source: C108687-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Selenium	0.993		0.0100	mg/L	1.00	0.000441	99	80-120			
Silver	0.483		0.0100	mg/L	0.500	6.64E-5	97	80-120			
Tin	0.966		0.0100	mg/L	1.00	0.00278	96	80-120			
Vanadium	0.496		0.0100	mg/L	0.500	0.00145	99	80-120			
Zinc	0.984		0.0100	mg/L	1.00	0.00448	98	80-120			

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							
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			
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			
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	
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			
Thallium	25.9		1.00	ug/L	25.0	0.0540	103	80-120			

Classical Chemistry Parameters - Quality Control

Batch 1G21044 - NO PREP

Blank (1G21044-BLK1) Prepared & Analyzed: 07/21/2011 17:38

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1G21044 - NO PREP

Blank (1G21044-BLK1) Continued Prepared & Analyzed: 07/21/2011 17:38

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	2000	U	2000	ug/L							

LCS (1G21044-BS1) Prepared & Analyzed: 07/21/2011 17:38

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	220		2.0	mg/L	198		113	85-115			B-04

Duplicate (1G21044-DUP1) Prepared & Analyzed: 07/21/2011 17:38

Source: C107176-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	14000		2000	ug/L		14000			5	25	B-04

Batch 1G22022 - NO PREP

LCS (1G22022-BS1) Prepared & Analyzed: 07/22/2011 15:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
pH	7.1		1.0	pH Units	7.00		101	99-101			

Duplicate (1G22022-DUP1) Prepared & Analyzed: 07/22/2011 15:40

Source: C106563-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
pH	7.7		1.0	pH Units		7.8			0.9	25	

Batch 1G26003 - NO PREP

Blank (1G26003-BLK1) Prepared: 07/26/2011 06:24 Analyzed: 07/26/2011 15:17

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	20	U	5000	ug/L							

LCS (1G26003-BS1) Prepared: 07/26/2011 06:24 Analyzed: 07/26/2011 15:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	46		5.0	mg/L	50.0		92	90-110			

Matrix Spike (1G26003-MS1) Prepared: 07/26/2011 06:24 Analyzed: 07/26/2011 15:53

Source: C107175-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	18		5.0	mg/L	20.0	1.7	82	90-110			QM-05

Matrix Spike Dup (1G26003-MSD1) Prepared: 07/26/2011 06:24 Analyzed: 07/26/2011 16:10

Source: C107175-01

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1G26003 - NO PREP

Matrix Spike Dup (1G26003-MSD1) Continued Prepared: 07/26/2011 06:24 Analyzed: 07/26/2011 16:10

Source: C107175-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	17		5.0	mg/L	20.0	1.7	79	90-110	3	10	QM-05

Batch 1G26009 - Same

Blank (1G26009-BLK1) Prepared: 07/26/2011 10:00 Analyzed: 07/27/2011 13:37

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.0039	U	0.010	mg/L							

LCS (1G26009-BS1) Prepared: 07/26/2011 10:00 Analyzed: 07/27/2011 13:39

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.14		0.010	mg/L	0.150		96	90-110			

Matrix Spike (1G26009-MS1) Prepared: 07/27/2011 09:23 Analyzed: 07/27/2011 14:19

Source: C108536-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.15		0.010	mg/L	0.150	0.0039 U	97	90-110			

Matrix Spike Dup (1G26009-MSD1) Prepared: 07/27/2011 09:23 Analyzed: 07/27/2011 14:21

Source: C108536-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.15		0.010	mg/L	0.150	0.0039 U	99	90-110	2	10	

Batch 1G26038 - Same

Blank (1G26038-BLK1) Prepared: 07/27/2011 10:12 Analyzed: 07/28/2011 10:21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	21	U	100	ug/L							

LCS (1G26038-BS1) Prepared: 07/27/2011 10:12 Analyzed: 07/28/2011 10:23

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1.6		0.10	mg/L	1.60		97	80-120			

Matrix Spike (1G26038-MS1) Prepared: 07/27/2011 10:12 Analyzed: 07/28/2011 10:26

Source: C107987-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	86	D	0.10	mg/L	0.640	83	383	80-120			QM-17

Matrix Spike Dup (1G26038-MSD1) Prepared: 07/27/2011 10:12 Analyzed: 07/28/2011 10:28

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1G26038 - Same

Matrix Spike Dup (1G26038-MSD1) Continued Prepared: 07/27/2011 10:12 Analyzed: 07/28/2011 10:28

Source: C107987-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	83	D	0.10	mg/L	0.640	83	33	80-120	3	25	QM-17

Batch 1G27018 - Same

Blank (1G27018-BLK1) Prepared: 07/27/2011 11:45 Analyzed: 07/27/2011 19:21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	10000	U	10000	ug/L							

LCS (1G27018-BS1) Prepared: 07/27/2011 11:45 Analyzed: 07/27/2011 19:21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	500		10	mg/L	500		100	90-110			

Matrix Spike (1G27018-MS1) Prepared: 07/27/2011 11:45 Analyzed: 07/27/2011 19:21

Source: C107176-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	690		10	mg/L	500	200	98	90-110			

Matrix Spike Dup (1G27018-MSD1) Prepared: 07/27/2011 11:45 Analyzed: 07/27/2011 19:21

Source: C107176-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	690		10	mg/L	500	200	99	90-110	0.6	10	

Batch 1G28014 - NO PREP

Blank (1G28014-BLK1) Prepared: 07/28/2011 10:11 Analyzed: 07/29/2011 10:54

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	25	U	100	ug/L							

LCS (1G28014-BS1) Prepared: 07/28/2011 10:11 Analyzed: 07/29/2011 10:57

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1300		100	ug/L	1250		103	90-110			

Matrix Spike (1G28014-MS1) Prepared: 07/28/2011 10:11 Analyzed: 07/29/2011 11:08

Source: C107176-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	13000		2000	ug/L	10000	3600	99	90-110			

Matrix Spike Dup (1G28014-MSD1) Prepared: 07/28/2011 10:11 Analyzed: 07/29/2011 11:10

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1G28014 - NO PREP

Matrix Spike Dup (1G28014-MSD1) Continued Prepared: 07/28/2011 10:11 Analyzed: 07/29/2011 11:10

Source: C107176-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	13000		2000	ug/L	10000	3600	98	90-110	0.6	10	

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			
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.
B-04	The average DO uptake of the seeded controls does not meet the method required 0.6 - 1.0 mg/L.
Q	Analysis performed outside of method - specified holding time.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-17	Matrix spike recovery was outside acceptance limits due to high concentrations of analyte in source sample.
QS-05	Surrogate recovery biased low and outside control limits due to suspected matrix effects, as evidenced by sample behavior during sample preparation (emulsion formation, excessive foaming).

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.
Orlando, FL 32824
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Cary, NC 27511
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Page 1 of 3

Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0
Address: P.O. Box 97	Project Name/Desc: Iredell Lined, Ph. 1&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): J 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: C108687

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	8151A Appendix 2	8260B Appendix 1	8260B Appendix 1,8260B Extended	8270D Appendix 2	Ag/F,As/F,Ba/F,Be/F,Cd/F,Co/F,Cr/F,Cu/F,Ni/F,Pb/F,Sb/F,Se/F,Tl/F,V/F,Zn/F	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	BOD SM5210B	COD SM5220D	Cyanide Total SM4500-CN E	Sample Comments
	MW-2	7/18/11	12:00	Grab	GW	4		X					X				
	MW-3A	7/18/11	1:35		GW	4		X					X				
	MW-3B	7/18/11	2:00		GW	4		X					X				
	MW-4B	7/19/11	11:25		GW	4			X			X					
	MW-6A	7/18/11	2:40		GW	4		X					X				
	MW-6B	7/18/11	3:15		GW	4		X					X				
	MW-7	7/19/11	10:30		GW	6		X		X	X		X				
	MW-8	7/18/11	3:50		GW	4		X					X				
	MW-11	7/19/11	3:05		GW	5	X		X			X					
	MW-12	7/19/11	9:00		GW	4		X				X					
	MW-13A	7/19/11	5:35		GW	4		X					X				
	MW-13B	7/19/11	6:00		GW	4			X				X				
							<-- Total # of Containers										

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time 7/20/11 5:00	Received By MESCO	Date/Time 7-20-11 5:00
Comments/Special Reporting Requirements: Per client - no dissolved metals on MW-7. BJG 8/5/11		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: C-722 2.4°C C-315 2.7°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 CHAIN-OF-CUSTODY RECORD

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Page 2 of 3

Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0
Address: P.O. Box 97	Project Name/Desc: Iredell Lined, Ph. 1&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): J. 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: C108687

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	8151A Appendix 2	8260B Appendix 1	8260B Appendix 1,8260B Extended	8270D Appendix 2	Ag/F,As/F,Ba/F,Be/F,Cd/F,Co/F,Cr/F,Cu/F,Ni/F,Pb/F,Sb/F,Se/F,Tl/F,V/F,Zn/F	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	BOD SM5210B	COD SM5220D	Cyanide Total SM4500-CN E	Sample Comments
	MW-13BR	7/19/11	9:40	Grab	GW	3		X									
	~~MW-14A~~	DRY			GW	5			X	X			X				
	MW-14B	7/19/11	3:45		GW	4		X				X					
	~~MW-15~~	DRY			GW	4		X					X				
	MW-15D	7/19/11	4:25		GW	4		X					X				
	P2-10S	7/19/11	5:00		GW	3			X								
	~~SW-1~~	DRY			GW	4		X					X				
	LAGOON	7/20/11	11:00		GW	10		X		X		X		X	X	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: J. Pfohl, MESCO	Date/Time: 7/20/11 5:00	Received By: Madlin / 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		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)

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Client Name: Municipal Engineering Services (MU001)	Project Number: G10013.0
Address: P.O. Box 97	Project Name/Desc: Iredell Lined, Ph. 1&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): J. 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: C108687

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	~~HG~~ JP	Nitrate Calc 353.2	Nitrite as N 353.2,pH SM4500-H B	NOX 353.2,P	Sulfate 300						Sample Comments
	MW-13BR				GW	3											
	MW-14A				GW	5											
	MW-14B				GW	4											
	MW-15				GW	4											
	MW-15D				GW	4											
	P2-10S				GW	3											
	SW-4				GW	4											
	LAGOON	7/20/11			GW	10		X	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		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*	

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 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

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

4810 Executive Park Court, Suite 211
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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 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-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 P2-19
ENCO Workorder: C109296

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,

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: P2-19	Lab ID: C109296-01	Sampled: 07/25/11 11:00	Received: 07/27/11 08:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	08/08/11	08/03/11 08:47	8/3/2011 21:11

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: P2-19 **Lab ID:** C109296-01

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
cis-1,2-Dichloroethene	1.0	J	1	0.72	1.0	5	ug/L	EPA 8260B	

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ANALYTICAL RESULTS

Description: P2-19 | **Lab Sample ID:** C109296-01 | **Received:** 07/27/11 08:05

Matrix: Ground Water | **Sampled:** 07/25/11 11:00 | **Work Order:** C109296

Project: Iredell P2-19 | **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	08/03/11 21:11	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	08/03/11 21:11	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	08/03/11 21:11	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	08/03/11 21:11	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/03/11 21:11	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	08/03/11 21:11	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	08/03/11 21:11	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	08/03/11 21:11	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/03/11 21:11	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	08/03/11 21:11	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	08/03/11 21:11	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	08/03/11 21:11	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	08/03/11 21:11	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	08/03/11 21:11	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	08/03/11 21:11	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	08/03/11 21:11	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	08/03/11 21:11	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	08/03/11 21:11	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	**1.0**	J	ug/L	1	0.72	1.0	5	EPA 8260B	08/03/11 21:11	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	08/03/11 21:11	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	08/03/11 21:11	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	08/03/11 21:11	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	08/03/11 21:11	jkg	QL-02
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	08/03/11 21:11	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	08/03/11 21:11	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/03/11 21:11	jkg	

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Description: P2-19 | **Lab Sample ID:** C109296-01 | **Received:** 07/27/11 08:05

Matrix: Ground Water | **Sampled:** 07/25/11 11:00 | **Work Order:** C109296

Project: Iredell P2-19 | **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	08/03/11 21:11	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	08/03/11 21:11	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	08/03/11 21:11	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	08/03/11 21:11	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*109 %*	*51-122*	*1H03008*	*EPA 8260B*	*08/03/11 21:11*	*jkg*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*1H03008*	*EPA 8260B*	*08/03/11 21:11*	*jkg*	
Toluene-d8	*54*	*1*	*50.0*	*107 %*	*69-110*	*1H03008*	*EPA 8260B*	*08/03/11 21:11*	*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 1H03008 - EPA 5030B_MS

Blank (1H03008-BLK1) Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 11:44

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							QL-02
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*		*108*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H03008 - EPA 5030B_MS

Blank (1H03008-BLK1) Continued Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 11:44

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*47*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*52*			*ug/L*	*50.0*		*105*	*69-110*			

LCS (1H03008-BS1) Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 12:14

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	22		1.0	ug/L	20.0		110	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		102	83-117			
Toluene	24		1.0	ug/L	20.0		119	71-118			QL-02
Trichloroethene	18		1.0	ug/L	20.0		88	75-115			

Matrix Spike (1H03008-MS1) Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 12:44

Source: C109430-05

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			
Benzene	23		1.0	ug/L	20.0	0.68 U	116	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	121	71-118			QM-07
Trichloroethene	19		1.0	ug/L	20.0	0.72 U	93	75-115			

Matrix Spike Dup (1H03008-MSD1) Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 13:14

Source: C109430-05

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	111	75-133	7	20	
Benzene	22		1.0	ug/L	20.0	0.68 U	111	81-134	5	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	119	71-118	1	17	QM-07
Trichloroethene	18		1.0	ug/L	20.0	0.72 U	91	75-115	3	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.
QL-02	The associated laboratory control sample exhibited high bias; since the result is ND, the impact on data quality is minimal.
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 Engineering (MUCOI)	Project Number:
Address: PO Box 97	Project Name/Desc: Iredell-P2-19
City/ST/Zip: Garner NC 27529	PO # / Billing Info:
Tel: (919)772-5393 Fax: (919)772-1176	Reporting Contact: JPfohl@mesco.com
Sampler(s) Name, Affiliation (Print): J Pfohl, MESCO	Billing Contact:
Sampler(s) Signature:	Facility # (if required):

Requested Analyses: 8260B Appendix I

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C109296

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 I										Sample Comments
	P2-19	7/25/11	11:00	Grab	GW	3	✓										

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: / MESCO	Date/Time: 7-27-11 8:05	Received By:	Date/Time: 7-27-11 8:05
Comments		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	

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

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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	

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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

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
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

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 P2-10D
ENCO Workorder: C109297

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,

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: P2-10D	Lab ID: C109297-01	Sampled: 07/25/11 12:00	Received: 07/27/11 08:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	08/08/11	08/03/11 08:47	8/3/2011 21:41

SAMPLE DETECTION SUMMARY

No positive results detected.

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ANALYTICAL RESULTS

Description: P2-10D
Matrix: Ground Water
Project: Iredell P2-10D

Lab Sample ID: C109297-01
Sampled: 07/25/11 12:00
Sampled By: J. Pfohl

Received: 07/27/11 08:05
Work Order: C109297

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	08/03/11 21:41	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	08/03/11 21:41	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	08/03/11 21:41	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	08/03/11 21:41	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/03/11 21:41	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	08/03/11 21:41	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	08/03/11 21:41	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	08/03/11 21:41	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/03/11 21:41	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	08/03/11 21:41	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	08/03/11 21:41	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	08/03/11 21:41	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	08/03/11 21:41	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	08/03/11 21:41	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	08/03/11 21:41	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	08/03/11 21:41	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	08/03/11 21:41	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	08/03/11 21:41	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	08/03/11 21:41	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	08/03/11 21:41	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	08/03/11 21:41	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	08/03/11 21:41	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	08/03/11 21:41	jkg	QL-02
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	08/03/11 21:41	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	08/03/11 21:41	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	08/03/11 21:41	jkg	

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Description: P2-10D
Matrix: Ground Water
Project: Iredell P2-10D

Lab Sample ID: C109297-01
Sampled: 07/25/11 12:00
Sampled By: J. Pfohl

Received: 07/27/11 08:05
Work Order: C109297

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	08/03/11 21:41	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	08/03/11 21:41	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	08/03/11 21:41	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	08/03/11 21:41	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*107 %*	*51-122*	*1H03008*	*EPA 8260B*	*08/03/11 21:41*	*jkg*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*1H03008*	*EPA 8260B*	*08/03/11 21:41*	*jkg*	
Toluene-d8	*53*	*1*	*50.0*	*106 %*	*69-110*	*1H03008*	*EPA 8260B*	*08/03/11 21:41*	*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 1H03008 - EPA 5030B_MS

Blank (1H03008-BLK1) Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 11:44

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							QL-02
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*		*108*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H03008 - EPA 5030B_MS

Blank (1H03008-BLK1) Continued Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 11:44

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*47*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*52*			*ug/L*	*50.0*		*105*	*69-110*			

LCS (1H03008-BS1) Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 12:14

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	22		1.0	ug/L	20.0		110	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		102	83-117			
Toluene	24		1.0	ug/L	20.0		119	71-118			QL-02
Trichloroethene	18		1.0	ug/L	20.0		88	75-115			

Matrix Spike (1H03008-MS1) Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 12:44

Source: C109430-05

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			
Benzene	23		1.0	ug/L	20.0	0.68 U	116	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	121	71-118			QM-07
Trichloroethene	19		1.0	ug/L	20.0	0.72 U	93	75-115			

Matrix Spike Dup (1H03008-MSD1) Prepared: 08/03/2011 08:47 Analyzed: 08/03/2011 13:14

Source: C109430-05

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	111	75-133	7	20	
Benzene	22		1.0	ug/L	20.0	0.68 U	111	81-134	5	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	119	71-118	1	17	QM-07
Trichloroethene	18		1.0	ug/L	20.0	0.72 U	91	75-115	3	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.
QL-02	The associated laboratory control sample exhibited high bias; since the result is ND, the impact on data quality is minimal.
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

Page 1 of 1

Client Name: Municipal Engineering Services (MV001)	Project Number:
Address: PO Box 97	Project Name/Desc: Iredell-P2-10D
City/ST/Zip: Garner NC 27529	PO # / Billing Info:
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: JPfohl@mesco.com
Sampler(s) Name, Affiliation (Print): J Pfohl, MESCO	Billing Contact:
Sampler(s) Signature:	Facility # (if required):

Requested Analyses: 8260B Appendix I

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due __/__/__

Lab Workorder: C109297

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 I										Sample Comments
-	P2-10D	7/25/11	12:00	Grab	GW	3	✓										

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: MESCO	Date/Time	Received By	Date/Time: 7/27/11 0:05
Comments		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: ✓ 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

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 Lined SWs
ENCO Workorder: C108684

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 16.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: SW-1 **Lab ID: C108684-01** **Sampled: 07/18/11 16:10** **Received: 07/21/11 13:51**

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 11:56
EPA 6020A	01/14/12	07/22/11	10:06	8/1/2011 12:40
EPA 8260B	08/01/11	07/27/11	10:50	7/28/2011 06:10

Client ID: SW-5 **Lab ID: C108684-02** **Sampled: 07/18/11 16:35** **Received: 07/21/11 13:51**

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 11:58
EPA 6020A	01/14/12	07/22/11	10:06	8/1/2011 12:44
EPA 8260B	08/01/11	07/27/11	10:50	7/28/2011 06:40

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: SW-1 **Lab ID: C108684-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	4.71	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	27.0	J	1	1.00	10.0	100	ug/L	EPA 6010C	

Client ID: SW-5 **Lab ID: C108684-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	29.3	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.18	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	1.79	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	1.82	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	5.43	J	1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: SW-1 **Lab Sample ID:** C108684-01 **Received:** 07/21/11 13:51

Matrix: Surface Water **Sampled:** 07/18/11 16:10 **Work Order:** C108684

Project: Iredell Lined SWs **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 06:10	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	07/28/11 06:10	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 06:10	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	07/28/11 06:10	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	07/28/11 06:10	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 06:10	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 06:10	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	07/28/11 06:10	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	07/28/11 06:10	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	07/28/11 06:10	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	07/28/11 06:10	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	07/28/11 06:10	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	07/28/11 06:10	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	07/28/11 06:10	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	07/28/11 06:10	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	07/28/11 06:10	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	07/28/11 06:10	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	07/28/11 06:10	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	07/28/11 06:10	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	07/28/11 06:10	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	07/28/11 06:10	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	07/28/11 06:10	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	07/28/11 06:10	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	07/28/11 06:10	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	07/28/11 06:10	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	07/28/11 06:10	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 06:10	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	07/28/11 06:10	JKG	

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Description: SW-1
Matrix: Surface Water
Project: Iredell Lined SWs

Lab Sample ID: C108684-01
Sampled: 07/18/11 16:10
Sampled By: j. Pfohl

Received: 07/21/11 13:51
Work Order: C108684

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	07/28/11 06:10	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	07/28/11 06:10	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	07/28/11 06:10	JKG	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 06:10	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*97 %*	*51-122*	*1G27021*	*EPA 8260B*	*07/28/11 06:10*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1G27021*	*EPA 8260B*	*07/28/11 06:10*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*69-110*	*1G27021*	*EPA 8260B*	*07/28/11 06:10*	*JKG*	

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Description: SW-1 | **Lab Sample ID:** C108684-01 | **Received:** 07/21/11 13:51

Matrix: Surface Water | **Sampled:** 07/18/11 16:10 | **Work Order:** C108684

Project: Iredell Lined SWs | **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	08/01/11 12:40	VLO	
Arsenic [7440-38-2] ^	**4.71**	J	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:56	JDH	
Barium [7440-39-3] ^	**27.0**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:56	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:56	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:56	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:56	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:56	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:56	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:56	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:56	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/01/11 12:40	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:56	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/01/11 12:40	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:56	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:56	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: SW-5 | **Lab Sample ID:** C108684-02 | **Received:** 07/21/11 13:51

Matrix: Surface Water | **Sampled:** 07/18/11 16:35 | **Work Order:** C108684

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

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Description:	SW-5	**Lab Sample ID:**	C108684-02	**Received:**	07/21/11 13:51
Matrix:	Surface Water	**Sampled:**	07/18/11 16:35	**Work Order:**	C108684
Project:	Iredell Lined SWs	**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
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	07/28/11 06:40	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 06:40*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*99 %*	*68-117*	*1G27021*	*EPA 8260B*	*07/28/11 06:40*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*98 %*	*69-110*	*1G27021*	*EPA 8260B*	*07/28/11 06:40*	*JKG*	

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Description: SW-5 | **Lab Sample ID:** C108684-02 | **Received:** 07/21/11 13:51

Matrix: Surface Water | **Sampled:** 07/18/11 16:35 | **Work Order:** C108684

Project: Iredell Lined SWs | **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	08/01/11 12:44	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	07/26/11 11:58	JDH	
Barium [7440-39-3] ^	**29.3**	J	ug/L	1	1.00	10.0	100	EPA 6010C	07/26/11 11:58	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	07/26/11 11:58	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	07/26/11 11:58	JDH	
Chromium [7440-47-3] ^	**1.18**	J	ug/L	1	1.00	10.0	10	EPA 6010C	07/26/11 11:58	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	07/26/11 11:58	JDH	
Copper [7440-50-8] ^	**1.79**	J	ug/L	1	1.60	10.0	10	EPA 6010C	07/26/11 11:58	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:58	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	07/26/11 11:58	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/01/11 12:44	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	07/26/11 11:58	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/01/11 12:44	VLO	
Vanadium [7440-62-2] ^	**1.82**	J	ug/L	1	1.40	10.0	25	EPA 6010C	07/26/11 11:58	JDH	
Zinc [7440-66-6] ^	**5.43**	J	ug/L	1	3.80	10.0	10	EPA 6010C	07/26/11 11:58	JDH	

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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							
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	*49*			*ug/L*	*50.0*		*98*	*51-122*			

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: 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	

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

Batch 1G22011 - EPA 3005A

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			

QUALITY CONTROL

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

Batch 1G22011 - EPA 3005A

LCS (1G22011-BS1) Continued 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
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							
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

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

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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 Lined SWs
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; 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: C108684

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	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn									Sample Comments
	SW-1	7/18/11	4:10	Grab	SW	4	X	X									
	SW-5	↓	4:35	↓	SW	4	X	X									

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: MESCO	Date/Time: 7:20 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: 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

Appendix B
Field Sampling Parameter Data Sheet(s)

Sampling Data Sheet

Municipal Services Engineering Company — Garner, NC — Bount, NC

Samplers: J. Pfohl Page 1 of 2

Project: Iredell County Subtitle D MSWLF, Phase 1 & 2

Monitoring Point	Sample Date	Sample Time	Sampling Parameters: Depth to Water (BTOP) 7/18/11	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-2	7/18/11	12:00	9.12		I	1	DB	Y slow GB Recha	(P)	13.8	NR	1.9	327	5.54	16.8	73	35	ST	NR
MW-3A	7/18/11	1:35	8.85		I	1.5	DB	Y slow GB Recharge	Y Pad improved (P)	12.4		1.7	125	6.13	16.5	172	86	MT	NR
MW-3B	7/18/11	2:00	8.27		I	3	DB	Y	Y (P)	25.5		1.0	-33	6.41	15.1	244	122	C	NR
MW-4A	NS	DRY	>29.79	-	II+dissolved Ni, free cyanide 6	-	-	-	Y	27.79 BTOC ~~28~~		-	-	-	-	-	-	-	NR
MW-4B	7/19/11	11:25	31.63		II+dissolved Cd 7	2	DB	Y slow GB Pulse	Y slow Go	37		1.4	151	5.48	15.8	290	144	ST	NR
MW-6A	7/18/11	2:40	19.79		I	2	DB	Y	Y	24.5		5.9	131	6.12	15.3	70	34	ST	NR
MW-6B	7/18/11	3:15	23.09		I	9	P&DB	N	Y	38		6.1	69	6.81	15.7	72	35	C	NR
MW-7	7/19/11	10:30	14.03	14.03	Bentonite ON Baler?	2	DB	Y slow GB Recha	Y SS B Been Stuck in Well	22.16 BTOC ~~24~~		1.8	233	[illegible]	[illegible]	74	34	MT	NR
MW-8	7/18/11	3:50	19.90		I	5	DB	Y	Y New Pad By Co. (P)	28		5.8	119	5.93	14.8	72	34	C	NR
MW-11	7/19/11	3:05	14.41	14.39	II 2	6	DB	Y	(P)	25.33 BTOC ~~23~~		1.9	183	5.77	14.9	326	163	C	Q
MW-12	7/19/11	9:00	19.99		II	3	DB	Y	(P)	23.14 BTOC ~~25~~		2.5	356	5.91	14.6	110	54	ST	NR
MW-13A	7/19/11	5:35	39.66		II	15	P&DB	Y	(P)	66.80 BTOC ~~64~~		1.2	168	5.64	17.3	82	40	ST	NR
MW-13B	7/19/11	6:00PM	39.19		II 1	6	DB	Y	(P)	42.38 BTOC ~~39~~		0.9	292	5.25	17.2	80	161	ST	NR
MW-13BR	7/19/11	9:40	36.88		I	6	P&DB	Y		43.56		3.8	315	6.27	15.1	281	140	MT	NR

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

(P) = some wells Pads improved By Co. since 1[illegible] 24" Diameter X 24" High Corrugated Plastic Pipe filled w/ concrete surrounds metal case on Top of original Pads

GB = Go Back - Recharge slow so had 2 Go Back

Sampling Data Sheet

Municipal Services Engineering Company — Garner, NC — Boone, NC

Samplers: J. Pfohl Page 2 of 2

Project: Iredell County Subtitle D MSWLF, Phase 1 & 2

Monitoring Point	Sample Date	Sample Time	Sampling Parameters: Depth to Water (BTOP) 7/18 /11	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-14A	NS	DRY	>40.89	—	II	—	—	—	Y	40.89' BTOC ~~38~~	—	—	—	-	—	-	—	—	—
MW-14B	7/19/11	3:45	40.92		II 3				Y	61.36' BTOC ~~58.5~~		1.9	263	5.79	16.7	332	166	<	
MW-15	NS	DRY	>44.45'	—	II	—	—	—	Y	BTOC 44.45'	—	—	—	—	—	—	—	—	—
MW-15D	7/19/11	4:25	46.52	46.52	II 5				Y	59.12		1.8	200	6.16	16.6	260	130	<	
LAGOON	7/20/11	11:00		All 4 phases	Leachate					-									
P2-10S	7/19/11	5:00	33.52	33.52	I VOCs 4					36		1.1	251	5.53	15.7	138	69	<	
SW-4	NS	DRY	-	-	I	-		-	-	-									-
P2-10D	NS		35.30		WLR					55									
P2-19	NS	—	36.57		WLR	Recently Bumped By Mower constricted @ ground			Y	69.26' BTOC ~~67.5~~									
PZ-1S	NS		41.65		WLR					40									
P2-1S	NS	5'in incorrect Reads PZ-1	21.61		WLR					28									
SW-BTWN MW-11_MW-12	DRY	No Sample	-	Cattle Drainage Dry	I	-		-	-	-									-
PZ-1D		40.	40.95																
P2-1D			26.91																

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

Sampling Data Sheet

Municipal Services Engineering Company
Garner, NC Boone, NC

Project: Iredell County Landfill-Background Wells for C&D and Lined Ph 1 & 2

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters								Water Quality Parameters								
			Depth to Water (BTOP) 7/18/10	Depth to Water (BTOP) Static Sample Time	Lab Parameters to be analyzed for ▽ 7/21/11	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Total Depth Measured as expected	Total Depth Expected	CO2 (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 Gas Vapors (ppm)
MW-1A	7/19/11	2:00	24.67	24.67	24.66	10	P&DB	N	Y	40	NR	2.4	186	6.34	15.7	96	48	55	NR
MW-1B	NS	DRY			I					21		–							
MW-1C	7/19/11	2:35	24.92	24.91	24.80	7	DB	N	Y	34	NR	1.9	336	6.63	15.1	71	35	MT	NR

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

Project: Iredell County Subtitle D MSWLF, Surface Waters (Between Ph 1 & 3_4)

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters								Water Quality Parameters								
			Depth to Water (BTOP) ~~11-140~~	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. ©C	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 Gas Vapors (ppm)
SW-1	7/18/11	4:10	-	-	1	-	Dip	-	-	-	NR	6.3	167	6.66	21.8	102	51	<	-
SW-5	7/18/11	4:35	-	-	1	-	Dip	-	-	-	NR	6.4	165	6.67	22.1	121	60	<	-

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